Pima Environmental Services, LLC
1601 N. Turner Ste 500
Hobbs, NM 88240
575-964-7740

October 28, 2020

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

Re: Site Remediation and Closure Report
Arcturus 18 Federal #1H
API No. 30-015-38237
GPS: Latitude 32.6665878 Longitude -103.9007874
UL "A", Sec. 18, T19S, R31E
Eddy County, NM
NMOCD Ref. No. 2RP-3979; 2RP-5348

Dear Mr. Bratcher,

Pima Environmental Services, LLC (Pima) has been contracted by Devon Energy Production Company (Devon) to perform a spill assessment and to perform remediation activities for an oil release that occurred at the Arcturus 18 Fed #1H (Arcturus). The initial C-141 for this incident was submitted on 11-8-16 (Appendix C). This incident was assigned 2RP-3979, Incident ID NAB1631440104, by the New Mexico Oil Conservation Division (NMOCD). The initial C-141 for the incident given 2RP-5348 was submitted on 4-1-19 and was assigned Incident ID NAB1909944395.

Site Characterization

The Arcturus is located approximately twenty-five (25) miles northeast of Carlsbad, NM. This spill site is in Unit A, Section 18, Township 19S, Range 31E, Latitude 32.6665878, Longitude -103.9007874, Eddy County, NM. Figure 1 references a location map.

Per the New Mexico Bureau of Geology and Mineral Resources, the geology is in the Quaternary Formation- Eolian and piedmont deposits (Holocene to middle Pleistocene)-interlayed eolian sands and piedmont-slope deposits (QEP). The soil in this area is made up of Berino loamy fine sand, 0 to 3 percent slopes according to the United States Department of Agriculture Natural Resources Conservation Service soil survey (Appendix B). The drainage courses in this area are well-drained. There is a low potential for karst geology to be present in the area of the Arcturus (Figure 3).

According to the New Mexico Office of the State Engineer, depth to the nearest groundwater in this area is 180 feet below grade surface (BGS). According to the United States Geological Survey (USGS), the most relative groundwater is greater than 100 feet BGS. The closest waterway and is a playa, located approximately 2.57 miles to the southwest of this location. See Appendix A for referenced water surveys.

Table 1 NMAC and Closure Criteria 19.15.29					
Depth to Groundwater (Appendix B)	Constituent & Limits				
	Chlorides	Total TPH	GRO+DRO	BTEX	Benzene
180'	20,000 mg/kg	2,500 mg/kg	1,000 mg/kg	50 mg/kg	10 mg/kg
If the release occurred within any of the following areas, the responsible party would treat the release as if the groundwater was less than 50 feet per Rule 19.15.29					
Water Issues				Yes	No
Within **300** feet of any continuously flowing watercourse or any other significant watercourse					x
Within **200** feet of any lakebed, sinkhole, or playa lake (measures from the ordinary high-water mark					x
Within **300** feet from an occupied permanent residence, school, hospital, institution, or church					x
Within **500** feet of a spring or a private, domestic freshwater well used by less than five households for domestic or stock water purposes					x
Within **1000** feet of any freshwater well or spring					x
Within incorporated municipal boundaries or within a defined municipal freshwater well field					x
Within **300** feet of a wetlands					x
Within the area overlying a subsurface mine					x
Within an unstable area (Karst)					x
Within a 100-year floodplain					x

Reference Figure 2 for a TOPO Map.

Release Information

2RP-3979: On November 1, 2016, the 2-phase separator dump valve failed and remained closed, resulting in 175 bbls of produced water released into the engineered steel and poly-lined containment. Three gallons were released outside the containment onto the ground near the 2-phase separator. The volume release totaled 175.07 bbls of produced water in which a vac truck was able to recover 175 bbls of the released fluids.

2RP-5348: On March 30, 2019, overflow alarms failed, causing tanks to run over, resulting in a release of 120 bbls of produced water into the engineered steel and poly-lined containment. A vac truck was dispatched and recovered the 120 bbls of released fluids.

Site Assessment and Soil Sampling Results

On August 6, 2020, Pima Environmental conducted a site assessment and obtained soil samples to get a more in-depth picture of the contamination's horizontal extent. The laboratory results of this sampling event can be found in the following data table.

8-6-20 Soil Sample Results

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is >100')								
Sample Date 8-6-20		NM Approved Laboratory Results						
Sample ID	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
S-1 N. Composite	0	ND	ND	ND	67	250	317	5700
S-2 E. Composite	0	ND	ND	ND	37	130	167	ND
S-3 S. Composite	0	ND	ND	ND	**1200**	**1600**	**2800**	2900
S-4 W. Composite	0	ND	ND	ND	**4000**	**4400**	**8400**	2000
BG-1	0	ND	ND	ND	ND	ND	ND	17000
BG-2	0	ND	ND	ND	ND	ND	ND	390
BG-4	0	ND	ND	ND	ND	ND	ND	ND
BG-5	0	ND	ND	ND	**1300**	**1200**	**2500**	ND
BG-6	0	ND	ND	ND	ND	ND	ND	ND

ND- Analyte Not Detected

Remediation Activities

On September 9, 2020, Pima mobilized personnel and equipment to conduct remedial activities. The vicinity of the south and west sides of the containment was excavated to a depth of 0.5-foot-deep and extended horizontally from the containment 3-feet. Confirmation bottom and sidewall composite samples were obtained to ensure that the contamination's vertical and horizontal extents had been removed. Each composite sample was representative of no more than 200 square feet. The laboratory results of this sampling event can be found in the following data table.

9-9-20 Soil Sample Results

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is >100')								
Sample Date 9-9-20		NM Approved Laboratory Results						
Sample ID	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
S-1 W. Bottom Comp	0.5	ND	ND	ND	52	48.1	100.1	6530
S-2 W. Sidewall Comp	0.5	ND	ND	ND	10.1	15.3	25.4	80
S-3 S. Bottom Comp	0.5	ND	ND	ND	ND	ND	ND	256
S-4 S. Sidewall Comp	0.5	ND	ND	ND	ND	ND	ND	1520
S-5 S. Bottom Comp	0.5	ND	ND	ND	ND	ND	ND	304
S-6 S. Sidewall Comp	0.5	ND	ND	ND	ND	ND	ND	48
S-7 N. Bottom Comp	0.5	ND	ND	ND	ND	ND	ND	80
S-8 N Sidewall Comp	0.5	ND	ND	ND	ND	ND	ND	96
S-9 E. Bottom Comp	0.5	ND	ND	ND	ND	ND	ND	48
S-10 E. Sidewall Comp	0.5	ND	ND	ND	ND	ND	ND	32
S-11 S. Sidewall Comp	0.5	ND	ND	ND	ND	ND	ND	48
S-12 S. Bottom Comp	0.5	ND	ND	ND	ND	ND	ND	16
S-13 W. Bottom Comp	0.5	ND	ND	ND	ND	ND	ND	32
S-14 W. Sidewall Comp	0.5	ND	ND	ND	ND	ND	ND	32

ND- Analyte Not Detected

Complete Laboratory Reports are attached in Appendix C.

Based on the sample results, the bottom and sidewall composite samples were below NMOCD Closure Criteria 19.15.29 NMAC.

The contaminated material was transported to Lea Land, an NMOCD approved disposal site. The excavation was then backfilled with clean like material, machine compacted, and contoured to match the surrounding terrain.

Closure Request

After careful review, Pima requests that these incidents, NAB1631440104 and NAB1909944395, be closed. Devon has complied with the applicable closure requirements.

Should you have any questions or need additional information, please feel free to contact Chris Jones at 575-964-7740 or chris@pimaoil.com.

Respectfully,

Chris Jones
Environmental Professional
Pima Environmental Services, LLC

Attachments

Figures:
1- Location Map
2- TOPO Map
3- Karst Map
4- Site Map

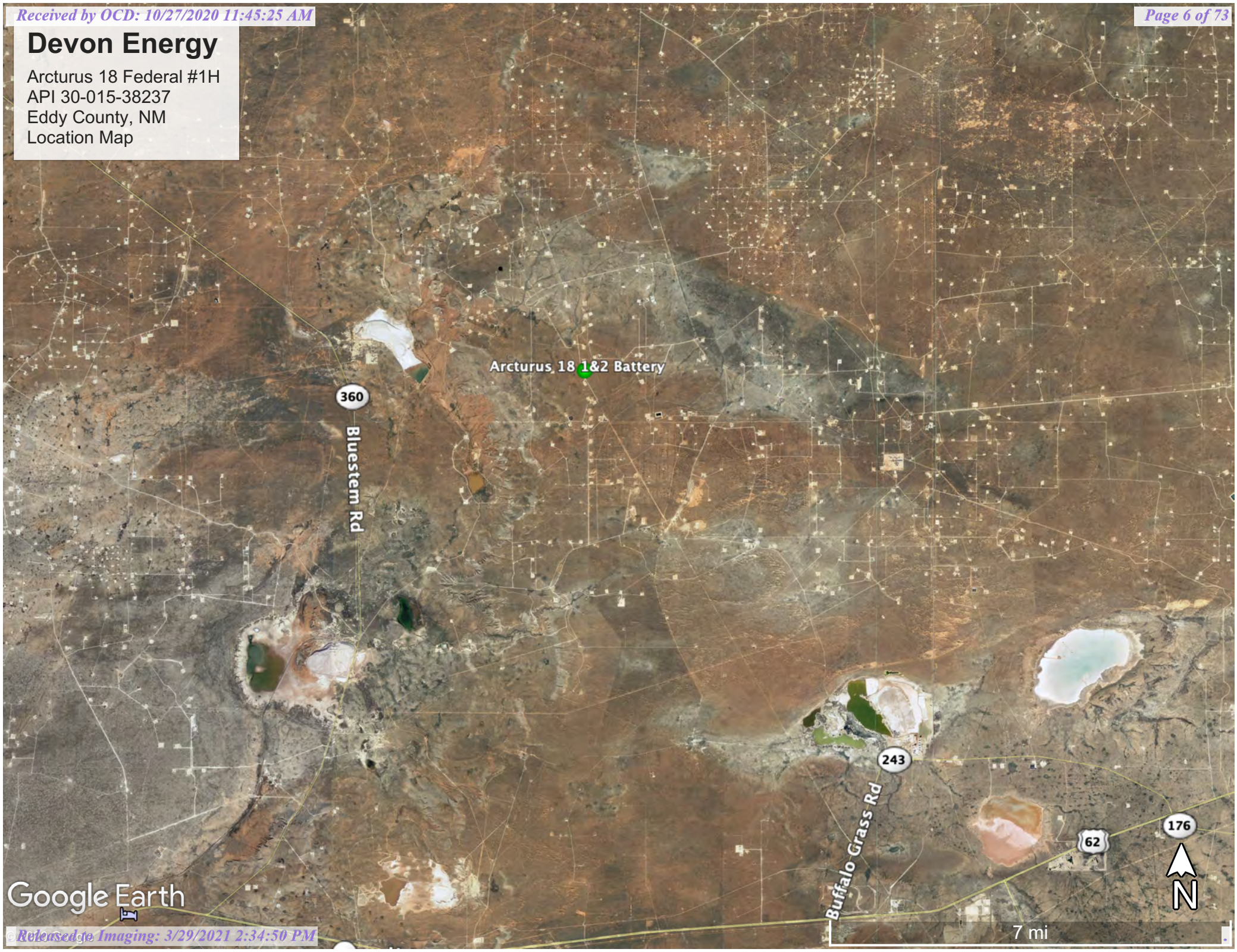
Appendices:
Appendix A- Referenced Water Surveys
Appendix B- Soil Survey and Geological Data
Appendix C- C-141's
Appendix D- Photographic Documentation
Appendix E- Laboratory Reports

Pima Environmental Services

Figures:
1-Location Map
2- TOPO Map
3- Karst Map
4- Site Map

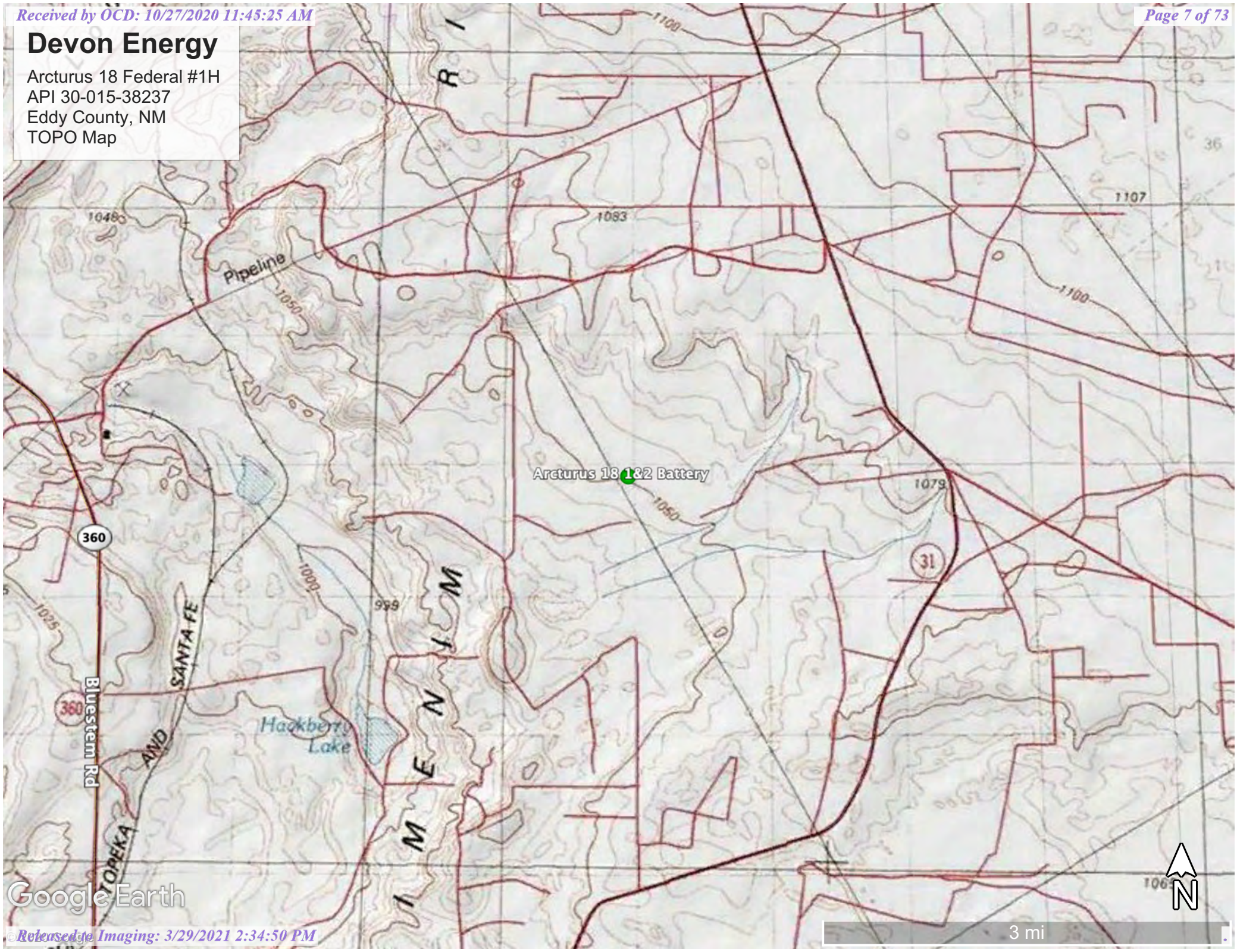
Devon Energy

Arcturus 18 Federal #1H
API 30-015-38237
Eddy County, NM
Location Map



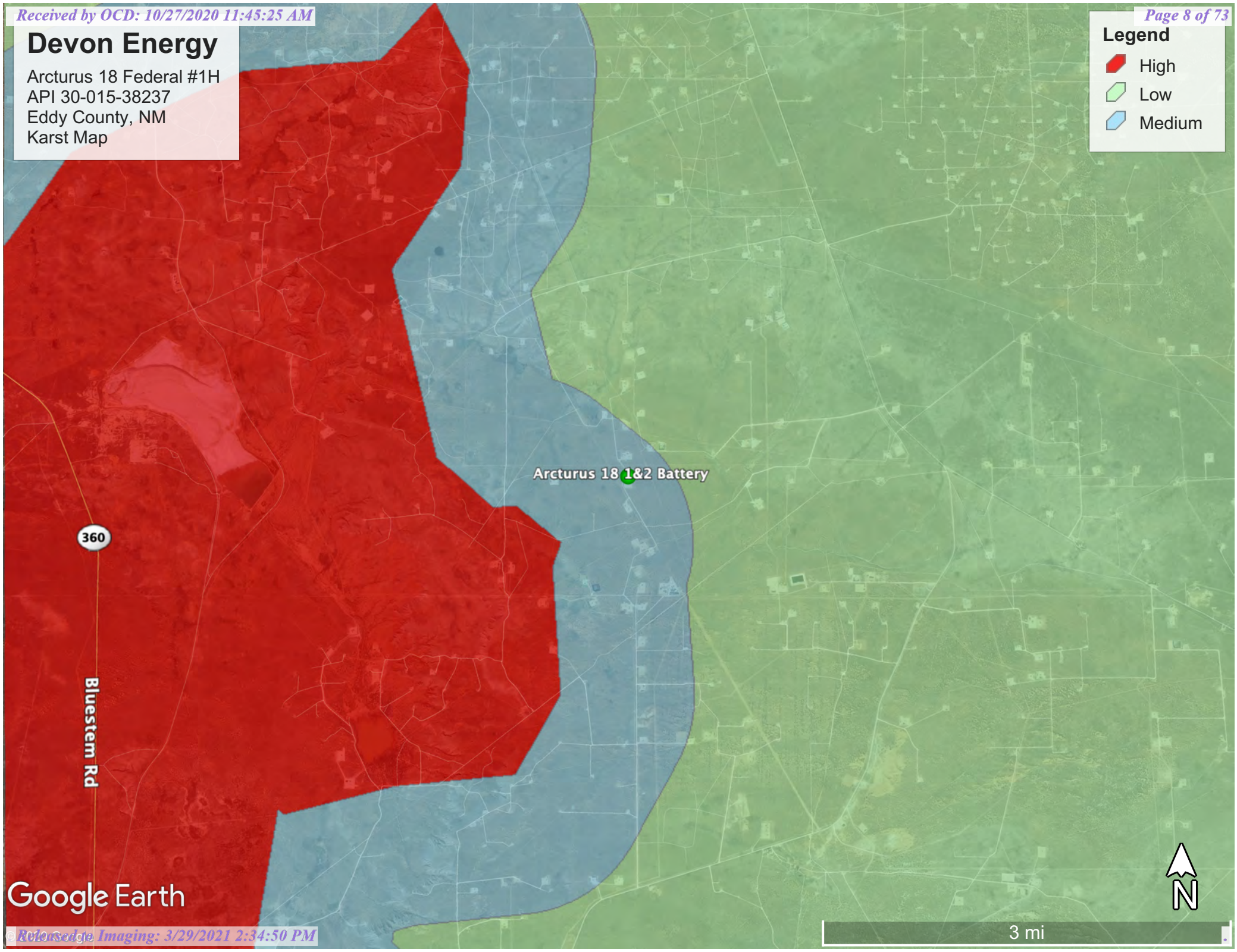
Devon Energy

Arcturus 18 Federal #1H
API 30-015-38237
Eddy County, NM
TOPO Map



Devon Energy

Arcturus 18 Federal #1H
API 30-015-38237
Eddy County, NM
Karst Map



Devon Energy

Arcturus 18 Federal #1H
API 30-015-38237
Eddy County, NM
Site Map

Legend

- Arcturus 18 1&2 Battery
- Samples

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Appendix A
Water Surveys:
OSE
USGS

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*	2150	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): 603074 **Northing (Y):** 3614858.76 **Radius:** 3000

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

8/6/20 10:35 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	CP 00873 POD1		1	1	19	19S	31E	601772	3613147*

Driller License: 421 **Driller Company:** GLENN'S WATER WELL SERVICE

Driller Name: GLENN, CLARK A."CORKY"

Drill Start Date: 01/02/1998 **Drill Finish Date:** 01/05/1998 **Plug Date:**

Log File Date: 01/15/1998 **PCW Rcv Date:** **Source:** Shallow

Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 50 GPM

Casing Size: 6.62 **Depth Well:** 340 feet **Depth Water:** 180 feet

Water Bearing Stratifications:	Top	Bottom	Description
	240	320	Shallow Alluvium/Basin Fill

Casing Perforations:	Top	Bottom
	226	340

Meter Number: 805 **Meter Make:** MASTER

Meter Serial Number: 1748543 **Meter Multiplier:** 100.0000

Number of Dials: 6 **Meter Type:** Diversion

Unit of Measure: Gallons **Return Flow Percent:**

Usage Multiplier: **Reading Frequency:** Monthly

Meter Readings (in Acre-Feet)

Read Date	Year	Mtr Reading	Flag	Rdr	Comment	Mtr Amount	Online
01/01/1999	1999	37400	A	fm		0	
01/15/1999	1999	43541	A	fm		1.885	
04/27/2000	2000	14849	R	jw	Meter Rollover	298.083	
07/31/2000	2000	24399	A	jw		2.931	

**YTD Meter Amounts:	Year	Amount
	1999	1.885
	2000	301.014

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

Click to hide News Bulletins

- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =
- 324241103561201

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

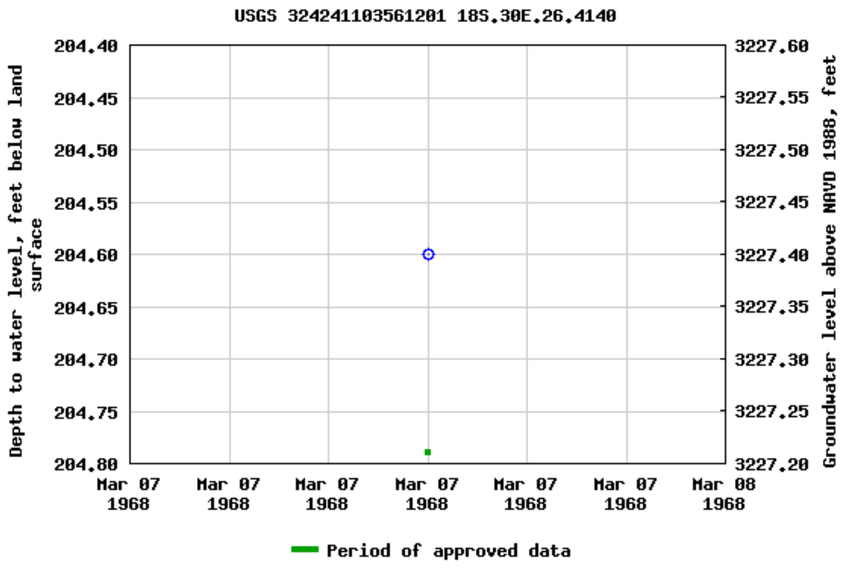
USGS 324241103561201 18S.30E.26.4140

Available data for this site Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°42'41", Longitude 103°56'12" NAD27
Land-surface elevation 3,432 feet above NAVD88
The depth of the well is 230 feet below land surface.
This well is completed in the Chinle Formation (231CHNL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

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National Water Information System: Mapper

Help Info

Sites Map

Search

Surface-Water Sites

Groundwater Sites

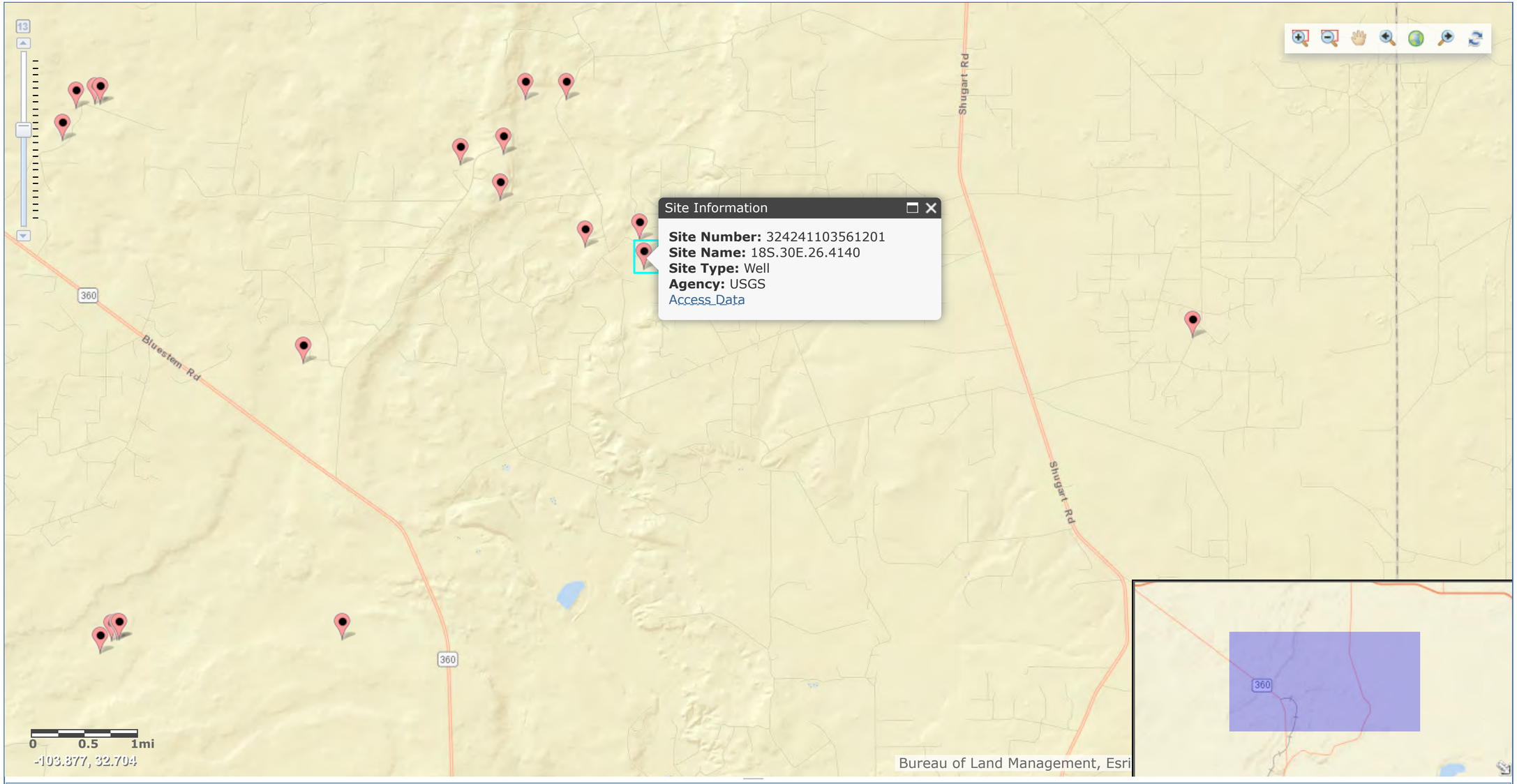
Active Sites
- Any data
- Instantaneous data
- Daily data
- Water-quality data
- Measurements
- Annual Report

Inactive Sites
- Any data
- Instantaneous data
- Daily data
- Water-quality data
- Measurements
- Annual Report

Springs

Atmospheric Sites

Other Sites



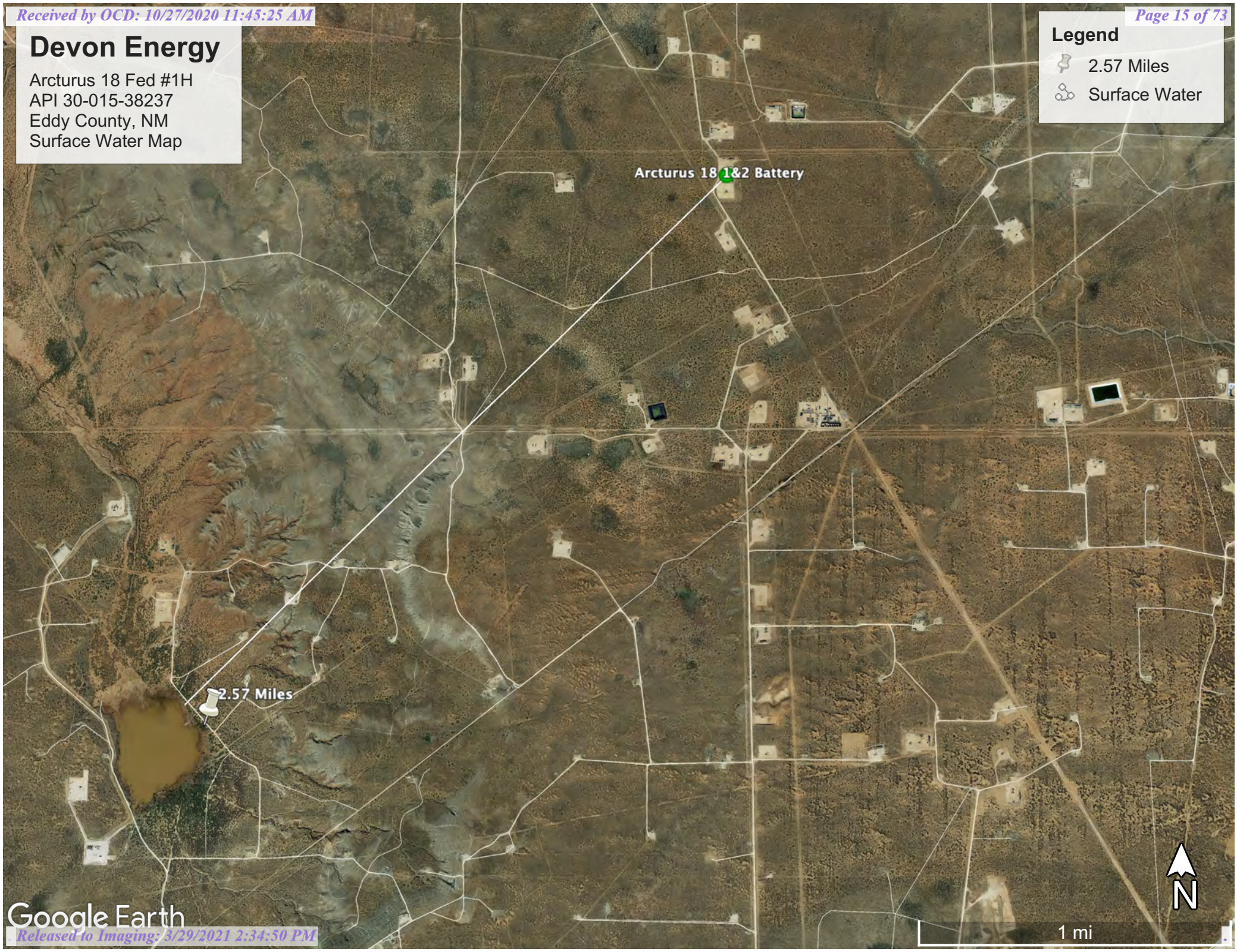
Site Information

Devon Energy

Arcturus 18 Fed #1H
API 30-015-38237
Eddy County, NM
Surface Water Map

Legend

- 2.57 Miles
- Surface Water



Pima Environmental Services

Appendix B
Soil Survey & Geological Data:
USDA

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
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 content: 40 percent
Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water capacity: Moderate (about 8.4 inches)

Interpretive groups

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

Ecological site: R042XC007NM - Loamy
Hydric soil rating: No

Minor Components

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

Data Source Information

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 16, Jun 8, 2020

National Flood Hazard Layer FIRMette

FEMA

103°54'22"W 32°40'15"N

103°53'44"W 32°39'45"N

0 250 500 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, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to 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 D*

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
- 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 represent an authoritative property location.

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/6/2020 at 12:29 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.

Pima Environmental Services

Appendix C
C-141's:
Initial
Final

NM OIL CONSERVATION
ARTESIA DISTRICT
NOV 08 2016
RECEIVED

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

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1631440104

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Devon Energy Production Company 6137	**Contact** Danny Velo, Production Foreman
Address 6488 Seven Rivers Hwy Artesia, NM 88210	**Telephone No.** 575-703-3360
Facility Name Arcturus 18 Federal #1H	**Facility Type** Oil

Surface Owner Federal	**Mineral Owner** Federal	**API No** 30-015-38237

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	18	19S	31E	400	North	200	East	Eddy

Latitude: 32.6665878 **Longitude:** -103.9007874

NATURE OF RELEASE

Type of Release Produced water	**Volume of Release** 175.07 BBLS	**Volume Recovered** 175 BBLS
Source of Release 2 phase separator dump valve	**Date and Hour of Occurrence** 11/1/2016 @ 7:55pm	**Date and Hour of Discovery** 11/1/2016 @ 7:55pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	**If YES, To Whom?** OCD-Mike Bratcher BLM- Jim Amos	
By Whom? Hubert Perry, Night Production Foreman	**Date and Hour** OCD- 11/2/2016 @ 5:35am BLM- 11/2/2016 @ 5:20am	
Was a Watercourse Reached? ☐ Yes ☒ No	**If YES, Volume Impacting the Watercourse** N/A	

If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.*
The 2 phase separator dump valve hung failed closed resulting in 175 BBLS produced water to be release into lined containment and another 3 gallons was released onto the ground near the 2 phase separator. Switched all wells on header from production to test to prevent further release.

Describe Area Affected and Cleanup Action Taken.*
175 BBLS of produced water was released from 2 phase separator dump valve into lined containment with an additional 3 gallons being released onto the ground near the 2 phase separator. The 175 BBLS produced water released into lined containment remained in lined containment, the 3 gallons released onto the ground was not recoverable. None of the released fluid left location. The liner was checked for holes and no holes were found. Vacuum truck recovered all 175 BBLS of the released produced water that was in lined containment. Environmental agency will be contacted for remediation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Sarah Gallegos-Troublefield	OIL CONSERVATION DIVISION Signed By Mike Bratcher	
Printed Name: Sarah Gallegos-Troublefield	Approved by Environmental Specialist:	
Title: Field Admin Support	Approval Date: 11/9/16	Expiration Date: N/A
E-mail Address: Sarah.Gallegos-Troublefield@dvn.com	Conditions of Approval:	Attached ☒
Date: 11/8/2016 Phone: 575.748.1864		

* Attach Additional Sheets If Necessary

2RP-3979

Bratcher, Mike, EMNRD

From: Gallegos-Troublefield, Sarah <Sarah.Gallegos-Troublefield@dvn.com>
Sent: Tuesday, November 08, 2016 8:35 AM
To: jamos@blm.gov; Tucker, Shelly; Patterson, Heather, EMNRD; Bratcher, Mike, EMNRD
Cc: Fulks, Brett
Subject: Arcturus 18 Federal #1H_175.07 BBLS PW_11-1-2016_Initial C-141
Attachments: Arcturus 18 Federal 1H_175.07 BBLS PW_11-1-16_GIS Image.pdf; Arcturus 18 Federal 1H_175.07 BBLS PW_11-1-16_Initial C-141.doc

Good Morning,

Please find attached the Initial C-141 and the GIS Image of the Arcturus 18 Federal #1H release of 175.07 BBLS produced water that occurred on 11/1/2016. Please be advised that the two blue dots in the GIS Image represents the approximate location of the origin of the release.
Please contact me with any questions you may have.

Thank you very much and have a wonderful day.

Respectfully,

Sarah Gallegos-Troublefield
Field Admin Support
Production

Devon Energy Corporation
P.O. Box 250
Artesia, NM 88211
575 748 1864 Direct Line

devon

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: Amalia Barrantes Date: _____

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 State of New Mexico
Page 2 Oil Conservation Division

Incident ID	NAB1631440104
District RP	2RP-3979
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: Tom Bynum Title: EHS Consultant

Signature: Tom Bynum Date: 10/27/2020

email: tom.bynum@dvn.com Telephone: 575-748-2663

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAB1631440104
District RP	2RP-3979
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: Tom Bynum Title: EHS Consultant

Signature: Tom Bynum Date: 10/27/2020

email: tom.bynum@dvn.com Telephone: 575-748-2663

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: _____

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 State of New Mexico
Page 2 Oil Conservation Division

Incident ID	NAB1909944395
District RP	2RP-5348
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: Tom Bynum Title: EHS Consultant

Signature: Tom Bynum Date: 10/27/2020

email: tom.bynum@dvn.com Telephone: 575-748-2663

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAB1909944395
District RP	2RP-5348
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: Tom Bynum Title: EHS Consultant

Signature: Tom Bynum Date: 10/27/2020

email: tom.bynum@dvn.com Telephone: 575-748-2663

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: _____

Pima Environmental Services

Appendix D:
Photographic Documentation

EXCAVATION

BACKFILLED AND COMPLETED

Pima Environmental Services

Appendix E:
Laboratory Results

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

August 17, 2020

Chris Jones

Pima Environmental Services LLC
1601 N. Turner Ste 500
Hobbs, NM 88240
TEL: (575) 631-6977
FAX:

RE: Arcturns 18 1&2 Battery OrderNo.: 2008379

Dear Chris Jones:

Hall Environmental Analysis Laboratory received 9 sample(s) on 8/7/2020 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

Analytical Report
Lab Order **2008379**
Date Reported: **8/17/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC
Client Sample ID: S1-Comp
Project: Arcturns 18 1&2 Battery
Collection Date: 8/6/2020 10:00:00 AM
Lab ID: 2008379-001 **Matrix:** SOIL
Received Date: 8/7/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	67	8.7		mg/Kg	1	8/13/2020 6:40:27 PM
Motor Oil Range Organics (MRO)	250	43		mg/Kg	1	8/13/2020 6:40:27 PM
Surr: DNOP	104	30.4-154		%Rec	1	8/13/2020 6:40:27 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/12/2020 7:28:21 PM
Surr: BFB	104	75.3-105		%Rec	1	8/12/2020 7:28:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	8/12/2020 7:28:21 PM
Toluene	ND	0.050		mg/Kg	1	8/12/2020 7:28:21 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/12/2020 7:28:21 PM
Xylenes, Total	ND	0.10		mg/Kg	1	8/12/2020 7:28:21 PM
Surr: 4-Bromofluorobenzene	108	80-120		%Rec	1	8/12/2020 7:28:21 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	5700	300		mg/Kg	100	8/15/2020 1:00:54 PM

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 **2008379**
Date Reported: **8/17/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC
Client Sample ID: S2-Comp
Project: Arcturns 18 1&2 Battery
Collection Date: 8/6/2020 10:05:00 AM
Lab ID: 2008379-002 **Matrix:** SOIL
Received Date: 8/7/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	37	9.9		mg/Kg	1	8/13/2020 7:04:30 PM
Motor Oil Range Organics (MRO)	130	50		mg/Kg	1	8/13/2020 7:04:30 PM
Surr: DNOP	116	30.4-154		%Rec	1	8/13/2020 7:04:30 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/12/2020 9:49:07 PM
Surr: BFB	101	75.3-105		%Rec	1	8/12/2020 9:49:07 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	8/12/2020 9:49:07 PM
Toluene	ND	0.050		mg/Kg	1	8/12/2020 9:49:07 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/12/2020 9:49:07 PM
Xylenes, Total	ND	0.099		mg/Kg	1	8/12/2020 9:49:07 PM
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	8/12/2020 9:49:07 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	8/14/2020 4:14:11 PM

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 **2008379**
Date Reported: **8/17/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC
Client Sample ID: S3-Comp
Project: Arcturns 18 1&2 Battery
Collection Date: 8/6/2020 10:10:00 AM
Lab ID: 2008379-003 **Matrix:** SOIL
Received Date: 8/7/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	1200	180		mg/Kg	20	8/12/2020 7:14:01 PM
Motor Oil Range Organics (MRO)	1600	880		mg/Kg	20	8/12/2020 7:14:01 PM
Surr: DNOP	0	30.4-154	S	%Rec	20	8/12/2020 7:14:01 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/12/2020 10:59:22 PM
Surr: BFB	101	75.3-105		%Rec	1	8/12/2020 10:59:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	8/12/2020 10:59:22 PM
Toluene	ND	0.050		mg/Kg	1	8/12/2020 10:59:22 PM
Ethylbenzene	ND	0.050		mg/Kg	1	8/12/2020 10:59:22 PM
Xylenes, Total	ND	0.099		mg/Kg	1	8/12/2020 10:59:22 PM
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	8/12/2020 10:59:22 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	2900	150		mg/Kg	50	8/15/2020 1:13:18 PM

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 **2008379**
Date Reported: **8/17/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC
Client Sample ID: S4-Comp
Project: Arcturns 18 1&2 Battery
Collection Date: 8/6/2020 10:15:00 AM
Lab ID: 2008379-004 **Matrix:** SOIL
Received Date: 8/7/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	4000	440		mg/Kg	50	8/12/2020 7:24:02 PM
Motor Oil Range Organics (MRO)	4400	2200		mg/Kg	50	8/12/2020 7:24:02 PM
Surr: DNOP	0	30.4-154	S	%Rec	50	8/12/2020 7:24:02 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	25	D	mg/Kg	5	8/13/2020 12:09:42 AM
Surr: BFB	98.5	75.3-105	D	%Rec	5	8/13/2020 12:09:42 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.12	D	mg/Kg	5	8/13/2020 12:09:42 AM
Toluene	ND	0.25	D	mg/Kg	5	8/13/2020 12:09:42 AM
Ethylbenzene	ND	0.25	D	mg/Kg	5	8/13/2020 12:09:42 AM
Xylenes, Total	ND	0.50	D	mg/Kg	5	8/13/2020 12:09:42 AM
Surr: 4-Bromofluorobenzene	104	80-120	D	%Rec	5	8/13/2020 12:09:42 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	2000	61		mg/Kg	20	8/14/2020 4:39:01 PM

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 **2008379**
Date Reported: **8/17/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC
Client Sample ID: BG1
Project: Arcturns 18 1&2 Battery
Collection Date: 8/6/2020 10:20:00 AM
Lab ID: 2008379-005 **Matrix:** SOIL
Received Date: 8/7/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	8/12/2020 7:33:56 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	8/12/2020 7:33:56 PM
Surr: DNOP	108	30.4-154		%Rec	1	8/12/2020 7:33:56 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/13/2020 12:33:05 AM
Surr: BFB	101	75.3-105		%Rec	1	8/13/2020 12:33:05 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	8/13/2020 12:33:05 AM
Toluene	ND	0.050		mg/Kg	1	8/13/2020 12:33:05 AM
Ethylbenzene	ND	0.050		mg/Kg	1	8/13/2020 12:33:05 AM
Xylenes, Total	ND	0.099		mg/Kg	1	8/13/2020 12:33:05 AM
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	8/13/2020 12:33:05 AM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	17000	600		mg/Kg	200	8/15/2020 1:25:42 PM

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 **2008379**
Date Reported: **8/17/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC
Client Sample ID: BG2
Project: Arcturns 18 1&2 Battery
Collection Date: 8/6/2020 10:25:00 AM
Lab ID: 2008379-006 **Matrix:** SOIL
Received Date: 8/7/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	8/12/2020 7:43:54 PM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	8/12/2020 7:43:54 PM
Surr: DNOP	93.6	30.4-154		%Rec	1	8/12/2020 7:43:54 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/13/2020 12:56:30 AM
Surr: BFB	100	75.3-105		%Rec	1	8/13/2020 12:56:30 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	8/13/2020 12:56:30 AM
Toluene	ND	0.049		mg/Kg	1	8/13/2020 12:56:30 AM
Ethylbenzene	ND	0.049		mg/Kg	1	8/13/2020 12:56:30 AM
Xylenes, Total	ND	0.098		mg/Kg	1	8/13/2020 12:56:30 AM
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	8/13/2020 12:56:30 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	390	60		mg/Kg	20	8/14/2020 5:03:51 PM

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 **2008379**
Date Reported: **8/17/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC
Client Sample ID: BG4
Project: Arcturns 18 1&2 Battery
Collection Date: 8/6/2020 10:30:00 AM
Lab ID: 2008379-007 **Matrix:** SOIL **Received Date:** 8/7/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	8/12/2020 5:42:22 PM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	8/12/2020 5:42:22 PM
Surr: DNOP	94.2	30.4-154		%Rec	1	8/12/2020 5:42:22 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/13/2020 1:20:02 AM
Surr: BFB	99.2	75.3-105		%Rec	1	8/13/2020 1:20:02 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	8/13/2020 1:20:02 AM
Toluene	ND	0.048		mg/Kg	1	8/13/2020 1:20:02 AM
Ethylbenzene	ND	0.048		mg/Kg	1	8/13/2020 1:20:02 AM
Xylenes, Total	ND	0.097		mg/Kg	1	8/13/2020 1:20:02 AM
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	8/13/2020 1:20:02 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	8/14/2020 5:41:04 PM

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 **2008379**
Date Reported: **8/17/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC
Client Sample ID: BG5
Project: Arcturns 18 1&2 Battery
Collection Date: 8/6/2020 10:35:00 AM
Lab ID: 2008379-008 **Matrix:** SOIL
Received Date: 8/7/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	1300	98		mg/Kg	10	8/12/2020 6:54:41 PM
Motor Oil Range Organics (MRO)	1200	490		mg/Kg	10	8/12/2020 6:54:41 PM
Surr: DNOP	0	30.4-154	S	%Rec	10	8/12/2020 6:54:41 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/13/2020 1:43:27 AM
Surr: BFB	97.1	75.3-105		%Rec	1	8/13/2020 1:43:27 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	8/13/2020 1:43:27 AM
Toluene	ND	0.048		mg/Kg	1	8/13/2020 1:43:27 AM
Ethylbenzene	ND	0.048		mg/Kg	1	8/13/2020 1:43:27 AM
Xylenes, Total	ND	0.096		mg/Kg	1	8/13/2020 1:43:27 AM
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	8/13/2020 1:43:27 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	8/14/2020 5:53:28 PM

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 **2008379**
Date Reported: **8/17/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC
Client Sample ID: BG6
Project: Arcturns 18 1&2 Battery
Collection Date: 8/6/2020 10:40:00 AM
Lab ID: 2008379-009 **Matrix:** SOIL
Received Date: 8/7/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	8/12/2020 7:18:44 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	8/12/2020 7:18:44 PM
Surr: DNOP	102	30.4-154		%Rec	1	8/12/2020 7:18:44 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/13/2020 2:06:48 AM
Surr: BFB	100	75.3-105		%Rec	1	8/13/2020 2:06:48 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	8/13/2020 2:06:48 AM
Toluene	ND	0.047		mg/Kg	1	8/13/2020 2:06:48 AM
Ethylbenzene	ND	0.047		mg/Kg	1	8/13/2020 2:06:48 AM
Xylenes, Total	ND	0.094		mg/Kg	1	8/13/2020 2:06:48 AM
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	1	8/13/2020 2:06:48 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	8/14/2020 6:05:53 PM

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#: **2008379**

17-Aug-20

Client: Pima Environmental Services LLC

Project: Arcturns 18 1&2 Battery

Sample ID: **MB-54405** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **54405** RunNo: **71086**

Prep Date: **8/13/2020** Analysis Date: **8/14/2020** SeqNo: **2478034** Units: **mg/Kg**

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

Sample ID: **LCS-54405** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **54405** RunNo: **71086**

Prep Date: **8/13/2020** Analysis Date: **8/14/2020** SeqNo: **2478035** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.9	90	110			

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#: **2008379**

17-Aug-20

Client: Pima Environmental Services LLC

Project: Arcturns 18 1&2 Battery

Sample ID: **MB-54338** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **54338** RunNo: **71011**
Prep Date: **8/11/2020** Analysis Date: **8/12/2020** SeqNo: **2474097** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		111	30.4	154			

Sample ID: **LCS-54338** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **54338** RunNo: **71011**
Prep Date: **8/11/2020** Analysis Date: **8/12/2020** SeqNo: **2474098** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.1		5.000		101	30.4	154			

Sample ID: **MB-54340** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **54340** RunNo: **71011**
Prep Date: **8/11/2020** Analysis Date: **8/12/2020** SeqNo: **2474101** 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	12		10.00		123	30.4	154			

Sample ID: **LCS-54340** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **54340** RunNo: **71011**
Prep Date: **8/11/2020** Analysis Date: **8/12/2020** SeqNo: **2474102** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	64	10	50.00	0	128	70	130			
Surr: DNOP	5.9		5.000		119	30.4	154			

Sample ID: **2008379-007AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BG4** Batch ID: **54340** RunNo: **71011**
Prep Date: **8/11/2020** Analysis Date: **8/12/2020** SeqNo: **2474807** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	9.8	48.83	0	97.4	47.4	136			
Surr: DNOP	4.9		4.883		100	30.4	154			

Sample ID: **2008379-007AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BG4** Batch ID: **54340** RunNo: **71011**
Prep Date: **8/11/2020** Analysis Date: **8/12/2020** SeqNo: **2474808** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	9.2	45.79	0	103	47.4	136	0.816	43.4	

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#: **2008379**

17-Aug-20

Client: Pima Environmental Services LLC

Project: Arcturns 18 1&2 Battery

Sample ID: **2008379-007AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BG4** Batch ID: **54340** RunNo: **71011**
Prep Date: **8/11/2020** Analysis Date: **8/12/2020** SeqNo: **2474808** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		4.579		106	30.4	154	0	0	

Sample ID: **LCS-54339** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **54339** RunNo: **71030**
Prep Date: **8/11/2020** Analysis Date: **8/12/2020** SeqNo: **2474930** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	60	10	50.00	0	120	70	130			
Surr: DNOP	4.5		5.000		90.9	30.4	154			

Sample ID: **LCS-54341** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **54341** RunNo: **71030**
Prep Date: **8/11/2020** Analysis Date: **8/12/2020** SeqNo: **2474931** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.6		5.000		113	30.4	154			

Sample ID: **MB-54339** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **54339** RunNo: **71030**
Prep Date: **8/11/2020** Analysis Date: **8/12/2020** SeqNo: **2474932** 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	9.8		10.00		98.3	30.4	154			

Sample ID: **MB-54341** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **54341** RunNo: **71030**
Prep Date: **8/11/2020** Analysis Date: **8/12/2020** SeqNo: **2474933** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	13		10.00		129	30.4	154			

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#: **2008379**

17-Aug-20

Client: Pima Environmental Services LLC

Project: Arcturns 18 1&2 Battery

Sample ID: **mb-54303** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **54303** RunNo: **71021**
Prep Date: **8/10/2020** Analysis Date: **8/12/2020** SeqNo: **2474593** 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	1000		1000		101	75.3	105			

Sample ID: **lcs-54303** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **54303** RunNo: **71021**
Prep Date: **8/10/2020** Analysis Date: **8/12/2020** SeqNo: **2474594** 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	88.2	72.5	106			
Surr: BFB	1100		1000		109	75.3	105			S

Sample ID: **mb-54306** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **54306** RunNo: **71021**
Prep Date: **8/10/2020** Analysis Date: **8/12/2020** SeqNo: **2474617** 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	1100		1000		105	75.3	105			S

Sample ID: **lcs-54306** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **54306** RunNo: **71021**
Prep Date: **8/10/2020** Analysis Date: **8/12/2020** SeqNo: **2474618** 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	87.8	72.5	106			
Surr: BFB	1200		1000		116	75.3	105			S

Sample ID: **2008379-003ams** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S3-Comp** Batch ID: **54306** RunNo: **71021**
Prep Date: **8/10/2020** Analysis Date: **8/12/2020** SeqNo: **2474621** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	24.80	0	86.0	61.3	114			
Surr: BFB	1100		992.1		108	75.3	105			S

Sample ID: **2008379-003amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S3-Comp** Batch ID: **54306** RunNo: **71021**
Prep Date: **8/10/2020** Analysis Date: **8/12/2020** SeqNo: **2474622** 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#: **2008379**
17-Aug-20

Client: Pima Environmental Services LLC
Project: Arcturns 18 1&2 Battery

Sample ID: **2008379-003amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S3-Comp** Batch ID: **54306** RunNo: **71021**
Prep Date: **8/10/2020** Analysis Date: **8/12/2020** SeqNo: **2474622** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	24.98	0	88.8	61.3	114	3.90	20	
Surr: BFB	1100		999.0		110	75.3	105	0	0	S

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#: **2008379**

17-Aug-20

Client: Pima Environmental Services LLC

Project: Arcturns 18 1&2 Battery

Sample ID: **mb-54303** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **54303** RunNo: **71021**
Prep Date: **8/10/2020** Analysis Date: **8/12/2020** SeqNo: **2474639** 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	1.0		1.000		104	80	120			

Sample ID: **LCS-54303** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **54303** RunNo: **71021**
Prep Date: **8/10/2020** Analysis Date: **8/12/2020** SeqNo: **2474640** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.025	1.000	0	94.2	80	120			
Toluene	0.95	0.050	1.000	0	95.1	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.5	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.4	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID: **mb-54306** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **54306** RunNo: **71021**
Prep Date: **8/10/2020** Analysis Date: **8/12/2020** SeqNo: **2474663** 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	1.1		1.000		109	80	120			

Sample ID: **LCS-54306** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **54306** RunNo: **71021**
Prep Date: **8/10/2020** Analysis Date: **8/12/2020** SeqNo: **2474664** 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	93.0	80	120			
Toluene	0.93	0.050	1.000	0	93.2	80	120			
Ethylbenzene	0.94	0.050	1.000	0	93.9	80	120			
Xylenes, Total	2.8	0.10	3.000	0	94.4	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

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#: **2008379**

17-Aug-20

Client: Pima Environmental Services LLC

Project: Arcturns 18 1&2 Battery

Sample ID: **2008379-002ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S2-Comp** Batch ID: **54306** RunNo: **71021**

Prep Date: **8/10/2020** Analysis Date: **8/12/2020** SeqNo: **2474666** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.024	0.9709	0	94.1	76.3	120			
Toluene	0.92	0.049	0.9709	0.01380	93.6	78.5	120			
Ethylbenzene	0.93	0.049	0.9709	0	96.2	78.1	124			
Xylenes, Total	2.8	0.097	2.913	0.01887	96.7	79.3	125			
Surr: 4-Bromofluorobenzene	1.1		0.9709		109	80	120			

Sample ID: **2008379-002amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **S2-Comp** Batch ID: **54306** RunNo: **71021**

Prep Date: **8/10/2020** Analysis Date: **8/12/2020** SeqNo: **2474667** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	0.9833	0	94.4	76.3	120	1.66	20	
Toluene	0.95	0.049	0.9833	0.01380	94.9	78.5	120	2.61	20	
Ethylbenzene	0.95	0.049	0.9833	0	96.6	78.1	124	1.62	20	
Xylenes, Total	2.9	0.098	2.950	0.01887	96.7	79.3	125	1.21	20	
Surr: 4-Bromofluorobenzene	1.1		0.9833		109	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: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: **Pima Environmental Services LLC** Work Order Number: **2008379** RcptNo: **1**

Received By: **Cheyenne Cason** **8/7/2020 8:00:00 AM**

Completed By: **Emily Mocho** **8/7/2020 11:13:27 AM**

Reviewed By: 8/7/20

Chain of Custody

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

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: SPA 8.7.20

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	4.1	Good	Not Present			
2	5.8	Good	Not Present			
3	5.9	Good	Not Present			
4	0.3	Good	Not Present			

Chain-of-Custody Record

Client: Pima environmental

Mailing Address: 1601 N. Turner STE. 500 Hobbs, NM 88240

Phone #: 575-631-6977

email or Fax#: chris@pimail.com

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

Accreditation: ☐ Az Compliance ☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 Days ☑ Standard ☐ Rush

Project Name: Arcturus 18 132 Battery

Project #: 20738348

Project Manager: Chris Jones

Sampler:

On Ice: ☒ Yes ☐ No

# of Coolers: 3

Cooler Temp(including CF): See Remarks (°C)

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. 2008379	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)	chloride
8/6/20	10:00	Soil	S1-comp	Glass	ice	-001	✓	✓									✓
	10:05		S2-comp			-002											
	10:10		S3-comp			-003											
	10:15		S4-comp			-004											
	10:20		BG1			-005											
	10:25		BG2			-006											
	10:30		BG4			-007											
	10:35		BG5			-008											
✓	10:40	✓	BG6	✓	✓	-009	✓	✓								✓	

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
			Ccummings		8/6/20	1345
Date: 8/6/20	Time: 1900	Relinquished by: Ccummings	Received by: Cmc	Via: Courier	Date: 8/7/20	Time: 0800

Remarks: 4.1±0 = 4.1c 5.9±0 = 5.9c
5.8±0 = 5.8c 0.3±0 = 0.3c
Bill to Devon

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

September 17, 2020

CHRIS JONES

PIMA ENVIROMENTAL

1601 N TURNER STE. 500

HOBBS, NM 88240

RE: ARCTURUS 18 H2 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 09/11/20 16:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-20-13. 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:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	09/11/2020	Sampling Date:	09/09/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	ARCTURUS 18 H2 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	38	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 1 - W - BOTTOM COMPOSITE (H002424-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.8 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6530**	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.4	200	13.6	
DRO >C10-C28*	**52.0**	10.0	09/14/2020	ND	167	83.7	200	15.5	
EXT DRO >C28-C36	**48.1**	10.0	09/14/2020	ND					

Surrogate: 1-Chlorooctane *94.4 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *109 %* *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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	09/11/2020	Sampling Date:	09/09/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	ARCTURUS 18 H2 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	38	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 2 - W - SIDE COMPOSITE (H002424-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.1 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.4	200	13.6	
DRO >C10-C28*	**10.1**	10.0	09/14/2020	ND	167	83.7	200	15.5	
EXT DRO >C28-C36	**15.3**	10.0	09/14/2020	ND					

Surrogate: 1-Chlorooctane *95.3 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *107 %* *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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	09/11/2020	Sampling Date:	09/09/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	ARCTURUS 18 H2 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	38	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 3 - S - BOTTOM COMPOSITE (H002424-03)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.6 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**256**	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.4	200	13.6	
DRO >C10-C28*	<10.0	10.0	09/14/2020	ND	167	83.7	200	15.5	
EXT DRO >C28-C36	<10.0	10.0	09/14/2020	ND					

Surrogate: 1-Chlorooctane *97.8 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *111 %* *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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	09/11/2020	Sampling Date:	09/09/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	ARCTURUS 18 H2 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	38	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 4 - S - SIDE COMPOSITE (H002424-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.3 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1520**	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.4	200	13.6	
DRO >C10-C28*	<10.0	10.0	09/14/2020	ND	167	83.7	200	15.5	
EXT DRO >C28-C36	<10.0	10.0	09/14/2020	ND					

Surrogate: 1-Chlorooctane *98.8 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *111 %* *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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	09/11/2020	Sampling Date:	09/09/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	ARCTURUS 18 H2 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	38	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 5 - S - BOTTOM COMPOSITE (H002424-05)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.0 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**304**	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.4	200	13.6	
DRO >C10-C28*	<10.0	10.0	09/14/2020	ND	167	83.7	200	15.5	
EXT DRO >C28-C36	<10.0	10.0	09/14/2020	ND					

Surrogate: 1-Chlorooctane *97.5 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *110 %* *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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	09/11/2020	Sampling Date:	09/09/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	ARCTURUS 18 H2 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	38	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 6 - S - SIDE COMPOSITE (H002424-06)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.9 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.4	200	13.6	
DRO >C10-C28*	<10.0	10.0	09/14/2020	ND	167	83.7	200	15.5	
EXT DRO >C28-C36	<10.0	10.0	09/14/2020	ND					

Surrogate: 1-Chlorooctane *96.7 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *109 %* *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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	09/11/2020	Sampling Date:	09/10/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	ARCTURUS 18 H2 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	38	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 7 - N - BOTTOM COMPOSITE (H002424-07)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.2 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.4	200	13.6	
DRO >C10-C28*	<10.0	10.0	09/14/2020	ND	167	83.7	200	15.5	
EXT DRO >C28-C36	<10.0	10.0	09/14/2020	ND					

Surrogate: 1-Chlorooctane *101 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *114 %* *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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	09/11/2020	Sampling Date:	09/10/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	ARCTURUS 18 H2 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	38	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 8 - N - SIDE COMPOSITE (H002424-08)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.6 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.4	200	13.6	
DRO >C10-C28*	<10.0	10.0	09/14/2020	ND	167	83.7	200	15.5	
EXT DRO >C28-C36	<10.0	10.0	09/14/2020	ND					

Surrogate: 1-Chlorooctane *96.8 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *109 %* *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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	09/11/2020	Sampling Date:	09/10/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	ARCTURUS 18 H2 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	38	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 9 - E - BOTTOM COMPOSITE (H002424-09)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.8 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.4	200	13.6	
DRO >C10-C28*	<10.0	10.0	09/14/2020	ND	167	83.7	200	15.5	
EXT DRO >C28-C36	<10.0	10.0	09/14/2020	ND					

Surrogate: 1-Chlorooctane *98.6 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *111 %* *42.2-156*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	09/11/2020	Sampling Date:	09/10/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	ARCTURUS 18 H2 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	38	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 10 - E - SIDE COMPOSITE (H002424-10)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *95.7 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.4	200	13.6	
DRO >C10-C28*	<10.0	10.0	09/14/2020	ND	167	83.7	200	15.5	
EXT DRO >C28-C36	<10.0	10.0	09/14/2020	ND					

Surrogate: 1-Chlorooctane *98.1 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *110 %* *42.2-156*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	09/11/2020	Sampling Date:	09/10/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	ARCTURUS 18 H2 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	38	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 11 - S - SIDE COMPOSITE (H002424-11)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.4 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.4	200	13.6	
DRO >C10-C28*	<10.0	10.0	09/14/2020	ND	167	83.7	200	15.5	
EXT DRO >C28-C36	<10.0	10.0	09/14/2020	ND					

Surrogate: 1-Chlorooctane *96.7 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *108 %* *42.2-156*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	09/11/2020	Sampling Date:	09/10/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	ARCTURUS 18 H2 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	38	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 12 - S - BOTTOM COMPOSITE (H002424-12)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.5 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.4	200	13.6	
DRO >C10-C28*	<10.0	10.0	09/14/2020	ND	167	83.7	200	15.5	
EXT DRO >C28-C36	<10.0	10.0	09/14/2020	ND					

Surrogate: 1-Chlorooctane *102 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *117 %* *42.2-156*

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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:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	09/11/2020	Sampling Date:	09/10/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	ARCTURUS 18 H2 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	38	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 13 - W - BOTTOM COMPOSITE (H002424-13)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.9 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.4	200	13.6	
DRO >C10-C28*	<10.0	10.0	09/14/2020	ND	167	83.7	200	15.5	
EXT DRO >C28-C36	<10.0	10.0	09/14/2020	ND					

Surrogate: 1-Chlorooctane *95.7 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *107 %* *42.2-156*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

PIMA ENVIROMENTAL
CHRIS JONES
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	09/11/2020	Sampling Date:	09/10/2020
Reported:	09/17/2020	Sampling Type:	Soil
Project Name:	ARCTURUS 18 H2 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	38	Sample Received By:	Tamara Oldaker
Project Location:	DEVON - EDDY CO NM		

Sample ID: S - 14 - W - SIDE COMPOSITE (H002424-14)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/14/2020	ND	1.99	99.4	2.00	3.88	
Toluene*	<0.050	0.050	09/14/2020	ND	2.00	99.9	2.00	4.16	
Ethylbenzene*	<0.050	0.050	09/14/2020	ND	2.00	100	2.00	3.80	
Total Xylenes*	<0.150	0.150	09/14/2020	ND	5.76	96.1	6.00	3.74	
Total BTEX	<0.300	0.300	09/14/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.0 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: GM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	09/14/2020	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	09/14/2020	ND	165	82.4	200	13.6	
DRO >C10-C28*	<10.0	10.0	09/14/2020	ND	167	83.7	200	15.5	
EXT DRO >C28-C36	<10.0	10.0	09/14/2020	ND					

Surrogate: 1-Chlorooctane *102 %* *44.3-144*

Surrogate: 1-Chlorooctadecane *114 %* *42.2-156*

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

		BILL TO	
Company Name:	Pima Environmental	P.O. #:	2078348
Project Manager:	Chris Jones	Company:	Devon
Address:	1601 N. Turner Ste 500	Attn:	Tom Bynum
City:	Hobbs State: NM Zip: 88240	Address:	
Phone #:	575-964-7740 Fax #:	City:	
Project #:	38 Project Owner: Devon	State:	Zip:
Project Name:	Aretumus 18 #2 battery	Phone #:	
Project Location:	Eddy, NM	Fax #:	
Sampler Name:	Robert Carper		

FOR LAB USE ONLY				MATRIX							PRESERV.			SAMPLING		ANALYSIS REQUEST												
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	TPH EXT	BTEX	Chlorides												
H002424																												
1	S-1-W-Bottom Composite	C	1			X							9/9/20	11:00	X	X	X											
2	S-2-W-Side Composite													11:03														
3	S-3-S-Bottom Composite													11:06														
4	S-4-S-~~Bottom~~ Side Composite													11:09														
5	S-5-S-Bottom Composite													11:12														
6	S-6-S-Side Composite												9/9/20	11:15														
7	S-7-N-Bottom Composite												9/10/20	9:15														
8	S-8-N-Side Composite													9:18														
9	S-9-E-Bottom Composite													9:21														
10	S-10-E-Side Composite													9:24														

Relinquished By:	Date: 9/11/20 Time: 4:30	Received By:	Tamara Oldaker	Verbal Result: ☐ Yes ☐ No	Add'l Phone #:
				All Results are emailed. Please provide Email address:	
Relinquished By:	Date: Time:	Received By:		REMARKS:	

Delivered By: (Circle One)	Observed Temp. °C -8.0	Sample Condition	CHECKED BY:	Turnaround Time:	Standard ☑	Bacteria (only) Sample Condition
Sampler - UPS - Bus - Other:	Corrected Temp. °C	Cool ☑ Yes ☐ No Intact ☐ Yes ☐ No	(Initials) TC	Thermometer ID #113 Correction Factor None	Rush ☐	Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.1 06/04/20

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

		BILL TO	
Company Name:	Pima Environmental	P.O. #:	207834
Project Manager:	Chaz Jones	Company:	Devon
Address:	1601 N. Turner St. Ste 500	Attn:	Ten Byrum
City:	Hobbs	State: NM Zip:	88240
Phone #:	575-964-7746	Fax #:	Address:
Project #:	38	Project Owner:	Devon
Project Name:	Arcturus 18 H2 Battery	City:	
Project Location:	Eddy, NM	State:	Zip:
Sampler Name:	Robert Carper	Phone #:	
		Fax #:	

FOR LAB USE ONLY				MATRIX							PRESERV.			SAMPLING		ANALYSIS REQUEST											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	TPH Ext	BTEX 8021B	Chlorides										
H002427																											
11	S-11-S-side Composite	C				X							9/10/20	9:27													
12	S-12-S-Bottom Composite													9:30													
13	S-13-W-Bottom Composite													9:33													
14	S-14-W-side Composite													9:36													

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 consequental 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: 9/10/20 Time: 4:30	Received By:	Verbal Result: ☐ Yes ☐ No	Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	All Results are emailed. Please provide Email address: REMARKS:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C -8.0 Corrected Temp. °C	Sample Condition Cool: ☑ Yes ☐ No Intact: ☐ Yes ☐ No	CHECKED BY: (Initials) TO	Turnaround Time: Standard ☑ Rush ☐ Thermometer ID #113 Correction Factor None
				Bacteria (only) Sample Condition Cool: ☐ Yes ☐ No Intact: ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.1 06/04/20

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

State of New Mexico
Oil Conservation Division

Incident ID	NAB1909944395
District RP	2RP-5348
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: Tom Bynum Title: EHS Consultant

Signature: Tom Bynum Date: 10/27/2020

email: tom.bynum@dvn.com Telephone: 575-748-2663

OCD Only

Received by: Robert Hamlet Date: 3/29/2021

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

Closure Approved by: Robert Hamlet Date: 3/29/2021

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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

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

CONDITIONS

Action 10864

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
PIMA ENVIRONMENTAL SERVICES, L 1601 N. Turner Suite 500 Hobbs, NM88240	329999	10864	C-141

OCD Reviewer	Condition
rhamlet	We have received your closure report and final C-141 for Incident #NAB1909944395 ARCTURUS 18 FEDERAL #001H, thank you. This closure is approved.