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Remediation and Closure Report

West Red Lake Unit Water Station #001
Talon Project # 701307.124.01 *2RP-5643

Prepared For:

Lime Rock Resources
1111 Bagby St. Suite 4600
Houston, TX 77002

Prepared By:

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

October 24, 2019

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

Subject: **Remediation and Closure Report**
WRLU Water Station #001*2RP-5642
Eddy County, NM

Dear Mr. Bratcher,

Lime Rock Resources contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above-referenced location. The results of our remediation and closure request is contained herein.

Site Information

WRLU Water Station #001 is located approximately seven (7) miles southeast of Artesia, New Mexico. The legal location for this release is Unit Letter B, Section 7, Township 18 South and Range 27 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.769121 North and -104.314282 West. A Site Map is presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Gypsum lands. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is Guadalupian in age and is comprised of weathered gypsum. Drainage courses in this area are well-drained.

Ground Water and Site Ranking

The New Mexico Office of the State Engineer Database indicates the nearest reported depth to groundwater is 8-feet below ground surface (BGS). See [Appendix II](#) for the referenced groundwater depth. This site is located within a high potential Karst area.

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

Approximate Depth to Groundwater 50 Feet/BGS

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

Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤50 feet	Total Chlorides***	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Incident Description

On August 8, 2019, a 2 7/8" IPC injection line was discovered to be leaking due to corrosion. A total of 90 barrels (bbls) of produced water were released and the fluids ran down a ravine. No fluids were recovered.

Site Assessment

On August 9, 2019, Talon mobilized personnel to begin site assessment and soil sampling activities. Grab soil samples were collected in areas accessible within the ravine in the impacted areas utilizing a hand auger. Results from our initial sampling event are presented in the following data table. A complete laboratory report can be found in [Appendix V](#).

9-9-19 Soil Samples

Sample ID	Sample Date	Depth (BGS)	BTEX mg/kg	Benzene mg/kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	Total TPH mg/kg	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			50 mg/kg	10 mg/kg	DRO + GRO combined = 100 mg/kg			100 mg/kg	600 mg/kg
S-1	9/9/2019	0-R	ND	ND	ND	86.2	ND	86.2	19200
S-2	9/9/2019	0-R	ND	ND	ND	ND	ND	ND	18600
S-3	9/9/2019	0-R	ND	ND	ND	80.8	ND	80.8	12000
S-4	9/9/2019	0-R	ND	ND	ND	ND	ND	ND	31200
S-5	9/9/2019	0-R	ND	ND	ND	ND	ND	ND	6660
S-6	9/9/2019	0-R	ND	ND	ND	ND	ND	ND	13000
S-7	9/9/2019	0-R	ND	ND	ND	ND	ND	ND	160
S-8	9/9/2019	0-R	ND	ND	ND	ND	ND	ND	480

ND= Not Detected

9-11-19 Fresh Water Flush Samples

Sample ID	Sample Date	Depth (BGS)	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			600 mg/kg
Truck 1	9/13/2019		336
Truck 2	9/13/2019		308
Truck 3	9/13/2019		296
Truck 4	9/13/2019		476
Truck 5	9/13/2019		292
Truck 6	9/13/2019		280
Truck 7	9/13/2019		284
Sump	9/13/2019	Initial	1310
Sump	9/13/2019	After Flush	810

9-24-19 Rainwater Runoff Sump Sample

Sample ID	Sample Date	Depth (BGS)	Cl mg/kg
NMOCD Table 1 Closure Criteria 19.15.29 NMAC			600 mg/kg
3rd Sump Sample	9/24/2019	Sump	128

Remedial Actions:

- The pasture and ravine were inaccessible to equipment. Following a phone meeting with NMOCD, verbal approval was given to flush the ravine with fresh water. This area was flushed with eight (8) 120 bbl water trucks containing fresh water. The runoff water was recovered by vac trucks from the constructed sump (see site map) and properly disposed of. The constructed sump will subsequently be disposed of as well. Pictures of the water flush are attached in [Appendix IV](#).
- Samples were collected from the trucks containing freshwater to verify the chloride content of the flush water.
- On September 22, 2019, a rainstorm occurred acting as a natural flush. A water sample was retrieved on 9-24-19 from the rain filled sump and results are attached in [Appendix V](#).
- See [Appendix IV](#) for Photographic Documentation of remedial actions.
- A Final C-141 is attached in [Appendix III](#).

Closure

On behalf of Lime Rock Resources, we respectfully request that no further actions be required at this site and that closure with regard to this incident be granted.

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

Respectfully submitted,

TALON/LPE



Chris Jones
Project Manager



David J Adkins
District Manager

Attachments:

- Appendix I Site Map, Karst Map, TOPO Map & Locator Map
- Appendix II Soil Survey, Groundwater Data & FEMA Flood Zone
- Appendix III Final C-141
- Appendix IV Photographic Documentation
- Appendix V Laboratory Data



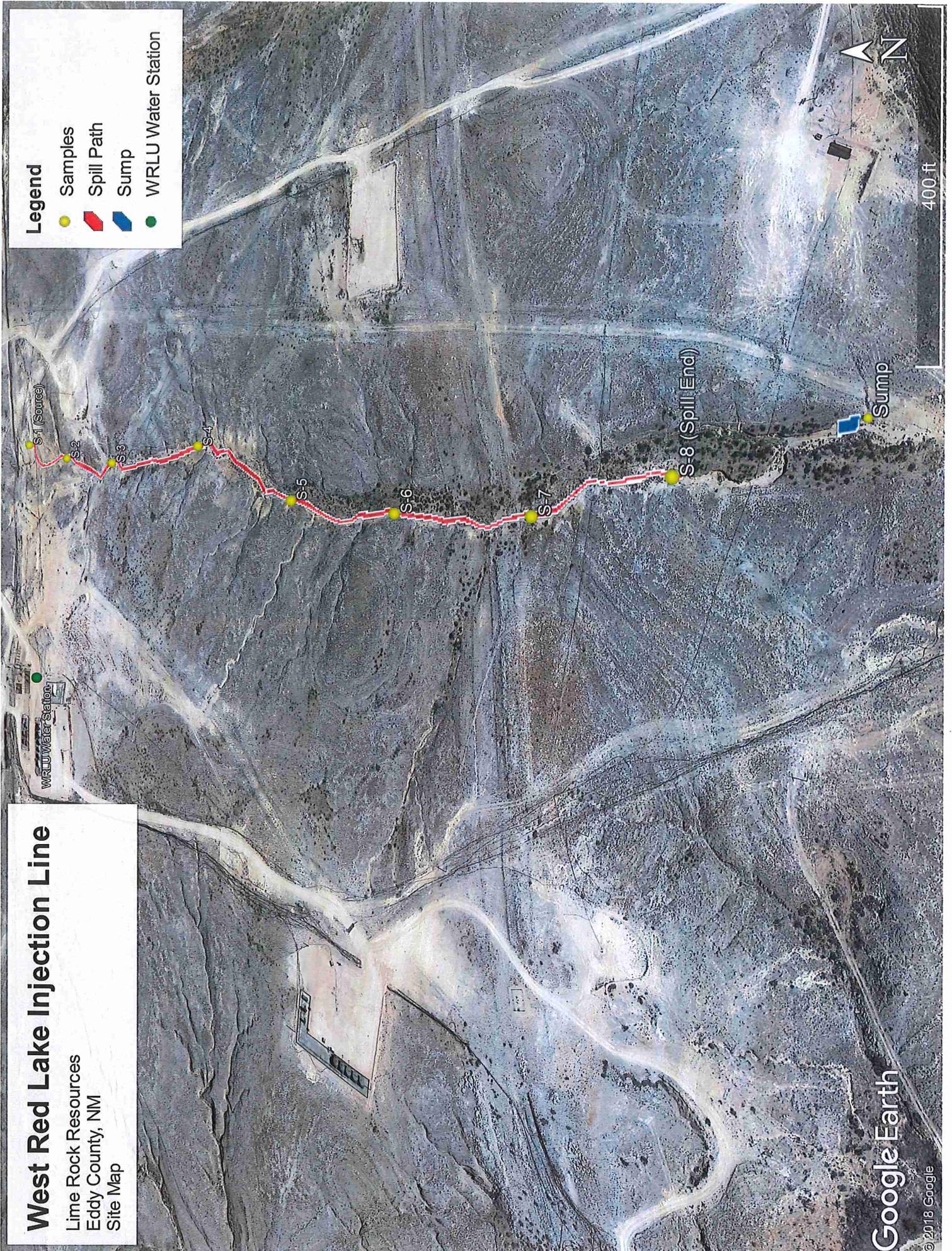
APPENDIX I

SITE MAP

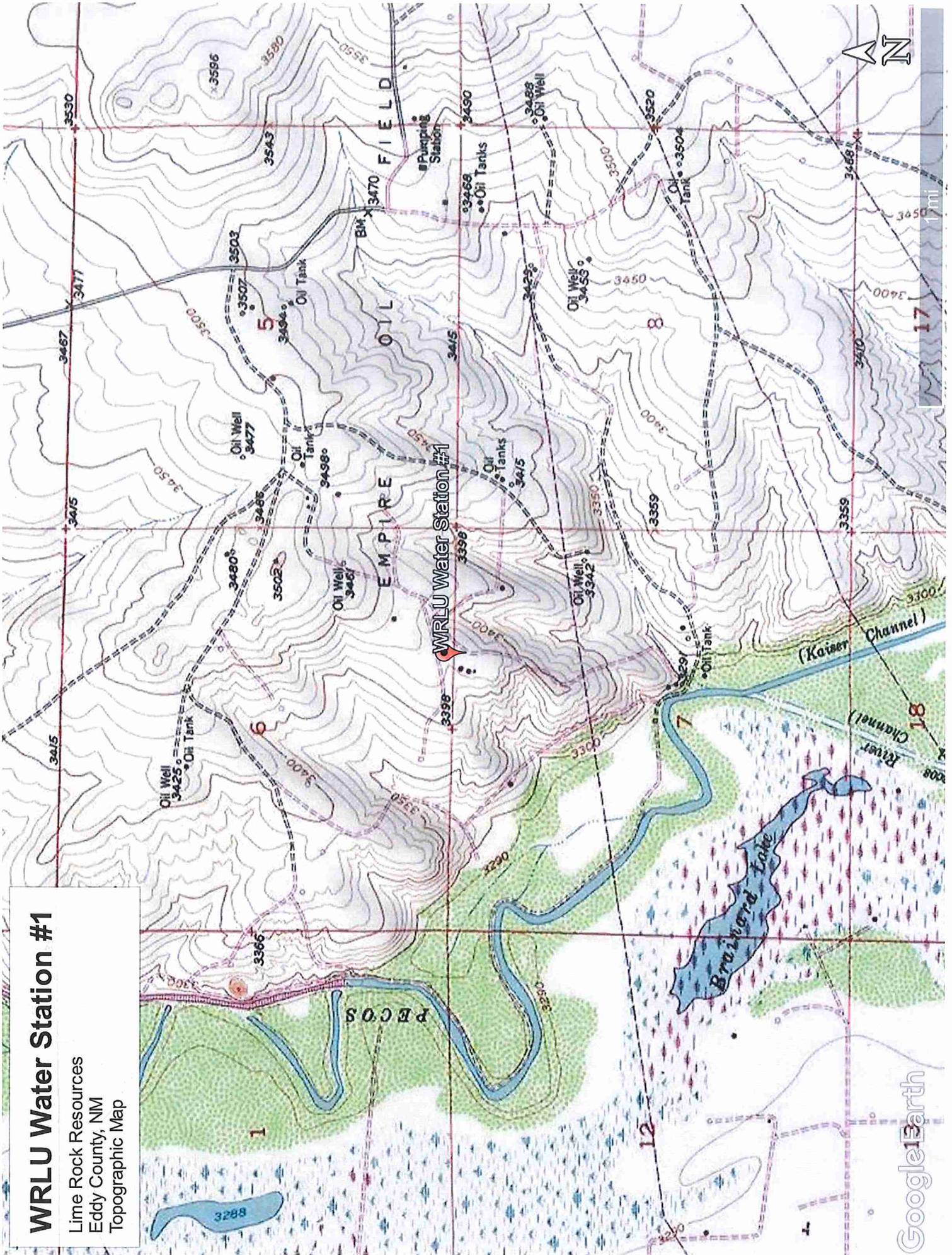
KARST MAP

TOPO MAP

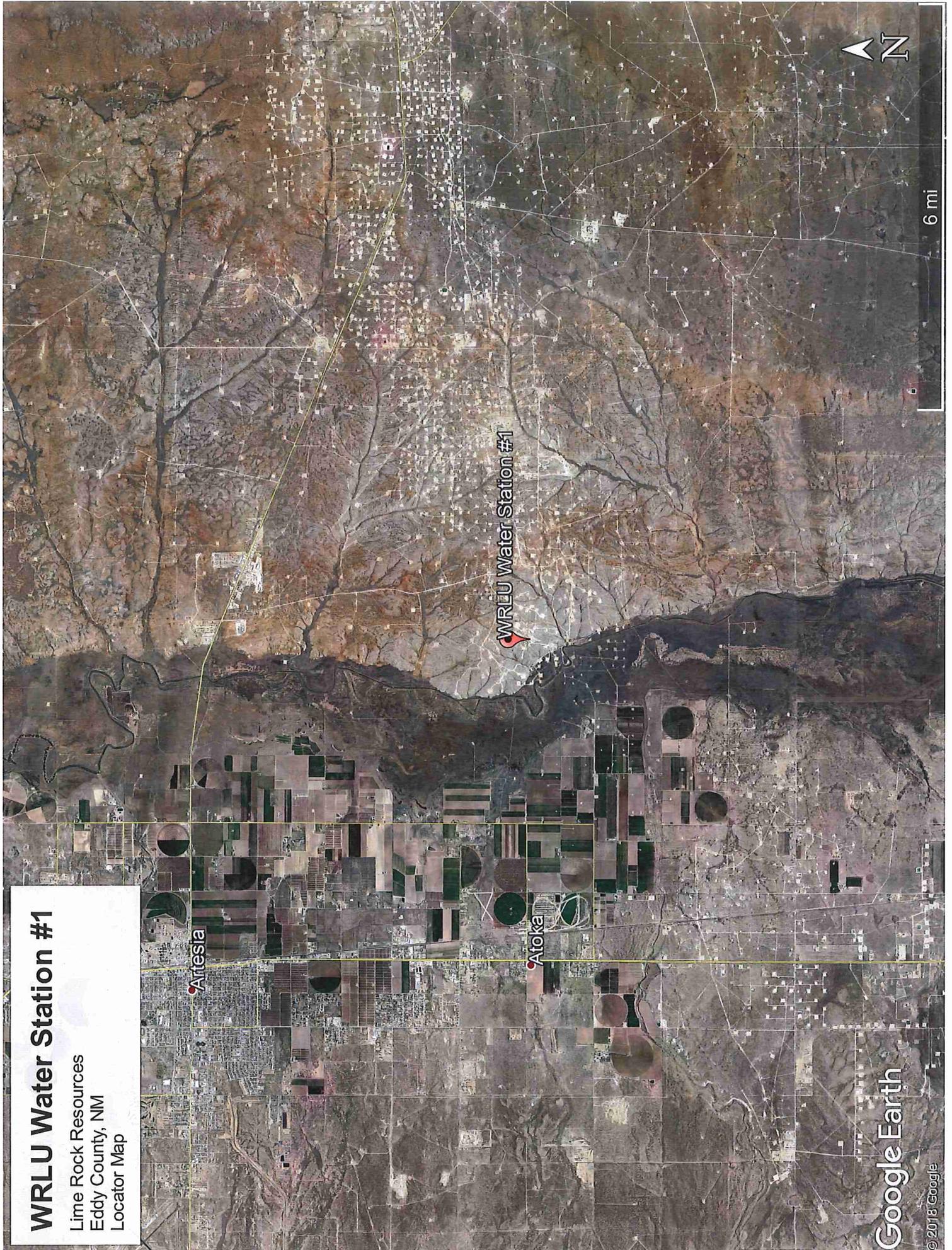
LOCATOR MAP







WRLU Water Station #1
 Lime Rock Resources
 Eddy County, NM
 Topographic Map



WRLU Water Station #1

Lime Rock Resources
Eddy County, NM
Locator Map

WRLU Water Station #1

Artesia

Atoka

Google Earth

© 2018 Google

6 mi



APPENDIX II

SOIL SURVEY

GROUNDWATER DATA

FEMA FLOOD ZONE

Map Unit Description: Gypsum land---Eddy Area, New Mexico

Eddy Area, New Mexico

GA—Gypsum land

Map Unit Setting

National map unit symbol: 1w4f
Elevation: 1,250 to 5,000 feet
Mean annual precipitation: 10 to 25 inches
Mean annual air temperature: 57 to 66 degrees F
Frost-free period: 190 to 225 days
Farmland classification: Not prime farmland

Map Unit Composition

Gypsum land: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gypsum Land

Setting

Landform: Ridges, hills, plains
Landform position (two-dimensional): Backslope, footslope, shoulder, toeslope
Landform position (three-dimensional): Side slope, crest, nose 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

Reeves

Percent of map unit:
Ecological site: Salty Bottomland (R042XC033NM)
Hydric soil rating: No

Cottonwood

Percent of map unit:
Ecological site: Salty Bottomland (R042XC033NM)
Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 14, Sep 12, 2018



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

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

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

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

(NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q	Q	Q	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
RA 05989	RA	ED	3 2 4 01	18S	26E	562774	3626466*			1556	72	8	64		
RA 03714	RA	CH	4 4 2 08	18S	27E	566212	3625253*			2090	381				
RA 03661	RA	ED	3 2 3 32	17S	27E	565186	3628038*			2344	330	140	190		
RA 03664	RA	CH	3 2 3 32	17S	27E	565186	3628038*			2344	400	100	300		
RA 02432	RA	ED	2 3 1 12	18S	26E	561764	3625443*			2502	100				

Average Depth to Water: **82 feet**
Minimum Depth: **8 feet**
Maximum Depth: **140 feet**

Record Count:5

UTMNAD83 Radius Search (in meters):

Easting (X): 564224

Northing (Y): 3625900

Radius: 3000

*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.

8/7/19 9:21 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

National Flood Hazard Layer FIRMette



32°46'23.96"N



USGS The National Map: Orthoimagery. Data refreshed April, 2019.

0 250 500 1,000 1,500 2,000 Feet 1:6,000

32°45'53.71"N

Legend

SEE HIS 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, AP Regulatory Floodway
-----------------------------------	--

OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with 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 GREEN Area of Minimal Flood Hazard Zone X Effective LOMRS Area of Undetermined Flood Hazard Zone
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer Levee, Dike, or Floodwall

OTHER FEATURES	20.2 17.5 Water Surface Elevation Coastal Transect Base Flood Elevation Line (BFE) Limit of Study Jurisdiction Boundary Coastal Transect Baseline Profile Baseline Hydrographic Feature
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MAP PANELS	Digital Data Available No Digital Data Available Unmapped
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The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards. The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/7/2019 at 11:26:39 AM 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 unmapped areas cannot be used for regulatory purposes.

104°18'32.69"W



APPENDIX III

FINAL C-141

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 Lime Rock Resources	OGRID 277558
Contact Name Michael Barrett	Contact Telephone 575-365-9724
Contact email mbarrett@limerockresources.com	Incident # (assigned by OCD)
Contact mailing address 1111 Bagby St Ste 4600 Houston, TX 77002	

Location of Release Source

Latitude 32.7692 _____ Longitude -104.3132 _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name West Red Lake Unit Water Station #1	Site Type Production Facility
Date Release Discovered 9-8-19	API# (if applicable)

Unit Letter	Section	Township	Range	County
B	7	18S	27E	Eddy

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

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released	Volume Recovered
<input checked="" type="checkbox"/> Produced Water	Volume Released (90 bbls)	Volume Recovered (0 bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release: On 9-8-19 at the WRLU Water Station #1 a leak was found due to a split in a 2 7/8" surface IPC injection line due to corrosion. All fluids travelled down the ravine and was unrecoverable. The line was taken out of service until repairs are made.

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Oil Conservation Division

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Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Volume exceeded 25 bbls
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, Chris Jones-Talon LPE to Mike Bratcher, Victoria Venegas, Robert Hamlet-NMOCD, Jim Amos-BLM on 9-9-19 via email.	

Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: 	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: Mike Barrett Signature:  email: mbarrett@limerockresources.com	Title: Production Superintendent Date: <u>9-9-19</u> Telephone: 575-365-9724
<u>OCD Only</u> Received by: _____ Date: _____	

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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?	_____ 50 _____ (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 1/2-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.

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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: Mike Barrett

Title: Production Superintendent

Signature: 

Date: 10-1-19

email: mbarrett@limerockresources.com

Telephone: 575-365-9724

OCD Only

Received by: _____

Date: _____

Form C-141

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Remediation Plan

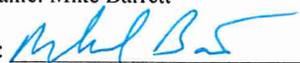
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

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

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

- Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- Extents of contamination must be fully delineated.
- Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Mike Barrett Title: Production Superintendent
 Signature:  Date: 10-1-19
 email: mbarrett@limerockresources.com Telephone: 575-365-9724

OCD Only

Received by: _____ Date: _____

Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature: _____ Date: _____

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State of New Mexico
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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: Mike Barrett

Title: Production Superintendent

Signature: 

Date: 10-1-19

email: mbarrett@limerockresources.com

Telephone: 575-365-9724

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: _____

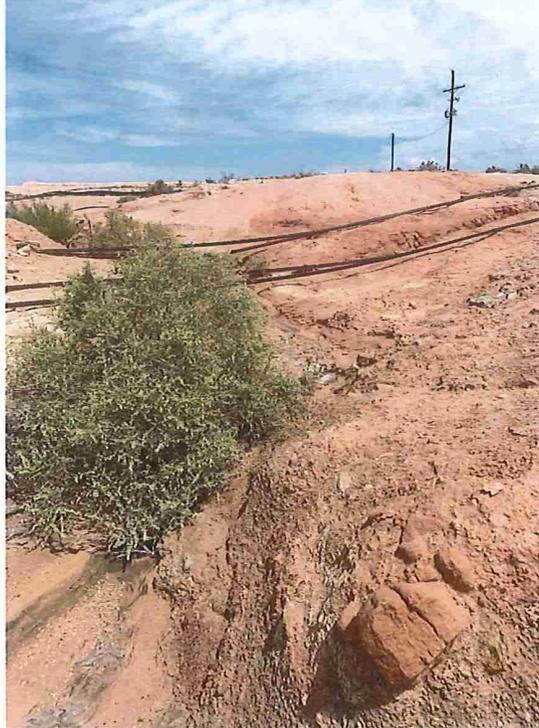
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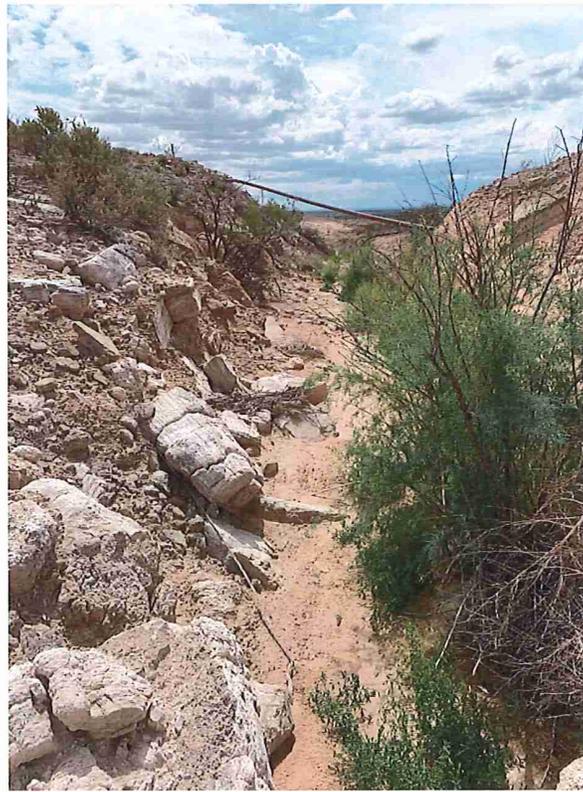
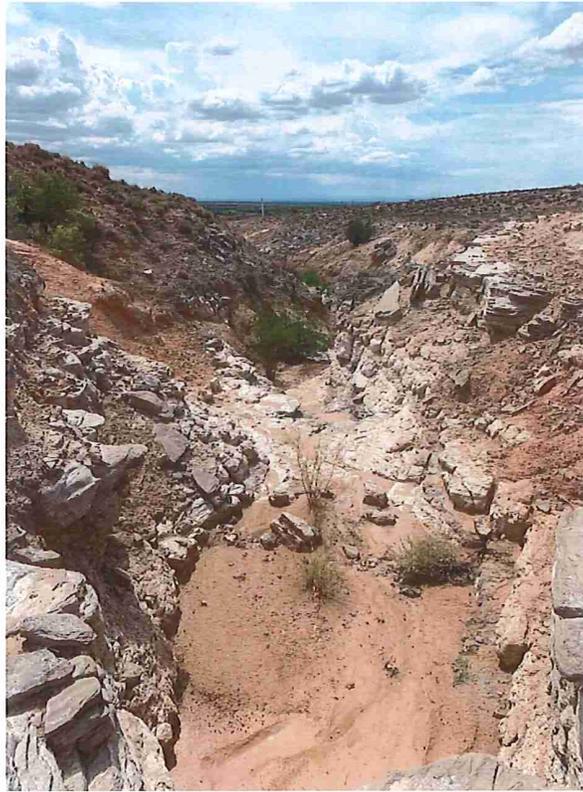


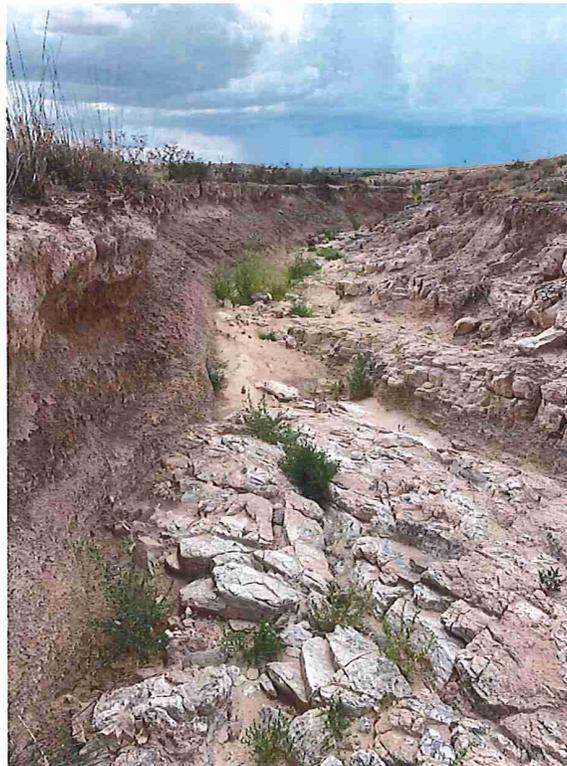
APPENDIX IV

PHOTOGRAPHIC DOCUMENTATION

WRLU Inj Line Spill Path



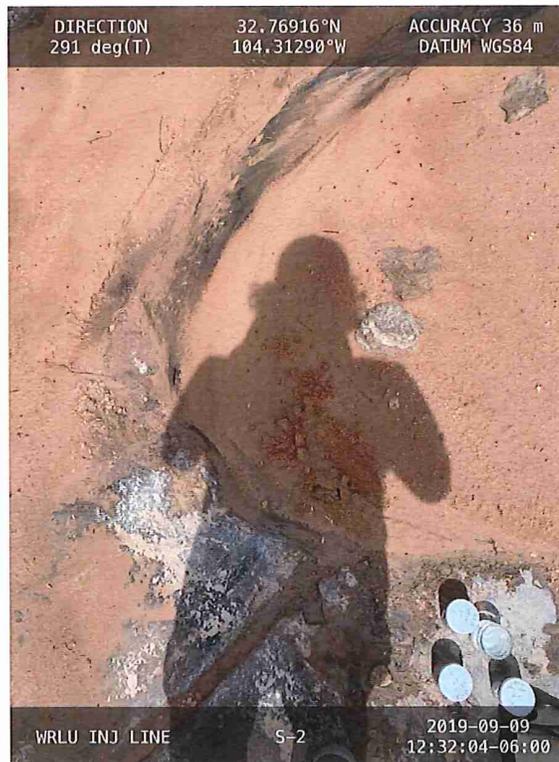






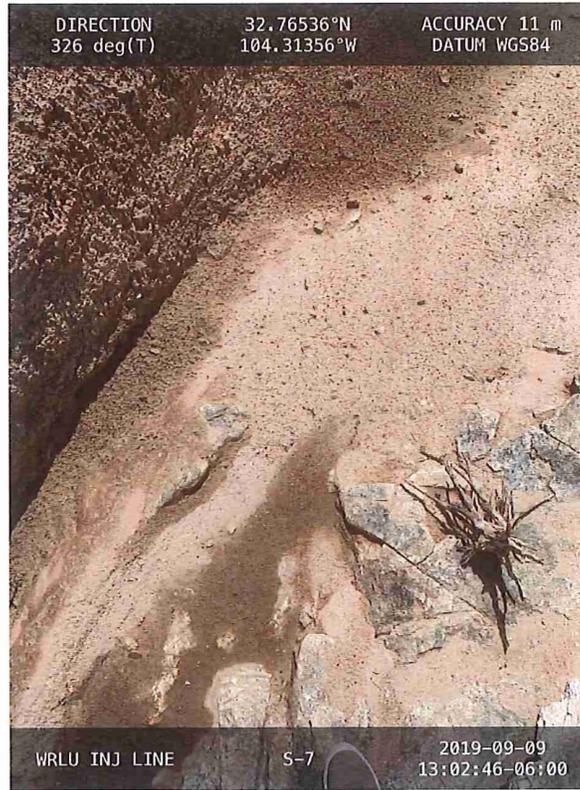


Sample Points









Sump





APPENDIX V

LABORATORY DATA



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

September 10, 2019

CHRIS JONES

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: WEST RED LAKE UNIT WATER STATION

Enclosed are the results of analyses for samples received by the laboratory on 09/09/19 16:55.

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

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:

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

Received:	09/09/2019	Sampling Date:	09/09/2019
Reported:	09/10/2019	Sampling Type:	Soil
Project Name:	WEST RED LAKE UNIT WATER STATION	Sampling Condition:	Cool & Intact
Project Number:	701307.124.01	Sample Received By:	Tamara Oldaker
Project Location:	LIME ROCK - EDDY CO NM		

Sample ID: S - 1 0 R (H903101-01)

BTEX 8021B		mg/kg		Analyzed By: BF						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/10/2019	ND	2.10	105	2.00	1.07		
Toluene*	0.082	0.050	09/10/2019	ND	2.10	105	2.00	1.29		
Ethylbenzene*	<0.050	0.050	09/10/2019	ND	2.15	108	2.00	1.28		
Total Xylenes*	<0.150	0.150	09/10/2019	ND	6.52	109	6.00	1.83		
Total BTEX	<0.300	0.300	09/10/2019	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 89.1 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	19200	16.0	09/10/2019	ND	416	104	400	3.92		

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	09/10/2019	ND	219	109	200	3.07		
DRO >C10-C28*	86.2	10.0	09/10/2019	ND	222	111	200	6.72		
EXT DRO >C28-C36	<10.0	10.0	09/10/2019	ND						

Surrogate: 1-Chlorooctane 88.0 % 41-142

Surrogate: 1-Chlorooctadecane 96.9 % 37.6-147

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	09/09/2019	Sampling Date:	09/09/2019
Reported:	09/10/2019	Sampling Type:	Soil
Project Name:	WEST RED LAKE UNIT WATER STATION	Sampling Condition:	Cool & Intact
Project Number:	701307.124.01	Sample Received By:	Tamara Oldaker
Project Location:	LIME ROCK - EDDY CO NM		

Sample ID: S - 2 0 R (H903101-02)

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/10/2019	ND	2.10	105	2.00	1.07	
Toluene*	0.071	0.050	09/10/2019	ND	2.10	105	2.00	1.29	
Ethylbenzene*	0.068	0.050	09/10/2019	ND	2.15	108	2.00	1.28	
Total Xylenes*	<0.150	0.150	09/10/2019	ND	6.52	109	6.00	1.83	
Total BTEX	<0.300	0.300	09/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 92.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	18600	16.0	09/10/2019	ND	416	104	400	3.92	

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	09/10/2019	ND	219	109	200	3.07	
DRO >C10-C28*	<10.0	10.0	09/10/2019	ND	222	111	200	6.72	
EXT DRO >C28-C36	<10.0	10.0	09/10/2019	ND					

Surrogate: 1-Chlorooctane 90.4 % 41-142

Surrogate: 1-Chlorooctadecane 96.9 % 37.6-147

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	09/09/2019	Sampling Date:	09/09/2019
Reported:	09/10/2019	Sampling Type:	Soil
Project Name:	WEST RED LAKE UNIT WATER STATION	Sampling Condition:	Cool & Intact
Project Number:	701307.124.01	Sample Received By:	Tamara Oldaker
Project Location:	LIME ROCK - EDDY CO NM		

Sample ID: S - 3 0 R (H903101-03)

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/10/2019	ND	2.10	105	2.00	1.07	
Toluene*	<0.050	0.050	09/10/2019	ND	2.10	105	2.00	1.29	
Ethylbenzene*	<0.050	0.050	09/10/2019	ND	2.15	108	2.00	1.28	
Total Xylenes*	<0.150	0.150	09/10/2019	ND	6.52	109	6.00	1.83	
Total BTEX	<0.300	0.300	09/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 90.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12000	16.0	09/10/2019	ND	416	104	400	3.92	

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	09/10/2019	ND	219	109	200	3.07	
DRO >C10-C28*	80.8	10.0	09/10/2019	ND	222	111	200	6.72	
EXT DRO >C28-C36	<10.0	10.0	09/10/2019	ND					

Surrogate: 1-Chlorooctane 92.2 % 41-142

Surrogate: 1-Chlorooctadecane 101 % 37.6-147

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	09/09/2019	Sampling Date:	09/09/2019
Reported:	09/10/2019	Sampling Type:	Soil
Project Name:	WEST RED LAKE UNIT WATER STATION	Sampling Condition:	Cool & Intact
Project Number:	701307.124.01	Sample Received By:	Tamara Oldaker
Project Location:	LIME ROCK - EDDY CO NM		

Sample ID: S - 4 0 R (H903101-04)

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/10/2019	ND	2.10	105	2.00	1.07	
Toluene*	<0.050	0.050	09/10/2019	ND	2.10	105	2.00	1.29	
Ethylbenzene*	<0.050	0.050	09/10/2019	ND	2.15	108	2.00	1.28	
Total Xylenes*	<0.150	0.150	09/10/2019	ND	6.52	109	6.00	1.83	
Total BTEX	<0.300	0.300	09/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 89.1 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	31200	16.0	09/10/2019	ND	416	104	400	3.92	

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	09/10/2019	ND	219	109	200	3.07	
DRO >C10-C28*	<10.0	10.0	09/10/2019	ND	222	111	200	6.72	
EXT DRO >C28-C36	<10.0	10.0	09/10/2019	ND					

Surrogate: 1-Chlorooctane 88.1 % 41-142

Surrogate: 1-Chlorooctadecane 95.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	09/09/2019	Sampling Date:	09/09/2019
Reported:	09/10/2019	Sampling Type:	Soil
Project Name:	WEST RED LAKE UNIT WATER STATION	Sampling Condition:	Cool & Intact
Project Number:	701307.124.01	Sample Received By:	Tamara Oldaker
Project Location:	LIME ROCK - EDDY CO NM		

Sample ID: S - 5 0 R (H903101-05)

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/10/2019	ND	2.10	105	2.00	1.07	
Toluene*	<0.050	0.050	09/10/2019	ND	2.10	105	2.00	1.29	
Ethylbenzene*	<0.050	0.050	09/10/2019	ND	2.15	108	2.00	1.28	
Total Xylenes*	<0.150	0.150	09/10/2019	ND	6.52	109	6.00	1.83	
Total BTEX	<0.300	0.300	09/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 90.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6660	16.0	09/10/2019	ND	416	104	400	3.92	

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	09/10/2019	ND	219	109	200	3.07	
DRO >C10-C28*	<10.0	10.0	09/10/2019	ND	222	111	200	6.72	
EXT DRO >C28-C36	<10.0	10.0	09/10/2019	ND					

Surrogate: 1-Chlorooctane 92.8 % 41-142

Surrogate: 1-Chlorooctadecane 100 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	09/09/2019	Sampling Date:	09/09/2019
Reported:	09/10/2019	Sampling Type:	Soil
Project Name:	WEST RED LAKE UNIT WATER STATION	Sampling Condition:	Cool & Intact
Project Number:	701307.124.01	Sample Received By:	Tamara Oldaker
Project Location:	LIME ROCK - EDDY CO NM		

Sample ID: S - 6 0 R (H903101-06)

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/10/2019	ND	2.10	105	2.00	1.07	
Toluene*	<0.050	0.050	09/10/2019	ND	2.10	105	2.00	1.29	
Ethylbenzene*	<0.050	0.050	09/10/2019	ND	2.15	108	2.00	1.28	
Total Xylenes*	<0.150	0.150	09/10/2019	ND	6.52	109	6.00	1.83	
Total BTEX	<0.300	0.300	09/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 89.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13000	16.0	09/10/2019	ND	416	104	400	3.92	

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	09/10/2019	ND	219	109	200	3.07	
DRO >C10-C28*	<10.0	10.0	09/10/2019	ND	222	111	200	6.72	
EXT DRO >C28-C36	<10.0	10.0	09/10/2019	ND					

Surrogate: 1-Chlorooctane 91.7 % 41-142

Surrogate: 1-Chlorooctadecane 97.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	09/09/2019	Sampling Date:	09/09/2019
Reported:	09/10/2019	Sampling Type:	Soil
Project Name:	WEST RED LAKE UNIT WATER STATION	Sampling Condition:	Cool & Intact
Project Number:	701307.124.01	Sample Received By:	Tamara Oldaker
Project Location:	LIME ROCK - EDDY CO NM		

Sample ID: S - 7 0 R (H903101-07)

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/10/2019	ND	2.10	105	2.00	1.07	
Toluene*	<0.050	0.050	09/10/2019	ND	2.10	105	2.00	1.29	
Ethylbenzene*	<0.050	0.050	09/10/2019	ND	2.15	108	2.00	1.28	
Total Xylenes*	<0.150	0.150	09/10/2019	ND	6.52	109	6.00	1.83	
Total BTEX	<0.300	0.300	09/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 91.8 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	09/10/2019	ND	416	104	400	3.92	

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	09/10/2019	ND	219	109	200	3.07	
DRO >C10-C28*	<10.0	10.0	09/10/2019	ND	222	111	200	6.72	
EXT DRO >C28-C36	<10.0	10.0	09/10/2019	ND					

Surrogate: 1-Chlorooctane 89.7 % 41-142

Surrogate: 1-Chlorooctadecane 95.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

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

Received:	09/09/2019	Sampling Date:	09/09/2019
Reported:	09/10/2019	Sampling Type:	Soil
Project Name:	WEST RED LAKE UNIT WATER STATION	Sampling Condition:	Cool & Intact
Project Number:	701307.124.01	Sample Received By:	Tamara Oldaker
Project Location:	LIME ROCK - EDDY CO NM		

Sample ID: S - 8 0 R (H903101-08)

BTEX 8021B		mg/kg		Analyzed By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/10/2019	ND	2.10	105	2.00	1.07	
Toluene*	<0.050	0.050	09/10/2019	ND	2.10	105	2.00	1.29	
Ethylbenzene*	<0.050	0.050	09/10/2019	ND	2.15	108	2.00	1.28	
Total Xylenes*	<0.150	0.150	09/10/2019	ND	6.52	109	6.00	1.83	
Total BTEX	<0.300	0.300	09/10/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 90.4 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	09/10/2019	ND	416	104	400	3.92	

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	09/10/2019	ND	219	109	200	3.07	
DRO >C10-C28*	<10.0	10.0	09/10/2019	ND	222	111	200	6.72	
EXT DRO >C28-C36	<10.0	10.0	09/10/2019	ND					

Surrogate: 1-Chlorooctane 86.3 % 41-142

Surrogate: 1-Chlorooctadecane 91.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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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

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



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

September 13, 2019

CHRIS JONES

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: WRLU

Enclosed are the results of analyses for samples received by the laboratory on 09/12/19 15:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/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 style with a large, prominent initial 'C'.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	09/12/2019	Sampling Date:	09/11/2019
Reported:	09/13/2019	Sampling Type:	Water
Project Name:	WRLU	Sampling Condition:	** (See Notes)
Project Number:	701307.124.01	Sample Received By:	Tamara Oldaker
Project Location:	LIMEROCK-EDDY CTY., NM		

Sample ID: TRUCK 1 (H903159-01)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	336	4.00	09/13/2019	ND	104	104	100	0.00		

Sample ID: TRUCK 2 (H903159-02)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	308	4.00	09/13/2019	ND	104	104	100	0.00		

Sample ID: TRUCK 3 (H903159-03)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	296	4.00	09/13/2019	ND	104	104	100	0.00		

Sample ID: TRUCK 4 (H903159-04)

Chloride, SM4500Cl-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	476	4.00	09/13/2019	ND	104	104	100	0.00		

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	09/12/2019	Sampling Date:	09/11/2019
Reported:	09/13/2019	Sampling Type:	Water
Project Name:	WRLU	Sampling Condition:	** (See Notes)
Project Number:	701307.124.01	Sample Received By:	Tamara Oldaker
Project Location:	LIMEROCK-EDDY CTY., NM		

Sample ID: SUMP (H903159-05)

Chloride, SM4500CI-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	1310	4.00	09/13/2019	ND	104	104	100	0.00		

Sample ID: TRUCK 5 (H903159-06)

Chloride, SM4500CI-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	292	4.00	09/13/2019	ND	104	104	100	0.00		

Sample ID: TRUCK 6 (H903159-07)

Chloride, SM4500CI-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	280	4.00	09/13/2019	ND	104	104	100	0.00		

Sample ID: TRUCK 7 (H903159-08)

Chloride, SM4500CI-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	284	4.00	09/13/2019	ND	104	104	100	0.00		

Sample ID: TRUCK 8 (H903159-09)

Chloride, SM4500CI-B		mg/L		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride*	328	4.00	09/13/2019	ND	100	100	100	0.00		

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	09/12/2019	Sampling Date:	09/11/2019
Reported:	09/13/2019	Sampling Type:	Water
Project Name:	WRLU	Sampling Condition:	** (See Notes)
Project Number:	701307.124.01	Sample Received By:	Tamara Oldaker
Project Location:	LIMEROCK-EDDY CTY., NM		

Sample ID: SUMP 2 (H903159-10)

Chloride, SM4500Cl-B	mg/L	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	810	4.00	09/13/2019	ND	100	100	100	0.00	

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Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

- 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

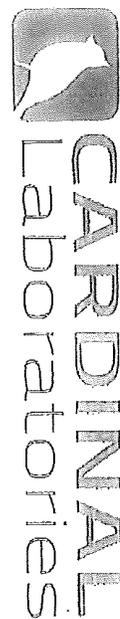
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*=Accredited Analyte

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Celey D. Keene

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

Company Name: Talon LPE		P.O. #:		ANALYSIS REQUEST	
Project Manager: Chris Jones		Company: Talon			
Address: 408 W. Texas		City: Artesia		State: NM Zip: 88210	
City: Artesia		Phone #: 681-6977		Fax #: 681-6977	
Project #: 70130712401		Project Owner: Line Best		City: Artesia	
Project Name: WALU		State: NM		Zip: 88210	
Project Location: Eddy		Phone #: 681-6977		Fax #: 681-6977	
Sampler Name: Chris Jones		FOR LAB USE ONLY			

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	REMARKS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:			
H903159	Truck 1		1						9-11	8:00	Chlorides	
	Truck 2		1							8:20		
	Truck 3		1							8:30		
	Truck 4		1							9:00		
	Truck 5		1							9:30		
	Truck 6		1							9:45		
	Truck 7		1							10:00		
	Truck 8		1							10:30		
	Truck 9		1							11:00		

Delivered By: (Circle One) 1233	Sample Condition	CHECKED BY:
Sampler - UPS - Bus - Other: 1233	Cool <input type="checkbox"/> Infect <input type="checkbox"/>	(Initials)
	Yes <input type="checkbox"/> No <input type="checkbox"/>	

Relinquished By: *[Signature]* Date: **9-12-19** Time: **10:55**

Received By: *[Signature]* Date: **9-12-19** Time: **10:55**

REMARKS: **Rush**

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



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

September 25, 2019

CHRIS JONES

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: WRLU

Enclosed are the results of analyses for samples received by the laboratory on 09/24/19 15:00.

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

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Method EPA 524.4	Regulated VOCs (V1, V2, V3)

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Sincerely,

A handwritten signature in cursive script that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	09/24/2019	Sampling Date:	09/24/2019
Reported:	09/25/2019	Sampling Type:	Water
Project Name:	WRLU	Sampling Condition:	Cool & Intact
Project Number:	701307.124.01	Sample Received By:	Tamara Oldaker
Project Location:	LIMEROCK-EDDY CTY., NM		

Sample ID: SUMP #3 SAMPLE (H903285-01)

Chloride, SM4500Cl-B	mg/L	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	128	4.00	09/25/2019	ND	100	100	100	0.00	

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

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

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Cooley D. Keene

Cooley 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: Talon RE P.O. #:

Project Manager: CSores Company: Talon

Address: 408 W. Texas Attn:

City: Artesia Address:

Phone #: 631-6977 Fax #:

Project #: 701387.124.01 Project Owner: Line Rock

Project Name: WRLU State: NM Zip: 88210

Project Location: Edley, NM City: State: Zip:

Sampler Name: CSores Phone #: Fax #:

FOR LAB USE ONLY	Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	PRESERV.	SAMPLING	DATE	TIME	ANALYSIS
	H90388	SOP #3 Sample	<input checked="" type="checkbox"/>		GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:	ACID/BASE: ICE / COOL OTHER:		9-27-19	9:30	Chlorides

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Relinquished By: [Signature] Date: 9-24-19 Received By: [Signature] Date: 9-27-19

Delivered By: (Circle One) UPS Bus Other: Porting

Observed Temp. °C: 2.2 Corrected Temp. °C: 2.6

Sample Condition: Cool Intact Yes No

Checked By: [Signature] (Initials)

Turnaround Time: Standard Rush Add'l Phone #:

Bacteria (only) Sample Condition: Cool Intact Yes No

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



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

September 25, 2019

CHRIS JONES

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: WRLU

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Method EPA 524.2	Total Trihalomethanes (TTHM)
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Sincerely,

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Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

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

Received:	09/24/2019	Sampling Date:	09/24/2019
Reported:	09/25/2019	Sampling Type:	Water
Project Name:	WRLU	Sampling Condition:	Cool & Intact
Project Number:	701307.124.01	Sample Received By:	Tamara Oldaker
Project Location:	LIMEROCK-EDDY CTY., NM		

Sample ID: SUMP #3 SAMPLE (H903285-01)

Chloride, SM4500Cl-B	mg/L	Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	128	4.00	09/25/2019	ND	100	100	100	0.00	

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

Notes and Definitions

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- 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

