NDHR1913653465

F1I84-200319-C-1410



# **Revised Closure Report**

Corazon State Unit #5H API # 30-025-40947 \*1RP-5474 Talon Project #700778.119.01

# **Prepared For:**

COG Operating, LLC 600 West Illinois Avenue Midland TX, 79701

# Prepared By:

TALON/LPE 408 W. Texas Avenue Artesia, New Mexico 88210

February 18, 2020

Ms. Victoria Venegas
NMOCD District 2
811 S. 1<sup>st</sup> Street
Artesia, NM 88210

Subject:

**Revised Closure Report** 

Corazon State Unit #5H

API # 30-025-40947 \*1RP-5474

Dear Ms. Venegas

COG Operating, LLC (COG) had contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above-referenced location. The incident description, soil sampling results, remedial actions, and closure requests are presented herein.

# Site Information

The Corazon St 5H is located approximately thirty (30) miles southwest of Hobbs, New Mexico. The legal location for this release is Unit Letter M, Section 3, Township 21 South and Range 33 East in Lea County, New Mexico. More specifically, the latitude and longitude for the release are 32.50085 North and -103.56786 West. A site plan is presented in Appendix I.

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Kimbrough Land complex with 0 to 3 percent slopes. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is Upper Permian in age and is comprised of loamy eolian deposits derived from sedimentary rock. Drainage courses in this area are well dry.

# **Ground Water and Site Ranking**

The New Mexico Office of the State Engineer Database indicates the nearest reported depth to groundwater is 150-feet below ground surface (BGS). See Appendix II for the referenced groundwater depth. This site is located within a low potential Karst area.

If a release occurs within the following areas, the responsible party must treat the release as if it occurred less than 50 feet to the groundwater in Table I, New Mexico Oil Conservation Division (NMOCD) Rule 19.15.29 NMAC.

Approximate Depth to	Groundwater 150 Feet/BGS
∐Yes ⊠No	Within 300 feet of any continuously flowing watercourse or any other significant watercourse
□Yes ⊠No	Within 200 feet of any lakebed, sinkhole or playa lake
∐Yes ⊠No	Within 300 feet from an occupied permanent residence, school, hospital, institution or church
□Yes ⊠No	Within 500 feet of a spring or a private, domestic freshwater well used by less than five households for domestic or stock watering purposes
∐Yes ⊠No	Within 1000 feet of any freshwater well or spring
□Yes ⊠No	Within incorporated municipal boundaries or within a defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to Section 3-2703 NMSA 1978
∐Yes ⊠No	Within 300 feet of a wetland
∐Yes ⊠No	Within the area overlying a subsurface mine
□Yes ⊠No	Within an unstable area
□Yes ⊠No	Within a 100-year floodplain

	Tab	ole I Impacted by a Release	
Depth below horizontal extents of release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
>100 feet	Total Chlorides*** TPH (GRO+DRO+MRO)	EPA 300.0 or SM4500 CI B EPA SW-846 Method 8015M	20,000 mg/kg 2,500 mg/kg
	GRO+DRO BTEX	EPA SW-846 Method 8015M EPA SW-846 Method 8021B or 8260B	1,000 mg/kg 50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

# **Incident Description**

On March 30, 2019, a release occurred from a hole in the flowline. The release impacted only the well pad with a total of 2.5 barrels of produced water and 2.5 barrels of oil. A vacuum truck was dispatched and a total of 2 barrels of produced water and 2 barrels of oil was recovered. A site map is presented in Appendix I.

On May 6, 2019, Talon mobilized personnel and equipment to the site to begin assessment and remediation activities. The impacted area was excavated utilizing a backhoe. Confirmation samples representing the spill area were collected from the bottom and sidewalls of the excavation to ensure that all environmental impacts had been addressed.

# Soil Sampling

Sample ID	Sample	Depth	BTEX	Benzene	GRO	DRO	MRO	Total TPH	Cl
	Date	(BGS)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
NMOCD Table	1 Closure Crite NMAC	eria 19.15.29	50 mg/kg	10 mg/kg		combined = mg/kg		2500 mg/kg	20,000 mg/kg
	5/6/2019	0	3.7	0.05	58.4	2390	727	3175.4	5840
S-1	5/9/2019	0.5	0.449	0	240	1750	132	2122	204
3-1	5/21/2019	1	0.3	0.05	ND	2210	601	2811	
	5/29/2019	2	ND	ND	ND	ND	ND	ND	
S-2	5/6/2019	0	0.417	0.05	ND	34.8	ND	34.8	24800
3-2	5/9/2019	0.5	ND	ND	ND	47.2	8.14	55.34	880
	5/6/2019	0	0.521	0.05	ND	25.6	ND	25.6	24800
S-3	1/16/2020	0.5							4880
3-3	1/16/2020	1			-				96
	1/16/2020	2							96
	5/6/2019	0	29.2	0.2	908	8480	1330	10718	6160
S-4	1/16/2020	0			ND	ND	ND	ND	
S-4	1/16/2020	1			ND	ND	ND	ND	
	1/16/2020	2			ND	ND	ND	ND	
	5/6/2019	0	13.9	0.05	384	5230	927	6541	4480
S-5	5/9/2019	0.5	27.5	0.105	1730	8790	839	11359	7450
3-5	5/21/2019	1	45.1	0.2	1490	10500	2030	14020	
	5/29/2019	2	ND	ND	ND	ND	ND	ND	
	5/6/2019	0	114	0.2	2990	23200	3950	30140	64
S-6	5/9/2019	0.5	0.312	ND	476	3930	272	4678	3870
	5/21/2019	1	0.3	0.05	ND	493	118	611	
S-7	5/6/2019	0	82.8	0.2	2100	23500	4520	30120	752
5-7	5/21/2019	1	0.3	0.05	ND	364	83.1	447.1	
C O Cidemell	5/9/2019	0.5	1.78	ND	653	10400	1150	12203	2750
S-8 Sidewall	5/21/2019	1	0.3	0.05	ND	52.1	ND	52.1	
S-9 Sidewall	5/9/2019	0.5	ND	ND	ND	81.9	17.8	99.7	3490
S-10 Sidewall	5/9/2019	0.5	ND	ND	13.3	2050	192	2255.3	4860
C 44 C' L	5/9/2019	0.5	0.424	ND	606	7260	738	8604	76
S-11 Sidewall	5/21/2019	1	0.866	0.05	31	1570	457	2058	
6.40.61.1	5/9/2019	0.5	ND	ND	221	4980	290	5491	4570
S-12 Sidewall	5/21/2019	1	0.3	0.05	ND	19.1	ND	19.1	

ND-Analyte Not Detected, -- Analyte Not Tested

See Appendix V for the complete report of laboratory results.

# Remedial Actions

- The impacted areas in the vicinity of S-1, S-4, and S-5 were excavated to a depth of 2.0-feet BGS with representative confirmation samples obtained.
- The impacted areas in the vicinity of S-2 and S-3 were excavated to a depth of 0.5-foot BGS with representative confirmation bottom and sidewall samples obtained to ensure the contamination had been removed.
- The impacted areas in the vicinity of S-6 and S-7 were excavated to a depth of 1.0-foot BGS with confirmation samples obtained.
- All contaminated soil was transported to Lea Land, LLC and R360, both are NMOCD approved soil waste disposal facilities.
- The excavated area was backfilled with clean caliche, machine compacted and contoured to match the surrounding location.
- An Initial & Final C-141 is attached in Appendix IV.

# **Supplemental Sampling Activities**

Pursuant to NMOCD direction, additional samples were collected and analyzed at sample locations S-3 and S-4. On January 16, 2020, a Geoprobe Rig, direct push technology, was utilized to collect soil samples from sample location S-3 at 0.5', 1.0' and 2.0' BGS. Additionally, soil samples were collected from sample location S-4 at 0', 1.0' and 2.0' deep respectively. As shown on the attached data table, Total Chloride analysis for all samples collected at S-3 were found to be below NMOCD RRAL's. Analytical results for samples collected at sample location S-4 were found to be below laboratory method detection limits for Total Petroleum Hydrocarbons (TPH) in all instances. The complete laboratory report is attached in Appendix V for your review.

# Closure

Based on this site characterization and analytical results, we request that no further actions be required and that closure regarding this incident be granted.

Should you have any questions or if further information is required, please do not hesitate to contact our office at 575-746-8768.

Respectfully submitted,

TALON/LPE

Chris Jones
Project Manager

David J. Adkins District Manager

Attachments:

Appendix I Site Map, Karst Map, TOPO Map & Locator Map

Appendix II Groundwater Data, Soil Survey & FEMA Flood Zone

Appendix III Initial & Final C-141

Appendix IV Photographic Documentation

Appendix V Laboratory Results



# **APPENDIX I**

SITE MAP

**KARST MAP** 

**TOPO MAP** 

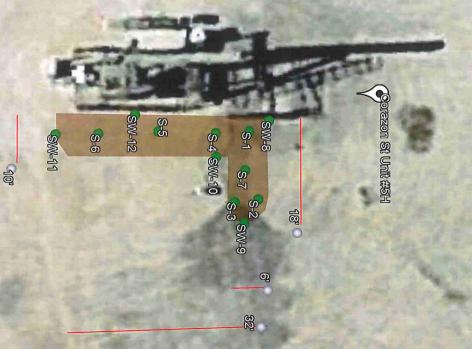
**LOCATOR MAP** 



@ 2019 Google

# Corazon St Unit #5H

COG Operating, LLC Lea, NM API 30-025-40947 Site Map

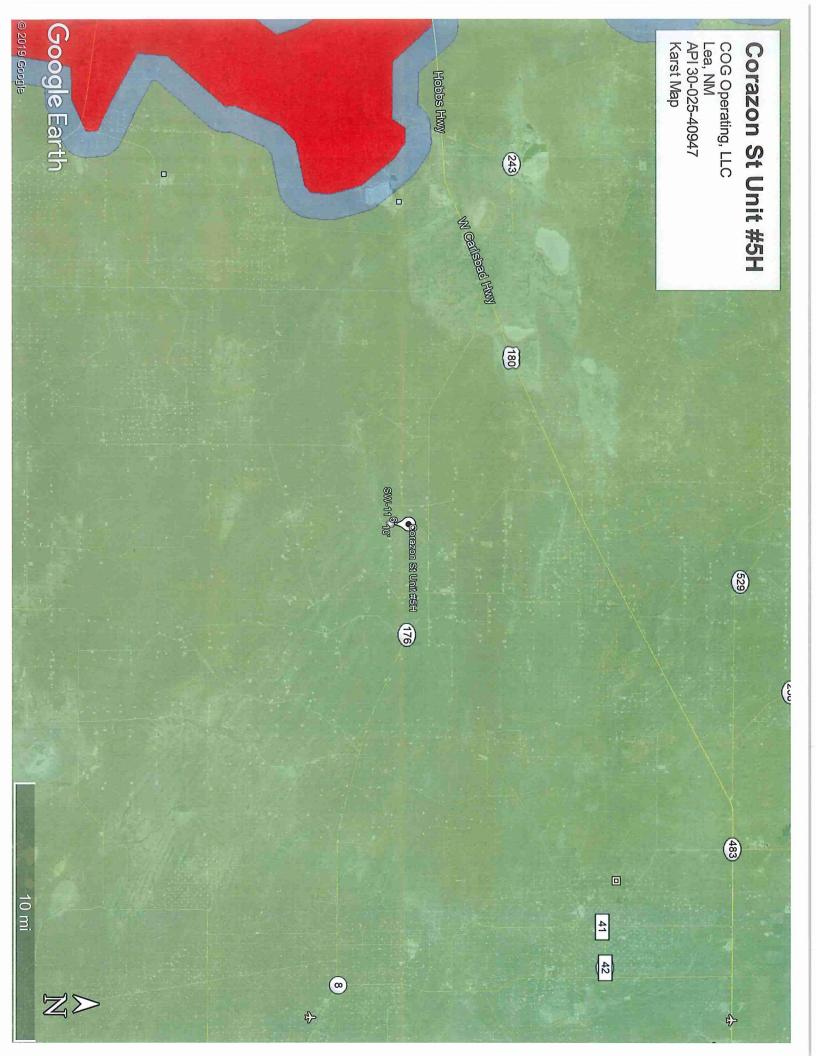


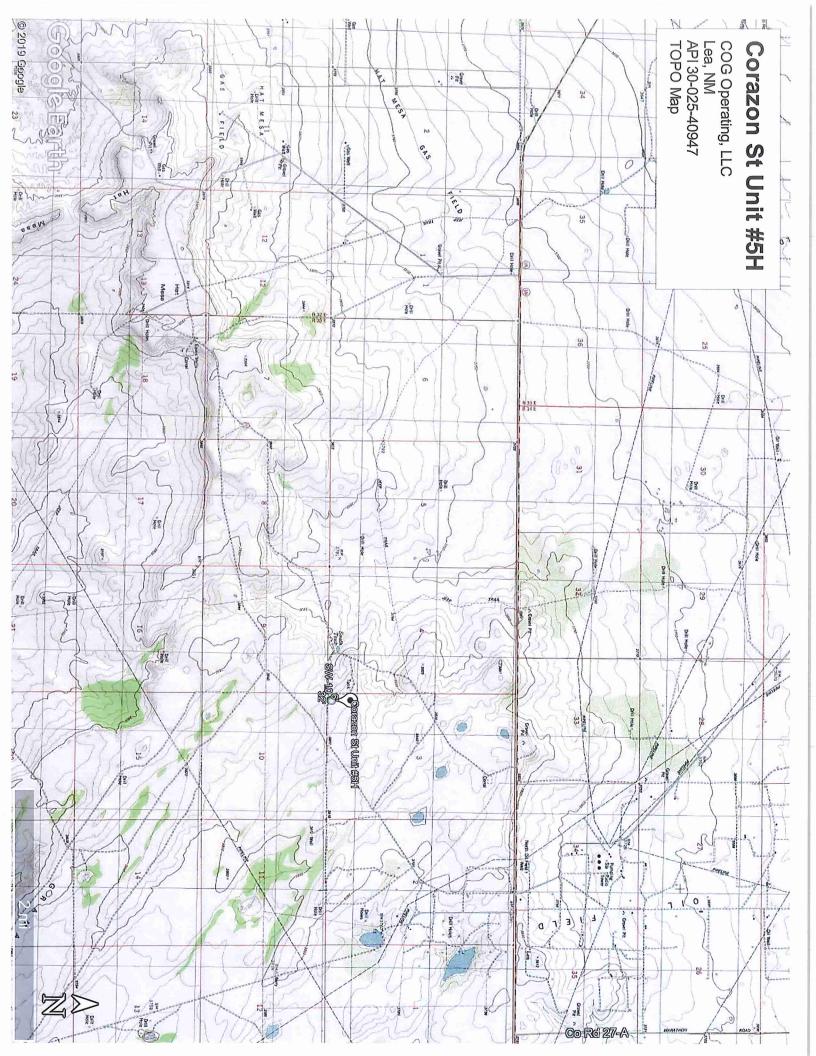
# Legend

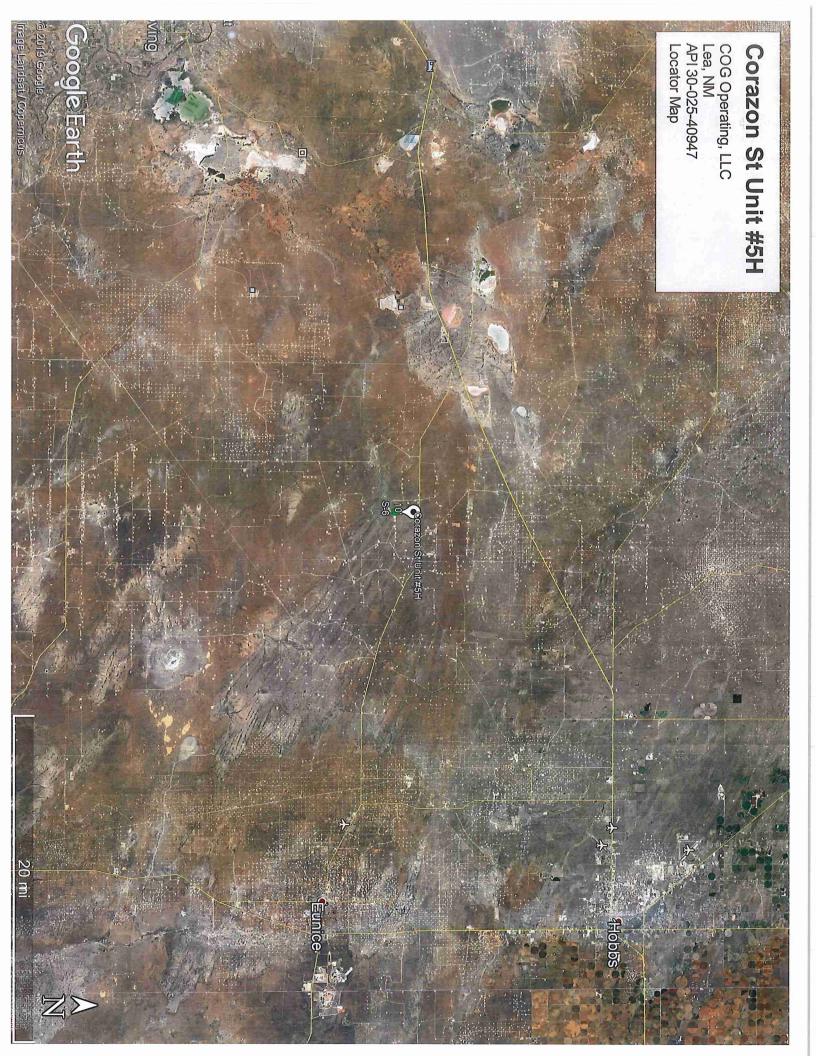














# <u>APPENDIX II</u>

# **GROUNDWATER DATA**

**SOIL SURVEY** 

**FEMA FLOOD ZONE** 



# New Mexico Office of the State Engineer

# Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

		POD													
		Sub-		Q	Q	Q								,	Water
POD Number	Code	basin	County	64	16	4	Sec	Tws	Rng	X	Y	DistanceDe	epthWellDe	epthWater C	olumn
<u>CP 00801 POD1</u>		CP	LE	3	2	1	11	21S	33E	636555	3596549*	2038	200		
<u>CP 00578</u>		CP	LE		4	3	11	21S	33E	636674	3595445*	2555	165	150	15
CP 01317 POD1		CP	LE	1	3	2	02	21S	33E	636884	3598450	2839	1250	1025	225
CP 00797 POD1		CP	LE	1	2	4	02	21S	33E	637348	3597564*	2898	110		

Average Depth to Water:

587 feet

Minimum Depth:

150 feet

Maximum Depth:

1025 feet

### Record Count: 4

UTMNAD83 Radius Search (in meters):

Easting (X): 634538.683

Northing (Y): 3596849.656

Radius: 3000

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/29/19 1:21 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

<sup>\*</sup>UTM location was derived from PLSS - see Help

# Lea County, New Mexico

# KO—Kimbrough gravelly loam, dry, 0 to 3 percent slopes

# **Map Unit Setting**

National map unit symbol: 2tw43 Elevation: 2,500 to 4,800 feet

Mean annual precipitation: 14 to 16 inches Mean annual air temperature: 57 to 63 degrees F

Frost-free period: 180 to 220 days

Farmland classification: Not prime farmland

## **Map Unit Composition**

Kimbrough, dry, and similar soils: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

### Description of Kimbrough, Dry

### Setting

Landform: Playa rims, plains
Down-slope shape: Linear, convex
Across-slope shape: Linear, concave

Parent material: Loamy eolian deposits derived from sedimentary

rock

### Typical profile

A - 0 to 3 inches: gravelly loam Bw - 3 to 10 inches: loam

Bkkm1 - 10 to 16 inches: cemented material Bkkm2 - 16 to 80 inches: cemented material

### Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 4 to 18 inches to petrocalcic

Natural drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Very

low to moderately low (0.00 to 0.01 in/hr) Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 95 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0

to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 1.0

Available water storage in profile: Very low (about 1.4 inches)

### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: D

Ecological site: Very Shallow 12-17" PZ (R077DY049TX)

Hydric soil rating: No

# Minor Components

### **Eunice**

Percent of map unit: 10 percent

Landform: Plains

Down-slope shape: Linear Across-slope shape: Convex

Ecological site: Very Shallow 12-17" PZ (R077DY049TX)

Hydric soil rating: No

# Spraberry

Percent of map unit: 6 percent Landform: Playa rims, plains Down-slope shape: Linear, convex

Across-slope shape: Linear

Ecological site: Very Shallow 12-17" PZ (R077DY049TX)

Hydric soil rating: No

### Kenhill

Percent of map unit: 4 percent

Landform: Plains

Down-slope shape: Linear Across-slope shape: Linear

Ecological site: Clay Loam 12-17" PZ (R077DY038TX)

Hydric soil rating: No

# **Data Source Information**

Soil Survey Area: Lea County, New Mexico Survey Area Data: Version 15, Sep 12, 2018

# National Flood Hazard Layer FIRMette







# Legend

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







areas of less than one square mile zone

of 1% annual chance flood with average 0.2% Annual Chance Flood Hazard, Area

depth less than one foot or with drainag



Levee. See Notes. Zone X Area with Reduced Flood Risk due to Chance Flood Hazard Zone X Future Conditions 1% Annual



Area with Flood Risk due to Levee Zone D

NO SCREEN Area of Minimal Flood Hazard Zone X Effective LOMRs

Area of Undetermined Flood Hazard Zona

STRUCTURES | 1111111 Levee, Dike, or Floodwall Channel, Culvert, or Storm Sewer

GENERAL



Water Surface Elevation Cross Sections with 1% Annual Chance

Limit of Study Base Flood Elevation Line (BFE) Coastal Transect

Coastal Transect Baseline Jurisdiction Boundary



**FEATURES** 

OTHER

Digital Data Available



No Digital Data Available

MAP PANELS

Unmapped

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

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

authoritative NFHL web services provided by FEMA. This map was exported on 5/29/2019 at 3:21:11 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. The flood hazard information is derived directly from the

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

0

250

500

1,000

1,500

2,000



# **APPENDIX III**

# INITIAL C-141 & FINAL C-141

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

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

# Release Notification

# **Responsible Party**

Responsible Party	COG Operating, LLC	OGRID	229137
Contact Name	Jennifer Knowlton	Contact Telephone	(575) 748-1570
Contact email	JKnowlton@concho.com	Incident # (assigned by OC)	D)
Contact mailing address	600 West Illinois Avenue, Midl	and, Texas 79701	
	T		

### **Location of Release Source**

			L'ocation of	itticase o	ource		
Latitude	32.5008	35		Longitude	-103.567	86	
			(NAD 83 in decima		mal places)		
Site Name		Corazon State	Unit #005H	Site Type	Flowline	e	
Date Release	Discovered	March 30, 20	19	API# (if ap	plicable) 30-025-	-40947	
Unit Letter	Section	Township	Range	Cou	nty		
М	03	21S	33E	Le	a		
Surface Owne	r: State	☐ Federal ☐ Tr	ibal Private (Nan	ne:			) .
						WATER OF THE PARTY	
			Nature and V	olume of	Kelease		
	Materia	l(s) Released (Select al	l that apply and attach cald	culations or specific	c justification for the vo	lumes provided	l below)
Crude Oi		Volume Release		-	Volume Recover		2
Produced	Water	Volume Release	d (bbls) 2.5		Volume Recover	red (bbls)	2
Is the concentration of dissolved chloride in the produced water >10,000 mg/l?							
Condensate Volume Released (bbls)					Volume Recovered (bbls)		
Natural C	das	Volume Release	d (Mcf)		Volume Recover	red (Mcf)	
Other (describe) Volume/Weight Released (provide units)			nits)	Volume/Weight Recovered (provide units)			
Cause of Rel	ease	1					
The release	20 M20 03	used by a hole	e in the flowline.	The flowlin	o is hoing rong	airad	
							dina fluida
			acuum truck was				
, Concno W	ııı evaldat	e the site to d	etermine it we m	iay commei	nce remediatio	ın immedi	ately or delineate

any possible impact from the release and we will present a remediation work plan to the NMOCD for

approval prior to any significant remediation activities.

# State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release?  If YES, for what reason(s) does the responsible party consider this a major release?  If YES, for what reason(s) does the responsible party consider this a major release?  Yes No  If YES, for what reason(s) does the responsible party consider this a major release?						
	Initial Re	sponse				
The responsible p	party must undertake the following actions immediately	unless they could create a safety hazard that would result in injury				
The source of the rele	ase has been stopped.					
The impacted area ha	s been secured to protect human health and t	he environment.				
Released materials ha	we been contained via the use of berms or di	kes, absorbent pads, or other containment devices.				
All free liquids and re	ecoverable materials have been removed and	managed appropriately.				
has begun, please attach a	a narrative of actions to date. If remedial e	mediation immediately after discovery of a release. If remediation forts have been successfully completed or if the release occurred ease attach all information needed for closure evaluation.				
regulations all operators are public health or the environm failed to adequately investigations.	required to report and/or file certain release notifi- nent. The acceptance of a C-141 report by the Odate and remediate contamination that pose a threa	est of my knowledge and understand that pursuant to OCD rules and cations and perform corrective actions for releases which may endanger CD does not relieve the operator of liability should their operations have to groundwater, surface water, human health or the environment. In esponsibility for compliance with any other federal, state, or local laws				
Printed Name: DeAnr	rinted Name: DeAnn Grant Title: HSE Administrative Assistant					
Signature:						
email: agrant@co	ncho.com	Date: 4/1/2019 Telephone: (432) 253-4513				
OCD Only						
Received by:		Date:				

# State of New Mexico Oil Conservation Division

Incident ID	NAB1912955644
District RP	
Facility ID	
Application ID	

# Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	150 (ft bgs)			
Did this release impact groundwater or surface water?	☐ Yes ⊠ No			
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?				
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ⊠ No			
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ⊠ No			
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ⊠ No			
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ⊠ No			
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ⊠ No			
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ⊠ No			
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ⊠ No			
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ⊠ No			
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ⊠ No			
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	☐ Yes ⊠ No			
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and ver contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.	tical extents of soil			
Characterization Report Checklist: Each of the following items must be included in the report.				
Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring well. Field data	ls.			
☐ Data table of soil contaminant concentration data ☐ Depth to water determination				
Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release	:			
☐ Boring or excavation logs ☐ Photographs including date and GIS information				
<ul> <li>☐ Topographic/Aerial maps</li> <li>☐ Laboratory data including chain of custody</li> </ul>				

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

# State of New Mexico Oil Conservation Division

Incident ID	NAB1912955644
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the	best of my knowledge and understand that pursuant to OCD rules and
regulations all operators are required to report and/or file certain release not	fications and perform corrective actions for releases which may endanger
public health or the environment. The acceptance of a C-141 report by the C	OCD does not relieve the operator of liability should their operations have
failed to adequately investigate and remediate contamination that pose a three	eat to groundwater, surface water, human health or the environment. In
addition, OCD acceptance of a C-141 report does not relieve the operator of	responsibility for compliance with any other federal, state, or local laws
and/or regulations.	,,,,,,,,,,
1	
Printed Name: Chris Jones	Title: Duciest Manager
Fillited Name. Clins Jones	Title: Project Manager
Signature:	Date: 6-27-19
email: cjones@talonlpe.com	Telephone: 575-746-8768
OCD Only	
OCD OILY	
Received by: Cristina Eads	Date: 04/08/2020
Received by: Cristina Eads	Date:04/08/2020

# State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

# **Remediation Plan**

Remediation Plan Checklist: Each of the following items must be	e included in the plan.
<ul> <li>☑ Detailed description of proposed remediation technique</li> <li>☑ Scaled sitemap with GPS coordinates showing delineation point</li> <li>☑ Estimated volume of material to be remediated</li> <li>☑ Closure criteria is to Table 1 specifications subject to 19.15.29.1</li> <li>☑ Proposed schedule for remediation (note if remediation plan times)</li> </ul>	2(C)(4) NMAC
Deferral Requests Only: Each of the following items must be com-	firmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around predeconstruction.	oduction equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	
Contamination does not cause an imminent risk to human health	, the environment, or groundwater.
I hereby certify that the information given above is true and complete rules and regulations all operators are required to report and/or file of which may endanger public health or the environment. The accepta liability should their operations have failed to adequately investigate surface water, human health or the environment. In addition, OCD responsibility for compliance with any other federal, state, or local limits of the compliance with any other federal, state, or local limits and other federal and the compliance with any other federal.	pertain release notifications and perform corrective actions for releases once of a C-141 report by the OCD does not relieve the operator of a and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of
Printed Name: Chris Jones	Title: Project Manager
Signature:	Date: 6-27-19
email: cjones@talonlpe.com	Telephone: 575-746-8768
OCD Only	
Received by:	Date:
☐ Approved ☐ Approved with Attached Conditions of	Approval Denied Deferral Approved
Signature:	Date:

# State of New Mexico Oil Conservation Division

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

A scaled site and sampling diagram as described in 19.15.29.11 NMAC

Incident ID	NAB1912955644	
District RP		
Facility ID		
Application ID		

# Closure

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

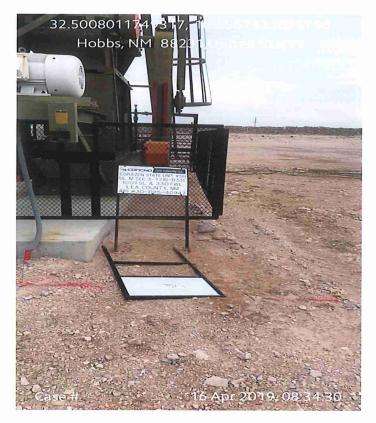
Photographs of the remediated site prior to backfill or photos of     Photographs of the remediated site prior to backfill or photos of the prior to backfill or photos.  Output  Description to the prior to backfill or photos of the prior to backfill or photos of the prior to backfill or photos.  Output  Description to the prior to backfill or photos of the photos of the prior to backfill or photos of the photo	the liner integrity if applicable (Note: appropriate OCD District office
must be notified 2 days prior to liner inspection)	
☐ Laboratory analyses of final sampling (Note: appropriate ODC D	istrict office must be notified 2 days prior to final sampling)
☐ Description of remediation activities	
I hereby certify that the information given above is true and complete t and regulations all operators are required to report and/or file certain re may endanger public health or the environment. The acceptance of a C should their operations have failed to adequately investigate and remed	C-141 report by the OCD does not relieve the operator of liability
human health or the environment. In addition, OCD acceptance of a C compliance with any other federal, state, or local laws and/or regulation restore, reclaim, and re-vegetate the impacted surface area to the conditaccordance with 19.15.29.13 NMAC including notification to the OCD	ns. The responsible party acknowledges they must substantially tions that existed prior to the release or their final land use in
Printed Name:	Title: Project Manage
Signature:	Date: <u>6-27-19</u>
email: _ cjones @ talon /pe.com	Telephone: 575-746-8768
OCD Only	
Received by:Cristina Eads	Date:04/08/2020
	liability should their operations have failed to adequately investigate and ter, human health, or the environment nor does not relieve the responsible regulations.
Closure Approved by:Denied	Date: 04/08/2020
Printed Name: Cristina Eads	Title: Environmental Specialist



# **APPENDIX IV**

# PHOTOGRAPHIC DOCUMENTATION

# Spill Event









# Excavation



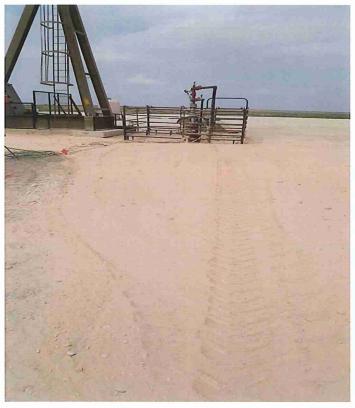






# Completed









# **APPENDIX V**

# LABORATORY DATA



May 08, 2019

**CHRIS JONES** 

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: CORAZON ST UNIT #5H

Enclosed are the results of analyses for samples received by the laboratory on 05/07/19 16:05.

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

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

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keene

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:

05/07/2019

Reported:

05/08/2019

Project Name:

CORAZON ST UNIT #5H

Project Number: Project Location:

700778.119.01 COG - LEA CO NM Sampling Date:

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

05/06/2019

Sample Received By:

Tamara Oldaker

Sample ID: S-1 0' (H901647-01)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/07/2019	ND	2.01	101	2.00	0.392	
Toluene*	0.182	0.050	05/07/2019	ND	2.11	105	2.00	1.27	
Ethylbenzene*	0.443	0.050	05/07/2019	ND	2.01	101	2.00	0.850	
Total Xylenes*	3.08	0.150	05/07/2019	ND	6.10	102	6.00	0.729	
Total BTEX	3.70	0.300	05/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	112 %	6 73.3-12	9						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5840	16.0	05/08/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	58.4	10.0	05/07/2019	ND	221	110	200	1.40	
DRO >C10-C28*	2390	10.0	05/07/2019	ND	227	114	200	1.18	QM-07
EXT DRO >C28-C36	727	10.0	05/07/2019	ND					
Surrogate: 1-Chlorooctane	98.2 9	6 41-142	?						
Surrogate: 1-Chlorooctadecane	142 %	6 37.6-14	7						

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\*=Accredited Analyte

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TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:

05/07/2019

Reported:

05/08/2019

Project Name:

CORAZON ST UNIT #5H

Project Number:

700778.119.01

Project Location:

COG - LEA CO NM

Sampling Date:

Date:

05/06/2019

Sampling Type: Sampling Condition: Soil

Sample Received By:

Cool & Intact Tamara Oldaker

Sample ID: S-2 0' (H901647-02)

BTEX 8021B  Analyte	mg/kg		Analyzed By: ms						
	Result	Reporting Limit	Analyzed	Method Blank	BS % Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/07/2019	ND	2.01	101	2.00	0.392	
Toluene*	<0.050	0.050	05/07/2019	ND	2.11	105	2.00	1.27	
Ethylbenzene*	0.053	0.050	05/07/2019	ND	2.01	101	2,00	0.850	
Total Xylenes*	0.364	0.150	05/07/2019	ND	6.10	102	6.00	0.729	
Total BTEX	0.417	0.300	05/07/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	106	% 73.3-12	9						
Chloride, SM4500CI-B	mg,	/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	24800	16.0	05/08/2019	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/08/2019	ND	221	110	200	1.40	
DRO >C10-C28*	34.8	10.0	05/08/2019	ND	227	114	200	1.18	
EXT DRO >C28-C36	<10.0	10.0	05/08/2019	ND					
Surrogate: 1-Chlorooctane	84.3	% 41-142	?						
Surrogate: 1-Chlorooctadecane	88.7	% 37.6-14	7						

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Celeg & Keens



TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

05/07/2019

Reported:

05/08/2019

Project Name:

CORAZON ST UNIT #5H

Project Number:

700778.119.01

Project Location:

COG - LEA CO NM

Sampling Date:

inpling Date.

05/06/2019

Sampling Type: Sampling Condition: Soil Cool & Intact

Sample Received By:

Tamara Oldaker

Tamara

Sample ID: S-3 0' (H901647-03)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/08/2019	ND	2.01	101	2.00	0.392	
Toluene*	<0.050	0.050	05/08/2019	ND	2.11	105	2.00	1.27	
Ethylbenzene*	0.081	0.050	05/08/2019	ND	2.01	101	2.00	0.850	
Total Xylenes*	0.440	0.150	05/08/2019	ND	6.10	102	6.00	0.729	
Total BTEX	0.521	0.300	05/08/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	111 9	6 73.3-12	9						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	24800	16.0	05/08/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/07/2019	ND	221	110	200	1.40	
DRO >C10-C28*	25.6	10.0	05/07/2019	ND	227	114	200	1.18	
EXT DRO >C28-C36	<10.0	10.0	05/07/2019	ND					
Surrogate: 1-Chlorooctane	90.2	% 41-142							
Surrogate: 1-Chlorooctadecane	95.4	% 37.6-14	7						

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Received: Reported: 05/07/2019

05/08/2019

CORAZON ST UNIT #5H

Project Name: Project Number:

700778.119.01

Project Location:

COG - LEA CO NM

Sampling Date:

Sampling Type:

05/06/2019 Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: S-4 0' (H901647-04)

BTEX 8021B	mg/kg		Analyzed By: ms					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	05/08/2019	ND	2.01	101	2.00	0.392	
Toluene*	0.842	0.200	05/08/2019	ND	2.11	105	2.00	1.27	
Ethylbenzene*	4.35	0.200	05/08/2019	ND	2.01	101	2.00	0.850	
Total Xylenes*	24.0	0.600	05/08/2019	ND	6.10	102	6.00	0.729	
Total BTEX	29.2	1.20	05/08/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	147 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC				- William		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6160	16.0	05/08/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyzed By: MS						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	908	10.0	05/07/2019	ND	221	110	200	1.40	
DRO >C10-C28*	8480	10.0	05/07/2019	ND	227	114	200	1.18	
EXT DRO >C28-C36	1330	10.0	05/07/2019	ND					
Surrogate: 1-Chlorooctane	161 9	% 41-142	?						
Surrogate: 1-Chlorooctadecane	256 9	% 37.6-14	7						

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TALON LPE **CHRIS JONES** 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received: 05/07/2019 Reported: 05/08/2019

Project Name: CORAZON ST UNIT #5H

Project Number: 700778.119.01

Project Location: COG - LEA CO NM Sampling Date:

Sampling Type:

Sampling Condition: Sample Received By: Cool & Intact

05/06/2019

Soil

Tamara Oldaker

#### Sample ID: S-5 0' (H901647-05)

BTEX 8021B	mg/kg		Analyze	ed By: ms				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/08/2019	ND	2.01	101	2.00	0.392		
Toluene*	0.636	0.050	05/08/2019	ND	2.11	105	2.00	1.27		
Ethylbenzene*	1.92	0.050	05/08/2019	ND	2.01	101	2.00	0.850		
Total Xylenes*	11.3	0.150	05/08/2019	ND	6.10	102	6.00	0.729		
Total BTEX	13.9	0.300	05/08/2019	ND						
Surrogate: 4-Bromofluorobenzene (PIL	159	% 73.3-12	9							
Chloride, SM4500Cl-B	mg/kg		Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4480	16.0	05/08/2019	ND	416	104	400	0.00		
TPH 8015M	mg/	/kg	Analyze	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	384	10.0	05/07/2019	ND	221	110	200	1.40		
DRO >C10-C28*	5230	10.0	05/07/2019	ND	227	114	200	1.18		
EXT DRO >C28-C36	927	10.0	05/07/2019	ND						
Surrogate: 1-Chlorooctane	121 9	% 41-142								
Surrogate: 1-Chlorooctadecane	191 9	% 37.6-14	7							

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Celeg Theene

Celey D. Keene, Lab Director/Quality Manager



TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:

05/07/2019

Reported:

05/08/2019

Project Name:

CORAZON ST UNIT #5H

Project Number:

700778.119.01

Project Location:

COG - LEA CO NM

Sampling Date:

ing pate:

Sampling Type: Soil

Sampling Condition: Sample Received By: Cool & Intact

05/06/2019

COOL & TILLECT

Tamara Oldaker

Sample ID: S-6 0' (H901647-06)

BTEX 8021B	mg,	kg	Analyzed By: ms					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	05/08/2019	ND	2.01	101	2.00	0.392	
Toluene*	6.70	0.200	05/08/2019	ND	2.11	105	2.00	1.27	
Ethylbenzene*	15.8	0.200	05/08/2019	ND	2.01	101	2.00	0.850	
Total Xylenes*	91.4	0.600	05/08/2019	ND	6.10	102	6.00	0.729	
Total BTEX	114	1.20	05/08/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	1865	% 73.3-12	9					-	
Chloride, SM4500CI-B	mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	05/08/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	Analyzed By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	2990	50.0	05/07/2019	ND	221	110	200	1.40	
DRO >C10-C28*	23200	50.0	05/07/2019	ND	227	114	200	1.18	
EXT DRO >C28-C36	3950	50.0	05/07/2019	ND					
Surrogate: 1-Chlorooctane	259 9	% 41-142							
Surrogate: 1-Chlorooctadecane	537 9	% 37.6-14	7						

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TALON LPE **CHRIS JONES** 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

05/07/2019

Reported:

05/08/2019

Project Name:

CORAZON ST UNIT #5H

Project Number: Project Location: 700778.119.01

COG - LEA CO NM

Sampling Date:

05/06/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: S-7 0' (H901647-07)

BTEX 8021B	mg,	/kg	Analyzed By: ms					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	05/08/2019	ND	2.01	101	2.00	0.392	
Toluene*	8.13	0.200	05/08/2019	ND	2.11	105	2.00	1.27	
Ethylbenzene*	10.9	0.200	05/08/2019	ND	2.01	101	2.00	0.850	
Total Xylenes*	63.8	0.600	05/08/2019	ND	6.10	102	6.00	0.729	
Total BTEX	82.8	1.20	05/08/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	166 9	% 73.3-12	9						
Chloride, SM4500CI-B	mg/	'kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	752	16.0	05/08/2019	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	2100	50.0	05/07/2019	ND	221	110	200	1.40	
DRO >C10-C28*	23500	50.0	05/07/2019	ND	227	114	200	1.18	
EXT DRO >C28-C36	4520	50.0	05/07/2019	ND					
Surrogate: 1-Chlorooctane	218 9	% 41-142							
Surrogate: 1-Chlorooctadecane	593 9	% 37.6-14	7						

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\*=Accredited Analyte

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#### **Notes and Definitions**

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celeg & Keene



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476 Company Name: 101 001 1.05

1100 17	ANALYSIS REQUEST
Froject Wanager: CHには Jones	
Address: 408 W. TEXAS AVE	7
City: ARTESIA State: NM Zip: 88210	Attn: C. JONES
Fax 类	Address:
Project #: 70ら778,119,01 Project Owner: Co(ナ	City:
ST UNIT #5H	: Zip:
1	· **
Sampler Name: MICHAE / COLLER	
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# **Analytical Report 624019**

for Talon/LPE Co.

Project Manager: Chris Jones
Corazon St 5H
700778.119.01
14-MAY-19

Collected By: Client





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

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054) Oklahoma (2017-142)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco-Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)



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Sample Receipt Conformance Report	25





14-MAY-19

Project Manager: Chris Jones Talon/LPE Co. 921 N Bivins St Amarillo, TX 79107

Reference: XENCO Report No(s): 624019

Corazon St 5H
Project Address:

#### **Chris Jones:**

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) 624019. 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. 624019 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jessica Kramer

Jessica Vramer

Project Assistant

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

Certified and approved by numerous States and Agencies.

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

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



# **Sample Cross Reference 624019**



# Talon/LPE Co., Amarillo, TX

Corazon St 5H

Sample Id	Matrix	<b>Date Collected</b>	Sample Depth	Lab Sample Id
S-1 Bottom	S	05-09-19 09:00	6 In	624019-001
S-2 Bottom	S	05-09-19 09:05	6 In	624019-002
S-5 Bottom	S	05-09-19 09:00	6 In	624019-003
S-6 Bottom	S	05-09-19 09:10	6 In	624019-004
S-8 Side Wall	S	05-09-19 09:20	6 In	624019-005
S-9 Side Wall	S	05-09-19 09:15	6 In	624019-006
S-10 Side Wall	S	05-09-19 09:30	6 In	624019-007
S-11 Side Wall	S	05-09-19 09:40	6 In	624019-008
S-12 Side Wall	S	05-09-19 09:50	6 In	624019-009



#### CASE NARRATIVE

Client Name: Talon/LPE Co. Project Name: Corazon St 5H

Project ID:

700778.119.01

Work Order Number(s): 624019

Report Date:

14-MAY-19

Date Received: 05/13/2019

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:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3088922 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030. Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected. Samples affected are: 624019-001,624019-004,624019-003,624019-009,624019-005,624019-008.

Batch: LBA-3088952 Chloride by EPA 300

Lab Sample ID 624019-003 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 624019-001, -002, -003, -004, -005, -006, -007, -008, -009.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3088961 TPH by SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits. Matrix interferences is suspected; data confirmed by

re-analysis.

Samples affected are: 624019-005.





#### Talon/LPE Co., Amarillo, TX

Corazon St 5H

Sample Id:

S-1 Bottom

Matrix:

Soil

Sample Depth: 6 In

Lab Sample Id: 624019-001

Date Collected: 05.09.19 09.00

Date Received: 05.13.19 10.50

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst:

CHE

% Moist:

Tech:

CHE

Seq Number: 3088952

Date Prep: 05.13.19 17.00

Prep seq: 7677763

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	204	5.00	0.858	mg/kg	05.13.19 21:04		1

Analytical Method: TPH by SW8015 Mod

Prep Method:

1005

Analyst:

ARM

% Moist:

Tech:

ARM

Seq Number: 3088961

Date Prep: 05.13.19 17.00

Prep seq: 7677810

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	240	15.0	7.98	mg/kg	05.14.19 00:13		1
Diesel Range Organics (DRO)	C10C28DRO	1750	15.0	8.10	mg/kg	05.14.19 00:13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	132	15.0	8.10	mg/kg	05.14.19 00:13		1
Total TPH	PHC635	2120		7.98	mg/kg	05.14.19 00:13		
Surrogate		% Recovery	,	Limits	Uni	its Analysis l	Date	Flag
1-Chlorooctane		117		70 - 13	35 %			
o-Terphenyl		127		70 - 13	35 %	ò		

Analytical Method: BTEX by EPA 8021B

Prep Method:

Analyst:

SCM

% Moist:

Tech:

5030B SCM

Seq Number: 3088922

Date Prep: 05.13.19 14.30

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Facto
Benzene	71-43-2	0.000726	0.00199	0.000383	mg/kg	05.14.19 03:01	J	1
Toluene	108-88-3	0.0257	0.00199	0.000453	mg/kg	05.14.19 03:01		1
Ethylbenzene	100-41-4	0.0336	0.00199	0.000561	mg/kg	05.14.19 03:01		1
m,p-Xylenes	179601-23-1	0.273	0.00398	0.00101	mg/kg	05.14.19 03:01		1
o-Xylene	95-47-6	0.116	0.00199	0.000342	mg/kg	05.14.19 03:01		1
Total Xylenes	1330-20-7	0.389		0.000342	mg/kg	05.14.19 03:01		
Total BTEX		0.449		0.000342	mg/kg	05.14.19 03:01		
Surrogate		% Recovery		Limits	Un	its Analysis	Date	Flag
1,4-Difluorobenzene		105		70 -	130 %	ó		
4-Bromofluorobenzene		187		70 - 1	130 %	, 0		**





#### Talon/LPE Co., Amarillo, TX

Corazon St 5H

Sample Id:

S-2 Bottom

Matrix:

Soil

Sample Depth: 6 In

Lab Sample Id: 624019-002

Date Collected: 05.09.19 09.05

Date Received: 05.13.19 10.50

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst:

CHE

% Moist:

Tech:

Tech:

CHE

Seq Number: 3088952

Date Prep: 05.13.19 17.00

Prep seq: 7677763

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Dil Factor Flag
Chloride	16887-00-6	880	5.00	0.858	mg/kg	05.13.19 21:09	1

Analytical Method: TPH by SW8015 Mod

Prep Method: 1005

ARM

Analyst: Seq Number: 3088961

ARM

% Moist:

Date Prep: 05.13.19 17.00

Prep seq: 7677810

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Facto
Gasoline Range Hydrocarbons (GRO)	PHC610	<7.99	15.0	7.99	mg/kg	05.14.19 00:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	47.2	15.0	8.12	mg/kg	05.14.19 00:34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	8.14	15.0	8.12	mg/kg	05.14.19 00:34	J	1
Total TPH	PHC635	55.3		7.99	mg/kg	05.14.19 00:34		
Surrogate		% Recovery		Limits	Uni	its Analysis	Date	Flag
1-Chlorooctane		96		70 - 13	35 %			
o-Terphenyl		97		70 - 13	35 %	,		

Analytical Method: BTEX by EPA 8021B

Prep Method:

Analyst:

SCM

% Moist:

Tech:

5030B SCM

Seq Number: 3088922

Date Prep: 05.13.19 14.30

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Facto
Benzene	71-43-2	< 0.000389	0.00202	0.000389	mg/kg	05.14.19 02:42	U	1
Toluene	108-88-3	< 0.000460	0.00202	0.000460	mg/kg	05.14.19 02:42	U	1
Ethylbenzene	100-41-4	< 0.000570	0.00202	0.000570	mg/kg	05.14.19 02:42	U	1
m,p-Xylenes	179601-23-1	< 0.00102	0.00404	0.00102	mg/kg	05.14.19 02:42	U	1
o-Xylene	95-47-6	< 0.000348	0.00202	0.000348	mg/kg	05.14.19 02:42	U	1
Total Xylenes	1330-20-7	< 0.000348		0.000348	mg/kg	05.14.19 02:42	U	
Total BTEX		<0.000348	-	0.000348	mg/kg	05.14.19 02:42	U	
Surrogate		% Recovery		Limits	Uni	its Analysis	Date	Flag
1,4-Difluorobenzene		98		70 - 1	30 %	o		
4-Bromofluorobenzene		123		70 - 1	30 %	o		





#### Talon/LPE Co., Amarillo, TX

Corazon St 5H

Sample Id:

S-5 Bottom

Matrix:

Soil

Sample Depth: 6 In

Lab Sample Id: 624019-003

Date Collected: 05.09.19 09.00

Date Received: 05.13.19 10.50

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst:

CHE

% Moist:

Tech:

CHE

Seq Number: 3088952

Date Prep: 05.13.19 17.00

Prep seq: 7677763

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	7450	50.0	8.58	mg/kg	05.13.19 21:15	Х	10

Analytical Method: TPH by SW8015 Mod

Prep Method:

1005

Analyst:

ARM

% Moist:

Tech:

ARM

Seq Number: 3088961

Date Prep: 05.13.19 17.00

Prep seq: 7677810

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	1730	74.9	39.9	mg/kg	05.14.19 09:59		5
Diesel Range Organics (DRO)	C10C28DRO	8790	74.9	40.6	mg/kg	05.14.19 09:59		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	839	74.9	40.6	mg/kg	05.14.19 09:59		5
Total TPH	PHC635	11400		39.9	mg/kg	05.14.19 09:59		
Surrogate		% Recovery		Limits	Uni	its Analysis	Date	Flag
1-Chlorooctane		93		70 - 13	s5 %			
o-Terphenyl		95		70 - 13	35 %	D		

Analytical Method: BTEX by EPA 8021B

Prep Method:

Analyst:

SCM

% Moist:

Tech:

5030B SCM

Seq Number: 3088922

Date Prep: 05.13.19 14.30

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	0.105	0.0998	0.0192	mg/kg	05.14.19 07:06		50
Toluene	108-88-3	0.0928	0.0998	0.0227	mg/kg	05.14.19 07:06	J	50
Ethylbenzene	100-41-4	2.61	0.0998	0.0282	mg/kg	05.14.19 07:06		50
m,p-Xylenes	179601-23-1	22.7	0.200	0.0506	mg/kg	05.14.19 07:06		50
o-Xylene	95-47-6	1.99	0.0998	0.0172	mg/kg	05.14.19 07:06		50
Total Xylenes	1330-20-7	24.7		0.0172	mg/kg	05.14.19 07:06		
Total BTEX		27.5		0.0172	mg/kg	05.14.19 07:06		
Surrogate		% Recovery		Limits	Uni	its Analysis	Date	Flag
1,4-Difluorobenzene		94		70 - 1	130 %	Ď		
4-Bromofluorobenzene		340		70 - 1	130 %	,		**





#### Talon/LPE Co., Amarillo, TX

Corazon St 5H

Sample Id:

S-6 Bottom

Matrix:

Soil

Sample Depth: 6 In

Lab Sample Id: 624019-004

Date Collected: 05.09.19 09.10

Date Received: 05.13.19 10.50

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst:

CHE

% Moist:

Tech:

CHE

Seq Number: 3088952

Date Prep: 05.13.19 17.00

Prep seq: 7677763

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	3870	24.8	4.25	mg/kg	05.13.19 21:30		5

Analytical Method: TPH by SW8015 Mod

Prep Method:

1005

Analyst:

ARM

% Moist:

Tech:

ARM

Seq Number: 3088961

Date Prep: 05.13.19 17.00

Prep seq: 7677810

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	476	15.0	7.99	mg/kg	05.14.19 01:14		1
Diesel Range Organics (DRO)	C10C28DRO	3930	15.0	8.12	mg/kg	05.14.19 01:14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	272	15.0	8.12	mg/kg	05.14.19 01:14		1
Total TPH	PHC635	4680		7.99	mg/kg	05.14.19 01:14		
Surrogate		% Recovery		Limits	Uni	ts Analysis I	Date	Flag
1-Chlorooctane		129		70 - 13	35 %	)		
o-Terphenyl		111		70 - 13	35 %	)		

Analytical Method: BTEX by EPA 8021B

Prep Method: 5030B

Analyst:

SCM

% Moist:

Tech:

SCM

Seq Number: 3088922

Date Prep: 05.13.19 14.30

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Facto
Benzene	71-43-2	0.000562	0.00201	0.000386	mg/kg	05.14.19 04:15	J	1
Toluene	108-88-3	0.00126	0.00201	0.000457	mg/kg	05.14.19 04:15	J	1
Ethylbenzene	100-41-4	0.0127	0.00201	0.000567	mg/kg	05.14.19 04:15		1
m,p-Xylenes	179601-23-1	0.271	0.00402	0.00102	mg/kg	05.14.19 04:15		1
o-Xylene	95-47-6	0.0268	0.00201	0.000346	mg/kg	05.14.19 04:15		1
Total Xylenes	1330-20-7	0.298		0.000346	mg/kg	05.14.19 04:15		
Total BTEX		0.312		0.000346	mg/kg	05.14.19 04:15		
Surrogate		% Recovery		Limits	Un	its Analysis	Date	Flag
1,4-Difluorobenzene		97		70 - 1	130 %	, 3		
4-Bromofluorobenzene		200		70 - 1	130 %	,		**





#### Talon/LPE Co., Amarillo, TX

Corazon St 5H

Sample Id:

S-8 Side Wall

Matrix:

Soil

Sample Depth: 6 In

Lab Sample Id: 624019-005

Date Collected: 05.09.19 09.20

Date Received: 05.13.19 10.50

Analytical Method: Chloride by EPA 300

Prep Method:

E300P

Analyst:

CHE

% Moist:

Tech:

CHE

Seq Number: 3088952

Date Prep: 05.13.19 17.00

Prep seq: 7677763

CAS Analysis Dil Factor Parameter Result MQL SDL Units Number Date Chloride 16887-00-6 2750 24.9 4.27 mg/kg 05.13.19 21:35

Analytical Method: TPH by SW8015 Mod

Prep Method:

Prep Method:

Tech:

Tech:

1005

ARM

5030B

SCM

Analyst: Seq Number: 3088961

ARM

% Moist:

Date Prep: 05.13.19 17.00

Prep seq: 7677810

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Facto
Gasoline Range Hydrocarbons (GRO)	PHC610	653	74.9	40.0	mg/kg	05.14.19 10:18		5
Diesel Range Organics (DRO)	C10C28DRO	10400	74.9	40.6	mg/kg	05.14.19 10:18		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	1150	74.9	40.6	mg/kg	05.14.19 10:18		5
Total TPH	PHC635	12200		40.0	mg/kg	05.14.19 10:18		
Surrogate		% Recovery		Limits	Un	its Analysis	Date	Flag
1-Chlorooctane		127		70 - 13	35 %	,		
o-Terphenyl		176		70 - 13	35 %	ó		**

Analytical Method: BTEX by EPA 8021B

Seq Number: 3088922

Analyst:

SCM

% Moist:

Date Prep: 05.13.19 14.30

G + 6							
CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Facto
71-43-2	0.0907	0.0199	0.00383	mg/kg	05.14.19 06:47		10
108-88-3	0.0155	0.0199	0.00454	mg/kg	05.14.19 06:47	J	10
100-41-4	0.124	0.0199	0.00563	mg/kg	05.14.19 06:47		10
179601-23-1	0.981	0.0398	0.0101	mg/kg	05.14.19 06:47		10
95-47-6	0.570	0.0199	0.00343	mg/kg	05.14.19 06:47		10
1330-20-7	1.55		0.00343	mg/kg	05.14.19 06:47		
	1.78		0.00343	mg/kg	05.14.19 06:47		
	% Recovery		Limits	Uni	its Analysis	Date	Flag
	105		70 - 1	130 %	)		
	216		70 - 1	30 %	)		**
	71-43-2 108-88-3 100-41-4 179601-23-1 95-47-6	71-43-2 0.0907 108-88-3 0.0155 100-41-4 0.124 179601-23-1 0.981 95-47-6 0.570 1330-20-7 1.55 1.78	71-43-2 0.0907 0.0199 108-88-3 0.0155 0.0199 100-41-4 0.124 0.0199 179601-23-1 0.981 0.0398 95-47-6 0.570 0.0199 1330-20-7 1.55 1.78  **Recovery** 105	71-43-2 0.0907 0.0199 0.00383 108-88-3 0.0155 0.0199 0.00454 100-41-4 0.124 0.0199 0.00563 179601-23-1 0.981 0.0398 0.0101 95-47-6 0.570 0.0199 0.00343 1330-20-7 1.55 0.00343 1.78 0.00343  **Recovery Limits**  105 70 - 1	71-43-2 0.0907 0.0199 0.00383 mg/kg 108-88-3 0.0155 0.0199 0.00454 mg/kg 100-41-4 0.124 0.0199 0.00563 mg/kg 179601-23-1 0.981 0.0398 0.0101 mg/kg 95-47-6 0.570 0.0199 0.00343 mg/kg 1330-20-7 1.55 0.00343 mg/kg 1.78 0.00343 mg/kg  **Recovery** Limits** Unitable Company of the	Number         Result         MQL         SDL         Units         Date           71-43-2         0.0907         0.0199         0.00383         mg/kg         05.14.19 06:47           108-88-3         0.0155         0.0199         0.00454         mg/kg         05.14.19 06:47           100-41-4         0.124         0.0199         0.00563         mg/kg         05.14.19 06:47           179601-23-1         0.981         0.0398         0.0101         mg/kg         05.14.19 06:47           95-47-6         0.570         0.0199         0.00343         mg/kg         05.14.19 06:47           1330-20-7         1.55         0.00343         mg/kg         05.14.19 06:47           1.78         0.00343         mg/kg         05.14.19 06:47           Limits         Units         Analysis           105         70 - 130         %	Number         Result         MQL         SDL         Units         Date         Flag           71-43-2         0.0907         0.0199         0.00383         mg/kg         05.14.19 06:47         108-88-3         0.0155         0.0199         0.00454         mg/kg         05.14.19 06:47         J           100-41-4         0.124         0.0199         0.00563         mg/kg         05.14.19 06:47         06:47           179601-23-1         0.981         0.0398         0.0101         mg/kg         05.14.19 06:47           95-47-6         0.570         0.0199         0.00343         mg/kg         05.14.19 06:47           1330-20-7         1.55         0.00343         mg/kg         05.14.19 06:47           1.78         0.00343         mg/kg         05.14.19 06:47           W Recovery         Limits         Units         Analysis Date           105         70 - 130         %





#### Talon/LPE Co., Amarillo, TX

Corazon St 5H

Sample Id:

S-9 Side Wall

Matrix:

Soil

Sample Depth: 6 In

Lab Sample Id: 624019-006

Date Collected: 05.09.19 09.15

Date Received: 05.13.19 10.50

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst:

Tech:

CHE

% Moist:

CHE

Seq Number: 3088952

Date Prep: 05.13.19 17.00

Prep seq: 7677763

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Dil Factor Flag
Chloride	16887-00-6	3490	25.2	4.33	mg/kg	05.13.19 21:51	5

Analytical Method: TPH by SW8015 Mod

Prep Method:

1005

Analyst:

ARM

% Moist:

Tech:

ARM

Seq Number: 3088961

Date Prep: 05.13.19 17.00

Prep seq: 7677810

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<7.98	15.0	7.98	mg/kg	05.14.19 01:55	U	I
Diesel Range Organics (DRO)	C10C28DRO	81.9	15.0	8.10	mg/kg	05.14.19 01:55		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	17.8	15.0	8.10	mg/kg	05.14.19 01:55		1
Total TPH	PHC635	99.7		7.98	mg/kg	05.14.19 01:55		
Surrogate		% Recovery		Limits	Uni	its Analysis	Date	Flag.
1-Chlorooctane		99		70 - 13	35 %			
o-Terphenyl		99		70 - 13	35 %	)		

Analytical Method: BTEX by EPA 8021B

Prep Method:

5030B

Analyst:

SCM

% Moist:

Tech:

SCM

Seq Number: 3088922

Date Prep: 05.13.19 14.30

CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Facto
71-43-2	< 0.000385	0.00200	0.000385	mg/kg	05.14.19 04:34	U	1
108-88-3	< 0.000456	0.00200	0.000456	mg/kg	05.14.19 04:34	U	1
100-41-4	< 0.000565	0.00200	0.000565	mg/kg	05.14.19 04:34	U	1
179601-23-1	0.00302	0.00400	0.00101	mg/kg	05.14.19 04:34	J	1
95-47-6	< 0.000344	0.00200	0.000344	mg/kg	05.14.19 04:34	U	1
1330-20-7	0.00302		0.000344	mg/kg	05.14.19 04:34		
	0.00302		0.000344	mg/kg	05.14.19 04:34		
	% Recovery		Limits	Un	its Analysis	Date	Flag
	99		70 - 1	130 %	6		
	124		70 - 1	130 %	6		
	Number 71-43-2 108-88-3 100-41-4 179601-23-1 95-47-6	Number         Result           71-43-2         <0.000385	Number         Result         MQL           71-43-2         <0.000385	Number         Result         MQL         SDL           71-43-2         <0.000385	Number         Result         MQL         SDL         Units           71-43-2         <0.000385	Number         Result         MQL         SDL         Units         Date           71-43-2         <0.000385	Number         Result         MQL         SDL         Units         Date         Flag           71-43-2         <0.000385





#### Talon/LPE Co., Amarillo, TX

Corazon St 5H

Sample Id: S-10 Side Wall

Matrix:

Soil

Sample Depth: 6 In

Lab Sample Id: 624019-007

Date Collected: 05.09.19 09.30

Date Received: 05.13.19 10.50

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst:

CHE

% Moist:

Tech:

CHE

Seq Number: 3088952

Date Prep: 05.13.19 17.00

Prep seq: 7677763

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Dil Factor Flag
Chloride	16887-00-6	4860	49.6	8.52	mg/kg	05.13.19 21:56	10

Analytical Method: TPH by SW8015 Mod

Prep Method: 1005

Analyst:

ARM

% Moist:

Tech:

ARM

Seq Number: 3088961

Date Prep: 05.13.19 17.00

Prep seq: 7677810

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	13.3	15.0	7.99	mg/kg	05.14.19 02:15	J	1
Diesel Range Organics (DRO)	C10C28DRO	2050	15.0	8.11	mg/kg	05.14.19 02:15		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	192	15.0	8.11	mg/kg	05.14.19 02:15		1
Total TPH	PHC635	2260		7.99	mg/kg	05.14.19 02:15		
Surrogate		% Recovery		Limits	Uni	its Analysis	Date	Flag
1-Chlorooctane		100		70 - 13	35 %	ó		
o-Terphenyl		123		70 - 13	35 %	, o		

Analytical Method: BTEX by EPA 8021B

Prep Method: 5030B

Analyst:

SCM

% Moist:

Tech:

SCM

Seq Number: 3088922

Date Prep: 05.13.19 14.30

		rrep seq.						
Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Facto
Benzene	71-43-2	<0.000388	0.00202	0.000388	mg/kg	05.14.19 04:53	U	1
Toluene	108-88-3	< 0.000459	0.00202	0.000459	mg/kg	05.14.19 04:53	U	1
Ethylbenzene	100-41-4	< 0.000569	0.00202	0.000569	mg/kg	05.14.19 04:53	U	1
m,p-Xylenes	179601-23-1	< 0.00102	0.00403	0.00102	mg/kg	05.14.19 04:53	U	1
o-Xylene	95-47-6	< 0.000347	0.00202	0.000347	mg/kg	05.14.19 04:53	U	1
Total Xylenes	1330-20-7	< 0.000347		0.000347	mg/kg	05.14.19 04:53	U	
Total BTEX		< 0.000347		0.000347	mg/kg	05.14.19 04:53	U	
Surrogate		% Recovery		Limits	Un	its Analysis	Date	Flag
1,4-Difluorobenzene		98		70 - 1	130 %	6		
4-Bromofluorobenzene		125		70 - 1	130 %	6		





#### Talon/LPE Co., Amarillo, TX

Corazon St 5H

Sample Id:

S-11 Side Wall

Matrix:

Soil

Sample Depth: 6 In

Lab Sample Id: 624019-008

Date Collected: 05.09.19 09.40

Date Received: 05.13.19 10.50

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst:

CHE

CHE

% Moist:

Tech:

Seq Number: 3088952

Date Prep: 05.13.19 17.00

Prep seq: 7677763

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	 16887-00-6	76.2	5.00	0.858	mg/kg	05.13.19 22:01		1

Analytical Method: TPH by SW8015 Mod

Prep Method:

1005

Analyst:

ARM

% Moist:

Tech:

ARM

Seq Number: 3088961

Date Prep: 05.13.19 17.00

Prep seq: 7677810

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Facto
Gasoline Range Hydrocarbons (GRO)	PHC610	606	75.0	40.0	mg/kg	05.14.19 10:38	*******	5
Diesel Range Organics (DRO)	C10C28DRO	7260	75.0	40.6	mg/kg	05.14.19 10:38		5
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	738	75.0	40.6	mg/kg	05.14.19 10:38		5
Total TPH	PHC635	8600		40.0	mg/kg	05.14.19 10:38		
Surrogate		% Recovery		Limits	Uni	its Analysis l	Date	Flag
1-Chlorooctane		127		70 - 13	35 %			
o-Terphenyl		94		70 - 13	35 %			

Analytical Method: BTEX by EPA 8021B

Prep Method:

5030B

Analyst:

SCM

% Moist:

Tech:

SCM

Seq Number: 3088922

Date Prep: 05.13.19 14.30

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Facto
Benzene	71-43-2	< 0.000382	0.00198	0.000382	mg/kg	05.14.19 05:12	U	1
Toluene	108-88-3	0.0108	0.00198	0.000452	mg/kg	05.14.19 05:12		1
Ethylbenzene	100-41-4	0.0614	0.00198	0.000560	mg/kg	05.14.19 05:12		1
m,p-Xylenes	179601-23-1	0.239	0.00397	0.00101	mg/kg	05.14.19 05:12		1
o-Xylene	95-47-6	0.113	0.00198	0.000342	mg/kg	05.14.19 05:12		1
Total Xylenes	1330-20-7	0.352		0.000342	mg/kg	05.14.19 05:12		
Total BTEX		0.424		0.000342	mg/kg	05.14.19 05:12		
Surrogate		% Recovery		Limits	Un	its Analysis	Date	Flag
1,4-Difluorobenzene		86		70 - 3	130 %	,		
4-Bromofluorobenzene		210		70 - 1	130 %	, 0		**





#### Talon/LPE Co., Amarillo, TX

Corazon St 5H

Sample Id:

S-12 Side Wall

Matrix:

Soil

Sample Depth: 6 In

Lab Sample Id: 624019-009

Date Collected: 05.09.19 09.50

Date Received: 05.13.19 10.50

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst:

CHE

% Moist:

Tech:

CHE

Seq Number: 3088952

Date Prep: 05.13.19 17.00

Prep seq: 7677763

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Dil F Flag	actor
Chloride	16887-00-6	4570	25,1	4.31	mg/kg	05.13.19 22:06		5

Analytical Method: TPH by SW8015 Mod

Prep Method: 1005

Analyst:

ARM

% Moist:

Tech:

ARM

Seq Number: 3088961

Date Prep: 05.13.19 17.00

Prep seq: 7677810

CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
PHC610	221	15.0	7.99	mg/kg	05.14.19 02:55		1
C10C28DRO	4980	15.0	8.12	mg/kg	05.14.19 02:55		1
PHCG2835	290	15.0	8.12	mg/kg	05.14.19 02:55		1
PHC635	5490		7.99	mg/kg	05.14.19 02:55		
	% Recovery		Limits	Uni	its Analysis l	Date	Flag
	122		70 - 13	35 %	, D		
	102		70 - 13	s5 %	, D		
	Number PHC610 C10C28DRO PHCG2835	Number         Result           PHC610         221           C10C28DRO         4980           PHCG2835         290           PHC635         5490           % Recovery         122	Number         Result         MQL           PHC610         221         15.0           C10C28DRO         4980         15.0           PHCG2835         290         15.0           PHC635         5490	Number         Result         MQL         SDL           PHC610         221         15.0         7.99           C10C28DRO         4980         15.0         8.12           PHCG2835         290         15.0         8.12           PHC635         5490         7.99           W Recovery         Limits           122         70 - 13	Number         Result         MQL         SDL         Units           PHC610         221         15.0         7.99         mg/kg           C10C28DRO         4980         15.0         8.12         mg/kg           PHCG2835         290         15.0         8.12         mg/kg           PHC635         5490         7.99         mg/kg           W Recovery         Limits         Units           122         70 - 135         %	Number         Result         MQL         SDL         Units         Date           PHC610         221         15.0         7.99         mg/kg         05.14.19 02:55           C10C28DRO         4980         15.0         8.12         mg/kg         05.14.19 02:55           PHCG2835         290         15.0         8.12         mg/kg         05.14.19 02:55           PHC635         5490         7.99         mg/kg         05.14.19 02:55           W Recovery         Limits         Units         Analysis           122         70 - 135         %	Number         Result         MQL         SDL         Units         Date         Flag           PHC610         221         15.0         7.99         mg/kg         05.14.19 02:55         C10C28DRO         4980         15.0         8.12         mg/kg         05.14.19 02:55         PHCG2835         290         15.0         8.12         mg/kg         05.14.19 02:55         PHC635         5490         7.99         mg/kg         05.14.19 02:55         THCG2835         10.0         10.0         THCG283         10.0         10.0         THCG283         THCG283         10.0         THCG283         THCG283

Analytical Method: BTEX by EPA 8021B

5030B Prep Method:

Analyst:

SCM

% Moist:

Tech:

SCM

Seq Number: 3088922

Date Prep: 05.13.19 14.30

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	< 0.000387	0.00201	0.000387	mg/kg	05.14.19 05:31	U	1
Toluene	108-88-3	< 0.000458	0.00201	0.000458	mg/kg	05.14.19 05:31	U	1
Ethylbenzene	100-41-4	0.00887	0.00201	0.000568	mg/kg	05.14.19 05:31		1
m,p-Xylenes	179601-23-1	0.0479	0.00402	0.00102	mg/kg	05.14.19 05:31		1.
o-Xylene	95-47-6	0.00582	0.00201	0.000346	mg/kg	05.14.19 05:31		1
Total Xylenes	1330-20-7	0.0537		0.000346	mg/kg	05.14.19 05:31		
Total BTEX		0.0626		0.000346	mg/kg	05.14.19 05:31		
Surrogate		% Recovery		Limits	Uni	its Analysis	Date	Flag
1,4-Difluorobenzene		90		70 - 1	130 %	)		
4-Bromofluorobenzene		168		70 - 1	130 %			**





#### Talon/LPE Co., Amarillo, TX

Corazon St 5H

Sample Id:

7677763-1-BLK

Matrix:

Solid

Sample Depth:

Lab Sample Id: 7677763-1-BLK

Date Collected:

Date Received:

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Analyst:

CHE

% Moist:

Tech:

CHE

Seq Number: 3088952

Date Prep: 05.13.19 17.00

Prep seq: 7677763

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.858	5.00	0.858	mg/kg	05.13.19 19:47	U	1

Sample Id:

7677773-1-BLK

Matrix:

Solid

Sample Depth:

Lab Sample Id: 7677773-1-BLK

4-Bromofluorobenzene

Date Collected:

Date Received:

Analytical Method: BTEX by EPA 8021B

Analyst:

SCM

% Moist:

Prep Method:

5030B

Seq Number: 3088922

Tech:

70 - 130

SCM

Prep seq: 7677773

Date Prep: 05.13.19 14.30

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000383	0.00199	0.000383	mg/kg	05.13.19 23:51	U	1
Toluene	108-88-3	< 0.000453	0.00199	0.000453	mg/kg	05.13.19 23:51	U	1
Ethylbenzene	100-41-4	< 0.000561	0.00199	0.000561	mg/kg	05.13.19 23:51	U	1
m,p-Xylenes	179601-23-1	< 0.00101	0.00398	0.00101	mg/kg	05.13.19 23:51	U	1
o-Xylene	95-47-6	< 0.000342	0.00199	0.000342	mg/kg	05.13.19 23:51	U	1
Total Xylenes	1330-20-7	< 0.000342		0.000342	mg/kg	05.13.19 23:51	U	
Total BTEX		<0.000342		0.000342	mg/kg	05.13.19 23:51	U	
Surrogate		% Recovery		Limits	Un	its Analysis	Date	Flag
1,4-Difluorobenzene		101		70 -	130 %	, 0		

107





#### Talon/LPE Co., Amarillo, TX

Corazon St 5H

Sample Id:

7677810-1-BLK

Matrix:

Solid

Sample Depth:

Lab Sample Id: 7677810-1-BLK

Date Collected:

Date Received:

Analytical Method: TPH by SW8015 Mod

Prep Method: 1005

Analyst:

ARM

% Moist:

Tech:

Seq Number: 3088961

Date Prep: 05.13.19 17.00

ARM

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<8.00	15.0	8.00	mg/kg	05.13.19 19:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	<8.13	15.0	8.13	mg/kg	05.13.19 19:08	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<8.13	15.0	8.13	mg/kg	05.13.19 19:08	U	1
Total TPH	PHC635	<8.00		8.00	mg/kg	05.13.19 19:08	U	
Surrogate		% Recovery		Limits	Un	its Analysis	Date	Flag
1-Chlorooctane		99		70 - 13	35 %	,		
o-Terphenyl		101		70 - 13	35 %	, 0		



# Flagging Criteria



- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- RPD exceeded lab control limits.
- The target analyte was positively identified below the quantitation limit and above the detection limit.
- U Analyte was not detected.
- 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.
- 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.

Reporting Limit

MDL Method Detection Limit SDL Sample Detection Limit LOD Limit of Detection

PQL Practical Quantitation Limit

MQL Method Quantitation Limit

LOQ Limit of Quantitation

Method Detection Limit

Non-Calculable

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD Blank Spike Duplicate/Laboratory Control Sample Duplicate

Method Duplicate/Sample Duplicate MD/SD

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



# Form 2 - Surrogate Recoveries

Project Name: Corazon St 5H

Work Orders: 624019,

Project ID: 700778.119.01

Lab Batch #: 3088922

Sample: 7677773-1-BKS / BKS

Matrix: Solid Batch:

Units: mg/kg Date Analyzed: 05/13/19 22:18	SU	RROGATE R	ECOVERY	STUDY	
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	70-130	
4-Bromofluorobenzene	0.0330	0.0300	110	70-130	1

Lab Batch #: 3088922

Sample: 7677773-1-BSD / BSD

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 05/13/19 22:37	SU	RROGATE R	ECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0280	0.0300	93	70-130	

0.0325

Lab Batch #: 3088922

4-Bromofluorobenzene

**Sample:** 624018-001 S / MS

Batch:

Matrix: Soil

108

70-130

0.0300

Units: mg/kg Date Analyzed: 05/13/19 22:56	SU	RROGATE RI	ECOVERY S	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes			[10]		
1,4-Difluorobenzene	0.0281	0.0300	94	70-130	
4-Bromofluorobenzene	0.0342	0.0300	114	70-130	

Lab Batch #: 3088922

Sample: 624018-001 SD / MSD

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed:	05/13/19 23:15	SURROGATE 1	RECOVERY	STUDY	
BTEX by EPA 8021B  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0284	0.0300	95	70-130	
4-Bromofluorobenzene	0.0337	0.0300	112	70-130	

Lab Batch #: 3088922

Sample: 7677773-1-BLK / BLK

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 05/13/19 23:51	SU	RROGATE RI	ECOVERY	STUDY	
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1,4-Difluorobenzene	0.0303	0.0300	101	70-130	
4-Bromofluorobenzene	0.0320	0.0300	107	70-130	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



# Form 2 - Surrogate Recoveries

Project Name: Corazon St 5H

Work Orders: 624019,

Project ID: 700778.119.01

Lab Batch #: 3088961

Sample: 7677810-1-BLK / BLK

Matrix: Solid Batch:

Units: mg/kg Date Analyzed: 05/13/19 19:08	SU	RROGATE R	ECOVERY	STUDY	
TPH by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chlorooctane	99.2	100	99	70-135	
o-Terphenyl	50.7	50.0	101	70-135	

Lab Batch #: 3088961

Sample: 7677810-1-BKS / BKS

Matrix: Solid Batch: 1

Units: mg/kg	Date Analyzed: 05/13/19 19:28	SU	RROGATE R	RECOVERY	STUDY	
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	The state of the s	122	100	122	70-135	1
o-Terphenyl		64.2	50.0	128	70.135	***************************************

Lab Batch #: 3088961

Sample: 7677810-1-BSD / BSD

Batch:

Matrix: Solid

Units: mg/kg	<b>Date Analyzed:</b> 05/13/19 19:48	SU	RROGATE R	ECOVERY	STUDY	
ТРН	by SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		127	100	127	70-135	
o-Terphenyl		62.6	50.0	125	70-135	

Lab Batch #: 3088961

**Sample:** 624018-001 S / MS

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 05/13/19 20:29	SU	RROGATE RI	ECOVERY	STUDY	
TPH by SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	100	122	70-135	
o-Terphenyl	56.8	50.0	114	70-135	

Lab Batch #: 3088961

Sample: 624018-001 SD / MSD

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 05/13/19 20:49	SU	RROGATE RI	ECOVERY	STUDY	
TPH by SW8015 Mod  Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	00.8	121	70.125	
		99.8	121	70-135	
o-Terphenyl	63.7	49.9	128	70-135	

<sup>\*</sup> Surrogate outside of Laboratory QC limits

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

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

<sup>\*\*</sup> Surrogates outside limits; data and surrogates confirmed by reanalysis

<sup>\*\*\*</sup> Poor recoveries due to dilution



#### **BS / BSD Recoveries**



Project Name: Corazon St 5H

Work Order #: 624019

SCM

Project ID: 700778.119.01

Date Analyzed: 05/13/2019

Analyst: Units:

Lab Batch ID: 3088922 mg/kg

Sample: 7677773-1-BKS

Date Prepared: 05/13/2019 Batch #: 1

Matrix: Solid

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added	Blank Spike Duplicate Result [F]	Blk. Spk Dup, %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		(2)	101	[2]	[E]	14454654 [2]	101				
Benzene	<0.000386	0.100	0.102	102	0.0996	0.103	103	1	70-130	35	
Toluene	<0.000457	0.100	0.102	102	0.0996	0.100	100	2	70-130	35	
Ethylbenzene	<0.000566	0.100	0.113	113	0.0996	0.110	110	3	70-130	35	
m,p-Xylenes	<0.00102	0.200	0.235	118	0.199	0.230	116	2	70-130	35	
o-Xylene	< 0.000345	0.100	0.115	115	0.0996	0.113	113	2	70-130	35	

Analyst:

CHE

Sample: 7677763-1-BKS

Date Prepared: 05/13/2019 Batch #: 1

Date Analyzed: 05/13/2019

Matrix: Solid

Lab Batch ID:	3088952
Units:	mg/kg

mg/kg		

Units:	mg/kg		BLAN	K /BLANK S	SPIKE / I	BLANK S	SPIKE DUPI	LICATE	RECOVI	ERY STUE	Υ	
	Chloride by EPA 300	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analy	ytes		[D]	(C)	[עוֹ	[E]	Result [F]	[6]				
Chloride		<0.858	250	259	104	250	260	104	0	90-110	20	

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

Version: 1.%

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## **BS / BSD Recoveries**



Project Name: Corazon St 5H

Work Order #: 624019

Analyst:

ARM

Lab Batch ID: 3088961

Date Prepared: 05/13/2019

Project ID: 700778.119.01

Date Analyzed: 05/13/2019

Sample: 7677810-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/k	g		BLAN	K /BLANK	SPIKE /	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STUI	ΟY	
TPH Analytes	I by SW8015 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
Gasoline Range H	lydrocarbons (GRO)	<8.00	1000	1010	101	1000	1010	101	0	70-135	20	
Diesel Range Org	anies (DRO)	<8.13	1000	1020	102	1000	1050	105	3	70-135	20	

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

Version: 1.%

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#### Form 3 - MS / MSD Recoveries

Project Name: Corazon St 5H



Work Order #: Lab Batch ID:

624019

3088922

QC- Sample ID: 624018-001 S

Batch #:

Matrix: Soil

Project ID: 700778.119.01

Date Analyzed:

05/13/2019

Date Prepared: 05/13/2019

Analyst: SCM

Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

0 0											
BTEX by EPA 8021B	Parent Sample Result	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Benzene	<0.000384	0.0998	0.0940	94	0.101	0.0980	97	4	70-130	35	
Toluene	<0.000455	0.0998	0.0919	92	0.101	0.0952	94	4	70-130	35	
Ethylbenzene	< 0.000564	0.0998	0.0970	97	0.101	0.102	101	5	70-130	35	
m,p-Xylenes	< 0.00101	0.200	0.202	101	0.201	0.212	105	5	70-130	35	
o-Xylene	<0.000344	0.0998	0.100	100	0.101	0.105	104	5	70-130	35	

Lab Batch ID:

3088952

QC- Sample ID: 624018-001 S

Batch #:

Matrix: Soil

Date Analyzed:

Reporting Units:

05/13/2019

Date Prepared: 05/13/2019

Analyst: CHE

R	eporting Units: mg/kg		M	IATRIX SPIK	E/MAT	RIX SPI	KE DUPLICA	TE REC	OVERY S	STUDY		
	Chloride by EPA 300	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	9.45	253	272	104	253	271	103	0	90-110	20	

Lab Batch ID:

3088952

QC- Sample ID: 624019-003 S

Batch #:

Matrix: Soil

Date Analyzed:

05/13/2019

Reporting Units:

mg/kg

Date Prepared: 05/13/2019

Analyst: CHE

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Chloride by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	7450	250	7530	32	250	7530	32	0	90-110	20	Х

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

Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, I = 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 22 of 25



#### Form 3 - MS / MSD Recoveries

Project Name: Corazon St 5H



Work Order #: Lab Batch ID:

624019

3088961 05/13/2019

QC- Sample ID: 624018-001 S

Batch #:

Project ID: 700778.119.01 Matrix: Soil

Date Prepared: 05/13/2019

Analyst: ARM

Date Analyzed: Reporting Units:

mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	11.3	1000	1010	100	998	1020	101	1	70-135	20	
Diesel Range Organics (DRO)	<8.13	1000	1020	102	998	1010	101	1	70-135	20	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/BRelative 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.

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Work Order No: WAU 19

Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334

Cn ,	3 May led	Relinguished by: (Signature	Notice: Signature of this docur of service. Xenco will be liable of Xenco. A minimum charge o	Circle Method(s) a	Total 200.7 / 6010	SIZ SIDE WALL	S- II SIDE WALL	5- IS SIDE WALL	S- 9 SIDE WALL	5-8 SiDE WALL	5. 4 BOTTOM	S- 5 BOTTOM	S- 2 BOTTOM	S-1 BOTTOM	Sample Identification	Sample Custody Seals:	Cooler Custody Seals:	Received Intact:	Temperature (°C):	SAMPLE RECEIPT	Sampler's Name: N	P.O. Number:	Project Number: コロ	Project Name; C θ	Phone: 575	City, State ZIP: Arte	Address: 408	Company Name: Talon	Project Manager: CH	The state of the s
	(04	gnature) Received	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 terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75,00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.	Circle Method(s) and Metal(s) to be analyzed		5/01/3	31/01/5		5/9/1/1099	L	5(10/19	5/10/19	5/9/19	Soil 5/8/19	ation Matrix Date Sampled	(SUE) N/A	Yes Me N/A Conne	Yes No	2007 195	Temp Blank Yes (No)	MICHAEL COLLER	100778, 119.01	700778.119.01	CORAZON ST 5#	575-616-4022 or 575-746-8905	Artesia, NM 88210	408 W. Texas Ave.	on 128E	CHRUS JONES	Seed Sent In the series of Second Series of Second Hobbs,
4	1	Received by: (Signature)	itutes a valid purchase order from t assume any responsibility for an d a charge of \$5 for each sample :	TCLP / SPLP 6010: 8RCRA	8RCRA 13PPM Texas 11	4:50a	5140gg	9: 30am	9:15m	9:20	9100	900en	9:05an	9:80m 6"	Time Depth	Total Containers:	Correction Factor: *** 70- }	B	Thermometen ID	Wet lice: Yes No	Due Date:	Rush: X	Routine	Turn Around	Email: CTONES @	City, State ZIP:	Address:	Company Name:	Bill to:((falfferent)	Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (805)794-1296 Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)
<b>o</b> 4	5 10 19 152 10 12	, Date/Time	client company to Xenco, its affily losses or expenses incurred by submitted to Xenco, but not analy	RA Sb As Ba Be Cd (	Al Sb As Ba Be B Cd									- < < < <	BTEX TOTA										@ TALON LOE. COM			Gr	)	Midiand,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbook,TX (805)794-1296 75-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (8
And the second s		Relinquished by: (Signature)	liates and subcontractors. It assigner the client if such losses are due to the client if such losses are due to the client if such losses are due to the client in the contract will be enforced.	Cr Co Cu Pb Mn Mo Ni Se	Ca Cr Co Cu Fe Pb											-							,	ANALYSIS REQUEST					-	Lubbock,TX (806)794-1296 70-449-8800) Tampa,FL (813-6
THE	TUNUX	e) / Recejved by: (Signature)	ns standard terms and conditions o circumstances beyond the control unless previously negotiated.	Se Ag TI U	Mg Mn Mo Ni K Se Ag SiO2																			75	Deliverables; EDD	Reporting:Level II Level III PST/UST	State of Project:	Program: UST/PST ☐PRP ☐Br		20-2000) www.xenco.com
Coc	01312 01312	nature) Date∕Time		/ 245.1 / 7470 /	D2 Na Sr Ti Sn U V Zn						THE PARTY OF THE P				Sample Comments	lab, if received by 4:30pm	TO T 040 46 46 47 47 47 47 47 47 47 47 47 47 47 47 47						The Action Control of the Control of	Work Order Notes	ADaPT Other:	PST/UST RRP Level IV		Program: UST/PST	Comments	com Page I of I

Revised Date 051418 Rev. 2018.1



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



Client: Talon/LPE Co.

Date/ Time Received: 05/13/2019 10:50:00 AM

Work Order #: 624019

Analyst:

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

Temperature Measuring device used: R8

Sample Receipt Checkli	st	Comments
#1 *Temperature of cooler(s)?	.4	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?	N/A	
#6*Custody Seals Signed and dated?	N/A	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	N/A	
#18 Water VOC samples have zero headspace?	N/A	

Must !	ne completed	for after-hours	delivery of san	anles arior to r	alacina in tha	rofrigorator

Checklist completed by:	Bridd Tol Brianna Teel	Date: 05/13/2019
Checklist reviewed by:	Jessica Wamer  Jessica Kramer	Date: 05/13/2019

PH Device/Lot#:



May 23, 2019

**CHRIS JONES** 

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: CORAZON ST UNIT #5H

Enclosed are the results of analyses for samples received by the laboratory on 05/22/19 14:40.

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

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

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keene

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:

05/22/2019

Reported:

05/23/2019

Project Name:

CORAZON ST UNIT #5H

Project Number: 700778.119.01

Project Location:

COG - LEA CO NM

Sampling Date:

ilpling bate.

05/21/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: S-5 A 1' (H901844-01)

BTEX 8021B	mg/	'kg	Analyze	d By: ms	,				S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	05/23/2019	ND	2.04	102	2.00	6.05	
Toluene*	0.763	0.200	05/23/2019	ND	2.20	110	2.00	5.30	
Ethylbenzene*	8.07	0.200	05/23/2019	ND	2.11	105	2.00	5.00	QM-07
Total Xylenes*	36.2	0.600	05/23/2019	ND	6.36	106	6.00	4.81	QM-07
Total BTEX	45.1	1.20	05/23/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	150 9	% 73.3-12	9						
TPH 8015M	mg/	'kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1490	100	05/23/2019	ND	185	92.6	200	1.14	QM-07
DRO >C10-C28*	10500	100	05/23/2019	ND	224	112	200	8.14	QM-07
EXT DRO >C28-C36	2030	100	05/23/2019	ND					
Surrogate: 1-Chlorooctane	200 9	% 41-142	}						
Surrogate: 1-Chlorooctadecane	365	% 37.6-14	7						

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\*=Accredited Analyte

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TALON LPE **CHRIS JONES** 408 W. TEXAS AVE. ARTESIA NM, 88210 (575) 745-8905 Fax To:

05/22/2019 Reported: 05/23/2019

Project Name: CORAZON ST UNIT #5H

Project Number: 700778.119.01

Project Location: COG - LEA CO NM Sampling Date:

05/21/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

#### Sample ID: S-6 A 1' (H901844-02)

Received:

BTEX 8021B	mg/kg		Analyzed By: ms						7070
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/23/2019	ND	2.04	102	2.00	6.05	
Toluene*	<0.050	0.050	05/23/2019	ND	2.20	110	2.00	5.30	
Ethylbenzene*	<0.050	0.050	05/23/2019	ND	2.11	105	2.00	5.00	
Total Xylenes*	0.246	0.150	05/23/2019	ND	6.36	106	6.00	4.81	
Total BTEX	<0.300	0.300	05/23/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	94.8	% 73.3-12	9						
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/22/2019	ND	185	92.6	200	1.14	
DRO >C10-C28*	493	10.0	05/22/2019	ND	224	112	200	8.14	
EXT DRO >C28-C36	118	10.0	05/22/2019	ND					
Surrogate: 1-Chlorooctane	91.8	% 41-142	?						
Surrogate: 1-Chlorooctadecane	114 9	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:

05/22/2019

Reported:

05/23/2019

Project Name:

CORAZON ST UNIT #5H

Project Number: Project Location: 700778.119.01

COG - LEA CO NM

Sampling Date:

05/21/2019

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: S-7 A 1' (H901844-03)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/23/2019	ND	2.04	102	2.00	6.05	
Toluene*	<0.050	0.050	05/23/2019	ND	2.20	110	2.00	5.30	
Ethylbenzene*	<0.050	0.050	05/23/2019	ND	2.11	105	2.00	5.00	
Total Xylenes*	<0.150	0.150	05/23/2019	ND	6.36	106	6.00	4.81	
Total BTEX	<0.300	0.300	05/23/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	93.5	% 73.3-12	9						
TPH 8015M	mg/kg		Analyzed By: MS			NAME:			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/22/2019	ND	185	92.6	200	1.14	
DRO >C10-C28*	364	10.0	05/22/2019	ND	224	112	200	8.14	
EXT DRO >C28-C36	83.1	10.0	05/22/2019	ND					
Surrogate: 1-Chlorooctane	92.1	% 41-142	<u></u>						
Surrogate: 1-Chlorooctadecane	111 9	% 37.6-14	7						

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Celey & Keene

Celey D. Keene, Lab Director/Quality Manager



TALON LPE **CHRIS JONES** 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:

05/22/2019

Reported:

05/23/2019

Project Name: Project Number: CORAZON ST UNIT #5H

Project Location:

700778.119.01

COG - LEA CO NM

Sampling Date:

05/21/2019

Sampling Type:

Sample Received By:

Soil Sampling Condition:

Cool & Intact

Tamara Oldaker

Sample ID: S-8 A 1' (H901844-04)

BTEX 8021B	mg/kg		Analyzed By: ms		•				·····
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/23/2019	ND	2.04	102	2.00	6.05	
Toluene*	<0.050	0.050	05/23/2019	ND	2.20	110	2.00	5.30	
Ethylbenzene*	<0.050	0.050	05/23/2019	ND	2.11	105	2.00	5.00	
Total Xylenes*	<0.150	0.150	05/23/2019	ND	6.36	106	6.00	4.81	
Total BTEX	<0.300	0.300	05/23/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	95.3	% 73.3-12	9						
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/22/2019	ND	185	92.6	200	1.14	
DRO >C10-C28*	52.1	10.0	05/22/2019	ND	224	112	200	8.14	
EXT DRO >C28-C36	<10.0	10.0	05/22/2019	ND					
Surrogate: 1-Chlorooctane	93.7	% 41-142	!						
Surrogate: 1-Chlorooctadecane	108 9	% 37.6-14	7						

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\*=Accredited Analyte

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Celeg & Kreena



TALON LPE **CHRIS JONES** 408 W. TEXAS AVE. ARTESIA NM, 88210 (575) 745-8905 Fax To:

Received:

05/22/2019

Reported:

05/23/2019

Project Name: Project Number: CORAZON ST UNIT #5H

700778.119.01 Project Location: COG - LEA CO NM

Sampling Date:

05/21/2019 Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: S11 A 1' (H901844-05)

BTEX 8021B	mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/23/2019	ND	2.04	102	2,00	6.05	
Toluene*	<0.050	0.050	05/23/2019	ND	2.20	110	2.00	5.30	
Ethylbenzene*	0.123	0.050	05/23/2019	ND	2.11	105	2.00	5.00	
Total Xylenes*	0.743	0.150	05/23/2019	ND	6.36	106	6.00	4.81	
Total BTEX	0.866	0.300	05/23/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	103 9	% 73.3-12	9					*****	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	31.0	10.0	05/22/2019	ND	185	92.6	200	1.14	
DRO >C10-C28*	1570	10.0	05/22/2019	ND	224	112	200	8.14	
EXT DRO >C28-C36	457	10.0	05/22/2019	ND					
Surrogate: 1-Chlorooctane	100 9	% 41-142							
Surrogate: 1-Chlorooctadecane	144 9	% 37.6-14	7						

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Celley & Frence

Celey D. Keene, Lab Director/Quality Manager



TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:

05/22/2019

Reported:

05/23/2019

Project Name: Project Number: CORAZON ST UNIT #5H

700778.119.01

Project Location:

COG - LEA CO NM

Sampling Date:

05/21/2019

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

Sample ID: S-12 A 1' (H901844-06)

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/23/2019	ND	2.04	102	2.00	6.05	
Toluene*	<0.050	0.050	05/23/2019	ND	2.20	110	2.00	5.30	
Ethylbenzene*	<0.050	0.050	05/23/2019	ND	2.11	105	2.00	5.00	
Total Xylenes*	<0.150	0.150	05/23/2019	ND	6.36	106	6.00	4.81	
Total BTEX	<0.300	0.300	05/23/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	94.4	% 73.3-12	9						
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/22/2019	ND	185	92.6	200	1.14	
DRO >C10-C28*	19.1	10.0	05/22/2019	ND	224	112	200	8.14	
EXT DRO >C28-C36	<10.0	10.0	05/22/2019	ND					
Surrogate: 1-Chlorooctane	89.3	% 41-142	?						
Surrogate: 1-Chlorooctadecane	99.8	% 37.6-14	7						

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Celeg Estrume

Celey D. Keene, Lab Director/Quality Manager



TALON LPE **CHRIS JONES** 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:

05/22/2019

Reported:

05/23/2019

Project Name:

CORAZON ST UNIT #5H

Project Number: Project Location: 700778.119.01

COG - LEA CO NM

Sampling Date:

05/21/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: S-1 A 1' (H901844-07)

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/23/2019	ND	2.04	102	2.00	6.05	
Toluene*	<0.050	0.050	05/23/2019	ND	2.20	110	2.00	5.30	
Ethylbenzene*	<0.050	0.050	05/23/2019	ND	2.11	105	2.00	5.00	
Total Xylenes*	<0.150	0.150	05/23/2019	ND	6.36	106	6.00	4.81	
Total BTEX	<0.300	0.300	05/23/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	98.0	% 73.3-12	9						
TPH 8015M	mg/	kg	Analyze	d By: MS					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/22/2019	ND	185	92.6	200	1.14	
DRO >C10-C28*	2210	10.0	05/22/2019	ND	224	112	200	8.14	
EXT DRO >C28-C36	601	10.0	05/22/2019	ND					
Surrogate: 1-Chlorooctane	95.3	% 41-142							
Surrogate: 1-Chlorooctadecane	159 9	% 37.6-14							

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TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:

05/22/2019

Reported:

05/23/2019

Project Name: Project Number: CORAZON ST UNIT #5H

Project Location:

700778.119.01

COG - LEA CO NM

Sampling Date:

05/21/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

# Sample ID: S-10 A 1' (H901844-08)

BTEX 8021B	mg/	'kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/23/2019	ND	2.04	102	2.00	6.05	
Toluene*	<0.050	0.050	05/23/2019	ND	2.20	110	2.00	5.30	
Ethylbenzene*	<0.050	0.050	05/23/2019	ND	2.11	105	2,00	5.00	
Total Xylenes*	<0.150	0.150	05/23/2019	ND	6.36	106	6.00	4.81	
Total BTEX	<0.300	0.300	05/23/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	95.0	% 73.3-12	9						
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/22/2019	ND	185	92.6	200	1.14	
DRO >C10-C28*	409	10.0	05/22/2019	ND	224	112	200	8.14	
EXT DRO >C28-C36	140	10.0	05/22/2019	ND					
Surrogate: 1-Chlorooctane	91.5	% 41-142							
Surrogate: 1-Chlorooctadecane	117 5	% 37.6-14	7						

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### **Notes and Definitions**

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's,
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500CI-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

Company Name: THON LEFE			ANALYSIS REQUEST
	}	P.O. #: 76077 B.119-01	
Address: 408 W. TEXAS		Company: (ONCHO	
City: ARTESIA State: NM	1 01788 :diz	Atm: UKE THUAREZ	
Phone #: 575 - し3: - レタファ Fax 株:			
Project #: 76778. 119.01 Project Owner: Concho	Col-	City:	
Project Name: (OR 970) 5th		State: Zip:	,
Project Location: LEIA COUNTY	72	Phone #:	
Sampler Name: MICHAEL COLLER		Fax 卦:	
FOR LAB USE ONLY	MATRIX	PRESERV, SAMPLING	
Lab I.D. Sample I.D.	(G)RAB OR (C)OMP # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER: ACID/BASE: ICE / COOL OTHER:	TPH Brex
1 S-5 A 1"	6 1 V	1/ 5/a1/4	2:00   V   V
2 5- 64 1.			1:10
<u>0</u> 5-7 ₽			3:10
45-84'		0	a:30
V = 4 - 1		***************************************	2:40
6 5-12A /'			2:50
75-101		<b>1</b>	\$:`90 
S-10A1'			3,10
PLEASE NOTE: Liability and Caragos. Cardinal's liability and client's cordinate tennedy for any client whether based to contract or left, shall be limited to smouth paid by the client become and amount paid by the client because of the contract or left, shall be limited to smouth paid by the client of the contract of the contract or left.	iny claim arising whether based in contract or	riori, shall be limited to the amount paid by	the client for the
actives. In the event chair Chairmais of the clears of concentrated changed, including without initiation, business interruptions, local of use of pectic incurred by client, is subsidiaries, additions or successors which out of performance of convices interruptions by Cardinal, local active the client is bread upon any of the above sholed reasons or otherwise. Registraturities from Registratur	without limitation, business interruptions, too bardinal, regardless of whether such claim is i	s of use, or loss of profits insurred by clier based upon any of the above sinled reaso	ent to abordistrie.  Dhone Require.

j Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

w. w.

Sample Condition Cool Intact Lifes 1 Tes

9

CHECKED BY: (Initials)

> Fax Result: REMARKS:

> > ☐ Yes ☐ No | Add!! Fax #:

RUSH

Sampler - UPS - Bus - Other:

Delivered By: (Circle One)

Time:

Relinquished By:



May 30, 2019

**CHRIS JONES** 

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: CORAZON ST UNIT #5H

Enclosed are the results of analyses for samples received by the laboratory on 05/29/19 13:10.

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

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

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celes D. Keene

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

FdX

Received: Reported: 05/29/2019 05/30/2019

Project Name:

CORAZON ST UNIT #5H

Project Number: Project Location: 700778.119.01 COG - LEA CO NM Sampling Date:

05/29/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

Sample ID: S-1 B 2' (H901886-01)

BTEX 8021B	mg/	'kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/30/2019	ND	1.84	92.1	2.00	0.0184	
Toluene*	<0.050	0.050	05/30/2019	ND	1.99	99.4	2.00	0.178	
Ethylbenzene*	<0.050	0.050	05/30/2019	ND	1.89	94.5	2.00	0.213	
Total Xylenes*	<0.150	0.150	05/30/2019	ND	5.72	95.3	6.00	0.0278	
Total BTEX	<0.300	0.300	05/30/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	92.2	% 73.3-12	9						
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/29/2019	ND	200	99.8	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/29/2019	ND	208	104	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	05/29/2019	ND					
Surrogate: 1-Chlorooctane	79.8	% 41-142	,						
Surrogate: 1-Chlorooctadecane	85.5	% 37.6-14	7						

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TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Reported: 05/30/2019

Project Name: CORAZON ST UNIT #5H

05/29/2019

Project Number: 700778.119.01

Project Location: COG - LEA CO NM

Sampling Date:

05/29/2019

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

# Sample ID: S-5 B 2' (H901886-02)

Received:

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0,050	05/30/2019	ND	1.84	92.1	2.00	0.0184	
Toluene*	<0.050	0.050	05/30/2019	ND	1.99	99.4	2.00	0.178	
Ethylbenzene*	<0.050	0.050	05/30/2019	ND	1.89	94.5	2.00	0.213	
Total Xylenes*	<0.150	0.150	05/30/2019	ND	5.72	95.3	6.00	0.0278	
Total BTEX	<0.300	0.300	05/30/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	94.3 9	% 73.3-12	9						
TPH 8015M	mg/	kg	Analyze	d By: MS		-			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/29/2019	ND	200	99.8	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/29/2019	ND	208	104	200	4.22	
EXT DRO >C28-C36	<10.0	10.0	05/29/2019	ND					
Surrogate: 1-Chlorooctane	82.0	% 41-142	?						
Surrogate: 1-Chlorooctadecane	85.3 9	% 37.6-14	7						

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Celey D. Keene, Lab Director/Quality Manager



TALON LPE CHRIS JONES 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

05/29/2019

Reported:

05/30/2019

Project Name:

CORAZON ST UNIT #5H

Project Number: Project Location: 700778.119.01 COG - LEA CO NM Sampling Date:

05/29/2019

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Tamara Oldaker

# Sample ID: S-11 B 2' (H901886-03)

BTEX 8021B	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/30/2019	ND	1.84	92.1	2.00	0.0184	
Toluene*	<0.050	0.050	05/30/2019	ND	1.99	99.4	2.00	0.178	
Ethylbenzene*	<0.050	0.050	05/30/2019	ND	1.89	94.5	2.00	0.213	
Total Xylenes*	<0.150	0.150	05/30/2019	ND	5.72	95.3	6.00	0.0278	
Total BTEX	<0.300	0.300	05/30/2019	ND					
Surrogate: 4-Bromofluorobenzene (PIL	92.0	% 73.3-12	9						
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/30/2019	ND	200	99.8	200	0.718	
DRO >C10-C28*	<10.0	10.0	05/30/2019	ND	208	104	200	4.22	
DRO >C10-C28*  EXT DRO >C28-C36	<10.0 <10.0	10.0 10.0	05/30/2019 05/30/2019	ND ND	208	104	200	4.22	
		10.0	05/30/2019		208	104	200	4.22	

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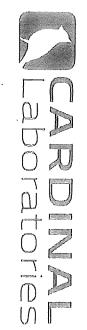
### **Notes and Definitions**

The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or S-06 matrix interference's. QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values. The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS OM-07 ND Analyte NOT DETECTED at or above the reporting limit RPD Relative Percent Difference Samples not received at proper temperature of 6°C or below. Insufficient time to reach temperature. Chloride by SM4500Cl-B does not require samples be received at or below  $6^{\circ}\text{C}$ Samples reported on an as received basis (wet) unless otherwise noted on report

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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

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No Add'l Phone #:	□ Yes □ N	Phone Result:	Received By:
•		ased upon any of the above stated reasons or otherwise.	minutes or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim to based upon any of the above stated reasons or otherwise.
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	0140	tort, shall be limited to the amount paid by the client for the ceived by Cardinal within 30 days after complation of the applies	analysis of the control of the contr
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	enc 4	10:30	2 S - 1 E 2
	_	10:104	1 2 3 3
	7	V 5/24/10:00 V	_
	TPH	ACID/BASE: ICE/COOL OTHER:  DATE  BTEX	(G)RAB OR (C)OME # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:
		PRESERV. SAMPLING	-
		Fax#:	Sampler Name: MICHAFC COULER
		Phone 弟:	Project Location: LEA COUNTY P
		State: Zip:	
		City:	Project Owner: CONCHO
			Phone #: 575 - 1031 - 10977 Fax #: A
		Atm: IKE TAUAGEZ	City: PLETESIA State: NW Zip: 88.170 A
		Company: CONCHO	320
11		P.O. #: 700778. //9.0/	© こ
ANALYSIS REQUEST	W 144		Company Name: てのい し クチ

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Sample Condition
Cool Intact
Cool Intact
TYES TYES
No No

CHECKED BY:

Rush

Time:

j Cardinai cannot accept verbal changes. Please fax written changes to (575) 393-2326



January 22, 2020

**CHRIS JONES** 

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: CORAZON ST UNIT #5H

Enclosed are the results of analyses for samples received by the laboratory on 01/20/20 12:20.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accred certif.html.

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

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keene

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



TALON LPE **CHRIS JONES** 408 W. TEXAS AVE. ARTESIA NM, 88210 Fax To: (575) 745-8905

Received:

Chloride

01/20/2020

Reported:

01/22/2020

4880

Project Name: Project Number: CORAZON ST UNIT #5H

Project Location:

700778.119.01

COG - LEA CO NM

Sampling Date:

01/16/2020 Soil

True Value QC

400

Sampling Type:

432

Sampling Condition:

Cool & Intact

Sample Received By:

108

Tamara Oldaker

RPD

0.00

Qualifier

# Sample ID: S - 3 0.5' (H000193-01)

Chloride, SM4500CI-B	mg.	/kg	Analyz	ed By: AC		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery

16.0

### Sample ID: S - 3 1' (H000193-02)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	01/22/2020	ND	432	108	400	0.00	

ND

01/22/2020

## Sample ID: S - 3 2' (H000193-03)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	01/22/2020	ND	432	108	400	0.00	

# Sample ID: S - 4 0' (H000193-04)

TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/21/2020	ND	204	102	200	0.615	
DRO >C10-C28*	<10.0	10.0	01/21/2020	ND	213	106	200	1.51	
EXT DRO >C28-C36	<10.0	10.0	01/21/2020	ND					
Surrogate: 1-Chlorooctane	98.9	% 41-142							

98.9 % Surrogate: 1-Chlorooctadecane

41-142

103 % 37.6-147

### Cardinal Laboratories

\*=Accredited Analyte

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Celeg There-



TALON LPE **CHRIS JONES** 408 W. TEXAS AVE. ARTESIA NM, 88210 (575) 745-8905 Fax To:

Received:

01/20/2020

Reported:

01/22/2020

Project Name: Project Number: CORAZON ST UNIT #5H

Project Location:

700778.119.01 COG - LEA CO NM

Sampling Date:

01/16/2020

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Tamara Oldaker

# Sample ID: S - 4 1' (H000193-05)

TPH 8015M	mg	/kg	Analyze	d By: MS				******	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/21/2020	ND	204	102	200	0.615	
DRO >C10-C28*	<10.0	10.0	01/21/2020	ND	213	106	200	1.51	
EXT DRO >C28-C36	<10.0	10.0	01/21/2020	ND					
Surrogate: 1-Chlorooctane	93.9	% 41-142	)						
Surrogate: 1-Chlorooctadecane	98.4	% 37.6-14	7						

# Sample ID: S - 4 2' (H000193-06)

TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	01/21/2020	ND	204	102	200	0.615	
DRO >C10-C28*	<10.0	10.0	01/21/2020	ND	213	106	200	1.51	
EXT DRO >C28-C36	<10.0	10.0	01/21/2020	ND					
Surrogate: 1-Chlorooctane	95.2	% 41-142	?						
Surrogate: 1-Chlorooctadecane	97.0	% 37.6-14	7						

### Cardinal Laboratories

\*=Accredited Analyte

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ND

### **Notes and Definitions**

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

Chloride by SM4500CI-B does not require samples be received at or below 6°C

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

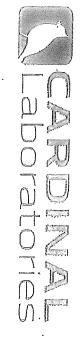
Analyte NOT DETECTED at or above the reporting limit

Cardinal Laboratories

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Celeg & Keene



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NNI 88249 (575) 388-2526 FAX (575) 393-2476

Principal CALL BLON LAC		ANALYSIS REQUEST
FIGURE MENTEUR CHAIS JONES	F.O. #: 700778,119-01	
Address: 408 W. TEXAS AUE	Company: Company:	
State: NM Zip:	Attn: The C. Jones	
	Address	
Project #: 700778.119.01 Project Owner: COG		
54		
Project Location: LEA COUNTY	<b>P</b>	102
Sampler Name: NUCHAEL COLUER	Fax #:	I SK
	1715155	
OMP.		CHI
Sample ID	/BASE; COOL	OTAL (
(G)	SO OIL SLI OT AC	- -
	V 1-14-20 10:00E	
1 2 2	101 10-	
	10.20	
0	10140-	
2 L	107.502	
\$\frac{1}{2}	11.00%	5
PLEASE NOTE: Intilly and Company of the little in the litt		
these for negligenee and any other cause whatsoever shall be defined by listed to including the shall be defined by the listed for including to consequental damages, including the listed for the listed for the second	www.na.p. beaut in contractor tota, shall be limited to the applich paid by the olien unless made in writing and received by Cordinal within 30 days after compidion. In business interruptions, loss of use, or loss of panils incurred by client, its substances interruptions, loss of the panils incurred by client, its substances interruptions and in the second to some state of which there are no market.	or the Comment of the
C C C Nacelve	Received By:	Yes □ No
1 Times 10	di Odake	口 Yes 口 No -   Addil Fax余
Delivered By: (Circle One)	sample Condition   CHECKET AV.	
Sampler-UPS - Bus - Other: #1/3 5.1 c	Cool mace (initials)  Res 17 cs  No 1 No V. S.	