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TALON LPE

Remediation and Closure Report

Arcturus 18 Federal #2H
Eddy County, NM
API # 30-015-38390

Prepared For:

Devon Energy Production Company
6488 Seven Rivers Hwy
Artesia, NM 88210

Prepared By:

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

March 31, 2020

Mr. Jim Amos
Bureau of Land Management
620 East Green Street
Carlsbad, NM 88220

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

Subject: **Remediation and Closure Report**
Arcturus 18 Federal #2H
Eddy County, NM
API # 30-015-38390

Dear Mr. Amos & Mr. Bratcher,

Devon Energy Production Company (Devon) has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above-referenced location. The incident description, soil sampling results, remedial actions, and closure requests are presented herein.

Site Information

The Arcturus 18 Federal #2H is located approximately twenty-five (25) miles northeast of Carlsbad, New Mexico. The legal location for this release is Unit Letter H, Section 18, Township 19 South and Range 31 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.6631493 North and -103.9011417 West. A Site Map 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 Maljamar and palomas fine sand, 0 to 3 percent slopes. See Appendix II for the referenced soil survey. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is eloian and piedmont deposits, Holocene to middle Pleistocene in age. Drainage courses in this area are well drained.

Ground Water and Site Characterization

The New Mexico Office of the State Engineer Database indicates the nearest reported depth to groundwater is 180-feet below ground surface (BGS). See Appendix II for the referenced groundwater depth. This site is not located within a high potential Karst area.

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

Approximate Depth to Groundwater	**180 Feet/BGS**
☐Yes ☒No	Within 300 feet of any continuously flowing watercourse or any other significant watercourse
☐Yes ☒No	Within 200 feet of any lakebed, sinkhole or a playa lake
☐Yes ☒No	Within 300 feet from an occupied permanent residence, school, hospital, institution or church
☐Yes ☒No	Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes
☐Yes ☒No	Within 1000 feet of any freshwater well or spring
☐Yes ☒No	Within incorporated municipal boundaries or within a defined municipal freshwater well field covered under a municipal ordinance adopted pursuant to Section 3-2703 NMSA 1978
☐Yes ☒No	Within 300 feet of a wetland
☐Yes ☒No	Within the area overlying a subsurface mine
☐Yes ☒No	Within an unstable area
☐Yes ☒No	Within a 100-year floodplain

Because the release did not occur in any of these areas and the depth to groundwater is greater than 100-feet, based upon the site characterization for this project the clean up criteria is as follows:

Table I Closure Criteria for Soils Impacted by a Release			
Depth below horizontal extents of release to ground water less than 10,000 mg/l TDS	Constituent	Method	Limit
>100 feet	Total Chlorides	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 January 6, 2020, broken bolts on the polish rod caused a stuffing box release. Approximately 0.16 barrels (bbls) of crude oil and 11.027 bbls of produced water were released onto the well pad. All fluids remained on location. A vac truck subsequently recovered 10 bbls of fluids. Site maps are presented in Appendix I.

Talon mobilized personnel and equipment to begin site assessment and remediation activities. Based upon the results of our sampling results, only the impacted area in the vicinity of sample location S-6 was excavated utilizing a backhoe. Confirmation samples were collected from the sidewalls of the excavation to ensure that the NMOCD clean up criteria levels had been achieved.

Soil Sampling

2-19-20 Soil Sample Laboratory Results

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			2500 mg/kg	20,000 mg/kg
S-1	2/19/2020	0-1'	ND	ND	ND	ND	ND	ND	490
		1-2' R	ND	ND	ND	ND	ND	ND	ND
S-2		0-1'	ND	ND	ND	350	240	590	2000
		2'	ND	ND	ND	ND	ND	ND	840
		3'	ND	ND	ND	ND	ND	ND	980
S-3		0-1'	ND	ND	ND	17	ND	17	140
		2'	ND	ND	ND	ND	ND	ND	ND
		3' R	ND	ND	ND	ND	ND	ND	ND
S-4		0-1'	ND	ND	ND	26	ND	26	2500
		2'	ND	ND	ND	ND	ND	ND	72
		3'	ND	ND	ND	ND	ND	ND	120
		4'	ND	ND	ND	ND	ND	ND	150
S-5		0-1'	ND	ND	ND	ND	ND	ND	ND
		2'	ND	ND	ND	ND	ND	ND	65
		3'	ND	ND	ND	ND	ND	ND	110
		4	ND	ND	ND	ND	ND	ND	120
S-6		0-1'	ND	ND	ND	**3500**	**13000**	**16500**	ND
		2'	ND	ND	ND	ND	ND	ND	63
		3' R	ND	ND	ND	ND	ND	ND	80
S-7		0-1'	ND	ND	ND	17	ND	17	74
		2'	ND	ND	ND	ND	ND	ND	ND
		3'	ND	ND	ND	ND	ND	ND	ND
		4'	ND	ND	ND	ND	ND	ND	61
S-8		0-1'	ND	ND	ND	ND	ND	ND	ND
		2'	ND	ND	ND	ND	ND	ND	ND
		3'	ND	ND	ND	ND	ND	ND	ND
		4'	ND	ND	ND	ND	ND	ND	ND
S-9		0-1'	ND	ND	ND	290	210	500	120
		2'	ND	ND	ND	ND	ND	ND	530
		3' R	ND	ND	ND	ND	ND	ND	950
S-10		0-1	ND	ND	ND	37	56	93	2600
		2'	ND	ND	ND	ND	ND	ND	150
		3' R	ND	ND	ND	ND	ND	ND	220
S-11		0-1'	ND	ND	ND	140	110	250	260
		2'	ND	ND	ND	ND	ND	ND	ND
		3'	ND	ND	ND	ND	ND	ND	ND
		4'	ND	ND	ND	ND	ND	ND	ND
S-12		0-1'	ND	ND	ND	110	87	197	180
		2'	ND	ND	ND	ND	ND	ND	ND
		3'	ND	ND	ND	ND	ND	ND	ND
		4'	ND	ND	ND	ND	ND	ND	ND
BG		0'	ND	ND	ND	ND	ND	ND	ND

ND-Analyte Not Detected

3-20-20 Confirmation Soil Sample Laboratory Results

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 1000 mg/kg			2500 mg/kg
S-6 A Composite	3/20/2020	1'	--	--	ND	530	370	900

ND-Analyte Not Detected, -- Analyte Not Tested

See Appendix V for the complete report of laboratory results.

Remedial Actions

- The impacted areas in the vicinity of S-6 was excavated to a depth of 1.0-foot BGS. Laboratory analytical results from confirmation sidewall composite soil samples indicated that TPH concentrations were below NMOCD Closure Criteria.
- The remaining stained area on location was surface scraped and back dragged utilizing a backhoe.
- All excavated soil was transported to Lea Land, LLC, an NMOCD approved soil waste disposal facility.
- The excavated area was backfilled with clean caliche, machine compacted and contoured to match the surrounding location.
- Final C-141 is attached in Appendix III

Closure

Based on this site characterization, remedial actions and analytical results, we request that no further actions be required and that closure with regard to the attached incident be granted.

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

Respectfully submitted,

TALON/LPE

Chris Jones
Environmental Project Manager

David J. Adkins
Digitally signed by David J. Adkins
DN: cn=David J. Adkins, o=Talon/LPE, ou=District Manager, email=dadkins@talonlpe.com, c=US
Date: 2020.06.01 16:15:17 -06'00'

David J. Adkins
District Manager

Attachments:
Appendix I Site Maps, Karst Map, TOPO Map & Locator Map
Appendix II Groundwater Data, FEMA Flood Zone, Soil Survey
Appendix III Initial and Final C-141's
Appendix IV Photographic Documentation
Appendix V Laboratory Results

APPENDIX I

SITE MAP

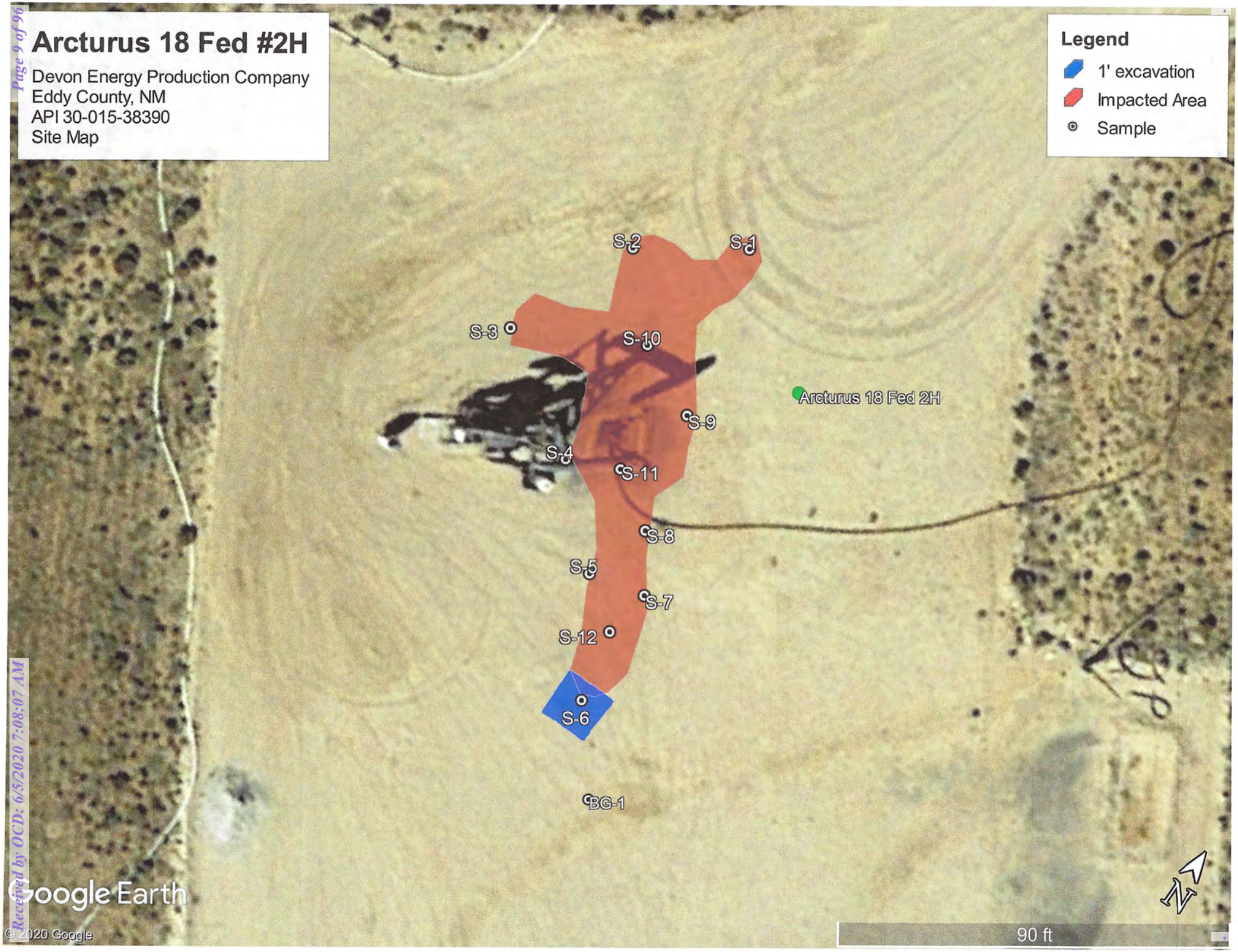
KARST MAP

TOPO MAP

LOCATION MAP

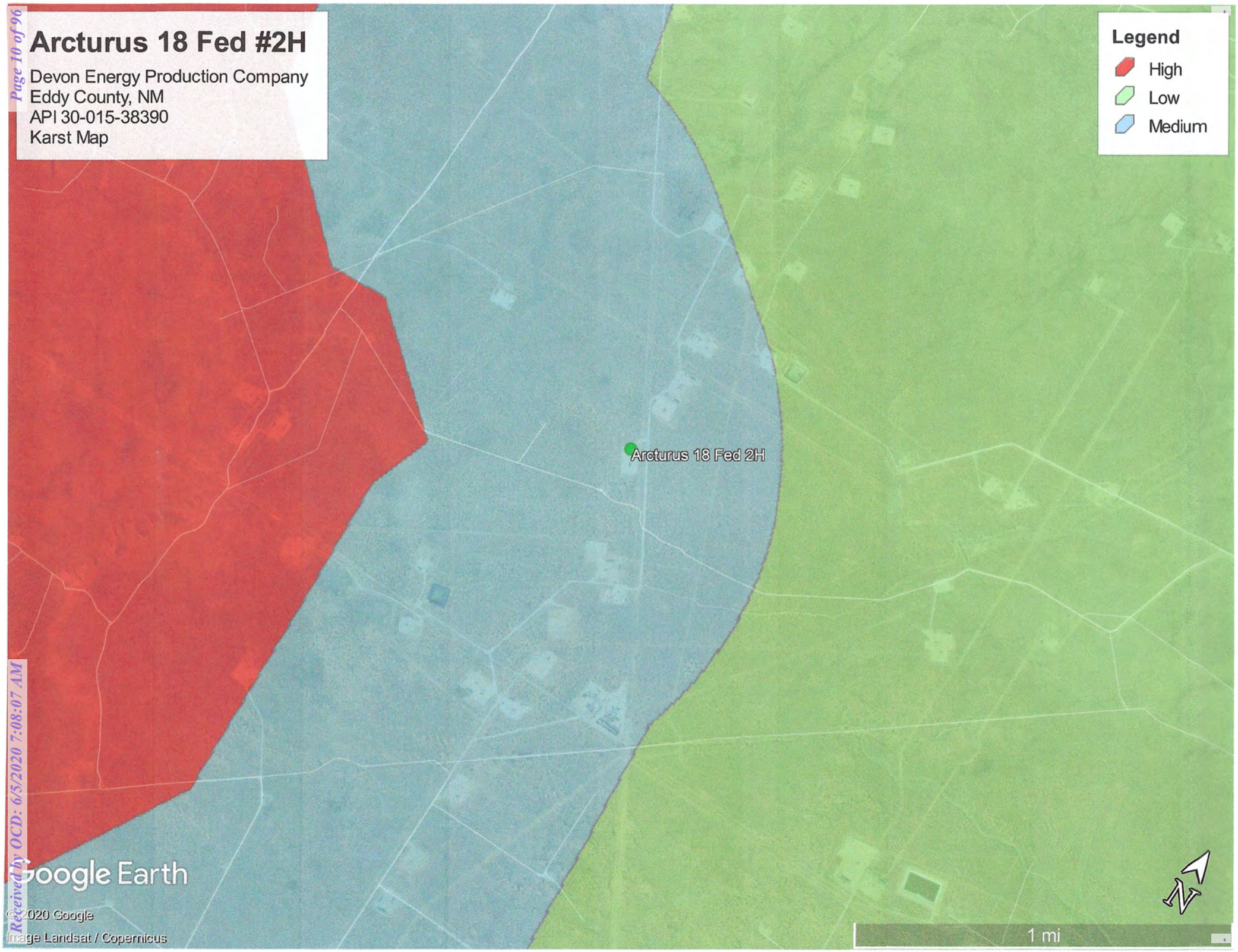
Arcturus 18 Fed #2H

Devon Energy Production Company
Eddy County, NM
API 30-015-38390
Site Map



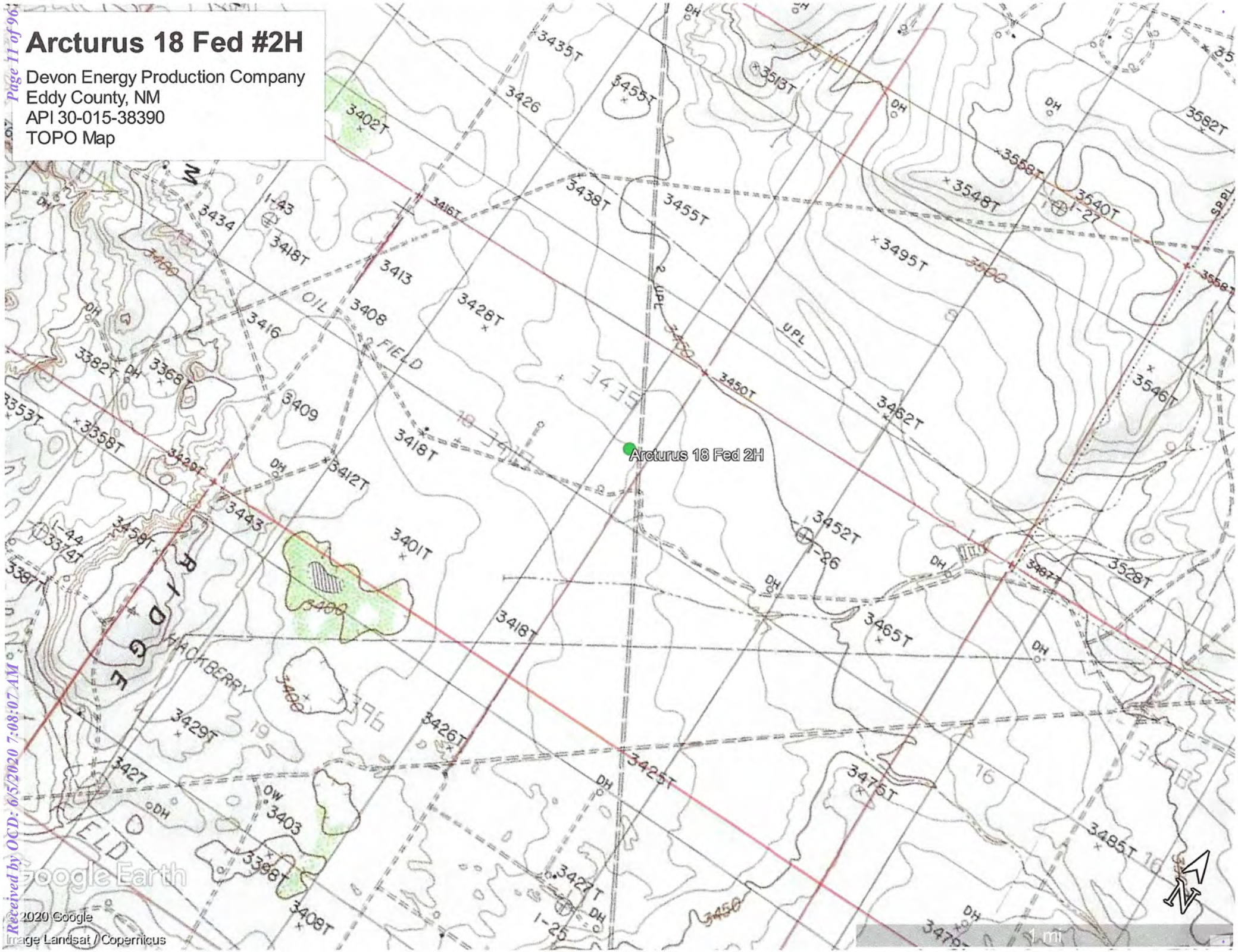
Arcturus 18 Fed #2H

Devon Energy Production Company
Eddy County, NM
API 30-015-38390
Karst Map



Arcturus 18 Fed #2H

Devon Energy Production Company
Eddy County, NM
API 30-015-38390
TOPO Map



Arcturus 18 Fed #2H

Devon Energy Production Company
Eddy County, NM
API 30-015-38390
Location Map

APPENDIX II

GROUNDWATER DATA

SOIL SURVEY

FEMA FLOOD ZONE

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

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

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

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

(NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00873 POD1		CP	LE	1	1	19	19S	31E		601772	3613147*	1839	340	180	160

Average Depth to Water: **180 feet**

Minimum Depth: **180 feet**

Maximum Depth: **180 feet**

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 603042.587 **Northing (Y):** 3614477.364 **Radius:** 2000

***UTM location was derived from PLSS - see Help**

2/25/20 9:46 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Eddy Area, New Mexico

BA—Berino loamy fine sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w42
Elevation: 2,000 to 5,700 feet
Mean annual precipitation: 6 to 14 inches
Mean annual air temperature: 57 to 70 degrees F
Frost-free period: 180 to 260 days
Farmland classification: Not prime farmland

Map Unit Composition

Berino and similar soils: 99 percent
Minor components: 1 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Berino

Setting

Landform: Fan piedmonts, plains
Landform position (three-dimensional): Riser
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 12 inches: loamy fine sand
H2 - 12 to 58 inches: sandy clay loam
H3 - 58 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 40 percent
Salinity, maximum in profile: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B

Ecological site: Loamy (R042XC007NM)
Hydric soil rating: No

Minor Components

Pajarito

Percent of map unit: 1 percent
Ecological site: Loamy Sand (R042XC003NM)
Hydric soil rating: No

Data Source Information

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

National Flood Hazard Layer FIRMette

FEMA

32°40'2.48"N

103°53'45.38"W

32°39'32.19"N

250 500 1,000 1,500 2,000 Feet

1:6,000

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

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainag areas of less than one square mile Zone
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. 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
- Area of Undetermined Flood Hazard Zone

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- 513 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

N

The pin displayed on the map is an approximate point selected by the user and does not represe 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 1/23/2020 at 1:29:26 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 unmodernized areas cannot be used for regulatory purposes.

APPENDIX III

FINAL C-141

State of New Mexico
Oil Conservation Division

Incident ID	NRM2014240786
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	180 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NRM2014240786
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release 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: Chris Jones

Title: Project Manager

Signature: 

Date: 4-2-20

email: cjones@talonlpe.com

Telephone: 575-748-8768

OCD Only

Received by: Cristina Eads

Date: 06/05/2020

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NRM2014240786
District RP	
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: Chris Jones
Title: Project Manager

Signature: _____
Date: 4-2-20

email: cjones@talonlpe.com
Telephone: 575-748-8768

OCD Only

Received by: Cristina Eads
Date: 06/05/2020

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

Closure Approved by: D E N I E D
Date: 08/14/2020

Printed Name: Cristina Eads
Title: Environmental Specialist

APPENDIX IV

PHOTOGRAPHIC DOCUMENTATION

Photographic Documentation

Photographic Documentation

APPENDIX V

LABORATORY DATA

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

March 02, 2020

Chris Jones
Talon Artesia
408 West Texas Ave
Artesia, NM 88210
TEL:
FAX:

RE: Arcturus 18 FED 2H OrderNo.: 2002915

Dear Chris Jones:

Hall Environmental Analysis Laboratory received 42 sample(s) on 2/22/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-001 **Matrix:** SOIL

Client Sample ID: S-1 0-1'
Collection Date: 2/19/2020 8:00:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	490	60		mg/Kg	20	2/25/2020 10:06:09 PM	50663
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/26/2020 10:00:39 AM	50641
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2020 10:00:39 AM	50641
Surr: DNOP	127	55.1-146		%Rec	1	2/26/2020 10:00:39 AM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/25/2020 10:39:09 PM	50628
Surr: BFB	83.3	66.6-105		%Rec	1	2/25/2020 10:39:09 PM	50628
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/25/2020 10:39:09 PM	50628
Toluene	ND	0.049		mg/Kg	1	2/25/2020 10:39:09 PM	50628
Ethylbenzene	ND	0.049		mg/Kg	1	2/25/2020 10:39:09 PM	50628
Xylenes, Total	ND	0.099		mg/Kg	1	2/25/2020 10:39:09 PM	50628
Surr: 4-Bromofluorobenzene	92.3	80-120		%Rec	1	2/25/2020 10:39:09 PM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-002 **Matrix:** SOIL

Client Sample ID: S-1 2' R
Collection Date: 2/19/2020 8:05:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/25/2020 11:07:53 PM	50663
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/26/2020 11:10:47 AM	50641
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2020 11:10:47 AM	50641
Surr: DNOP	96.8	55.1-146		%Rec	1	2/26/2020 11:10:47 AM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/25/2020 11:48:27 PM	50628
Surr: BFB	82.7	66.6-105		%Rec	1	2/25/2020 11:48:27 PM	50628
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/25/2020 11:48:27 PM	50628
Toluene	ND	0.049		mg/Kg	1	2/25/2020 11:48:27 PM	50628
Ethylbenzene	ND	0.049		mg/Kg	1	2/25/2020 11:48:27 PM	50628
Xylenes, Total	ND	0.099		mg/Kg	1	2/25/2020 11:48:27 PM	50628
Surr: 4-Bromofluorobenzene	92.4	80-120		%Rec	1	2/25/2020 11:48:27 PM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-003 **Matrix:** SOIL

Client Sample ID: S-2 0-1'
Collection Date: 2/19/2020 8:15:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: **JMT**
Chloride	2000	60		mg/Kg	20	2/25/2020 11:20:14 PM	50663
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: **BRM**
Diesel Range Organics (DRO)	350	9.5		mg/Kg	1	2/27/2020 7:08:16 PM	50641
Motor Oil Range Organics (MRO)	240	47		mg/Kg	1	2/27/2020 7:08:16 PM	50641
Surr: DNOP	148	55.1-146	S	%Rec	1	2/27/2020 7:08:16 PM	50641
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/26/2020 12:11:35 AM	50628
Surr: BFB	79.9	66.6-105		%Rec	1	2/26/2020 12:11:35 AM	50628
EPA METHOD 8021B: VOLATILES							Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	2/26/2020 12:11:35 AM	50628
Toluene	ND	0.047		mg/Kg	1	2/26/2020 12:11:35 AM	50628
Ethylbenzene	ND	0.047		mg/Kg	1	2/26/2020 12:11:35 AM	50628
Xylenes, Total	ND	0.093		mg/Kg	1	2/26/2020 12:11:35 AM	50628
Surr: 4-Bromofluorobenzene	88.7	80-120		%Rec	1	2/26/2020 12:11:35 AM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-004 **Matrix:** SOIL

Client Sample ID: S-2 2'
Collection Date: 2/19/2020 8:20:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	840	60		mg/Kg	20	2/25/2020 11:32:34 PM	50663
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/26/2020 11:57:44 AM	50641
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/26/2020 11:57:44 AM	50641
Surr: DNOP	96.8	55.1-146		%Rec	1	2/26/2020 11:57:44 AM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/26/2020 12:34:37 AM	50628
Surr: BFB	82.0	66.6-105		%Rec	1	2/26/2020 12:34:37 AM	50628
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/26/2020 12:34:37 AM	50628
Toluene	ND	0.050		mg/Kg	1	2/26/2020 12:34:37 AM	50628
Ethylbenzene	ND	0.050		mg/Kg	1	2/26/2020 12:34:37 AM	50628
Xylenes, Total	ND	0.099		mg/Kg	1	2/26/2020 12:34:37 AM	50628
Surr: 4-Bromofluorobenzene	91.7	80-120		%Rec	1	2/26/2020 12:34:37 AM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-005 **Matrix:** SOIL

Client Sample ID: S-2 3'
Collection Date: 2/19/2020 8:25:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	980	60		mg/Kg	20	2/25/2020 11:44:55 PM	50663
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/26/2020 12:21:12 PM	50641
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2020 12:21:12 PM	50641
Surr: DNOP	134	55.1-146		%Rec	1	2/26/2020 12:21:12 PM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 12:57:40 AM	50628
Surr: BFB	79.7	66.6-105		%Rec	1	2/26/2020 12:57:40 AM	50628
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/26/2020 12:57:40 AM	50628
Toluene	ND	0.048		mg/Kg	1	2/26/2020 12:57:40 AM	50628
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 12:57:40 AM	50628
Xylenes, Total	ND	0.096		mg/Kg	1	2/26/2020 12:57:40 AM	50628
Surr: 4-Bromofluorobenzene	89.8	80-120		%Rec	1	2/26/2020 12:57:40 AM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-006 **Matrix:** SOIL

Client Sample ID: S-3 0-1'
Collection Date: 2/19/2020 8:35:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	140	60		mg/Kg	20	2/25/2020 11:57:15 PM	50663
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	17	9.5		mg/Kg	1	2/26/2020 12:44:37 PM	50641
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/26/2020 12:44:37 PM	50641
Surr: DNOP	141	55.1-146		%Rec	1	2/26/2020 12:44:37 PM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 1:20:40 AM	50628
Surr: BFB	78.7	66.6-105		%Rec	1	2/26/2020 1:20:40 AM	50628
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/26/2020 1:20:40 AM	50628
Toluene	ND	0.048		mg/Kg	1	2/26/2020 1:20:40 AM	50628
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 1:20:40 AM	50628
Xylenes, Total	ND	0.096		mg/Kg	1	2/26/2020 1:20:40 AM	50628
Surr: 4-Bromofluorobenzene	88.3	80-120		%Rec	1	2/26/2020 1:20:40 AM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-007 **Matrix:** SOIL

Client Sample ID: S-3 2'
Collection Date: 2/19/2020 8:40:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/26/2020 12:09:36 AM	50663
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/26/2020 1:08:09 PM	50641
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/26/2020 1:08:09 PM	50641
Surr: DNOP	96.6	55.1-146		%Rec	1	2/26/2020 1:08:09 PM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 1:43:40 AM	50628
Surr: BFB	81.8	66.6-105		%Rec	1	2/26/2020 1:43:40 AM	50628
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/26/2020 1:43:40 AM	50628
Toluene	ND	0.048		mg/Kg	1	2/26/2020 1:43:40 AM	50628
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 1:43:40 AM	50628
Xylenes, Total	ND	0.097		mg/Kg	1	2/26/2020 1:43:40 AM	50628
Surr: 4-Bromofluorobenzene	91.9	80-120		%Rec	1	2/26/2020 1:43:40 AM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-008 **Matrix:** SOIL

Client Sample ID: S-3 3' R
Collection Date: 2/19/2020 8:45:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/26/2020 12:21:56 AM	50663
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/26/2020 1:31:40 PM	50641
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/26/2020 1:31:40 PM	50641
Surr: DNOP	96.4	55.1-146		%Rec	1	2/26/2020 1:31:40 PM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 2:06:39 AM	50628
Surr: BFB	80.7	66.6-105		%Rec	1	2/26/2020 2:06:39 AM	50628
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/26/2020 2:06:39 AM	50628
Toluene	ND	0.048		mg/Kg	1	2/26/2020 2:06:39 AM	50628
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 2:06:39 AM	50628
Xylenes, Total	ND	0.095		mg/Kg	1	2/26/2020 2:06:39 AM	50628
Surr: 4-Bromofluorobenzene	91.0	80-120		%Rec	1	2/26/2020 2:06:39 AM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-009 **Matrix:** SOIL

Client Sample ID: S-4 0-1'
Collection Date: 2/19/2020 8:55:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	2500	150		mg/Kg	50	2/27/2020 2:04:04 PM	50663
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	26	9.0		mg/Kg	1	2/28/2020 8:52:55 AM	50641
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/28/2020 8:52:55 AM	50641
Surr: DNOP	91.9	55.1-146		%Rec	1	2/28/2020 8:52:55 AM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/26/2020 2:29:38 AM	50628
Surr: BFB	80.5	66.6-105		%Rec	1	2/26/2020 2:29:38 AM	50628
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/26/2020 2:29:38 AM	50628
Toluene	ND	0.050		mg/Kg	1	2/26/2020 2:29:38 AM	50628
Ethylbenzene	ND	0.050		mg/Kg	1	2/26/2020 2:29:38 AM	50628
Xylenes, Total	ND	0.10		mg/Kg	1	2/26/2020 2:29:38 AM	50628
Surr: 4-Bromofluorobenzene	91.1	80-120		%Rec	1	2/26/2020 2:29:38 AM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-010 **Matrix:** SOIL

Client Sample ID: S-4 2'
Collection Date: 2/19/2020 9:05:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	72	60		mg/Kg	20	2/26/2020 1:11:19 AM	50663
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/26/2020 2:18:50 PM	50641
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2020 2:18:50 PM	50641
Surr: DNOP	119	55.1-146		%Rec	1	2/26/2020 2:18:50 PM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 3:15:31 AM	50628
Surr: BFB	77.4	66.6-105		%Rec	1	2/26/2020 3:15:31 AM	50628
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/26/2020 3:15:31 AM	50628
Toluene	ND	0.048		mg/Kg	1	2/26/2020 3:15:31 AM	50628
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 3:15:31 AM	50628
Xylenes, Total	ND	0.096		mg/Kg	1	2/26/2020 3:15:31 AM	50628
Surr: 4-Bromofluorobenzene	87.1	80-120		%Rec	1	2/26/2020 3:15:31 AM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-011 **Matrix:** SOIL

Client Sample ID: S-4 3'
Collection Date: 2/19/2020 9:10:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	120	60		mg/Kg	20	2/26/2020 1:23:39 AM	50663
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/26/2020 2:42:21 PM	50641
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2020 2:42:21 PM	50641
Surr: DNOP	98.0	55.1-146		%Rec	1	2/26/2020 2:42:21 PM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/26/2020 3:38:23 AM	50628
Surr: BFB	80.7	66.6-105		%Rec	1	2/26/2020 3:38:23 AM	50628
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/26/2020 3:38:23 AM	50628
Toluene	ND	0.049		mg/Kg	1	2/26/2020 3:38:23 AM	50628
Ethylbenzene	ND	0.049		mg/Kg	1	2/26/2020 3:38:23 AM	50628
Xylenes, Total	ND	0.097		mg/Kg	1	2/26/2020 3:38:23 AM	50628
Surr: 4-Bromofluorobenzene	91.2	80-120		%Rec	1	2/26/2020 3:38:23 AM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-012 **Matrix:** SOIL

Client Sample ID: S-4 4'
Collection Date: 2/19/2020 9:15:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	150	60		mg/Kg	20	2/26/2020 1:36:00 AM	50663
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/26/2020 3:05:52 PM	50641
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/26/2020 3:05:52 PM	50641
Surr: DNOP	99.7	55.1-146		%Rec	1	2/26/2020 3:05:52 PM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/26/2020 4:01:17 AM	50628
Surr: BFB	78.5	66.6-105		%Rec	1	2/26/2020 4:01:17 AM	50628
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/26/2020 4:01:17 AM	50628
Toluene	ND	0.047		mg/Kg	1	2/26/2020 4:01:17 AM	50628
Ethylbenzene	ND	0.047		mg/Kg	1	2/26/2020 4:01:17 AM	50628
Xylenes, Total	ND	0.095		mg/Kg	1	2/26/2020 4:01:17 AM	50628
Surr: 4-Bromofluorobenzene	89.0	80-120		%Rec	1	2/26/2020 4:01:17 AM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-013 **Matrix:** SOIL

Client Sample ID: S-5 0-1'
Collection Date: 2/19/2020 9:25:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: **JMT**
Chloride	ND	60		mg/Kg	20	2/26/2020 1:48:21 AM	50663
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: **CLP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/26/2020 3:29:31 PM	50641
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2020 3:29:31 PM	50641
Surr: DNOP	126	55.1-146		%Rec	1	2/26/2020 3:29:31 PM	50641
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/26/2020 4:24:11 AM	50628
Surr: BFB	78.6	66.6-105		%Rec	1	2/26/2020 4:24:11 AM	50628
EPA METHOD 8021B: VOLATILES							Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	2/26/2020 4:24:11 AM	50628
Toluene	ND	0.046		mg/Kg	1	2/26/2020 4:24:11 AM	50628
Ethylbenzene	ND	0.046		mg/Kg	1	2/26/2020 4:24:11 AM	50628
Xylenes, Total	ND	0.092		mg/Kg	1	2/26/2020 4:24:11 AM	50628
Surr: 4-Bromofluorobenzene	88.4	80-120		%Rec	1	2/26/2020 4:24:11 AM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-014 **Matrix:** SOIL

Client Sample ID: S-5 2'
Collection Date: 2/19/2020 9:30:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	65	60		mg/Kg	20	2/26/2020 11:42:43 AM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/26/2020 3:53:05 PM	50641
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/26/2020 3:53:05 PM	50641
Surr: DNOP	93.8	55.1-146		%Rec	1	2/26/2020 3:53:05 PM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/26/2020 4:47:03 AM	50628
Surr: BFB	79.7	66.6-105		%Rec	1	2/26/2020 4:47:03 AM	50628
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	2/26/2020 4:47:03 AM	50628
Toluene	ND	0.047		mg/Kg	1	2/26/2020 4:47:03 AM	50628
Ethylbenzene	ND	0.047		mg/Kg	1	2/26/2020 4:47:03 AM	50628
Xylenes, Total	ND	0.093		mg/Kg	1	2/26/2020 4:47:03 AM	50628
Surr: 4-Bromofluorobenzene	91.1	80-120		%Rec	1	2/26/2020 4:47:03 AM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-015 **Matrix:** SOIL

Client Sample ID: S-5 3'
Collection Date: 2/19/2020 9:35:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	110	60		mg/Kg	20	2/26/2020 12:19:46 PM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/26/2020 4:40:18 PM	50641
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/26/2020 4:40:18 PM	50641
Surr: DNOP	94.6	55.1-146		%Rec	1	2/26/2020 4:40:18 PM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/26/2020 1:44:35 PM	50628
Surr: BFB	80.9	66.6-105		%Rec	1	2/26/2020 1:44:35 PM	50628
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	2/26/2020 1:44:35 PM	50628
Toluene	ND	0.046		mg/Kg	1	2/26/2020 1:44:35 PM	50628
Ethylbenzene	ND	0.046		mg/Kg	1	2/26/2020 1:44:35 PM	50628
Xylenes, Total	ND	0.093		mg/Kg	1	2/26/2020 1:44:35 PM	50628
Surr: 4-Bromofluorobenzene	90.6	80-120		%Rec	1	2/26/2020 1:44:35 PM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-016 **Matrix:** SOIL

Client Sample ID: S-5 4'
Collection Date: 2/19/2020 9:40:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	120	60		mg/Kg	20	2/26/2020 12:32:08 PM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/26/2020 5:03:58 PM	50641
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/26/2020 5:03:58 PM	50641
Surr: DNOP	88.7	55.1-146		%Rec	1	2/26/2020 5:03:58 PM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/26/2020 2:08:00 PM	50628
Surr: BFB	85.0	66.6-105		%Rec	1	2/26/2020 2:08:00 PM	50628
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/26/2020 2:08:00 PM	50628
Toluene	ND	0.049		mg/Kg	1	2/26/2020 2:08:00 PM	50628
Ethylbenzene	ND	0.049		mg/Kg	1	2/26/2020 2:08:00 PM	50628
Xylenes, Total	ND	0.097		mg/Kg	1	2/26/2020 2:08:00 PM	50628
Surr: 4-Bromofluorobenzene	94.4	80-120		%Rec	1	2/26/2020 2:08:00 PM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-017 **Matrix:** SOIL

Client Sample ID: S-6 0-1'
Collection Date: 2/19/2020 9:50:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/26/2020 12:44:29 PM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	3500	940		mg/Kg	100	2/27/2020 7:30:12 PM	50641
Motor Oil Range Organics (MRO)	13000	4700		mg/Kg	100	2/27/2020 7:30:12 PM	50641
Surr: DNOP	0	55.1-146	S	%Rec	100	2/27/2020 7:30:12 PM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 2:31:29 PM	50628
Surr: BFB	79.3	66.6-105		%Rec	1	2/26/2020 2:31:29 PM	50628
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/26/2020 2:31:29 PM	50628
Toluene	ND	0.048		mg/Kg	1	2/26/2020 2:31:29 PM	50628
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 2:31:29 PM	50628
Xylenes, Total	ND	0.096		mg/Kg	1	2/26/2020 2:31:29 PM	50628
Surr: 4-Bromofluorobenzene	88.2	80-120		%Rec	1	2/26/2020 2:31:29 PM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-018 **Matrix:** SOIL

Client Sample ID: S-6 2'
Collection Date: 2/19/2020 9:55:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	63	60		mg/Kg	20	2/26/2020 1:21:31 PM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/27/2020 7:52:04 PM	50641
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/27/2020 7:52:04 PM	50641
Surr: DNOP	94.6	55.1-146		%Rec	1	2/27/2020 7:52:04 PM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 2:54:59 PM	50628
Surr: BFB	82.2	66.6-105		%Rec	1	2/26/2020 2:54:59 PM	50628
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/26/2020 2:54:59 PM	50628
Toluene	ND	0.048		mg/Kg	1	2/26/2020 2:54:59 PM	50628
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 2:54:59 PM	50628
Xylenes, Total	ND	0.096		mg/Kg	1	2/26/2020 2:54:59 PM	50628
Surr: 4-Bromofluorobenzene	89.2	80-120		%Rec	1	2/26/2020 2:54:59 PM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-019 **Matrix:** SOIL

Client Sample ID: S-6 3' R
Collection Date: 2/19/2020 10:00:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	80	60		mg/Kg	20	2/26/2020 1:33:52 PM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/26/2020 6:14:26 PM	50641
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/26/2020 6:14:26 PM	50641
Surr: DNOP	96.2	55.1-146		%Rec	1	2/26/2020 6:14:26 PM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 3:18:11 PM	50628
Surr: BFB	85.8	66.6-105		%Rec	1	2/26/2020 3:18:11 PM	50628
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/26/2020 3:18:11 PM	50628
Toluene	ND	0.048		mg/Kg	1	2/26/2020 3:18:11 PM	50628
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 3:18:11 PM	50628
Xylenes, Total	ND	0.097		mg/Kg	1	2/26/2020 3:18:11 PM	50628
Surr: 4-Bromofluorobenzene	95.9	80-120		%Rec	1	2/26/2020 3:18:11 PM	50628

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-020 **Matrix:** SOIL

Client Sample ID: S-7 0-1'
Collection Date: 2/19/2020 10:10:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	74	60		mg/Kg	20	2/26/2020 1:46:13 PM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	17	9.5		mg/Kg	1	2/26/2020 6:37:50 PM	50641
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2020 6:37:50 PM	50641
Surr: DNOP	135	55.1-146		%Rec	1	2/26/2020 6:37:50 PM	50641
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/26/2020 3:41:45 PM	50630
Surr: BFB	78.7	66.6-105		%Rec	1	2/26/2020 3:41:45 PM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/26/2020 3:41:45 PM	50630
Toluene	ND	0.049		mg/Kg	1	2/26/2020 3:41:45 PM	50630
Ethylbenzene	ND	0.049		mg/Kg	1	2/26/2020 3:41:45 PM	50630
Xylenes, Total	ND	0.099		mg/Kg	1	2/26/2020 3:41:45 PM	50630
Surr: 4-Bromofluorobenzene	87.0	80-120		%Rec	1	2/26/2020 3:41:45 PM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-021 **Matrix:** SOIL

Client Sample ID: S-7 2'
Collection Date: 2/19/2020 10:15:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/26/2020 2:23:15 PM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/26/2020 7:47:46 PM	50642
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/26/2020 7:47:46 PM	50642
Surr: DNOP	95.0	55.1-146		%Rec	1	2/26/2020 7:47:46 PM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/26/2020 4:52:07 PM	50630
Surr: BFB	83.9	66.6-105		%Rec	1	2/26/2020 4:52:07 PM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/26/2020 4:52:07 PM	50630
Toluene	ND	0.050		mg/Kg	1	2/26/2020 4:52:07 PM	50630
Ethylbenzene	ND	0.050		mg/Kg	1	2/26/2020 4:52:07 PM	50630
Xylenes, Total	ND	0.099		mg/Kg	1	2/26/2020 4:52:07 PM	50630
Surr: 4-Bromofluorobenzene	92.9	80-120		%Rec	1	2/26/2020 4:52:07 PM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-022 **Matrix:** SOIL

Client Sample ID: S-7 3'
Collection Date: 2/19/2020 10:20:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/26/2020 2:35:36 PM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/26/2020 8:57:30 PM	50642
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/26/2020 8:57:30 PM	50642
Surr: DNOP	93.3	55.1-146		%Rec	1	2/26/2020 8:57:30 PM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 6:01:50 PM	50630
Surr: BFB	82.4	66.6-105		%Rec	1	2/26/2020 6:01:50 PM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/26/2020 6:01:50 PM	50630
Toluene	ND	0.048		mg/Kg	1	2/26/2020 6:01:50 PM	50630
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 6:01:50 PM	50630
Xylenes, Total	ND	0.097		mg/Kg	1	2/26/2020 6:01:50 PM	50630
Surr: 4-Bromofluorobenzene	91.9	80-120		%Rec	1	2/26/2020 6:01:50 PM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-023 **Matrix:** SOIL

Client Sample ID: S-7 4'
Collection Date: 2/19/2020 10:25:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	61	60		mg/Kg	20	2/26/2020 2:47:57 PM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	2/26/2020 9:20:42 PM	50642
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/26/2020 9:20:42 PM	50642
Surr: DNOP	97.1	55.1-146		%Rec	1	2/26/2020 9:20:42 PM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/26/2020 7:35:19 PM	50630
Surr: BFB	78.2	66.6-105		%Rec	1	2/26/2020 7:35:19 PM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	2/26/2020 7:35:19 PM	50630
Toluene	ND	0.047		mg/Kg	1	2/26/2020 7:35:19 PM	50630
Ethylbenzene	ND	0.047		mg/Kg	1	2/26/2020 7:35:19 PM	50630
Xylenes, Total	ND	0.094		mg/Kg	1	2/26/2020 7:35:19 PM	50630
Surr: 4-Bromofluorobenzene	86.8	80-120		%Rec	1	2/26/2020 7:35:19 PM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-024 **Matrix:** SOIL

Client Sample ID: S-8 0-1'
Collection Date: 2/19/2020 10:35:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/26/2020 3:00:18 PM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/26/2020 9:43:55 PM	50642
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/26/2020 9:43:55 PM	50642
Surr: DNOP	125	55.1-146		%Rec	1	2/26/2020 9:43:55 PM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/26/2020 7:58:40 PM	50630
Surr: BFB	78.7	66.6-105		%Rec	1	2/26/2020 7:58:40 PM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/26/2020 7:58:40 PM	50630
Toluene	ND	0.050		mg/Kg	1	2/26/2020 7:58:40 PM	50630
Ethylbenzene	ND	0.050		mg/Kg	1	2/26/2020 7:58:40 PM	50630
Xylenes, Total	ND	0.099		mg/Kg	1	2/26/2020 7:58:40 PM	50630
Surr: 4-Bromofluorobenzene	87.6	80-120		%Rec	1	2/26/2020 7:58:40 PM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-025 **Matrix:** SOIL

Client Sample ID: S-8 2'
Collection Date: 2/19/2020 10:40:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/26/2020 3:12:39 PM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/26/2020 10:07:05 PM	50642
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/26/2020 10:07:05 PM	50642
Surr: DNOP	95.8	55.1-146		%Rec	1	2/26/2020 10:07:05 PM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/26/2020 8:22:04 PM	50630
Surr: BFB	81.2	66.6-105		%Rec	1	2/26/2020 8:22:04 PM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	2/26/2020 8:22:04 PM	50630
Toluene	ND	0.047		mg/Kg	1	2/26/2020 8:22:04 PM	50630
Ethylbenzene	ND	0.047		mg/Kg	1	2/26/2020 8:22:04 PM	50630
Xylenes, Total	ND	0.094		mg/Kg	1	2/26/2020 8:22:04 PM	50630
Surr: 4-Bromofluorobenzene	90.7	80-120		%Rec	1	2/26/2020 8:22:04 PM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-026 **Matrix:** SOIL

Client Sample ID: S-8 3'
Collection Date: 2/19/2020 10:45:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/26/2020 3:49:40 PM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	2/26/2020 10:53:26 PM	50642
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	2/26/2020 10:53:26 PM	50642
Surr: DNOP	96.3	55.1-146		%Rec	1	2/26/2020 10:53:26 PM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/26/2020 8:45:27 PM	50630
Surr: BFB	78.7	66.6-105		%Rec	1	2/26/2020 8:45:27 PM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/26/2020 8:45:27 PM	50630
Toluene	ND	0.049		mg/Kg	1	2/26/2020 8:45:27 PM	50630
Ethylbenzene	ND	0.049		mg/Kg	1	2/26/2020 8:45:27 PM	50630
Xylenes, Total	ND	0.099		mg/Kg	1	2/26/2020 8:45:27 PM	50630
Surr: 4-Bromofluorobenzene	87.5	80-120		%Rec	1	2/26/2020 8:45:27 PM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-027 **Matrix:** SOIL

Client Sample ID: S-8 4'
Collection Date: 2/19/2020 10:50:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/26/2020 4:02:02 PM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/26/2020 11:16:38 PM	50642
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/26/2020 11:16:38 PM	50642
Surr: DNOP	99.0	55.1-146		%Rec	1	2/26/2020 11:16:38 PM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/26/2020 9:08:48 PM	50630
Surr: BFB	79.3	66.6-105		%Rec	1	2/26/2020 9:08:48 PM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/26/2020 9:08:48 PM	50630
Toluene	ND	0.049		mg/Kg	1	2/26/2020 9:08:48 PM	50630
Ethylbenzene	ND	0.049		mg/Kg	1	2/26/2020 9:08:48 PM	50630
Xylenes, Total	ND	0.098		mg/Kg	1	2/26/2020 9:08:48 PM	50630
Surr: 4-Bromofluorobenzene	88.8	80-120		%Rec	1	2/26/2020 9:08:48 PM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-028 **Matrix:** SOIL

Client Sample ID: S-9 0-1'
Collection Date: 2/19/2020 10:55:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	120	60		mg/Kg	20	2/26/2020 4:14:23 PM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	290	9.3		mg/Kg	1	2/27/2020 8:14:02 PM	50642
Motor Oil Range Organics (MRO)	210	47		mg/Kg	1	2/27/2020 8:14:02 PM	50642
Surr: DNOP	127	55.1-146		%Rec	1	2/27/2020 8:14:02 PM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 9:32:07 PM	50630
Surr: BFB	79.8	66.6-105		%Rec	1	2/26/2020 9:32:07 PM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/26/2020 9:32:07 PM	50630
Toluene	ND	0.048		mg/Kg	1	2/26/2020 9:32:07 PM	50630
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 9:32:07 PM	50630
Xylenes, Total	ND	0.096		mg/Kg	1	2/26/2020 9:32:07 PM	50630
Surr: 4-Bromofluorobenzene	89.5	80-120		%Rec	1	2/26/2020 9:32:07 PM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-029 **Matrix:** SOIL

Client Sample ID: S-9 2'
Collection Date: 2/19/2020 11:00:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	530	60		mg/Kg	20	2/26/2020 4:26:44 PM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/27/2020 12:02:56 AM	50642
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/27/2020 12:02:56 AM	50642
Surr: DNOP	96.7	55.1-146		%Rec	1	2/27/2020 12:02:56 AM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/26/2020 9:55:23 PM	50630
Surr: BFB	79.3	66.6-105		%Rec	1	2/26/2020 9:55:23 PM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/26/2020 9:55:23 PM	50630
Toluene	ND	0.049		mg/Kg	1	2/26/2020 9:55:23 PM	50630
Ethylbenzene	ND	0.049		mg/Kg	1	2/26/2020 9:55:23 PM	50630
Xylenes, Total	ND	0.097		mg/Kg	1	2/26/2020 9:55:23 PM	50630
Surr: 4-Bromofluorobenzene	89.1	80-120		%Rec	1	2/26/2020 9:55:23 PM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-030 **Matrix:** SOIL

Client Sample ID: S-9 3' R
Collection Date: 2/19/2020 11:05:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	950	60		mg/Kg	20	2/26/2020 4:39:05 PM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/27/2020 12:26:02 AM	50642
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	2/27/2020 12:26:02 AM	50642
Surr: DNOP	97.0	55.1-146		%Rec	1	2/27/2020 12:26:02 AM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/26/2020 10:18:39 PM	50630
Surr: BFB	76.8	66.6-105		%Rec	1	2/26/2020 10:18:39 PM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/26/2020 10:18:39 PM	50630
Toluene	ND	0.049		mg/Kg	1	2/26/2020 10:18:39 PM	50630
Ethylbenzene	ND	0.049		mg/Kg	1	2/26/2020 10:18:39 PM	50630
Xylenes, Total	ND	0.099		mg/Kg	1	2/26/2020 10:18:39 PM	50630
Surr: 4-Bromofluorobenzene	86.5	80-120		%Rec	1	2/26/2020 10:18:39 PM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-031 **Matrix:** SOIL

Client Sample ID: S-10 0-1'
Collection Date: 2/19/2020 11:15:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	2600	150		mg/Kg	50	2/27/2020 2:16:25 PM	50687
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	37	9.9		mg/Kg	1	2/27/2020 12:49:08 AM	50642
Motor Oil Range Organics (MRO)	56	49		mg/Kg	1	2/27/2020 12:49:08 AM	50642
Surr: DNOP	115	55.1-146		%Rec	1	2/27/2020 12:49:08 AM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/26/2020 10:41:54 PM	50630
Surr: BFB	80.1	66.6-105		%Rec	1	2/26/2020 10:41:54 PM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/26/2020 10:41:54 PM	50630
Toluene	ND	0.048		mg/Kg	1	2/26/2020 10:41:54 PM	50630
Ethylbenzene	ND	0.048		mg/Kg	1	2/26/2020 10:41:54 PM	50630
Xylenes, Total	ND	0.097		mg/Kg	1	2/26/2020 10:41:54 PM	50630
Surr: 4-Bromofluorobenzene	90.7	80-120		%Rec	1	2/26/2020 10:41:54 PM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-032 **Matrix:** SOIL

Client Sample ID: S-10 2'
Collection Date: 2/19/2020 11:20:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	150	60		mg/Kg	20	2/26/2020 5:28:28 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	2/27/2020 1:12:21 AM	50642
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/27/2020 1:12:21 AM	50642
Surr: DNOP	101	55.1-146		%Rec	1	2/27/2020 1:12:21 AM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/26/2020 11:05:10 PM	50630
Surr: BFB	79.1	66.6-105		%Rec	1	2/26/2020 11:05:10 PM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	2/26/2020 11:05:10 PM	50630
Toluene	ND	0.047		mg/Kg	1	2/26/2020 11:05:10 PM	50630
Ethylbenzene	ND	0.047		mg/Kg	1	2/26/2020 11:05:10 PM	50630
Xylenes, Total	ND	0.094		mg/Kg	1	2/26/2020 11:05:10 PM	50630
Surr: 4-Bromofluorobenzene	88.2	80-120		%Rec	1	2/26/2020 11:05:10 PM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-033 **Matrix:** SOIL

Client Sample ID: S-10 3' R
Collection Date: 2/19/2020 11:25:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	220	60		mg/Kg	20	2/26/2020 5:40:50 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	2/27/2020 1:35:33 AM	50642
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	2/27/2020 1:35:33 AM	50642
Surr: DNOP	125	55.1-146		%Rec	1	2/27/2020 1:35:33 AM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/27/2020 12:14:36 AM	50630
Surr: BFB	78.3	66.6-105		%Rec	1	2/27/2020 12:14:36 AM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/27/2020 12:14:36 AM	50630
Toluene	ND	0.048		mg/Kg	1	2/27/2020 12:14:36 AM	50630
Ethylbenzene	ND	0.048		mg/Kg	1	2/27/2020 12:14:36 AM	50630
Xylenes, Total	ND	0.095		mg/Kg	1	2/27/2020 12:14:36 AM	50630
Surr: 4-Bromofluorobenzene	88.0	80-120		%Rec	1	2/27/2020 12:14:36 AM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-034 **Matrix:** SOIL

Client Sample ID: S-11 0-1'
Collection Date: 2/19/2020 11:50:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	260	60		mg/Kg	20	2/26/2020 6:17:52 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	140	9.2		mg/Kg	1	2/27/2020 1:58:37 AM	50642
Motor Oil Range Organics (MRO)	110	46		mg/Kg	1	2/27/2020 1:58:37 AM	50642
Surr: DNOP	115	55.1-146		%Rec	1	2/27/2020 1:58:37 AM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/27/2020 12:37:46 AM	50630
Surr: BFB	79.1	66.6-105		%Rec	1	2/27/2020 12:37:46 AM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	2/27/2020 12:37:46 AM	50630
Toluene	ND	0.046		mg/Kg	1	2/27/2020 12:37:46 AM	50630
Ethylbenzene	ND	0.046		mg/Kg	1	2/27/2020 12:37:46 AM	50630
Xylenes, Total	ND	0.093		mg/Kg	1	2/27/2020 12:37:46 AM	50630
Surr: 4-Bromofluorobenzene	88.9	80-120		%Rec	1	2/27/2020 12:37:46 AM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-035 **Matrix:** SOIL

Client Sample ID: S-11 2'
Collection Date: 2/19/2020 11:55:00 AM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/26/2020 6:30:13 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	2/27/2020 2:21:48 AM	50642
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/27/2020 2:21:48 AM	50642
Surr: DNOP	100	55.1-146		%Rec	1	2/27/2020 2:21:48 AM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	2/27/2020 1:00:58 AM	50630
Surr: BFB	81.0	66.6-105		%Rec	1	2/27/2020 1:00:58 AM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/27/2020 1:00:58 AM	50630
Toluene	ND	0.050		mg/Kg	1	2/27/2020 1:00:58 AM	50630
Ethylbenzene	ND	0.050		mg/Kg	1	2/27/2020 1:00:58 AM	50630
Xylenes, Total	ND	0.10		mg/Kg	1	2/27/2020 1:00:58 AM	50630
Surr: 4-Bromofluorobenzene	91.7	80-120		%Rec	1	2/27/2020 1:00:58 AM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-036 **Matrix:** SOIL

Client Sample ID: S-11 3'
Collection Date: 2/19/2020 12:00:00 PM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/26/2020 6:42:33 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	2/27/2020 2:44:53 AM	50642
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/27/2020 2:44:53 AM	50642
Surr: DNOP	101	55.1-146		%Rec	1	2/27/2020 2:44:53 AM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/27/2020 1:24:06 AM	50630
Surr: BFB	76.9	66.6-105		%Rec	1	2/27/2020 1:24:06 AM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/27/2020 1:24:06 AM	50630
Toluene	ND	0.049		mg/Kg	1	2/27/2020 1:24:06 AM	50630
Ethylbenzene	ND	0.049		mg/Kg	1	2/27/2020 1:24:06 AM	50630
Xylenes, Total	ND	0.098		mg/Kg	1	2/27/2020 1:24:06 AM	50630
Surr: 4-Bromofluorobenzene	86.6	80-120		%Rec	1	2/27/2020 1:24:06 AM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-037 **Matrix:** SOIL

Client Sample ID: S-11 4'
Collection Date: 2/19/2020 12:05:00 PM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/26/2020 6:54:54 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/27/2020 3:08:02 AM	50642
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/27/2020 3:08:02 AM	50642
Surr: DNOP	94.3	55.1-146		%Rec	1	2/27/2020 3:08:02 AM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/27/2020 1:47:10 AM	50630
Surr: BFB	76.8	66.6-105		%Rec	1	2/27/2020 1:47:10 AM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/27/2020 1:47:10 AM	50630
Toluene	ND	0.048		mg/Kg	1	2/27/2020 1:47:10 AM	50630
Ethylbenzene	ND	0.048		mg/Kg	1	2/27/2020 1:47:10 AM	50630
Xylenes, Total	ND	0.096		mg/Kg	1	2/27/2020 1:47:10 AM	50630
Surr: 4-Bromofluorobenzene	87.0	80-120		%Rec	1	2/27/2020 1:47:10 AM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-038 **Matrix:** SOIL

Client Sample ID: S-12 0-1'
Collection Date: 2/19/2020 1:00:00 PM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	180	60		mg/Kg	20	2/26/2020 7:07:14 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	110	8.8		mg/Kg	1	2/27/2020 8:57:36 PM	50642
Motor Oil Range Organics (MRO)	87	44		mg/Kg	1	2/27/2020 8:57:36 PM	50642
Surr: DNOP	111	55.1-146		%Rec	1	2/27/2020 8:57:36 PM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/27/2020 2:10:15 AM	50630
Surr: BFB	76.0	66.6-105		%Rec	1	2/27/2020 2:10:15 AM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/27/2020 2:10:15 AM	50630
Toluene	ND	0.048		mg/Kg	1	2/27/2020 2:10:15 AM	50630
Ethylbenzene	ND	0.048		mg/Kg	1	2/27/2020 2:10:15 AM	50630
Xylenes, Total	ND	0.095		mg/Kg	1	2/27/2020 2:10:15 AM	50630
Surr: 4-Bromofluorobenzene	85.7	80-120		%Rec	1	2/27/2020 2:10:15 AM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-039 **Matrix:** SOIL

Client Sample ID: S-12 2'
Collection Date: 2/19/2020 1:05:00 PM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/26/2020 7:19:36 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	2/27/2020 3:54:15 AM	50642
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	2/27/2020 3:54:15 AM	50642
Surr: DNOP	95.8	55.1-146		%Rec	1	2/27/2020 3:54:15 AM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/27/2020 2:33:20 AM	50630
Surr: BFB	76.8	66.6-105		%Rec	1	2/27/2020 2:33:20 AM	50630
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/27/2020 2:33:20 AM	50630
Toluene	ND	0.048		mg/Kg	1	2/27/2020 2:33:20 AM	50630
Ethylbenzene	ND	0.048		mg/Kg	1	2/27/2020 2:33:20 AM	50630
Xylenes, Total	ND	0.096		mg/Kg	1	2/27/2020 2:33:20 AM	50630
Surr: 4-Bromofluorobenzene	86.0	80-120		%Rec	1	2/27/2020 2:33:20 AM	50630

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-040 **Matrix:** SOIL

Client Sample ID: S-12 3'
Collection Date: 2/19/2020 1:10:00 PM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/26/2020 7:31:58 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	2/27/2020 4:17:26 AM	50642
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	2/27/2020 4:17:26 AM	50642
Surr: DNOP	99.3	55.1-146		%Rec	1	2/27/2020 4:17:26 AM	50642
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/27/2020 10:10:03 AM	50631
Surr: BFB	79.9	66.6-105		%Rec	1	2/27/2020 10:10:03 AM	50631
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	2/27/2020 10:10:03 AM	50631
Toluene	ND	0.049		mg/Kg	1	2/27/2020 10:10:03 AM	50631
Ethylbenzene	ND	0.049		mg/Kg	1	2/27/2020 10:10:03 AM	50631
Xylenes, Total	ND	0.099		mg/Kg	1	2/27/2020 10:10:03 AM	50631
Surr: 4-Bromofluorobenzene	88.7	80-120		%Rec	1	2/27/2020 10:10:03 AM	50631

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-041 **Matrix:** SOIL

Client Sample ID: S-12 4'
Collection Date: 2/19/2020 1:15:00 PM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/26/2020 7:44:18 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	2/26/2020 3:38:28 PM	50643
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	2/26/2020 3:38:28 PM	50643
Surr: DNOP	99.6	55.1-146		%Rec	1	2/26/2020 3:38:28 PM	50643
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/27/2020 11:20:33 AM	50631
Surr: BFB	82.4	66.6-105		%Rec	1	2/27/2020 11:20:33 AM	50631
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/27/2020 11:20:33 AM	50631
Toluene	ND	0.047		mg/Kg	1	2/27/2020 11:20:33 AM	50631
Ethylbenzene	ND	0.047		mg/Kg	1	2/27/2020 11:20:33 AM	50631
Xylenes, Total	ND	0.095		mg/Kg	1	2/27/2020 11:20:33 AM	50631
Surr: 4-Bromofluorobenzene	91.8	80-120		%Rec	1	2/27/2020 11:20:33 AM	50631

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **2002915**
Date Reported: **3/2/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Talon Artesia
Project: Arcturus 18 FED 2H
Lab ID: 2002915-042 **Matrix:** SOIL

Client Sample ID: BG
Collection Date: 2/19/2020 1:45:00 PM
Received Date: 2/22/2020 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	2/26/2020 7:56:39 PM	50702
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	2/26/2020 4:00:38 PM	50643
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	2/26/2020 4:00:38 PM	50643
Surr: DNOP	141	55.1-146		%Rec	1	2/26/2020 4:00:38 PM	50643
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/27/2020 12:31:05 PM	50631
Surr: BFB	80.1	66.6-105		%Rec	1	2/27/2020 12:31:05 PM	50631
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	2/27/2020 12:31:05 PM	50631
Toluene	ND	0.049		mg/Kg	1	2/27/2020 12:31:05 PM	50631
Ethylbenzene	ND	0.049		mg/Kg	1	2/27/2020 12:31:05 PM	50631
Xylenes, Total	ND	0.097		mg/Kg	1	2/27/2020 12:31:05 PM	50631
Surr: 4-Bromofluorobenzene	88.7	80-120		%Rec	1	2/27/2020 12:31:05 PM	50631

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2002915**

02-Mar-20

Client: Talon Artesia

Project: Arcturus 18 FED 2H

Sample ID: **MB-50663** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **50663** RunNo: **66788**
Prep Date: **2/25/2020** Analysis Date: **2/25/2020** SeqNo: **2297154** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-50663** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **50663** RunNo: **66788**
Prep Date: **2/25/2020** Analysis Date: **2/25/2020** SeqNo: **2297155** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.2	90	110			

Sample ID: **MB-50687** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **50687** RunNo: **66815**
Prep Date: **2/26/2020** Analysis Date: **2/26/2020** SeqNo: **2298438** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-50687** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **50687** RunNo: **66815**
Prep Date: **2/26/2020** Analysis Date: **2/26/2020** SeqNo: **2298439** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.9	90	110			

Sample ID: **2002915-014AMS** SampType: **ms** TestCode: **EPA Method 300.0: Anions**
Client ID: **S-5 2'** Batch ID: **50687** RunNo: **66815**
Prep Date: **2/26/2020** Analysis Date: **2/26/2020** SeqNo: **2298443** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	91	60	30.00	65.04	87.4	50.4	161			

Sample ID: **2002915-014AMSD** SampType: **msd** TestCode: **EPA Method 300.0: Anions**
Client ID: **S-5 2'** Batch ID: **50687** RunNo: **66815**
Prep Date: **2/26/2020** Analysis Date: **2/26/2020** SeqNo: **2298444** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	91	61	30.00	65.04	86.3	50.4	161	0.361	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2002915**

02-Mar-20

Client: Talon Artesia

Project: Arcturus 18 FED 2H

Sample ID: **MB-50702**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **50702**	RunNo: **66815**							
Prep Date: **2/26/2020**	Analysis Date: **2/26/2020**	SeqNo: **2298468**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-50702**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **50702**	RunNo: **66815**							
Prep Date: **2/26/2020**	Analysis Date: **2/26/2020**	SeqNo: **2298469**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.8	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2002915

02-Mar-20

Client: Talon Artesia

Project: Arcturus 18 FED 2H

Sample ID: **LCS-50681** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **50681** RunNo: **66803**
Prep Date: **2/26/2020** Analysis Date: **2/26/2020** SeqNo: **2297105** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.3	55.1	146			

Sample ID: **MB-50681** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **50681** RunNo: **66803**
Prep Date: **2/26/2020** Analysis Date: **2/26/2020** SeqNo: **2297106** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.9		10.00		99.1	55.1	146			

Sample ID: **MB-50641** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **50641** RunNo: **66801**
Prep Date: **2/25/2020** Analysis Date: **2/26/2020** SeqNo: **2297210** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	13		10.00		129	55.1	146			

Sample ID: **LCS-50641** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **50641** RunNo: **66801**
Prep Date: **2/25/2020** Analysis Date: **2/26/2020** SeqNo: **2297211** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58	10	50.00	0	116	70	130			
Surr: DNOP	6.0		5.000		120	55.1	146			

Sample ID: **LCS-50643** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **50643** RunNo: **66803**
Prep Date: **2/25/2020** Analysis Date: **2/26/2020** SeqNo: **2297433** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	55	10	50.00	0	110	70	130			
Surr: DNOP	5.3		5.000		106	55.1	146			

Sample ID: **MB-50643** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **50643** RunNo: **66803**
Prep Date: **2/25/2020** Analysis Date: **2/26/2020** SeqNo: **2297434** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2002915**

02-Mar-20

Client: Talon Artesia

Project: Arcturus 18 FED 2H

Sample ID: **MB-50643** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **50643** RunNo: **66803**
Prep Date: **2/25/2020** Analysis Date: **2/26/2020** SeqNo: **2297434** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		120	55.1	146			

Sample ID: **2002915-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-1 0-1'** Batch ID: **50641** RunNo: **66801**
Prep Date: **2/25/2020** Analysis Date: **2/26/2020** SeqNo: **2297592** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	62	9.4	46.86	0	132	47.4	136			
Surr: DNOP	6.9		4.686		147	55.1	146			S

Sample ID: **2002915-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-1 0-1'** Batch ID: **50641** RunNo: **66801**
Prep Date: **2/25/2020** Analysis Date: **2/26/2020** SeqNo: **2297593** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	9.6	47.98	0	112	47.4	136	14.7	43.4	
Surr: DNOP	5.6		4.798		117	55.1	146	0	0	

Sample ID: **2002915-021AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-7 2'** Batch ID: **50642** RunNo: **66801**
Prep Date: **2/25/2020** Analysis Date: **2/26/2020** SeqNo: **2299249** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.5	47.39	0	93.9	47.4	136			
Surr: DNOP	4.5		4.739		95.1	55.1	146			

Sample ID: **2002915-021AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **S-7 2'** Batch ID: **50642** RunNo: **66801**
Prep Date: **2/25/2020** Analysis Date: **2/26/2020** SeqNo: **2299250** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	8.8	44.13	0	93.5	47.4	136	7.55	43.4	
Surr: DNOP	4.2		4.413		95.1	55.1	146	0	0	

Sample ID: **MB-50642** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **50642** RunNo: **66801**
Prep Date: **2/25/2020** Analysis Date: **2/26/2020** SeqNo: **2299275** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2002915

02-Mar-20

Client: Talon Artesia

Project: Arcturus 18 FED 2H

Sample ID: MB-50642	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 50642	RunNo: 66801							
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2299275	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		113	55.1	146			

Sample ID: LCS-50642	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 50642	RunNo: 66801							
Prep Date: 2/25/2020	Analysis Date: 2/26/2020	SeqNo: 2299276	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	106	70	130			
Surr: DNOP	5.4		5.000		109	55.1	146			

Sample ID: LCS-50685	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 50685	RunNo: 66879							
Prep Date: 2/26/2020	Analysis Date: 2/27/2020	SeqNo: 2299849	Units: %Rec						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		101	55.1	146			

Sample ID: MB-50685	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 50685	RunNo: 66879							
Prep Date: 2/26/2020	Analysis Date: 2/27/2020	SeqNo: 2299850	Units: %Rec						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		115	55.1	146			

Sample ID: MB-50766	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: PBS	Batch ID: 50766	RunNo: 66883							
Prep Date: 2/28/2020	Analysis Date: 2/28/2020	SeqNo: 2302390	Units: %Rec						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.7		10.00		86.6	55.1	146			

Sample ID: LCS-50766	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 50766	RunNo: 66883							
Prep Date: 2/28/2020	Analysis Date: 2/28/2020	SeqNo: 2302393	Units: %Rec						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.2		5.000		85.0	55.1	146			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2002915

02-Mar-20

Client: Talon Artesia

Project: Arcturus 18 FED 2H

Sample ID: **mb-50628** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **50628** RunNo: **66771**
Prep Date: **2/24/2020** Analysis Date: **2/25/2020** SeqNo: **2296862** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		85.0	66.6	105			

Sample ID: **lcs-50628** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **50628** RunNo: **66771**
Prep Date: **2/24/2020** Analysis Date: **2/25/2020** SeqNo: **2296863** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	80	120			
Surr: BFB	960		1000		96.2	66.6	105			

Sample ID: **MB-50657** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **50657** RunNo: **66806**
Prep Date: **2/25/2020** Analysis Date: **2/26/2020** SeqNo: **2297867** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	850		1000		85.2	66.6	105			

Sample ID: **lcs-50657** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **50657** RunNo: **66806**
Prep Date: **2/25/2020** Analysis Date: **2/26/2020** SeqNo: **2297868** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	910		1000		91.2	66.6	105			

Sample ID: **mb-50630** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **50630** RunNo: **66806**
Prep Date: **2/24/2020** Analysis Date: **2/26/2020** SeqNo: **2297873** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	820		1000		81.6	66.6	105			

Sample ID: **lcs-50630** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **50630** RunNo: **66806**
Prep Date: **2/24/2020** Analysis Date: **2/26/2020** SeqNo: **2297874** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.6	80	120			
Surr: BFB	920		1000		91.9	66.6	105			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2002915**

02-Mar-20

Client: Talon Artesia

Project: Arcturus 18 FED 2H

Sample ID: **2002915-020ams** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-7 0-1'** Batch ID: **50630** RunNo: **66806**
Prep Date: **2/24/2020** Analysis Date: **2/26/2020** SeqNo: **2297876** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.6	22.98	0	93.6	69.1	142			
Surr: BFB	830		919.1		89.8	66.6	105			

Sample ID: **2002915-020amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-7 0-1'** Batch ID: **50630** RunNo: **66806**
Prep Date: **2/24/2020** Analysis Date: **2/26/2020** SeqNo: **2297877** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.8	23.99	0	89.6	69.1	142	0.00484	20	
Surr: BFB	860		959.7		89.2	66.6	105	0	0	

Sample ID: **mb-50631** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **50631** RunNo: **66878**
Prep Date: **2/24/2020** Analysis Date: **2/27/2020** SeqNo: **2299731** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	820		1000		82.5	66.6	105			

Sample ID: **lcs-50631** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **50631** RunNo: **66878**
Prep Date: **2/24/2020** Analysis Date: **2/27/2020** SeqNo: **2299732** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.6	80	120			
Surr: BFB	940		1000		93.9	66.6	105			

Sample ID: **2002915-040ams** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-12 3'** Batch ID: **50631** RunNo: **66878**
Prep Date: **2/24/2020** Analysis Date: **2/27/2020** SeqNo: **2299734** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.7	23.70	0	88.0	69.1	142			
Surr: BFB	850		947.9		89.5	66.6	105			

Sample ID: **2002915-040amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-12 3'** Batch ID: **50631** RunNo: **66878**
Prep Date: **2/24/2020** Analysis Date: **2/27/2020** SeqNo: **2299735** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2002915**

02-Mar-20

Client: Talon Artesia

Project: Arcturus 18 FED 2H

Sample ID: **2002915-040amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S-12 3'**	Batch ID: **50631**	RunNo: **66878**
Prep Date: **2/24/2020**	Analysis Date: **2/27/2020**	SeqNo: **2299735** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.6	23.21	0	90.7	69.1	142	0.891	20	
Surr: BFB	830		928.5		89.5	66.6	105	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2002915

02-Mar-20

Client: Talon Artesia

Project: Arcturus 18 FED 2H

Sample ID: **mb-50628** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **50628** RunNo: **66771**

Prep Date: **2/24/2020** Analysis Date: **2/25/2020** SeqNo: **2296910** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		93.7	80	120			

Sample ID: **LCS-50628** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **50628** RunNo: **66771**

Prep Date: **2/24/2020** Analysis Date: **2/25/2020** SeqNo: **2296911** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	93.3	80	120			
Toluene	0.97	0.050	1.000	0	97.4	80	120			
Ethylbenzene	1.0	0.050	1.000	0	100	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	0.95		1.000		95.1	80	120			

Sample ID: **2002915-001ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S-1 0-1'** Batch ID: **50628** RunNo: **66771**

Prep Date: **2/24/2020** Analysis Date: **2/25/2020** SeqNo: **2296914** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.024	0.9443	0	98.1	78.5	119			
Toluene	0.98	0.047	0.9443	0.01451	102	75.7	123			
Ethylbenzene	1.0	0.047	0.9443	0	107	74.3	126			
Xylenes, Total	3.0	0.094	2.833	0.02231	107	72.9	130			
Surr: 4-Bromofluorobenzene	0.87		0.9443		92.2	80	120			

Sample ID: **2002915-001amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S-1 0-1'** Batch ID: **50628** RunNo: **66771**

Prep Date: **2/24/2020** Analysis Date: **2/25/2020** SeqNo: **2296915** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.024	0.9785	0	101	78.5	119	6.22	20	
Toluene	1.0	0.049	0.9785	0.01451	106	75.7	123	6.93	20	
Ethylbenzene	1.1	0.049	0.9785	0	110	74.3	126	5.89	20	
Xylenes, Total	3.3	0.098	2.935	0.02231	110	72.9	130	6.94	20	
Surr: 4-Bromofluorobenzene	0.90		0.9785		91.6	80	120	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2002915**

02-Mar-20

Client: Talon Artesia

Project: Arcturus 18 FED 2H

Sample ID: **MB-50657**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **PBS**	Batch ID: **50657**	RunNo: **66806**							
Prep Date: **2/25/2020**	Analysis Date: **2/26/2020**	SeqNo: **2297906**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.95		1.000		95.2	80	120			

Sample ID: **LCS-50657**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **LCSS**	Batch ID: **50657**	RunNo: **66806**							
Prep Date: **2/25/2020**	Analysis Date: **2/26/2020**	SeqNo: **2297907**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.2		1.000		116	80	120			

Sample ID: **mb-50630**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **PBS**	Batch ID: **50630**	RunNo: **66806**							
Prep Date: **2/24/2020**	Analysis Date: **2/26/2020**	SeqNo: **2297912**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.90		1.000		90.2	80	120			

Sample ID: **LCS-50630**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **LCSS**	Batch ID: **50630**	RunNo: **66806**							
Prep Date: **2/24/2020**	Analysis Date: **2/26/2020**	SeqNo: **2297913**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	88.9	80	120			
Toluene	0.94	0.050	1.000	0	93.7	80	120			
Ethylbenzene	0.96	0.050	1.000	0	96.2	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.6	80	120			
Surr: 4-Bromofluorobenzene	0.91		1.000		91.0	80	120			

Sample ID: **2002915-021ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**							
Client ID: **S-7 2'**	Batch ID: **50630**	RunNo: **66806**							
Prep Date: **2/24/2020**	Analysis Date: **2/26/2020**	SeqNo: **2297916**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	0.9862	0	89.3	78.5	119			
Toluene	0.92	0.049	0.9862	0.01417	91.6	75.7	123			
Ethylbenzene	0.94	0.049	0.9862	0	95.4	74.3	126			
Xylenes, Total	2.9	0.099	2.959	0.02220	96.3	72.9	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2002915

02-Mar-20

Client: Talon Artesia

Project: Arcturus 18 FED 2H

Sample ID: **2002915-021ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S-7 2'** Batch ID: **50630** RunNo: **66806**

Prep Date: **2/24/2020** Analysis Date: **2/26/2020** SeqNo: **2297916** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.92		0.9862		92.8	80	120			

Sample ID: **2002915-021amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S-7 2'** Batch ID: **50630** RunNo: **66806**

Prep Date: **2/24/2020** Analysis Date: **2/26/2020** SeqNo: **2297917** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	0.9901	0	90.0	78.5	119	1.13	20	
Toluene	0.93	0.050	0.9901	0.01417	92.4	75.7	123	1.34	20	
Ethylbenzene	0.97	0.050	0.9901	0	97.9	74.3	126	2.94	20	
Xylenes, Total	2.9	0.099	2.970	0.02220	98.2	72.9	130	2.32	20	
Surr: 4-Bromofluorobenzene	0.91		0.9901		91.7	80	120	0	0	

Sample ID: **mb-50631** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **50631** RunNo: **66878**

Prep Date: **2/24/2020** Analysis Date: **2/27/2020** SeqNo: **2299780** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.89		1.000		89.2	80	120			

Sample ID: **LCS-50631** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **50631** RunNo: **66878**

Prep Date: **2/24/2020** Analysis Date: **2/27/2020** SeqNo: **2299781** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	88.6	80	120			
Toluene	0.93	0.050	1.000	0	93.0	80	120			
Ethylbenzene	0.95	0.050	1.000	0	94.8	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.5	80	120			
Surr: 4-Bromofluorobenzene	0.93		1.000		93.1	80	120			

Sample ID: **2002915-041ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S-12 4'** Batch ID: **50631** RunNo: **66878**

Prep Date: **2/24/2020** Analysis Date: **2/27/2020** SeqNo: **2299784** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2002915**

02-Mar-20

Client: Talon Artesia

Project: Arcturus 18 FED 2H

Sample ID: **2002915-041ams**	SampType: **MS**			TestCode: **EPA Method 8021B: Volatiles**					
Client ID: **S-12 4'**	Batch ID: **50631**			RunNo: **66878**					
Prep Date: **2/24/2020**	Analysis Date: **2/27/2020**			SeqNo: **2299784**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.024	0.9452	0.01815	86.6	78.5	119			
Toluene	0.89	0.047	0.9452	0.01654	92.8	75.7	123			
Ethylbenzene	0.92	0.047	0.9452	0	97.4	74.3	126			
Xylenes, Total	2.8	0.095	2.836	0.02174	98.8	72.9	130			
Surr: 4-Bromofluorobenzene	0.89		0.9452		94.6	80	120			

Sample ID: **2002915-041amsd**	SampType: **MSD**			TestCode: **EPA Method 8021B: Volatiles**					
Client ID: **S-12 4'**	Batch ID: **50631**			RunNo: **66878**					
Prep Date: **2/24/2020**	Analysis Date: **2/27/2020**			SeqNo: **2299785**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.78	0.023	0.9302	0.01815	82.3	78.5	119	6.50	20	
Toluene	0.85	0.047	0.9302	0.01654	89.3	75.7	123	5.36	20	
Ethylbenzene	0.88	0.047	0.9302	0	94.2	74.3	126	4.93	20	
Xylenes, Total	2.7	0.093	2.791	0.02174	95.3	72.9	130	5.12	20	
Surr: 4-Bromofluorobenzene	0.85		0.9302		91.7	80	120	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **TALON ARTESIA** Work Order Number: **2002915** RcptNo: 1

Received By: **Yazmine Garduno** **2/22/2020 9:05:00 AM** Yazmine Garduno

Completed By: **Isaiah Ortiz** I-Ox

Reviewed By: JR 2/24/20

Chain of Custody

1. Is Chain of Custody sufficiently complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA?	Yes ☐	No ☐	NA ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
13. Is it clear what analyses were requested?	Yes ☑	No ☐	
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: YG 2/24/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.2	Good				

Chain-of-Custody Record

Client: TALON LPE

Mailing Address: 408 W. TEXAS AVE

Phone #: 575-746-8768

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: ARCTURUS 18 FED 2H

Project #: 700794.303.01

Project Manager: CHRIS JONES

Sampler: MICHAEL COLLIER

On Ice: ☒ Yes ☐ No

# of Coolers: 2 | 5201-S2

Cooler Temp (including CF): ~~2.6-0=2.6~~ ~~0.1-0=0.1~~

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2002915	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	TOTAL CHLORIDES
2-19-20	8:00am	SOIL	S-1 0-1'	GLASS 1	ICE/COLD	-001	✓	✓									✓
	8:05am		S-1 2' R			-002											
	8:15am		S-2 0-1'			-003											
	8:20am		S-2 2'			-004											
	8:25am		S-2 3'			-005											
	8:35am		S-3 0-1'			-006											
	8:40am		S-3 2'			-007											
	8:45am		S-3 3' R			-008											
	8:55am		S-4 0-1'			-009											
	9:05am		S-4 2'			-010											
	9:10am		S-4 3'			-011											
2-19-20	9:15am	SOIL	S-4 4'	GLASS 1	ICE/COLD	-012	✓	✓									✓

Date:	Time:	Relinquished by:	Received by:	Via:	Date Time
2/20/20	1500	Michael Collier			
2/20/20	1910				2/20/20 1500
					2/21/20 5:00

Remarks: PG. 1 OF 4

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

2/22/20 0905

Chain-of-Custody Record

Client: TALON LPE

Mailing Address: 408 W. TEXAS AVE

Phone #: 575-746-8768

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: ARCTURUS 18 FED 2H

Project #: 200794.303.01

Project Manager: CHRIS JONES

Sampler: MICHAEL COLLIER

On Ice: ☒ Yes ☐ No

# of Coolers: 2 1 5.2(0)=5.2

Cooler Temp (including CF): ~~2.6 0=2.6~~ 1.6|2.2|2.2 ~~0|0|0~~

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2002915	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	TOTAL CHLORIDES
2-19-20	9:25am	SOIL	S-5 0-1'	GLASS 1	ICE/COLD	-013	✓	✓									✓
	9:30am		S-5 2'			-014											
	9:35am		S-5 3'			-015											
	9:40am		S-5 4'			-016											
	9:50am		S-6 0-1'			-017											
	9:55am		S-6 2'			-018											
	RE @ 10:00		S-6 3' R			-019											
	10:10am		S-7 0-1'			-020											
	10:15am		S-7 2'			-021											
	10:20am		S-7 3'			-022											
	10:25am		S-7 4'			-023											
2-19-20	10:35	SOIL	S-8 0-1'	GLASS 1	ICE/COLD	-024	✓	✓									✓

Date:	Time:	Relinquished by:	Received by:	Via:	Date Time
2/20/20	1500				2/20/20 1500
2/20/20	1710			courier	2/21/20 8:00

Remarks: Pg. 2 of 4

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

courier 2/22/20 0905

Chain-of-Custody Record

Client: TALON LPE

Mailing Address: 408 W. TEXAS AVE

Phone #: 575-746-8768

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: ARCTURUS 18 FED 2H

Project #: 700794.303.01

Project Manager: CHRIS JONES

Sampler: MICHAEL COLLIER

On Ice: ☑ Yes ☐ No

# of Coolers: 2 (5.2) (10) : 5.2 °C

Cooler Temp (including CF): 2.6-0=2.6 °C 2.6-0=2.6

HEAL No. 2002915

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	TOTAL CHLORIDES
2-19-20	10:40am	SOIL	S-8 2'	GLASS 1	ICE / COLD	-025	✓	✓									✓
	10:45am		S-8 3'			-026											
	10:50am		S-8 4'			-027											
	10:55am		S-9 0-1'			-028											
	11:00am		S-9 2'			-029											
	11:05am		S-9 3' R			-030											
	11:15am		S-10 0-1'			-031											
	11:20am		S-10 2'			-032											
	11:25am		S-10 3' R			-033											
	11:50am		S-11 0-1'			-034											
	11:55am		S-11 2'			-035											
2-19-20	12:00pm	SOIL	S-11 3'	GLASS 1	ICE / COLD	-036	✓	✓									✓

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
2/20/20	1502				2/20/20	1502
2/20/20	1910			COURIER	2/21/20	0800

Remarks: PG. 3 OF 4

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

2/22/20 0905 COURIER

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Chain-of-Custody Record

Client: TALON LPE

Mailing Address: 408 W. TEXAS AVE

Phone #: 575-746-8768

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: ARCTURUS 18 FED 2H

Project #: 200794.303.01

Project Manager: CHRIS JONES

Sampler: MICHAEL COLLIER

On Ice: ☑ Yes ☐ No

# of Coolers: 2 5.2 (0) = 5.2

Cooler Temp(including CF): ~~7.6-0=7.6~~ 0.1-0=0.1

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2002915	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	TOTAL CHLORIDES
2-19-20	12:05pm	SOIL	S-11 4'	GLASS 1	ICE/COOL	-037	✓	✓									✓
	1:00pm		S-12 0-1'			-038											
	1:05pm		S-12 2'			-039											
	1:10pm		S-12 3'			-040											
	1:15pm		S-12 4'			-041											
2-19-20	1:45pm	SOIL	BG	GLASS 1	ICE/COOL	-042	✓	✓									✓

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
2/20/20	1500				2/20/20	1500
2/20/20	1900		~~Courier~~ yfe		2/22/20	~~5:00~~ 0905

Remarks: PG. 4 OF 4

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

CARDINAL Laboratories

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

March 24, 2020

CHRIS JONES

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: ARCTURUS 18 FED 2H

Enclosed are the results of analyses for samples received by the laboratory on 03/23/20 14:49.

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.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	03/23/2020	Sampling Date:	03/20/2020
Reported:	03/24/2020	Sampling Type:	Soil
Project Name:	ARCTURUS 18 FED 2H	Sampling Condition:	Cool & Intact
Project Number:	700794.303.01	Sample Received By:	Kelly Jacobson
Project Location:	DEVON - EDDY CO NM		

Sample ID: S-6A 1' COMP (H000879-01)

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	03/23/2020	ND	196	98.1	200	0.552	
DRO >C10-C28*	**530**	10.0	03/23/2020	ND	198	98.9	200	0.616	
EXT DRO >C28-C36	**370**	10.0	03/23/2020	ND					

Surrogate: 1-Chlorooctane	*87.6 %*	*44.3-144*
Surrogate: 1-Chlorooctadecane	*77.6 %*	*42.2-156*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Talon LPE	BILL TO
Project Manager: Chris Jones	P.O. #: 700794.303.01
Address: 408 W Texas Ave	Company: Talon LPE
City: Artesia State: NM Zip: 88210	Attn: Chris Jones
Phone #: 575-746-8768 Fax #:	Address:
Project #: 700794.303.01 Project Owner: Devon Energy	City:
Project Name: Arcturus 18 Fed 2H	State: Zip:
Project Location: Eddy County	Phone #:
Sampler Name: Brandon Sinclair	Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	ANALYSIS REQUEST: TPH EXT
H000879 1	S-6A 1' comp.	C				✓					✓		3-20-20	13:00	✓

PLEASE NOTE: Liability and Damages. Cardinal's liability and 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 analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal 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 successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 3-23-20	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: ~~12:00~~		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date: 14:49	Received By:	REMARKS: Rush
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4.7°C / #113	Sample Condition: Cool ☑ Yes ☐ No / Intact ☑ Yes ☐ No	CHECKED BY: (Initials)	

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

pg 1 of 1

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# *(if applicable)*

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

☐ The source of the release has been stopped.
☐ The impacted area has been secured to protect human health and the environment.
☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☐ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: _____ Title: _____

Signature: Kendra DeHoyos Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Spill Volume(Bbls) Calculator		
Inputs in blue, Outputs in red		
Contaminated Soil measurement		
Length(Ft)	Width(Ft)	Depth(Ft)
0	0.000	0.083
Cubic Feet of Soil Impacted		87.150
Barrels of Soil Impacted		15.53
Soil Type		Clay/Sand
Barrels of Oil Assuming 100% Saturation		2.33
Saturation	Fluid present with shovel/backhoe	
Estimated Barrels of Oil Released		2.33
Free Standing Fluid Only		
Length(Ft)	Width(Ft)	Depth(Ft)
0	0.000	0.083
Standing fluid		8.857
Total fluids spilled		**11.187**

Instructions
1.Input spill area measurements in feet, if less than one foot use converter below.
2. Select a soil type from the drop down menu. *3. Select a saturation level from the drop down menu.*
(For data gathering instructions see appendix tab)

Inches to Feet Converter		
	Inches	Feet
Length		0.000
Width		0.000
Height		0.000

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

Incident ID	NRM2014240786
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	180 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NRM2014240786
District RP	
Facility ID	
Application ID	

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.

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: Wesley Mathews Title: EHS Professional

Signature: Wesley Mathews Date:

email: Wesley.Mathews@dvn.com Telephone: 575-578-6195

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NRM2014240786
District RP	
Facility ID	
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: Wesley Mathews Title: EHS Professional

Signature: Wesley Mathews Date: _____

email: Wesley.Mathews@dvn.com Telephone: 575-578-6195

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NRM2014240786
District RP	
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: Wesley Mathews Title: EHS Professional

Signature: *Wesley Mathews* Date: _____

email: Wesley.Mathews@dvn.com Telephone: 575-578-6195

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____