Type of Release:

State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Volume Recovered:

#### **Release Notification and Corrective Action**

		<b>OPERATOR</b>		Initial R	eport 🛛	Final Report
Name of Company: COG Operating LLC OG	RID # 229137	Contact:	]	Robert McNeill		
Address: 600 West Illinois Avenue, Midland	TX 79701	Telephone No.		432-683-7443		
Facility Name: Skelly Unit #743 (2RP-4285)		Facility Type:	Flowline			
Surface Owner: Federal	Mineral Owner	: Federal		API No.	30-015-378	384

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
Ν	22	17S	31E	945	South	1650	West	Eddy

Latitude 32.8154373 Longitude -103.860733

#### NATURE OF RELEASE

Volume of Release:

Oil and Produced Water	9 bbl. Oil & 10 bbl. PW	8 bbl. Oil & 9 bbl. PW
Source of Release:	Date and Hour of Occurrence:	Date and Hour of Discovery:
Flowline	July 6, 2017 7:30 pm	July 6, 2017 7:30 pm
Was Immediate Notice Given?	If YES, To Whom?	
🗌 Yes 🛛 No 🖾 Not Required	,	
By Whom?	Date and Hour:	
Was a Watercourse Reached?	If YES, Volume Impacting the Wa	tercourse.
🗌 Yes 🖾 No		
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.*		
The release occurred in the pasture and was due to a polyline splitting in a Describe Area Affected and Cleanup Action Taken.*	in area that had previously been splice	ed. The line will be repaired.
Describe Area Affected and Cleanup Action Taken.*		
The release was within the pasture. A vacuum truck was dispatched to ren	acve all freestanding fluids	
The release was within the pasture. A vacuum ruck was dispatched to ren	nove an meestanding nuids.	
Remediation activities were conducted in accordance with an NMOC	D and BI M-approved Workplan ar	d/or associated correspondence with
respective regulatory representatives. Please reference the Workplan		
<i>Closure Report</i> dated May 2018 for additional details regarding remed		counter Summary and Risk-Duseu
I hereby certify that the information given above is true and complete to the		and that pursuant to NMOCD rules and
regulations all operators are required to report and/or file certain release n		
public health or the environment. The acceptance of a C-141 report by the		
should their operations have failed to adequately investigate and remediate		
or the environment. In addition, NMOCD acceptance of a C-141 report d		
federal, state, or local laws and/or regulations.	······································	······································
	OIL CONSERV	VATION DIVISION
00 010	<u>OIL CONSER</u>	VATION DIVISION
Signature: Rebecca Haskell		$\bigcirc$
Signature:	Approved by Environmental Specialj	
	Approved by Environmental Special	st: Buttan Hall
Printed Name: Rebecca Haskell		
Title: Senior HSE Coordinator	Approval Date: 5/2/2023	Expiration Date: <b>n/a</b>
		L MARK
E-mail Address: rhaskell@concho.com	Conditions of Approval:	
		Attached
Date: July 7, 2017 Phone: 432-683-7443	Closure approved under the previo	ous rules per
	approved workplan.	

# REMEDIATION SUMMARY AND RISK-BASED SITE CLOSURE REQUEST

COG Operating, LLC SKELLY UNIT #743 Eddy County, New Mexico Unit Letter "I", Section 22, Township 17 South, Range 31 East Latitude 32.81797° North, Longitude 103.85149 ° West NMOCD Reference No. 2RP-4285

Prepared For:

**COG Operating, LLC** 600 W Illinois Avenue Midland, Texas 79701

Prepared By:

**TRC Environmental Corporation** 10 Desta Drive, Suite 150E Midland, Texas 79705

May 2018

Jael Joung

Joel Lowry Project Manager

Cust O Sanley

Curt Stanley Senior Project Manager

### **TABLE OF CONTENTS**

INTRODUCTION & BACKGROUND INFORMATION1
INITIAL INVESTIGATION AND PROPOSED REMEDIATION WORKPLAN2
SUMMARY OF SOIL REMEDIATION ACTIVITIES
SITE CLOSURE REQUEST4
LIMITATIONS
DISTRIBUTION

#### FIGURES

Figure 1 – Site Location Map Figure 2 – Site & Sample Location Map

#### TABLES

Table 1 - Concentrations of Benzene, BTEX, TPH and Chloride in Soil

#### APPENDICES

- Appendix A Laboratory Analytical Reports
- Appendix B Photographs
- Appendix C Release Notification and Corrective Action (Form C-141)

#### **INTRODUCTION & BACKGROUND INFORMATION**

TRC Environmental Corporation (TRC), on behalf of COG Operating, LLC (COG), has prepared this *Remediation Summary and Risk-Based Soil Closure Request* for the Site known as the Skelly Unit #743. The legal description of the Site is Unit Letter "I", Section 22, Township 17 South, Range 31 East, in Eddy County, New Mexico. The subject property is owned by the United States Department of the Interior and administered by the Bureau of Land Management (BLM). The GPS coordinates for the site are N 32.81797° W 103.85149°. Please reference Figure 1 for the Site Location Map and Figure 2 for the Site & Sample Location Map. Site photographs are provided in Appendix B.

On July 6, 2017, COG discovered a crude oil and produced water release on the Skelly Unit #743 flowline. The release was attributed to the failure of a splice on the flowline, resulting in the release of approximately nine (9) barrels (bbls) of crude oil and ten (10) bbls of produce water. During initial response activities the flowline was repaired and approximately eight (8) bbls of crude oil and nine (9) bbls of produced water were recovered utilizing vacuum trucks. The release affected an area within the pasture and portions of an adjacent caliche well pad measuring approximately six thousand (6,000 sq. ft.). On July 7, 2017, COG submitted a Release Notification and Corrective Action (Form C-141) to the NMOCD. A copy of the Form C-141 is provided in Appendix C.

A groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) did not identify any registered water wells in Section 22, Township 17 South, Range 31 East. A reference map utilized by the NMOCD Hobbs District Office indicated groundwater should be encountered at approximately three hundred fifty (350) feet (ft.) below ground surface (bgs). Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion.

No water wells were observed within one-thousand (1,000) feet of the Release Site. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion.

No surface water was observed within one-thousand (1,000) feet of the release. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion.

The NMOCD guidelines indicate the Skelly Unit #743 Release Site has a ranking score of zero (0). Recommended Remediation Action Levels (RRAL) for a site with a ranking score of zero (0) points are as follows:

- Benzene 10 mg/kg
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) 50 mg/kg
- Total Petroleum Hydrocarbons (TPH) 5,000 mg/kg
- Chloride 600 mg/kg

#### INITIAL INVESTIGATION AND PROPOSED REMEDIATION WORKPLAN

On August 9, 2017, an pervious environmental contractor conducted an initial investigation at the site. During the initial investigation, a series of test trenches (T1 through T3) were advanced within the affected area in an effort to delineate the vertical extent of soil impact. During the advancement of the test trenches, twenty-three (23) delineation soil samples (T1- Surf., T1- 1', T1- 2', T1- 3', T1-4', T1-9', T1-14', T2-Surf., T2-1', T2-2', T2-3', T2-4', T2-6', T2-8', T2-10', T2-12', T2-17', T3- Surf., T3-1', T3-2', T3-3', T3-4' and T3-7') were collected and submitted to Xenco Laboratories in Midland, Texas for analysis of chloride concentrations using Method 300/300.1. Laboratory analytical results indicated chloride concentrations were below the NMOCD RRAL in each of the submitted soil samples, with the exception of soil samples T1-2' (1,500 mg/kg), T2-4' (1,860 mg/kg), T2- 8' (2,610 mg/kg) and T2- 10' (1,430 mg/kg). Select soil samples (T1- Surf., T1-1', T1-2', T1-3', T1-4', T1-14', T2-Surf., T2-1', T2-2', T2-3', T2-4', T2-17', T3-Surf., T3-1', T3-2', T3-3', T3-4' and T3-7') were also analyzed for BTEX and TPH concentrations in accordance with EPA Methods SW-846- 8021b and 8015 M Ext., respectively. Laboratory analytical results indicated BTEX and TPH concentrations were below the NMOCD RRAL in each of the submitted soil samples, with the exception of soil sample T1-Surf., which exhibited BTEX and TPH concentrations of 424 mg/kg and 14,700 mg/kg, respectively. Laboratory analytical results are summarized in Table 1 - Concentrations of Benzene, BTEX, TPH and Chloride in Soil. Laboratory analytical reports are provided in Appendix A.

In addition, eight (8) soil samples (North- Surf., North- 1', South- Surf., South- 1', East- Surf., East- 1', West- Surf. and West- 1') were collected from the inferred edges of the release in an effort to delineate the horizontal extent of soil impacts. The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the NMOCD RRAL in each of the submitted soil samples.

On September 21, 2017, a *Workplan* was submitted to the NMOCD and BLM on behalf of COG proposing the following remediation activities designed to advance the site toward an approved closure:

- Excavate impacted soil within the affected area characterized by test trench T1 to a depth of one (1) ft. bgs and transport to an NMOCD-approved disposal facility.
- Upon excavating impacted soil from within the area characterized by test trench T1, resample the area characterized by soil sample T1- 2' for concentrations of chloride.
- Excavate the affected area characterized by test trench T2 to a depth of three (3) ft. bgs and install a 40-millimeter liner on the floor of the excavation to "cap" chloride impacted soil remaining in-situ.
- Excavated soil generated from the excavation of the area characterized by test trench T2 would be field screened for concentrations of chloride to determine if it was suitable for reuse on-site.

The *Workplan* was subsequently approved with the condition that the liner be installed at four (4) ft. bgs. The BLM also requested a two (2) day notification prior to the collection of soil sample(s).

#### SUMMARY OF SOIL REMEDIATION ACTIVITIES

On February 28, 2018, remediation activities commenced at the release site. Impacted soil within the affected area characterized by test trench T1 was excavated to a depth of one approximately (1) ft. bgs. Excavated soil was stockpiled on-site, atop an impermeable liner pending final disposition at an NMOCD-approved disposal facility. As per the NMOCD, the affected area characterized by test trench T2 was excavated to a depth of approximately four (4) ft. bgs. The top three (3) ft. of excavated soil generated from the affected area characterized by test trench T2 was placed into a separate soil stockpile. Excavated soil generated from between three (3) and four (4) ft. bgs within the area characterized by test trench T2 was placed into the soil stockpile pending disposition at an NMOCD-approved disposal facility. Excavation sidewalls were advanced until field test results suggested BTEX, TPH and chloride concentrations were below the NMOCD RRAL.

On March 6, 2018, representatives of the BLM and TRC met on-site. TRC collected seven (7) soil samples (T-2 NSW, T-2 ESW, T-2 WSW, T-2 SSW, T-2 NW @ 4', T-2 SW @ 4' and T-1 NSW) from the site and submitted the soil samples to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from less than the applicable laboratory RL in soil samples T-2 ESW and T-2 SSW to 1,020 mg/kg in soil sample T-2 SE @ 4'. Chloride concentrations were below the NMOCD RRAL in each of the submitted soil samples, with the exception of T-2 SE @ 4'. Based on laboratory analytical results it was determine the approved liner would need to be extended over the affected area characterized by soil sample T-2 SE @ 4'. Soil sample T-1 NSW was also analyzed for TPH concentrations, which were determined to be less than the laboratory reporting limit.

In addition, one (1) soil sample (T-1b @ 2') was collected from the area characterized by soil sample T2-2' and submitted to the laboratory for analysis of chloride concentrations, which were determined to be less than the laboratory RL.

Finally, one (1) five-point composite stockpile characterization soil sample (SP-1) was collected from the stockpiled soil generated from excavation of the top three (3) ft. of affected area characterized by test trench T2 and submitted to the laboratory for analysis of chloride concentrations, which were determined to be 225 mg/kg. Based on laboratory analytical results, stockpiled soil represented by soil sample SP-1 was deemed suitable for use as backfill material.

On March 7 and 8, 2018, approximately three hundred eighty (380) cubic yards (cy) of impacted soil was transported to R360 Environmental Solutions, LLC for disposal.

On March 13, 2018, upon receiving laboratory analytical results from confirmation soil samples, a polyurethane liner was installed on the floor of the excavated area characterized by test trench T2 at four (4) ft. bgs in an effort to mitigate the vertical migration of chloride remaining in-situ. Upon installing the liner on the floor of the excavated area, an approximate six (6) inch (in.) layer of pad sand was placed on top of the liner and the excavated area was backfilled with stockpiled soil represented by soil sample SP-1. The remaining excavated area was backfilled with locally-sourced, non-impacted "like" material. Excavation backfill was compacted and graded to match the surrounding topography.

Prior to backfilling, the final dimensions of the excavated area were approximately one hundred and fifteen (115) ft. in length, thirty (30) to fifty (50) ft. in width, and one (1) ft. to four (4) ft. in depth.

#### SITE CLOSURE REQUEST

Remediation activities were conducted in accordance with the NMOCD and BLM-approved Workplan and/or associated agreements. Impacted soil from within the affected area characterized by test trench T1 was excavated to a depth of approximately one (1) ft. bgs. The affected area characterized by test trench T2 was excavated to a depth of approximately four (4) ft. bgs. Upon excavating the affected area characterized by test trench T2, a polyurethane liner was installed on the floor of the excavated area in an effort to mitigate the vertical migration of chloride remaining in-situ in accordance with the NMOCD and BLM-approved workplan. Upon installing the NMOCD-approved polyurethane liner and receiving laboratory analytical results from confirmation soil samples, the excavated area was backfilled with a combination of stockpiled soil represented by soil sample SP-1 and locally-sourced, non-impacted "like" material. Based on laboratory analytical results and field activities conducted to date, TRC recommends COG provide copies of this Remediation Summary and Risk-Based Soil Closure Request to the NMOCD and BLM and request closure status to the Skelly Unit #743 Site.

#### LIMITATIONS

TRC has prepared this Remediation Summary and Risk-Based Site Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended.

TRC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. TRC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. TRC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. TRC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of COG Operating, LLC. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of TRC and/or COG Operating, LLC.

•

### DISTRIBUTION

Copy 1:	Mike Bratcher
	New Mexico Energy, Minerals and Natural Resources Department
	Oil Conservation Division, District 2
	811 S. First Street
	Artesia, NM 88210
Copy 2:	Henryetta Price
	Carlsbad Field Office
	United States Department of the Interior
	Bureau of Land Management
	620 E. Greene Street
	Carlsbad, New Mexico 88220
Copy 3:	Rebecca Haskell
	COG Operating, LLC
	600 W. Illinois Avenue
	Midland, Texas 79701
Copy4:	TRC Environmental Corporation
	10 Desta Drive, Suite 150E
	Midland, Texas 79705





•

#### TABLE 1

#### CONCENTRATIONS OF BENZENE, BTEX, TPH and CHLORIDE IN SOIL

#### COG OPERATING, LLC SKELLY UNIT #743 EDDY COUNTY, NEW MEXICO

						concentrations ar		kg	1				
					MET	HODS: SW 846	-8021b			METHOD:	SW 8015M		E 300.1
SAMPLE LOCATION	DEPTH	SAMPLE DATE	SOIL			ETHYL-	TOTAL	TOTAL	TPH GRO	TPH DRO	TPH ORO	TOTAL	CIN ODIDE
LOCATION		DATE	STATUS	BENZENE	TOLUENE	BENZENE	XYLENES	BTEX	C6-C10	C <sub>10</sub> -C <sub>28</sub>	C <sub>28</sub> -C <sub>35</sub>	ТРН С <sub>6</sub> -С <sub>35</sub>	CHLORIDE
T1	Surf.	8/9/2017	Excavated	0.0330	40.0	189	195	424	1.390	11.600	1.690	14,700	442
T1 T1	1'	8/9/2017	Excavated	< 0.00356	< 0.00356	<0.00356	0.00448	0.00448	<15.0	<15.0	<15.0	<15.0	62.7
T1 T1	2'	8/9/2017	Resampled	< 0.00330	< 0.00330	<0.00330	< 0.00341	< 0.00448	<15.0	<15.0	<15.0	<15.0	1,500
T1	3'	8/9/2017	In-Situ	< 0.00341	< 0.00341	<0.00341	< 0.00341	< 0.00341	<15.0	37.5	<15.0	37.5	1,300
T1	4'	8/9/2017	In-Situ	< 0.00333	< 0.00333	<0.00333	< 0.00333	< 0.00333	<15.0	<15.0	<15.0	<15.0	22.2
T1	9'	8/9/2017	In-Situ	<0.00200			<0.00200		-15.0	-15.0		-15.0	361
T1	14'	8/9/2017	In-Situ	< 0.00199	< 0.00199	< 0.00199	< 0.00199	< 0.00199	<14.9	<14.9	<14.9	<14.9	93.9
T2	Surf.	8/9/2017	In-Situ	< 0.00360	< 0.00360	< 0.00360	0.00453	0.00453	<15.0	<14.9	<15.0	<15.0	304
T2	1'	8/9/2017	In-Situ	< 0.00202	< 0.00202	<0.00202	< 0.00202	< 0.00202	<15.0	<15.0	<15.0	<15.0	41.6
T2	2'	8/9/2017	In-Situ	< 0.00262	< 0.00262	< 0.00262	0.00578	0.00578	<15.0	<15.0	<15.0	<15.0	106
T2	3'	8/9/2017	In-Situ	< 0.00200	< 0.00200	< 0.00200	< 0.00200	< 0.00200	<15.0	<15.0	<15.0	<15.0	379
T2	4'	8/9/2017	Risked	< 0.00200	< 0.00200	<0.00200	< 0.00200	< 0.00200	<15.0	<15.0	<15.0	<15.0	1,860
T2	6'	8/9/2017	Risked	-0.00200	-0.00200	-0.00200	-0.00200	-0.00200	-15.0	-15.0	-13.0	-13.0	653
T2	8'	8/9/2017	Risked	-	-	-	-	-	-	-	-	-	2,610
T2 T2	10'	8/9/2017	Risked	-	-		-		-	-	-		1.430
T2	10	8/9/2017	Risked		-	-	-		-	-	-		434
T2	12	8/9/2017	Risked	< 0.00357	< 0.00357	< 0.00357	< 0.00357	< 0.00357	<15.0	<15.0	<15.0	<15.0	273
T2 T3	Surf.	8/9/2017	In-Situ	< 0.00337	< 0.00357	<0.00357	< 0.00357	<0.00337	<15.0	133	56.4	190	13.9
T3	1'	8/9/2017	In-Situ In-Situ	< 0.00300	< 0.00300	<0.00300	< 0.00300	<0.00300	<15.0	<15.0	<15.0	<15.0	<4.96
T3	2'	8/9/2017	In-Situ In-Situ	< 0.00198	< 0.00198	<0.00198	0.00253	0.00253	<15.0	<15.0	<15.0	<15.0	<4.90
T3	3'	8/9/2017	In-Situ In-Situ	< 0.00201	< 0.00201	<0.00201	< 0.00233	<0.00233	<14.9	<13.0	<13.0	<13.0	<4.90
T3	3	8/9/2017	In-Situ In-Situ	< 0.00200	< 0.00200	<0.00200	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<4.90
T3	7'	8/9/2017 8/9/2017	In-Situ In-Situ	< 0.00199	< 0.00199	<0.00199	< 0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	4.97
15	/	0/9/201/	In-Situ	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<13.0	<15.0	<13.0	<13.0	430
North	Surf.	8/9/2017	In-Situ	< 0.00351	< 0.00351	< 0.00351	< 0.00351	< 0.00351	<15.0	<15.0	<15.0	<15.0	<4.96
North	1'	8/9/2017	In-Situ	< 0.00331	< 0.00331	<0.00331	< 0.00331	<0.00301	<15.0	<15.0	<15.0	<15.0	<5.00
South	Surf.	8/9/2017	In-Situ	< 0.00201	< 0.00201	<0.00201	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<4.98
South	1'	8/9/2017	In-Situ	< 0.00200	< 0.00200	<0.00200	< 0.00200	< 0.00200	<15.0	<15.0	<15.0	<15.0	22.6
East	Surf.	8/9/2017	In-Situ	< 0.00343	< 0.00343	< 0.00343	< 0.00343	< 0.00343	<15.0	<15.0	<15.0	<15.0	<4.98
East	1'	8/9/2017	In-Situ In-Situ	< 0.00200	< 0.00344	<0.00344	< 0.00344	< 0.00200	<15.0	<15.0	<15.0	<15.0	28.1
West	Surf.	8/9/2017	In-Situ In-Situ	< 0.00200	< 0.00200	<0.00200	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<4.99
West	1'	8/9/2017	In-Situ	< 0.00353	< 0.00353	<0.00353	< 0.00330	< 0.00330	<15.0	<15.0	<15.0	<15.0	8.00
west	1	0/9/2017	III-Situ	<0.00333	<0.00333	<0.00355	<0.00445	<0.00445	<15.0	<15.0	<15.0	<15.0	8.00
T-2 NSW	4'	3/6/2018	Trench			[				-		-	348
T-2 NSW	4	3/6/2018	Trench	-	-	-	-	-	-	-	-	-	<0.858
T-2 ESW T-2 WSW	4'	3/6/2018	Trench	-	-	-	-	-	-	-	-	-	335
T-2 W3W	4'	3/6/2018	Trench		-		-	-	-	-		-	<0.852
T-2 NW @ 4'	4	3/6/2018	Trench	-	-	-	-	-	-	-	-	-	182
T-2 NW @ 4	4'	3/6/2018	Risked		-	-	-	-	-	-	-		1,020
T-1 NSW	4	3/6/2018	In-Situ	-	-	-	-	-	<7.99	<8.11	<8.11	<7.99	<0.850
11100		5, 6, 2010	in Situ					-	-,,,,,	-0.11	-0.11		-0.000
T-1b @ 2'	2'	3/6/2018	Trench	-	-	-	-	-	-	_	_	-	< 0.848
1-10 @ 2	4	5/0/2018	Trenen					-			-	-	-0.070
SP-1	N/A	3/6/2018	Backfill	_	_	-	_	-	_		_ [	-	225
51-1	11/11	5, 6, 2010	Duckini				-		-				
NMOCD Re	commended Lev		on Action	10	-	-	-	50	-	-	-	5,000	600





Certificate of Analysis Summary 560036

COG Operating LLC, Artesia, NM Project Name: Skelly Unit #743



Date Received in Lab:Fri Aug-11-17 11:45 amReport Date:23-AUG-17Project Manager:Kelsey Brooks

	Lab Id:	560036-0	001	560036-	002	560036-0	003	560036-	004	560036-	005	560036-0	006
A se straig De server de l	Field Id:	T1-Surfa	ace	T1-1'		T1-2'		T1-3	,	T1-4		T1-9'	
Analysis Requested	Depth:			1- ft		2- ft		3- ft		4- ft		9- ft	
	Matrix:	SOIL	,	SOIL		SOIL		SOIL		SOIL	.	SOIL	
	Sampled:	Aug-09-17	10:30	Aug-09-17	10:30	Aug-09-17	10:30	Aug-09-17	10:30	Aug-09-17	10:30	Aug-09-17	10:30
BTEX by EPA 8021B	Extracted:	Aug-21-17	08:00	Aug-16-17	09:20	Aug-16-17	09:20	Aug-16-17	09:20	Aug-15-17	10:00		
	Analyzed:	Aug-21-17	13:03	Aug-16-17	22:24	Aug-16-17	20:31	Aug-16-17	22:05	Aug-15-17	12:22		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		0.0330	0.0198	< 0.00356	0.00356	< 0.00341	0.00341	< 0.00333	0.00333	< 0.00200	0.00200		
Toluene		40.0 D	1.00	< 0.00356	0.00356	< 0.00341	0.00341	< 0.00333	0.00333	< 0.00200	0.00200		
Ethylbenzene		189 D	1.00	< 0.00356	0.00356	< 0.00341	0.00341	< 0.00333	0.00333	< 0.00200	0.00200		
m,p-Xylenes		194 D	2.00	< 0.00712	0.00712	< 0.00683	0.00683	< 0.00667	0.00667	< 0.00399	0.00399		
o-Xylene		1.37	0.0198	0.00448	0.00356	< 0.00341	0.00341	< 0.00333	0.00333	< 0.00200	0.00200		
Total Xylenes		195	0.0198	0.00448	0.00356	< 0.00341	0.00341	< 0.00333	0.00333	< 0.00200	0.00200		
Total BTEX		424	0.0198	0.00448	0.00356	< 0.00341	0.00341	< 0.00333	0.00333	< 0.00200	0.00200		
Inorganic Anions by EPA 300/300.1	Extracted:	Aug-21-17	17:30	Aug-21-17	17:30	Aug-21-17	17:30	Aug-21-17	17:30	Aug-21-17	17:30	Aug-21-17	17:30
	Analyzed:	Aug-22-17	03:29	Aug-22-17	03:52	Aug-22-17	04:00	Aug-22-17	04:07	Aug-22-17	04:15	Aug-22-17	04:38
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		442	4.96	62.7	5.00	1500	24.8	101	4.92	22.2	4.97	361	4.96
TPH By SW8015 Mod	Extracted:	Aug-14-17	17:00	Aug-14-17	17:00	Aug-14-17	17:00	Aug-14-17	17:00	Aug-14-17	17:00		
	Analyzed:	Aug-14-17	22:42	Aug-14-17	23:02	Aug-15-17	00:03	Aug-15-17	00:24	Aug-15-17	00:44		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		1390	74.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0		
Diesel Range Organics (DRO)		11600	74.9	<15.0	15.0	<15.0	15.0	37.5	15.0	<15.0	15.0		
Oil Range Hydrocarbons (ORO)		1690	74.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0		
Total TPH		14700	74.9	<15.0	15.0	<15.0	15.0	37.5	15.0	<15.0	15.0		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Version: 1.%

Huns Boah

Kelsey Brooks Project Manager

#### Released to Imaging: 5/2/2023 9:28:44 AM

Final 1.000





Certificate of Analysis Summary 560036

COG Operating LLC, Artesia, NM Project Name: Skelly Unit #743



Date Received in Lab:Fri Aug-11-17 11:45 amReport Date:23-AUG-17Project Manager:Kelsey Brooks

	Lab Id:	560036-0	007	560036-0	008	560036-0	)09	560036-	010	560036-	011	560036-0	012
	Field Id:	T1-14		T2-Surfa	ace	T2-1'		T2-2		T2-3		T2-4'	
Analysis Requested	Depth:	14- ft				1- ft		2- ft		3- ft		4- ft	
	Matrix:	SOIL											
	Sampled:	Aug-09-17	10:30	Aug-09-17	11:00								
BTEX by EPA 8021B	Extracted:	Aug-15-17	10:00	Aug-16-17	09:20	Aug-15-17	10:00	Aug-16-17	09:20	Aug-15-17	10:00	Aug-15-17	10:00
	Analyzed:	Aug-15-17	12:41	Aug-16-17	20:50	Aug-15-17	13:19	Aug-16-17	21:09	Aug-15-17	13:56	Aug-15-17	14:54
	Units/RL:	mg/kg	RL										
Benzene		< 0.00199	0.00199	< 0.00360	0.00360	< 0.00202	0.00202	< 0.00364	0.00364	< 0.00200	0.00200	< 0.00200	0.00200
Toluene		< 0.00199	0.00199	< 0.00360	0.00360	< 0.00202	0.00202	< 0.00364	0.00364	< 0.00200	0.00200	< 0.00200	0.00200
Ethylbenzene		< 0.00199	0.00199	< 0.00360	0.00360	< 0.00202	0.00202	< 0.00364	0.00364	< 0.00200	0.00200	< 0.00200	0.00200
m,p-Xylenes		< 0.00398	0.00398	< 0.00719	0.00719	< 0.00404	0.00404	< 0.00727	0.00727	< 0.00401	0.00401	< 0.00399	0.00399
o-Xylene		< 0.00199	0.00199	0.00453	0.00360	< 0.00202	0.00202	0.00578	0.00364	< 0.00200	0.00200	< 0.00200	0.00200
Total Xylenes		< 0.00199	0.00199	0.00453	0.00360	< 0.00202	0.00202	0.00578	0.00364	< 0.00200	0.00200	< 0.00200	0.00200
Total BTEX		< 0.00199	0.00199	0.00453	0.00360	< 0.00202	0.00202	0.00578	0.00364	< 0.00200	0.00200	< 0.00200	0.00200
Inorganic Anions by EPA 300/300.1	Extracted:	Aug-21-17	17:30										
	Analyzed:	Aug-22-17	04:46	Aug-22-17	04:54	Aug-22-17	05:01	Aug-22-17	05:09	Aug-22-17	05:17	Aug-22-17	05:40
	Units/RL:	mg/kg	RL										
Chloride		93.9	4.93	304	4.90	41.6	4.91	106	4.96	379	4.97	1860	24.6
TPH By SW8015 Mod	Extracted:	Aug-14-17	17:00										
	Analyzed:	Aug-15-17	01:05	Aug-15-17	01:26	Aug-15-17	01:48	Aug-15-17	02:08	Aug-15-17	02:29	Aug-15-17	03:32
	Units/RL:	mg/kg	RL										
Gasoline Range Hydrocarbons (GRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<14.9	14.9	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Version: 1.%

Huns Boah

Kelsey Brooks Project Manager

#### Released to Imaging: 5/2/2023 9:28:44 AM

Page 2 of 59

Final 1.000







COG Operating LLC, Artesia, NM Project Name: Skelly Unit #743



Date Received in Lab:Fri Aug-11-17 11:45 amReport Date:23-AUG-17Project Manager:Kelsey Brooks

	Lab Id:	560036-0	013	560036-0	14	560036-0	15	560036-0	16	560036-	017	560036-	018
An alugia Boau ostad	Field Id:	T2-6'		T2-8'		T2-10'		T2-12'		T2-17		T3-Surf	ace
Analysis Requested	Depth:	6- ft		8- ft		10- ft		12- ft		17- ft			
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-09-17	11:00	Aug-09-17	11:15	Aug-09-17	11:15	Aug-09-17	11:15	Aug-09-17	11:15	Aug-09-17	11:30
BTEX by EPA 8021B	Extracted:									Aug-16-17	09:20	Aug-16-17	09:20
	Analyzed:									Aug-16-17	21:28	Aug-16-17	21:46
	Units/RL:									mg/kg	RL	mg/kg	RL
Benzene										< 0.00357	0.00357	< 0.00360	0.00360
Toluene										< 0.00357	0.00357	< 0.00360	0.00360
Ethylbenzene										< 0.00357	0.00357	< 0.00360	0.00360
m,p-Xylenes										< 0.00714	0.00714	< 0.00719	0.00719
o-Xylene										< 0.00357	0.00357	< 0.00360	0.00360
Total Xylenes										< 0.00357	0.00357	< 0.00360	0.00360
Total BTEX										< 0.00357	0.00357	< 0.00360	0.00360
Inorganic Anions by EPA 300/300.1	Extracted:	Aug-21-17	17:30	Aug-21-17 1	7:30	Aug-21-17	17:30	Aug-21-17	7:30	Aug-21-17	17:30	Aug-21-17	17:30
	Analyzed:	Aug-22-17	05:47	Aug-22-17 (	06:10	Aug-22-17 (	06:18	Aug-22-17 (	)6:26	Aug-22-17	06:33	Aug-22-17	06:41
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		653	4.91	2610	24.9	1430	4.96	434	4.97	273	4.90	13.9	4.97
TPH By SW8015 Mod	Extracted:									Aug-14-17	17:00	Aug-14-17	17:00
	Analyzed:									Aug-15-17	03:52	Aug-15-17	04:13
	Units/RL:									mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)										<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)										<15.0	15.0	133	15.0
Oil Range Hydrocarbons (ORO)										<15.0	15.0	56.5	15.0
Total TPH										<15.0	15.0	190	15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Version: 1.%

Huns Boah

Kelsey Brooks Project Manager





## Certificate of Analysis Summary 560036

COG Operating LLC, Artesia, NM Project Name: Skelly Unit #743



Date Received in Lab:Fri Aug-11-17 11:45 amReport Date:23-AUG-17Project Manager:Kelsey Brooks

	1									1		
	Lab Id:	560036-0	019	560036-0	020	560036-0	021	560036-0	022	560036-0	023	
Analysis Requested	Field Id:	T3-1'		T3-2'		T3-3'		T3-4'		T3-7'		
Anutysis Requested	Depth:	1- ft		2- ft		3- ft		4- ft		7- ft		
	Matrix:	SOIL	,	SOIL		SOIL		SOIL	,	SOIL	,	
	Sampled:	Aug-09-17	11:30									
BTEX by EPA 8021B	Extracted:	Aug-15-17	10:00	Aug-15-17	10:00	Aug-15-17	10:00	Aug-15-17	10:00	Aug-21-17	09:40	
	Analyzed:	Aug-15-17	16:09	Aug-15-17	16:28	Aug-15-17	16:47	Aug-15-17	17:06	Aug-21-17	15:53	
	Units/RL:	mg/kg	RL									
Benzene		< 0.00198	0.00198	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00199	0.00199	
Toluene		< 0.00198	0.00198	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00199	0.00199	< 0.00199	0.00199	
Ethylbenzene		< 0.00198	0.00198	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00199	0.00199	<0.00199	0.00199	
m,p-Xylenes		< 0.00396	0.00396	< 0.00402	0.00402	< 0.00401	0.00401	< 0.00398	0.00398	<0.00398	0.00398	
o-Xylene		< 0.00198	0.00198	0.00253	0.00201	< 0.00200	0.00200	< 0.00199	0.00199	<0.00199	0.00199	
Total Xylenes		< 0.00198	0.00198	0.00253	0.00201	< 0.00200	0.00200	< 0.00199	0.00199	<0.00199	0.00199	
Total BTEX		< 0.00198	0.00198	0.00253	0.00201	< 0.00200	0.00200	< 0.00199	0.00199	<0.00199	0.00199	
Inorganic Anions by EPA 300/300.1	Extracted:	Aug-21-17	17:30	Aug-21-17	17:30	Aug-22-17	10:30	Aug-22-17	10:30	Aug-22-17	10:30	
	Analyzed:	Aug-22-17	06:49	Aug-22-17	06:56	Aug-22-17	11:53	Aug-22-17	12:16	Aug-22-17	12:23	
	Units/RL:	mg/kg	RL									
Chloride		<4.96	4.96	<4.90	4.90	<4.96	4.96	<4.97	4.97	456	4.98	
TPH By SW8015 Mod	Extracted:	Aug-14-17	17:00									
	Analyzed:	Aug-15-17	04:35	Aug-15-17	04:56	Aug-15-17	05:17	Aug-15-17	07:05	Aug-15-17	07:25	
	Units/RL:	mg/kg	RL									
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	
Total TPH		<15.0	15.0	<15.0	15.0	<14.9	14.9	<15.0	15.0	<15.0	15.0	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Version: 1.%

Huns Boah

Kelsey Brooks Project Manager

#### Released to Imaging: 5/2/2023 9:28:44 AM

Page 4 of 59

Final 1.000

# Analytical Report 560036

for COG Operating LLC

**Project Manager: Aaron Lieb** 

Skelly Unit #743

### 23-AUG-17

Collected By: Client





#### 1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054) Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400) Xenco-San Antonio: Texas (T104704534) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757) Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



23-AUG-17

Project Manager: **Aaron Lieb COG Operating LLC** 2407 Pecos Avenue Artesia, NM 88210

Reference: XENCO Report No(s): **560036 Skelly Unit #743** Project Address: Skelly Unit #743

#### Aaron Lieb:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 560036. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 560036 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Huns hoah

Kelsey Brooks Project Manager

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

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







## Sample Cross Reference 560036



### COG Operating LLC, Artesia, NM

Skelly Unit #743

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T1-Surface	S	08-09-17 10:30		560036-001
T1-1'	S	08-09-17 10:30	1 ft	560036-002
T1-2'	S	08-09-17 10:30	2 ft	560036-003
T1-3'	S	08-09-17 10:30	3 ft	560036-004
T1-4'	S	08-09-17 10:30	4 ft	560036-005
T1-9'	S	08-09-17 10:30	9 ft	560036-006
T1-14'	S	08-09-17 10:30	14 ft	560036-007
T2-Surface	S	08-09-17 11:00		560036-008
T2-1'	S	08-09-17 11:00	1 ft	560036-009
T2-2'	S	08-09-17 11:00	2 ft	560036-010
T2-3'	S	08-09-17 11:00	3 ft	560036-011
T2-4'	S	08-09-17 11:00	4 ft	560036-012
T2-6'	S	08-09-17 11:00	6 ft	560036-013
T2-8'	S	08-09-17 11:15	8 ft	560036-014
T2-10'	S	08-09-17 11:15	10 ft	560036-015
T2-12'	S	08-09-17 11:15	12 ft	560036-016
T2-17'	S	08-09-17 11:15	17 ft	560036-017
T3-Surface	S	08-09-17 11:30		560036-018
T3-1'	S	08-09-17 11:30	1 ft	560036-019
T3-2'	S	08-09-17 11:30	2 ft	560036-020
T3-3'	S	08-09-17 11:30	3 ft	560036-021
T3-4'	S	08-09-17 11:30	4 ft	560036-022
T3-7'	S	08-09-17 11:30	7 ft	560036-023

Version: 1.%

.



## CASE NARRATIVE

Client Name: COG Operating LLC Project Name: Skelly Unit #743

Project ID: Work Order Number(s): 560036

ORATORIES

 Report Date:
 23-AUG-17

 Date Received:
 08/11/2017

#### Sample receipt non conformances and comments:

Sample 24 T3-8' not taken, removed from WO per Aaron Lieb by phone-- 08/14/17 KB Sample 23 T3-7' added BEX/TPH per Aaron Lieb by phone-- 08/14/17 KB

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments: Batch: LBA-3025339 BTEX by EPA 8021B Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3025345 BTEX by EPA 8021B Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3025537 BTEX by EPA 8021B Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3025625 BTEX by EPA 8021B Soil samples were not received in Terracore kits and therefore were prepared by method 5030.





### COG Operating LLC, Artesia, NM

Skelly Unit #743

Sample Id: <b>T1-Surface</b> Lab Sample Id: 560036-001		Matrix: Date Colle	Soil cted: 08.09.	.17 10.30	Ľ	Date Received:08.	11.17 11.4	5
Analytical Method: Inorganic Anions Tech: MGO Analyst: MGO Seq Number: 3025640	s by EPA 300/300	D.1 Date Prep:	08.21.	.17 17.30	%	Prep Method: E30 6 Moisture: Basis: We	00P t Weight	
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	442	4.96		mg/kg	08.22.17 03.29		1
Analytical Method: TPH By SW8015 Tech: ARM Analyst: ARM Seq Number: 3025053	5 Mod	Date Prep:	08.14.	.17 17.00	%	Prep Method: TX 6 Moisture: 8asis: We	1005P t Weight	
Tech: ARM Analyst: ARM	5 Mod Cas Number	Date Prep: Result	08.14. <b>RL</b>	.17 17.00	%	6 Moisture:		Dil
Tech: ARM Analyst: ARM Seq Number: 3025053		Ĩ		.17 17.00	% E	6 Moisture: Basis: We	t Weight	<b>Dil</b> 5
Tech: ARM Analyst: ARM Seq Number: 3025053 Parameter	Cas Number	Result	RL	.17 17.00	% E Units	6 Moisture: Basis: We Analysis Date	t Weight	
Tech: ARM Analyst: ARM Seq Number: 3025053 Parameter Gasoline Range Hydrocarbons (GRO)	Cas Number PHC610	Result	<b>RL</b> 74.9	.17 17.00	% E Units mg/kg	6 Moisture: Basis: We Analysis Date 08.14.17 22.42	t Weight	5
Tech: ARM Analyst: ARM Seq Number: 3025053 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	Cas Number PHC610 C10C28DRO	Result 1390 11600	<b>RL</b> 74.9 74.9	.17 17.00	% E Units mg/kg mg/kg	6 Moisture: Basis: We Analysis Date 08.14.17 22.42 08.14.17 22.42	t Weight	5 5

.





### COG Operating LLC, Artesia, NM

Skelly Unit #743

Sample Id: T1-Surface	Matrix: Soil	Date Received:08.11.17 11.45
Lab Sample Id: 560036-001	Date Collected: 08.09.17 10.30	
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B

. 8t ιy ca etnoa Эу

Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.21.17 08.00	Basis:	Wet Weight
Seq Number:	3025625				

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.0330	0.0198		mg/kg	08.21.17 13.03		10
Toluene	108-88-3	40.0	1.00		mg/kg	08.15.17 18.02	D	100
Ethylbenzene	100-41-4	189	1.00		mg/kg	08.15.17 18.02	D	100
m,p-Xylenes	179601-23-1	194	2.00		mg/kg	08.15.17 18.02	D	100
o-Xylene	95-47-6	1.37	0.0198		mg/kg	08.21.17 13.03		10
Total Xylenes	1330-20-7	195	0.0198		mg/kg	08.15.17 18.02		100
Total BTEX		424	0.0198		mg/kg	08.15.17 18.02		100
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	109	%	80-120	08.21.17 13.03		
1,4-Difluorobenzene		540-36-3	81	%	80-120	08.21.17 13.03		





### COG Operating LLC, Artesia, NM

Sample Id:         T1-1'           Lab Sample Id:         560036-002		Matrix: Date Collec	Soil cted: 08.09.17 10.30		Date Received:08.11.17 11.4 Sample Depth: 1 ft		
Analytical Method: Inorganic Anio	ns by EPA 300/300.	1			Prep Method: E30	00P	
Tech: MGO					% Moisture:		
Analyst: MGO		Date Prep:	08.21.17 17.30		Basis: We	t Weight	
Seq Number: 3025640							
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	62.7	5.00	mg/kg	08.22.17 03.52		1
Analytical Method: TPH By SW80 Tech: ARM Analyst: ARM Seq Number: 3025053	15 Mod	Date Prep:	08.14.17 17.00		Prep Method: TX % Moisture: Basis: We	1005P t Weight	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.14.17 23.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.14.17 23.02	U	

Dieser Kange Organics (DKO)	CIOC26DRO	<15.0	15.0		mg/kg	06.14.17 23.02	U	1	
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.14.17 23.02	U	1	
Total TPH	PHC635	<15.0	15.0		mg/kg	08.14.17 23.02	U	1	
			%						
Surrogate		Cas Number	Recovery	Units	Limits	Analysis Date	Flag		
Surrogate 1-Chlorooctane		<b>Cas Number</b> 111-85-3	Recovery 101	Units %	Limits 70-135	<b>Analysis Date</b> 08.14.17 23.02	Flag		
5			·			e	Flag		





### COG Operating LLC, Artesia, NM

Sample Id:         T1-1'           Lab Sample Id:         560036-002	Matrix: Soil Date Collected: 08.09.17 10.30	Date Received:08.11.17 11.45 Sample Depth: 1 ft
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025345	Date Prep: 08.16.17 09.20	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00356	0.00356		mg/kg	08.16.17 22.24	U	1
Toluene	108-88-3	< 0.00356	0.00356		mg/kg	08.16.17 22.24	U	1
Ethylbenzene	100-41-4	< 0.00356	0.00356		mg/kg	08.16.17 22.24	U	1
m,p-Xylenes	179601-23-1	< 0.00712	0.00712		mg/kg	08.16.17 22.24	U	1
o-Xylene	95-47-6	0.00448	0.00356		mg/kg	08.16.17 22.24		1
Total Xylenes	1330-20-7	0.00448	0.00356		mg/kg	08.16.17 22.24		1
Total BTEX		0.00448	0.00356		mg/kg	08.16.17 22.24		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	82	%	80-120	08.16.17 22.24		
1,4-Difluorobenzene		540-36-3	103	%	80-120	08.16.17 22.24		





### COG Operating LLC, Artesia, NM

Sample Id: <b>T1-2'</b> Lab Sample Id: 560036-003		Matrix: Date Collec	Soil cted: 08.09.17 10.30		Date Received:08.11.17 11.4. Sample Depth: 2 ft		
Analytical Method: Inorganic Anio	ns by EPA 300/300.1				Prep Method: E30	00P	
Tech: MGO					% Moisture:		
Analyst: MGO		Date Prep:	08.21.17 17.30		Basis: We	t Weight	
Seq Number: 3025640							
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1500	24.8	mg/kg	08.22.17 04.00		5
Analytical Method: TPH By SW80 Tech: ARM Analyst: ARM Seq Number: 3025053	15 Mod	Date Prep:	08.14.17 17.00		Prep Method: TX % Moisture: Basis: We	1005P t Weight	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Parameter Gasoline Range Hydrocarbons (GRO)	Cas Number PHC610	<b>Result</b> <15.0	<b>RL</b> 15.0	Units mg/kg	Analysis Date           08.15.17 00.03	Flag U	<b>Dil</b>
·····					•	0	
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.15.17 00.03	U	

1111	THE055	<15.0	15.0		mg/ Kg	00.15.17 00.05	U	
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	115	%	70-135	08.15.17 00.03		
o-Terphenyl		84-15-1	113	%	70-135	08.15.17 00.03		
	Surrogate 1-Chlorooctane	Surrogate 1-Chlorooctane	SurrogateCas Number1-Chlorooctane111-85-3	SurrogateCas Number% Recovery1-Chlorooctane111-85-3115	SurrogateCas Number% RecoveryUnits1-Chlorooctane111-85-3115%	SurrogateCas Number% RecoveryUnits1-Chlorooctane111-85-3115%70-135	Surrogate% Cas NumberUnitsLimitsAnalysis Date1-Chlorooctane111-85-3115%70-13508.15.1700.03	Surrogate% Cas NumberUnitsLimitsAnalysis DateFlag1-Chlorooctane111-85-3115%70-13508.15.1700.03





### COG Operating LLC, Artesia, NM

Sample Id:         T1-2'           Lab Sample Id:         560036-003	Matrix: Soil Date Collected: 08.09.17 10.30	Date Received:08.11.17 11.45 Sample Depth: 2 ft
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025345	Date Prep: 08.16.17 09.20	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00341	0.00341		mg/kg	08.16.17 20.31	U	1
Toluene	108-88-3	< 0.00341	0.00341		mg/kg	08.16.17 20.31	U	1
Ethylbenzene	100-41-4	< 0.00341	0.00341		mg/kg	08.16.17 20.31	U	1
m,p-Xylenes	179601-23-1	< 0.00683	0.00683		mg/kg	08.16.17 20.31	U	1
o-Xylene	95-47-6	< 0.00341	0.00341		mg/kg	08.16.17 20.31	U	1
Total Xylenes	1330-20-7	< 0.00341	0.00341		mg/kg	08.16.17 20.31	U	1
Total BTEX		< 0.00341	0.00341		mg/kg	08.16.17 20.31	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	82	%	80-120	08.16.17 20.31		
1,4-Difluorobenzene		540-36-3	96	%	80-120	08.16.17 20.31		





### COG Operating LLC, Artesia, NM

Skelly Unit #743

Sample Id: <b>T1-3'</b> Lab Sample Id: 560036-004		Matrix: Date Coll	Soil ected: 08.09	0.17 10.30		Date Received:08.11.17 11.45 Sample Depth: 3 ft		
Analytical Method: Inorganic Anio	ons by EPA 300/300	).1				Prep Method: E30	)0P	
Tech: MGO					Ģ	% Moisture:		
Analyst: MGO		Date Prep	08.21	.17 17.30	]	Basis: We	t Weight	
Seq Number: 3025640								
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	101	4.92		mg/kg	08.22.17 04.07		1
Analytical Method:TPH By SW80Tech:ARMAnalyst:ARMSeq Number:3025053	n 5 MIOO	Date Prep	o: 08.14	l.17 17.00	Ģ	Prep Method: TX % Moisture: Basis: We	t Weight	
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.15.17 00.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	37.5	15.0		mg/kg	08.15.17 00.24		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.15.17 00.24	U	1
Total TPH	PHC635	37.5	15.0		mg/kg	08.15.17 00.24		1
Surrogate			%					

100

97

%

%

70-135

70-135

08.15.17 00.24

08.15.17 00.24

111-85-3

84-15-1

1-Chlorooctane

o-Terphenyl





### COG Operating LLC, Artesia, NM

Sample Id:         T1-3'           Lab Sample Id:         560036-004	Matrix: Soil Date Collected: 08.09.17 10.30	Date Received:08.11.17 11.45 Sample Depth: 3 ft
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025345	Date Prep: 08.16.17 09.20	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00333	0.00333		mg/kg	08.16.17 22.05	U	1
Toluene	108-88-3	< 0.00333	0.00333		mg/kg	08.16.17 22.05	U	1
Ethylbenzene	100-41-4	< 0.00333	0.00333		mg/kg	08.16.17 22.05	U	1
m,p-Xylenes	179601-23-1	< 0.00667	0.00667		mg/kg	08.16.17 22.05	U	1
o-Xylene	95-47-6	< 0.00333	0.00333		mg/kg	08.16.17 22.05	U	1
Total Xylenes	1330-20-7	< 0.00333	0.00333		mg/kg	08.16.17 22.05	U	1
Total BTEX		< 0.00333	0.00333		mg/kg	08.16.17 22.05	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	85	%	80-120	08.16.17 22.05		
1,4-Difluorobenzene		540-36-3	93	%	80-120	08.16.17 22.05		





### COG Operating LLC, Artesia, NM

Sample Id: T1-4'		Matrix:	Soil		Date Received:	08.11.17 11.45	5
Lab Sample Id: 560036-005		Date Collec	ted: 08.09.17 10.30		Sample Depth: 4	4 ft	
Analytical Method: Inorganic Anion	s by EPA 300/300.	1			Prep Method: 1	E300P	
Tech: MGO					% Moisture:		
Analyst: MGO		Date Prep:	08.21.17 17.30		Basis:	Wet Weight	
Seq Number: 3025640							
Parameter	Cas Number	Result	RL	Units	Analysis Dat	e Flag	Dil
Chloride	16887-00-6	22.2	4.97	mg/kg	08.22.17 04.1	5	1
Analytical Method: TPH By SW801	5 Mod				Prep Method:	ГХ1005Р	
Tech: ARM					% Moisture:		
Analyst: ARM		Date Prep:	08.14.17 17.00		Basis:	Wet Weight	
Seq Number: 3025053		ľ					
Parameter	Cas Number	Result	RL	Units	Analysis Dat	e Flag	Dil

Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.15.17 00.44	U	1	
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.15.17 00.44	U	1	
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.15.17 00.44	U	1	
Total TPH	PHC635	<15.0	15.0		mg/kg	08.15.17 00.44	U	1	
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag		
1-Chlorooctane		111-85-3	100	%	70-135	08.15.17 00.44			
o-Terphenyl		84-15-1	97	%	70-135	08.15.17 00.44			





### COG Operating LLC, Artesia, NM

Sample Id:         T1-4'           Lab Sample Id:         560036-005	Matrix: Soil Date Collected: 08.09.17 10.30	Date Received:08.11.17 11.45 Sample Depth: 4 ft
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025339	Date Prep: 08.15.17 10.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	08.15.17 12.22	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	08.15.17 12.22	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	08.15.17 12.22	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	08.15.17 12.22	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	08.15.17 12.22	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	08.15.17 12.22	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	08.15.17 12.22	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	84	%	80-120	08.15.17 12.22		
1,4-Difluorobenzene		540-36-3	99	%	80-120	08.15.17 12.22		





### COG Operating LLC, Artesia, NM

Sample Id: Lab Sample Ic	<b>T1-9'</b> l: 560036-006		Matrix: Date Collec	Soil cted: 08.09.17 10.30		Date Received:08. Sample Depth: 9 ft		5
Analytical Me Tech:	thod: Inorganic Anions MGO	by EPA 300/300.1				Prep Method: E30 % Moisture:	90P	
Analyst: Seq Number:	MGO 3025640		Date Prep:	08.21.17 17.30		Basis: We	t Weight	
Parameter	5025040	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride		16887-00-6	361	4.96	mg/kg	08.22.17 04.38		1



Seq Number: 3025053

## **Certificate of Analytical Results 560036**



### COG Operating LLC, Artesia, NM

Sample Id: Lab Sample	<b>T1-14'</b> Id: 560036-007		Matrix: Date Collec	Soil cted: 08.09.17 10.30		Date Received:08. Sample Depth: 14		5
Analytical M Tech: Analyst: Seq Number	Iethod: Inorganic Anions MGO MGO : 3025640	by EPA 300/300.1	Date Prep:	08.21.17 17.30		Prep Method: E30 % Moisture: Basis: We	00P t Weight	
Parameter		Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride		16887-00-6	93.9	4.93	mg/kg	08.22.17 04.46		1
Analytical M Tech: Analyst:	fethod: TPH By SW8015 ARM ARM	i Mod	Date Prep:	08.14.17 17.00		Prep Method: TX % Moisture: Basis: We	1005P t Weight	

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9		mg/kg	08.15.17 01.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9		mg/kg	08.15.17 01.05	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9		mg/kg	08.15.17 01.05	U	1
Total TPH	PHC635	<14.9	14.9		mg/kg	08.15.17 01.05	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	99	%	70-135	08.15.17 01.05		
o-Terphenyl		84-15-1	94	%	70-135	08.15.17 01.05		





### COG Operating LLC, Artesia, NM

Sample Id:         T1-14'           Lab Sample Id:         560036-007	Matrix: Soil Date Collected: 08.09.17 10.30	Date Received:08.11.17 11.45 Sample Depth: 14 ft
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025339	Date Prep: 08.15.17 10.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	08.15.17 12.41	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	08.15.17 12.41	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	08.15.17 12.41	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	08.15.17 12.41	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	08.15.17 12.41	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	08.15.17 12.41	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	08.15.17 12.41	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	98	%	80-120	08.15.17 12.41		
4-Bromofluorobenzene		460-00-4	83	%	80-120	08.15.17 12.41		





### COG Operating LLC, Artesia, NM

Skelly Unit #743

Sample Id: <b>T2-Surface</b> Lab Sample Id:560036-008		Matrix: Date Colle	Soil cted: 08.09.	.17 11.00	Γ	Date Received:08.	.11.17 11.4	5
Analytical Method: Inorganic Anions	s by EPA 300/300	.1			P	rep Method: E3	00P	
Tech: MGO					9	6 Moisture:		
Analyst: MGO		Date Prep:	08.21.	.17 17.30	E	Basis: We	et Weight	
Seq Number: 3025640								
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	304	4.90		mg/kg	08.22.17 04.54		1
Analytical Method: TPH By SW8015 Tech: ARM Analyst: ARM Seq Number: 3025053	5 Mod	Date Prep:	08.14.	17 17.00	%	Prep Method: TX 6 Moisture: Basis: We	1005P et Weight	
Tech: ARM Analyst: ARM	5 Mod Cas Number	Date Prep: Result	08.14. <b>RL</b>	17 17.00	%	6 Moisture:		Dil
Tech: ARM Analyst: ARM Seq Number: 3025053				.17 17.00	9 E	6 Moisture: Basis: We	et Weight	<b>Dil</b>
Tech: ARM Analyst: ARM Seq Number: 3025053 Parameter	Cas Number	Result	RL	.17 17.00	% E Units	6 Moisture: Basis: We Analysis Date	et Weight Flag	
Tech: ARM Analyst: ARM Seq Number: 3025053 Parameter Gasoline Range Hydrocarbons (GRO)	Cas Number PHC610	Result <15.0	<b>RL</b> 15.0	.17 17.00	% E Units mg/kg	6 Moisture: Basis: We Analysis Date 08.15.17 01.26	et Weight Flag U	1
Tech: ARM Analyst: ARM Seq Number: 3025053 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	Cas Number PHC610 C10C28DRO	<b>Result</b> <15.0 <15.0	<b>RL</b> 15.0 15.0	.17 17.00	9 E Units mg/kg mg/kg	6 Moisture: Basis: We Analysis Date 08.15.17 01.26 08.15.17 01.26	et Weight Flag U U	1 1

95

%

70-135

08.15.17 01.26

84-15-1

o-Terphenyl



Seq Number: 3025345

## **Certificate of Analytical Results 560036**



### COG Operating LLC, Artesia, NM

Sample Id: T2-Surface	Matrix: Soil	Date Received:08.11.17 11.45
Lab Sample Id: 560036-008	Date Collected: 08.09.17 11.00	
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: ALJ		% Moisture:
Analyst: ALJ	Date Prep: 08.16.17 09.20	Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00360	0.00360		mg/kg	08.16.17 20.50	U	1
Toluene	108-88-3	< 0.00360	0.00360		mg/kg	08.16.17 20.50	U	1
Ethylbenzene	100-41-4	< 0.00360	0.00360		mg/kg	08.16.17 20.50	U	1
m,p-Xylenes	179601-23-1	< 0.00719	0.00719		mg/kg	08.16.17 20.50	U	1
o-Xylene	95-47-6	0.00453	0.00360		mg/kg	08.16.17 20.50		1
Total Xylenes	1330-20-7	0.00453	0.00360		mg/kg	08.16.17 20.50		1
Total BTEX		0.00453	0.00360		mg/kg	08.16.17 20.50		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	96	%	80-120	08.16.17 20.50		
4-Bromofluorobenzene		460-00-4	81	%	80-120	08.16.17 20.50		





### COG Operating LLC, Artesia, NM

Sample Id: <b>T2-1'</b> Lab Sample Id: 560036-009		Matrix: Date Collec	Soil cted: 08.09.17 11.00		Date Received:08 Sample Depth: 1 f		5
Analytical Method: Inorganic Anio	ns by EPA 300/300.1				Prep Method: E3	00P	
Tech: MGO	-				% Moisture:		
Analyst: MGO		Date Prep:	08.21.17 17.30		Basis: We	et Weight	
Seq Number: 3025640		L.					
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	41.6	4.91	mg/kg	08.22.17 05.01		1
Analytical Method: TPH By SW80 Tech: ARM Analyst: ARM Seq Number: 3025053	15 Mod	Date Prep:	08.14.17 17.00		Prep Method: TX % Moisture: Basis: We	1005P et Weight	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.15.17 01.48	U	1
Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	PHC610 C10C28DRO	<15.0 <15.0	15.0 15.0	mg/kg mg/kg	08.15.17 01.48 08.15.17 01.48	U U	1

on nunge nyuroeuroons (orto)	111002000	(1010	1010			00110117 01110	0	-	
Total TPH	PHC635	<15.0	15.0		mg/kg	08.15.17 01.48	U	1	
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag		
1-Chlorooctane		111-85-3	99	%	70-135	08.15.17 01.48			
o-Terphenyl		84-15-1	95	%	70-135	08.15.17 01.48			





### COG Operating LLC, Artesia, NM

Sample Id:         T2-1'           Lab Sample Id:         560036-009	Matrix: Soil Date Collected: 08.09.17 11.00	Date Received:08.11.17 11.45 Sample Depth: 1 ft
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025339	Date Prep: 08.15.17 10.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00202	0.00202		mg/kg	08.15.17 13.19	U	1
Toluene	108-88-3	< 0.00202	0.00202		mg/kg	08.15.17 13.19	U	1
Ethylbenzene	100-41-4	< 0.00202	0.00202		mg/kg	08.15.17 13.19	U	1
m,p-Xylenes	179601-23-1	< 0.00404	0.00404		mg/kg	08.15.17 13.19	U	1
o-Xylene	95-47-6	< 0.00202	0.00202		mg/kg	08.15.17 13.19	U	1
Total Xylenes	1330-20-7	< 0.00202	0.00202		mg/kg	08.15.17 13.19	U	1
Total BTEX		< 0.00202	0.00202		mg/kg	08.15.17 13.19	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	99	%	80-120	08.15.17 13.19		
4-Bromofluorobenzene		460-00-4	86	%	80-120	08.15.17 13.19		




#### COG Operating LLC, Artesia, NM

Skelly Unit #743

Sample Id:         T2-2'           Lab Sample Id:         560036-010		Matrix: Date Colle	Soil cted: 08.09.1	17 11.00		Date Received:08. Sample Depth: 2 ft		5
Analytical Method: Inorganic Anion	ns by EPA 300/300.	1			F	Prep Method: E3	00P	
Tech: MGO					9	% Moisture:		
Analyst: MGO		Date Prep:	08.21.	17 17.30	E	Basis: We	et Weight	
Seq Number: 3025640		1						
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	106	4.96		mg/kg	08.22.17 05.09		1
Analytical Method: TPH By SW80 Tech: ARM Analyst: ARM Seq Number: 3025053	15 Mod	Date Prep:	08.14.	17 17.00	9	Prep Method: TX % Moisture: 3asis: We	1005P et Weight	
Tech: ARM Analyst: ARM	15 Mod Cas Number	Date Prep: Result	08.14. <b>RL</b>	17 17.00	9	% Moisture:		Dil
Tech:ARMAnalyst:ARMSeq Number:3025053		ľ		17 17.00	9 E	Moisture: Basis: We	et Weight	<b>Dil</b>
Tech: ARM Analyst: ARM Seq Number: 3025053 Parameter	Cas Number	Result	RL	17 17.00	9 E Units	Moisture: Basis: We Analysis Date	et Weight Flag	
Tech: ARM Analyst: ARM Seq Number: 3025053 Parameter Gasoline Range Hydrocarbons (GRO)	Cas Number PHC610	<b>Result</b>	<b>RL</b> 15.0	17 17.00	9 E Units mg/kg	Moisture: Basis: We Analysis Date 08.15.17 02.08	et Weight Flag U	1
Tech: ARM Analyst: ARM Seq Number: 3025053 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	Cas Number PHC610 C10C28DRO	<b>Result</b> <15.0 <15.0	<b>RL</b> 15.0 15.0	17 17.00	9 E Units mg/kg mg/kg	Moisture: Basis: We Analysis Date 08.15.17 02.08 08.15.17 02.08	et Weight Flag U U	1 1

99

%

70-135

08.15.17 02.08

84-15-1

o-Terphenyl





#### COG Operating LLC, Artesia, NM

Sample Id:         T2-2'           Lab Sample Id:         560036-010	Matrix: Soil Date Collected: 08.09.17 11.00	Date Received:08.11.17 11.45 Sample Depth: 2 ft		
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025345	Date Prep: 08.16.17 09.20	Prep Method: SW5030B % Moisture: Basis: Wet Weight		

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00364	0.00364		mg/kg	08.16.17 21.09	U	1
Toluene	108-88-3	< 0.00364	0.00364		mg/kg	08.16.17 21.09	U	1
Ethylbenzene	100-41-4	< 0.00364	0.00364		mg/kg	08.16.17 21.09	U	1
m,p-Xylenes	179601-23-1	< 0.00727	0.00727		mg/kg	08.16.17 21.09	U	1
o-Xylene	95-47-6	0.00578	0.00364		mg/kg	08.16.17 21.09		1
Total Xylenes	1330-20-7	0.00578	0.00364		mg/kg	08.16.17 21.09		1
Total BTEX		0.00578	0.00364		mg/kg	08.16.17 21.09		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	95	%	80-120	08.16.17 21.09		
4-Bromofluorobenzene		460-00-4	80	%	80-120	08.16.17 21.09		





#### COG Operating LLC, Artesia, NM

Sample Id: <b>T2-3'</b> Lab Sample Id: 560036-011		Matrix: Date Collec	Soil cted: 08.09.17 11.00		Date Received:08.11.17 11.45 Sample Depth: 3 ft		
Analytical Method: Inorganic Anio	ns by EPA 300/300.1				Prep Method: E30	)0P	
Tech: MGO					% Moisture:		
Analyst: MGO		Date Prep:	08.21.17 17.30		Basis: We	t Weight	
Seq Number: 3025640							
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	379	4.97	mg/kg	08.22.17 05.17		1
Analytical Method: TPH By SW80 Tech: ARM Analyst: ARM Seq Number: 3025053	15 Mod	Date Prep:	08.14.17 17.00		Prep Method: TX % Moisture: Basis: We	1005P t Weight	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.15.17 02.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.15.17 02.29	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.15.17 02.29	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.15.17 02.29	U	1

otal TPH	PHC635	<15.0	15.0		mg/kg	08.15.17 02.29	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	98	%	70-135	08.15.17 02.29		
o-Terphenyl		84-15-1	95	%	70-135	08.15.17 02.29		





#### COG Operating LLC, Artesia, NM

Sample Id:         T2-3'           Lab Sample Id:         560036-011	Matrix: Soil Date Collected: 08.09.17 11.00	Date Received:08.11.17 11.45 Sample Depth: 3 ft
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025339	Date Prep: 08.15.17 10.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	08.15.17 13.56	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	08.15.17 13.56	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	08.15.17 13.56	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	08.15.17 13.56	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	08.15.17 13.56	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	08.15.17 13.56	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	08.15.17 13.56	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	82	%	80-120	08.15.17 13.56		
1,4-Difluorobenzene		540-36-3	98	%	80-120	08.15.17 13.56		





#### COG Operating LLC, Artesia, NM

Skelly Unit #743

Sample Id:         T2-4'           Lab Sample Id:         560036-012		Matrix: Date Colle	Soil cted: 08.09.17 11.00		Date Received:08.11.17 11.45 Sample Depth:4 ft		
Analytical Method: Inorganic Anic	ons by EPA 300/300	.1		]	Prep Method: E3	00P	
Tech: MGO					% Moisture:		
Analyst: MGO		Date Prep:	08.21.17 17.30	]	Basis: We	t Weight	
Seq Number: 3025640		Ĩ					
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1860	24.6	mg/kg	08.22.17 05.40		5
Analytical Method:TPH By SW80Tech:ARMAnalyst:ARMSeq Number:3025053	115 Mod	Date Prep:	08.14.17 17.00	(	Prep Method: TX % Moisture: Basis: We	t Weight	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.15.17 03.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.15.17 03.32	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.15.17 03.32	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.15.17 03.32	U	1

Units

%

%

Recovery

100

97

Limits

70-135

70-135

Analysis Date

08.15.17 03.32

08.15.17 03.32

Flag

Cas Number

111-85-3

84-15-1

Surrogate

o-Terphenyl

1-Chlorooctane





#### COG Operating LLC, Artesia, NM

Sample Id:         T2-4'           Lab Sample Id:         560036-012	Matrix: Soil Date Collected: 08.09.17 11.00	Date Received:08.11.17 11.45 Sample Depth: 4 ft
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025339	Date Prep: 08.15.17 10.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	08.15.17 14.54	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	08.15.17 14.54	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	08.15.17 14.54	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	08.15.17 14.54	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	08.15.17 14.54	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	08.15.17 14.54	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	08.15.17 14.54	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	85	%	80-120	08.15.17 14.54		
1,4-Difluorobenzene		540-36-3	98	%	80-120	08.15.17 14.54		





#### COG Operating LLC, Artesia, NM

Sample Id: Lab Sample Id	<b>T2-6'</b> l: 560036-013		Matrix: Date Collec	Soil eted: 08.09.17 11.00	Date Received:08.11.17 11.45 Sample Depth: 6 ft			5
Analytical Me	thod: Inorganic Anions	by EPA 300/300.1				Prep Method:	E300P	
Tech:	MGO					% Moisture:		
Analyst:	MGO		Date Prep:	08.21.17 17.30		Basis:	Wet Weight	
Seq Number:	3025640							
Parameter		Cas Number	Result	RL	Units	Analysis Dat	te Flag	Dil
Chloride		16887-00-6	653	4.91	mg/kg	08.22.17 05.4	7	1





#### COG Operating LLC, Artesia, NM

Sample Id: <b>T2-8'</b> Lab Sample Id: 560036-(	)14	Matrix: Date Collec	Soil eted: 08.09.17 11.15		Date Received:08. Sample Depth: 8 f		5
Analytical Method: Inor Tech: MGO Analyst: MGO Seq Number: 3025640	ganic Anions by EPA 300/300.1	Date Prep:	08.21.17 17.30		Prep Method: E3 % Moisture: Basis: We	00P et Weight	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2610	24.9	mg/kg	08.22.17 06.10		5





#### COG Operating LLC, Artesia, NM

Sample Id: <b>T2-10'</b> Lab Sample Id: 560036-015		Matrix: Date Collec	Soil eted: 08.09.17 11.15		Date Received:08. Sample Depth: 10		5
Analytical Method: Inorganic Anion Tech: MGO	s by EPA 300/300.1			(	Prep Method: E3 % Moisture:		
Analyst: MGO Seq Number: 3025640		Date Prep:	08.21.17 17.30	]	Basis: We	et Weight	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1430	4.96	mg/kg	08.22.17 06.18		1





#### COG Operating LLC, Artesia, NM

Sample Id: <b>T2-12'</b> Lab Sample Id: 560036-016		Matrix: Date Collec	Soil eted: 08.09.17 11.15		Date Received:0 Sample Depth: 1		i
Analytical Method: Inorganic Anions b Tech: MGO	oy EPA 300/300.1				Prep Method: E % Moisture:	E300P	
Analyst: MGO		Date Prep:	08.21.17 17.30			Vet Weight	
Seq Number: 3025640							
Parameter	Cas Number	Result	RL	Units	Analysis Date	e Flag	Dil
Chloride	16887-00-6	434	4.97	mg/kg	08.22.17 06.26	5	1





#### COG Operating LLC, Artesia, NM

Sample Id: <b>T2-17'</b> Lab Sample Id: 560036-017		Matrix: Date Collec	Soil cted: 08.09.17 11.15		Date Received:08. Sample Depth: 17		5
Analytical Method: Inorganic Ar Tech: MGO Analyst: MGO Seq Number: 3025640	nions by EPA 300/300.1	l Date Prep:	08.21.17 17.30		Prep Method: E30 % Moisture: Basis: We	)0P t Weight	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	273	4.90	mg/kg	08.22.17 06.33		1
Analytical Method: TPH By SW Tech: ARM Analyst: ARM Seq Number: 3025053	78015 Mod	Date Prep:	08.14.17 17.00		Prep Method: TX % Moisture: Basis: We	1005P t Weight	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.15.17 03.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.15.17 03.52	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.15.17 03.52	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.15.17 03.52	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	99	%	70-135	08.15.17 03.52		
o-Terphenyl		84-15-1	95	%	70-135	08.15.17 03.52		





#### COG Operating LLC, Artesia, NM

Sample Id:         T2-17'           Lab Sample Id:         560036-017	Matrix: Soil Date Collected: 08.09.17 11.15	Date Received:08.11.17 11.45 Sample Depth: 17 ft
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025345	Date Prep: 08.16.17 09.20	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00357	0.00357		mg/kg	08.16.17 21.28	U	1
Toluene	108-88-3	< 0.00357	0.00357		mg/kg	08.16.17 21.28	U	1
Ethylbenzene	100-41-4	< 0.00357	0.00357		mg/kg	08.16.17 21.28	U	1
m,p-Xylenes	179601-23-1	< 0.00714	0.00714		mg/kg	08.16.17 21.28	U	1
o-Xylene	95-47-6	< 0.00357	0.00357		mg/kg	08.16.17 21.28	U	1
Total Xylenes	1330-20-7	< 0.00357	0.00357		mg/kg	08.16.17 21.28	U	1
Total BTEX		< 0.00357	0.00357		mg/kg	08.16.17 21.28	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	94	%	80-120	08.16.17 21.28		
4-Bromofluorobenzene		460-00-4	82	%	80-120	08.16.17 21.28		





#### COG Operating LLC, Artesia, NM

Sample Id: <b>T3-Surface</b> Lab Sample Id: 560036-018		Matrix: Date Collec	Soil cted: 08.09.	.17 11.30	D	ate Received:08.	11.17 11.4	5
Analytical Method: Inorganic Anion Tech: MGO Analyst: MGO	as by EPA 300/300.	.1 Date Prep:	08.21.	.17 17.30	%	rep Method: E30 Moisture: asis: We	)0P t Weight	
Seq Number: 3025640 Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.9	4.97		mg/kg	08.22.17 06.41		1
Analytical Method: TPH By SW801 Tech: ARM Analyst: ARM Seq Number: 3025053	5 Mod	Date Prep:	08.14.	.17 17.00	%	rep Method: TX 5 Moisture: asis: We	1005P t Weight	
Tech: ARM Analyst: ARM	5 Mod Cas Number	Date Prep: Result	08.14. <b>RL</b>	.17 17.00	%	Moisture:		Dil
Tech: ARM Analyst: ARM Seq Number: 3025053		·		.17 17.00	% B	o Moisture: asis: We	t Weight	<b>Dil</b>
Tech: ARM Analyst: ARM Seq Number: 3025053 Parameter	Cas Number	Result	RL	.17 17.00	% B Units	Moisture: asis: We Analysis Date	t Weight Flag	
Tech: ARM Analyst: ARM Seq Number: 3025053 Parameter Gasoline Range Hydrocarbons (GRO)	Cas Number PHC610	<b>Result</b> <15.0	<b>RL</b> 15.0	.17 17.00	% B Units mg/kg	Moisture: asis: We Analysis Date 08.15.17 04.13	t Weight Flag	1
Tech: ARM Analyst: ARM Seq Number: 3025053 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	Cas Number PHC610 C10C28DRO	Result <15.0 133	<b>RL</b> 15.0 15.0	.17 17.00	% B Units mg/kg mg/kg	Moisture: asis: We Analysis Date 08.15.17 04.13 08.15.17 04.13	t Weight Flag	1 1



Seq Number: 3025345

#### **Certificate of Analytical Results 560036**



#### COG Operating LLC, Artesia, NM

Sample Id: T3-Surface	Matrix: Soil	Date Received:08.11.17 11.45
Lab Sample Id: 560036-018	Date Collected: 08.09.17 11.30	
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: ALJ		% Moisture:
Analyst: ALJ	Date Prep: 08.16.17 09.20	Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00360	0.00360		mg/kg	08.16.17 21.46	U	1
Toluene	108-88-3	< 0.00360	0.00360		mg/kg	08.16.17 21.46	U	1
Ethylbenzene	100-41-4	< 0.00360	0.00360		mg/kg	08.16.17 21.46	U	1
m,p-Xylenes	179601-23-1	< 0.00719	0.00719		mg/kg	08.16.17 21.46	U	1
o-Xylene	95-47-6	< 0.00360	0.00360		mg/kg	08.16.17 21.46	U	1
Total Xylenes	1330-20-7	< 0.00360	0.00360		mg/kg	08.16.17 21.46	U	1
Total BTEX		< 0.00360	0.00360		mg/kg	08.16.17 21.46	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	99	%	80-120	08.16.17 21.46		
4-Bromofluorobenzene		460-00-4	82	%	80-120	08.16.17 21.46		





#### COG Operating LLC, Artesia, NM

Skelly Unit #743

Sample Id: <b>T3-1'</b> Lab Sample Id: 560036-019		Matrix: Date Colle	Soil ected: 08.09.17 11.30		Date Received:08. Sample Depth: 1 ft		5
Analytical Method: Inorganic Anic Tech: MGO Analyst: MGO	ons by EPA 300/300.	1 Date Prep:	: 08.21.17 17.30	(	Prep Method: E30 % Moisture: Basis: We	)0P t Weight	
Seq Number: 3025640						U	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	08.22.17 06.49	U	1
Analytical Method: TPH By SW80 Tech: ARM	10 11100					TUUDP	
Analyst: ARM Seq Number: 3025053		Date Prep:	: 08.14.17 17.00	(	Prep Method: TX % Moisture: Basis: We	t Weight	
Analyst:ARMSeq Number:3025053	Cas Number	Date Prep: <b>Result</b>	e 08.14.17 17.00 RL	(	% Moisture:		Dil
Analyst: ARM Seq Number: 3025053 Parameter	Cas Number PHC610			]	% Moisture: Basis: We	t Weight	<b>Dil</b>
Analyst: ARM Seq Number: 3025053 Parameter Gasoline Range Hydrocarbons (GRO)		Result	RL	Units	% Moisture: Basis: We Analysis Date	t Weight Flag	
Analyst: ARM Seq Number: 3025053 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	PHC610	Result <15.0	<b>RL</b> 15.0	Units mg/kg	Moisture: Basis: We Analysis Date 08.15.17 04.35	t Weight Flag U	1
Analyst: ARM	PHC610 C10C28DRO	<b>Result</b> <15.0 <15.0	<b>RL</b> 15.0 15.0	Units mg/kg mg/kg	<ul> <li>Moisture:</li> <li>Basis: We</li> <li>Analysis Date</li> <li>08.15.17 04.35</li> <li>08.15.17 04.35</li> </ul>	t Weight Flag U U	1

100

97

%

%

70-135

70-135

08.15.17 04.35

08.15.17 04.35

111-85-3

84-15-1

1-Chlorooctane

o-Terphenyl





#### COG Operating LLC, Artesia, NM

Sample Id:         T3-1'           Lab Sample Id:         560036-019	Matrix: Soil Date Collected: 08.09.17 11.30	Date Received:08.11.17 11.45 Sample Depth: 1 ft
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025339	Date Prep: 08.15.17 10.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00198	0.00198		mg/kg	08.15.17 16.09	U	1
Toluene	108-88-3	< 0.00198	0.00198		mg/kg	08.15.17 16.09	U	1
Ethylbenzene	100-41-4	< 0.00198	0.00198		mg/kg	08.15.17 16.09	U	1
m,p-Xylenes	179601-23-1	< 0.00396	0.00396		mg/kg	08.15.17 16.09	U	1
o-Xylene	95-47-6	< 0.00198	0.00198		mg/kg	08.15.17 16.09	U	1
Total Xylenes	1330-20-7	< 0.00198	0.00198		mg/kg	08.15.17 16.09	U	1
Total BTEX		< 0.00198	0.00198		mg/kg	08.15.17 16.09	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	81	%	80-120	08.15.17 16.09		
1,4-Difluorobenzene		540-36-3	97	%	80-120	08.15.17 16.09		





#### COG Operating LLC, Artesia, NM

Sample Id: <b>T3-2'</b> Lab Sample Id: 560036-020		Matrix: Date Collec	Soil cted: 08.09.17 11.30		Date Received:08. Sample Depth: 2 ft		5
Analytical Method: Inorganic Anio	ns by EPA 300/300.	l			Prep Method: E30	00P	
Tech: MGO					% Moisture:		
Analyst: MGO		Date Prep:	08.21.17 17.30		Basis: We	t Weight	
Seq Number: 3025640							
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.90	4.90	mg/kg	08.22.17 06.56	U	1
Analytical Method:TPH By SW80Tech:ARMAnalyst:ARMSeq Number:3025053	15 Mod	Date Prep:	08.14.17 17.00		Prep Method: TX % Moisture: Basis: We	1005P t Weight	
Tech: ARM Analyst: ARM	15 Mod Cas Number	Date Prep: <b>Result</b>	08.14.17 17.00 RL	Units	% Moisture:		Dil
Tech:ARMAnalyst:ARMSeq Number:3025053		·			% Moisture: Basis: We	t Weight	<b>Dil</b>
Tech:ARMAnalyst:ARMSeq Number:3025053Parameter	Cas Number	Result	RL	Units	% Moisture: Basis: We Analysis Date	t Weight Flag	
Tech: ARM Analyst: ARM Seq Number: 3025053 Parameter Gasoline Range Hydrocarbons (GRO)	Cas Number PHC610	Result	<b>RL</b> 15.0	Units mg/kg	% Moisture: Basis: Wes Analysis Date 08.15.17 04.56	t Weight Flag U	1

		%				
Surrogate	Cas Number	Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	08.15.17 04.56	
o-Terphenyl	84-15-1	94	%	70-135	08.15.17 04.56	





#### COG Operating LLC, Artesia, NM

Sample Id:         T3-2'           Lab Sample Id:         560036-020	Matrix: Soil Date Collected: 08.09.17 11.30	Date Received:08.11.17 11.45 Sample Depth: 2 ft
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025339	Date Prep: 08.15.17 10.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	08.15.17 16.28	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	08.15.17 16.28	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	08.15.17 16.28	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	08.15.17 16.28	U	1
o-Xylene	95-47-6	0.00253	0.00201		mg/kg	08.15.17 16.28		1
Total Xylenes	1330-20-7	0.00253	0.00201		mg/kg	08.15.17 16.28		1
Total BTEX		0.00253	0.00201		mg/kg	08.15.17 16.28		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	83	%	80-120	08.15.17 16.28		
1,4-Difluorobenzene		540-36-3	100	%	80-120	08.15.17 16.28		





#### COG Operating LLC, Artesia, NM

Sample Id: <b>T3-3'</b> Lab Sample Id: 560036-021		Matrix: Date Collec	Soil cted: 08.09.17 11.30		Date Received:08. Sample Depth: 3 ft		5
Analytical Method: Inorganic Anio	ns by EPA 300/300.1	l			Prep Method: E30	00P	
Tech: MNV					% Moisture:		
Analyst: MGO		Date Prep:	08.22.17 10.30		Basis: We	t Weight	
Seq Number: 3025713							
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	08.22.17 11.53	U	1
Analytical Method: TPH By SW80 Tech: ARM Analyst: ARM Seq Number: 3025053	15 Mod	Date Prep:	08.14.17 17.00		Prep Method: TX % Moisture: Basis: We	1005P t Weight	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	08.15.17 05.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<14.9	14.9	mg/kg	08.15.17 05.17	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	08.15.17 05.17	U	1
Total TPH	PHC635	<14.9	14.9	mg/kg	08.15.17 05.17	U	1

otal TPH		PHC635	<14.9	14.9		mg/kg	08.15.17 05.17	U	1
Surroga	ate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlore	ooctane		111-85-3	112	%	70-135	08.15.17 05.17		
o-Terph	enyl		84-15-1	106	%	70-135	08.15.17 05.17		





#### COG Operating LLC, Artesia, NM

Sample Id:         T3-3'           Lab Sample Id:         560036-021	Matrix: Soil Date Collected: 08.09.17 11.30	Date Received:08.11.17 11.45 Sample Depth: 3 ft
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025339	Date Prep: 08.15.17 10.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	08.15.17 16.47	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	08.15.17 16.47	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	08.15.17 16.47	U	1
m,p-Xylenes	179601-23-1	< 0.00401	0.00401		mg/kg	08.15.17 16.47	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	08.15.17 16.47	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	08.15.17 16.47	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	08.15.17 16.47	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	82	%	80-120	08.15.17 16.47		
1,4-Difluorobenzene		540-36-3	96	%	80-120	08.15.17 16.47		





#### COG Operating LLC, Artesia, NM

Sample Id: Lab Sample Id	<b>T3-4'</b> d: 560036-022		Matrix: Date Collec	Soil ted: 08.09.17 11.30		Date Received:0 Sample Depth: 4		
Analytical Me Tech: Analyst: Seq Number:	ethod: Inorganic Anions MNV MGO 3025713	by EPA 300/300.1	Date Prep:	08.22.17 10.30		Prep Method: E % Moisture: Basis: V	2300P Vet Weight	
Parameter		Cas Number	Result	RL	Units	Analysis Date	e Flag	Dil
Chloride		16887-00-6	<4.97	4.97	mg/kg	08.22.17 12.16	5 U	1
-	ethod: TPH By SW8015 ARM	Mod				Prep Method: T % Moisture:	X1005P	
Tech:	ARM							

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.15.17 07.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.15.17 07.05	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.15.17 07.05	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.15.17 07.05	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	98	%	70-135	08.15.17 07.05		
o-Terphenyl		84-15-1	94	%	70-135	08.15.17 07.05		





#### COG Operating LLC, Artesia, NM

Sample Id:         T3-4'           Lab Sample Id:         560036-022	Matrix: Soil Date Collected: 08.09.17 11.30	Date Received:08.11.17 11.45 Sample Depth: 4 ft
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025339	Date Prep: 08.15.17 10.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	08.15.17 17.06	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	08.15.17 17.06	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	08.15.17 17.06	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	08.15.17 17.06	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	08.15.17 17.06	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	08.15.17 17.06	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	08.15.17 17.06	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	97	%	80-120	08.15.17 17.06		
4-Bromofluorobenzene		460-00-4	85	%	80-120	08.15.17 17.06		





#### COG Operating LLC, Artesia, NM

Sample Id: <b>T3-7'</b> Lab Sample Id: 560036-023		Matrix: Date Collec	Soil cted: 08.09.17 11.30		Date Received:08. Sample Depth: 7 ft		5
Analytical Method: Inorganic Anio	ns by EPA 300/300.1				Prep Method: E30	)0P	
Tech: MNV					% Moisture:		
Analyst: MGO		Date Prep:	08.22.17 10.30		Basis: We	t Weight	
Seq Number: 3025713							
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	456	4.98	mg/kg	08.22.17 12.23		1
Analytical Method: TPH By SW80 Tech: ARM Analyst: ARM Seq Number: 3025053	15 Mod	Date Prep:	08.14.17 17.00		Prep Method: TX % Moisture: Basis: We	1005P t Weight	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.15.17 07.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.15.17 07.25	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.15.17 07.25	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.15.17 07.25	U	1

11	1110055	<15.0	15.0		mg/kg	00.15.17 07.25	U	
irrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
Chlorooctane		111-85-3	97	%	70-135	08.15.17 07.25		
Terphenyl		84-15-1	94	%	70-135	08.15.17 07.25		
	irrogate Chlorooctane Terphenyl	<b>irrogate</b> Chlorooctane	IrrogateCas NumberChlorooctane111-85-3	urrogateCas Number% RecoveryChlorooctane111-85-397	urrogateCas Number% RecoveryUnitsChlorooctane111-85-397%	urrogateCas Number% RecoveryUnitsLimitsChlorooctane111-85-397%70-135	urrogateCas Number RecoveryWnitsLimitsAnalysis DateChlorooctane111-85-397%70-13508.15.1707.25	urrogate% Cas Number RecoveryUnitsLimitsAnalysis DateFlagChlorooctane111-85-397%70-13508.15.1707.25





#### COG Operating LLC, Artesia, NM

Sample Id:         T3-7'           Lab Sample Id:         560036-023	Matrix: Soil Date Collected: 08.09.17 11.30	Date Received:08.11.17 11.45 Sample Depth: 7 ft
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025537	Date Prep: 08.21.17 09.40	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00199	0.00199		mg/kg	08.21.17 15.53	U	1
Toluene	108-88-3	< 0.00199	0.00199		mg/kg	08.21.17 15.53	U	1
Ethylbenzene	100-41-4	< 0.00199	0.00199		mg/kg	08.21.17 15.53	U	1
m,p-Xylenes	179601-23-1	< 0.00398	0.00398		mg/kg	08.21.17 15.53	U	1
o-Xylene	95-47-6	< 0.00199	0.00199		mg/kg	08.21.17 15.53	U	1
Total Xylenes	1330-20-7	< 0.00199	0.00199		mg/kg	08.21.17 15.53	U	1
Total BTEX		< 0.00199	0.00199		mg/kg	08.21.17 15.53	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	92	%	80-120	08.21.17 15.53		
4-Bromofluorobenzene		460-00-4	113	%	80-120	08.21.17 15.53		



#### **Flagging Criteria**



Page 61 of 124

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- **K** Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- \*\* Surrogate recovered outside laboratory control limit.
- **BRL** Below Reporting Limit.
- RL Reporting Limit
- MDL Method Detection LimitSDL Sample Detection LimitLOD Limit of DetectionPQL Practical Quantitation LimitMQL Method Quantitation LimitLOQ Limit of Quantitation
- **DL** Method Detection Limit
- NC Non-Calculable
- + NELAC certification not offered for this compound.
- \* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

#### Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Dhone

Houston - Dallas - San Antonio - Atlanta - Midland/Odessa - Tampa/Lakeland - Phoenix - Latin America

	FIIOIIC	Tax
4147 Greenbriar Dr, Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
1211 W Florida Ave, Midland, TX 79701	(432) 563-1800	(432) 563-1713
2525 W. Huntington Dr Suite 102, Tempe AZ 85282	(602) 437-0330	



QC Summary 560036

#### **COG Operating LLC**

Skelly Unit #743

Analytical Method:	Inorganic Anions b	rganic Anions by EPA 300/300.1								Prep Method: E300P					
Seq Number:	3025640								Date Pre	ep: 08.2	08.21.17				
MB Sample Id:	729719-1-BLK		LCS Sar	nple Id:	729719-1-	BKS		LCSI	D Sample	d: 729	719-1-BSD				
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag			
Chloride	<4.90	245	257	105	252	101	90-110	2	20	mg/kg	08.22.17 03:14				

Analytical Method:	Inorganic Anions b	organic Anions by EPA 300/300.1								Prep Method: E300P				
Seq Number:	3025713			Matrix:	Solid				Date Pre	ep: 08.2	2.17			
MB Sample Id:	729725-1-BLK	5-1-BLK LCS Sample Id: 729725-1-B				BKS LCSD Sample Id: 7				Id: 729	29725-1-BSD			
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag		
Chloride	< 5.00	250	259	104	252	101	90-110	3	20	mg/kg	08.22.17 11:37			

Analytical Method:	Inorganic Anions b	organic Anions by EPA 300/300.1								Prep Method: E300P			
Seq Number:	3025640			Matrix:	Soil				Date Pre	ep: 08.2	1.17		
Parent Sample Id:	560036-001		MS San	nple Id:	560036-00	01 S		MSI	O Sample	Id: 5600	)36-001 SD		
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag	
Chloride	442	248	679	96	669	92	90-110	1	20	mg/kg	08.22.17 03:37		

Analytical Method:	Inorganic Anions b	organic Anions by EPA 300/300.1								Prep Method: E300P			
Seq Number:	3025640			Matrix:	Soil				Date Pre	ep: 08.2	1.17		
Parent Sample Id:	560036-011		MS San	nple Id:	560036-01	1 S		MSI	O Sample	Id: 560	)36-011 SD		
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag	
Chloride	379	249	618	96	624	98	90-110	1	20	mg/kg	08.22.17 05:24		

Analytical Method:	Inorganic Anions b	norganic Anions by EPA 300/300.1								Prep Method: E300P			
Seq Number:	3025713			Matrix:	Soil				Date Pre	ep: 08.2	2.17		
Parent Sample Id:	560036-021 MS Sample Id:				560036-02	21 S		MSI	O Sample	Id: 5600	560036-021 SD		
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag	
Chloride	<4.96	248	269	108	274	110	90-110	2	20	mg/kg	08.22.17 12:00		

Analytical Method:	Inorganic Anions b	y EPA 300/	300.1					Pr	ep Metho	d: E300	)P	
Seq Number:	3025713			Matrix:	Soil				Date Pre	ep: 08.2	2.17	
Parent Sample Id:	560039-008		MS Sar	nple Id:	560039-00	)8 S		MSI	O Sample	Id: 5600	)39-008 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	122	245	381	106	385	107	90-110	1	20	mg/kg	08.22.17 13:48	



#### **COG Operating LLC**

Skelly Unit #743

Analytical Method: Seq Number:	1					Matrix: Solid LCS Sample Id: 729380-1-BKS					od: TX1 ep: 08.1	005P 4.17	
MB Sample Id:	729380-1-	BLK		LCS Sar	nple Id:	729380-1	-BKS		LCSI	D Sample	e Id: 7293	380-1-BSD	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarb	oons (GRO)	<15.0	1000	854	85	887	89	70-135	4	35	mg/kg	08.14.17 22:02	
Diesel Range Organics	(DRO)	<15.0	1000	1070	107	1030	103	70-135	4	35	mg/kg	08.14.17 22:02	
Surrogate		MB %Rec	MB Flag		CS Rec	LCS Flag	LCSI %Re			mits	Units	Analysis Date	
1-Chlorooctane		112		1	06		109		70	-135	%	08.14.17 22:02	
o-Terphenyl		112		Ģ	98		123		70	-135	%	08.14.17 22:02	

<b>Analytical Method:</b> Seq Number: Parent Sample Id:	lod	MS Sar	Matrix: nple Id:		)2 S		Limit         Date           2         35         mg/kg         08.14.17 23:23           3         35         mg/kg         08.14.17 23:23           SD         Limits         Units         Analysis           ag         Date         Date						
Parameter		Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD		Units	•	Flag
Gasoline Range Hydrocarb	ons (GRO)	<15.0	999	839	84	855	86	70-135	2	35	mg/kg	08.14.17 23:23	
Diesel Range Organics	(DRO)	<15.0	999	1050	105	1080	108	70-135	3	35	mg/kg	08.14.17 23:23	
Surrogate					IS Rec	MS Flag	MSD %Re			mits	Units	•	
1-Chlorooctane				1	07		105		70	-135	%	08.14.17 23:23	
o-Terphenyl			119 98				70	-135	%	08.14.17 23:23			

Analytical Method: Seq Number: MB Sample Id:	<b>BTEX by EPA 802</b> 3025339 729487-1-BLK	1B	Matrix: Solid LCS Sample Id: 729487-1-BKS e LCS LCS LCSD LCSD Limits					Prep Method: SW5030B Date Prep: 08.15.17 LCSD Sample Id: 729487-1-BSD				
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00202	0.101	0.117	116	0.115	115	70-130	2	35	mg/kg	08.15.17 08:53	
Toluene	< 0.00202	0.101	0.113	112	0.112	112	70-130	1	35	mg/kg	08.15.17 08:53	
Ethylbenzene	< 0.00202	0.101	0.110	109	0.110	110	71-129	0	35	mg/kg	08.15.17 08:53	
m,p-Xylenes	< 0.00403	0.202	0.215	106	0.214	106	70-135	0	35	mg/kg	08.15.17 08:53	
o-Xylene	< 0.00202	0.101	0.103	102	0.103	103	71-133	0	35	mg/kg	08.15.17 08:53	
Surrogate	MB %Rec	MB Flag			LCS Flag	LCSI %Re			imits	Units	Analysis Date	
1,4-Difluorobenzene	98		1	00		100		80	)-120	%	08.15.17 08:53	
4-Bromofluorobenzene	84		8	36		88		80	)-120	%	08.15.17 08:53	



#### **COG Operating LLC**

Skelly Unit #743

<b>Analytical Method:</b> Seq Number: MB Sample Id:	<b>BTEX by EPA 802</b> 3025345 729520-1-BLK	1B	LCS Sar	Matrix: nple Id:	Solid 729520-1-	-BKS			ep Methe Date Pr D Sample	ep: 08.1	5030B 6.17 520-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00199	0.0996	0.124	124	0.124	124	70-130	0	35	mg/kg	08.17.17 11:56	
Toluene	< 0.00199	0.0996	0.122	122	0.123	123	70-130	1	35	mg/kg	08.17.17 11:56	
Ethylbenzene	< 0.00199	0.0996	0.121	121	0.121	121	71-129	0	35	mg/kg	08.17.17 11:56	
m,p-Xylenes	< 0.00398	0.199	0.237	119	0.237	119	70-135	0	35	mg/kg	08.17.17 11:56	
o-Xylene	< 0.00199	0.0996	0.115	115	0.116	116	71-133	1	35	mg/kg	08.17.17 11:56	
Surrogate	MB %Rec	MB Flag			LCS Flag	LCSI %Re			mits	Units	Analysis Date	
1,4-Difluorobenzene	94		ç	98		95		80	-120	%	08.17.17 11:56	
4-Bromofluorobenzene	82		8	86		85		80	-120	%	08.17.17 11:56	

Analytical Method:	BTEX by EPA 802	1B					Prep Method: SW5030B						
Seq Number:	3025625			Matrix:	Solid				Date Pr	ep: 08.2	1.17		
MB Sample Id:	729668-1-BLK		LCS Sar	nple Id:	729668-1	-BKS		LCS	D Sample	e Id: 7296	668-1-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	0.0998	0.102	102	0.101	101	70-130	1	35	mg/kg	08.21.17 08:04		
Toluene	< 0.00200	0.0998	0.101	101	0.0998	100	70-130	1	35	mg/kg	08.21.17 08:04		
Ethylbenzene	< 0.00200	0.0998	0.101	101	0.101	101	71-129	0	35	mg/kg	08.21.17 08:04		
m,p-Xylenes	< 0.00399	0.200	0.198	99	0.197	99	70-135	1	35	mg/kg	08.21.17 08:04		
o-Xylene	< 0.00200	0.0998	0.0965	97	0.0967	97	71-133	0	35	mg/kg	08.21.17 08:04		
Surrogate	MB %Rec	MB Flag			LCS Flag	LCSI %Re	-		mits	Units	Analysis Date		
1,4-Difluorobenzene	94		ç	<del>9</del> 7		97		80	-120	%	08.21.17 08:04		
4-Bromofluorobenzene	84		ç	90		90		80	-120	%	08.21.17 08:04		

Analytical Method: Seq Number: MB Sample Id:	<b>BTEX by EPA 802</b> 3025537 729681-1-BLK	1B	LCS Sar	Matrix: nple Id:		-BKS			rep Methe Date Pr D Sample	ep: 08.2	5030B 1.17 581-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00199	0.0994	0.110	111	0.108	109	70-130	2	35	mg/kg	08.21.17 15:53	
Toluene	< 0.00199	0.0994	0.122	123	0.118	119	70-130	3	35	mg/kg	08.21.17 15:53	
Ethylbenzene	< 0.00199	0.0994	0.113	114	0.111	112	71-129	2	35	mg/kg	08.21.17 15:53	
m,p-Xylenes	< 0.00398	0.199	0.228	115	0.226	114	70-135	1	35	mg/kg	08.21.17 15:53	
o-Xylene	< 0.00199	0.0994	0.116	117	0.114	115	71-133	2	35	mg/kg	08.21.17 15:53	
Surrogate	MB %Rec	MB Flag		CS Rec	LCS Flag	LCSI %Re			imits	Units	Analysis Date	
1,4-Difluorobenzene	96		9	99		104		80	)-120	%	08.21.17 15:53	
4-Bromofluorobenzene	113		1	08		114		80	)-120	%	08.21.17 15:53	

Released to Imaging: 5/2/2023 9:28:44 AM





#### **COG Operating LLC**

Skelly Unit #743

Analytical Method	BTEX by EPA 8021B
Analytical Michiou.	DIEA DY EIA 0021D

ABORATORIES

<b>Analytical Method:</b> Seq Number: Parent Sample Id:	<b>BTEX by EPA 802</b> 3025339 560035-003	1B	Matrix: Soil MS Sample Id: 560035-003 S se MS MS MSD MSD Lin						rep Methe Date Pr D Sample	ep: 08.1	Date           Date           g/kg         08.15.17 09:31           b/kg         08.15.17 09:31           b/kg         08.15.17 09:31	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	•	Flag
Benzene	< 0.00198	0.0990	0.102	103	0.110	110	70-130	8	35	mg/kg	08.15.17 09:31	
Toluene	< 0.00198	0.0990	0.0983	99	0.104	104	70-130	6	35	mg/kg	08.15.17 09:31	
Ethylbenzene	< 0.00198	0.0990	0.0926	94	0.103	103	71-129	11	35	mg/kg	08.15.17 09:31	
m,p-Xylenes	< 0.00396	0.198	0.179	90	0.195	98	70-135	9	35	mg/kg	08.15.17 09:31	
o-Xylene	< 0.00198	0.0990	0.0871	88	0.0993	99	71-133	13	35	mg/kg	08.15.17 09:31	
Surrogate				1S Rec	MS Flag	MSE %Re		_	imits	Units	•	
1,4-Difluorobenzene			1	00		96		80	0-120	%	08.15.17 09:31	
4-Bromofluorobenzene			8	38		90		80	0-120	%	08.15.17 09:31	

Analytical Method:	BTEX by EPA 802	1B						Pı	ep Meth	od: SW3	5030B	
Seq Number:	3025345			Matrix:	Soil				Date Pr	ep: 08.1	6.17	
Parent Sample Id:	560035-001		MS San	nple Id:	560035-0	01 S		MS	D Sample	e Id: 5600	035-001 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00348	0.174	0.186	107	0.176	101	70-130	6	35	mg/kg	08.17.17 12:32	
Toluene	< 0.00348	0.174	0.176	101	0.165	94	70-130	6	35	mg/kg	08.17.17 12:32	
Ethylbenzene	< 0.00348	0.174	0.162	93	0.151	86	71-129	7	35	mg/kg	08.17.17 12:32	
m,p-Xylenes	< 0.00697	0.348	0.313	90	0.291	83	70-135	7	35	mg/kg	08.17.17 12:32	
o-Xylene	< 0.00348	0.174	0.154	89	0.145	83	71-133	6	35	mg/kg	08.17.17 12:32	
Surrogate				1S Rec	MS Flag	MSD %Rec			imits	Units	Analysis Date	
1,4-Difluorobenzene			ç	95		98		80	-120	%	08.17.17 12:32	
4-Bromofluorobenzene			8	83		87		80	-120	%	08.17.17 12:32	

<b>Analytical Method:</b> Seq Number: Parent Sample Id:	<b>BTEX by EPA 802</b> 3025625 560162-001	1B		Matrix: nple Id:		01 S			rep Metho Date Pro D Sample	ep: 08.2	5030B 1.17 162-001 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.00712	0.101	0.0869	79	0.0733	66	70-130	17	35	mg/kg	08.21.17 08:53	Х
Toluene	0.00535	0.101	0.0837	78	0.0769	72	70-130	8	35	mg/kg	08.21.17 08:53	
Ethylbenzene	0.00617	0.101	0.0816	75	0.0886	82	71-129	8	35	mg/kg	08.21.17 08:53	
m,p-Xylenes	0.0309	0.202	0.163	65	0.179	74	70-135	9	35	mg/kg	08.21.17 08:53	Х
o-Xylene	0.0235	0.101	0.0812	57	0.0742	51	71-133	9	35	mg/kg	08.21.17 08:53	Х
Surrogate				AS Rec	MS Flag	MSD %Re			imits	Units	Analysis Date	
1,4-Difluorobenzene			ç	91		85		80	0-120	%	08.21.17 08:53	
4-Bromofluorobenzene			9	92		83		80	0-120	%	08.21.17 08:53	

Released to Imaging: 5/2/2023 9:28:44 AM





#### **COG Operating LLC**

Skelly Unit #743

Analytical Method:	BTEX by EPA 8021B
Analytical Michiou.	DIEA UY EIA 0021D

Analytical Method: Seq Number: Parent Sample Id:	<b>BTEX by EPA 802</b> 3025537 560611-008	Matrix: Soil MS Sample Id: 560611-008 S MS MS MS MSD Limits					Prep Method: SW5030B Date Prep: 08.21.17 MSD Sample Id: 560611-008 SD s %RPD RPD Units Analysis					
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	0.105	104	0.108	107	70-130	3	35	mg/kg	08.21.17 15:53	
Toluene	< 0.00201	0.101	0.111	110	0.114	113	70-130	3	35	mg/kg	08.21.17 15:53	
Ethylbenzene	< 0.00201	0.101	0.100	99	0.110	109	71-129	10	35	mg/kg	08.21.17 15:53	
m,p-Xylenes	< 0.00402	0.201	0.180	90	0.222	110	70-135	21	35	mg/kg	08.21.17 15:53	
o-Xylene	< 0.00201	0.101	0.108	107	0.112	111	71-133	4	35	mg/kg	08.21.17 15:53	
Surrogate				AS Rec	MS Flag	MSD %Re			imits	Units	Analysis Date	
1,4-Difluorobenzene			:	86		91		80	)-120	%	08.21.17 15:53	
4-Bromofluorobenzene			1	06		103		80	)-120	%	08.21.17 15:53	

### Setting the Standard since 1990 Stafford, Texas (281-240-4200)

## CHAIN OF CUSTODY Page $\downarrow$ of $\underline{3}$

San Antonio, Texas (210-509-3334)

Phoenix, Arizona (480-355-0900)

Received	by	<i>OCD</i> :	4/12/2023	7:58:32 AM	

add D / Point of Collection     Sample Depth     Date Depth     Time Depth     Matrix Depth     # of Depth     # of Depth	Client / Reporting Information         Company Name / Branch:         COG Operating LLC         Company Address:         2407 PECOS Avenue         Arlesia NM 88210         Email:         alleb@concho.com         alleb@concho.com         Project Contact:         Aaron Lieb		ion	TENDED Analytical Information
<td>10 Locom rhas</td> <td>Project Name/Numb Skelly Unit #743 Project Location: Project Location: Skelly Unit #743 Skelly Unit #743 Attn: 600 \ Midla PO Number: Collection Collection Sample Depth Date Tim</td> <td>HCI NaOH/Zn Acetate HNO3 H2SO4 H2SO4 H2SO4 H2SO4 NaOH NaBSO4 MEOH</td> <td>NORE       TPH/ EXTENDED       BTEX       Chloride</td>	10 Locom rhas	Project Name/Numb Skelly Unit #743 Project Location: Project Location: Skelly Unit #743 Skelly Unit #743 Attn: 600 \ Midla PO Number: Collection Collection Sample Depth Date Tim	HCI NaOH/Zn Acetate HNO3 H2SO4 H2SO4 H2SO4 H2SO4 NaOH NaBSO4 MEOH	NORE       TPH/ EXTENDED       BTEX       Chloride
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Suer 21	29-17 10:201		$\frac{\times\times\times\times}{\times\times\times}$
Business days)       Data Deliverable Information $\Box$ 5 Day TAT       Data Deliverable Information $Y$ $\Box$ Tay TAT       Level II Std QC $\Box$ To Day TAT       Level II Std QC+ Forms       TRRP Level IV $\Box$ Contract TAT       Level II Std QC+ Forms)       UST / RG -411 $\Box$ Contract TAT       Level 3 (CLP Forms)       UST / RG -411         SampLe custor MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COUR       Date Time:         Date Time:       Date Time:       Date Time: $A$ Date Time:       Date Time: $A$ Date Time: $A$				
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Turnaround Time ( Business days)		Data Deliverable Information	
Contract TAT     Level II Std 4C+ Forms     I RKP Level IV       Contract TAT     Level 3 (CLP Forms)     UST / RG -411       Sample custopy must be bocumented below EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COUR     Date Time:     1000 Formation				(g /raw data)
TRRP Checklist       ceived by 5:00 pm       SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COUR       Date Time:       Date Time:     1010       Below EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COUR       Date Time:     1010       Bate Time:     1017       Below EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COUR       Date Time:     1010       Bate Time:     1017       Bate Time:     1017       Bate Time:     1017       Beceived By:     1017       Bate Time:	Next Day EMERGENCY     7 Day TA       2 Day EMERGENCY     Contract			
SAMPLE CUSTODY MIST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COUR       Date Time: /pto #       Date Time: /pto #       Bate Time:     /pto #       Bate Time:<	3 Day EMERGENCY TAT Starts Day received by Lab, if received I		cklist	
MONTOTA BATE TIME: 1000 Received by: 8-11-17 Relinquished by: BTFT MM 1 Link Builly 101 2 Link Point		5:00 pm	E SAMPLES CHANGE POSSESSION, INCLUDING COUR	RIER DELIVERY
		142203 Received E	LA 8-11-17 Relinquished LA 1017 2 Level 1 Relinquished	01

#### Setting the Standard since 1990 Stafford,Texas (281-240-4200) C T DRIES

# CHAIN OF CUSTODY

•

San Antonio, Texas (210-509-3334)

Phoenix, Arizona (480-355-0900)

Notic any lu terms	ς,	7	ω	R	-	7				10	9	8	

						-		
	,				Analy	ical Information		Matrix Codes
	Project Name/Number:							W = Water
	Project Location:							S = Soll/Sed/Solld GW =Ground Water
8-1553	Skelly Unit #743 Invoice To: COG Op	perating LLC						P = Product SW = Surface water
ncho.com	Attn: Ro 600 W.	bert Mcneill Illinois						SL = Sludge OW =Ocean/Sea Water
		TX 79701						WI = Wipe
	PO Number:							O = Oil WW= Waste Water
	Collection		Number of presen					A = Air
Sample Depth		# of bottles	NaOH/Zn Acetate HNO3 H2SO4	NONE	BTEX			Field Comments
		I S t	1	1	×			
/								
2					XXX			
ω		_			XXX			
Ч					× × ×			
6	1				X			
Z	11:15	20 /			×			
0					$\times$			
12					$\times$			
11	-	1 1			XXX			
	]		e III OI III ALION			Notes:		
5 Day TAT		vel II Std QC	Level		v data)	Run TI	H + BTEX	to Now Deter
7 Day TAT		vel III Std QC+ Forms		Level IV			SURF - LI'	
Contract TAT		vel 3 (CLP Forms)	UST /	RG -411				
	II []	RP Checklist						
TAT Starts Day received by Lab, if received by 5:00 pm						FED-EX / UPS: T	acking #	
Date Time:	: 10 (DC) Received	d By: The SAMPLES CH	IANGE POSSESSION,	including courier		1145	ved By:	Ì
Date Time: &-12-17	14:26	d By:	Relinqu 4	ć	Date Tim			
Date Time:		d By:	Custod	y Seal #	Preserved whe	-	- (6-23: +(	(6-23: +0.2°C)
	Client / Reporting Information my Name / Branch: Operating LLC       Phone No: 575-748-1553         2007 PECOS Avenue       Aresia NM 88210         alleb@concho.com       anel@concho.com         Sample       Phone No: 575-748-1553         alleb@concho.com       anel@concho.com         Contact:       Aaron Lieb         Field ID / Point of Collection       Sample         T32 - Sume-Aaron Lieb       Integration         T32 - Sume-Aaron Lieb       Integration         T42 - Superface       Integration         T32 - Superface       Integration         T42 - Integration       Integration         T43 - Superface       Integration         Table Day TAT       Integration         Same Day TAT       Solution         Same Day TAT       S	Project Name/Number: Skelly Unit #743 Skelly Unit #743 Project Location: Skelly Unit #743 Project Location: Skelly Unit #743 Project Location: Skelly Unit #743 Project Location: Skelly Unit #743 Project Name/Number: Skelly Unit #743 Attr: Ro 600 W. Po Number: Time Collection Sample Date Time: Po Number: Po Number: It attr: Ro Collection Po Number: It attr: Ro Collection Co	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Project Information       Signific Localian: Project Localian: Nature Robert Moneili Project Localian: Number of present Collection       Collection       Number of Collection       Number of present Regulation       Sample Date Time:       Number of present Number of present Numer of present Number of present Number of present Number	Project Information           Project Information           Project Information           Project Information           Statily Unit #74/30           Number:           Number:           Number:           Project Information           Number:           Polymet Information           Number:           Polymet Information           Number:           Polymet Information           Number:           Polymet Information           Number:           Deput:           Number:           Date Time:         Number:           Date Time:         Number: <td>Project Information         monometry information           Project Insemion           Project Insemion           Singly Unit #743           Number of preserved bottes           Number of preserved bottes      &lt;</td> <td>Project Information         Project Information         Amaylical Information           Project Numburnit         Study Unit #743         Study Un</td> <td></td>	Project Information         monometry information           Project Insemion           Project Insemion           Singly Unit #743           Number of preserved bottes           Number of preserved bottes      <	Project Information         Project Information         Amaylical Information           Project Numburnit         Study Unit #743         Study Un	

<b>Received</b>	by	OCD:	4/12/2023	7:58:32 AM
-----------------	----	------	-----------	------------

Notice: Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard any losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. Xenco's liability will terms will be enforced unless previously negotiated under a fully executed client contract.	5 Relinquished by:	KOT CISZIE E	1 Balinging but S h	Relinquished by Sampler:	TAT Starts Day received by Lab, if received by 5:00 pm	3 Day EMERGENCY	2 Day EMERGENCY	Next Day EMERGENCY	Same Day TAT	Turnaround Time ( Business days)	10	9	8	7 73 - 2'	6 1 3 - 7	5 T3 - 4	4 73 - 31	3 73 - 2	2 73 - 11	1 1 S- JURTACE	t S	No. Field ID / Point of Collection	Samplers's Name- Aaron Lieb	Project Contact: Aaron Lieb	Emain: <u>alleb@concho.com</u> dneel2@concho.com rhaskell@concho.com		Company Address: 2407 PECOS Avenue Artesia NM 88210	COG Operating LLC	Client / Reporting Information			Dallas Texas (214-902-0300)	Setting the Standard since 1990 Stafford,Texas (281-240-4200)
nquishment of samples consti ch loses are due to circumsta I under a fully executed client		12.	~	Date Time: 10:00 Received By:	ab, if received by 5:0		Contract TAT	7 Day TAT	5 Day TAT													ollection			Phone No: 575-748-1553 .com rhaskell@concho.com								
I trutes a valid purc nces beyond the contract.	Date Time:	8-12-17	2-11-1	Date Time:										2	7	4	س	a	1	· 1	Sample Depth			РО	3-1553		Pro	Sk				M	S
hase order control of X		14:203	Am	OMENIED		_													-	-9-17	Date	Collection		PO Number:	Invoice To:	Skelly Unit #743	oject Locat	Project Name/Number: Skelly Unit #743				Midland, Texas (432-704-5251)	San Antonio, Texas (210-509-3334)
from client (enco, A mi	Received By:	Received By:	1 Sil	Received By:			Le Le	Le Le	Le										_	11:30 A	Time			Midland	COG Operatin Attn: Robert N 600 W. Illinois	743	tion:	#743	Pro			exas (43)	io, Texas
company to nimum char	By:	By:	but	By:		<b>TRRP</b> Checklist	Level 3 (CLP Forms)	Level III Std QC+ Forms	Level II Std QC	Da									-	5	Matrix			Midland TX 79701	COG Operating LLC Attn: Robert Mcneill 600 W. Illinois				Project Information		X	2-704-525	(210-509
ge of \$75 v			Y	SAMPLES		dist	<sup>9</sup> Forms)	QC+ Forn	DC	Data Deliverable Information						-			_		# of bottles				≣ 5				nation		www.xenco.com	51)	)-3334)
affiliates a vill be appl			10A	CHANGE POSSESSION, INCLUDING COURIER DELIVERY				ns		able Inforr											NaOH/Zn Acetate	Nun									o.com		
and subcou ied to eact	c	4 R		POSSES:						nation											HNO3	Number of preserved bottles											
ntractors. n project.	Custody Seal #	Relinquished By: 4	2 fid Su	sion, inc elinguis			UST / RG -411	TRRP Level IV	Level IV (Full Data Pkg /raw data)												H2SO4 NaOH	reserve											
It assign: Xenco's I	Seal #	hed By:	1Suc	hed By:			3-411	vel IV	(Full Da												NaHSO4 MEOH	d bottles											
s standar iability wi			aller	COURIE					ta Pkg /												NONE												
d terms a Il be limit	P			ER DELIV					raw dat					$\times$		X	×	×	X	$\times$	TPH/I		END	ED							Xenco Quote		Phoeni
and cond ed to the	reserve	Da	3	/ERY					a)	-	_		_	×	~	X	$\times$	X	XX	X	BTEX Chlori								_		uote #		ix, Ariz
itions of cost of	ed whe	Date Time:	5-11-12	te Time							_	_	_	~	^	-	~	$\sim$			Chion	ue								Analyt			ona (4
terms and conditions of service. Xenco will be liab be limited to the cost of samples. Any samples rec	Preserved where applicable		211		FED-E				Run																					Analytical Information			Phoenix, Arizona (480-355-0900)
(enco wil Any sam	able	ק ג	23	INR	FED-EX / UPS: Tracking #		(	2	ż	Notes:	_																			rmation	×		(0000
l be liab ples rec		Receive		Received By:	: Track			Supt	TPA		_	_	_	-													_		_	1999	Xenco Job #		
0	C	H		Bv:	ting #			1																									
0- Orrec	F:(0-	:due						4.	4 23																						6		
23: -	6:-0	Temp: J.S		5				-	32																						8		
(6-23: +0.2°C) rected Temp: (	CF:(0-6: -0.2°C	, D							×																						560036		
(6-23: +0.2°C) Corrected Temp: J. (	· ·	00							8												Field C	A	≶c		SL	P DV	GV	s s			0		
3.6		IRI							Non												Field Comments	A = Air	WW= Waste Water	WI = Wipe	SW = Surface water SL = Sludge	DW = Drinking Water P = Product	GW =Ground Water	W = Water S = Soil/Sed/Solid		Matrix Codes			
<u> </u>		IR ID:R-8							-De												s		e Water	III JEA V	ace wate	king Wa :t	nd Wate	d/Solid		odes			
									tect															diel	Ÿ	ter	-						

Released to Imaging: 5/2/2023 9:28:44 AM

ABURATORIES

CHAIN OF CUSTODY Page  $\frac{3}{2}$  of  $\frac{3}{2}$ 

Client: COG Operating LLC



#### XENCO Laboratories



#### Prelogin/Nonconformance Report- Sample Log-In

Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 08/11/2017 11:45:00 AM Temperature Measuring device used : R8 Work Order #: 560036 Comments Sample Receipt Checklist #1 \*Temperature of cooler(s)? 3.6 #2 \*Shipping container in good condition? Yes #3 \*Samples received on ice? Yes #4 \*Custody Seal present on shipping container/ cooler? N/A #5 \*Custody Seals intact on shipping container/ cooler? N/A #6 Custody Seals intact on sample bottles? N/A #7 \*Custody Seals Signed and dated? N/A #8 \*Chain of Custody present? Yes #9 Sample instructions complete on Chain of Custody? Yes #10 Any missing/extra samples? Yes MISSING SAMPLE 024 - T3-8' #11 Chain of Custody signed when relinguished/ received? Yes #12 Chain of Custody agrees with sample label(s)? Vac

Yes
Yes
N/A
N/A

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

Analyst:

PH Device/Lot#:

NonConformance: MISSING SAMPLE 024 - T3-8' Corrective Action Taken:

Nonconformance Documentation

Contact:		Contacted by :		DateTime :	
	Checklist completed by:	Jession Framer Jessica Kramer	Date: 08/14/2017		
	Checklist reviewed by:	Kelsey Brooks	Date: 08/14/2017		





Project Id:Contact:Aaron LiebProject Location:Skelly Unit #743

#### Certificate of Analysis Summary 560035

COG Operating LLC, Artesia, NM Project Name: Skelly Unit #743



Date Received in Lab:Fri Aug-11-17 11:45 amReport Date:22-AUG-17Project Manager:Kelsey Brooks

	Lab Id:	560035-	001	560035-	002	560035-0	003	560035-	004	560035-	005	560035-0	006
Amaluaia Doguostad	Field Id:	North- S	Surf	North-	1'	South- S	urf	South-	1'	East-Su	ırf	East- 1	l'
Analysis Requested	Depth:			1- ft				1- ft				1- ft	
	Matrix:	SOIL		SOIL	,	SOIL	,	SOIL	,	SOIL	.	SOIL	
	Sampled:	Aug-09-17	10:15	Aug-09-17	10:15	Aug-09-17	10:15	Aug-09-17	10:15	Aug-09-17	10:15	Aug-09-17	10:15
BTEX by EPA 8021B	Extracted:	Aug-16-17	09:20	Aug-15-17	10:00	Aug-15-17	10:00	Aug-16-17	09:20	Aug-16-17	09:20	Aug-15-17	08:00
	Analyzed:	Aug-17-17	16:02	Aug-15-17	11:44	Aug-15-17	10:47	Aug-16-17	22:43	Aug-17-17	00:15	Aug-16-17	15:01
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		< 0.00351	0.00351	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00345	0.00345	< 0.00344	0.00344	< 0.00200	0.00200
Toluene		< 0.00351	0.00351	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00345	0.00345	< 0.00344	0.00344	< 0.00200	0.00200
Ethylbenzene		< 0.00351	0.00351	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00345	0.00345	< 0.00344	0.00344	< 0.00200	0.00200
m,p-Xylenes		< 0.00702	0.00702	< 0.00402	0.00402	< 0.00399	0.00399	< 0.00690	0.00690	< 0.00687	0.00687	< 0.00399	0.00399
o-Xylene		< 0.00351	0.00351	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00345	0.00345	< 0.00344	0.00344	< 0.00200	0.00200
Total Xylenes		< 0.00351	0.00351	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00345	0.00345	< 0.00344	0.00344	< 0.00200	0.00200
Total BTEX		< 0.00351	0.00351	< 0.00201	0.00201	< 0.00200	0.00200	< 0.00345	0.00345	< 0.00344	0.00344	< 0.00200	0.00200
Inorganic Anions by EPA 300/300.1	Extracted:	Aug-21-17	17:00	Aug-21-17	17:00	Aug-21-17	17:00	Aug-21-17	17:00	Aug-21-17	17:00	Aug-21-17	17:00
	Analyzed:	Aug-22-17	01:19	Aug-22-17	01:26	Aug-22-17	01:34	Aug-22-17	01:57	Aug-22-17	02:05	Aug-22-17	02:28
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		<4.96	4.96	< 5.00	5.00	<4.98	4.98	22.6	4.93	<4.98	4.98	28.1	5.00
TPH By SW8015 Mod	Extracted:	Aug-15-17	08:00	Aug-15-17	08:00	Aug-15-17	08:00	Aug-15-17	08:00	Aug-15-17	08:00	Aug-15-17	08:00
	Analyzed:	Aug-15-17	10:11	Aug-15-17	11:12	Aug-15-17	14:37	Aug-15-17 11:53		Aug-15-17	12:13	Aug-15-17	12:34
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Diesel Range Organics (DRO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0
Total TPH		<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0	<15.0	15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Huns Boah

Kelsey Brooks Project Manager





Project Id:Contact:Aaron LiebProject Location:Skelly Unit #743

Certificate of Analysis Summary 560035

COG Operating LLC, Artesia, NM Project Name: Skelly Unit #743



Date Received in Lab:Fri Aug-11-17 11:45 amReport Date:22-AUG-17Project Manager:Kelsey Brooks

			5		
	Lab Id:	560035-007	560035-008		
Analysis Requested	Field Id:	West- Surf	West-1'		
Thurysis Requested	Depth:		1- ft		
	Matrix:	SOIL	SOIL		
	Sampled:	Aug-09-17 10:15	Aug-09-17 10:15		
BTEX by EPA 8021B	Extracted:	Aug-16-17 09:20	Aug-16-17 09:20		
	Analyzed:	Aug-17-17 00:34	Aug-17-17 00:53		
	Units/RL:	mg/kg RL	mg/kg RL		
Benzene		<0.00330 0.00330	<0.00353 0.00353		
Toluene		<0.00330 0.00330	<0.00353 0.00353		
Ethylbenzene		<0.00330 0.00330	<0.00353 0.00353		
m,p-Xylenes		<0.00660 0.00660	<0.00707 0.00707		
o-Xylene		<0.00330 0.00330	0.00445 0.00353		
Total Xylenes		<0.00330 0.00330	0.00445 0.00353		
Total BTEX		<0.00330 0.00330	0.00445 0.00353		
Inorganic Anions by EPA 300/300.1	Extracted:	Aug-21-17 17:00	Aug-21-17 17:00		
	Analyzed:	Aug-22-17 02:35	Aug-22-17 02:43		
	Units/RL:	mg/kg RL	mg/kg RL		
Chloride		<4.99 4.99	8.00 4.99		
TPH By SW8015 Mod	Extracted:	Aug-15-17 08:00	Aug-15-17 08:00		
	Analyzed:	Aug-15-17 12:54	Aug-15-17 13:15		
	Units/RL:	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0		
Diesel Range Organics (DRO)		<15.0 15.0	<15.0 15.0		
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<15.0 15.0		
Total TPH		<15.0 15.0	<15.0 15.0		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Huns Boah

Kelsey Brooks Project Manager

Page 2 of 29
# Analytical Report 560035

for COG Operating LLC

**Project Manager: Aaron Lieb** 

Skelly Unit #743

#### 22-AUG-17

Collected By: Client





#### 1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054) Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400) Xenco-San Antonio: Texas (T104704534) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757) Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



22-AUG-17

Project Manager: **Aaron Lieb COG Operating LLC** 2407 Pecos Avenue Artesia, NM 88210

Reference: XENCO Report No(s): 560035 Skelly Unit #743 Project Address: Skelly Unit #743

#### Aaron Lieb:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 560035. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 560035 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Huns hoah

Kelsey Brooks Project Manager

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

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





# Sample Cross Reference 560035



## COG Operating LLC, Artesia, NM

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
North- Surf	S	08-09-17 10:15		560035-001
North- 1'	S	08-09-17 10:15	1 ft	560035-002
South- Surf	S	08-09-17 10:15		560035-003
South-1'	S	08-09-17 10:15	1 ft	560035-004
East-Surf	S	08-09-17 10:15		560035-005
East- 1'	S	08-09-17 10:15	1 ft	560035-006
West- Surf	S	08-09-17 10:15		560035-007
West- 1'	S	08-09-17 10:15	1 ft	560035-008



## CASE NARRATIVE

Client Name: COG Operating LLC Project Name: Skelly Unit #743

Project ID: Work Order Number(s): 560035

ORATORIES

Report Date: 22-AUG-17 Date Received: 08/11/2017

#### Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments: Batch: LBA-3025079 BTEX by EPA 8021B Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3025339 BTEX by EPA 8021B Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3025345 BTEX by EPA 8021B Soil samples were not received in Terracore kits and therefore were prepared by method 5030.





#### COG Operating LLC, Artesia, NM

Skelly Unit #743

Sample Id:North- SurfLab Sample Id:560035-001		Matrix: Date Colle	Soil cted: 08.09.1	17 10.15	Ľ	Date Received	1:08.1	1.17 11.4:	5
Analytical Method: Inorganic Anion Tech: MGO	ns by EPA 300/300				%	Prep Method: 6 Moisture:			
Analyst: MGO Seq Number: 3025638		Date Prep:	08.21.1	17 17.00	В	Basis:	Wet	Weight	
Parameter	Cas Number	Result	RL		Units	Analysis Da	ate	Flag	Dil
Chloride	16887-00-6	<4.96	4.96		mg/kg	08.22.17 01.	.19	U	1
Analytical Method: TPH By SW80 Tech: ARM Analyst: ARM Seq Number: 3025055	15 Mod	Date Prep:	08.15.1	17 08.00	%	Prep Method: 6 Moisture: 8asis:		005P Weight	
Tech: ARM Analyst: ARM	15 Mod Cas Number	Date Prep: Result	08.15.1 RL	17 08.00	%	6 Moisture:	Wet		Dil
Tech:ARMAnalyst:ARMSeq Number:3025055		ľ		17 08.00	% B	6 Moisture: Basis:	Wet T	Weight	<b>Dil</b>
Tech: ARM Analyst: ARM Seq Number: 3025055 Parameter	Cas Number	Result	RL	17 08.00	% B Units	6 Moisture: Basis: Analysis Da	Wet 7 ate	Weight Flag	
Tech: ARM Analyst: ARM Seq Number: 3025055 Parameter Gasoline Range Hydrocarbons (GRO)	Cas Number PHC610	<b>Result</b> <15.0	<b>RL</b> 15.0	17 08.00	% B Units mg/kg	6 Moisture: Basis: Analysis Da	Wet <sup>7</sup> ate .11 .11	Weight Flag U	1
Tech: ARM Analyst: ARM Seq Number: 3025055 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	Cas Number PHC610 C10C28DRO	<b>Result</b> <15.0 <15.0	<b>RL</b> 15.0 15.0	17 08.00	% B Units mg/kg mg/kg	6 Moisture: Basis: Analysis Da 08.15.17 10. 08.15.17 10.	Wet <sup>7</sup> ate 11 11 11	Weight Flag U U	1

99

%

70-135

08.15.17 10.11

84-15-1

o-Terphenyl



Seq Number: 3025345

# **Certificate of Analytical Results 560035**



#### COG Operating LLC, Artesia, NM

Sample Id:	North- Surf	Matrix:	Soil	Date Receive	ed:08.11.17 11.45
Lab Sample	Id: 560035-001	Date Collecte	ed: 08.09.17 10.15		
Analytical M	lethod: BTEX by EPA 8021B			Prep Method	: SW5030B
Tech:	ALJ			% Moisture:	
Analyst:	ALJ	Date Prep:	08.16.17 09.20	Basis:	Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00351	0.00351		mg/kg	08.17.17 16.02	U	1
Toluene	108-88-3	< 0.00351	0.00351		mg/kg	08.17.17 16.02	U	1
Ethylbenzene	100-41-4	< 0.00351	0.00351		mg/kg	08.17.17 16.02	U	1
m,p-Xylenes	179601-23-1	< 0.00702	0.00702		mg/kg	08.17.17 16.02	U	1
o-Xylene	95-47-6	< 0.00351	0.00351		mg/kg	08.17.17 16.02	U	1
Total Xylenes	1330-20-7	< 0.00351	0.00351		mg/kg	08.17.17 16.02	U	1
Total BTEX		< 0.00351	0.00351		mg/kg	08.17.17 16.02	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	84	%	80-120	08.17.17 16.02		
1,4-Difluorobenzene		540-36-3	94	%	80-120	08.17.17 16.02		





#### COG Operating LLC, Artesia, NM

Skelly Unit #743

Sample Id: North-1' Lab Sample Id: 560035-002		Matrix: Date Collec	Soil ted: 08.09.17 10.15		Date Received:08. Sample Depth: 1 ft		
Analytical Method: Inorganic Anions Tech: MGO Analyst: MGO Seq Number: 3025638	by EPA 300/300.1	Date Prep:	08.21.17 17.00		Prep Method: E30 % Moisture: Basis: We	00P t Weight	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.00	5.00	mg/kg	08.22.17 01.26	U	1
Analytical Method: TPH By SW8015	Mod				Prep Method: TX	1005P	

Analyst:ARMSeq Number:3025055		Date Pre	p: 08.15	.17 08.00	E	Basis: We	t Weight	
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.15.17 11.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.15.17 11.12	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.15.17 11.12	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.15.17 11.12	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	103	%	70-135	08.15.17 11.12		
o-Terphenyl		84-15-1	99	%	70-135	08.15.17 11.12		





## COG Operating LLC, Artesia, NM

Sample Id:North-1'Lab Sample Id:560035-002	Matrix: Soil Date Collected: 08.09.17 10.15	Date Received:08.11.17 11.45 Sample Depth: 1 ft
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025339	Date Prep: 08.15.17 10.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00201	0.00201		mg/kg	08.15.17 11.44	U	1
Toluene	108-88-3	< 0.00201	0.00201		mg/kg	08.15.17 11.44	U	1
Ethylbenzene	100-41-4	< 0.00201	0.00201		mg/kg	08.15.17 11.44	U	1
m,p-Xylenes	179601-23-1	< 0.00402	0.00402		mg/kg	08.15.17 11.44	U	1
o-Xylene	95-47-6	< 0.00201	0.00201		mg/kg	08.15.17 11.44	U	1
Total Xylenes	1330-20-7	< 0.00201	0.00201		mg/kg	08.15.17 11.44	U	1
Total BTEX		< 0.00201	0.00201		mg/kg	08.15.17 11.44	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	99	%	80-120	08.15.17 11.44		
4-Bromofluorobenzene		460-00-4	83	%	80-120	08.15.17 11.44		





## COG Operating LLC, Artesia, NM

Skelly Unit #743

Sample Id: South-Surf Lab Sample Id: 560035-003		Matrix: Date Colle	Soil ected: 08.09.1	17 10.15	1	Date Received:08	.11.17 11.4	5
Analytical Method: Inorganic Anic Tech: MGO Analyst: MGO Seq Number: 3025638	ons by EPA 300/300	.1 Date Prep	: 08.21.1	17 17.00	Ģ	Prep Method: E3 % Moisture: Basis: W	800P et Weight	
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98		mg/kg	08.22.17 01.34	U	1
Analytical Method:TPH By SW80Tech:ARMAnalyst:ARMSeq Number:3025055	015 Mod	Date Prep	: 08.15.1	17 08.00	Ģ	Prep Method: TX % Moisture: Basis: W	K1005P et Weight	
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.15.17 14.37	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.15.17 14.37	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.15.17 14.37	U	
Total TPH								1
	PHC635	<15.0	15.0		mg/kg	08.15.17 14.37	U	1 1

100

96

%

%

70-135

70-135

08.15.17 14.37

08.15.17 14.37

111-85-3

84-15-1

1-Chlorooctane

o-Terphenyl





#### COG Operating LLC, Artesia, NM

Sample Id: South-Surf	Matrix: Soil	Date Received:08.11.17 11.45
Lab Sample Id: 560035-003	Date Collected: 08.09.17 10.15	
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: ALJ		% Moisture:
Analyst: ALJ	Date Prep: 08.15.17 10.00	Basis: Wet Weight
Seq Number: 3025339		

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	08.15.17 10.47	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	08.15.17 10.47	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	08.15.17 10.47	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	08.15.17 10.47	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	08.15.17 10.47	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	08.15.17 10.47	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	08.15.17 10.47	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	86	%	80-120	08.15.17 10.47		
1,4-Difluorobenzene		540-36-3	99	%	80-120	08.15.17 10.47		





#### COG Operating LLC, Artesia, NM

Sample Id:South-1'Lab Sample Id:560035-004			Soil 08.09.17 10.15		ate Received:08.11.17 11.45 ample Depth: 1 ft		
Analytical Method: Inorganic Anions by EPA Tech: MGO	A 300/300.1			Prep Method: % Moisture:	E300P		
Analyst:MGOSeq Number:3025638	Da	te Prep:	08.21.17 17.00	Basis:	Wet Weight		
Parameter Cas 1	Number Resul	t RL	Units	Analysis Da	ate Flag	Dil	
Chloride 16887	-00-6	<b>22.6</b> 4	93 mg/kg	08.22.17 01.	57	1	
Analytical Method: TPH By SW8015 Mod				Prep Method:	TX1005P		
Tech: ARM				% Moisture			

Tech: ARM					9	6 Moisture:		
Analyst: ARM		Date Prep	p: 08.15.	17 08.00	E	Basis: We	t Weight	
Seq Number: 3025055								
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.15.17 11.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.15.17 11.53	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.15.17 11.53	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.15.17 11.53	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	97	%	70-135	08.15.17 11.53		
o-Terphenyl		84-15-1	94	%	70-135	08.15.17 11.53		





#### COG Operating LLC, Artesia, NM

Sample Id:South- 1'Lab Sample Id:560035-004	Matrix: Soil Date Collected: 08.09.17 10.15	Date Received:08.11.17 11.45 Sample Depth: 1 ft
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025345	Date Prep: 08.16.17 09.20	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00345	0.00345		mg/kg	08.16.17 22.43	U	1
Toluene	108-88-3	< 0.00345	0.00345		mg/kg	08.16.17 22.43	U	1
Ethylbenzene	100-41-4	< 0.00345	0.00345		mg/kg	08.16.17 22.43	U	1
m,p-Xylenes	179601-23-1	< 0.00690	0.00690		mg/kg	08.16.17 22.43	U	1
o-Xylene	95-47-6	< 0.00345	0.00345		mg/kg	08.16.17 22.43	U	1
Total Xylenes	1330-20-7	< 0.00345	0.00345		mg/kg	08.16.17 22.43	U	1
Total BTEX		< 0.00345	0.00345		mg/kg	08.16.17 22.43	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	82	%	80-120	08.16.17 22.43		
1,4-Difluorobenzene		540-36-3	94	%	80-120	08.16.17 22.43		





#### COG Operating LLC, Artesia, NM

Sample Id:East-SurfLab Sample Id:560035-005	Matrix: Date Collec	Soil cted: 08.09.17 10.15	Date Received:08.11.17 11.45				
Analytical Method: Inorganic Anio	ns by EPA 300/300.	1			Prep Method: E30	)0P	
Tech: MGO					% Moisture:		
Analyst: MGO		Date Prep:	08.21.17 17.00		Basis: We	t Weight	
Seq Number: 3025638							
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	08.22.17 02.05	U	1
Analytical Method:TPH By SW80Tech:ARMAnalyst:ARMSeq Number:3025055	15 Mod	Date Prep:	08.15.17 08.00		Prep Method: TX % Moisture: Basis: We	1005P t Weight	
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.15.17 12.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.15.17 12.13	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.15.17 12.13	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	08.15.17 12.13	U	1
			%				

Juan		1110055	<15.0	15.0		mg/kg	00.15.17 12.15	U	
	Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
	1-Chlorooctane		111-85-3	98	%	70-135	08.15.17 12.13		
	o-Terphenyl		84-15-1	96	%	70-135	08.15.17 12.13		





#### COG Operating LLC, Artesia, NM

Skelly Unit #743

Sample Id: East-Surf	Matrix: Soil	Date Received:08.11.17 11.45
Lab Sample Id: 560035-005	Date Collected: 08.09.17 10.15	
Analytical Method: BTEX by EPA 8021B		Prep Method: SW5030B
Tech: ALJ		% Moisture:

Tech:ALJAnalyst:ALJDate Prep:08.16.17 09.20Seq Number:3025345

% Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00344	0.00344		mg/kg	08.17.17 00.15	U	1
Toluene	108-88-3	< 0.00344	0.00344		mg/kg	08.17.17 00.15	U	1
Ethylbenzene	100-41-4	< 0.00344	0.00344		mg/kg	08.17.17 00.15	U	1
m,p-Xylenes	179601-23-1	< 0.00687	0.00687		mg/kg	08.17.17 00.15	U	1
o-Xylene	95-47-6	< 0.00344	0.00344		mg/kg	08.17.17 00.15	U	1
Total Xylenes	1330-20-7	< 0.00344	0.00344		mg/kg	08.17.17 00.15	U	1
Total BTEX		< 0.00344	0.00344		mg/kg	08.17.17 00.15	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	85	%	80-120	08.17.17 00.15		
1,4-Difluorobenzene		540-36-3	94	%	80-120	08.17.17 00.15		





#### COG Operating LLC, Artesia, NM

Sample Id: Lab Sample Id	East- 1' d: 560035-006		Matrix: Date Colle	Soil ccted: 08.09.17 10.15	Date Received:08.11.17 11.45 Sample Depth: 1 ft				
Analytical Me Tech: Analyst: Seq Number:	ethod: Inorganic Anior MGO MGO 3025638	ıs by EPA 300/300.1	Date Prep:	08.21.17 17.00		Prep Method: E30 % Moisture: Basis: Wet	00P t Weight		
Parameter		Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Chloride		16887-00-6	28.1	5.00	mg/kg	08.22.17 02.28		1	

Analytical Method: TPH By SW80	5 Mod				F	Prep Method: TX	X1005P	
Tech: ARM					9	6 Moisture:		
Analyst: ARM		Date Pre	p: 08.15.	17 08.00	E	Basis: We	et Weight	
Seq Number: 3025055								
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0		mg/kg	08.15.17 12.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.15.17 12.34	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.15.17 12.34	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.15.17 12.34	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	99	%	70-135	08.15.17 12.34		
o-Terphenyl		84-15-1	95	%	70-135	08.15.17 12.34		





#### COG Operating LLC, Artesia, NM

Sample Id:East- 1'Lab Sample Id:560035-006	Matrix: Soil Date Collected: 08.09.17 10.15	Date Received:08.11.17 11.45 Sample Depth: 1 ft
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025079	Date Prep: 08.15.17 08.00	Prep Method: SW5030B % Moisture: Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00200	0.00200		mg/kg	08.16.17 15.01	U	1
Toluene	108-88-3	< 0.00200	0.00200		mg/kg	08.16.17 15.01	U	1
Ethylbenzene	100-41-4	< 0.00200	0.00200		mg/kg	08.16.17 15.01	U	1
m,p-Xylenes	179601-23-1	< 0.00399	0.00399		mg/kg	08.16.17 15.01	U	1
o-Xylene	95-47-6	< 0.00200	0.00200		mg/kg	08.16.17 15.01	U	1
Total Xylenes	1330-20-7	< 0.00200	0.00200		mg/kg	08.16.17 15.01	U	1
Total BTEX		< 0.00200	0.00200		mg/kg	08.16.17 15.01	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	105	%	80-120	08.16.17 15.01		
1,4-Difluorobenzene		540-36-3	93	%	80-120	08.16.17 15.01		





#### COG Operating LLC, Artesia, NM

Sample Id: West- Surf Lab Sample Id: 560035-007		Matrix: Date Colle	Soil cted: 08.09.17 10.15		Date Received:08.11.17 11.45			
Analytical Method: Inorganic Anio	ns by EPA 300/300.	1			Prep Method: E30	00P		
Tech: MGO					% Moisture:			
Analyst: MGO		Date Prep:	08.21.17 17.00		Basis: We	t Weight		
Seq Number: 3025638		Ĩ						
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Chloride	16887-00-6	<4.99	4.99	mg/kg	08.22.17 02.35	U	1	
Analytical Method:TPH By SW80Tech:ARMAnalyst:ARMSeq Number:3025055	15 Mod	Date Prep:	08.15.17 08.00		Prep Method: TX % Moisture: Basis: We	1005P et Weight		
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil	
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	08.15.17 12.54	U	1	
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	08.15.17 12.54	U	1	
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	08.15.17 12.54	U	1	
Total TPH	PHC635	<15.0	15.0	mg/kg	08.15.17 12.54	U	1	
			%					

	111C035	<15.0	15.0		mg/kg	08.15.17 12.54	U	
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	97	%	70-135	08.15.17 12.54		
o-Terphenyl		84-15-1	94	%	70-135	08.15.17 12.54		



Seq Number: 3025345

# **Certificate of Analytical Results 560035**



#### COG Operating LLC, Artesia, NM

Sample Id: West-Surf	Matrix:	Soil	Date Received:08.11.17 11.45
Lab Sample Id: 560035-007	Date Co	llected: 08.09.17 10.15	
Analytical Method: BTEX b	by EPA 8021B		Prep Method: SW5030B
Tech: ALJ			% Moisture:
Analyst: ALJ	Date Pr	ep: 08.16.17 09.20	Basis: Wet Weight

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00330	0.00330		mg/kg	08.17.17 00.34	U	1
Toluene	108-88-3	< 0.00330	0.00330		mg/kg	08.17.17 00.34	U	1
Ethylbenzene	100-41-4	< 0.00330	0.00330		mg/kg	08.17.17 00.34	U	1
m,p-Xylenes	179601-23-1	< 0.00660	0.00660		mg/kg	08.17.17 00.34	U	1
o-Xylene	95-47-6	< 0.00330	0.00330		mg/kg	08.17.17 00.34	U	1
Total Xylenes	1330-20-7	< 0.00330	0.00330		mg/kg	08.17.17 00.34	U	1
Total BTEX		< 0.00330	0.00330		mg/kg	08.17.17 00.34	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	83	%	80-120	08.17.17 00.34		
1,4-Difluorobenzene		540-36-3	96	%	80-120	08.17.17 00.34		





#### COG Operating LLC, Artesia, NM

					08.15.17 13.15				
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil		
Seq Number: 3025055									
Analyst: ARM		Date Prep:	08.15.17 08.00		Basis: W	et Weight			
Tech: ARM					% Moisture:				
Analytical Method: TPH By SW80	15 Mod				Prep Method: T2	X1005P			
Chloride	16887-00-6	8.00	4.99	mg/kg	08.22.17 02.43		1		
arameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil		
Seq Number: 3025638									
Analyst: MGO		Date Prep:	08.21.17 17.00		Basis: W	et Weight			
Tech: MGO					% Moisture:				
Analytical Method: Inorganic Anior	ns by EPA 300/300.	1			Prep Method: E.	300P			
Lab Sample Id: 560035-008		Date Collec	cted: 08.09.17 10.15		Sample Depth: 1 ft				

Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0		mg/kg	08.15.17 13.15	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0		mg/kg	08.15.17 13.15	U	1
Total TPH	PHC635	<15.0	15.0		mg/kg	08.15.17 13.15	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane		111-85-3	99	%	70-135	08.15.17 13.15		
o-Terphenyl		84-15-1	96	%	70-135	08.15.17 13.15		





#### COG Operating LLC, Artesia, NM

Sample Id:West- 1'Lab Sample Id:560035-008	Matrix: Soil Date Collected: 08.09.17 10.15	Date Received:08.11.17 11.45 Sample Depth: 1 ft			
Analytical Method:BTEX by EPA 8021BTech:ALJAnalyst:ALJSeq Number:3025345	Date Prep: 08.16.17 09.20	Prep Method: SW5030B % Moisture: Basis: Wet Weight			

Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	< 0.00353	0.00353		mg/kg	08.17.17 00.53	U	1
Toluene	108-88-3	< 0.00353	0.00353		mg/kg	08.17.17 00.53	U	1
Ethylbenzene	100-41-4	< 0.00353	0.00353		mg/kg	08.17.17 00.53	U	1
m,p-Xylenes	179601-23-1	< 0.00707	0.00707		mg/kg	08.17.17 00.53	U	1
o-Xylene	95-47-6	0.00445	0.00353		mg/kg	08.17.17 00.53		1
Total Xylenes	1330-20-7	0.00445	0.00353		mg/kg	08.17.17 00.53		1
Total BTEX		0.00445	0.00353		mg/kg	08.17.17 00.53		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	106	%	80-120	08.17.17 00.53		
4-Bromofluorobenzene		460-00-4	86	%	80-120	08.17.17 00.53		



# **Flagging Criteria**



Page 93 of 124

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- **K** Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- \*\* Surrogate recovered outside laboratory control limit.
- **BRL** Below Reporting Limit.
- RL Reporting Limit
- MDL Method Detection LimitSDL Sample Detection LimitLOD Limit of DetectionPQL Practical Quantitation LimitMQL Method Quantitation LimitLOQ Limit of Quantitation
- **DL** Method Detection Limit
- NC Non-Calculable
- + NELAC certification not offered for this compound.
- \* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

#### Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Dhone

Houston - Dallas - San Antonio - Atlanta - Midland/Odessa - Tampa/Lakeland - Phoenix - Latin America

	THOIC	Гал
4147 Greenbriar Dr, Stafford, TX 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
1211 W Florida Ave, Midland, TX 79701	(432) 563-1800	(432) 563-1713
2525 W. Huntington Dr Suite 102, Tempe AZ 85282	(602) 437-0330	

Received by OCD: 4/12/2023 7:58:32 AM



QC Summary 560035

## **COG Operating LLC**

Analytical Method:	Inorganic Anions b	ganic Anions by EPA 300/300.1								Prep Method: E300P				
Seq Number:	3025638	Solid				Date Pre	ep: 08.2	1.17						
MB Sample Id:	729712-1-BLK		LCS Sample Id: 729712-1-BKS LCSD Sample						d: 7297	712-1-BSD				
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag		
Chloride	<4.99	250	258	103	255	102	90-110	1	20	mg/kg	08.21.17 23:31			

Analytical Method:	Inorganic Anions b	ganic Anions by EPA 300/300.1								Prep Method: E300P			
Seq Number:	3025638			Matrix:	Soil				Date Pre	ep: 08.2	21.17		
Parent Sample Id:	560034-001	MS Sample Id: 560034-001 S MSD Sample						Id: 560	560034-001 SD				
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag	
Chloride	9.36	249	268	104	267	103	90-110	0	20	mg/kg	08.21.17 23:54		

Analytical Method:	Inorganic Anions b	anic Anions by EPA 300/300.1									OP	
Seq Number:	3025638			Matrix:	Soil				Date Pre	ep: 08.2	1.17	
Parent Sample Id:	560035-003         MS Sample Id:         560035-003 S         MSD Sample Id:						e Id: 560	)35-003 SD				
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.98	249	268	108	263	106	90-110	2	20	mg/kg	08.22.17 01:42	

Analytical Method: Seq Number: MB Sample Id:	<b>TPH By S</b> 3025055 729383-1-		lod		Prep Method:TX1005PMatrix:SolidDate Prep:08.15.17LCS Sample Id:729383-1-BKSLCSD Sample Id:729383-1-BS						5.17		
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocar	bons (GRO)	<15.0	1000	874	87	849	85	70-135	3	35	mg/kg	08.15.17 09:30	
Diesel Range Organics	(DRO)	<15.0	1000	1050	105	1050	105	70-135	0	35	mg/kg	08.15.17 09:30	
Surrogate		MB %Rec	MB Flag		CS Rec	LCS Flag	LCSI %Re			mits	Units	Analysis Date	
1-Chlorooctane		98		1	08		105		70	-135	%	08.15.17 09:30	
o-Terphenyl		95		1	22		117		70	-135	%	08.15.17 09:30	





## **COG Operating LLC**

Skelly Unit #743

Analytical Method: 7	ГРН Ву SW8015 N	1od						Pı	ep Meth	od: TX1	005P	
Seq Number: 3	3025055			Matrix:	Soil				Date Pr	ep: 08.1	5.17	
Parent Sample Id: 5	560035-001		MS San	nple Id:	560035-00	01 S		MS	D Sample	e Id: 5600	035-001 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	s (GRO) <15.0	997	850	85	905	91	70-135	6	35	mg/kg	08.15.17 10:31	
Diesel Range Organics (D	ORO) <15.0	997	1090	109	1050	105	70-135	4	35	mg/kg	08.15.17 10:31	
Surrogate				1S Rec	MS Flag	MSD %Re			mits	Units	Analysis Date	
1-Chlorooctane			1	18		103		70	-135	%	08.15.17 10:31	
o-Terphenyl			1	18		114		70	-135	%	08.15.17 10:31	

<b>Analytical Method:</b> Seq Number: MB Sample Id:	<b>BTEX by EPA 802</b> 3025079 729398-1-BLK	1B	LCS Sar	Matrix: nple Id:	Solid 729398-1-	-BKS			rep Meth Date Pr D Sample	ep: 08.1	5030B 5.17 898-1-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	0.0998	0.122	122	0.121	120	70-130	1	35	mg/kg	08.16.17 15:01	
Toluene	< 0.00200	0.0998	0.123	123	0.120	119	70-130	2	35	mg/kg	08.16.17 15:01	
Ethylbenzene	< 0.00200	0.0998	0.116	116	0.113	112	71-129	3	35	mg/kg	08.16.17 15:01	
m,p-Xylenes	< 0.00399	0.200	0.237	119	0.233	116	70-135	2	35	mg/kg	08.16.17 15:01	
o-Xylene	< 0.00200	0.0998	0.118	118	0.116	115	71-133	2	35	mg/kg	08.16.17 15:01	
Surrogate	MB %Rec	MB Flag			LCS Flag	LCSI %Re			imits	Units	Analysis Date	
1,4-Difluorobenzene	96		1	16		106		80	0-120	%	08.16.17 15:01	
4-Bromofluorobenzene	109		1	04		102		80	0-120	%	08.16.17 15:01	

<b>Analytical Method:</b> Seq Number: MB Sample Id:	<b>BTEX by EPA 802</b> 3025339 729487-1-BLK	1B	LCS San	Matrix: nple Id:		-BKS			rep Metho Date Pro D Sample	ep: 08.1	5030B 5.17 487-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00202	0.101	0.117	116	0.115	115	70-130	2	35	mg/kg	08.15.17 08:53	
Toluene	< 0.00202	0.101	0.113	112	0.112	112	70-130	1	35	mg/kg	08.15.17 08:53	
Ethylbenzene	< 0.00202	0.101	0.110	109	0.110	110	71-129	0	35	mg/kg	08.15.17 08:53	
m,p-Xylenes	< 0.00403	0.202	0.215	106	0.214	106	70-135	0	35	mg/kg	08.15.17 08:53	
o-Xylene	< 0.00202	0.101	0.103	102	0.103	103	71-133	0	35	mg/kg	08.15.17 08:53	
Surrogate	MB %Rec	MB Flag			LCS Flag	LCSI %Re			imits	Units	Analysis Date	
1,4-Difluorobenzene	98		1	00		100		80	)-120	%	08.15.17 08:53	
4-Bromofluorobenzene	84		8	36		88		80	0-120	%	08.15.17 08:53	

Released to Imaging: 5/2/2023 9:28:44 AM

#### Received by OCD: 4/12/2023 7:58:32 AM



## **COG Operating LLC**

Skelly Unit #743

Analytical Method: Seq Number: MB Sample Id:	<b>BTEX by EPA 802</b> 3025345 729520-1-BLK	1B		Matrix: nple Id:	Solid 729520-1-	-BKS			ep Methe Date Pr D Sample	ep: 08.1	5030B 6.17 520-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00199	0.0996	0.124	124	0.124	124	70-130	0	35	mg/kg	08.17.17 11:56	
Toluene	< 0.00199	0.0996	0.122	122	0.123	123	70-130	1	35	mg/kg	08.17.17 11:56	
Ethylbenzene	< 0.00199	0.0996	0.121	121	0.121	121	71-129	0	35	mg/kg	08.17.17 11:56	
m,p-Xylenes	< 0.00398	0.199	0.237	119	0.237	119	70-135	0	35	mg/kg	08.17.17 11:56	
o-Xylene	< 0.00199	0.0996	0.115	115	0.116	116	71-133	1	35	mg/kg	08.17.17 11:56	
Surrogate	MB %Rec	MB Flag			LCS Flag	LCSI %Ree			imits	Units	Analysis Date	
1,4-Difluorobenzene	94		ç	98		95		80	-120	%	08.17.17 11:56	
4-Bromofluorobenzene	82		8	36		85		80	-120	%	08.17.17 11:56	

<b>Analytical Method:</b>	BTEX by EPA 802	lB						Pı	ep Meth	od: SW3	5030B	
Seq Number:	3025079		]	Matrix:	Soil				Date Pr	ep: 08.1	5.17	
Parent Sample Id:	559928-001		MS San	ple Id:	559928-00	01 S		MS	D Sample	e Id: 5599	928-001 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	0.0750	75	0.0588	59	70-130	24	35	mg/kg	08.16.17 15:01	Х
Toluene	< 0.00200	0.0998	0.0516	52	0.0386	39	70-130	29	35	mg/kg	08.16.17 15:01	Х
Ethylbenzene	< 0.00200	0.0998	0.0345	35	0.0242	24	71-129	35	35	mg/kg	08.16.17 15:01	Х
m,p-Xylenes	< 0.00399	0.200	0.0673	34	0.0472	24	70-135	35	35	mg/kg	08.16.17 15:01	Х
o-Xylene	< 0.00200	0.0998	0.0304	30	0.0241	24	71-133	23	35	mg/kg	08.16.17 15:01	Х
Surrogate				IS Rec	MS Flag	MSD %Ree			mits	Units	Analysis Date	
1,4-Difluorobenzene			10	08		110		80	-120	%	08.16.17 15:01	
4-Bromofluorobenzene			10	02		98		80	-120	%	08.16.17 15:01	

<b>Analytical Method:</b> Seq Number: Parent Sample Id:	<b>BTEX by EPA 802</b> 3025339 560035-003	1B		Matrix: nple Id:		03 S			rep Methe Date Pr D Sample	ep: 08.1	5030B 5.17 035-003 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00198	0.0990	0.102	103	0.110	110	70-130	8	35	mg/kg	08.15.17 09:31	
Toluene	< 0.00198	0.0990	0.0983	99	0.104	104	70-130	6	35	mg/kg	08.15.17 09:31	
Ethylbenzene	< 0.00198	0.0990	0.0926	94	0.103	103	71-129	11	35	mg/kg	08.15.17 09:31	
m,p-Xylenes	< 0.00396	0.198	0.179	90	0.195	98	70-135	9	35	mg/kg	08.15.17 09:31	
o-Xylene	< 0.00198	0.0990	0.0871	88	0.0993	99	71-133	13	35	mg/kg	08.15.17 09:31	
Surrogate				AS Rec	MS Flag	MSD %Re			imits	Units	Analysis Date	
1,4-Difluorobenzene			1	00		96		80	)-120	%	08.15.17 09:31	
4-Bromofluorobenzene			5	88		90		80	)-120	%	08.15.17 09:31	

Released to Imaging: 5/2/2023 9:28:44 AM





## **COG Operating LLC**

Skelly Unit #743

A	DTEX L EDA 0001D
Analytical Method:	BTEX by EPA 8021B

BORATORIES

Analytical Method: Seq Number: Parent Sample Id:	<b>BTEX by EPA 802</b> 3025345 560035-001	1B	MS San	Matrix: nple Id:		01 S			rep Methe Date Pr D Sample	ep: 08.1	5030B 6.17 035-001 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00348	0.174	0.186	107	0.176	101	70-130	6	35	mg/kg	08.17.17 12:32	
Toluene	< 0.00348	0.174	0.176	101	0.165	94	70-130	6	35	mg/kg	08.17.17 12:32	
Ethylbenzene	< 0.00348	0.174	0.162	93	0.151	86	71-129	7	35	mg/kg	08.17.17 12:32	
m,p-Xylenes	< 0.00697	0.348	0.313	90	0.291	83	70-135	7	35	mg/kg	08.17.17 12:32	
o-Xylene	< 0.00348	0.174	0.154	89	0.145	83	71-133	6	35	mg/kg	08.17.17 12:32	
Surrogate				1S Rec	MS Flag	MSD %Re			imits	Units	Analysis Date	
1,4-Difluorobenzene			ç	95		98		80	)-120	%	08.17.17 12:32	
4-Bromofluorobenzene			8	33		87		80	0-120	%	08.17.17 12:32	

# Setting the Standard since 1990 ABORATORIES

# CHAIN OF CUSTODY Page Q

Midland, Texas (432-704-5251) San Antonio, Texas (210-509-3334)

Phoenix, Arizona (480-355-0900)

				Data Deli
		Lev	Level II Std QC	QC
		Lev	Level III Std QC+ F	QC+ F
		Lev	Level 3 (CLP Form	P Form
		TRF	TRRP Checklist	klist
<b>_</b>				
Time:	BE DOCUMENTED	BELOW EACH TIME SAMPL	CH TIME	SAMPL
1-17	An	rded,	but	7
e Time:	02:711	Received By:	By:	
Time:		Received By:	By:	
a valid p eyond ti act.	a valid purchase order from client company to Xenco eyond the control of Xenco. A minimum charge of \$; ict.	from client c enco. A mini	ompany t mum cha	o Xenco Irge of \$

			www.xei	www.xenco.com			X	Xenco Quote #	le #			enco Jol	Xenco Job # 560036	J
									Ana	Analytical Information	ormatio	-		Matrix Codes
Client / Reporting Information		Project	Project Information								_			
Company Name / Branch: COG Operating LLC	Project Name/Number: Skelly Unit #743													W = Water
Company Address: 2407 PECOS Avenue Artesia NM 88210	Project Location:	tion:												S - Sull/Sed/Solid GW =Ground Water DW = Drinking Water
	Invoice To: C	COG Operating LLC	ting LLC											P = Product SW = Surface water
		Attn: Robert Mcneill 600 W. Illinois	Mcneill											SL = Sludge
Project Contact: Aaron Lieb	PO Number	Midland TX 79701	79701					=D						WI = Wipe
Samplers's Name- Aaron Lieb								NDE						
	Collection			Numb	Number of preserved bottles	rved bottle					3			WW= Waste Water A = Air
No. Field ID / Point of Collection				Zn e		04			ride					
Sample Depth	le 1 Date	Time N	# of Matrix bottles	HCI NaOH/. Acetate	HNO3 H2SO4	NaOH NaHSC	NONE	TPH, BTE	Chlo				Fie	Field Comments
1 NORTH- SURTACE -	2-9-17	10:15 Am	5					××	×					
2 North- 1' 1	-							× ×	× :	_		_		
3 South - SupParc -			1					$\times$	~	_		_		
4 South - 11 1			(					$\times$	×	-		_		
5 EAST - Suptrace -		-	_					X	~					
6 EAST - 1'			_					× ×	~	-		_		
7 West - Surfrace -			_					∕~, ×	×					
8 West ~ 1 1	-	-	-					XX	X					
9														
10										+				
Turnaround Time ( Business days)			Data Deliv	Data Deliverable Information	tion						Notes:			
Same Day TAT 5 Day TAT		Level	Level II Std QC	_	Leve	Level IV (Full Data Pkg /raw data)	ıta Pkg /ra	w data)						
Next Day EMERGENCY		Level	Level III Std QC+ Forms	orms [		TRRP Level IV				_				
2 Day EMERGENCY		Level	Level 3 (CLP Forms)	ŝ	UST	UST / RG -411								
3 Day EMERGENCY		TRRP	TRRP Checklist	÷.,										
TAT Starts Day received by Lab, if received by 5:00 pm										FED	FED-EX / UPS: Tracking #	S: Track	ding #	
Relinquished by Sampler:	ne: 10100	CONTED BELOW EACH	TIME SAMPL	ES CHANGE PO	Reling	Relinguished By:	COURIER	DELIVERY	Date Time:		1145 1	Received By:	1By:	
in a ladia.	ne: Recei	Received By:	inn	101	2,4/2 Reling	Relinquished By:	ulu		Date Time:	ne:	7	2 Rece	Tomm 7 0	מ_םיכו ם
10 MON PUT	47 14:203				4						4			וא וט:א-ט
5 Date Time:	ne:	Received By:			Custo	Custody Seal #		Pres	Preserved where applicable	ere appl			(0-0:-0.2°C)	
Notice: Nulte: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be any losses or expenses incurred by the Client if such loses are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples terms will be enforced unless previously negotiated under a fully executed client contract.	id purchase order nd the control of )	r from client com Kenco. A minimu	ipany to Xenco, im charge of \$7	its affiliates and 5 will be applied	to each proj	ors. It assign ect. Xenco's	s standard t liability will b	erms and e limited t	o the cost	of service. of samples	Xenco wi . Any sarr	l be ples	Corrected Temp: 3.6	9.6

Dallas Texas (214-902-0300) Stafford, Texas (281-240-4200) Received by OCD: 4/12/2023 7:58:32 AM



# **XENCO** Laboratories



Prelogin/Nonconformance Report- Sample Log-In

Client: COG Operating LLC Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 08/11/2017 11:45:00 AM Temperature Measuring device used : R8 Work Order #: 560035 Comments Sample Receipt Checklist 3.6 #1 \*Temperature of cooler(s)? #2 \*Shipping container in good condition? Yes #3 \*Samples received on ice? Yes #4 \*Custody Seal present on shipping container/ cooler? N/A #5 \*Custody Seals intact on shipping container/ cooler? N/A #6 Custody Seals intact on sample bottles? N/A #7 \*Custody Seals Signed and dated? N/A #8 \*Chain of Custody present? Yes #9 Sample instructions complete on Chain of Custody? Yes #10 Any missing/extra samples? No

#11 Chain of Custody signed when relinquished/ received?	Yes
#12 Chain of Custody agrees with sample label(s)?	Yes
#13 Container label(s) legible and intact?	Yes
#14 Sample matrix/ properties agree with Chain of Custody?	Yes
#15 Samples in proper container/ bottle?	Yes
#16 Samples properly preserved?	Yes
#17 Sample container(s) intact?	Yes
#18 Sufficient sample amount for indicated test(s)?	Yes
#19 All samples received within hold time?	Yes
#20 Subcontract of sample(s)?	N/A
#21 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#:

Date: 08/14/2017

Checklist completed by: Jessica Kramer Checklist reviewed by: Kelsey Brooks

Date: 08/14/2017

# Analytical Report 578650

for TRC Solutions, Inc

**Project Manager: Joel Lowry** 

Skelly #743

#### 15-MAR-18

Collected By: Client





#### 1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-18-24), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12) Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-18-14) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757) Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757) Xenco-Atlanta (LELAP Lab ID #04176)





# **Table of Contents**

Cover Page	1
Cover Letter	3
Sample ID Cross Reference	4
Case Narrative	5
Certificate of Analysis (Detailed Report)	6
Explanation of Qualifiers (Flags)	10
SURR_QC_V62	11
LCS / LCSD Recoveries	12
MS / MSD Recoveries	13
Chain of Custody	15
Sample Receipt Conformance Report	16





15-MAR-18

Project Manager: **Joel Lowry TRC Solutions, Inc** 2057 Commerce Midland, TX 79703

Reference: XENCO Report No(s): **578650 Skelly #743** Project Address: Lea Co, NM

#### Joel Lowry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 578650. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 578650 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Huns hoah

Kelsey Brooks Project Manager

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

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







# Sample Cross Reference 578650



#### TRC Solutions, Inc, Midland, TX

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
T-2 NSW	S	03-06-18 11:05	4 ft	578650-001
T-2 ESW	S	03-06-18 11:10	4 ft	578650-002
T-2 WSW	S	03-06-18 11:15	4 ft	578650-003
T-2 SSW	S	03-06-18 11:20	4 ft	578650-004
T-2 NW @ 4'	S	03-06-18 11:25	4 ft	578650-005
T-2 SE @ 4'	S	03-06-18 11:30	4 ft	578650-006
T-2 1b @ 2'	S	03-06-18 11:35	2 ft	578650-007
T-1 NSW	S	03-06-18 11:45	6 In	578650-008
SP-1	S	03-06-18 11:50	ft	Not Analyzed



Client Name: TRC Solutions, Inc Project Name: Skelly #743

Project ID: Work Order Number(s): 578650

BORATORIES

Report Date: 15-MAR-18 Date Received: 03/08/2018

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None





#### TRC Solutions, Inc, Midland, TX

Sample Id:	T-2 NSW		Matrix:	Soil		Sample	e Depth: 4 ft		
Lab Sample Id	1: 578650-001		Date Collecte	ed: 03.06.18	11.05	Date R	eceived: 03.08.	18 10.3	30
Analytical Me	thod: Inorganic Anions	s by EPA 300/300.1				Prep M	lethod: E300P		
Analyst:	OJS		% Moist:			Tech:	OJS		
Seq Number:	3043636		Date Prep: 03	3.13.18 16.30	)				
			Prep seq: 76	540733					
Parameter	r	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Facto
Chloride		16887-00-6	348	4.99	0.857	mg/kg	03.14.18 02:16		1
Sample Id:	T-2 ESW		Matrix:	Soil		Sample	e Depth: 4 ft		
Lab Sample Id	l: 578650-002		Date Collecte	ed: 03.06.18	11.10	Date R	eceived: 03.08.	18 10.3	30
Analytical Me	thod: Inorganic Anions	s by EPA 300/300.1				Prep M	lethod: E300P		
Analyst:	OJS		% Moist:			Tech:	OJS		
Seq Number:	3043699		Date Prep: 03	3.14.18 10.00	)				
			Prep seq: 76	540751					
Parameter	r	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Facto
Chloride		16887-00-6	<0.858	5.00	0.858	mg/kg	03.14.18 12:54	U	1
Sample Id:	T-2 WSW		Matrix:	Soil		Sample	e Depth: 4 ft		
Lab Sample Id	l: 578650-003		Date Collecte	ed: 03.06.18	11.15	Date R	eceived: 03.08.	18 10.3	30
Analytical Me	thod: Inorganic Anion	s by EPA 300/300.1				Prep M	lethod: E300P		
Analyst:	OJS		% Moist:			Tech:	OJS		
Seq Number:	3043699		Date Prep: 03	3.14.18 10.00	)				
			Prep seq: 76	540751					
Parameter	r	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Facto
Chloride		16887-00-6	335	4.98	0.855	mg/kg	03.14.18 13:10		1
Sample Id:	T-2 SSW		Matrix:	Soil		Sample	e Depth: 4 ft		
Lab Sample Id	l: 578650-004		Date Collecte	ed: 03.06.18	11.20	Date R	eceived: 03.08.	18 10.3	30
Analytical Me	thod: Inorganic Anion	s by EPA 300/300.1				Prep M	lethod: E300P		
Analyst:	OJS		% Moist:			Tech:	OJS		
Seq Number:	3043699		Date Prep: 03	3.14.18 10.00	)				
			Prep seq: 76	540751					
Parameter	r	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Facto





Rage 106 of 124

#### TRC Solutions, Inc, Midland, TX

Sample Id:	T-2 NW @ 4'		Matrix:	Soil		Sample	e Depth: 4 ft		
Lab Sample Ic	1: 578650-005		Date Collecte	ed: 03.06.18	11.25	Date R	eceived: 03.08.	18 10.3	30
Analytical Me	ethod: Inorganic Anions by	EPA 300/300.1				Prep M	lethod: E300P		
Analyst:	OJS		% Moist:			Tech:	OJS		
Seq Number:	3043699		Date Prep: 03	3.14.18 10.00					
-			Prep seq: 70	640751					
Parameter	r	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride		16887-00-6	182	4.99	0.857	mg/kg	03.14.18 13:32		1
Sample Id:	T-2 SE @ 4'		Matrix:	Soil		Sample	e Depth: 4 ft		
Lab Sample Id	1: 578650-006		Date Collecte	ed: 03.06.18	11.30	Date R	eceived: 03.08.	18 10.3	30
Analytical Me	ethod: Inorganic Anions by	EPA 300/300.1				Prep M	fethod: E300P		
Analyst:	OJS		% Moist:			Tech:	OJS		
Sog Number	3043699		Date Prep: 03	3.14.18 10.00					
Seq Number:	3043077		Bate Hept						
seq muniber:	30+3077		Prep seq: 70						
Parameter		CAS Number	•		SDL	Units	Analysis Date	Flag	Dil Factor
			Prep seq: 70	540751		Units mg/kg	•	Flag	Dil Factor
Paramete		Number	Prep seq: 70 Result	640751 MQL	SDL	mg/kg	Date	Flag	
Parameter Chloride	r T-2 1b @ 2'	Number	Prep seq: 70 Result 1020	540751 MQL 4.98 Soil	<b>SDL</b> 0.855	mg/kg Sample	Date 03.14.18 13:38		1
Parameter Chloride Sample Id: Lab Sample Id	r T-2 1b @ 2'	Number 16887-00-6	Prep seq: 70 Result 1020 Matrix:	540751 MQL 4.98 Soil	<b>SDL</b> 0.855	mg/kg Sample Date R	Date           03.14.18         13:38           e Depth:         2 ft	18 10.3	1
Parameter Chloride Sample Id: Lab Sample Id	r T-2 1b @ 2' d: 578650-007	Number 16887-00-6	Prep seq: 70 Result 1020 Matrix:	540751 MQL 4.98 Soil	<b>SDL</b> 0.855	mg/kg Sample Date R	Date           03.14.18         13:38           e Depth:         2 ft           ecceived:         03.08.	18 10.3	1
Parameter Chloride Sample Id: Lab Sample Ic Analytical Me	<b>r</b> <b>T-2 1b @ 2'</b> d: 578650-007 ethod: Inorganic Anions by OJS	Number 16887-00-6	Prep seq: 70 Result 1020 Matrix: Date Collecte	540751 MQL 4.98 Soil ed: 03.06.18	<b>SDL</b> 0.855 11.35	mg/kg Sample Date R Prep M	Date           03.14.18         13:38           e Depth:         2 ft           deceived:         03.08.1           fethod:         E300P	18 10.3	1
Parameter Chloride Sample Id: Lab Sample Id Analytical Me Analyst:	<b>r</b> <b>T-2 1b @ 2'</b> d: 578650-007 ethod: Inorganic Anions by OJS	Number 16887-00-6	Prep seq: 70 Result 1020 Matrix: Date Collecte % Moist:	540751 MQL 4.98 Soil ed: 03.06.18 1 3.14.18 10.00	<b>SDL</b> 0.855 11.35	mg/kg Sample Date R Prep M	Date           03.14.18         13:38           e Depth:         2 ft           deceived:         03.08.1           fethod:         E300P	18 10.3	1
Parameter Chloride Sample Id: Lab Sample Id Analytical Me Analyst:	<b>r</b> <b>T-2 1b @ 2'</b> d: 578650-007 ethod: Inorganic Anions by OJS 3043699	Number 16887-00-6	Prep seq: 70 <b>Result</b> 1020 Matrix: Date Collecte % Moist: Date Prep: 03	540751 MQL 4.98 Soil ed: 03.06.18 1 3.14.18 10.00	<b>SDL</b> 0.855 11.35	mg/kg Sample Date R Prep M	Date           03.14.18         13:38           e Depth:         2 ft           deceived:         03.08.1           fethod:         E300P	18 10.3	1





#### TRC Solutions, Inc, Midland, TX

Sample Id: T-1 NSW		Matrix:	Soil		Sample	e Depth: 6 In		
Lab Sample Id: 578650-008		Date Collecte	ed: 03.06.18	11.45	Date R	eceived: 03.08.	18 10.3	30
Analytical Method: Inorganic Anions by	EPA 300/300.1				Prep M	lethod: E300P		
Analyst: OJS		% Moist:			Tech:	OJS		
Seq Number: 3043699		Date Prep: 03	3.14.18 10.00					
-		Prep seq: 76	540751					
Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.850	4.95	0.850	mg/kg	03.14.18 13:48	U	1
Analytical Method: TPH by SW8015 Me Analyst: ARM	od	% Moist:			Prep M Tech:	Iethod: 1005 ARM		
Seq Number: 3043412		Date Prep: 03	3.10.18 10.00					
		Prep seq: 76	540552					
Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<7.99	15.0	7.99	mg/kg	03.11.18 01:31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<8.11	15.0	8.11	mg/kg	03.11.18 01:31	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<8.11	15.0	8.11	mg/kg	03.11.18 01:31	U	1
Total TPH	PHC635	<7.99		7.99	mg/kg	03.11.18 01:31	U	
Surrogate		% Recovery		Limits	Un	its Analysis	Date	Flag
1-Chlorooctane		86		70 - 1	35 %	,		
		80		70 - 1	.55 %	D		





#### TRC Solutions, Inc, Midland, TX

Sample Id:	7640552-1-BLK		Matrix:	Solid		•	e Depth:		
Lab Sample Id	l: 7640552-1-BLK		Date Collecte	ed:		Date R	eceived:		
Analytical Me	thod: TPH by SW8015 Mo	od				Prep M	Iethod: 1005		
Analyst:	ARM		% Moist:			Tech:	ARM		
Seq Number:	3043412		Date Prep: 03	3.10.18 10.00					
			Prep seq: 76	540552					
Parameter	r	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Facto
	ange Hydrocarbons (GRO)	PHC610	<8.00	15.0	8.00	mg/kg	03.10.18 23:15	U	1
-	ge Organics (DRO)	C10C28DRO	<8.13	15.0	8.13	mg/kg	03.10.18 23:15	U	1
Total TPH	Hydrocarbons (ORO)	PHCG2835 PHC635	<8.13 <8	15.0	8.13 8	mg/kg	03.10.18 23:15	U U	1
		PHC055	<0		0	mg/kg	03.10.18 23:15	U	
Surrogate			% Recovery		Limits	Un	its Analysis	Date	Flag
1-Chlorooct	tane		82		70 - 1	135 %	6		
o-Terpheny	1		88		70 - 1	135 %	6		
ample Id:	7640733-1-BLK		Matrix:	Solid		Sample	e Depth:		
ab Sample Id	: 7640733-1-BLK		Date Collecte	ed:		Date R	eceived:		
Analytical Me	thod: Inorganic Anions by	EPA 300/300.1				Prep M	lethod: E300P		
Analyst:	OJS		% Moist:			Tech:	OJS		
eq Number:	3043636		Date Prep: 03	3.13.18 16.30					
			Prep seq: 76						
Parameter	r	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Facto
Chloride		16887-00-6	< 0.858	5.00	0.858	mg/kg	03.13.18 23:37	U	1
Nitrate as N	I	14797-55-8	< 0.157	1.00	0.157	mg/kg	03.13.18 23:37	U	1
Nitrite as N		14797-65-0	<0.159	1.00	0.159	mg/kg	03.13.18 23:37	U	1
ample Id:	7640751-1-BLK		Matrix:	Solid		Sample	e Depth:		
1 0 1 1	: 7640751-1-BLK		Date Collecte	ed:		Date R	eceived:		
ab Sample Id						Drop M	lethod: E300P		
-	thod: Inorganic Anions by	EPA 300/300.1				r tep w			
Analytical Met	thod: Inorganic Anions by OJS	EPA 300/300.1	% Moist:			Tech:	OJS		
Analytical Met	с ·	EPA 300/300.1	% Moist: Date Prep: 03	3.14.18 10.00		-			
Analytical Met	OJS	EPA 300/300.1				-			
-	OJS 3043699	EPA 300/300.1 CAS Number	Date Prep: 03		SDL	-		Flag	Dil Factor


# **Flagging Criteria**



Page 109 of 124

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- **E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- **F** RPD exceeded lab control limits.
- J The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- **K** Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- \*\* Surrogate recovered outside laboratory control limit.
- **BRL** Below Reporting Limit.
- RL Reporting Limit
- MDL Method Detection LimitSDLSample Detection LimitLOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- DL Method Detection Limit
- NC Non-Calculable

SMP Clie	ent Sample	BLK	Method Blank	
BKS/LCS	S Blank Spike/Laboratory Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labo	ratory Control Sample Duplicate
MD/SD	Method Duplicate/Sample Duplicate	MS	Matrix Spike	MSD: Matrix Spike Duplicate

- + NELAC certification not offered for this compound.
- \* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



<sup>*m*</sup>Form 2 - Surrogate Recoveries

Page 110 of 124

# Project Name: Skelly #743

- 1			-	TIDV	
Date Analyzed: 03/10/18 23:15	50	KRUGAIE KI			
by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes					
	82.2	100	82	70-135	
	43.8	50.0	88	70-135	
Sample: 7640552-1-BKS / F					
Date Analyzed: 03/10/18 23:34	SU	RROGATE RI	ECOVERY S	STUDY	
oy SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Allarytes	121	100		70-135	
	55.5	50.0	121	70-135	
				/ - <u> </u>	
- 1				STUDY	
-		1		1 1	
by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes	02.5	100		70.125	
				/0-155	
-			-	~~~~	
Date Analyzed: 03/11/18 00:33	50	RROGATE KI	COVERY 2	STUDY	
oy SW8015 Mod	Amount Found	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analvtes	[4]	[2]	[D]		
Analytes	99.6	99.8	[ <b>D</b> ] 100	70-135	
Analytes				70-135 70-135	
Analytes Sample: 578596-005 SD / M	99.6 46.0	99.8 49.9	100 92		
	99.6 46.0 MSD Batch	99.8 49.9	100 92 :Soil	70-135	
Sample: 578596-005 SD / M Date Analyzed: 03/11/18 00:52 Dy SW8015 Mod	99.6 46.0 MSD Batch	99.8 49.9 h: 1 Matrix:	100 92 :Soil	70-135	Flags
Sample: 578596-005 SD / M Date Analyzed: 03/11/18 00:52	99.6 46.0 MSD Batch SU Amount Found	99.8 49.9 h: 1 Matrix: RROGATE RF True Amount	100 92 Soil ECOVERY S Recovery %R	70-135 STUDY Control Limits	Flags
	Sample: 7640552-1-BLK / H Date Analyzed: 03/10/18 23:15 Oy SW8015 Mod Analytes Sample: 7640552-1-BKS / H Date Analyzed: 03/10/18 23:34 Oy SW8015 Mod Analytes Sample: 7640552-1-BSD / H Date Analyzed: 03/10/18 23:54 Oy SW8015 Mod Analytes Sample: 578596-005 S / MS Date Analyzed: 03/11/18 00:33	Sample:       7640552-1-BLK / BLK       Batch         Date Analyzed:       03/10/18 23:15       SU         by SW8015 Mod       Amount Found [A]       Found [A]         Analytes       82.2         43.8       43.8         Sample:       7640552-1-BKS / BKS         Date Analyzed:       03/10/18 23:34         Date Analyzed:       03/10/18 23:34         Sy SW8015 Mod       Amount Found [A]         Analytes       121         oy SW8015 Mod       121         Sample:       7640552-1-BSD / BSD         Bate Analyzed:       03/10/18 23:54         Sample:       7640552-1-BSD / BSD         Bate Analyzed:       03/10/18 23:54         Oy SW8015 Mod       Amount Found [A]         Analytes       93.5         Oy SW8015 Mod       93.5         Analytes       93.5         Oy SW8015 Mod       93.5         Sample:       578596-005 S / MS         Bate Analyzed:       03/11/18 00:33         Oy SW8015 Mod       Amount Found	Sample:         7640552-1-BLK / BLK         Batch:         1         Matrix:           Date Analyzed:         03/10/18 23:15         SURROGATE RI           by SW8015 Mod         Amount [A]         True Amount [B]           Analytes         82.2         100           43.8         50.0           Sample:         7640552-1-BKS / BKS         Batch:         1         Matrix:           Date Analyzed:         03/10/18 23:34         SURROGATE RI         Matrix:           Date Analyzed:         03/10/18 23:34         True Amount [A]         Matrix:           Date Analyzed:         03/10/18 23:34         True Amount [B]         Amount [B]         True Amount [B]           Analytes         121         100         55.5         50.0           Sample:         7640552-1-BSD / BSD         Batch:         1         Matrix:           Date Analyzed:         03/10/18 23:54         SURROGATE RI         Matrix:           Date Analyzed:         03/10/18 23:54         SURROGATE RI         Amount         [B]           Analytes         93.5         100         43.4         50.0           Sample:         578596-005 S / MS         Batch:         1         Matrix:           Date Analyzed:         03/11/1	Sample:7640552-1-BLK / BLKBatch:1Matrix: SolidDate Analyzed:03/10/1823:15SURROGATERECOVERY 5by SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]Analytes82.21008243.850.088Sample:7640552-1-BKS / BKS 7640552-1-BKS / BKSBatch:1Matrix: SolidDate Analyzed:03/10/1823:34SURROGATERECOVERY 5by SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]Analytes12110012155.550.0111Sample:7640552-1-BSD / BSD 55.5Batch:1Matrix: SolidDate Analyzed:03/10/1823:54SURROGATERecovery %R [D]Analytes121100121Sample:7640552-1-BSD / BSD 55.5Batch:1Matrix: SolidDate Analyzed:03/10/1823:54SURROGATERecovery %R [D]Oy SW8015 ModAmount Found [A]True Amount Found (B]Recovery %R [D]Analytes1009443.450.087Sample:578596-005 S / MS Found Found [A]Batch:1Matrix: SoilDate Analyzed:03/11/180:33SURROGATERecovery %R %RDate Analyzed:03/11/180:33SURROGATERecovery %R %R	Sample:7640552-1-BLK / BLKBatch:1Matrix: SolidDate Analyzed:03/10/1823:15SURROGATERECOVERY STUDYpy SW8015 ModAmount [A]True [B]Recovery %R [D]Control Limits %R [D]Analytes22:210082:270-135Sample:7640552-1-BKS / BKSBatch:1Matrix: SolidDate Analyzed:03/10/1823:34SURROGATERECOVERY STUDYpy SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %R %R [D]py SW8015 ModAmount Found [A]True Amount [B]Recovery %R (D]Control Limits %R %R [D]py SW8015 ModAmount Found [A]True Amount [B]Recovery %R (D]Control Limits %R (D]py SW8015 ModAmount Found [A]True Amount [B]Recovery %R (D]Control Limits %R (D]py SW8015 ModAmount Found [A]True (D)Recovery %R (D]Control Limits %R (D]py SW8015 ModAmount Found [A]True Amount (A]Recovery %R (D]Control Limits %R (D]pate Analyzed:03/10/1823:54SURROGATE RECOVERY STUDYNotal %R (D]Control Limits %R (D]py SW8015 ModAmount Found [A]True Amount [A]Matrix: Soilpate Analyzed:03/11/18O:33SURROGATE RECOVERY STUDY </td

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

All results are based on MDL and validated for QC purposes.



### **BS / BSD Recoveries**



.

### Project Name: Skelly #743

Work Ord	er #: 578650								Pro	ject ID:			
Analyst:	OJS		D	ate Prepar	red: 03/13/201	8			Date A	nalyzed: (	03/13/2018		
Lab Batch I	<b>ID:</b> 3043636	Sample: 7640733-1	-BKS	Bate	<b>h #:</b> 1					Matrix: S	Solid		
Units:	mg/kg			BLAN	K /BLANK	SPIKE / ]	BLANK	SPIKE DUP	LICATE	RECOV	ERY STU	DY	
	ganic Anions by T	EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chlorid	le		<0.858	250	255	102	250	275	110	8	90-110	20	
Analyst:	OJS		D	ate Prepar	red: 03/14/201	8	+		Date A	nalyzed: (	)3/14/2018	+	+
Lab Batch I	ID: 3043699	Sample: 7640751-1	-BKS	Bate	<b>h #:</b> 1					Matrix:	Solid		
Units:	mg/kg			BLAN	K /BLANK S	SPIKE / ]	BLANK	SPIKE DUP	LICATE	RECOV	ERY STU	DY	
	ganic Anions by	EPA 300/300.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chlorid	lytes		0.050								00.110		
			<0.858	250	237	95	250	253	101	7	90-110	20	_
Analyst:	ARM			-	red: 03/10/201	8			Date A	•	03/10/2018		
Lab Batch I	<b>ID:</b> 3043412	Sample: 7640552-1	-BKS	Bate	<b>h #:</b> 1					Matrix:	Solid		
Units:	mg/kg			BLAN	K /BLANK S	SPIKE / ]	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STU	DY	
Ana	TPH by SW80	15 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	ne Range Hydrocarbons (0	GRO)	<8.00	1000	1090	109	1000	943	94	14	70-135	35	
	Range Organics (DRO)	,	<8.13	1000	984	98	1000	832	83	17	70-135	35	+
	(DRO)		N0.15	1000	204	90	1000	052	05	1/	10-155	55	

Relative Percent Difference RPD =  $200^{*}|(C-F)/(C+F)|$ Blank Spike Recovery [D] =  $100^{*}(C)/[B]$ Blank Spike Duplicate Recovery [G] =  $100^{*}(F)/[E]$ All results are based on MDL and Validated for QC Purposes



### Form 3 - MS / MSD Recoveries



### Project Name: Skelly #743

Work Order # :	578650						Project ID	):				
Lab Batch ID:	3043636	QC- Sample ID:	578597	-004 S	Ba	tch #:	1 Matrix	: Soil				
Date Analyzed:	03/13/2018	Date Prepared:	03/13/2	018	An	alyst: (	OJS					
<b>Reporting Units:</b>	mg/kg		Ν	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	ГЕ REC	OVERY	STUDY		
Inorgai	nic Anions by EPA 300/300.1	Parent Sample Result	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample	Spiked Dup. %R	RPD	Control Limits %R	Control Limits	Flag
	Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%K	%RPD	
Chloride		682	248	937	103	248	946	106	1	90-110	20	
Lab Batch ID:	3043636	QC- Sample ID:	578599	-004 S	Ba	tch #:	1 Matrix	: Soil				
Date Analyzed:	03/14/2018	Date Prepared:	03/13/2	018	An	alyst: (	OJS					
<b>Reporting Units:</b>	mg/kg		Ν	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	ГЕ REC	OVERY	STUDY		
Inorgai	nic Anions by EPA 300/300.1	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Analytes	[A]	[B]	[0]	[D]	[E]	itesuit [1]	[G]				
Chloride		<0.850	248	250	101	248	285	115	13	90-110	20	Х
Lab Batch ID:	3043699	QC- Sample ID:	578650	-002 S	Ba	tch #:	1 Matrix	: Soil				
Date Analyzed:	03/14/2018	Date Prepared:	03/14/2	018	An	alyst: (	OJS					
<b>Reporting Units:</b>	mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA'	FE REC	OVERY	STUDY		
Inorgai	nic Anions by EPA 300/300.1	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Analytes	[A]	Added [B]		%K [D]	Added [E]	Kesuit [F]	%K [G]	70	70K	70KrD	
Chloride		<0.858	250	276	110	250	265	106	4	90-110	20	

Matrix Spike Percent Recovery  $[D] = 100^{*}(C-A)/B$ Relative Percent Difference RPD =  $200^{*}|(C-F)/(C+F)|$  Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Page 13 of 16



### Form 3 - MS / MSD Recoveries



### Project Name: Skelly #743

Work Order # :	578650						Project II	):				
Lab Batch ID:	3043699	QC- Sample ID:	579022	-002 S	Ba	tch #:	1 Matrix	<b>k:</b> Soil				
Date Analyzed:	03/14/2018	Date Prepared:	03/14/2	018	An	alyst: (	OJS					
<b>Reporting Units:</b>	mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
Inorgar	nic Anions by EPA 300/300.1	Parent Sample	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample	-	RPD	Control Limits	Control Limits	Flag
	Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Chloride		128	250	401	109	250	411	113	2	90-110	20	X
Lab Batch ID:	3043412	QC- Sample ID:	578596	-005 S	Ba	tch #:	1 Matrix	k: Soil				
Date Analyzed:	03/11/2018	Date Prepared:	03/10/2	018	An	alyst: A	ARM					
<b>Reporting Units:</b>	mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
]	ГРН by SW8015 Mod	Parent Sample Result	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample		RPD	Control Limits	Control Limits	Flag
	Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Gasoline Range	Hydrocarbons (GRO)	<7.99	998	915	92	1000	967	97	6	70-135	35	
Diesel Range Or	rganics (DRO)	<8.11	998	800	80	1000	839	84	5	70-135	35	

Matrix Spike Percent Recovery  $[D] = 100^{*}(C-A)/B$ Relative Percent Difference RPD =  $200^{*}|(C-F)/(C+F)|$  Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Page 14 of 16

# Setting the Standard since 1990 MNCO ORATORIES

Page 114 of 124

Stafford, Texas (281-240-4200)

# CHAIN OF CUSTODY

Page 1 Of 1

San Antonio, Texas (210-509-3334)

Phoenix, Arizona (480-355-0900)

Received	by O	CD	: 4/1	2/2	20	23	7:58	:32	AM						
5 Notice: h any loss terms wi	3 Reli	Reli	1 Reli							12	11	10	9	8	7
Votic es o Il be	nqu	nqu	nq.		Ā	3	2	Ne	Sa				SE	-	-

			100.0011							A		0			
	Project	Information	-					Anal	ytical Info	rmation					
oject Name/Numb ollv #743	ber:														
oject Location: 1 Co, NM															
oice To: G Operating C/O	Becky Hask	kell													
oice:															
cice.								3							
Collection		_	Nun	nber of pres	erved bottle			21E							
11000001			INNI	iber of pres	served bottle			802							
			HCI NaOH/Zn		laHSO4	IONE		10 - 11 - 11 - 1	.010						
	_		ŀ		N	N				+					
	-	+					× :	+							
+	_	+					× :	_							
	+	-					× :	_							
	-	-					× :	_							
	_	-					× ;	_							
	-	-					× ;	+							
	-	-				2	+	_			F	L			
		-				×	-	×			Temp	A			
								-		_	CF:(0	6. 0			
_								+			(6-	(6-23: +0 2°C)			
								+			Correc	ted T			
		Data Deliv	verable Inform	nation	-	-		-	z	1					
Π	Level II :	Std QC			el IV (Full Da	ata Pkg /raw	data)		ilowry@	Ircsolutio	Ins.com				
П	Level III	Std QC+ Fo	orms		RP Level IV				rhaskel	l@conche	D.com				
	Level 3 (	(CLP Forms	s		. / RG -411				kblackb	urn@trcs	olutions.c	öm			
П	] TRRP CI	hecklist							dneel2(	Dconcho	com				
									FED-FX	IIIPS: T	acking #				
UMENTED BELO	W EACH TIN	ME SAMPLES	S CHANGE P	OSSESSION.	INCLUDING		IVERY			dra.	ACKING #				
1 Soil	Dived By:	land	(6X	Relin	quished By	NU(O)	1	ate Tim	20. hg		ived By:				
Rec	eived By:	C		Relini	quished By:	C		ate Tim			Ved By:				
Rec 5	eived By:			4 Custo	ody Seal #		Preser	/ed whe	re applica	ble	P	Ice Cooler Temp.			
teo order from alia								_	_						
	Project Name/Numit           Project Name/Numit           Project Project           Project Project           Invoice           Date           1           3/6/2018           3/6/2018           3/6/2018           3/6/2018           3/6/2018           3/6/2018           1           3/6/2018           1           3/6/2018           1           3/6/2018           1           3/6/2018           1           3/6/2018           1           3/6/2018           1           3/6/2018           1           3/6/2018           1           3/6/2018           1           3/6/2018           1           3/6/2018           1           3/6/2018           1           3/6/2018           1           3/6/2018           1           3/6/2018           1           3/6/2018           1           3/6/2018           1 <td>Project           Project Involue:           Skelly #743         Involue:           Collection         Involue:           Ja6/2018         11:05           3/6/2018         11:16           3/6/2018         11:20           3/6/2018         11:25           3/6/2018         11:26           3/6/2018         11:25           3/6/2018         11:26           3/6/2018         11:25           3/6/2018         11:26           3/6/2018         11:26           3/6/2018         11:26           3/6/2018         11:45           3/6/2018         11:26           3/6/2018         11:45           3/6/2018         11:45           3/6/2018         11:50           3/6/2018         11:45           3/6/2018         11:45           3/6/2018         11:50           3/6/2018         11:45           3/6/2018         11:50           3/6/2018         11:50           3/6/2018         11:45           3/6/2018         11:45           3/6/2018         11:50           3/6/2018         11:45</td> <td>Project Information           Project Location:::           Information:           Collection           Time         Matrix         bolt as a colspan="2"&gt;Information:           Collection         # of and a colspan="2"&gt;# of and a colspan="2"&gt;Information:           Date         Time         Matrix         bolt as a colspan="2"&gt;Information:           Date         Time         Matrix         bolt as a colspan="2"&gt;Information:           Date         Time          bolt as a colspan="2"&gt;Information:           Date         Time         Matrix         bolt as a colspan="2"&gt;Information:           Date         Time         Matrix         bolt as a colspan="2"&gt;Information:           Data Delib         Information:         Information:           Job/2018         TILevel II Std QC+ F           A 'res Treesburg By:         Colume:           A 'res Treesburg By:          Colume:           A 'res Treesburg By:</td> <td>Project Information           Project Information           Project Information           Information           Project Information           <th <="" colspan="2" td=""><td></td><td>Project Information         Project Information         Information:         Information:         Collection         Number of preserved both         Other Time       Matrix bothes of preserved both         Other Time       Number of preserved both         Data Deliverable information       <th colspa<="" td=""><td>Project Information           Project Information           Signify #FA:3: Signify #FA:3: Project Information: Informatio: Infor</td><td>※ 문   · · · · · · · · · · · · · · · · · ·</td><td>Preserved Deluger</td><td>Preserved where         Date Time:         aw data         ×         <th< td=""><td>Analytical Information         Analytical Information         Information         Information         Information         Information         Information         Information</td><td>Analytical Information       Analytical Information       X     X</td></th<></td></th></td></th></td>	Project           Project Involue:           Skelly #743         Involue:           Collection         Involue:           Ja6/2018         11:05           3/6/2018         11:16           3/6/2018         11:20           3/6/2018         11:25           3/6/2018         11:26           3/6/2018         11:25           3/6/2018         11:26           3/6/2018         11:25           3/6/2018         11:26           3/6/2018         11:26           3/6/2018         11:26           3/6/2018         11:45           3/6/2018         11:26           3/6/2018         11:45           3/6/2018         11:45           3/6/2018         11:50           3/6/2018         11:45           3/6/2018         11:45           3/6/2018         11:50           3/6/2018         11:45           3/6/2018         11:50           3/6/2018         11:50           3/6/2018         11:45           3/6/2018         11:45           3/6/2018         11:50           3/6/2018         11:45	Project Information           Project Location:::           Information:           Collection           Time         Matrix         bolt as a colspan="2">Information:           Collection         # of and a colspan="2"># of and a colspan="2">Information:           Date         Time         Matrix         bolt as a colspan="2">Information:           Date         Time         Matrix         bolt as a colspan="2">Information:           Date         Time          bolt as a colspan="2">Information:           Date         Time         Matrix         bolt as a colspan="2">Information:           Date         Time         Matrix         bolt as a colspan="2">Information:           Data Delib         Information:         Information:           Job/2018         TILevel II Std QC+ F           A 'res Treesburg By:         Colume:           A 'res Treesburg By:          Colume:           A 'res Treesburg By:	Project Information           Project Information           Project Information           Information           Project Information           Information <th <="" colspan="2" td=""><td></td><td>Project Information         Project Information         Information:         Information:         Collection         Number of preserved both         Other Time       Matrix bothes of preserved both         Other Time       Number of preserved both         Data Deliverable information       <th colspa<="" td=""><td>Project Information           Project Information           Signify #FA:3: Signify #FA:3: Project Information: Informatio: Infor</td><td>※ 문   · · · · · · · · · · · · · · · · · ·</td><td>Preserved Deluger</td><td>Preserved where         Date Time:         aw data         ×         <th< td=""><td>Analytical Information         Analytical Information         Information         Information         Information         Information         Information         Information</td><td>Analytical Information       Analytical Information       X     X</td></th<></td></th></td></th>	<td></td> <td>Project Information         Project Information         Information:         Information:         Collection         Number of preserved both         Other Time       Matrix bothes of preserved both         Other Time       Number of preserved both         Data Deliverable information       <th colspa<="" td=""><td>Project Information           Project Information           Signify #FA:3: Signify #FA:3: Project Information: Informatio: Infor</td><td>※ 문   · · · · · · · · · · · · · · · · · ·</td><td>Preserved Deluger</td><td>Preserved where         Date Time:         aw data         ×         <th< td=""><td>Analytical Information         Analytical Information         Information         Information         Information         Information         Information         Information</td><td>Analytical Information       Analytical Information       X     X</td></th<></td></th></td>			Project Information         Project Information         Information:         Information:         Collection         Number of preserved both         Other Time       Matrix bothes of preserved both         Other Time       Number of preserved both         Data Deliverable information <th colspa<="" td=""><td>Project Information           Project Information           Signify #FA:3: Signify #FA:3: Project Information: Informatio: Infor</td><td>※ 문   · · · · · · · · · · · · · · · · · ·</td><td>Preserved Deluger</td><td>Preserved where         Date Time:         aw data         ×         <th< td=""><td>Analytical Information         Analytical Information         Information         Information         Information         Information         Information         Information</td><td>Analytical Information       Analytical Information       X     X</td></th<></td></th>	<td>Project Information           Project Information           Signify #FA:3: Signify #FA:3: Project Information: Informatio: Infor</td> <td>※ 문   · · · · · · · · · · · · · · · · · ·</td> <td>Preserved Deluger</td> <td>Preserved where         Date Time:         aw data         ×         <th< td=""><td>Analytical Information         Analytical Information         Information         Information         Information         Information         Information         Information</td><td>Analytical Information       Analytical Information       X     X</td></th<></td>	Project Information           Project Information           Signify #FA:3: Signify #FA:3: Project Information: Informatio: Infor	※ 문   · · · · · · · · · · · · · · · · · ·	Preserved Deluger	Preserved where         Date Time:         aw data         × <th< td=""><td>Analytical Information         Analytical Information         Information         Information         Information         Information         Information         Information</td><td>Analytical Information       Analytical Information       X     X</td></th<>	Analytical Information         Information         Information         Information         Information         Information         Information	Analytical Information       Analytical Information       X     X

Received by OCD: 4/12/2023 7:58:32 AM



## **XENCO** Laboratories



Prelogin/Nonconformance Report- Sample Log-In

Client: TRC Solutions, Inc Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 03/08/2018 10:30:00 AM Temperature Measuring device used : R8 Work Order #: 578650 Comments Sample Receipt Checklist 4 #1 \*Temperature of cooler(s)? #2 \*Shipping container in good condition? Yes #3 \*Samples received on ice? Yes #4 \*Custody Seals intact on shipping container/ cooler? N/A #5 Custody Seals intact on sample bottles? N/A #6\*Custody Seals Signed and dated? N/A #7 \*Chain of Custody present? Yes #8 Any missing/extra samples? No #9 Chain of Custody signed when relinquished/ received? Yes #10 Chain of Custody agrees with sample labels/matrix? Yes #11 Container label(s) legible and intact? Yes #12 Samples in proper container/ bottle? No TPH received in bulk jars #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)?

#18 Water VOC samples have zero headspace?

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

Analyst:

PH Device/Lot#:

Date: 03/08/2018

No

N/A

Checklist completed by: Connie Hernandez Connie Hernandez Connie Hernandez Connie Hernandez Kelsey Brooks

Date: 03/09/2018



Client: COG Operating, LLC

Project Name: Skelly Unit #743

## Photographic Log





Client: COG Operating, LLC

### Photographic Log





**Client:** COG Operating, LLC **Project Name:** Skelly Unit #743

## Photographic Log





Client: COG Operating, LLC

Project Name: Skelly Unit #743

## Photographic Log



### NM OIL CONSERVATION

ARTESIA DISTRICT

Page 120 of 124

Form C-141

Revised August 8, 2011

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

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

State of New Mexico

Energy Minerals and Natural Resources JUL 07 2017 Submit 1 Copy to appropriate District Office in **RECEIVED** accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action** 

### NAB171912765 **OPERATOR** Initial Report Final Report Name of Company: COG Operating LLC OGRID # 229137 Contact: Robert McNeill 600 West Illinois Avenue, Midland TX 79701 432-683-7443 Address: Telephone No. Facility Name: Skelly Unit #743 Facility Type: Flowline

Federal Mineral Owner: Federal Surface Owner: API No. 30-015-37884

### LOCATION OF RELEASE

Unit Letter Section	1 Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<u>N 22</u>	17\$	31E	945	South	1650	West	Eddy

Latitude 32.8154373 Longitude -103.860733

### NATURE OF RELEASE

Type of Release:	Volume of Release:	Volume Recovered:
Oil and Produced Water	9 bbl. Oil & 10 bbl. PW	8 bbl. Oil & 9 bbl. <u>PW</u>
ource of Release:	Date and Hour of Occurrence:	Date and Hour of Discovery:
Flowline	July 6, 2017 7:30 pm	July 6, 2017 7:30 pm
Vas Immediate Notice Given?	If YES, To Whom?	
🗌 Yes 🛛 No 🖾 Not Required		
By Whom?	Date and Hour:	
Vas a Watercourse Reached?	If YES, Volume Impacting the W	atercourse.
🗌 Yes 🖾 No		
f a Watercourse was Impacted, Describe Fully.*		
a materoalse has implated, postibe t any.		
Describe Cause of Problem and Remedial Action Taken.*		
The release occurred in the pasture and was due to a polyline splitting in a	an area that had previously been splic	ced. The line will be repaired.
Describe Area Affected and Cleanup Action Taken.*		
n a table de como a construction de la construction de la construction de la construction de la construction de		
The release was within the pasture. A vacuum truck was dispatched to ren		
any possible impact from the release and we will present a remediation we activities.	ork plan to the NMUCD for approva	al prior to any significant remediation
I hereby certify that the information given above is true and complete to the	he best of my knowledge and under	tend that numbers to NMOCD rules and
egulations all operators are required to report and/or file certain release n	ne best of my knowledge and unders	stions for releases which may enderner
bublic health or the environment. The acceptance of a C-141 report by the	e NMOCD marked as "Final Report	" does not relieve the operator of liability
hould their operations have failed to adequately investigate and remediat	e contamination that pose a threat to	ground water, surface water, human health
or the environment. In addition, NMOCD acceptance of a C-141 report d	loes not relieve the operator of respo	nsibility for compliance with any other
ederal, state, or local laws and/or regulations.		
N Dia Charland	OIL CONSER	VATION DIVISION
Signature: Replaca Haspell		
^		(1) pho (1) N
Printed Name: Rebecca Haskell	Approved by Environmental Specia	list MAA, V
	allalia	
Fitle: Senior HSE Coordinator	Approval Date:	Expiration Date: N/A
	· · · · · · · ·	
E-mail Address: thaskell@concho.com	Conditions of Approval:	Attached D
	see attac	
Date: July 7, 2017 Phone: 432-683-7443		
ttach Additional Sheets If Necessary		2P2/1285
		$m = 9\mu O$

### Operator/Responsible Party,

The OCD has received the form C-141 you provided on **7/7/17** regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number <u>ARP (1885</u>) has been assigned. Please refer to this case number in all future correspondence.

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

The responsible person shall complete <u>division-approved corrective action</u> for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District II office in Artesia on or before 8/7/17. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

• Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

• Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.

• Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold OCD Environmental Bureau Chief 1220 South St. Francis Drive Santa Fe, New Mexico 87505 505-476-3465 jim.griswold@state.nm.us

### Weaver, Crystal, EMNRD

From:	Rebecca Haskell <rhaskell@concho.com></rhaskell@concho.com>
Sent:	Friday, July 7, 2017 11:51 AM
То:	Weaver, Crystal, EMNRD; stucker@blm.gov
Cc:	Bratcher, Mike, EMNRD; Jim Amos (jamos@blm.gov)
Subject:	(C-141 Initial) Skelly Unit #743 7-6-17 (30-015-37884)
Attachments:	Skelly Unit #743 Initial C-141 7-6-17 (30-015-37884).pdf

Ms. Weaver / Ms. Tucker,

Please find the attached Initial C-141 for your consideration. If you have any questions or concerns please contact me.

Thank You,

Becky Haskell Senior HSE Coordinator COG Operating LLC 600 W Illinois Avenue | Midland, TX 79701 Direct: 432-818-2372 | Main: 432.683.7443 Cell: 432-556-5130 rhaskell@concho.com



CONFIDENTIALITY NOTICE: The information in this email may be confidential and/or privileged. If you are not the intended recipient or an authorized representative of the intended recipient, you are hereby notified that any review, dissemination or copying of this email and its attachments, if any, or the information herein, is prohibited. If you received this email in error, please immediately notify the sender by return email and delete this email from your system. Thank you.

NOTICE: The information in this email may be confidential and/or privileged. If you are not the intended recipient or an authorized representative of the intended recipient, you are hereby notified that any review, dissemination or copying of this email and its attachments, if any, or the information contained herein, is prohibited. If you have received this email in error, please immediately notify the sender by return email and delete this email from your system. Further, any contract terms proposed or purportedly accepted in this email are not binding and are subject to management's final approval as memorialized in a separate written instrument, excluding electronic correspondence, executed by an authorized representative of COG Operating LLC or its affiliates.

District I 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720 District II

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

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

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

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

CONDITIONS

Operator:	OGRID:
Spur Energy Partners LLC	328947
9655 Katy Freeway	Action Number:
Houston, TX 77024	206630
	Action Type:
	[IM-SD] Incident File Support Doc (ENV) (IM-BNF)

### CONDITIONS

Created By		Condition Date
bhall	None	5/2/2023

Page 124 of 124

Action 206630