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Soil Remediation and Closure Report

Chaparral 14 Federal Com #001
Eddy County, New Mexico
API # 30-015-34038; 2RP-5607

Prepared For:

COG Operating LLC
600 West Illinois Ave
Midland, TX 79701

Prepared By:

TALON/LPE
408 West Texas Avenue
Artesia, NM 88210

November 10, 2020

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Mr. Mike Bratcher
NMOCD District 2
811 S. 1st Street
Artesia, NM 88210

Mr. Jim Amos
Bureau of Land Management
600 E. Greene Street
Carlsbad, NM 88220

Subject: **Soil Remediation and Closure Report**
Chaparral 14 Federal Com #001
Eddy County, New Mexico
API # 30-015-34038, 2RP-5607

Dear Mr. Bratcher and Mr. Amos,

COG Operating, LLC (COG) has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced location. The results of our remediation activities and confirmation sampling results are contained herein.

Site Information

Chaparral 14 Federal Com #001 is located approximately 35 miles southeast of Artesia, New Mexico. The legal location for this release is Unit Letter I, Section 14, Township 19 South and Range 31 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.65842 North and -103.83324 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 Simona and Wink fine sandy loams, 0 to 3 percent slopes, eroded. The referenced soil data is attached in [Appendix II](#). Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is Holocene to lower Pleistocene in age and is comprised of piedmont alluvial deposits. Drainage courses in this area are typically dry.

Groundwater and Site Characterization

The New Mexico Office of the State Engineer Database indicates the nearest reported depth to groundwater is 102-feet below ground surface (BGS). The average depth to groundwater in the project vicinity is 192-feet BGS. See [Appendix II](#) for the referenced groundwater data.

Pursuant to Table I, New Mexico Oil Conservation Division (NMOCD) Rule 19.15.29 of the New Mexico Administrative Code (NMAC), 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.

Approximate Depth to Groundwater		102 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 fresh water well used by less than five households for domestic or stock watering purposes	
☐ Yes ☒ No	Within 1000 feet of any fresh water well or spring	
☐ Yes ☒ No	Within incorporated municipal boundaries or within a defined Municipal fresh water 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	

The release did not occur in any of these areas and the depth to groundwater is greater than 100-feet BGS. Therefore, the closure criteria for this site are as follows:

Table I Closure Criteria for Soils Impacted by a Release			
Minimum depth below the release to ground water less than 10,000 mg/l TDS	Constituent	Method	Limit
>100 feet	Chloride	EPA 300.0 or SM4500 Cl B	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Incident Description

On July 17, 2019, twenty (20) barrels (bbls) of produced water were released when lightning struck a produced water tank, resulting in a fire. The release was contained within the unlined earthen berm. The initial C-141 is attached in [Appendix III](#).

Site Assessment

On October 9, 2019, Talon mobilized personnel to begin the site assessment and soil sampling activities for the construction of a work plan. Grab soil samples were collected within and around the impacted area utilizing a direct push sampling rig (Geoprobe).

On December 4, 2019, Talon personnel mobilized an air rotary drilling rig to further vertically delineate TPH and BTEX concentrations at sample location B-2 that were found to be above NMOCD closure criteria. Results from our sampling events are presented on the following data table. A complete laboratory reports can be found in [Appendix V](#).

Table 1: Soil Sample Analysis

Sample ID	Depth (ft.)	Date	BTEX (mg/kg)	Benzene (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)	Cl (mg/kg)
Closure Criteria 19.15.29.12 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			2,500 mg/kg	20,000 mg/kg
B-1	0-1	10/9/2019	ND	ND	ND	ND	ND	-	208
	2	10/9/2019	ND	ND	ND	ND	ND	-	224
	3	10/9/2019	ND	ND	ND	ND	ND	-	208
	4	10/9/2019	0.34	ND	ND	ND	20.2	20.2	1460
	0-1	12/4/2019	NT	NT	NT	NT	NT	-	1280
	2	12/4/2019	NT	NT	NT	NT	NT	-	32
	4	12/4/2019	NT	NT	NT	NT	NT	-	32
	6	12/4/2019	NT	NT	NT	NT	NT	-	48
	8	12/4/2019	NT	NT	NT	NT	NT	-	32
	10	12/4/2019	NT	NT	NT	NT	NT	-	64
B-2	0-1	10/9/2019	18.6	ND	1460	3330	454	5244	1200
	2	10/9/2019	19	ND	1910	2550	177	4637	2160
	3	10/9/2019	48.8	ND	1370	1520	54.9	2944.9	2720
	4	10/9/2019	99.5	ND	2610	3340	905	6855	1900
	5	10/9/2019	309	ND	6180	4370	238	10788.0	3080
	6	10/9/2019	320	ND	6490	4520	243	11253	1950
	7	10/9/2019	127	ND	3160	2710	162	6032	672
	8	12/4/2019	7	ND	260	925	42.5	1227.5	592
	10	12/4/2019	48.9	ND	950	1570	74.7	2594.7	1600
	12	12/4/2019	NT	NT	NT	NT	NT	-	NT
	15	12/4/2019	17	ND	736	1960	115	2811	NT
	20	12/4/2019	98.7	ND	2560	3390	163	6113	NT
	25	12/4/2019	59.1	ND	1970	3620	130	5720	NT
	30	12/4/2019	60.8	ND	2190	2670	119	4979	NT
	40	12/4/2019	20.4	ND	805	1960	36.9	2801.9	NT
	50	12/4/2019	22.4	ND	615	1430	60.2	2105.2	NT
	60	12/4/2019	8.1	ND	329	1270	87.3	1686.3	NT
	70	12/4/2019	ND	ND	ND	34.5	ND	34.5	NT
	80	12/4/2019	ND	ND	ND	63.7	ND	63.7	NT
	90	12/4/2019	ND	ND	ND	84.4	ND	84.4	NT
	100	12/4/2019	ND	ND	ND	67.1	ND	67.1	NT
	110	12/4/2019	ND	ND	ND	ND	ND	-	NT
	120	12/4/2019	ND	ND	ND	ND	ND	-	NT

Sample ID	Depth (ft.)	Date	BTEX (mg/kg)	Benzene (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)	Cl (mg/kg)
Closure Criteria 19.15.29.12 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			2,500 mg/kg	20,000 mg/kg
B-3	0-1	10/9/2019	ND	ND	ND	ND	16.9	16.9	1760
	2	10/9/2019	ND	ND	ND	ND	ND	-	512
	3	10/9/2019	ND	ND	ND	ND	ND	-	64
	4	10/9/2019	ND	ND	ND	100	238	338	656
B-4	0-1	10/9/2019	0.805	ND	ND	54.2	51.4	105.6	272
	2	10/9/2019	ND	ND	ND	ND	ND	-	96
	3	10/9/2019	ND	ND	ND	ND	ND	-	176
	4	10/9/2019	0.347	ND	ND	56.3	36.6	92.9	128
B-5	0-1	10/9/2019	ND	ND	ND	ND	ND	-	496
	2	10/9/2019	ND	ND	ND	ND	ND	-	48
	3R	10/9/2019	ND	ND	ND	ND	ND	-	128

ND= Analyte Not Detected NT= Analyte Not Tested R=Refusal

Remediation Activities

On June 15, 2020, the remediation plan was approved by the NMOCD. A copy of NMOCD approval is attached in [Appendix III](#).

On August 10, 2020, following client authorization to proceed, Talon mobilized personnel and equipment to begin excavating the impacted area of the former tank battery (B-2 sample location) to a depth of 10.0-feet BGS, pursuant to the approved remediation plan. Composite confirmation samples were collected and analyzed for Total Petroleum Hydrocarbons (TPH via EPA Method 8015M), volatile organics (BTEX via EPA Method 8021B), and Total Chlorides (EPA Method 300). Confirmation sample locations are illustrated on the attached site plan ([Appendix I](#)) and the analytical results are summarized on the following data table. The complete laboratory report can be found in [Appendix V](#).

Table 2: Confirmation Sample Results

Sample ID	Depth (ft.)	Date	BTEX (mg/kg)	Benzene (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total TPH (mg/kg)	Cl (mg/kg)
Closure Criteria 19.15.29.12 NMAC			50 mg/kg	10 mg/kg				100 mg/kg	600 mg/kg
BG-1	0'	8/12/2020	ND	ND	ND	ND	ND	-	56.7
BG-2	0'	8/12/2020	ND	ND	ND	ND	ND	-	39.2
BG-3	0'	8/12/2020	ND	ND	ND	ND	ND	-	ND
BG-4	0'	8/12/2020	ND	ND	ND	ND	ND	-	48.1
N.SW-1	10'	8/12/2020	ND	ND	ND	ND	ND	-	129
N.SW-2	10'	8/12/2020	ND	ND	ND	ND	ND	-	52
E.SW-1	10'	8/12/2020	0.211	ND	ND	146	ND	146.0	292
E.SW-2	10'	8/12/2020	0.110	ND	ND	166	ND	166.0	296
S.SW-1	10'	8/12/2020	ND	ND	ND	ND	ND	-	260
S.SW-2	10'	8/12/2020	ND	ND	ND	61.8	ND	61.8	289
W.SW-1	10'	8/12/2020	ND	ND	ND	ND	ND	-	70
W.SW-2	10'	8/12/2020	ND	ND	ND	ND	ND	-	174
S-1	10'	8/12/2020	0.0252	ND	63.2	408	ND	471.2	722
S-2	10'	8/12/2020	4.51	ND	407	961	ND	1368.0	704
S-3	10'	8/12/2020	5.11	ND	602	1560	ND	2162.0	714

Remedial Actions Summary

- Pursuant to the NMOCD approved remediation plan, the impacted area surrounding boring location B-2 was excavated to a depth of 10.0-feet BGS. Photos of the open excavation are shown in [Appendix IV](#).
- Composite confirmation samples were collected for laboratory analysis. Sidewall composite and background samples beyond the excavation area were also collected to insure NMOCD clean up criteria was met. The results are shown on Table 2 and the corresponding lab report can be found in [Appendix V](#).
- The excavation was backfilled with locally obtained, like material to a depth of 1.0-feet BGS. The final foot below grade was replaced with new caliche. See Photographic Documentation, [Appendix IV](#).

- The excavated area was machine compacted and contoured to match the surrounding location, and the battery berms were reconstructed. See Photographic Documentation, [Appendix IV](#).
- All the excavated material, approximately 404 cubic yards, was transported to R360, a NMOCD approved solid waste disposal facility.
- A Final C-141 formally documenting the remedial actions is attached in [Appendix IV](#).

Closure

Based on the site assessment, remedial actions, and confirmation sampling results completed for this project, on behalf of COG Operating, LLC, we request that no further actions be required and that closure of this incident be granted.

Respectfully submitted,

TALON/LPE

David J. Adkins
Regional Manager

Attachments:

Appendix I Site Map
Appendix II Groundwater Data
Appendix III Remediation Plan Approval, Final C-141
Appendix IV Photographic Documentation
Appendix V Laboratory Report



APPENDIX I

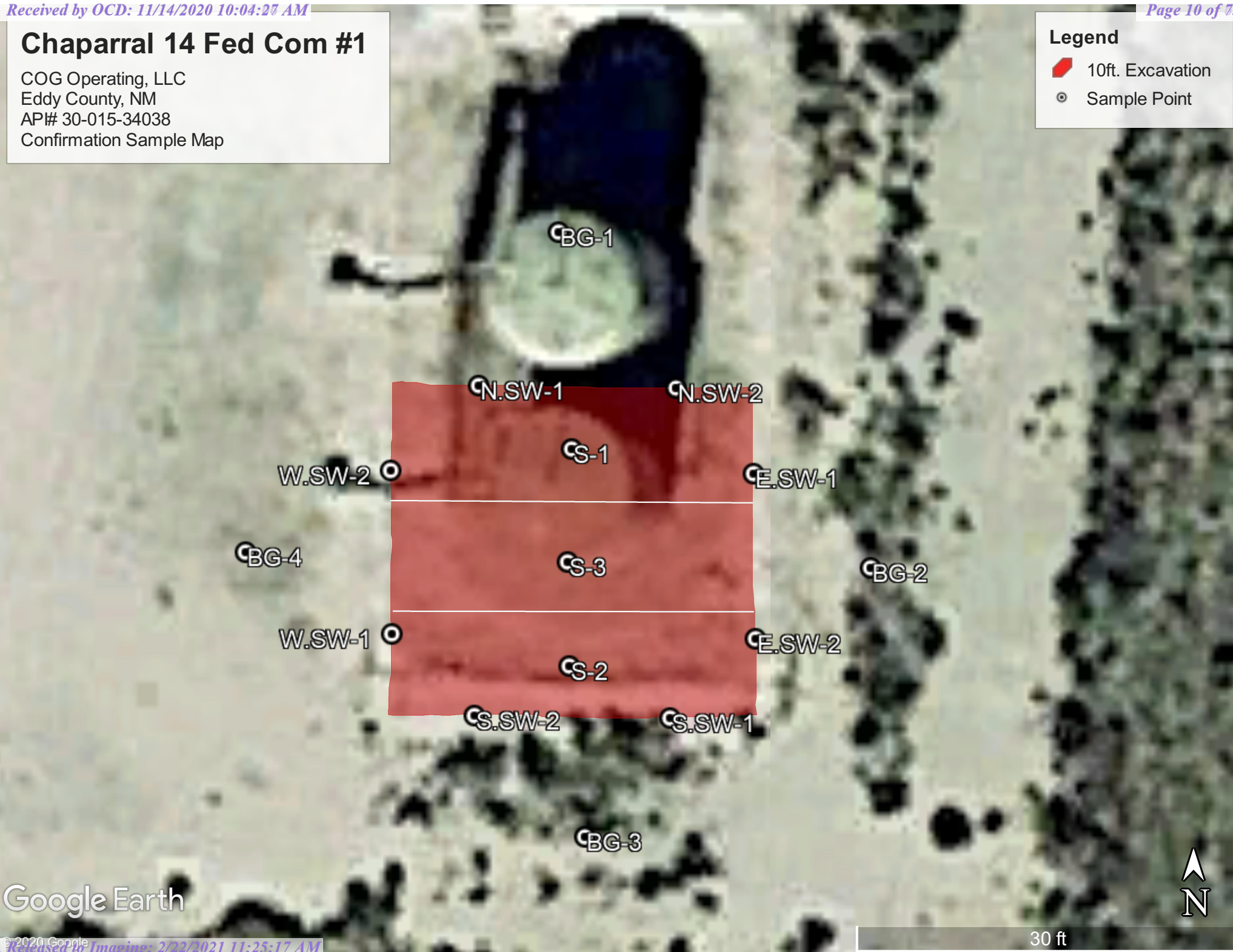
SITE PLAN

Chaparral 14 Fed Com #1

COG Operating, LLC
Eddy County, NM
AP# 30-015-34038
Confirmation Sample Map

Legend

-  10ft. Excavation
-  Sample Point



Google Earth



APPENDIX II

GROUNDWATER DATA



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 Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
CP 01554 POD1	CP	LE		2	2	1	22	19S	31E	607166	3613354	2340	400		
CP 01554 POD2	CP	LE		2	2	1	22	19S	31E	607165	3613322	2349	400		
CP 00563 POD1	CP	LE		1	1	2	19	19S	32E	612118	3613376*	2783	300		
CP 00642 POD1	CP	ED		2	2	25	19S	31E		611025	3611657*	2860	250		
CP 00829 POD1	CP	LE		2	4	16	19S	31E		606165	3614009*	3244	120		
CP 00640 POD1	CP	LE		2	2	19	19S	32E		612621	3613280*	3294	260	102	158
CP 00639 POD1	CP	LE		3	1	20	19S	32E		613029	3612880*	3793	350	345	5
CP 01656 POD2	CP	LE		3	4	3	17	19S	32E	613364	3613648	3970	70		
CP 01656 POD1	CP	LE		3	4	3	17	19S	32E	613368	3613646	3975	70		
CP 01656 POD3	CP	LE		3	4	3	17	19S	32E	613374	3613633	3982	30		
CP 00641 POD1	CP	ED		4	1	36	19S	31E		610247	3609634*	4462	300	130	170
CP 00849 POD1	CP	LE		3	1	3	35	18S	31E	608012	3618757*	4941	300		

Average Depth to Water: 192 feet

Minimum Depth: 102 feet

Maximum Depth: 345 feet

Record Count:12

UTM NAD83 Radius Search (in meters):

Easting (X): 609409.847

Northing (Y): 3614017.509

Radius: 5000

*UTM location was derived from PLSS - see Help

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.

1/30/20 2:20 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER



APPENDIX III

REMEDIATION PLAN APPROVAL

FINAL C-141

State of New Mexico
Oil Conservation Division

Incident ID	NAB1924836726
District RP	2RP-5607
Facility ID	30-015-34038
Application ID	

Remediation Plan

Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

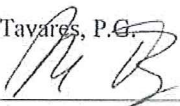
Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ 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 to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Ike Tavares, P.G.

Title: Senior HES Supervisor, COG Operating, LLC

Signature: 

Date: 4/14/20

email: itavarez@concho.com

Telephone: 432.685.2573

OCD Only

Received by: Victoria Venegas

Date: 04/05/2020

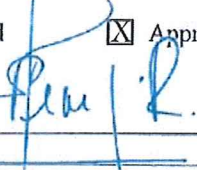
☐ Approved



Approved with Attached Conditions of Approval

☐ Denied

☐ Deferral Approved

Signature: 

Date: 06/15/2020

Proposed Remedial Actions

- The impacted surrounding boring location B-2 will be excavated to a depth of 10.0-feet BGS. PID readings will be utilized to guide the side walls of the excavation followed by confirmation soil sample analysis for Total Petroleum Hydrocarbons (TPH via EPA Method 8015M) and volatile organics (BTEX via EPA Method 8021B). Side wall excavations will continue vertically until NMOCD closure criteria has been met for these constituents.
- The excavation will then be backfilled with locally obtained, like material to a depth of 4.0-feet BGS. A 20-mil liner will then be installed, encapsulating the remaining impacted soil to prevent future vertical movement. The liner will be covered with 3.0-feet of locally obtained topsoil; the final foot below grade will be replaced with caliche.
- Once the backfilling activities are complete the work area will be machine compacted and contoured to match the surrounding location.
- All the excavated material will be transported to a NMOCD approved solid waste disposal facility.
- Approximately 231 yards of impacted material is estimated for removal. Remediation activities will be initiated within 15-days of regulatory approval to commence.
- A final closure report documenting the remedial actions generated and a Final C-141 will be provided to the NMOCD District II Office.

David J. Adkins

From: David J. Adkins
Sent: Monday, June 15, 2020 4:56 PM
To: Venegas, Victoria, EMNRD; Ike Tavaréz; Hamlet, Robert, EMNRD; Bratcher, Mike, EMNRD; Eads, Cristina, EMNRD
Cc: Brittany Esparza; CFO_Spill, BLM_NM
Subject: RE: NAB1924836726 CHAPARRAL 14 FEDERAL COM #001 @ 30-015-34038

Thank you Victoria!

We will proceed with remediation per work plan without liner installation. We will also horizontally delineate for chlorides to 600 mg/kg per your stipulations of approval.

Respectfully,

David J. Adkins
 District Manager Artesia
 Office: 575.746.8768 x702
 Direct: 575.616.4022
 Cell: 575.441.4835
 Fax: 575.746.8905
 Emergency: 866.742.0742
 Web: www.talonlpe.com



From: Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>
Sent: Monday, June 15, 2020 2:57 PM
To: Ike Tavaréz <itavarez@concho.com>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Cc: Brittany Esparza <besparza@concho.com>; David J. Adkins <dadkins@talonlpe.com>; CFO_Spill, BLM_NM <blm_nm_cfo_spill@blm.gov>
Subject: NAB1924836726 CHAPARRAL 14 FEDERAL COM #001 @ 30-015-34038

This message originated from an **External Source**. Please use proper judgment and caution when opening attachments, clicking links, or responding to this email.

NAB1924836726 CHAPARRAL 14 FEDERAL COM #001 @ 30-015-34038

Mr. Tavaréz,

The OCD has approved the Remediation Plan for incident # NAB1924836726 CHAPARRAL 14 FEDERAL COM #001 @ 30-015-34038 with the following conditions of approval:

- Horizontal delineation will need to be completed. The edges -horizontal definition- of a liquid release must be determined. A visual footprint on the surface is not sufficient or adequate to assess the horizontal extent of the release. The only value for determination of horizontal impact are derived by either "background" value as

determined appropriate to Rule 29, or, for chloride, 600 mg/Kg in soils. This is especially important for "on-pad" releases to ensure the release did not extend to the "off-pad"/pasture area.

- OCD doesn't approve the requested variance to install a liner. A liner is beneficial on produced water spills in keeping chlorides from moving down the soil column, but deeper oil spills they are not helpful. They can actually inhibit the lighter end BTEXs and GROs from permeating back to the surface and dissipating.
- Confirmation floor samples and sidewall samples, should be collected at a frequency of no more than one sample per 200 square feet.

The signed C-141 can be found in the online image data base under the incident #

Thank you,

Victoria Venegas
State of New Mexico
Energy, Minerals, and Natural Resources
Oil Conservation Division
811 S. First St., Artesia NM 88210
(575) 748-1283
Victoria.Venegas@state.nm.us

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

State of New Mexico
Oil Conservation Division

Incident ID	NAB1924836726
District RP	2RP-5607
Facility ID	30-015-34038
Application ID	

Closure

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

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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Ike Tavares, P.G.

Title: Senior HES Supervisor, COG Operating, LLC

Signature: Ike Tavares

Date: 11/10/2020

email: itavarez@concho.com

Telephone: 432.685.2573

OCD Only

Received by: Chad Hensley

Date: 02/22/2021

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Chad Hensley

Date: 02/22/2021

Printed Name: Chad Hensley

Title: Environmental Specialist Advanced



APPENDIX III

PHOTOGRAPHIC DOCUMENTATION

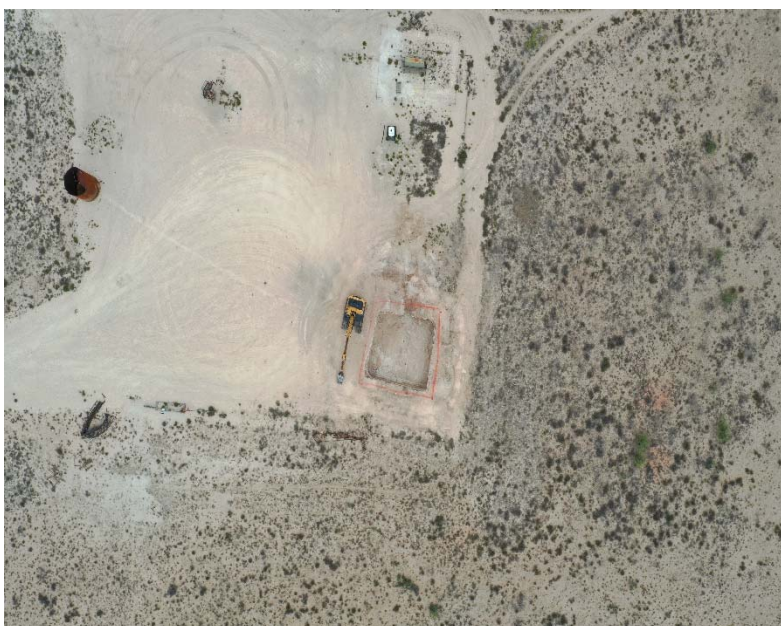
COG Chaparral 14 Fed Com 1

Drilling Photograph



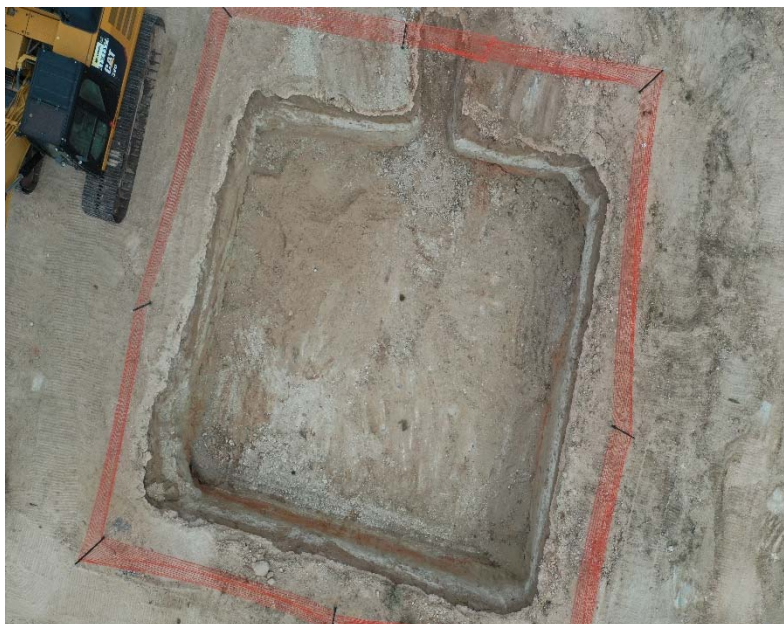
GPS 32.658390, -103.833209

Aerial Photograph Excavation



COG Chaparral 14 Fed Com 1

Aerial Photograph Excavation



Photograph Excavation



COG Chaparral 14 Fed Com 1

Photograph Excavation



Completion Photograph



COG Chaparral 14 Fed Com 1

Completion Photograph





APPENDIX V

LABORATORY DATA

Certificate of Analysis Summary 669900

Talon LPE-Artesia, Artesia, NM

Project Name: Chaparral 14 Fed Com 1

Project Id: 700778.137.03

Contact: David Adkins

Project Location: Eddy County

Date Received in Lab: Wed 08.12.2020 16:10

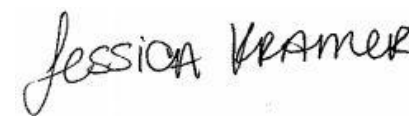
Report Date: 08.13.2020 16:04

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	669900-001	669900-002	669900-003	669900-004	669900-005	669900-006
	Field Id:	BG-1 0'	BG-2 0'	BG-3 0'	BG-4 0'	N.SW-1 10'	N.SW-2 10'
	Depth:	0- ft	0- ft	0- ft	0- ft	10- ft	10- ft
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	08.12.2020 11:40	08.12.2020 11:42	08.12.2020 11:44	08.12.2020 11:46	08.12.2020 11:52	08.12.2020 11:54
BTEX by EPA 8021B	Extracted:	08.12.2020 18:32	08.12.2020 18:32	08.12.2020 18:32	08.12.2020 18:32	08.12.2020 18:32	08.12.2020 18:32
	Analyzed:	08.13.2020 08:23	08.13.2020 08:46	08.13.2020 09:08	08.13.2020 11:00	08.13.2020 09:30	08.13.2020 09:53
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00400 0.00400	<0.00399 0.00399	<0.00403 0.00403	<0.00402 0.00402	<0.00401 0.00401
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	Extracted:	08.12.2020 17:41	08.12.2020 17:41	08.12.2020 17:41	08.12.2020 17:41	08.12.2020 17:41	08.12.2020 17:41
	Analyzed:	08.12.2020 22:38	08.12.2020 22:44	08.12.2020 22:49	08.12.2020 22:55	08.12.2020 23:01	08.12.2020 23:06
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		56.7 9.92	39.2 9.98	<9.96 9.96	48.1 9.98	129 9.98	52.0 9.88
TPH by SW8015 Mod	Extracted:	08.12.2020 17:30	08.12.2020 17:30	08.12.2020 17:30	08.12.2020 17:30	08.12.2020 17:30	08.12.2020 17:30
	Analyzed:	08.13.2020 10:46	08.13.2020 11:06	08.13.2020 11:27	08.13.2020 12:07	08.13.2020 12:27	08.13.2020 12:48
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.1 50.1	<50.2 50.2	<50.2 50.2	<50.1 50.1	<49.9 49.9
Diesel Range Organics (DRO)		<49.9 49.9	<50.1 50.1	<50.2 50.2	<50.2 50.2	<50.1 50.1	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.1 50.1	<50.2 50.2	<50.2 50.2	<50.1 50.1	<49.9 49.9
Total TPH		<49.9 49.9	<50.1 50.1	<50.2 50.2	<50.2 50.2	<50.1 50.1	<49.9 49.9

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 669900

Talon LPE-Artesia, Artesia, NM

Project Name: Chaparral 14 Fed Com 1

Project Id: 700778.137.03

Contact: David Adkins

Project Location: Eddy County

Date Received in Lab: Wed 08.12.2020 16:10

Report Date: 08.13.2020 16:04

Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	669900-007	669900-008	669900-009	669900-010	669900-011	669900-012
	<i>Field Id:</i>	E.SW-1 10'	E.SW-2 10'	S.SW-1 10'	S.SW-2 10'	W.SW-1 10'	W.SW-2 10'
	<i>Depth:</i>	10- ft	10- ft	10- ft	10- ft	10- ft	10- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.12.2020 11:56	08.12.2020 11:58	08.12.2020 12:00	08.12.2020 12:02	08.12.2020 12:04	08.12.2020 12:06
BTEX by EPA 8021B	<i>Extracted:</i>	08.12.2020 18:32	08.12.2020 18:32	08.12.2020 18:32	08.12.2020 18:32	08.12.2020 17:28	08.12.2020 17:28
	<i>Analyzed:</i>	08.13.2020 11:23	08.13.2020 11:45	08.13.2020 10:15	08.13.2020 10:38	08.13.2020 09:26	08.13.2020 09:46
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.0217 0.0217	<0.00980 0.00980	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
Toluene		<0.0217 0.0217	<0.00980 0.00980	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
Ethylbenzene		0.0790 0.0217	0.0473 0.00980	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
m,p-Xylenes		0.0525 0.0435	0.0232 0.0196	<0.00403 0.00403	<0.00400 0.00400	<0.00401 0.00401	<0.00403 0.00403
o-Xylene		0.0791 0.0217	0.0390 0.00980	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
Total Xylenes		0.132 0.0217	0.0622 0.00980	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
Total BTEX		0.211 0.0217	0.110 0.00980	<0.00202 0.00202	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	08.12.2020 17:41	08.12.2020 17:45	08.12.2020 17:45	08.12.2020 17:45	08.12.2020 17:45	08.12.2020 17:45
	<i>Analyzed:</i>	08.12.2020 23:12	08.12.2020 23:45	08.13.2020 00:02	08.13.2020 00:08	08.13.2020 00:13	08.13.2020 00:19
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		292 9.98	296 9.92	260 9.96	289 9.92	70.0 10.0	174 10.0
TPH by SW8015 Mod	<i>Extracted:</i>	08.12.2020 17:30	08.12.2020 17:30	08.12.2020 17:30	08.12.2020 17:30	08.12.2020 17:30	08.12.2020 17:30
	<i>Analyzed:</i>	08.13.2020 13:08	08.13.2020 10:46	08.13.2020 11:06	08.13.2020 11:27	08.13.2020 09:46	08.13.2020 12:07
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.1 50.1	<50.1 50.1	<50.2 50.2
Diesel Range Organics (DRO)		146 50.0	166 49.9	<49.9 49.9	61.8 50.1	<50.1 50.1	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<49.9 49.9	<50.1 50.1	<50.1 50.1	<50.2 50.2
Total TPH		146 50.0	166 49.9	<49.9 49.9	61.8 50.1	<50.1 50.1	<50.2 50.2

BRL - Below Reporting Limit

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



Certificate of Analysis Summary 669900

Talon LPE-Artesia, Artesia, NM

Project Name: Chaparral 14 Fed Com 1

Project Id: 700778.137.03

Contact: David Adkins

Project Location: Eddy County

Date Received in Lab: Wed 08.12.2020 16:10

Report Date: 08.13.2020 16:04

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	669900-013	669900-014	669900-015			
	Field Id:	S-1 10'R	S-3 10'R	S-2 10'R			
	Depth:	10- ft	10- ft	10- ft			
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	08.12.2020 13:30	08.12.2020 13:38	08.12.2020 13:34			
BTEX by EPA 8021B	Extracted:	08.12.2020 17:28	08.12.2020 17:28	08.12.2020 17:28			
	Analyzed:	08.13.2020 10:06	08.13.2020 10:47	08.13.2020 10:27			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00200 0.00200	<0.0100 0.0100	<0.00862 0.00862			
Toluene		<0.00200 0.00200	<0.0100 0.0100	0.0669 0.0345			
Ethylbenzene		<0.00200 0.00200	0.370 0.0400	0.328 0.0345			
m,p-Xylenes		0.0111 0.00400	2.84 0.0800	2.44 0.0690			
o-Xylene		0.0141 0.00200	1.90 0.0400	1.68 0.0345			
Total Xylenes		0.0252 0.00200	4.74 0.0400	4.12 0.0345			
Total BTEX		0.0252 0.00200	5.11 0.0100	4.51 0.00862			
Chloride by EPA 300	Extracted:	08.12.2020 17:45	08.12.2020 17:45	08.12.2020 17:45			
	Analyzed:	08.13.2020 00:24	08.13.2020 00:41	08.13.2020 00:47			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		722 10.0	714 10.1	704 9.98			
TPH by SW8015 Mod	Extracted:	08.12.2020 17:30	08.12.2020 17:30	08.12.2020 17:30			
	Analyzed:	08.13.2020 12:27	08.13.2020 12:48	08.13.2020 13:08			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		63.2 50.1	602 50.3	407 50.2			
Diesel Range Organics (DRO)		408 50.1	1560 50.3	961 50.2			
Motor Oil Range Hydrocarbons (MRO)		<50.1 50.1	<50.3 50.3	<50.2 50.2			
Total TPH		471 50.1	2160 50.3	1370 50.2			

BRL - Below Reporting Limit

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





Analytical Report 669900

for

Talon LPE-Artesia

Project Manager: David Adkins

Chaparral 14 Fed Com 1

700778.137.03

08.13.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

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

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

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



08.13.2020

Project Manager: **David Adkins**

Talon LPE-Artesia

408 West Texas St.

Artesia, NM 88210

Reference: Eurofins Xenco, LLC Report No(s): **669900**

Chaparral 14 Fed Com 1

Project Address: Eddy County

David Adkins:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 669900. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 669900 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BG-1 0'	S	08.12.2020 11:40	0 ft	669900-001
BG-2 0'	S	08.12.2020 11:42	0 ft	669900-002
BG-3 0'	S	08.12.2020 11:44	0 ft	669900-003
BG-4 0'	S	08.12.2020 11:46	0 ft	669900-004
N.SW-1 10'	S	08.12.2020 11:52	10 ft	669900-005
N.SW-2 10'	S	08.12.2020 11:54	10 ft	669900-006
E.SW-1 10'	S	08.12.2020 11:56	10 ft	669900-007
E.SW-2 10'	S	08.12.2020 11:58	10 ft	669900-008
S.SW-1 10'	S	08.12.2020 12:00	10 ft	669900-009
S.SW-2 10'	S	08.12.2020 12:02	10 ft	669900-010
W.SW-1 10'	S	08.12.2020 12:04	10 ft	669900-011
W.SW-2 10'	S	08.12.2020 12:06	10 ft	669900-012
S-1 10'R	S	08.12.2020 13:30	10 ft	669900-013
S-3 10'R	S	08.12.2020 13:38	10 ft	669900-014
S-2 10'R	S	08.12.2020 13:34	10 ft	669900-015



CASE NARRATIVE

Client Name: Talon LPE-Artesia

Project Name: Chaparral 14 Fed Com 1

Project ID: 700778.137.03
Work Order Number(s): 669900

Report Date: 08.13.2020
Date Received: 08.12.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **BG-1 0'** Matrix: Soil Date Received: 08.12.2020 16:10
 Lab Sample Id: 669900-001 Date Collected: 08.12.2020 11:40 Sample Depth: 0 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CAC % Moisture:
 Analyst: MAB Date Prep: 08.12.2020 17:41 Basis: Wet Weight
 Seq Number: 3134401

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	56.7	9.92	mg/kg	08.12.2020 22:38		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.12.2020 17:30 Basis: Wet Weight
 Seq Number: 3134415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.13.2020 10:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.13.2020 10:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.13.2020 10:46	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.13.2020 10:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	08.13.2020 10:46	
o-Terphenyl	84-15-1	97	%	70-135	08.13.2020 10:46	



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **BG-1 0'**
Lab Sample Id: 669900-001

Matrix: Soil
Date Collected: 08.12.2020 11:40

Date Received: 08.12.2020 16:10
Sample Depth: 0 ft

Analytical Method: BTEX by EPA 8021B

Tech: CAC

Analyst: MAB

Seq Number: 3134426

Prep Method: SW5035A

% Moisture:

Date Prep: 08.12.2020 18:32

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.13.2020 08:23	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.13.2020 08:23	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.13.2020 08:23	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.13.2020 08:23	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.13.2020 08:23	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.13.2020 08:23	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.13.2020 08:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	08.13.2020 08:23		
1,4-Difluorobenzene	540-36-3	98	%	70-130	08.13.2020 08:23		



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **BG-2 0'** Matrix: Soil Date Received: 08.12.2020 16:10
 Lab Sample Id: 669900-002 Date Collected: 08.12.2020 11:42 Sample Depth: 0 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CAC % Moisture:
 Analyst: MAB Date Prep: 08.12.2020 17:41 Basis: Wet Weight
 Seq Number: 3134401

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	39.2	9.98	mg/kg	08.12.2020 22:44		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.12.2020 17:30 Basis: Wet Weight
 Seq Number: 3134415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	08.13.2020 11:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	08.13.2020 11:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	08.13.2020 11:06	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	08.13.2020 11:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	08.13.2020 11:06	
o-Terphenyl	84-15-1	106	%	70-135	08.13.2020 11:06	



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **BG-2 0'**
Lab Sample Id: 669900-002

Matrix: Soil
Date Collected: 08.12.2020 11:42

Date Received: 08.12.2020 16:10
Sample Depth: 0 ft

Analytical Method: BTEX by EPA 8021B

Tech: CAC

Analyst: MAB

Seq Number: 3134426

Date Prep: 08.12.2020 18:32

Prep Method: SW5035A

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.2020 08:46	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.2020 08:46	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.2020 08:46	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.13.2020 08:46	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.2020 08:46	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.2020 08:46	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.2020 08:46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.13.2020 08:46		
4-Bromofluorobenzene	460-00-4	107	%	70-130	08.13.2020 08:46		



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **BG-3 0'** Matrix: Soil Date Received: 08.12.2020 16:10
 Lab Sample Id: 669900-003 Date Collected: 08.12.2020 11:44 Sample Depth: 0 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CAC % Moisture:
 Analyst: MAB Date Prep: 08.12.2020 17:41 Basis: Wet Weight
 Seq Number: 3134401

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.96	9.96	mg/kg	08.12.2020 22:49	U	1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.12.2020 17:30 Basis: Wet Weight
 Seq Number: 3134415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	08.13.2020 11:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	08.13.2020 11:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	08.13.2020 11:27	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	08.13.2020 11:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	08.13.2020 11:27	
o-Terphenyl	84-15-1	85	%	70-135	08.13.2020 11:27	



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **BG-3 0'**
Lab Sample Id: 669900-003

Matrix: Soil
Date Collected: 08.12.2020 11:44

Date Received: 08.12.2020 16:10
Sample Depth: 0 ft

Analytical Method: BTEX by EPA 8021B

Tech: CAC

Analyst: MAB

Seq Number: 3134426

Prep Method: SW5035A

% Moisture:

Date Prep: 08.12.2020 18:32

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.2020 09:08	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.2020 09:08	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.2020 09:08	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.13.2020 09:08	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.2020 09:08	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.2020 09:08	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.2020 09:08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.13.2020 09:08		
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.13.2020 09:08		



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **BG-4 0'** Matrix: Soil Date Received: 08.12.2020 16:10
 Lab Sample Id: 669900-004 Date Collected: 08.12.2020 11:46 Sample Depth: 0 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CAC % Moisture:
 Analyst: MAB Date Prep: 08.12.2020 17:41 Basis: Wet Weight
 Seq Number: 3134401

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	48.1	9.98	mg/kg	08.12.2020 22:55		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.12.2020 17:30 Basis: Wet Weight
 Seq Number: 3134415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	08.13.2020 12:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	08.13.2020 12:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	08.13.2020 12:07	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	08.13.2020 12:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	08.13.2020 12:07	
o-Terphenyl	84-15-1	80	%	70-135	08.13.2020 12:07	



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **BG-4 0'**
Lab Sample Id: 669900-004

Matrix: Soil
Date Collected: 08.12.2020 11:46

Date Received: 08.12.2020 16:10
Sample Depth: 0 ft

Analytical Method: BTEX by EPA 8021B

Tech: CAC

Analyst: MAB

Seq Number: 3134426

Date Prep: 08.12.2020 18:32

Prep Method: SW5035A

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.13.2020 11:00	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.13.2020 11:00	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.13.2020 11:00	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.13.2020 11:00	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.13.2020 11:00	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.13.2020 11:00	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.13.2020 11:00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	97	%	70-130	08.13.2020 11:00		
4-Bromofluorobenzene	460-00-4	113	%	70-130	08.13.2020 11:00		



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **N.SW-1 10'**

Matrix: Soil

Date Received: 08.12.2020 16:10

Lab Sample Id: 669900-005

Date Collected: 08.12.2020 11:52

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CAC

% Moisture:

Analyst: MAB

Date Prep: 08.12.2020 17:41

Basis: Wet Weight

Seq Number: 3134401

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	129	9.98	mg/kg	08.12.2020 23:01		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.12.2020 17:30

Basis: Wet Weight

Seq Number: 3134415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	08.13.2020 12:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	08.13.2020 12:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	08.13.2020 12:27	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	08.13.2020 12:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	08.13.2020 12:27	
o-Terphenyl	84-15-1	109	%	70-135	08.13.2020 12:27	



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **N.SW-1 10'**

Matrix: Soil

Date Received: 08.12.2020 16:10

Lab Sample Id: 669900-005

Date Collected: 08.12.2020 11:52

Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: CAC

% Moisture:

Analyst: MAB

Date Prep: 08.12.2020 18:32

Basis: Wet Weight

Seq Number: 3134426

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.13.2020 09:30	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.13.2020 09:30	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.13.2020 09:30	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.13.2020 09:30	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.13.2020 09:30	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.13.2020 09:30	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.13.2020 09:30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.13.2020 09:30		
4-Bromofluorobenzene	460-00-4	109	%	70-130	08.13.2020 09:30		



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: N.SW-2 10'

Matrix: Soil

Date Received: 08.12.2020 16:10

Lab Sample Id: 669900-006

Date Collected: 08.12.2020 11:54

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CAC

% Moisture:

Analyst: MAB

Date Prep: 08.12.2020 17:41

Basis: Wet Weight

Seq Number: 3134401

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	52.0	9.88	mg/kg	08.12.2020 23:06		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.12.2020 17:30

Basis: Wet Weight

Seq Number: 3134415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.13.2020 12:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.13.2020 12:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.13.2020 12:48	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.13.2020 12:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	08.13.2020 12:48	
o-Terphenyl	84-15-1	106	%	70-135	08.13.2020 12:48	



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: N.SW-2 10'

Matrix: Soil

Date Received: 08.12.2020 16:10

Lab Sample Id: 669900-006

Date Collected: 08.12.2020 11:54

Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: CAC

% Moisture:

Analyst: MAB

Date Prep: 08.12.2020 18:32

Basis: Wet Weight

Seq Number: 3134426

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.2020 09:53	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.2020 09:53	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.2020 09:53	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.13.2020 09:53	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.2020 09:53	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.2020 09:53	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.2020 09:53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	08.13.2020 09:53		
1,4-Difluorobenzene	540-36-3	98	%	70-130	08.13.2020 09:53		



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **E.SW-1 10'**

Matrix: Soil

Date Received: 08.12.2020 16:10

Lab Sample Id: 669900-007

Date Collected: 08.12.2020 11:56

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CAC

% Moisture:

Analyst: MAB

Date Prep: 08.12.2020 17:41

Basis: Wet Weight

Seq Number: 3134401

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	292	9.98	mg/kg	08.12.2020 23:12		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.12.2020 17:30

Basis: Wet Weight

Seq Number: 3134415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.13.2020 13:08	U	1
Diesel Range Organics (DRO)	C10C28DRO	146	50.0	mg/kg	08.13.2020 13:08		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.13.2020 13:08	U	1
Total TPH	PHC635	146	50.0	mg/kg	08.13.2020 13:08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	08.13.2020 13:08	
o-Terphenyl	84-15-1	108	%	70-135	08.13.2020 13:08	



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **E.SW-1 10'**

Matrix: Soil

Date Received: 08.12.2020 16:10

Lab Sample Id: 669900-007

Date Collected: 08.12.2020 11:56

Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: CAC

% Moisture:

Analyst: MAB

Date Prep: 08.12.2020 18:32

Basis: Wet Weight

Seq Number: 3134426

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0217	0.0217	mg/kg	08.13.2020 11:23	U	1
Toluene	108-88-3	<0.0217	0.0217	mg/kg	08.13.2020 11:23	U	1
Ethylbenzene	100-41-4	0.0790	0.0217	mg/kg	08.13.2020 11:23		1
m,p-Xylenes	179601-23-1	0.0525	0.0435	mg/kg	08.13.2020 11:23		1
o-Xylene	95-47-6	0.0791	0.0217	mg/kg	08.13.2020 11:23		1
Total Xylenes	1330-20-7	0.132	0.0217	mg/kg	08.13.2020 11:23		1
Total BTEX		0.211	0.0217	mg/kg	08.13.2020 11:23		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	117	%	70-130	08.13.2020 11:23		
1,4-Difluorobenzene	540-36-3	95	%	70-130	08.13.2020 11:23		



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **E.SW-2 10'**

Matrix: Soil

Date Received: 08.12.2020 16:10

Lab Sample Id: 669900-008

Date Collected: 08.12.2020 11:58

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CAC

% Moisture:

Analyst: MAB

Date Prep: 08.12.2020 17:45

Basis: Wet Weight

Seq Number: 3134402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	296	9.92	mg/kg	08.12.2020 23:45		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.12.2020 17:30

Basis: Wet Weight

Seq Number: 3134417

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.13.2020 10:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	166	49.9	mg/kg	08.13.2020 10:46		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.13.2020 10:46	U	1
Total TPH	PHC635	166	49.9	mg/kg	08.13.2020 10:46		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-135	08.13.2020 10:46	
o-Terphenyl	84-15-1	115	%	70-135	08.13.2020 10:46	



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **E.SW-2 10'**

Matrix: Soil

Date Received: 08.12.2020 16:10

Lab Sample Id: 669900-008

Date Collected: 08.12.2020 11:58

Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: CAC

% Moisture:

Analyst: MAB

Date Prep: 08.12.2020 18:32

Basis: Wet Weight

Seq Number: 3134426

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00980	0.00980	mg/kg	08.13.2020 11:45	U	1
Toluene	108-88-3	<0.00980	0.00980	mg/kg	08.13.2020 11:45	U	1
Ethylbenzene	100-41-4	0.0473	0.00980	mg/kg	08.13.2020 11:45		1
m,p-Xylenes	179601-23-1	0.0232	0.0196	mg/kg	08.13.2020 11:45		1
o-Xylene	95-47-6	0.0390	0.00980	mg/kg	08.13.2020 11:45		1
Total Xylenes	1330-20-7	0.0622	0.00980	mg/kg	08.13.2020 11:45		1
Total BTEX		0.110	0.00980	mg/kg	08.13.2020 11:45		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	96	%	70-130	08.13.2020 11:45		
4-Bromofluorobenzene	460-00-4	117	%	70-130	08.13.2020 11:45		



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **S.SW-1 10'** Matrix: Soil Date Received: 08.12.2020 16:10
 Lab Sample Id: 669900-009 Date Collected: 08.12.2020 12:00 Sample Depth: 10 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CAC % Moisture:
 Analyst: MAB Date Prep: 08.12.2020 17:45 Basis: Wet Weight
 Seq Number: 3134402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	260	9.96	mg/kg	08.13.2020 00:02		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.12.2020 17:30 Basis: Wet Weight
 Seq Number: 3134417

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.13.2020 11:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.13.2020 11:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.13.2020 11:06	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.13.2020 11:06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	08.13.2020 11:06	
o-Terphenyl	84-15-1	116	%	70-135	08.13.2020 11:06	



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: S.SW-1 10'

Matrix: Soil

Date Received: 08.12.2020 16:10

Lab Sample Id: 669900-009

Date Collected: 08.12.2020 12:00

Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: CAC

% Moisture:

Analyst: MAB

Date Prep: 08.12.2020 18:32

Basis: Wet Weight

Seq Number: 3134426

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.13.2020 10:15	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.13.2020 10:15	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.13.2020 10:15	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.13.2020 10:15	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.13.2020 10:15	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.13.2020 10:15	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.13.2020 10:15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	08.13.2020 10:15		
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.13.2020 10:15		



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: S.SW-2 10'

Matrix: Soil

Date Received: 08.12.2020 16:10

Lab Sample Id: 669900-010

Date Collected: 08.12.2020 12:02

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CAC

% Moisture:

Analyst: MAB

Date Prep: 08.12.2020 17:45

Basis: Wet Weight

Seq Number: 3134402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	289	9.92	mg/kg	08.13.2020 00:08		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.12.2020 17:30

Basis: Wet Weight

Seq Number: 3134417

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	08.13.2020 11:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	61.8	50.1	mg/kg	08.13.2020 11:27		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	08.13.2020 11:27	U	1
Total TPH	PHC635	61.8	50.1	mg/kg	08.13.2020 11:27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	125	%	70-135	08.13.2020 11:27	
o-Terphenyl	84-15-1	118	%	70-135	08.13.2020 11:27	



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: S.SW-2 10'

Matrix: Soil

Date Received: 08.12.2020 16:10

Lab Sample Id: 669900-010

Date Collected: 08.12.2020 12:02

Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: CAC

% Moisture:

Analyst: MAB

Date Prep: 08.12.2020 18:32

Basis: Wet Weight

Seq Number: 3134426

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.2020 10:38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.2020 10:38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.2020 10:38	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.13.2020 10:38	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.2020 10:38	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.2020 10:38	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.2020 10:38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	08.13.2020 10:38		
1,4-Difluorobenzene	540-36-3	96	%	70-130	08.13.2020 10:38		



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **W.SW-1 10'**

Matrix: Soil

Date Received: 08.12.2020 16:10

Lab Sample Id: 669900-011

Date Collected: 08.12.2020 12:04

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CAC

% Moisture:

Analyst: MAB

Date Prep: 08.12.2020 17:45

Basis: Wet Weight

Seq Number: 3134402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	70.0	10.0	mg/kg	08.13.2020 00:13		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.12.2020 17:30

Basis: Wet Weight

Seq Number: 3134415

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	08.13.2020 09:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	08.13.2020 09:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	08.13.2020 09:46	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	08.13.2020 09:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	08.13.2020 09:46	
o-Terphenyl	84-15-1	108	%	70-135	08.13.2020 09:46	



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **W.SW-1 10'**

Matrix: Soil

Date Received: 08.12.2020 16:10

Lab Sample Id: 669900-011

Date Collected: 08.12.2020 12:04

Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: CAC

% Moisture:

Analyst: MAB

Date Prep: 08.12.2020 17:28

Basis: Wet Weight

Seq Number: 3134422

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.2020 09:26	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.2020 09:26	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.2020 09:26	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.13.2020 09:26	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.13.2020 09:26	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.13.2020 09:26	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.13.2020 09:26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.13.2020 09:26		
1,4-Difluorobenzene	540-36-3	100	%	70-130	08.13.2020 09:26		



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **W.SW-2 10'**

Matrix: Soil

Date Received: 08.12.2020 16:10

Lab Sample Id: 669900-012

Date Collected: 08.12.2020 12:06

Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CAC

% Moisture:

Analyst: MAB

Date Prep: 08.12.2020 17:45

Basis: Wet Weight

Seq Number: 3134402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	174	10.0	mg/kg	08.13.2020 00:19		1

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.12.2020 17:30

Basis: Wet Weight

Seq Number: 3134417

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	08.13.2020 12:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	08.13.2020 12:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	08.13.2020 12:07	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	08.13.2020 12:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	08.13.2020 12:07	
o-Terphenyl	84-15-1	117	%	70-135	08.13.2020 12:07	



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **W.SW-2 10'**

Matrix: Soil

Date Received: 08.12.2020 16:10

Lab Sample Id: 669900-012

Date Collected: 08.12.2020 12:06

Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: CAC

% Moisture:

Analyst: MAB

Date Prep: 08.12.2020 17:28

Basis: Wet Weight

Seq Number: 3134422

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.13.2020 09:46	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.13.2020 09:46	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.13.2020 09:46	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.13.2020 09:46	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.13.2020 09:46	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.13.2020 09:46	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.13.2020 09:46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.13.2020 09:46		
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.13.2020 09:46		



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **S-1 10'R** Matrix: Soil Date Received: 08.12.2020 16:10
 Lab Sample Id: 669900-013 Date Collected: 08.12.2020 13:30 Sample Depth: 10 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CAC % Moisture:
 Analyst: MAB Date Prep: 08.12.2020 17:45 Basis: Wet Weight
 Seq Number: 3134402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	722	10.0	mg/kg	08.13.2020 00:24		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.12.2020 17:30 Basis: Wet Weight
 Seq Number: 3134417

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	63.2	50.1	mg/kg	08.13.2020 12:27		1
Diesel Range Organics (DRO)	C10C28DRO	408	50.1	mg/kg	08.13.2020 12:27		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	08.13.2020 12:27	U	1
Total TPH	PHC635	471	50.1	mg/kg	08.13.2020 12:27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	134	%	70-135	08.13.2020 12:27	
o-Terphenyl	84-15-1	119	%	70-135	08.13.2020 12:27	



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **S-1 10'R**
Lab Sample Id: 669900-013

Matrix: Soil
Date Collected: 08.12.2020 13:30

Date Received: 08.12.2020 16:10
Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Tech: CAC

Analyst: MAB

Seq Number: 3134422

Date Prep: 08.12.2020 17:28

Prep Method: SW5035A

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.13.2020 10:06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.13.2020 10:06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.13.2020 10:06	U	1
m,p-Xylenes	179601-23-1	0.0111	0.00400	mg/kg	08.13.2020 10:06		1
o-Xylene	95-47-6	0.0141	0.00200	mg/kg	08.13.2020 10:06		1
Total Xylenes	1330-20-7	0.0252	0.00200	mg/kg	08.13.2020 10:06		1
Total BTEX		0.0252	0.00200	mg/kg	08.13.2020 10:06		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	08.13.2020 10:06		
1,4-Difluorobenzene	540-36-3	92	%	70-130	08.13.2020 10:06		



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **S-3 10'R** Matrix: Soil Date Received: 08.12.2020 16:10
 Lab Sample Id: 669900-014 Date Collected: 08.12.2020 13:38 Sample Depth: 10 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CAC % Moisture:
 Analyst: MAB Date Prep: 08.12.2020 17:45 Basis: Wet Weight
 Seq Number: 3134402

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	714	10.1	mg/kg	08.13.2020 00:41		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P
 Tech: DTH % Moisture:
 Analyst: DTH Date Prep: 08.12.2020 17:30 Basis: Wet Weight
 Seq Number: 3134417

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	602	50.3	mg/kg	08.13.2020 12:48		1
Diesel Range Organics (DRO)	C10C28DRO	1560	50.3	mg/kg	08.13.2020 12:48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	08.13.2020 12:48	U	1
Total TPH	PHC635	2160	50.3	mg/kg	08.13.2020 12:48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	08.13.2020 12:48	
o-Terphenyl	84-15-1	124	%	70-135	08.13.2020 12:48	



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM Chaparral 14 Fed Com 1

Sample Id: **S-3 10'R**
Lab Sample Id: 669900-014

Matrix: Soil
Date Collected: 08.12.2020 13:38

Date Received: 08.12.2020 16:10
Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Tech: CAC

Analyst: MAB

Seq Number: 3134422

Prep Method: SW5035A

% Moisture:

Date Prep: 08.12.2020 17:28

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0100	0.0100	mg/kg	08.13.2020 10:47	U	1
Toluene	108-88-3	<0.0100	0.0100	mg/kg	08.13.2020 10:47	U	1
Ethylbenzene	100-41-4	0.370	0.0400	mg/kg	08.13.2020 10:47		1
m,p-Xylenes	179601-23-1	2.84	0.0800	mg/kg	08.13.2020 10:47		1
o-Xylene	95-47-6	1.90	0.0400	mg/kg	08.13.2020 10:47		1
Total Xylenes	1330-20-7	4.74	0.0400	mg/kg	08.13.2020 10:47		1
Total BTEX		5.11	0.0100	mg/kg	08.13.2020 10:47		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	94	%	70-130	08.13.2020 10:47		
4-Bromofluorobenzene	460-00-4	125	%	70-130	08.13.2020 10:47		



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **S-2 10'R**
Lab Sample Id: 669900-015

Matrix: Soil
Date Collected: 08.12.2020 13:34

Date Received: 08.12.2020 16:10
Sample Depth: 10 ft

Analytical Method: Chloride by EPA 300

Tech: CAC

Analyst: MAB

Seq Number: 3134402

Date Prep: 08.12.2020 17:45

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	704	9.98	mg/kg	08.13.2020 00:47		1

Analytical Method: TPH by SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3134417

Date Prep: 08.12.2020 17:30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	407	50.2	mg/kg	08.13.2020 13:08		1
Diesel Range Organics (DRO)	C10C28DRO	961	50.2	mg/kg	08.13.2020 13:08		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	08.13.2020 13:08	U	1
Total TPH	PHC635	1370	50.2	mg/kg	08.13.2020 13:08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	135	%	70-135	08.13.2020 13:08	
o-Terphenyl	84-15-1	122	%	70-135	08.13.2020 13:08	



Certificate of Analytical Results 669900

Talon LPE-Artesia, Artesia, NM

Chaparral 14 Fed Com 1

Sample Id: **S-2 10'R**
Lab Sample Id: 669900-015

Matrix: Soil
Date Collected: 08.12.2020 13:34

Date Received: 08.12.2020 16:10
Sample Depth: 10 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: CAC

% Moisture:

Analyst: MAB

Date Prep: 08.12.2020 17:28

Basis: Wet Weight

Seq Number: 3134422

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00862	0.00862	mg/kg	08.13.2020 10:27	U	1
Toluene	108-88-3	0.0669	0.0345	mg/kg	08.13.2020 10:27		1
Ethylbenzene	100-41-4	0.328	0.0345	mg/kg	08.13.2020 10:27		1
m,p-Xylenes	179601-23-1	2.44	0.0690	mg/kg	08.13.2020 10:27		1
o-Xylene	95-47-6	1.68	0.0345	mg/kg	08.13.2020 10:27		1
Total Xylenes	1330-20-7	4.12	0.0345	mg/kg	08.13.2020 10:27		1
Total BTEX		4.51	0.00862	mg/kg	08.13.2020 10:27		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	121	%	70-130	08.13.2020 10:27		
1,4-Difluorobenzene	540-36-3	94	%	70-130	08.13.2020 10:27		

Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit. **ND** Not Detected.

RL Reporting Limit

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

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

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



Talon LPE-Artesia

Chaparral 14 Fed Com 1

Analytical Method: Chloride by EPA 300

Seq Number: 3134401

MB Sample Id: 7709320-1-BLK

Matrix: Solid

LCS Sample Id: 7709320-1-BKS

Prep Method: E300P

Date Prep: 08.12.2020

LCSD Sample Id: 7709320-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	267	107	267	107	90-110	0	20	mg/kg	08.12.2020 20:35	

Analytical Method: Chloride by EPA 300

Seq Number: 3134402

MB Sample Id: 7709321-1-BLK

Matrix: Solid

LCS Sample Id: 7709321-1-BKS

Prep Method: E300P

Date Prep: 08.12.2020

LCSD Sample Id: 7709321-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	266	106	266	106	90-110	0	20	mg/kg	08.12.2020 23:34	

Analytical Method: Chloride by EPA 300

Seq Number: 3134401

Parent Sample Id: 669856-011

Matrix: Soil

MS Sample Id: 669856-011 S

Prep Method: E300P

Date Prep: 08.12.2020

MSD Sample Id: 669856-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.98	200	210	105	210	105	90-110	0	20	mg/kg	08.12.2020 20:52	

Analytical Method: Chloride by EPA 300

Seq Number: 3134401

Parent Sample Id: 669856-021

Matrix: Soil

MS Sample Id: 669856-021 S

Prep Method: E300P

Date Prep: 08.12.2020

MSD Sample Id: 669856-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	26.8	200	234	104	234	104	90-110	0	20	mg/kg	08.12.2020 22:16	

Analytical Method: Chloride by EPA 300

Seq Number: 3134402

Parent Sample Id: 669900-008

Matrix: Soil

MS Sample Id: 669900-008 S

Prep Method: E300P

Date Prep: 08.12.2020

MSD Sample Id: 669900-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	296	200	501	103	501	103	90-110	0	20	mg/kg	08.12.2020 23:51	

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



Talon LPE-Artesia

Chaparral 14 Fed Com 1

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134415

MB Sample Id: 7709356-1-BLK

Matrix: Solid

LCS Sample Id: 7709356-1-BKS

Prep Method: SW8015P

Date Prep: 08.12.2020

LCSD Sample Id: 7709356-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	871	87	884	88	70-135	1	35	mg/kg	08.13.2020 09:05	
Diesel Range Organics (DRO)	<50.0	1000	909	91	909	91	70-135	0	35	mg/kg	08.13.2020 09:05	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	101		113		112		70-135	%	08.13.2020 09:05
o-Terphenyl	100		105		101		70-135	%	08.13.2020 09:05

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134417

MB Sample Id: 7709357-1-BLK

Matrix: Solid

LCS Sample Id: 7709357-1-BKS

Prep Method: SW8015P

Date Prep: 08.12.2020

LCSD Sample Id: 7709357-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1000	100	988	99	70-135	1	35	mg/kg	08.13.2020 09:05	
Diesel Range Organics (DRO)	<50.0	1000	1050	105	1020	102	70-135	3	35	mg/kg	08.13.2020 09:05	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		129		125		70-135	%	08.13.2020 09:05
o-Terphenyl	114		116		112		70-135	%	08.13.2020 09:05

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134415

Matrix: Solid

MB Sample Id: 7709356-1-BLK

Prep Method: SW8015P

Date Prep: 08.12.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.13.2020 08:43	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134417

Matrix: Solid

MB Sample Id: 7709357-1-BLK

Prep Method: SW8015P

Date Prep: 08.12.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.13.2020 11:47	

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



Talon LPE-Artesia

Chaparral 14 Fed Com 1

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134415

Parent Sample Id: 669900-011

Matrix: Soil

MS Sample Id: 669900-011 S

Prep Method: SW8015P

Date Prep: 08.12.2020

MSD Sample Id: 669900-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	977	98	943	94	70-135	4	35	mg/kg	08.13.2020 10:06	
Diesel Range Organics (DRO)	<49.9	998	1020	102	977	98	70-135	4	35	mg/kg	08.13.2020 10:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	134		130		70-135	%	08.13.2020 10:06
o-Terphenyl	127		122		70-135	%	08.13.2020 10:06

Analytical Method: TPH by SW8015 Mod

Seq Number: 3134417

Parent Sample Id: 669861-001

Matrix: Soil

MS Sample Id: 669861-001 S

Prep Method: SW8015P

Date Prep: 08.12.2020

MSD Sample Id: 669861-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	998	100	983	98	70-135	2	35	mg/kg	08.13.2020 10:06	
Diesel Range Organics (DRO)	<50.1	1000	1020	102	1000	100	70-135	2	35	mg/kg	08.13.2020 10:06	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	131		128		70-135	%	08.13.2020 10:06
o-Terphenyl	123		119		70-135	%	08.13.2020 10:06

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134422

MB Sample Id: 7709316-1-BLK

Matrix: Solid

LCS Sample Id: 7709316-1-BKS

Prep Method: SW5035A

Date Prep: 08.12.2020

LCSD Sample Id: 7709316-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0936	94	0.0978	98	70-130	4	35	mg/kg	08.13.2020 02:08	
Toluene	<0.00200	0.100	0.0903	90	0.0931	93	70-130	3	35	mg/kg	08.13.2020 02:08	
Ethylbenzene	<0.00200	0.100	0.0922	92	0.0965	97	71-129	5	35	mg/kg	08.13.2020 02:08	
m,p-Xylenes	<0.00400	0.200	0.188	94	0.196	98	70-135	4	35	mg/kg	08.13.2020 02:08	
o-Xylene	<0.00200	0.100	0.0938	94	0.0963	96	71-133	3	35	mg/kg	08.13.2020 02:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		96		98		70-130	%	08.13.2020 02:08
4-Bromofluorobenzene	106		97		100		70-130	%	08.13.2020 02:08

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



Talon LPE-Artesia

Chaparral 14 Fed Com 1

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134426

Matrix: Solid

Prep Method: SW5035A

Date Prep: 08.12.2020

MB Sample Id: 7709317-1-BLK

LCS Sample Id: 7709317-1-BKS

LCSD Sample Id: 7709317-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.127	127	0.112	112	70-130	13	35	mg/kg	08.13.2020 06:20	
Toluene	<0.00200	0.100	0.120	120	0.106	106	70-130	12	35	mg/kg	08.13.2020 06:20	
Ethylbenzene	<0.00200	0.100	0.111	111	0.0989	99	71-129	12	35	mg/kg	08.13.2020 06:20	
m,p-Xylenes	<0.00400	0.200	0.225	113	0.201	101	70-135	11	35	mg/kg	08.13.2020 06:20	
o-Xylene	<0.00200	0.100	0.113	113	0.0999	100	71-133	12	35	mg/kg	08.13.2020 06:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		98		98		70-130	%	08.13.2020 06:20
4-Bromofluorobenzene	95		103		103		70-130	%	08.13.2020 06:20

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134422

Matrix: Soil

Prep Method: SW5035A

Date Prep: 08.12.2020

Parent Sample Id: 669856-021

MS Sample Id: 669856-021 S

MSD Sample Id: 669856-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.105	105	0.0978	98	70-130	7	35	mg/kg	08.13.2020 02:49	
Toluene	<0.00201	0.100	0.0986	99	0.0935	94	70-130	5	35	mg/kg	08.13.2020 02:49	
Ethylbenzene	<0.00201	0.100	0.101	101	0.0957	96	71-129	5	35	mg/kg	08.13.2020 02:49	
m,p-Xylenes	<0.00402	0.201	0.206	102	0.195	98	70-135	5	35	mg/kg	08.13.2020 02:49	
o-Xylene	<0.00201	0.100	0.101	101	0.0956	96	71-133	5	35	mg/kg	08.13.2020 02:49	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		100		70-130	%	08.13.2020 02:49
4-Bromofluorobenzene	102		103		70-130	%	08.13.2020 02:49

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134426

Matrix: Soil

Prep Method: SW5035A

Date Prep: 08.12.2020

Parent Sample Id: 669900-001

MS Sample Id: 669900-001 S

MSD Sample Id: 669900-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.108	108	0.0985	99	70-130	9	35	mg/kg	08.13.2020 07:05	
Toluene	<0.00200	0.100	0.0964	96	0.0807	81	70-130	18	35	mg/kg	08.13.2020 07:05	
Ethylbenzene	<0.00200	0.100	0.0826	83	0.0799	80	71-129	3	35	mg/kg	08.13.2020 07:05	
m,p-Xylenes	<0.00400	0.200	0.166	83	0.159	80	70-135	4	35	mg/kg	08.13.2020 07:05	
o-Xylene	<0.00200	0.100	0.0820	82	0.0800	80	71-133	2	35	mg/kg	08.13.2020 07:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		99		70-130	%	08.13.2020 07:05
4-Bromofluorobenzene	103		101		70-130	%	08.13.2020 07:05

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

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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

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



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

Work Order No: W09900www.xenco.com Page 1 of 2

Project Manager:	D. ADKINS	Bill to: (if different)	CONCHO
Company Name:	TALON CPE	Company Name:	
Address:	408 W. TEXAS AVE	Address:	ATTN: ILE TAVAREZ
City, State ZIP:	AKESIA NM 88210	City, State ZIP:	
Phone:	575-746-8268	Email:	adkins@taloncpe.com nceuser@taloncpe.com

Work Order Comments	
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐	
State of Project:	
Reporting Level: I ☐ Level II ☐ Level III ☐ PST/UST ☐ TRP ☐ Level IV ☐	
Deliverables: EDD ☐ ADAPT ☐ Other:	

Project Name:	CHAPARRAL 14 Freedom	Turn Around	
Project Number:	700778.137.03	☐ Routine ☒ Rush	
Project Location:	EDDY COUNTY	Due Date:	
Sampler's Name:	MICHAEL COLLIER	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

Parameters

BTEX
 TPH
 TOTAL CHLORIDES

ANALYSIS REQUEST

None: NO	DI Water: H ₂ O
Cool: Cool	MeOH: Me
HCL: HC	HNO ₃ : HN
H ₂ SO ₄ : H ₂	NaOH: Na
H ₃ PO ₄ : HP	
NaHSO ₄ : NABIS	
Na ₂ S ₂ O ₃ : NaSO ₃	
Zn Acetate+NaOH: Zn	
NaOH+Ascorbic Acid: SAPC	

Sample Comments

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont														
B6-1 0'	Soil	8-12-20	11:45	0'	Comp	1	✓	BTEX	✓	TPH	✓	TOTAL CHLORIDES								
B6-2 0'			11:42																	
B6-3 0'			11:44																	
B6-4 0'			11:44																	
N. SW-1 10'			11:52	10'																
A. SW-2 10'			11:54																	
E. SW-1 10'			11:56																	
E. SW-2 10'			11:58																	
S. SW-1 10'			12:00																	
S. SW-2 10'			12:02																	

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

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 \$85.00 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.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <u>MARILL</u>		8/12/20	2		
3			4		
5			6		



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3139, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

Work Order No:

1269980

www.xenco.com Page 2 of 2

Project Manager:	D. ADKINS	Bill to: (if different)	CONCHE
Company Name:	TALON LPE	Company Name:	
Address:	408 W. TEXAS AVE	Address:	ATTN: IKE TAUREZ
City, State ZIP:	ARTEZIA NM 88210	City, State ZIP:	
Phone:	575-746-8768	Email:	

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

Project Name:	CHAPARRAL FED CORP	Turn Around	☐ Routine ☒ Rush	Pres. Code	ANALYSIS REQUEST										Preservative Codes		
Project Number:	700798.137.03	Due Date:													None: NO DI Water: H ₂ O		
Project Location:	EDDY COUNTY	TAT starts the day received by the lab, if received by 4:30pm													Cool: Cool MeOH: Me		
Sampler's Name:	MICHAEL COLLIER														HCL: HC HNO ₃ : HN		
PO #:															H ₂ SO ₄ : H ₂ NaOH: Na		
SAMPLE RECEIPT	Temp Blank:	Yes No	Wet Ice:	Yes No											H ₃ PO ₄ : HP		
Received Intact:	Yes No	Thermometer ID:													NaHSO ₄ : NABIS		
Cooler Custody Seals:	Yes No N/A	Corrected Reading:													Na ₂ S ₂ O ₅ : NASO ₃		
Sample Custody Seals:	Yes No N/A	Temperature Reading:													Zn Acetate+NaOH: Zn		
Total Containers:		Corrected Temperature:													NaOH+Ascorbic Acid: SAPC		
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont											Sample Comments
W.S.W - 1 1b'	SAC	8-12-20	12:04	10'	Comp	1	✓	BTEX	✓	TPH	✓	TOTAL CHLORIDES					
W.S.W - 2 10'																	
S-1 10'R			12:06	10'													
S-3 10'R			1:30														
S-2 10'R			1:38														
S-2 10'R			1:34														

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn

TCLP/SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

Hg: 1631 / 245.1 / 7470 / 7471

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 M. Adkins			2		
3		8/12/20 10:10	4		
5			6		

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Talon LPE-Artesia

Date/ Time Received: 08.12.2020 04.10.00 PM

Work Order #: 669900

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist

Comments

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

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Elizabeth McClellan

Date: 08.12.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.13.2020



BORING LOG

Project No.: 700778.137.02

Weather: Cold, Windy Temp.: ____°F

Driller: G. Perez

Site Name: Chaparral 14 Fed Com 1

Logger: D. Adkins

Rig Type: Reich Drill

Location: Eddy County, NM

Field Instrument: PID, CL Titration

Bit Size: 5 7/8"

Date: 12/4/19

Latitude: 32°, 39', 30.23" N

Drilling Method: Air Rotary

Boring Number: B-1

Longitude: 103°, 49', 59.86" W

Sample Retrieval Method: Split Spoon

Time	Lab Sample Collected	Sample Interval (ft)	Sample Recovery (ft)	USCS	Composition (%)	Sample Material/Comments Include composition, color, grain size, moisture, hardness, plasticity, density	Hydrocarbon Odor	PID (ppm)
		0-1'				Gray/brown caliche pad	None	
		1-10'				Light gray/brown fine Sand (SP)	None	
		10-14'				Gray/brown fine Sand (SP) with caliche	None	1ppm @10'
		14-18'				Gray/brown fine Sand (SP)	None	
		18-20'				Red/brown fine Sand (SP) with caliche	None	
							None Slight Mod. Strong	
							None Slight Mod. Strong	
							None Slight Mod. Strong	
							None Slight Mod. Strong	
							None Slight Mod. Strong	
							None Slight Mod. Strong	
							None Slight Mod. Strong	
							None Slight Mod. Strong	

Surface Elevation: _____

Notes: TD @ 20', Groundwater not encountered
Logger Initials: DA



BORING LOG

Project No.: 700778.137.02

Weather: Cold, Windy Temp.: ____°F

Driller: G. Perez

Site Name: Chaparral 14 Fed Com 1

Logger: D. Adkins

Rig Type: Reich Drill

Location: Eddy County, NM

Field Instrument: PID, CL Titration

Bit Size: 5 7/8"

Date: 12/4/2019

Latitude: 32°, 39', 30.16" N

Drilling Method: Air Rotary

Boring Number: B-2

Longitude: 103°, 49', 59.54" W

Sample Retrieval Method: Split Spoon

Time	Lab Sample Collected	Sample Interval (ft)	Sample Recovery (ft)	USCS	Composition (%)	Sample Material/Comments Include composition, color, grain size, moisture, hardness, plasticity, density	Hydrocarbon Odor	PID (ppm)
		0-2'				Dark gray/brown gravel and caliche pad	Slight	
		2-6'				Gray/brown fine Sand (SP)	Strong	
		6-12'				Gray/brown sandy caliche	Mod.	1219 @12'
		12-20'				Tan to red/brown fine Sand (SP)	Mod.	1500 @20'
		20-50'				Red/brown fine Sand (SP) with caliche 40-50'	Mod.	1200 @40'
		50-55'				Gray/brown Limestone	Slight	332 @60'
		55'-120'				Dark red/brown fine Sand (SP)	Slight	56 @70'
							None	36 @80'
							None	38 @90'
							None	0 @100'
							None Slight Mod. Strong	
							None Slight Mod. Strong	

Surface Elevation: _____

Notes: TD 120', Groundwater not encountered

Logger Initials: DA

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

COMMENTS

Action 11201

COMMENTS

Operator:			OGRID:	Action Number:	Action Type:
COG OPERATING LLC 600 W Illinois Ave Midland, TX79701			229137	11201	C-141
Created By	Comment				Comment Date
chensley	Request has been made for the boring logs made at B-2				02/19/2021

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 11201

CONDITIONS OF APPROVAL

Operator:	COG OPERATING LLC	600 W Illinois Ave	Midland, TX79701	OGRID:	229137	Action Number:	11201	Action Type:	C-141
OCD Reviewer	Condition								
chensley	None								