



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

March 19th, 2021

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

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

Re: Site Remediation and Closure Report
Onyx PWU 29 #3H
API No. 30-015-39373
GPS: Latitude 32.630019 Longitude -104.104116
UL "L", Sec. 29, T19S, R29E
Eddy County, NM
NMOCD Ref. No. NAB1601137117 (2RP-3481)

Dear Mr. Bratcher and Mr. Amos,

Pima Environmental Services, LLC (Pima) has been contracted by Devon Energy Production Company (Devon) to perform a spill assessment and remediation activities for an oil release that occurred at the Onyx PWU 29 #3H (Onyx). The initial C-141 was submitted on January 5th, 2016 (Appendix C). This incident was assigned Incident ID NAB1601137117 (2RP-3481), by the New Mexico Oil Conservation Division (NMOCD).

Site Characterization

The Onyx is located approximately sixteen (16) miles northeast of Carlsbad, NM. This spill site is in Unit L, Section 29, Township 19S, Range 29E, Latitude 32.630019, Longitude -104.104116, 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) interlayered eolian sands and piedmont-slope deposits (QEP). The soil in this area is made up of Simona-Bippus complex, 0 to 5 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 high potential for karst geology to be present in the area of the Onyx (Figure 3).

According to the New Mexico Office of the State Engineer, depth to the nearest groundwater in this area is 75 feet below grade surface (BGS). According to the United States Geological Survey (USGS), the nearest groundwater is greater than 100 feet BGS. The closest waterway and is a playa located approximately 6.4 miles to the southeast of this location. See Appendix A for referenced water surveys.

Table 1 NMAC and Closure Criteria 19.15.29

Depth to Groundwater (Appendix A)	Constituent & Limits				
	Chlorides	Total TPH	GRO+DRO	BTEX	Benzene
75'	10,000 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-3481: On January 4th, 2016, a leak was discovered around the LACT unit. Due to snow cover, and inclement weather, the exact source of the leak could not be determined. The well was shut in immediately. The released fluids were calculated to be approximately 5 barrels (bbls) of oil. No fluids were recovered from the area due to the inclement weather.

Site Assessment and Soil Sampling Results

On March 7th, 2016, a remediation work plan was submitted to NMOCD via email by Hungry Horse, LLC (Appendix F). The NMOCD approved the remediation work plan on March 10th, 2016. Confirmation of the site being cleaned up around that time could not be found.

On October 21st, 2020, Pima Environmental mobilized personnel to the site in order to assess the area and try to determine if the remediation work plan had been carried out. We sampled the 2 areas pointed out in the work plan. Laboratory results of this sampling event can be found in the following data table.

10-21-20 Soil Sample Results

NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is >100')								
Devon Energy - Onyx PWU 29 #3H								
Sample Date 10/21/20		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	6"	ND	ND	ND	64	180	244	ND
S-2	6"	ND	ND	ND	44	110	154	ND

ND- Analyte Not Detected

Remediation Activities

On August 20th, 2020, Pima mobilized personnel and equipment to conduct remedial activities. We treated the areas around the LACT unit with a Micro-Blaze solution. After 60 days, we gathered confirmation samples. These samples were collected on March 10th, 2021. See Appendix D for photographic documentation. The laboratory results of this sampling event can be found in the following data table.

3-10-21 Confirmation Soil Sample Results								
NMOCD Table 1 Closure Criteria 19.15.29 NMAC (Depth to Groundwater is >100')								
Devon Energy - Onyx PWU 29 #3H								
Sample Date 3/10/21		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
CS-1	6"	ND	ND	ND	ND	ND	0	ND
CS-2	6"	ND	ND	ND	ND	ND	0	ND

ND- Analyte Not Detected

Complete Laboratory Reports are attached in Appendix E.

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

Closure Request

After careful review, Pima requests that this incident, NAB1601137117 (2RP-3481), be closed. Devon has complied with the applicable closure requirements set forth in rule 19.15.19.12 NMAC.

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

Respectfully,

Tom Bynum

Tom Bynum
Environmental Project Manager
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
- Appendix F – NMOCD Approved Remediation Work Plan



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Figures:

1-Location Map

2-TOPO Map

3-Karst Map

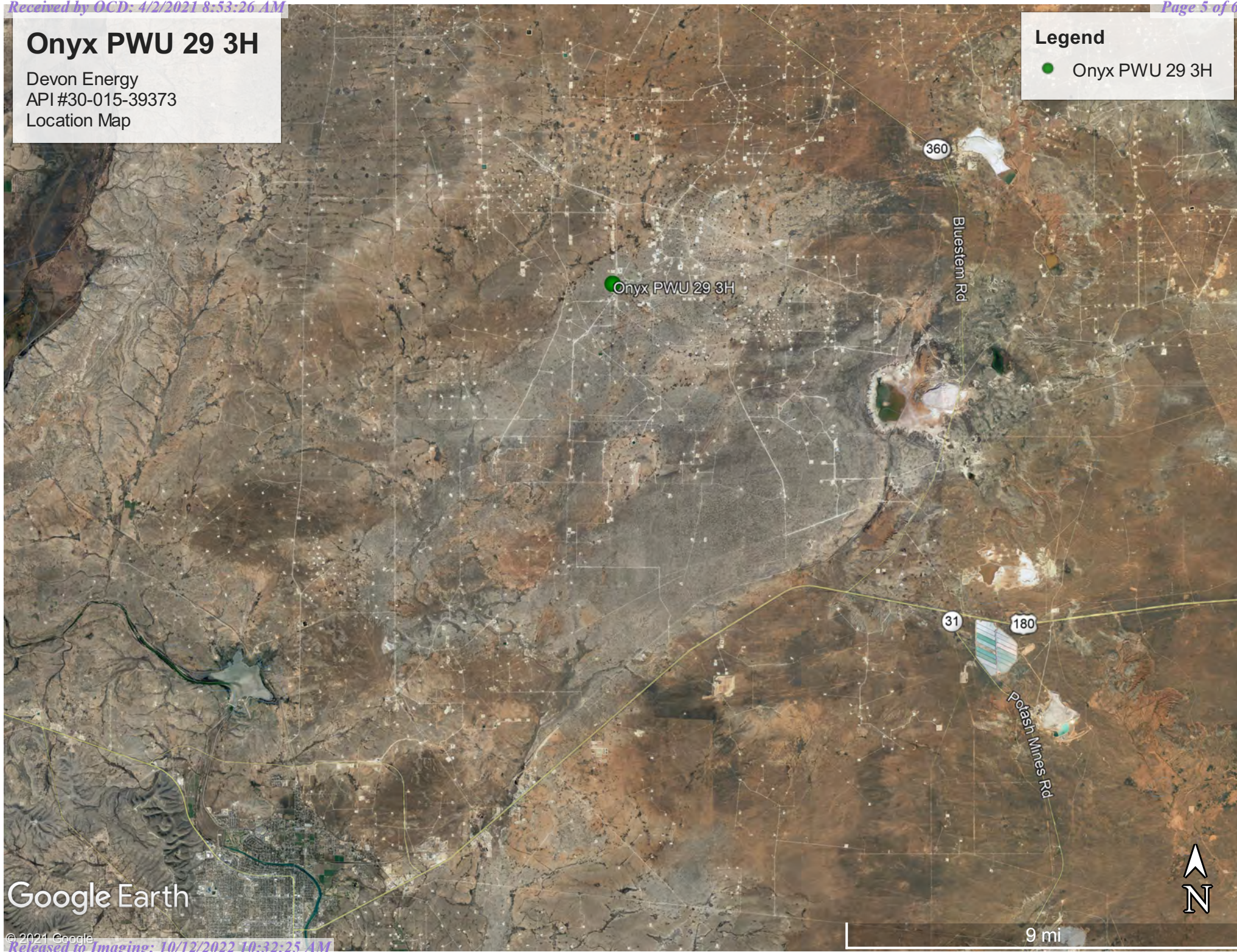
4-Site Map

Onyx PWU 29 3H

Devon Energy
API #30-015-39373
Location Map

Legend

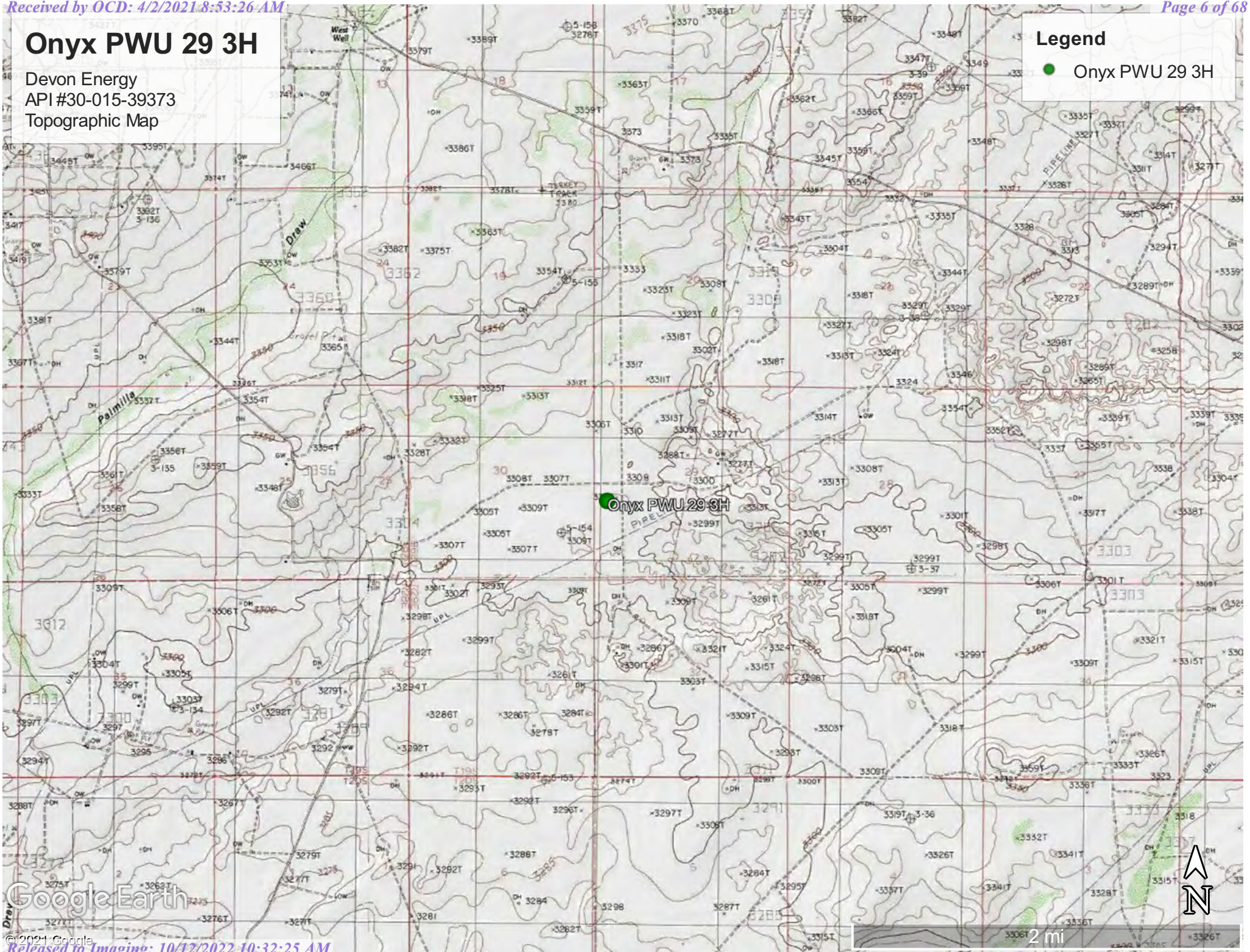
● Onyx PWU 29 3H



Google Earth

Devon Energy
API #30-015-39373
Topographic Map

- Onyx PWU 29 3H



Onyx PWU 29 3H

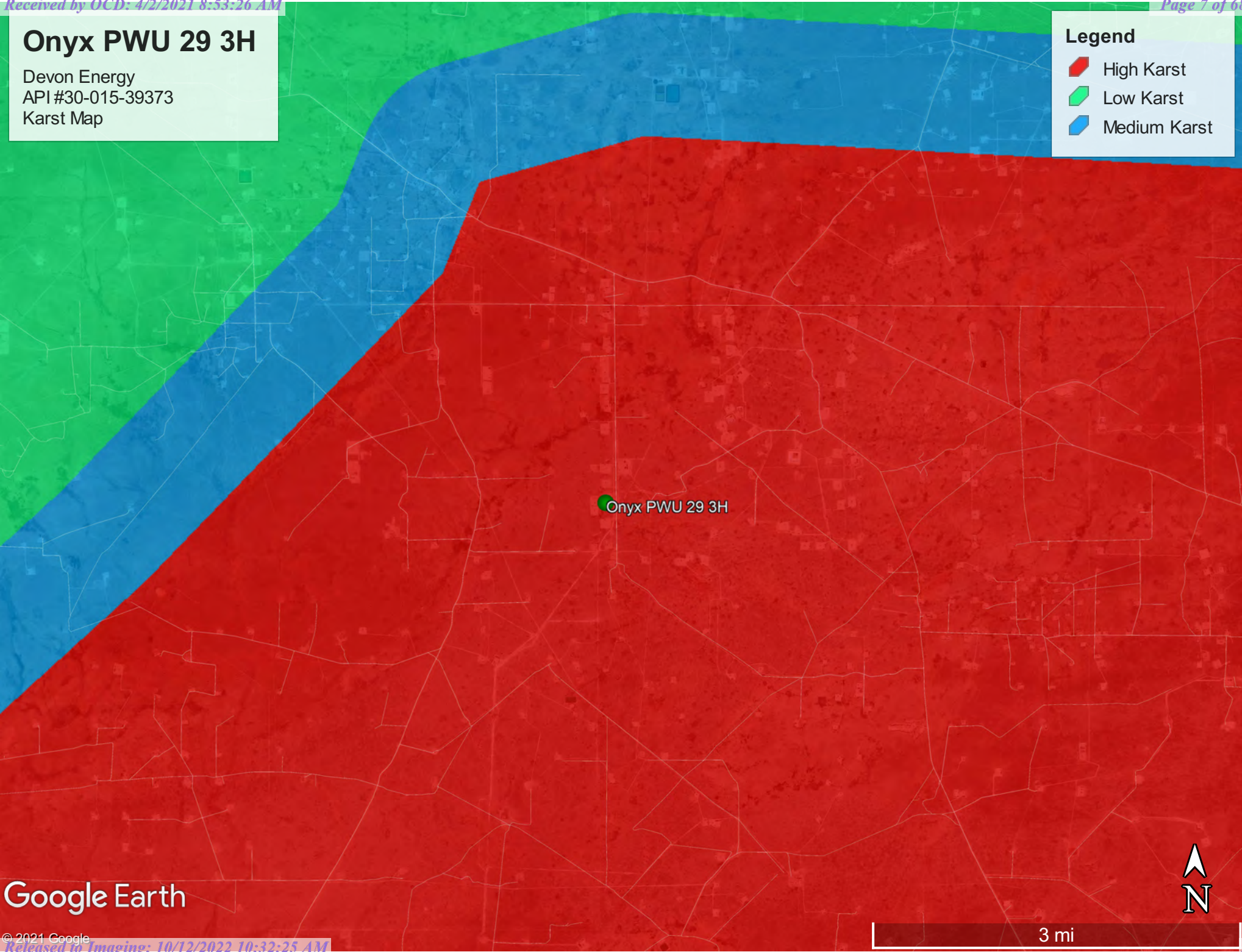
Devon Energy
API #30-015-39373
Karst Map

Legend

High Karst

Low Karst

Medium Karst



Google Earth







3 mi

Onyx PWU 29 3H

Devon Energy
API #30-015-39373
Site Map

Legend

-  32.630019, -104.104116
-  Onyx PWU 29 3H
-  Remediated Area
-  Samples



Google Earth



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Appendix A

Water Surveys:

OSE

USGS

Surface Water Map



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	DepthWell	DepthWater	Water Column
CP 01231 POD1		CP	ED	4	4	2	36	19S	28E	582311	3609372	2131	300	75	225
CP 00830 POD1		CP	LE	2	1	04	20S	29E	586118	3608193*		3257	120		
CP 00743 POD1		CP	ED	2	4	05	20S	29E	585319	3607382*		3541	160		
CP 00681		CP	ED	1	1	3	34	19S	29E	587230	3609127*	3577			
CP 00926 POD1		CP	LE	2	1	4	01	20S	28E	581793	3607405	3941	300		
CP 00741		CP	ED	1	3	2	34	19S	29E	588030	3609533*	4185	230	60	170
CP 00698 POD1		CP	ED	3	1	03	20S	29E	587393	3608010		4309			
CP 00646		CP	ED	1	1	4	07	19S	29E	583155	3615551	4955	199	150	49

Average Depth to Water: **95 feet**

Minimum Depth: **60 feet**

Maximum Depth: **150 feet**

Record Count: 8

UTMNAD83 Radius Search (in meters):

Easting (X): 584002.28

Northing (Y): 3610669.87

Radius: 5000

*UTM location was derived from PLSS - see Help

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

3/9/21 9:36 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



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National Water Information System: Web Interface

USGS Water Resources

Data Category:


Groundwater

Geographic Area:

United States

GO

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Groundwater levels for the Nation

* IMPORTANT: [Next Generation Station Page](#)

Search Results -- 1 sites found

site_no list =

- 323845104075601

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 323845104075601 19S.28E.24.32233

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°38'45", Longitude 104°07'56" NAD27

Land-surface elevation 3,352 feet above NAVD88

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Rustler Formation (312RSLR) local aquifer.

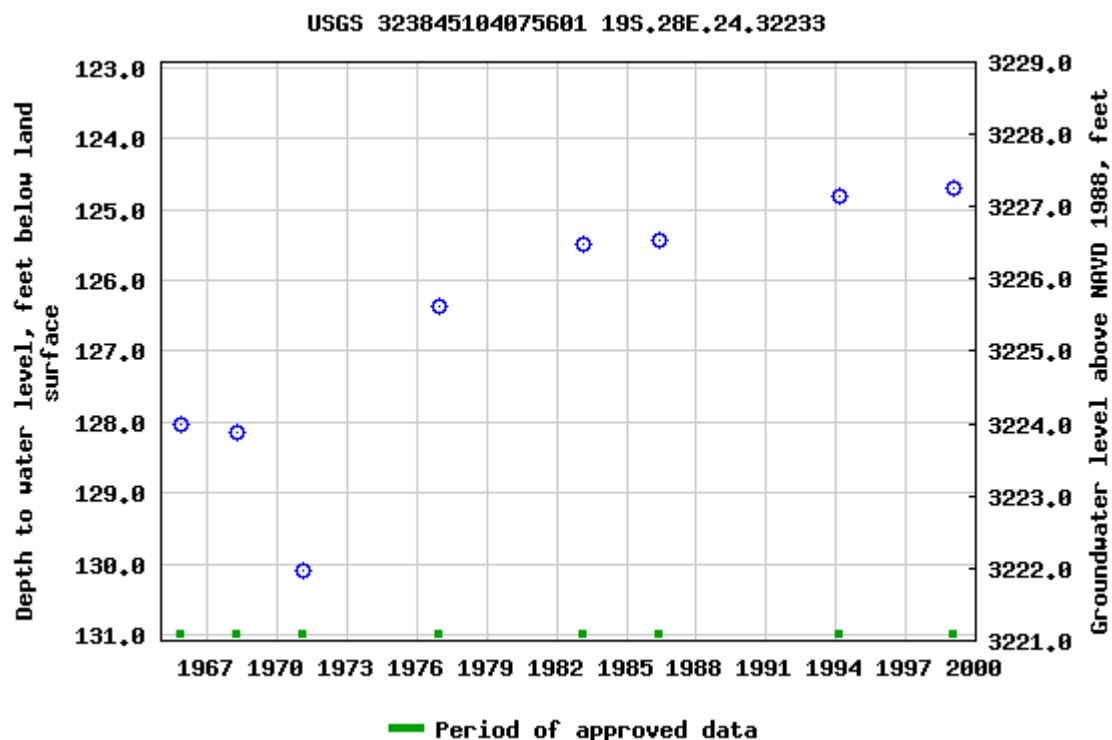
Output formats

[Table of data](#)

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[Reselect period](#)



Breaks in the plot represent a gap of at least one year between field measurements.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>

Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2021-03-09 11:38:40 EST

0.7 0.61 nadww01





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National Water Information System: Web Interface

USGS Water Resources

Data Category:


Groundwater

Geographic Area:

United States

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Groundwater levels for the Nation

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Search Results -- 1 sites found

site_no list =

- 323900104052901

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 323900104052901 19S.29E.20.24111 RATLSNAKE

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°39'00", Longitude 104°05'29" NAD27

Land-surface elevation 3,306 feet above NAVD88

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Rustler Formation (312RSLR) local aquifer.

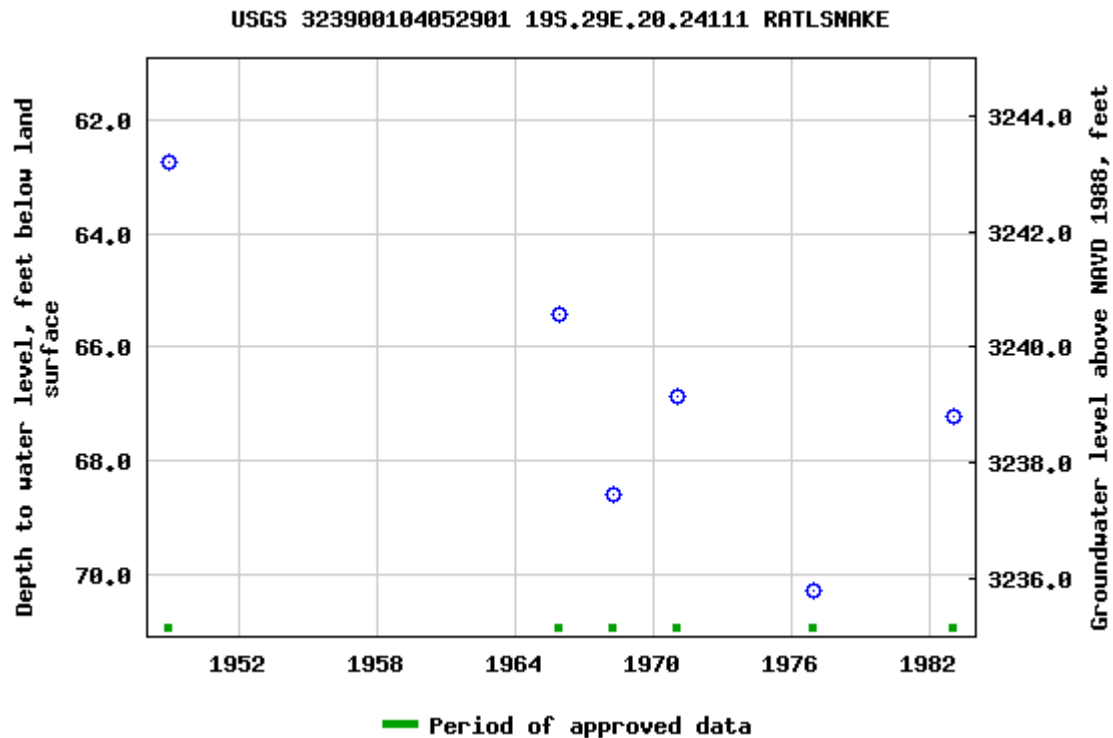
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[Table of data](#)

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[Reselect period](#)



Breaks in the plot represent a gap of at least one year between field measurements.

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URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>

Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2021-03-09 11:39:27 EST

0.64 0.56 nadww01



Onyx PWU 29 3H

Devon Energy
API #30-015-39373
Surface Water Map

Legend

- 6.4 Miles
- Onyx PWU 29 3H
- Playa

Onyx PWU 29 3H

Bluestem Rd

Playa

Google Earth

360



4 mi



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Appendix B

Soil Survey & Geological Data

FEMA Flood Map

Map Unit Description: Reeves-Gypsum land complex, 0 to 3 percent slopes---Eddy Area, New Mexico

Eddy Area, New Mexico

RG—Reeves-Gypsum land complex, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w5f

Elevation: 1,250 to 5,000 feet

Mean annual precipitation: 10 to 25 inches

Mean annual air temperature: 57 to 70 degrees F

Frost-free period: 190 to 235 days

Farmland classification: Not prime farmland

Map Unit Composition

Reeves and similar soils: 55 percent

Gypsum land: 30 percent

Minor components: 15 percent

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

Description of Reeves

Setting

Landform: Hills, plains, ridges

Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope

Landform position (three-dimensional): Crest, nose slope, side slope, head slope

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Residuum weathered from gypsum

Typical profile

H1 - 0 to 8 inches: loam

H2 - 8 to 32 inches: clay loam

H3 - 32 to 60 inches: gypsiferous material

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 25 percent

Gypsum, maximum content: 80 percent

Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)

Sodium adsorption ratio, maximum: 4.0

Available water capacity: Low (about 4.3 inches)

Map Unit Description: Reeves-Gypsum land complex, 0 to 3 percent slopes---Eddy Area, New Mexico

Interpretive groups

Land capability classification (irrigated): 3s

Land capability classification (nonirrigated): 7s

Hydrologic Soil Group: B

Ecological site: R042XC007NM - Loamy

Hydric soil rating: No

Description of Gypsum Land**Setting**

Landform: Hills, plains, ridges

Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope

Landform position (three-dimensional): Crest, nose slope, side slope, head slope

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Residuum weathered from gypsum

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: No

Minor Components**Cottonwood**

Percent of map unit: 5 percent

Ecological site: R042XC033NM - Salty Bottomland

Hydric soil rating: No

Reagan

Percent of map unit: 5 percent

Ecological site: R042XC007NM - Loamy

Hydric soil rating: No

Largo

Percent of map unit: 5 percent

Ecological site: R042XC007NM - Loamy

Hydric soil rating: No

Data Source Information

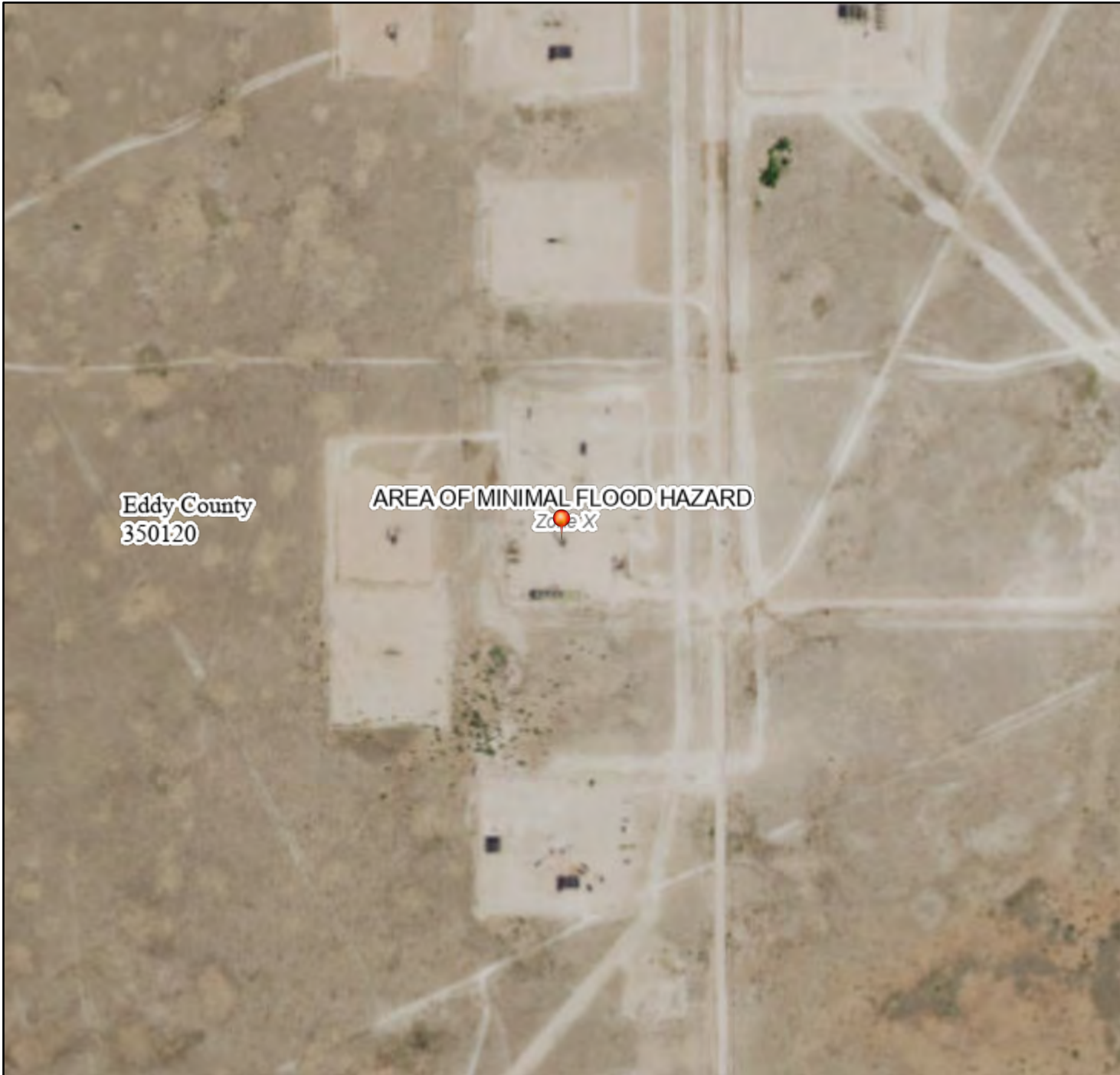
Soil Survey Area: Eddy Area, New Mexico

Survey Area Data: Version 16, Jun 8, 2020

National Flood Hazard Layer FIRMette



104°6'35"W 32°38'5"N



Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
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
		NO SCREEN Area of Minimal Flood Hazard Zone X
OTHER AREAS		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		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	
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

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 3/18/2021 at 2:12 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.



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Appendix C

C-141's:

Initial

Final

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

ARTESIA DISTRICT

Form C-141

Revised August 8, 2011

JAN 05 2016

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

RECEIVED

Release Notification and Corrective Action

NAB1601137117

NAME OF COMPANY Devon Energy Production Company <i>4137</i>		OPERATOR	<input checked="" type="checkbox"/> Initial Report	<input type="checkbox"/> Final Report
Address 6488 Seven Rivers Hwy Artesia, NM 88210		Contact Rudy Zuniga Production Foreman		
Facility Name Onyx PWU 29 #3		Telephone No. 575-390-5435		
		Facility Type Oil		
Surface Owner State	Mineral Owner State	API No 30-015-39373		

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	29	19S	29E	2145	South	330	West	Eddy

Latitude: N 32°63'04.88"

Longitude: W 104°10'45.09"

NATURE OF RELEASE

Type of Release Spill Oil	Volume of Release 5 bbls	Volume Recovered 0 bbls
Source of Release Lact Unit	Date and Hour of Occurrence 1.4.16 @ 8:40 am	Date and Hour of Discovery 1.4.16 @ 8:40 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD @ Heather Patterson	
By Whom? Jesse Armendariz Assistant Production Foreman	Date and Hour 1.5.2016 @ 1:55 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.* Leak on the Lact Unit caused a 5 bbl oil spill. Well was shut in to prevent further release. Still investigating where the leak started due to the snow.		
Describe Area Affected and Cleanup Action Taken.* 5 bbls oil was released on the South, South West side of the facility. None of the spill was recovered due to weather. Size of affected area is 20' x 30'. All fluids remained on the location. 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: <i>Corina Moya</i>	OIL CONSERVATION DIVISION	
Printed Name: Corina Moya	Signed By <i>Mike Brannan</i>	
Title: Field Admin Support	Approved by Environmental Specialist:	
E-mail Address: corina.moya@dvn.com	Approval Date: 1/11/16	Expiration Date: N/A
Date: 1.5.16 Phone: 575.746.5559	Conditions of Approval: Remediation per O.C.D. Rules & Guidelines SUBMIT REMEDIATION PROPOSAL NO Attached <input type="checkbox"/> LATER THAN: <i>2/12/16</i>	

* Attach Additional Sheets If Necessary

2RP-3481

Incident ID	NAB1601137117
District RP	2RP-3481
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>51'-100'</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

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

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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NAB1601137117
District RP	2RP-3481
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: Lupe Carrasco Title: EHS ProfessionalSignature: Lupe Carrasco Date: 3/19/2021email: lupe.carrasco@dvn.com Telephone: 575-725-0787**OCD Only**

Received by: _____ Date: _____

Incident ID	NAB1601137117
District RP	2RP-3481
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: Lupe Carrasco Title: EHS Professional
Signature: Lupe Carrasco Date: 3/19/2021
email: lupe.carrasco@dvn.com Telephone: 575-725-0787

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: Brittany Hall Date: 10/12/2022

Printed Name: Brittany Hall Title: Environmental Specialist



Pima Environmental Services

Appendix D

Photographic Documentation









Pima Environmental Services

Appendix E

Laboratory Reports



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

October 27, 2020

Chris Jones

Pima Environmental Services LLC

1601 N. Turner Ste 500

Hobbs, NM 88240

TEL: (575) 631-6977

FAX:

RE: Onyx PWV 29

OrderNo.: 2010A39

Dear Chris Jones:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/22/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2010A39

Date Reported: 10/27/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S-1 0-6"

Project: Onyx PWV 29

Collection Date: 10/21/2020 2:30:00 PM

Lab ID: 2010A39-001

Matrix: SOIL

Received Date: 10/22/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	64	19		mg/Kg	2	10/23/2020 1:10:58 PM	55992
Motor Oil Range Organics (MRO)	180	95		mg/Kg	2	10/23/2020 1:10:58 PM	55992
Surr: DNOP	134	30.4-154		%Rec	2	10/23/2020 1:10:58 PM	55992
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/24/2020 7:39:17 AM	55990
Surr: BFB	91.1	75.3-105		%Rec	1	10/24/2020 7:39:17 AM	55990

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 1 of 4

Analytical Report

Lab Order 2010A39

Date Reported: 10/27/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Pima Environmental Services LLC

Client Sample ID: S-2 0-6"

Project: Onyx PWV 29

Collection Date: 10/21/2020 2:35:00 PM

Lab ID: 2010A39-002

Matrix: SOIL

Received Date: 10/22/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	44	9.9		mg/Kg	1	10/23/2020 1:20:49 PM	55992
Motor Oil Range Organics (MRO)	110	49		mg/Kg	1	10/23/2020 1:20:49 PM	55992
Surr: DNOP	120	30.4-154		%Rec	1	10/23/2020 1:20:49 PM	55992
EPA METHOD 8015D: GASOLINE RANGE							Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	10/24/2020 8:02:39 AM	55990
Surr: BFB	92.1	75.3-105		%Rec	1	10/24/2020 8:02:39 AM	55990

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 Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Page 2 of 4

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010A39

27-Oct-20

Client: Pima Environmental Services LLC**Project:** Onyx PWV 29

Sample ID: LCS-55992	SampType: LCS				TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID: LCSS	Batch ID: 55992				RunNo: 72876					
Prep Date: 10/22/2020	Analysis Date: 10/23/2020				SeqNo: 2562831	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.8	70	130			
Surr: DNOP	4.7		5.000		93.4	30.4	154			

Sample ID: MB-55992	SampType: MBLK				TestCode: EPA Method 8015M/D: Diesel Range Organics					
Client ID: PBS	Batch ID: 55992				RunNo: 72876					
Prep Date: 10/22/2020	Analysis Date: 10/23/2020				SeqNo: 2562833	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	9.3		10.00		92.5	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 Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 3 of 4

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2010A39

27-Oct-20

Client: Pima Environmental Services LLC**Project:** Onyx PWV 29

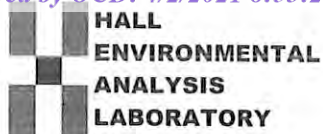
Sample ID: ics-55990	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 55990			RunNo: 72897						
Prep Date: 10/22/2020	Analysis Date: 10/24/2020			SeqNo: 2562395		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.0	72.5	106			
Surr: BFB	1100		1000		107	75.3	105			S

Sample ID: mb-55990	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 55990			RunNo: 72897						
Prep Date: 10/22/2020	Analysis Date: 10/24/2020			SeqNo: 2562397		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	960		1000		96.1	75.3	105			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit



Hall Environmental Analysis Laboratory
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: 2010A39

RcptNo: 1

Received By: Isaiah Ortiz 10/22/2020 8:00:00 AM

Completed By: Emily Mocho 10/22/2020 9:12:52 AM

Reviewed By: *cm* *W/2020*

IL OK

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ 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? Yes ☒ No ☐
(Note discrepancies on chain of custody)
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? Yes ☒ No ☐
(If no, notify customer for authorization.)

of preserved bottles checked for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: *JR 10/22/20*

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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Not Present			



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

March 15, 2021

TOM BYNUM

PIMA ENVIROMENTAL

1601 N TURNER STE. 500

HOBBS, NM 88240

RE: ONYX PWU 29 3H

Enclosed are the results of analyses for samples received by the laboratory on 03/11/21 16:45.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
TOM BYNUM
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received:	03/11/2021	Sampling Date:	03/10/2021
Reported:	03/15/2021	Sampling Type:	Soil
Project Name:	ONYX PWU 29 3H	Sampling Condition:	** (See Notes)
Project Number:	18	Sample Received By:	Jodi Henson
Project Location:	DEVON ENERGY - EDDY CO NM		

Sample ID: CS - 1 (H210620-01)

BTX 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	03/13/2021	ND	2.09	105	2.00	0.407	
Toluene*	<0.050	0.050	03/13/2021	ND	2.02	101	2.00	0.493	
Ethylbenzene*	<0.050	0.050	03/13/2021	ND	2.00	99.9	2.00	0.335	
Total Xylenes*	<0.150	0.150	03/13/2021	ND	5.96	99.3	6.00	0.407	
Total BTX	<0.300	0.300	03/13/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	03/15/2021	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/13/2021	ND	223	112	200	4.41	
DRO >C10-C28*	<10.0	10.0	03/13/2021	ND	222	111	200	3.68	
EXT DRO >C28-C36	<10.0	10.0	03/13/2021	ND					

Surrogate: 1-Chlorooctane 89.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 87.4 % 42.2-156

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

PIMA ENVIROMENTAL
TOM BYNUM
1601 N TURNER STE. 500
HOBBS NM, 88240
Fax To:

Received: 03/11/2021
Reported: 03/15/2021
Project Name: ONYX PWU 29 3H
Project Number: 18
Project Location: DEVON ENERGY - EDDY CO NM

Sampling Date: 03/10/2021
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Jodi Henson

Sample ID: CS - 2 (H210620-02)

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	03/13/2021	ND	2.09	105	2.00	0.407		
Toluene*	<0.050	0.050	03/13/2021	ND	2.02	101	2.00	0.493		
Ethylbenzene*	<0.050	0.050	03/13/2021	ND	2.00	99.9	2.00	0.335		
Total Xylenes*	<0.150	0.150	03/13/2021	ND	5.96	99.3	6.00	0.407		
Total BTEx	<0.300	0.300	03/13/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-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	03/15/2021	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/13/2021	ND	223	112	200	4.41	
DRO >C10-C28*	<10.0	10.0	03/13/2021	ND	222	111	200	3.68	
EXT DRO >C28-C36	<10.0	10.0	03/13/2021	ND					

Surrogate: 1-Chlorooctane 88.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 86.1 % 42.2-156

Cardinal Laboratories

*=Accredited Analyte

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 client for 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 thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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 client for 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 thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

A handwritten signature in cursive script, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Pima Environmental</u>				BILL TO				ANALYSIS REQUEST											
Project Manager: <u>Tom Bynum</u>				P.O. #: <u>20772835</u>				<div style="display: flex; flex-direction: column; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">BTX</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TPH</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">chloride</div> </div>											
Address: <u>1601 N. Turner St 500</u>				Company: <u>Devon</u>															
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u>				Attn: <u>Wes Mathews</u>															
Phone #: <u>580-748-1613</u> Fax #:				Address:															
Project #: <u>18</u> Project Owner: <u>Devon</u>				City:															
Project Name: <u>Onyx PMU 29 3H</u>				State: Zip:															
Project Location: <u>Eddy</u>				Phone #:															
Sampler Name: <u>Robert Capen</u>				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.		Sample I.D.		GIRAB OR (C)OMP. # CONTAINERS		MATRIX				PRESERV.		SAMPLING		DATE		TIME			
						GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:				ACID/BASE: ICE / COOL OTHER:									
<u>H210620</u>																			
<u>1</u>		<u>CS-1</u>		<u>1</u>						<u>X</u>		<u>3-10-21</u>		<u>11:00</u>		<u>X</u>			
<u>2</u>		<u>CS-2</u>		<u>1</u>		<u>X</u>				<u>X</u>		<u>3-10-21</u>		<u>11:00</u>		<u>X</u>			

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <u>[Signature]</u>		Date: <u>3-11-21</u>	Received By: <u>[Signature]</u>		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:	
		Time: <u>4:45</u>			All Results are emailed. Please provide Email address:	
Relinquished By:		Date:	Received By:		REMARKS:	
		Time:				
Delivered By: (Circle One)		Observed Temp. °C <u>17.3</u>	Sample Condition		CHECKED BY: <u>[Signature]</u>	
Sampler - UPS - Bus - Other:		Corrected Temp. °C	Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Turnaround Time: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush	
			<input type="checkbox"/> Yes <input type="checkbox"/> No		Thermometer ID #113	
			<input type="checkbox"/> Yes <input type="checkbox"/> No		Correction Factor None	
			<input type="checkbox"/> Yes <input type="checkbox"/> No		Bacteria (only) Sample Condition	
			<input type="checkbox"/> Yes <input type="checkbox"/> No		Cool Intact Observed Temp. °C	
			<input type="checkbox"/> Yes <input type="checkbox"/> No		Corrected Temp. °C	

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



Pima Environmental Services

Appendix F

NMOCD-Approved

Remediation Work Plan

HUNGRY HORSE, LLC

3709 S. Eunice HWY
P.O. Box 1058
Hobbs, NM 88241
Office: 575-393-3386
Fax: 575-391-4585
info@hungry-horse.com

DIRT WORK * ON-SITE REMEDIATION
SOIL TESTING * EXCAVATION * ELECTRICAL

7Mar16

To: Mike Bratcher, New Mexico Oil Conservation Division, District II
Reference: Remediation Work Plan
Operator: Devon Energy Production Company
Location: Onyx PWU 29 #3H
API: 30-015-39373
Legasl: Ul. L, Sec 29, T19S, R29E
GPS: 32.63042 -104.10451
2RP-3481

Site Information

This site is located in rural Eddy County, New Mexico 1.3 miles west of the intersection of CR 235 (Curry Comb Road) and CR 210 (S. Old Loco Road) and 1.9 miles south of CR 235. The surrounding area is relatively flat with sparse vegetation. Based upon the Eddy County Depth to Groundwater Map, ground water appears to be between 50'-100'. The New Mexico Office of the State Engineer's website list no groundwater data for this section.

This release was due to a leak on the LACT unit. All fluids released remained on the caliche pad, nothing off the pad was impacted. The impacted area is approximately 25' x 35'.

Work Conducted to Date

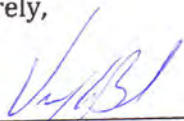
Delineation was conducted using a hand auger. Soil samples were collected from two sample points and laboratory analysis conducted for Chlorides, TPH, and BTEX. No Chlorides were detected, so they are not a contaminant of concern for this release. TPH level were elevated between the surface and 2' BGS.

Remediation Proposal

I propose to conduct the remediation by using the in-situ method. Hand tools will be used to prepare the impacted soil. Once the soil has been prepared, a solution of a 10% mixture of MicroBlaze will be liberally applied to the impacted area. Loosening of the soil will allow a complete penetration of the MicroBlaze thereby speeding the process of the hydrocarbon remediation.

The impacted area will be re-sampled 60-90 days after the MicroBlaze application to determine the effectiveness of the treatment. If lab results indicate TPH levels at or below closure limits, closure documents will be submitted. If TPH levels remain elevated, another MicoBlaze treatment will be applied and the area re-sampled.

Sincerely,



Vernon K. Black, Hungry Horse, LLC

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

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141

JAN 05 2016

Revised August 8, 2011

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

RECEIVED

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

NAB1601137117

Name of Company	Devon Energy Production Company <i>4137</i>	Contact	Rudy Zuniga Production Foreman
Address	6488 Seven Rivers Hwy Artesia, NM 88210	Telephone No.	575-390-5435
Facility Name	Onyx PWU 29 #3	Facility Type	Oil
Surface Owner State	Mineral Owner State	API No 30-015-39373	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	29	19S	29E	2145	South	330	West	Eddy

Latitude: N 32° 63' 04.88"

Longitude: W 104° 10' 45.09"

*32.65042**-104.17451*

NATURE OF RELEASE

Type of Release Spill	Oil	Volume of Release	5 bbls	Volume Recovered	0 bbls
Source of Release	Lact Unit	Date and Hour of Occurrence	1.4.16 @ 8:40 am	Date and Hour of Discovery	1.4.16 @ 8:40 am
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	OCD @ Heather Patterson		
By Whom?	Jesse Armendariz Assistant Production Foreman	Date and Hour	1.5.2016 @ 1:55 pm		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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.* Leak on the Lact Unit caused a 5 bbl oil spill. Well was shut in to prevent further release. Still investigating where the leak started due to the snow.					
Describe Area Affected and Cleanup Action Taken.* 5 bbls oil was released on the South. South West side of the facility. None of the spill was recovered due to weather. Size of affected area is 20' x 30'. All fluids remained on the location. 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: <i>Corina Moya</i>		OIL CONSERVATION DIVISION			
Printed Name: Corina Moya		Signed By: <i>Mike Laramie</i>			
Title: Field Admin Support		Approved by Environmental Specialist:			
E-mail Address: corina.moya@dvn.com		Approval Date: <i>1/11/16</i>		Expiration Date: <i>N/A</i>	
Date: 1.5.16 Phone: 575.746.5559		Conditions of Approval: Remediation per O.C.D. Rules & Guidelines Attached <input type="checkbox"/> SUBMIT REMEDIATION PROPOSAL NO LATER THAN: <i>2/12/16</i>			

* Attach Additional Sheets If Necessary

2RP-3481



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

No records found.

PLSS Search:

Section(s): 29

Township: 19S

Range: 29E

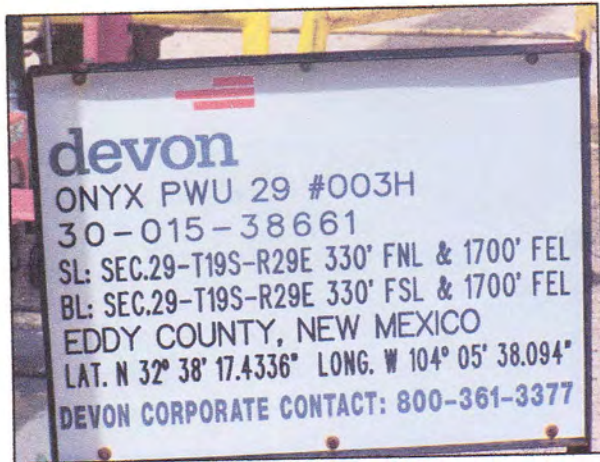
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

3/8/16 2:52 PM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER

Devon Energy Production Company-Onyx PWU 29 #3H



Devon Energy Production Company-Onyx PWU 29 Fed #3H



Impacted area is 25' x 35' around LACT Unit-noted by red .



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

February 29, 2016

VERNON BLACK

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: ONYX PWU 29 #3

Enclosed are the results of analyses for samples received by the laboratory on 02/22/16 8:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. 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 accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

Hungry Horse Environmental
 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 02/22/2016
 Reported: 02/29/2016
 Project Name: ONYX PWU 29 #3
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/16/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 1 SURFACE (H600396-01)

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	30.3	2.00	02/24/2016	ND	1.97	98.4	2.00	5.85	
Toluene*	178	2.00	02/24/2016	ND	1.93	96.5	2.00	6.07	
Ethylbenzene*	69.5	2.00	02/24/2016	ND	1.76	88.1	2.00	5.87	
Total Xylenes*	201	6.00	02/24/2016	ND	5.37	89.5	6.00	5.48	
Total BTEX	479	12.0	02/24/2016	ND					

Surrogate: 4-Bromofluorobenzene (PII) 105 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	02/23/2016	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	4230	100	02/23/2016	ND	193	96.4	200	1.46	
DRO >C10-C28	34200	100	02/23/2016	ND	214	107	200	13.1	

Surrogate: 1-Chlorooctane 202 % 35-147

Surrogate: 1-Chlorooctadecane 916 % 28-171

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 02/22/2016
 Reported: 02/29/2016
 Project Name: ONYX PWU 29 #3
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/16/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 1 6" (H600396-02)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	35.2	2.00	02/24/2016	ND	1.97	98.4	2.00	5.85	
Toluene*	249	2.00	02/24/2016	ND	1.93	96.5	2.00	6.07	
Ethylbenzene*	87.2	2.00	02/24/2016	ND	1.76	88.1	2.00	5.87	
Total Xylenes*	234	6.00	02/24/2016	ND	5.37	89.5	6.00	5.48	
Total BTX	605	12.0	02/24/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 104 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	02/23/2016	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	5180	50.0	02/23/2016	ND	193	96.4	200	1.46	
DRO >C10-C28	8770	50.0	02/23/2016	ND	214	107	200	13.1	

Surrogate: 1-Chlorooctane 156 % 35-147

Surrogate: 1-Chlorooctadecane 189 % 28-171

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 02/22/2016
 Reported: 02/29/2016
 Project Name: ONYX PWU 29 #3
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/16/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 1 1' (H600396-03)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	18.1	2.00	02/24/2016	ND	1.97	98.4	2.00	5.85	
Toluene*	135	2.00	02/24/2016	ND	1.93	96.5	2.00	6.07	
Ethylbenzene*	47.9	2.00	02/24/2016	ND	1.76	88.1	2.00	5.87	
Total Xylenes*	135	6.00	02/24/2016	ND	5.37	89.5	6.00	5.48	
Total BTX	336	12.0	02/24/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 102 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/23/2016	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	2620	100	02/23/2016	ND	193	96.4	200	1.46	
DRO >C10-C28	5700	100	02/23/2016	ND	214	107	200	13.1	

Surrogate: 1-Chlorooctane 128 % 35-147

Surrogate: 1-Chlorooctadecane 139 % 28-171

* = Accredited Analyte

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Analytical Results For:

Hungry Horse Environmental
 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 02/22/2016
 Reported: 02/29/2016
 Project Name: ONYX PWU 29 #3
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/16/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 2 SURFACE (H600396-04)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	5.11	1.00	02/24/2016	ND	1.97	98.4	2.00	5.85	
Toluene*	59.3	1.00	02/24/2016	ND	1.93	96.5	2.00	6.07	
Ethylbenzene*	35.6	1.00	02/24/2016	ND	1.76	88.1	2.00	5.87	
Total Xylenes*	117	3.00	02/24/2016	ND	5.37	89.5	6.00	5.48	
Total BTEx	217	6.00	02/24/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/23/2016	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	2080	100	02/23/2016	ND	193	96.4	200	1.46	
DRO >C10-C28	18800	100	02/23/2016	ND	214	107	200	13.1	

Surrogate: 1-Chlorooctane 158 % 35-147

Surrogate: 1-Chlorooctadecane 470 % 28-171

* = Accredited Analyte

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Analytical Results For:

Hungry Horse Environmental
 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 02/22/2016
 Reported: 02/29/2016
 Project Name: ONYX PWU 29 #3
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/16/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 2 6" (H600396-05)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	47.5	2.00	02/24/2016	ND	1.97	98.4	2.00	5.85	
Toluene*	314	2.00	02/24/2016	ND	1.93	96.5	2.00	6.07	
Ethylbenzene*	98.3	2.00	02/24/2016	ND	1.76	88.1	2.00	5.87	
Total Xylenes*	258	6.00	02/24/2016	ND	5.37	89.5	6.00	5.48	
Total BTX	717	12.0	02/24/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 104 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/23/2016	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	5240	100	02/23/2016	ND	193	96.4	200	1.46	
DRO >C10-C28	8780	100	02/23/2016	ND	214	107	200	13.1	

Surrogate: 1-Chlorooctane 153 % 35-147

Surrogate: 1-Chlorooctadecane 201 % 28-171

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 02/22/2016
 Reported: 02/29/2016
 Project Name: ONYX PWU 29 #3
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/16/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 2 1' (H600396-06)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	86.7	5.00	02/24/2016	ND	1.97	98.4	2.00	5.85	
Toluene*	436	5.00	02/24/2016	ND	1.93	96.5	2.00	6.07	
Ethylbenzene*	126	5.00	02/24/2016	ND	1.76	88.1	2.00	5.87	
Total Xylenes*	339	15.0	02/24/2016	ND	5.37	89.5	6.00	5.48	
Total BTX	988	30.0	02/24/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 103 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/23/2016	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	7030	100	02/23/2016	ND	193	96.4	200	1.46	
DRO >C10-C28	12100	100	02/23/2016	ND	214	107	200	13.1	

Surrogate: 1-Chlorooctane 176 % 35-147

Surrogate: 1-Chlorooctadecane 281 % 28-171

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
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

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO				ANALYSIS REQUEST												
Company Name: <u>Hungry Horse, LLC</u>				P.O. #:												
Project Manager: <u>Vernon K. Black</u>				Company:												
Address: <u>101 E. Marland</u>				Attn:												
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u>				Address:												
Phone #: <u>505 393 2326</u> Fax #: <u>505 393 2476</u>				City:												
Project #: <u>2943</u> Project Owner: <u>Degon</u>				State: Zip:												
Project Name: <u>Onyx PWU 29#3</u>				Phone #:												
Project Location: <u>Edgewood County</u>				Fax #:												
Sampler Name: <u>John H. Black</u>																
Lab I.D.	Sample I.D.	MATRIX	PRESERV	SAMPLING												
		GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER	ACID/BASE ICE/NO OTHER	DATE TIME												
<u>H600396</u>	<u>SP1 surface</u>			<u>2-16-16</u> <u>1:00</u>												
<u>1</u>	<u>SP1 6 inches</u>			<u>1:10</u>												
<u>2</u>	<u>SP1 11</u>			<u>1:15</u>												
<u>3</u>	<u>SP1</u>			<u>1:30</u>												
<u>4</u>	<u>SP2 surface</u>			<u>2:00</u>												
<u>5</u>	<u>SP2 6 in</u>			<u>2:10</u>												
<u>6</u>	<u>SP2 11</u>															

Chlorides
TPH
UTEX

PLEASE NOTE: Cardinal Laboratories, LLC and its employees, agents, and subcontractors, shall not be held responsible for any claims arising out of the use of the services provided by Cardinal Laboratories, LLC. The user of the services provided by Cardinal Laboratories, LLC, shall be responsible for the accuracy of the information provided to Cardinal Laboratories, LLC. The user of the services provided by Cardinal Laboratories, LLC, shall be responsible for the accuracy of the information provided to Cardinal Laboratories, LLC. The user of the services provided by Cardinal Laboratories, LLC, shall be responsible for the accuracy of the information provided to Cardinal Laboratories, LLC.

Relinquished By: <u>[Signature]</u>	Date: <u>2-22-16</u>	Received By: <u>[Signature]</u>	Phone Result: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By: <u>[Signature]</u>	Time: <u>5:35</u>	Received By: <u>[Signature]</u>	Fax Result: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One)	Date: <u>5:20</u>	Sample Condition: <input checked="" type="checkbox"/> Cool <input type="checkbox"/> Intact	REMARKS:	
Sampler - UPS - Bus - Other:	Time: <u>5:20</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: <u>[Signature]</u>	



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

March 03, 2016

VERNON BLACK

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: ONYX PWU 29 #3

Enclosed are the results of analyses for samples received by the laboratory on 02/25/16 10:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. 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 accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Coley D. Keene". The signature is written in a cursive style with a large, stylized 'C' at the beginning.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

Hungry Horse Environmental
 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 02/25/2016
 Reported: 03/03/2016
 Project Name: ONYX PWU 29 #3
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/24/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 1 2' (H600421-01)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	2.15	0.500	02/27/2016	ND	2.06	103	2.00	0.0598	
Toluene*	17.3	0.500	02/27/2016	ND	2.03	101	2.00	0.159	
Ethylbenzene*	6.47	0.500	02/27/2016	ND	1.82	90.8	2.00	0.254	
Total Xylenes*	19.5	1.50	02/27/2016	ND	5.58	92.9	6.00	0.718	
Total BTEx	45.4	3.00	02/27/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 100 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	02/26/2016	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	574	10.0	02/26/2016	ND	198	98.8	200	7.73	
DRO >C10-C28	1170	10.0	02/26/2016	ND	208	104	200	14.9	

Surrogate: 1-Chlorooctane 115 % 35-147

Surrogate: 1-Chlorooctadecane 106 % 28-171

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 02/25/2016
 Reported: 03/03/2016
 Project Name: ONYX PWU 29 #3
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/24/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 1 3' (H600421-02)

BTX 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	02/26/2016	ND	2.06	103	2.00	0.0598	
Toluene*	0.289	0.050	02/26/2016	ND	2.03	101	2.00	0.159	
Ethylbenzene*	0.242	0.050	02/26/2016	ND	1.82	90.8	2.00	0.254	
Total Xylenes*	0.990	0.150	02/26/2016	ND	5.58	92.9	6.00	0.718	
Total BTX	1.52	0.300	02/26/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 103 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	02/26/2016	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	02/26/2016	ND	198	98.8	200	7.73	
DRO >C10-C28	86.5	10.0	02/26/2016	ND	208	104	200	14.9	

Surrogate: 1-Chlorooctane 98.8 % 35-147

Surrogate: 1-Chlorooctadecane 108 % 28-171

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 02/25/2016
 Reported: 03/03/2016
 Project Name: ONYX PWU 29 #3
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/24/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 1 4' (H600421-03)

BTX 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	02/26/2016	ND	2.06	103	2.00	0.0598	
Toluene*	0.100	0.050	02/26/2016	ND	2.03	101	2.00	0.159	
Ethylbenzene*	0.276	0.050	02/26/2016	ND	1.82	90.8	2.00	0.254	
Total Xylenes*	1.18	0.150	02/26/2016	ND	5.58	92.9	6.00	0.718	
Total BTX	1.56	0.300	02/26/2016	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	02/26/2016	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	02/26/2016	ND	198	98.8	200	7.73	
DRO >C10-C28	74.9	10.0	02/26/2016	ND	208	104	200	14.9	

Surrogate: 1-Chlorooctane 100 % 35-147

Surrogate: 1-Chlorooctadecane 88.8 % 28-171

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 02/25/2016
 Reported: 03/03/2016
 Project Name: ONYX PWU 29 #3
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/24/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 2 2' (H600421-04)

BTX 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	02/26/2016	ND	2.06	103	2.00	0.0598			
Toluene*	0.258	0.050	02/26/2016	ND	2.03	101	2.00	0.159			
Ethylbenzene*	0.442	0.050	02/26/2016	ND	1.82	90.8	2.00	0.254			
Total Xylenes*	1.78	0.150	02/26/2016	ND	5.58	92.9	6.00	0.718			
Total BTX	2.48	0.300	02/26/2016	ND							

Surrogate: 4-Bromofluorobenzene (PIC) 108 % 73.6-140

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/26/2016	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	82.2	10.0	02/26/2016	ND	198	98.8	200	7.73	
DRO >C10-C28	751	10.0	02/26/2016	ND	208	104	200	14.9	

Surrogate: 1-Chlorooctane 116 % 35-147

Surrogate: 1-Chlorooctadecane 104 % 28-171

*=Accredited Analyte

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Analytical Results For:

Hungry Horse Environmental
 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 02/25/2016
 Reported: 03/03/2016
 Project Name: ONYX PWU 29 #3
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/24/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 2 3' (H600421-05)

BTX 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	02/26/2016	ND	2.06	103	2.00	0.0598			
Toluene*	<0.050	0.050	02/26/2016	ND	2.03	101	2.00	0.159			
Ethylbenzene*	<0.050	0.050	02/26/2016	ND	1.82	90.8	2.00	0.254			
Total Xylenes*	<0.150	0.150	02/26/2016	ND	5.58	92.9	6.00	0.718			
Total BTX	<0.300	0.300	02/26/2016	ND							

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/26/2016	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	02/26/2016	ND	198	98.8	200	7.73	
DRO >C10-C28	26.0	10.0	02/26/2016	ND	208	104	200	14.9	

Surrogate: 1-Chlorooctane 90.7 % 35-147

Surrogate: 1-Chlorooctadecane 96.7 % 28-171

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Hungry Horse Environmental
 VERNON BLACK
 P.O. Box 1058
 Hobbs NM, 88240
 Fax To: (505) 391-4585

Received: 02/25/2016
 Reported: 03/03/2016
 Project Name: ONYX PWU 29 #3
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/24/2016
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 2 4' (H600421-06)

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	02/26/2016	ND	2.06	103	2.00	0.0598			
Toluene*	<0.050	0.050	02/26/2016	ND	2.03	101	2.00	0.159			
Ethylbenzene*	<0.050	0.050	02/26/2016	ND	1.82	90.8	2.00	0.254			
Total Xylenes*	<0.150	0.150	02/26/2016	ND	5.58	92.9	6.00	0.718			
Total BTEX	<0.300	0.300	02/26/2016	ND							

Surrogate: 4-Bromofluorobenzene (PIL) 98.6 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/26/2016	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	02/26/2016	ND	198	98.8	200	7.73		
DRO >C10-C28	112	10.0	02/26/2016	ND	208	104	200	14.9		

Surrogate: 1-Chlorooctane 94.0 % 35-147

Surrogate: 1-Chlorooctadecane 102 % 28-171

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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*=Accredited Analyte

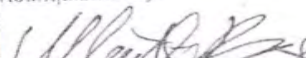
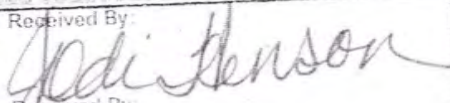
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Celey D. Keene, Lab Director/Quality Manager



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

[illegible]

Relinquished By:  Relinquished By: _____ Date: 2-25-16 Time: 10:15 Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Received By:  Received By: _____ Date: _____ Time: _____ Sample Condition: Cool Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #: REMARKS:	
--	--	---	--	--	--

Bratcher, Mike, EMNRD

From: Bratcher, Mike, EMNRD
Sent: Thursday, March 10, 2016 2:31 PM
To: 'Vernon Black'; Fulks, Brett
Cc: Patterson, Heather, EMNRD
Subject: RE: Devon Onyx PWU 29 #3H Work Plan Packet.pdf

RE: Devon Energy * Onyx PWU 29-3H * 30-015-39373
2RP-3481 * DOR: 1/4/2016

Vernon,

Your proposal for remediation of the above referenced release is approved. It is OCD's understanding that samples will be obtained from the impacted area after 60 - 90 days from the initial Microblaze application, to assess progress of the insitu bioremediation. If RRAL for the site has not been achieved after 180 days, OCD will request excavation of the impacted material. Please advise when future sampling events are scheduled.

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

If you have any questions or concerns, and for notification, please contact me.

Mike Bratcher
NMOCD District 2
811 S. First Street
Artesia, NM 88210
O: 575-748-1283 X108
C: 575-626-0857
F: 575-748-9720

PWU in the well name probably stands for Parkway Unit, just a guess based on where the site is.

-----Original Message-----

From: Vernon Black [mailto:vblack@hungry-horse.com]
Sent: Thursday, March 10, 2016 6:21 AM
To: Bratcher, Mike, EMNRD
Subject: Devon Onyx PWU 29 #3H Work Plan Packet.pdf

Hello Mike,

Please see the attached work plan for the above referenced Devon location.

Thanks,
VKB

Oh by the way, was does PWU stand for in the well name?

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 22672

CONDITIONS

Operator: Pima Environmental Services, LLC 5614 N Lovington Hwy Hobbs, NM 88240	OGRID: 329999
	Action Number: 22672
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	Requires like approval from NMSLO.	10/12/2022