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## **Soil Assessment and Remediation Work Plan**

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

**April 13, 2020**

Mr. Mike Bratcher  
**NMOCD District 2**  
811 S. 1<sup>st</sup> Street  
Artesia, NM 88210

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

Subject: **Soil Assessment and Remediation Work Plan**  
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 soil assessment and proposed remediation activities 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
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 200 feet of any lakebed, sinkhole or playa lake	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 300 feet from an occupied permanent residence, school, hospital, institution or church	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 1000 feet of any fresh water well or spring	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within 300 feet of a wetland	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within the area overlying a subsurface mine	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Within an unstable area	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 any point within the horizontal boundary of 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 19, 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 sample location B-2 due to TPH and BTEX concentrations 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

### 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.

### Closure

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

Respectfully submitted,

TALON/LPE

Brandon Sinclair  
Environmental Scientist

David J. Adkins  
District Manager

Attachments:



- Appendix I Site Maps
- Appendix II Soil Survey, Groundwater Data
- Appendix III Boring Logs
- Appendix IV C-141's
- Appendix V Photographs
- Appendix VI Laboratory Data



# **APPENDIX I**

## **SITE MAPS**

**Chaparral 14 Fed Com 1**  
Eddy County, New Mexico  
Site Map

- Legend**
-  Boring Locations
  -  COG Chaparral 14 Fed Com 1

COG Chaparral 14 Fed Com 1

B-1  
B-2  
B-3  
B-4  
B-5

Google Earth



# Chaparral 14 Federal Com #001

COG Operating, LLC  
API # 30-015-34038  
Eddy County, NM  
Site Map

## Legend

● Boring Locations

Google Earth

B-1

B-3

B-2

B-5

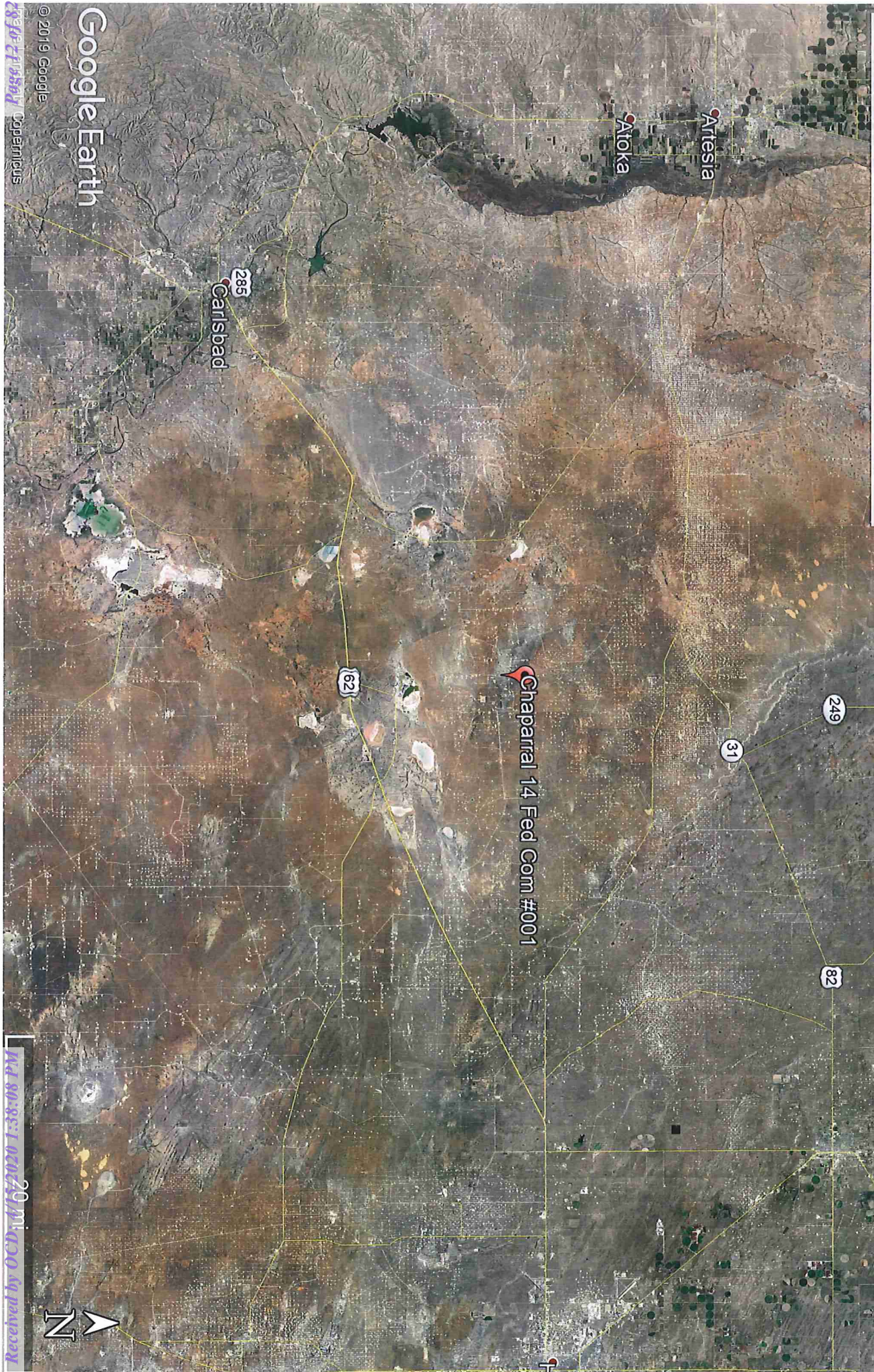
B-4

30 ft



# Chaparral 14 Federal Com #001

COG Operating, LLC  
API # 30-015-34038  
Eddy County, NM  
Locator Map



Google Earth

© 2019 Google

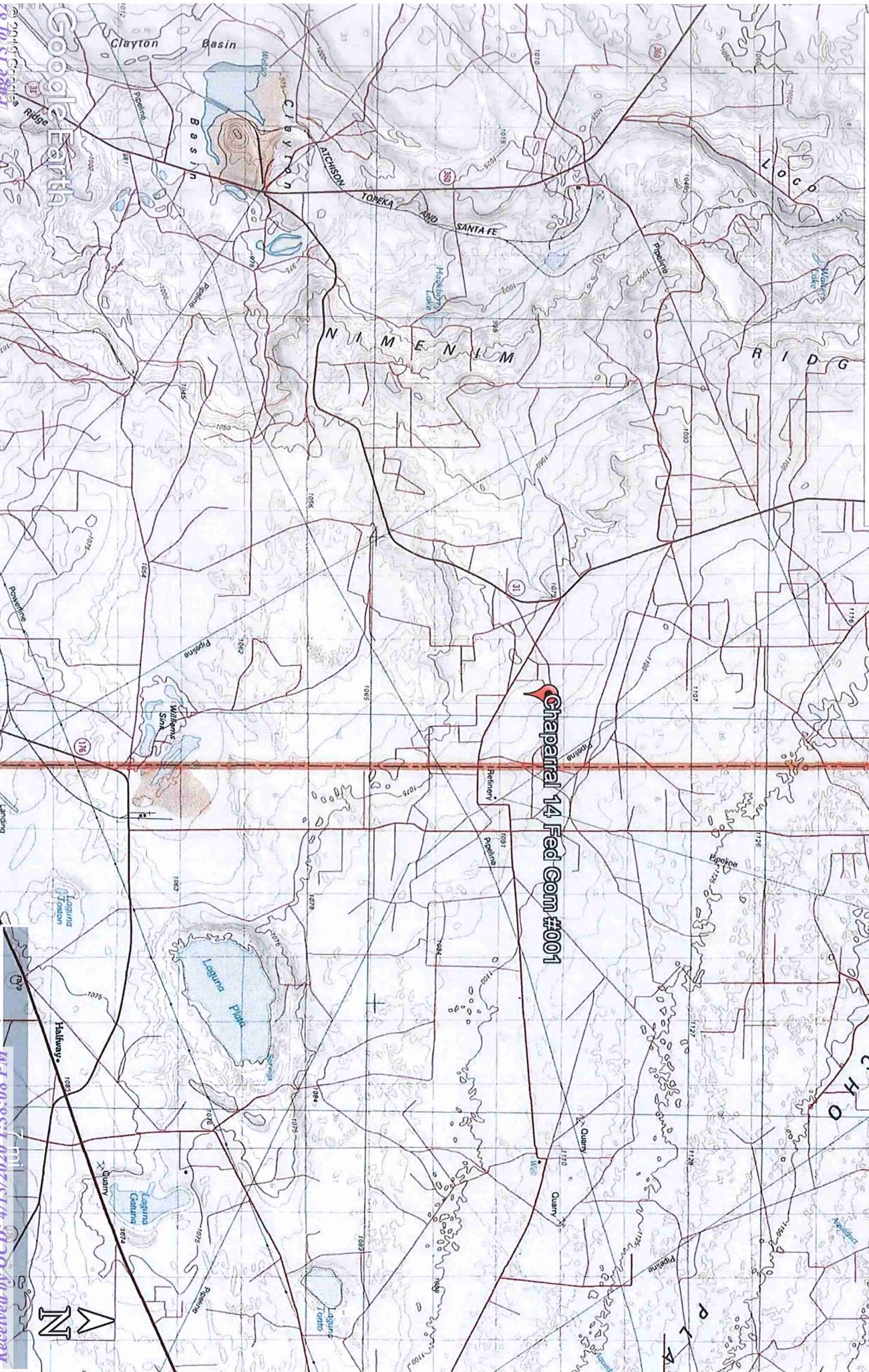
2830-CP-0001 Copernicus

Mid 80-85: 1.00029 mi. D.O. by papapap



# Chaparal 14 Federal Com #001

COG Operating, LLC  
API # 30-015-34038  
Eddy County, NM  
Topographic Map



COG Operating, LLC  
API # 30-015-34038  
Eddy County, NM  
Karst Map

API# 30-015-34038

Eddy County, NM

Karst Map

**Legend**

High

Low

Medium

Low

Medium

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# National Flood Hazard Layer FIRMette



32°39'45.49"N



## Legend

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

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

0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile (Zone X)
Future Conditions 1% Annual Chance Flood Hazard (Zone X)
Area with Reduced Flood Risk due to Levees, See Notes, Zone X
Area with Flood Risk due to Levee Zone D

OTHER AREAS	NO SCREEN Area of Minimal Flood Hazard Zone X Effective LOMRs
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer Levee, Dike, or Floodwall

OTHER FEATURES	20.2 17.5 15 12.5 10 7.5 5 2.5 0 Cross Sections with 1% Annual Chance Water Surface Elevation Coastal Transect Base Flood Elevation Line (BFE) Limit of Study Jurisdiction Boundary Coastal Transect Baseline Profile Baseline Hydrographic Feature
----------------	--

MAP PANELS	Digital Data Available No Digital Data Available Unmapped
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The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

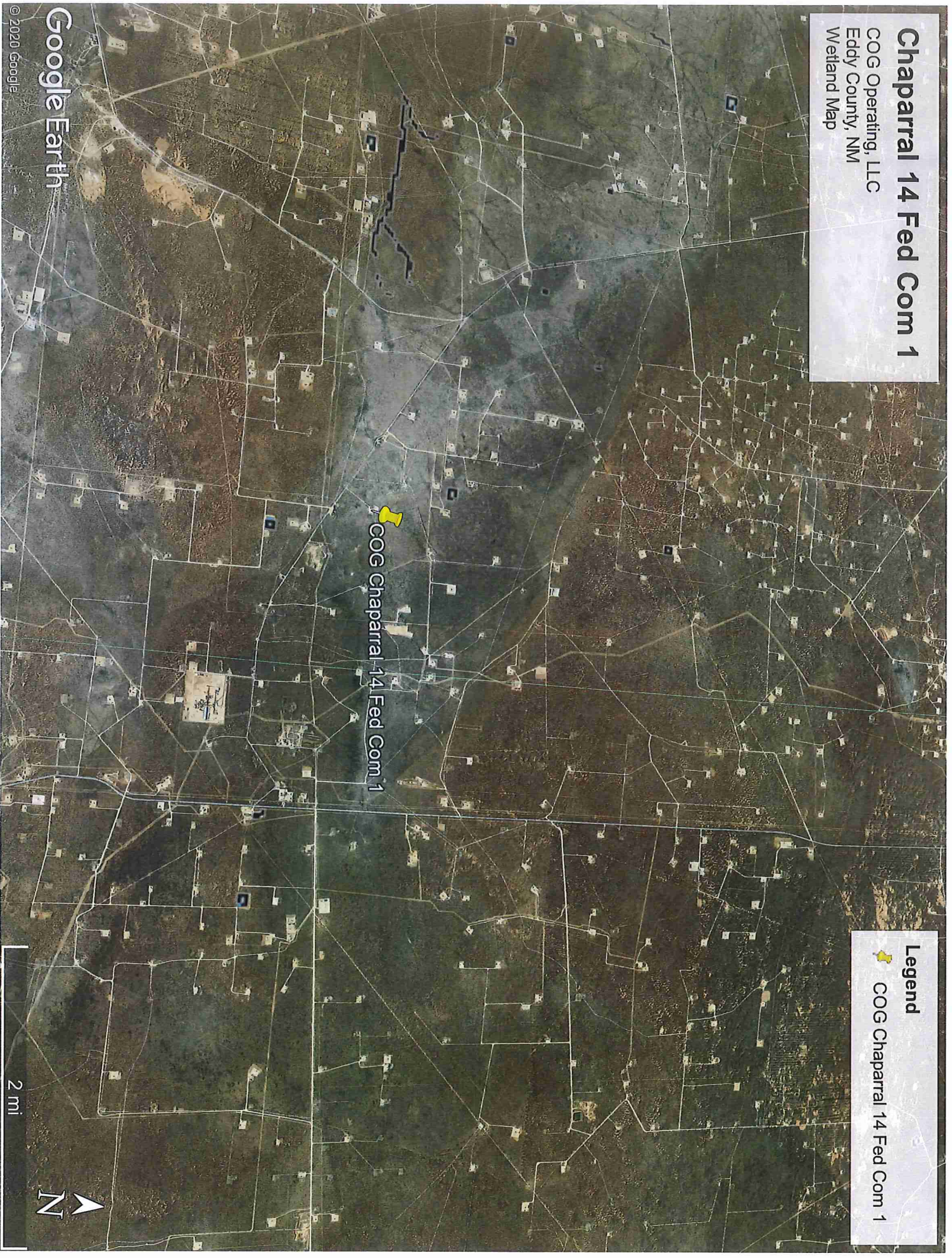
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **2/3/2020 at 2:04:06 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

**Chaparral 14 Fed Com 1**  
COG Operating, LLC  
Eddy County, NM  
Wetland Map

**Legend**  
 COG Chaparral 14 Fed Com 1



Google Earth

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## **APPENDIX II**

### **SOIL SURVEY**

### **GROUNDWATER DATA**

## Eddy Area, New Mexico

### SN—Simona and Wink fine sandy loams, 0 to 3 percent slopes, eroded

#### Map Unit Setting

*National map unit symbol:* 1w5y  
*Elevation:* 3,000 to 4,200 feet  
*Mean annual precipitation:* 10 to 14 inches  
*Mean annual air temperature:* 60 to 64 degrees F  
*Frost-free period:* 200 to 220 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Simona and similar soils:* 45 percent  
*Wink and similar soils:* 40 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Simona

##### Setting

*Landform:* Alluvial fans, plains  
*Landform position (three-dimensional):* Rise  
*Down-slope shape:* Linear, convex  
*Across-slope shape:* Linear  
*Parent material:* Mixed alluvium and/or eolian sands

##### Typical profile

*H1 - 0 to 19 inches:* fine sandy loam  
*H2 - 19 to 23 inches:* indurated

##### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* 7 to 20 inches to petrocalcic  
*Natural drainage class:* Well drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 15 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 1.0  
*Available water storage in profile:* Very low (about 2.5 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 4s  
*Land capability classification (nonirrigated):* 7e

*Hydrologic Soil Group:* D  
*Ecological site:* Shallow Sandy (R042XC002NM)  
*Hydric soil rating:* No

### Description of Wink

#### Setting

*Landform:* Depressions, swales  
*Landform position (three-dimensional):* Talf  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Mixed alluvium and/or eolian sands

#### Typical profile

*H1 - 0 to 8 inches:* fine sandy loam  
*H2 - 8 to 38 inches:* fine sandy loam  
*H3 - 38 to 60 inches:* stratified gravelly variable

#### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Very low  
*Capacity of the most limiting layer to transmit water (Ksat):* High  
(2.00 to 6.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 30 percent  
*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 1.0  
*Available water storage in profile:* Low (about 6.0 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7e  
*Hydrologic Soil Group:* A  
*Ecological site:* Sandy (R042XC004NM)  
*Hydric soil rating:* No

### Minor Components

#### Dune land

*Percent of map unit:* 15 percent  
*Hydric soil rating:* No

## Data Source Information

Soil Survey Area: Eddy Area, New Mexico  
Survey Area Data: Version 15, Sep 15, 2019



## 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 Sub-Code	basin	County	Q 6	Q 4	Q Q	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
<a href="#">CP 01554 POD1</a>	CP	LE		2	2	1	22	19S	31E	607166	3613354	2340	400		
<a href="#">CP 01554 POD2</a>	CP	LE		2	2	1	22	19S	31E	607165	3613322	2349	400		
<a href="#">CP 00563 POD1</a>	CP	LE		1	1	2	19	19S	32E	612118	3613376*	2783	300		
<a href="#">CP 00642 POD1</a>	CP	ED		2	2	25	19S	31E	611025	3611657*	2860	250			
<a href="#">CP 00829 POD1</a>	CP	LE		2	4	16	19S	31E	606165	3614009*	3244	120			
<a href="#">CP 00640 POD1</a>	CP	LE		2	2	19	19S	32E	612621	3613280*	3294	260		102	158
<a href="#">CP 00639 POD1</a>	CP	LE		3	1	20	19S	32E	613029	3612880*	3793	350		345	5
<a href="#">CP 01656 POD2</a>	CP	LE		3	4	3	17	19S	32E	613364	3613648	3970	70		
<a href="#">CP 01656 POD1</a>	CP	LE		3	4	3	17	19S	32E	613368	3613646	3975	70		
<a href="#">CP 01656 POD3</a>	CP	LE		3	4	3	17	19S	32E	613374	3613633	3982	30		
<a href="#">CP 00641 POD1</a>	CP	ED		4	1	36	19S	31E	610247	3609634*	4462	300		130	170
<a href="#">CP 00849 POD1</a>	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**

# **BORING LOGS**



# 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



# 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	

Surface Elevation: \_\_\_\_\_

Notes: TD @ 20', Groundwater not encountered

Logger Initials: DA



## **APPENDIX IV**

### **C-141's**

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

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

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

Incident ID	NAB1924836726
District RP	2RP-5607
Facility ID	
Application ID	pAB1924836311

## Release Notification EOIW2-190801-C-1410

### Responsible Party

Responsible Party	COG Operating, LLC	OGRID	229137
Contact Name	Jennifer Knowlton	Contact Telephone	(575) 748-1570
Contact email	JKnowlton@concho.com	Incident # (assigned by OCD)	NAB1924836726
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

### Location of Release Source

Latitude 32.65842 Longitude -103.83324  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Chaparral 14 Federal Com #001	Site Type	Tank Battery
Date Release Discovered	July 17, 2019	API# (if applicable)	30-015-34038

Unit Letter	Section	Township	Range	County
I	14	19S	31E	<del>Lea</del> **EDDY AB

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 20	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

#### Cause of Release

The release was caused by a lightning strike on the water tank resulting in a fire.  
The release was within the unlined berm and on location. A vacuum truck was dispatched to remove all freestanding fluids.  
Concho will evaluate the site to determine if we may commence remediation immediately or delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

State of New Mexico  
Oil Conservation Division

Incident ID	NAB1924836726
District RP	2RP-5607
Facility ID	
Application ID	pAB1924836311

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? The release involved a fire.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Immediate notice was given by DeAnn Grant via e-mail July 18, 2019 at 10:07 am to Mike Bratcher and Jim Amos.	

### Initial Response

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:  	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>DeAnn Grant</u> Signature: <u></u> email: <u>agrant@concho.com</u>	Title: <u>HSE Administrative Assistant</u> Date: <u>7/26/2019</u> Telephone: <u>(432) 253-4513</u>
<b>OCD Only</b> Received by: <u>Amalia Bustamante</u> Date: <u>9/5/2019</u>	

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

## Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	102 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

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

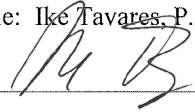
State of New Mexico  
Oil Conservation Division

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

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

Printed Name: 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: \_\_\_\_\_

Date: \_\_\_\_\_

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



## APPENDIX V

# PHOTOGRAPHS

# Drilling Photograph



GPS 32.658390, -103.833209

Pre-excavation Aerial Photograph





## APPENDIX VI

# LABORATORY DATA



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

October 18, 2019

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: CHAPARRAL 14 FED COM #001

Enclosed are the results of analyses for samples received by the laboratory on 10/14/19 13:45.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

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

Received: 10/14/2019  
Reported: 10/18/2019  
Project Name: CHAPARRAL 14 FED COM #001  
Project Number: 700778.137.01  
Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 1 0-1' (H903482-01)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2019	ND	1.94	96.9	2.00	2.55	
Toluene*	<0.050	0.050	10/15/2019	ND	1.95	97.3	2.00	1.46	
Ethylbenzene*	<0.050	0.050	10/15/2019	ND	1.96	98.1	2.00	1.60	
Total Xylenes*	<0.150	0.150	10/15/2019	ND	5.89	98.1	6.00	1.61	
Total BTEX	<0.300	0.300	10/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 97.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	10/17/2019	ND	400	100	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2019	ND	195	97.5	200	2.38	
DRO >C10-C28*	<10.0	10.0	10/15/2019	ND	205	103	200	5.68	
EXT DRO >C28-C36	<10.0	10.0	10/15/2019	ND					

Surrogate: 1-Chlorooctane 93.9 % 41-142

Surrogate: 1-Chlorooctadecane 96.9 % 37.6-147

Cardinal Laboratories

\*==Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

**Analytical Results For:**

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

Received: 10/14/2019  
Reported: 10/18/2019  
Project Name: CHAPARRAL 14 FED COM #001  
Project Number: 700778.137.01  
Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 1 2' (H903482-02)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2019	ND	1.94	96.9	2.00	2.55	
Toluene*	<0.050	0.050	10/15/2019	ND	1.95	97.3	2.00	1.46	
Ethylbenzene*	<0.050	0.050	10/15/2019	ND	1.96	98.1	2.00	1.60	
Total Xylenes*	<0.150	0.150	10/15/2019	ND	5.89	98.1	6.00	1.61	
Total BTEX	<0.300	0.300	10/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 97.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	10/17/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2019	ND	195	97.5	200	2.38	
DRO >C10-C28*	<10.0	10.0	10/15/2019	ND	205	103	200	5.68	
EXT DRO >C28-C36	<10.0	10.0	10/15/2019	ND					

Surrogate: 1-Chlorooctane 90.6 % 41-142

Surrogate: 1-Chlorooctadecane 93.9 % 37.6-147

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

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

Received:	10/14/2019	Sampling Date:	10/09/2019
Reported:	10/18/2019	Sampling Type:	Soil
Project Name:	CHAPARRAL 14 FED COM #001	Sampling Condition:	Cool & Intact
Project Number:	700778.137.01	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

**Sample ID: B - 1 3' (H903482-03)**

BTEX 8021B		mg/kg		Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/15/2019	ND	1.94	96.9	2.00	2.55		
Toluene*	<0.050	0.050	10/15/2019	ND	1.95	97.3	2.00	1.46		
Ethylbenzene*	<0.050	0.050	10/15/2019	ND	1.96	98.1	2.00	1.60		
Total Xylenes*	<0.150	0.150	10/15/2019	ND	5.89	98.1	6.00	1.61		
Total BTEX	<0.300	0.300	10/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 98.0 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	10/17/2019	ND	400	100	400	0.00		
TPH 8015M		mg/kg		Analyzed By: MS						

Surrogate: 1-Chlorooctane 88.2 % 41-142

Surrogate: 1-Chlorooctadecane 91.0 % 37.6-147

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/14/2019  
Reported: 10/18/2019  
Project Name: CHAPARRAL 14 FED COM #001  
Project Number: 700778.137.01  
Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 1 4' (H903482-04)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2019	ND	1.94	96.9	2.00	2.55	
Toluene*	<0.050	0.050	10/15/2019	ND	1.95	97.3	2.00	1.46	
Ethylbenzene*	<0.050	0.050	10/15/2019	ND	1.96	98.1	2.00	1.60	
<b>Total Xylenes*</b>	<b>0.340</b>	0.150	10/15/2019	ND	5.89	98.1	6.00	1.61	
<b>Total BTEX</b>	<b>0.340</b>	0.300	10/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1460</b>	16.0	10/17/2019	ND	400	100	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/15/2019	ND	195	97.5	200	2.38	
DRO >C10-C28*	<10.0	10.0	10/15/2019	ND	205	103	200	5.68	
<b>EXT DRO &gt;C28-C36</b>	<b>20.2</b>	10.0	10/15/2019	ND					

Surrogate: 1-Chlorooctane 89.9 % 41-142

Surrogate: 1-Chlorooctadecane 93.5 % 37.6-147

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/14/2019  
Reported: 10/18/2019  
Project Name: CHAPARRAL 14 FED COM #001  
Project Number: 700778.137.01  
Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 2 0-1' (H903482-05)**

BTX 8021B		mg/kg	Analyzed By: BF					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2019	ND	1.94	96.9	2.00	2.55	
Toluene*	1.22	0.050	10/15/2019	ND	1.95	97.3	2.00	1.46	
Ethylbenzene*	<0.050	0.050	10/15/2019	ND	1.96	98.1	2.00	1.60	
Total Xylenes*	17.4	0.150	10/15/2019	ND	5.89	98.1	6.00	1.61	
Total BTX	18.6	0.300	10/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 438 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1200	16.0	10/17/2019	ND	400	100	400	0.00	
TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1460	10.0	10/15/2019	ND	195	97.5	200	2.38	
DRO >C10-C28*	3330	10.0	10/15/2019	ND	205	103	200	5.68	
EXT DRO >C28-C36	454	10.0	10/15/2019	ND					

Surrogate: 1-Chlorooctane 279 % 41-142

Surrogate: 1-Chlorooctadecane 133 % 37.6-147

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**Analytical Results For:**

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

Received: 10/14/2019  
Reported: 10/18/2019  
Project Name: CHAPARRAL 14 FED COM #001  
Project Number: 700778.137.01  
Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 2 2' (H903482-06)**

BTX 8021B		mg/kg		Analyzed By: BF				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/15/2019	ND	1.94	96.9	2.00	2.55	
Toluene*	2.29	0.050	10/15/2019	ND	1.95	97.3	2.00	1.46	
Ethylbenzene*	<0.050	0.050	10/15/2019	ND	1.96	98.1	2.00	1.60	
Total Xylenes*	16.7	0.150	10/15/2019	ND	5.89	98.1	6.00	1.61	
Total BTX	19.0	0.300	10/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 493 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2160	16.0	10/17/2019	ND	416	104	400	0.00	
TPH 8015M									

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1910	10.0	10/15/2019	ND	195	97.5	200	2.38	
DRO >C10-C28*	2550	10.0	10/15/2019	ND	205	103	200	5.68	
EXT DRO >C28-C36	177	10.0	10/15/2019	ND					

Surrogate: 1-Chlorooctane 231 % 41-142

Surrogate: 1-Chlorooctadecane 118 % 37.6-147

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**Analytical Results For:**

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

Received: 10/14/2019  
Reported: 10/18/2019  
Project Name: CHAPARRAL 14 FED COM #001  
Project Number: 700778.137.01  
Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 2 3' (H903482-07)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	10/16/2019	ND	1.94	96.9	2.00	2.55	
Toluene*	4.45	1.00	10/16/2019	ND	1.95	97.3	2.00	1.46	
Ethylbenzene*	5.03	1.00	10/16/2019	ND	1.96	98.1	2.00	1.60	
Total Xylenes*	39.3	3.00	10/16/2019	ND	5.89	98.1	6.00	1.61	
Total BTEX	48.8	6.00	10/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 128 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2720	16.0	10/17/2019	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	1370	10.0	10/15/2019	ND	190	94.9	200	0.134		
DRO >C10-C28*	1520	10.0	10/15/2019	ND	199	99.3	200	1.44		
EXT DRO >C28-C36	54.9	10.0	10/15/2019	ND						

Surrogate: 1-Chlorooctane 176 % 41-142

Surrogate: 1-Chlorooctadecane 97.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	10/14/2019	Sampling Date:	10/09/2019
Reported:	10/18/2019	Sampling Type:	Soil
Project Name:	CHAPARRAL 14 FED COM #001	Sampling Condition:	Cool & Intact
Project Number:	700778.137.01	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

**Sample ID: B - 2 4' (H903482-08)**

BTX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<2.00	2.00	10/16/2019	ND	1.94	96.9	2.00	2.55	
Toluene*	10.7	2.00	10/16/2019	ND	1.95	97.3	2.00	1.46	
Ethylbenzene*	7.77	2.00	10/16/2019	ND	1.96	98.1	2.00	1.60	
Total Xylenes*	81.0	6.00	10/16/2019	ND	5.89	98.1	6.00	1.61	
Total BTX	99.5	12.0	10/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 115 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1900	16.0	10/17/2019	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	2610	10.0	10/15/2019	ND	190	94.9	200	0.134	
DRO >C10-C28*	3340	10.0	10/15/2019	ND	199	99.3	200	1.44	
EXT DRO >C28-C36	905	10.0	10/15/2019	ND					

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	2610	10.0	10/15/2019	ND	190	94.9	200	0.134	
DRO >C10-C28*	3340	10.0	10/15/2019	ND	199	99.3	200	1.44	
EXT DRO >C28-C36	905	10.0	10/15/2019	ND					

Surrogate: 1-Chlorooctane 451 % 41-142

Surrogate: 1-Chlorooctadecane 133 % 37.6-147

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**Analytical Results For:**

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

Received: 10/14/2019  
Reported: 10/18/2019  
Project Name: CHAPARRAL 14 FED COM #001  
Project Number: 700778.137.01  
Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 2 5' (H903482-09)**

BTEX 8021B		mg/kg	Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<5.00	5.00	10/16/2019	ND	1.94	96.9	2.00	2.55	
Toluene*	36.0	5.00	10/16/2019	ND	1.95	97.3	2.00	1.46	
Ethylbenzene*	20.1	5.00	10/16/2019	ND	1.96	98.1	2.00	1.60	
Total Xylenes*	253	15.0	10/16/2019	ND	5.89	98.1	6.00	1.61	
Total BTEX	309	30.0	10/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3080	16.0	10/17/2019	ND	416	104	400	0.00	
TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	6180	10.0	10/16/2019	ND	190	94.9	200	0.134	
DRO >C10-C28*	4370	10.0	10/16/2019	ND	199	99.3	200	1.44	
EXT DRO >C28-C36	238	10.0	10/16/2019	ND					

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	6180	10.0	10/16/2019	ND	190	94.9	200	0.134	
DRO >C10-C28*	4370	10.0	10/16/2019	ND	199	99.3	200	1.44	
EXT DRO >C28-C36	238	10.0	10/16/2019	ND					

Surrogate: 1-Chlorooctane 277 % 41-142

Surrogate: 1-Chlorooctadecane 108 % 37.6-147

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**Analytical Results For:**

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

Received: 10/14/2019  
Reported: 10/18/2019  
Project Name: CHAPARRAL 14 FED COM #001  
Project Number: 700778.137.01  
Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 2 6' (H903482-10)**

BTEX 8021B		mg/kg	Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<5.00	5.00	10/16/2019	ND	1.94	96.9	2.00	2.55	
Toluene*	30.7	5.00	10/16/2019	ND	1.95	97.3	2.00	1.46	
Ethylbenzene*	23.0	5.00	10/16/2019	ND	1.96	98.1	2.00	1.60	
Total Xylenes*	266	15.0	10/16/2019	ND	5.89	98.1	6.00	1.61	
Total BTEX	320	30.0	10/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 113 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1950	16.0	10/17/2019	ND	416	104	400	0.00	
TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	6490	10.0	10/16/2019	ND	190	94.9	200	0.134	
DRO >C10-C28*	4520	10.0	10/16/2019	ND	199	99.3	200	1.44	
EXT DRO >C28-C36	243	10.0	10/16/2019	ND					

Surrogate: 1-Chlorooctane 210 % 41-142

Surrogate: 1-Chlorooctadecane 105 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/14/2019  
Reported: 10/18/2019  
Project Name: CHAPARRAL 14 FED COM #001  
Project Number: 700778.137.01  
Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 2 7' (H903482-11)**

BTX 8021B		mg/kg		Analyzed By: BF				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<2.00	2.00	10/16/2019	ND	1.90	95.0	2.00	3.01	
Toluene*	9.34	2.00	10/16/2019	ND	1.93	96.6	2.00	2.21	QM-07
Ethylbenzene*	11.7	2.00	10/16/2019	ND	1.95	97.5	2.00	3.04	QM-07
Total Xylenes*	106	6.00	10/16/2019	ND	5.88	98.0	6.00	3.48	QM-07
Total BTX	127	12.0	10/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 132 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	10/17/2019	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	3160	10.0	10/16/2019	ND	190	94.9	200	0.134	
DRO >C10-C28*	2710	10.0	10/16/2019	ND	199	99.3	200	1.44	
EXT DRO >C28-C36	162	10.0	10/16/2019	ND					

Surrogate: 1-Chlorooctane 261 % 41-142

Surrogate: 1-Chlorooctadecane 105 % 37.6-147

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**Analytical Results For:**

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

Received: 10/14/2019  
 Reported: 10/18/2019  
 Project Name: CHAPARRAL 14 FED COM #001  
 Project Number: 700778.137.01  
 Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 3 0-1' (H903482-12)**

BTEX 8021B		mg/kg	Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2019	ND	1.90	95.0	2.00	3.01	
Toluene*	<0.050	0.050	10/16/2019	ND	1.93	96.6	2.00	2.21	
Ethylbenzene*	<0.050	0.050	10/16/2019	ND	1.95	97.5	2.00	3.04	
<b>Total Xylenes*</b>	<b>0.250</b>	0.150	10/16/2019	ND	5.88	98.0	6.00	3.48	
Total BTEX	<0.300	0.300	10/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 103 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1760</b>	16.0	10/17/2019	ND	416	104	400	0.00	
TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2019	ND	190	94.9	200	0.134	
DRO >C10-C28*	<10.0	10.0	10/16/2019	ND	199	99.3	200	1.44	
<b>EXT DRO &gt;C28-C36</b>	<b>16.9</b>	10.0	10/16/2019	ND					

Surrogate: 1-Chlorooctane 86.9 % 41-142

Surrogate: 1-Chlorooctadecane 92.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/14/2019  
 Reported: 10/18/2019  
 Project Name: CHAPARRAL 14 FED COM #001  
 Project Number: 700778.137.01  
 Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 3 2' (H903482-13)**

BTEX 8021B		mg/kg	Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2019	ND	1.90	95.0	2.00	3.01	
Toluene*	<0.050	0.050	10/16/2019	ND	1.93	96.6	2.00	2.21	
Ethylbenzene*	<0.050	0.050	10/16/2019	ND	1.95	97.5	2.00	3.04	
Total Xylenes*	<0.150	0.150	10/16/2019	ND	5.88	98.0	6.00	3.48	
Total BTEX	<0.300	0.300	10/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 99.0 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	10/17/2019	ND	416	104	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2019	ND	190	94.9	200	0.134	
DRO >C10-C28*	<10.0	10.0	10/16/2019	ND	199	99.3	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	10/16/2019	ND					

Surrogate: 1-Chlorooctane 86.9 % 41-142

Surrogate: 1-Chlorooctadecane 91.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/14/2019  
 Reported: 10/18/2019  
 Project Name: CHAPARRAL 14 FED COM #001  
 Project Number: 700778.137.01  
 Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 3 3' (H903482-14)**

BTEx 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2019	ND	1.90	95.0	2.00	3.01	
Toluene*	<0.050	0.050	10/16/2019	ND	1.93	96.6	2.00	2.21	
Ethylbenzene*	<0.050	0.050	10/16/2019	ND	1.95	97.5	2.00	3.04	
Total Xylenes*	<0.150	0.150	10/16/2019	ND	5.88	98.0	6.00	3.48	
Total BTEX	<0.300	0.300	10/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 97.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	10/17/2019	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: MS						

GRO C6-C10*	<10.0	10.0	10/16/2019	ND	190	94.9	200	0.134	
DRO >C10-C28*	<10.0	10.0	10/16/2019	ND	199	99.3	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	10/16/2019	ND					

Surrogate: 1-Chlorooctane 87.6 % 41-142

Surrogate: 1-Chlorooctadecane 92.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/14/2019  
Reported: 10/18/2019  
Project Name: CHAPARRAL 14 FED COM #001  
Project Number: 700778.137.01  
Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 3 4' (H903482-15)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2019	ND	1.90	95.0	2.00	3.01	
Toluene*	<0.050	0.050	10/16/2019	ND	1.93	96.6	2.00	2.21	
Ethylbenzene*	<0.050	0.050	10/16/2019	ND	1.95	97.5	2.00	3.04	
Total Xylenes*	<0.150	0.150	10/16/2019	ND	5.88	98.0	6.00	3.48	
Total BTEX	<0.300	0.300	10/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 99.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	10/17/2019	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2019	ND	190	94.9	200	0.134	
DRO >C10-C28*	100	10.0	10/16/2019	ND	199	99.3	200	1.44	
EXT DRO >C28-C36	238	10.0	10/16/2019	ND					

Surrogate: 1-Chlorooctane 86.1 % 41-142

Surrogate: 1-Chlorooctadecane 94.3 % 37.6-147

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**Analytical Results For:**

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

Received: 10/14/2019  
Reported: 10/18/2019  
Project Name: CHAPARRAL 14 FED COM #001  
Project Number: 700778.137.01  
Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 4 0-1' (H903482-16)**

BTX 8021B		mg/kg	Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2019	ND	1.90	95.0	2.00	3.01	
Toluene*	0.057	0.050	10/16/2019	ND	1.93	96.6	2.00	2.21	
Ethylbenzene*	<0.050	0.050	10/16/2019	ND	1.95	97.5	2.00	3.04	
Total Xylenes*	0.748	0.150	10/16/2019	ND	5.88	98.0	6.00	3.48	
Total BTX	0.805	0.300	10/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 106 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	10/17/2019	ND	416	104	400	0.00	
TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2019	ND	190	94.9	200	0.134	
DRO >C10-C28*	54.2	10.0	10/16/2019	ND	199	99.3	200	1.44	
EXT DRO >C28-C36	51.4	10.0	10/16/2019	ND					

Surrogate: 1-Chlorooctane 86.7 % 41-142

Surrogate: 1-Chlorooctadecane 94.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/14/2019  
 Reported: 10/18/2019  
 Project Name: CHAPARRAL 14 FED COM #001  
 Project Number: 700778.137.01  
 Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 4 2' (H903482-17)**

BTEX 8021B			mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/16/2019	ND	1.90	95.0	2.00	3.01		
Toluene*	<0.050	0.050	10/16/2019	ND	1.93	96.6	2.00	2.21		
Ethylbenzene*	<0.050	0.050	10/16/2019	ND	1.95	97.5	2.00	3.04		
Total Xylenes*	<0.150	0.150	10/16/2019	ND	5.88	98.0	6.00	3.48		
Total BTEX	<0.300	0.300	10/16/2019	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 95.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	10/17/2019	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2019	ND	190	94.9	200	0.134	
DRO >C10-C28*	<10.0	10.0	10/16/2019	ND	199	99.3	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	10/16/2019	ND					

Surrogate: 1-Chlorooctane 77.2 % 41-142

Surrogate: 1-Chlorooctadecane 82.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/14/2019  
 Reported: 10/18/2019  
 Project Name: CHAPARRAL 14 FED COM #001  
 Project Number: 700778.137.01  
 Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 4 3' (H903482-18)**

BTX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2019	ND	1.90	95.0	2.00	3.01	
Toluene*	<0.050	0.050	10/16/2019	ND	1.93	96.6	2.00	2.21	
Ethylbenzene*	<0.050	0.050	10/16/2019	ND	1.95	97.5	2.00	3.04	
Total Xylenes*	<0.150	0.150	10/16/2019	ND	5.88	98.0	6.00	3.48	
Total BTX	<0.300	0.300	10/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 98.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	10/17/2019	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2019	ND	190	94.9	200	0.134	
DRO >C10-C28*	<10.0	10.0	10/16/2019	ND	199	99.3	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	10/16/2019	ND					

Surrogate: 1-Chlorooctane 76.1 % 41-142

Surrogate: 1-Chlorooctadecane 81.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/14/2019  
Reported: 10/18/2019  
Project Name: CHAPARRAL 14 FED COM #001  
Project Number: 700778.137.01  
Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: B - 4 4' (H903482-19)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2019	ND	1.90	95.0	2.00	3.01	
Toluene*	<0.050	0.050	10/16/2019	ND	1.93	96.6	2.00	2.21	
Ethylbenzene*	<0.050	0.050	10/16/2019	ND	1.95	97.5	2.00	3.04	
<b>Total Xylenes*</b>	<b>0.347</b>	0.150	10/16/2019	ND	5.88	98.0	6.00	3.48	
<b>Total BTEX</b>	<b>0.347</b>	0.300	10/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 97.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>128</b>	16.0	10/17/2019	ND	416	104	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2019	ND	190	94.9	200	0.134	
<b>DRO &gt;C10-C28*</b>	<b>56.3</b>	10.0	10/16/2019	ND	199	99.3	200	1.44	
<b>EXT DRO &gt;C28-C36</b>	<b>36.6</b>	10.0	10/16/2019	ND					

Surrogate: 1-Chlorooctane 82.6 % 41-142

Surrogate: 1-Chlorooctadecane 88.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	10/14/2019	Sampling Date:	10/09/2019
Reported:	10/18/2019	Sampling Type:	Soil
Project Name:	CHAPARRAL 14 FED COM #001	Sampling Condition:	Cool & Intact
Project Number:	700778.137.01	Sample Received By:	Tamara Oldaker
Project Location:	COG - EDDY CO NM		

**Sample ID: B - 5 0-1' (H903482-20)**

BTX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2019	ND	1.90	95.0	2.00	3.01	
Toluene*	<0.050	0.050	10/16/2019	ND	1.93	96.6	2.00	2.21	
Ethylbenzene*	<0.050	0.050	10/16/2019	ND	1.95	97.5	2.00	3.04	
Total Xylenes*	<0.150	0.150	10/16/2019	ND	5.88	98.0	6.00	3.48	
Total BTX	<0.300	0.300	10/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 98.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	10/17/2019	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2019	ND	190	94.9	200	0.134	
DRO >C10-C28*	<10.0	10.0	10/16/2019	ND	199	99.3	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	10/16/2019	ND					

Surrogate: 1-Chlorooctane 83.1 % 41-142

Surrogate: 1-Chlorooctadecane 89.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/14/2019  
 Reported: 10/18/2019  
 Project Name: CHAPARRAL 14 FED COM #001  
 Project Number: 700778.137.01  
 Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 5 2' (H903482-21)**

BTX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2019	ND	1.90	95.0	2.00	3.01	
Toluene*	<0.050	0.050	10/16/2019	ND	1.93	96.6	2.00	2.21	
Ethylbenzene*	<0.050	0.050	10/16/2019	ND	1.95	97.5	2.00	3.04	
Total Xylenes*	<0.150	0.150	10/16/2019	ND	5.88	98.0	6.00	3.48	
Total BTX	<0.300	0.300	10/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 98.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/17/2019	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2019	ND	190	94.9	200	0.134	
DRO >C10-C28*	<10.0	10.0	10/16/2019	ND	199	99.3	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	10/16/2019	ND					

Surrogate: 1-Chlorooctane 82.2 % 41-142

Surrogate: 1-Chlorooctadecane 88.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 10/14/2019  
 Reported: 10/18/2019  
 Project Name: CHAPARRAL 14 FED COM #001  
 Project Number: 700778.137.01  
 Project Location: COG - EDDY CO NM

Sampling Date: 10/09/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B - 5 3' R (H903482-22)**

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/16/2019	ND	1.90	95.0	2.00	3.01	
Toluene*	<0.050	0.050	10/16/2019	ND	1.93	96.6	2.00	2.21	
Ethylbenzene*	<0.050	0.050	10/16/2019	ND	1.95	97.5	2.00	3.04	
Total Xylenes*	<0.150	0.150	10/16/2019	ND	5.88	98.0	6.00	3.48	
Total BTEX	<0.300	0.300	10/16/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 97.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	10/17/2019	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/16/2019	ND	190	94.9	200	0.134	
DRO >C10-C28*	<10.0	10.0	10/16/2019	ND	199	99.3	200	1.44	
EXT DRO >C28-C36	<10.0	10.0	10/16/2019	ND					

Surrogate: 1-Chlorooctane 80.6 % 41-142

Surrogate: 1-Chlorooctadecane 89.1 % 37.6-147

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

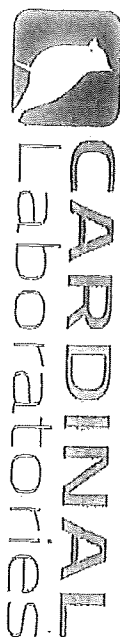
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

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

**ANALYSIS REQUEST**

Company Name: <b>Talen IPE</b>		P.O. #:
Project Manager: <b>David Adkins</b>		
Address: <b>408 W Texas Ave</b>		Company: <b>COG</b>
City: <b>Artesia</b>		Attn: <b>Dakota Neel</b>
State: <b>NM</b> Zip: <b>88210</b>		Address:
Phone #: <b>575-746-8768</b> Fax #:		City:
Project #: <b>700778.13701</b> Project Owner: <b>COG</b>		State:
Project Name: <b>Chaparral 14 Fed Land #001</b>		Zip:
Project Location: <b>Eddy County</b>		Phone #:
Sampler Name: <b>Brandon Sinclair</b>		Fax #:

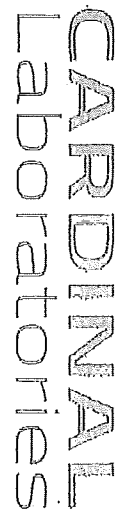
Lab ID.	Sample ID.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					PRESERV.	SAMPLING	DATE	TIME	ANALYSIS REQUEST									
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :										
<b>H903482</b>																						
1	B-1 0-1'												10/9/19	9:45	✓	TPH EXT						
2	B-1 2'													9:47	✓	BTEX						
3	B-1 3'													9:49	✓	Total Chlorides						
4	B-1 4'													10:00								
5	B-2 0-1'													10:20								
6	B-2 2'													10:22								
7	B-2 3'													10:24								
8	B-2 4'													10:35								
9	B-2 5'													10:37								
10	B-2 6'													10:39								

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Relinquished By: <b>ya duf</b>	Date: <b>10/14/19</b>	Received By: <b>Battay Fellu</b>
Time: <b>11:30</b>		
Delivered By: <b>Battay Fellu</b>	Date: <b>10/14/19</b>	Received By: <b>Battay Fellu</b>
Time: <b>13:45</b>		
Delivered By: <b>(Circle One)</b>	Date: <b>4/4/2</b>	Received By: <b>Samanta Rodriguez</b>
Time: <b>4:47</b>		
Sampler - UPS - Bus - Other: <b>Cardinal 4:47</b>	Sample Condition	CHECKED BY: <b>(Initials)</b>
	Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
	Seal Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
REMARKS: <b>TPH EXT BTEX Total Chlorides</b>	

\* Cardinal cannot accept verbal changes. Please put written changes to (575) 393-2326



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<b>Company Name:</b> Talon I DE		<b>P.O. #:</b>
<b>Project Manager:</b> David Alfkins		<b>STATEMENT</b>
<b>Address:</b> 408 W Texas Ave		<b>Company:</b> COG
<b>City:</b> Artesia		<b>Attn:</b> Dakota Neel
<b>Phone #:</b> 575-746-8768		<b>State:</b> NM
<b>Fax #:</b>		<b>Zip:</b>
<b>Project #:</b> 700778.13701		<b>Project Owner:</b> COG
<b>Project Location:</b> Eddy County		<b>Sample Name:</b> Brandon Sinclair
<b>For Lab Use Only:</b>		<b>Matrix:</b>
<b>Lab I.D.</b>	<b>Sample I.D.</b>	<b>Preserv:</b>
		<b>SAMPLING</b>
	(G)RAB OR (C)OMP.	
	# CONTAINERS	
	GROUNDWATER	
	WASTEWATER	
	SOIL	
	OIL	
	SLUDGE	
	OTHER :	
	ACID/BASE:	
	ICE / COOL	
	OTHER :	
	DATE	TIME
H903482	B-2 7'	10/4/9 10:41
11	B-3 0-1'	10:55
12	B-3 2'	10:57
13	B-3 3'	10:59
14	B-3 4'	11:10
15	B-4 0-1'	11:30
16	B-4 2'	11:32
17	B-4 3'	11:34
18	B-4 4'	11:45
19	B-5 0-1'	12:10
<p>PLEASE NOTE: Liability and/or damages incurred by client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Central within 90 days after completion of the applicable service. In no event shall Central be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or customers arising out of or related to the performance of services hereunder by Central, regardless of whether such claim is based upon any of the above stated theories or otherwise.</p>		
<b>Relinquished By:</b> [Signature] <b>Date:</b> 10/14/9 <b>Time:</b> 11:30 <b>Received By:</b> [Signature] <b>Date:</b> 10/14/9 <b>Time:</b> 13:45 <b>Received By:</b> [Signature]		
<b>Reinforced By:</b> [Signature] <b>Date:</b> 10/14/9 <b>Time:</b> 11:30 <b>Received By:</b> [Signature]		
<b>Delivered By:</b> (Circle One) 4.4e <b>Sample Condition:</b> Sample Cool Intact <b>Checked By:</b> [Signature] <b>Initials:</b> [Signature]		
<b>Sampler - UPS - Bus - Other:</b> <b>Estimated 4.8e</b> <b>No</b> <b>Yes</b> <b>No</b> <b>Yes</b> <b>No</b> <b>Yes</b> <b>No</b> <b>Yes</b> <b>No</b> <b>Yes</b> <b>No</b>		
<b>REMARKS:</b> [Handwritten notes and signatures]		



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

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December 12, 2019

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: CHAPARRAL 14 FED COM #001

Enclosed are the results of analyses for samples received by the laboratory on 12/09/19 15:00.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 12/09/2019  
 Reported: 12/12/2019  
 Project Name: CHAPARRAL 14 FED COM #001  
 Project Number: 700778.137.01  
 Project Location: COG - EDDY CO NM

Sampling Date: 12/04/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B-1 0'-1' (H904109-01)**

Chloride, SM4500Cl-B			mg/kg Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1280	16.0	12/10/2019	ND	432	108	400	0.00	

**Sample ID: B-1 2' (H904109-02)**

Chloride, SM4500Cl-B			mg/kg Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/10/2019	ND	432	108	400	0.00	

**Sample ID: B-1 4' (H904109-03)**

Chloride, SM4500Cl-B			mg/kg Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/10/2019	ND	432	108	400	0.00	

**Sample ID: B-1 6' (H904109-04)**

Chloride, SM4500Cl-B			mg/kg Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	12/10/2019	ND	432	108	400	0.00	

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**Analytical Results For:**

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

Received:	12/09/2019	Sampling Date:	12/04/2019
Reported:	12/12/2019	Sampling Type:	Soil
Project Name:	CHAPARRAL 14 FED COM #001	Sampling Condition:	Cool & Intact
Project Number:	700778.137.01	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

**Sample ID: B-1 8' (H904109-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/10/2019	ND	432	108	400	0.00	

**Sample ID: B-1 10' (H904109-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/10/2019	ND	432	108	400	0.00	

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**Analytical Results For:**

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

Received: 12/09/2019  
 Reported: 12/12/2019  
 Project Name: CHAPARRAL 14 FED COM #001  
 Project Number: 700778.137.01  
 Project Location: COG - EDDY CO NM

Sampling Date: 12/04/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B-2 8' (H904109-07)**

BTX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/10/2019	ND	2.03	102	2.00	6.59	
Toluene*	0.210	0.050	12/10/2019	ND	2.04	102	2.00	7.77	
Ethylbenzene*	0.662	0.050	12/10/2019	ND	1.99	99.6	2.00	7.49	
Total Xylenes*	6.13	0.150	12/10/2019	ND	5.81	96.8	6.00	7.01	
Total BTX	7.00	0.300	12/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 362 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	12/10/2019	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	260	10.0	12/10/2019	ND	164	81.9	200	13.1	
DRO >C10-C28*	925	10.0	12/10/2019	ND	182	91.0	200	13.3	
EXT DRO >C28-C36	42.5	10.0	12/10/2019	ND					

Surrogate: 1-Chlorooctane 126 % 41-142

Surrogate: 1-Chlorooctadecane 89.7 % 37.6-147

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**Analytical Results For:**

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

Received: 12/09/2019  
Reported: 12/12/2019  
Project Name: CHAPARRAL 14 FED COM #001  
Project Number: 700778.137.01  
Project Location: COG - EDDY CO NM

Sampling Date: 12/04/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: B-2 10' (H904109-08)**

BTEX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	12/11/2019	ND	2.03	102	2.00	6.59	
Toluene*	1.56	0.500	12/11/2019	ND	2.04	102	2.00	7.77	
Ethylbenzene*	4.70	0.500	12/11/2019	ND	1.99	99.6	2.00	7.49	
Total Xylenes*	42.6	1.50	12/11/2019	ND	5.81	96.8	6.00	7.01	
Total BTEX	48.9	3.00	12/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 196 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1600	16.0	12/10/2019	ND	432	108	400	0.00	
TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	950	10.0	12/10/2019	ND	164	81.9	200	13.1	
DRO >C10-C28*	1570	10.0	12/10/2019	ND	182	91.0	200	13.3	
EXT DRO >C28-C36	74.7	10.0	12/10/2019	ND					

Surrogate: 1-Chlorooctane 145 % 41-142

Surrogate: 1-Chlorooctadecane 88.9 % 37.6-147

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**Analytical Results For:**

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

Received: 12/09/2019  
 Reported: 12/12/2019  
 Project Name: CHAPARRAL 14 FED COM #001  
 Project Number: 700778.137.01  
 Project Location: COG - EDDY CO NM

Sampling Date: 12/04/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B-2 15' (H904109-09)**

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/10/2019	ND	2.03	102	2.00	6.59	
Toluene*	<b>0.516</b>	0.050	12/10/2019	ND	2.04	102	2.00	7.77	
Ethylbenzene*	<b>1.31</b>	0.050	12/10/2019	ND	1.99	99.6	2.00	7.49	
Total Xylenes*	<b>15.1</b>	0.150	12/10/2019	ND	5.81	96.8	6.00	7.01	
Total BTEX	<b>17.0</b>	0.300	12/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 392 % 73.3-129

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>736</b>	10.0	12/10/2019	ND	164	81.9	200	13.1	
DRO >C10-C28*	<b>1960</b>	10.0	12/10/2019	ND	182	91.0	200	13.3	
EXT DRO >C28-C36	<b>115</b>	10.0	12/10/2019	ND					

Surrogate: 1-Chlorooctane 290 % 41-142

Surrogate: 1-Chlorooctadecane 92.4 % 37.6-147

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\*=Accredited Analyte

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**Analytical Results For:**

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

Received:	12/09/2019	Sampling Date:	12/04/2019
Reported:	12/12/2019	Sampling Type:	Soil
Project Name:	CHAPARRAL 14 FED COM #001	Sampling Condition:	Cool & Intact
Project Number:	700778.137.01	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

**Sample ID: B-2 20' (H904109-10)**

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	12/10/2019	ND	2.03	102	2.00	6.59	
Toluene*	3.49	1.00	12/10/2019	ND	2.04	102	2.00	7.77	
Ethylbenzene*	8.21	1.00	12/10/2019	ND	1.99	99.6	2.00	7.49	
Total Xylenes*	87.0	3.00	12/10/2019	ND	5.81	96.8	6.00	7.01	
Total BTEX	98.7	6.00	12/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 196 % 73.3-129

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	2560	10.0	12/10/2019	ND	164	81.9	200	13.1	
DRO >C10-C28*	3390	10.0	12/10/2019	ND	182	91.0	200	13.3	
EXT DRO >C28-C36	163	10.0	12/10/2019	ND					

Surrogate: 1-Chlorooctane 309 % 41-142

Surrogate: 1-Chlorooctadecane 96.1 % 37.6-147

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received: 12/09/2019  
Reported: 12/12/2019  
Project Name: CHAPARRAL 14 FED COM #001  
Project Number: 700778.137.01  
Project Location: COG - EDDY CO NM

Sampling Date: 12/04/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: B-2 25' (H904109-11)**

BTEX 8021B	mg/kg	Analyzed By: MS						S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	12/11/2019	ND	2.03	102	2.00	6.59	
Toluene*	1.93	0.500	12/11/2019	ND	2.04	102	2.00	7.77	
Ethylbenzene*	6.16	0.500	12/11/2019	ND	1.99	99.6	2.00	7.49	
Total Xylenes*	51.0	1.50	12/11/2019	ND	5.81	96.8	6.00	7.01	
Total BTEX	59.1	3.00	12/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 228 % 73.3-129

TPH 8015M	mg/kg	Analyzed By: MS						S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	1970	10.0	12/10/2019	ND	164	81.9	200	13.1	
DRO >C10-C28*	3620	10.0	12/10/2019	ND	182	91.0	200	13.3	
EXT DRO >C28-C36	130	10.0	12/10/2019	ND					

Surrogate: 1-Chlorooctane 166 % 41-142

Surrogate: 1-Chlorooctadecane 96.3 % 37.6-147

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Received:	12/09/2019	Sampling Date:	12/04/2019
Reported:	12/12/2019	Sampling Type:	Soil
Project Name:	CHAPARRAL 14 FED COM #001	Sampling Condition:	Cool & Intact
Project Number:	700778.137.01	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

**Sample ID: B-2 30' (H904109-12)**

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/10/2019	ND	2.03	102	2.00	6.59	
Toluene*	3.93	0.050	12/10/2019	ND	2.04	102	2.00	7.77	
Ethylbenzene*	6.96	0.050	12/10/2019	ND	1.99	99.6	2.00	7.49	
Total Xylenes*	49.9	0.150	12/10/2019	ND	5.81	96.8	6.00	7.01	
Total BTEX	60.8	0.300	12/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 580 % 73.3-129

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	2190	10.0	12/10/2019	ND	164	81.9	200	13.1	
DRO >C10-C28*	2670	10.0	12/10/2019	ND	182	91.0	200	13.3	
EXT DRO >C28-C36	119	10.0	12/10/2019	ND					

Surrogate: 1-Chlorooctane 194 % 41-142

Surrogate: 1-Chlorooctadecane 92.1 % 37.6-147

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Received:	12/09/2019	Sampling Date:	12/04/2019
Reported:	12/12/2019	Sampling Type:	Soil
Project Name:	CHAPARRAL 14 FED COM #001	Sampling Condition:	Cool & Intact
Project Number:	700778.137.01	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

**Sample ID: B-2 40' (H904109-13)**

BTEX 8021B	mg/kg		Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/10/2019	ND	2.03	102	2.00	6.59	
Toluene*	<b>0.714</b>	0.050	12/10/2019	ND	2.04	102	2.00	7.77	
Ethylbenzene*	<b>1.85</b>	0.050	12/10/2019	ND	1.99	99.6	2.00	7.49	
Total Xylenes*	<b>17.8</b>	0.150	12/10/2019	ND	5.81	96.8	6.00	7.01	
Total BTEX	<b>20.4</b>	0.300	12/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 552 % 73.3-129

TPH 8015M	mg/kg		Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>805</b>	10.0	12/10/2019	ND	164	81.9	200	13.1	
DRO >C10-C28*	<b>1960</b>	10.0	12/10/2019	ND	182	91.0	200	13.3	
EXT DRO >C28-C36	<b>36.9</b>	10.0	12/10/2019	ND					

Surrogate: 1-Chlorooctane 160 % 41-142

Surrogate: 1-Chlorooctadecane 96.2 % 37.6-147

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Received:	12/09/2019	Sampling Date:	12/04/2019
Reported:	12/12/2019	Sampling Type:	Soil
Project Name:	CHAPARRAL 14 FED COM #001	Sampling Condition:	Cool & Intact
Project Number:	700778.137.01	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

**Sample ID: B-2 50' (H904109-14)**

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/10/2019	ND	2.03	102	2.00	6.59	
Toluene*	<b>0.699</b>	0.050	12/10/2019	ND	2.04	102	2.00	7.77	
Ethylbenzene*	<b>2.26</b>	0.050	12/10/2019	ND	1.99	99.6	2.00	7.49	
Total Xylenes*	<b>19.5</b>	0.150	12/10/2019	ND	5.81	96.8	6.00	7.01	
Total BTEX	<b>22.4</b>	0.300	12/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 481 % 73.3-129

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>615</b>	10.0	12/10/2019	ND	164	81.9	200	13.1	
DRO >C10-C28*	<b>1430</b>	10.0	12/10/2019	ND	182	91.0	200	13.3	
EXT DRO >C28-C36	<b>60.2</b>	10.0	12/10/2019	ND					

Surrogate: 1-Chlorooctane 130 % 41-142

Surrogate: 1-Chlorooctadecane 85.5 % 37.6-147

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Received:	12/09/2019	Sampling Date:	12/04/2019
Reported:	12/12/2019	Sampling Type:	Soil
Project Name:	CHAPARRAL 14 FED COM #001	Sampling Condition:	Cool & Intact
Project Number:	700778.137.01	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

**Sample ID: B-2 60' (H904109-15)**

BTX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/10/2019	ND	2.03	102	2.00	6.59	
Toluene*	<b>0.199</b>	0.050	12/10/2019	ND	2.04	102	2.00	7.77	
Ethylbenzene*	<0.050	0.050	12/10/2019	ND	1.99	99.6	2.00	7.49	
Total Xylenes*	<b>7.91</b>	0.150	12/10/2019	ND	5.81	96.8	6.00	7.01	
Total BTX	<b>8.10</b>	0.300	12/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 315 % 73.3-129

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>329</b>	10.0	12/10/2019	ND	164	81.9	200	13.1	
DRO >C10-C28*	<b>1270</b>	10.0	12/10/2019	ND	182	91.0	200	13.3	
EXT DRO >C28-C36	<b>87.3</b>	10.0	12/10/2019	ND					

Surrogate: 1-Chlorooctane 191 % 41-142

Surrogate: 1-Chlorooctadecane 92.8 % 37.6-147

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Received:	12/09/2019	Sampling Date:	12/04/2019
Reported:	12/12/2019	Sampling Type:	Soil
Project Name:	CHAPARRAL 14 FED COM #001	Sampling Condition:	Cool & Intact
Project Number:	700778.137.01	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

**Sample ID: B-2 70' (H904109-16)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/10/2019	ND	2.03	102	2.00	6.59	
Toluene*	<0.050	0.050	12/10/2019	ND	2.04	102	2.00	7.77	
Ethylbenzene*	<0.050	0.050	12/10/2019	ND	1.99	99.6	2.00	7.49	
<b>Total Xylenes*</b>	<b>0.183</b>	0.150	12/10/2019	ND	5.81	96.8	6.00	7.01	
Total BTEX	<0.300	0.300	12/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 112 % 73.3-129

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/10/2019	ND	164	81.9	200	13.1	
<b>DRO &gt;C10-C28*</b>	<b>34.5</b>	10.0	12/10/2019	ND	182	91.0	200	13.3	
EXT DRO >C28-C36	<10.0	10.0	12/10/2019	ND					

Surrogate: 1-Chlorooctane 83.0 % 41-142

Surrogate: 1-Chlorooctadecane 85.5 % 37.6-147

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Received:	12/09/2019	Sampling Date:	12/04/2019
Reported:	12/12/2019	Sampling Type:	Soil
Project Name:	CHAPARRAL 14 FED COM #001	Sampling Condition:	Cool & Intact
Project Number:	700778.137.01	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

**Sample ID: B-2 80' (H904109-17)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2019	ND	2.03	102	2.00	6.59	
Toluene*	<0.050	0.050	12/11/2019	ND	2.04	102	2.00	7.77	
Ethylbenzene*	<0.050	0.050	12/11/2019	ND	1.99	99.6	2.00	7.49	
Total Xylenes*	<0.150	0.150	12/11/2019	ND	5.81	96.8	6.00	7.01	
Total BTEX	<0.300	0.300	12/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 108 % 73.3-129

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/10/2019	ND	164	81.9	200	13.1	
DRO >C10-C28*	63.7	10.0	12/10/2019	ND	182	91.0	200	13.3	
EXT DRO >C28-C36	<10.0	10.0	12/10/2019	ND					

Surrogate: 1-Chlorooctane 84.5 % 41-142

Surrogate: 1-Chlorooctadecane 85.8 % 37.6-147

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Received: 12/09/2019  
 Reported: 12/12/2019  
 Project Name: CHAPARRAL 14 FED COM #001  
 Project Number: 700778.137.01  
 Project Location: COG - EDDY CO NM

Sampling Date: 12/04/2019  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: B-2 90' (H904109-18)**

BTEX 8021B			mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/11/2019	ND	2.03	102	2.00	6.59		
Toluene*	<0.050	0.050	12/11/2019	ND	2.04	102	2.00	7.77		
Ethylbenzene*	<0.050	0.050	12/11/2019	ND	1.99	99.6	2.00	7.49		
Total Xylenes*	<0.150	0.150	12/11/2019	ND	5.81	96.8	6.00	7.01		
Total BTEX	<0.300	0.300	12/11/2019	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 73.3-129

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/10/2019	ND	164	81.9	200	13.1	
<b>DRO &gt;C10-C28*</b>	<b>84.4</b>	10.0	12/10/2019	ND	182	91.0	200	13.3	
EXT DRO >C28-C36	<10.0	10.0	12/10/2019	ND					

Surrogate: 1-Chlorooctane 84.3 % 41-142

Surrogate: 1-Chlorooctadecane 85.3 % 37.6-147

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Received:	12/09/2019	Sampling Date:	12/04/2019
Reported:	12/12/2019	Sampling Type:	Soil
Project Name:	CHAPARRAL 14 FED COM #001	Sampling Condition:	Cool & Intact
Project Number:	700778.137.01	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

**Sample ID: B-2 100' (H904109-19)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2019	ND	2.03	102	2.00	6.59	
Toluene*	<0.050	0.050	12/11/2019	ND	2.04	102	2.00	7.77	
Ethylbenzene*	<0.050	0.050	12/11/2019	ND	1.99	99.6	2.00	7.49	
Total Xylenes*	<0.150	0.150	12/11/2019	ND	5.81	96.8	6.00	7.01	
Total BTEX	<0.300	0.300	12/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIB) 104 % 73.3-129

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/10/2019	ND	164	81.9	200	13.1	
<b>DRO &gt;C10-C28*</b>	<b>67.1</b>	10.0	12/10/2019	ND	182	91.0	200	13.3	
EXT DRO >C28-C36	<10.0	10.0	12/10/2019	ND					

Surrogate: 1-Chlorooctane 78.7 % 41-142

Surrogate: 1-Chlorooctadecane 79.9 % 37.6-147

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

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

Received:	12/09/2019	Sampling Date:	12/04/2019
Reported:	12/12/2019	Sampling Type:	Soil
Project Name:	CHAPARRAL 14 FED COM #001	Sampling Condition:	Cool & Intact
Project Number:	700778.137.01	Sample Received By:	Jodi Henson
Project Location:	COG - EDDY CO NM		

**Sample ID: B-2 110' (H904109-20)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2019	ND	2.03	102	2.00	6.59	
Toluene*	<0.050	0.050	12/11/2019	ND	2.04	102	2.00	7.77	
Ethylbenzene*	<0.050	0.050	12/11/2019	ND	1.99	99.6	2.00	7.49	
Total Xylenes*	<0.150	0.150	12/11/2019	ND	5.81	96.8	6.00	7.01	
Total BTEX	<0.300	0.300	12/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 103 % 73.3-129

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/10/2019	ND	164	81.9	200	13.1	
DRO >C10-C28*	<10.0	10.0	12/10/2019	ND	182	91.0	200	13.3	
EXT DRO >C28-C36	<10.0	10.0	12/10/2019	ND					

Surrogate: 1-Chlorooctane 87.0 % 41-142

Surrogate: 1-Chlorooctadecane 89.4 % 37.6-147

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\*=Accredited Analyte

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**Analytical Results For:**

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

Received: 12/09/2019  
Reported: 12/12/2019  
Project Name: CHAPARRAL 14 FED COM #001  
Project Number: 700778.137.01  
Project Location: COG - EDDY CO NM

Sampling Date: 12/04/2019  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: B-2 120' (H904109-21)**

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2019	ND	2.03	102	2.00	6.59	
Toluene*	<0.050	0.050	12/11/2019	ND	2.04	102	2.00	7.77	
Ethylbenzene*	<0.050	0.050	12/11/2019	ND	1.99	99.6	2.00	7.49	
Total Xylenes*	<0.150	0.150	12/11/2019	ND	5.81	96.8	6.00	7.01	
Total BTEX	<0.300	0.300	12/11/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 102 % 73.3-129

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/11/2019	ND	176	88.2	200	9.83	
DRO >C10-C28*	<10.0	10.0	12/11/2019	ND	180	90.1	200	12.2	
EXT DRO >C28-C36	<10.0	10.0	12/11/2019	ND					

Surrogate: 1-Chlorooctane 107 % 41-142

Surrogate: 1-Chlorooctadecane 114 % 37.6-147

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### Notes and Definitions

- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager





# CARPINAL Laboratories

101 East Mainland, Hobbs, NM 88240  
(505) 393-2326 FAX (505) 393-2476

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

### ANALYSIS REQUEST

Company Name: **TALON LPE**  
Project Manager: **DAVID ADKINS**  
Address: **408 W. TEXAS AVE**  
City: **ARTESIA** State: **NM** Zip: **88210**  
Phone #: **575.740-8768** Fax #:   
Project #: **100778.137.01** Project Owner: **CONCHO**  
Project Name: **CHAPARRAL 14 FED COR 1**  
Project Location: **EDDY COUNTY**  
Sample Name: **MICHAEL CULVER**  
FOR LAB USE ONLY

P.O. #:

Company: **CONCHO**

Attn: **DAKOTA NEEL**

Address:

City:

State:

Zip:

Phone #:

Fax #:

Lab I.D. Sample I.D.

H90409

11 B-2 25'

12 B-2 30'

13 B-2 40'

14 B-2 50'

15 B-2 60'

16 B-2 70'

17 B-2 80'

18 B-2 90'

19 B-2 100'

20 B-2 110'

(G)RAB OR (C)OMP.

# CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

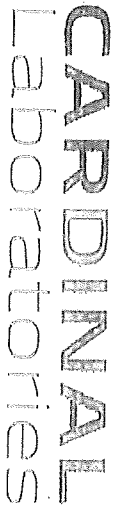
OTHER :

DATE

TIME

BTEX

TPH



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