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HQB4P-190729-C-1410

Remediation and Closure Report

Logan 35 B Fed Battery
2RP-5388
Talon Project No. 701307.119.01

Prepared For:

Lime Rock Resources II-A, L.P.
1111 Bagby St Suite 4600
Houston, TX 77002

Prepared By:

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

June 29, 2019

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

Subject: **Remediation and Closure Report**
Logan 35 B Fed Battery
2RP-5388

Dear Mr. Bratcher,

Lime Rock Resources contracted Talon/LPE (Talon) to perform a soil assessment at the above-referenced location. The results of our soil assessment and remediation activities consist of the following.

Site Information

The Logan 35 B Fed Battery is located approximately 10 miles SE of Artesia, New Mexico. The legal location for this release is Unit Letter O, Section 35, Township 17 South and Range 27 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.7860947 North and -104.2476501 West. A site plan is presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture National Resources Conservation Services, the soil in this area is made up of weathered Gypsum. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is Paleozoic Age sedimentary deposits and comprised of the Guadeloupian Artesia Group, Tansil and Yates formations. These are made up of silty soils underlain by hard, weathered gypsum rock and caliches. Drainage courses in this area are normally dry.

Ground Water and Site Assessments

The New Mexico State Engineer web site indicates that the average depth to groundwater in the area is 50-feet below ground surface (BGS). See [Appendix II](#) for the referenced groundwater data.

Depth to groundwater	<50'
Wellhead Protection Area	>1000'
Distance to surface water body	>1000'

The NMOCD Table 1 Closure Criteria for Soils Impacted by a Release, 19.15.29 NMAC, for this project are 50 mg/kg for BTEX, 10 mg/kg for Benzene, 100 mg/kg for TPH and 600 mg/kg for total chlorides.

This location is in an area of High Karst as well as being in a no flood zone. See [Appendix II](#) for FEMA Flood Map and Karst Map.

Incident Description and Initial Remedial Actions

On April 10, 2019, a wind storm occurred causing a loss of power in the area of this battery. Due to the power loss the transfer pump was down and resulted in the produced water tank to overflow. The spill was contained within the bermed battery with a little over spray on the NE side outside the battery. Approximately 340 bbls of produced water and 10 bbls of oil was released. The tank was isolated to prevent any further release.

On April 11, 2019, Lime Rock dispatched vac trucks and roustabouts to begin recovery actions and was able to recover 304 bbls of produced water and 6 bbls of oil. Talon personnel also responded to do an initial assessment and to collect samples. A site plan is presented in [Appendix I](#) which illustrates the impacted area.

See [Appendix V](#) for a complete report of laboratory results. The analytical data is highlighted on the following table.

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 RRAL's			50 mg/kg	10 mg/kg	DRO + GRO combined = 100 mg/kg			100 mg/kg	600 mg/kg
S-1	4/11/2019	0	ND	ND	ND	169	14.3	183.3	8480
		1	ND	ND	ND	ND	ND	0	352
S-2	4/11/2019	0	ND	ND	ND	110	ND	110	480
		1	ND	ND	ND	ND	ND	0	400
		2	ND	ND	ND	ND	ND	0	464
S-3	4/11/2019	0	625	39.5	3780	6120	626	10526	1220
		1	33.9	0.324	228	925	115	1268	768
		2	10.6	0.056	80.2	440	33.8	554	1260
S-4	4/11/2019	0	3.47	ND	56.5	595	76.8	728.3	35200
		0.5	0.81	ND	ND	74.7	14.1	88.8	6640

ND-Analyte Not Detected

Remedial Actions Taken:

- The impacted area on location in the vicinity of S-1 and S-3 was hand and hydro-excavated to a depth of 1.0-foot BGS.
- The impacted area in the vicinity of S-3 and S-4 was hand and hydro-excavated to a depth of 2.0-feet BGS.
- This site had to be hand and hydro-excavated due to infrastructure such as lines, equipment and tanks. A total of 164 yards of contaminated material was removed without compromising the integrity of the tanks and equipment. The area was backfilled using 156 yards of clean caliche and 52 yards of gravel.

- All of the excavated material was hauled to Lea Land, LLC, an NMOCD approved solid waste disposal facility.
- The Final C-141 is appended hereto **Appendix III**.

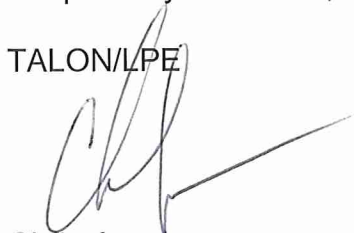
Deferrel Closure

On behalf of Lime Rock Resources, we respectfully request that no further actions be required at this site and that a deferrel until facility closure with regards 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 Plan
- Appendix II Groundwater Data, FEMA Flood Map, Krast Map & Soil Survey
- Appendix III Final C-141
- Appendix IV Photographic Documentation
- Appendix V Laboratory Results



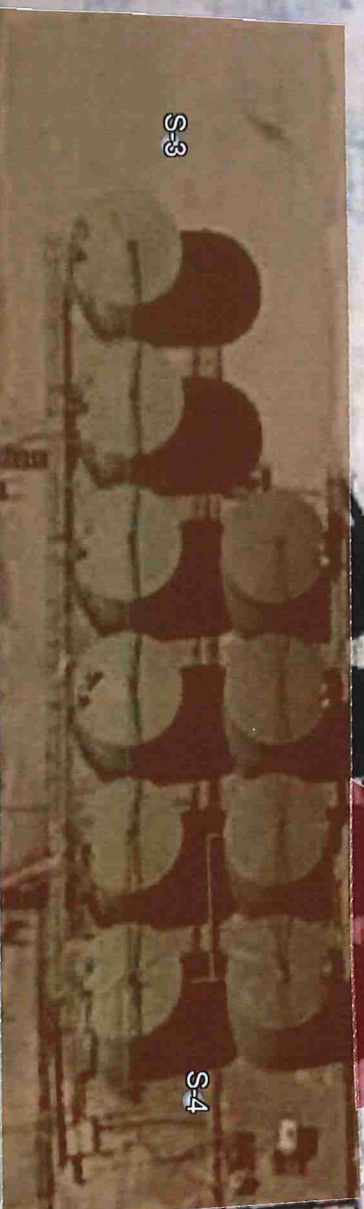
APPENDIX I

SITE PLAN

Logan 35 B Fed Battery

Lime Rock Resources
Eddy County, NM
ZRP-5338

226



Logan 35 B Fed Battery

- Legend**
- Contained Spill Area
 - Over Spray Area
 - Samples



APPENDIX II

GROUNDWATER DATA

FEMA FLOOD ZONE

KARST MAP

SOIL SURVEY



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	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tw	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
RA 04561		RA	ED	4	2	26	17S	27E		570871	3630142*	2355	250		
RA 03917		RA	LE	4	1	2	10	18S	27E	569019	3625660*	2595	130	50	80
Average Depth to Water:														50 feet	
Minimum Depth:														50 feet	
Maximum Depth:														50 feet	

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 570452.223

Northing (Y): 3627823.678

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.

6/12/19 8:51 AM

WATER COLUMN/ AVERAGE DEPTH TO
WATER

Logan 35 B Fed Battery

Lime Rock Resources
Eddy County, NM
2RP-5388
Karst Map

Legend

- High
- Low
- Medium



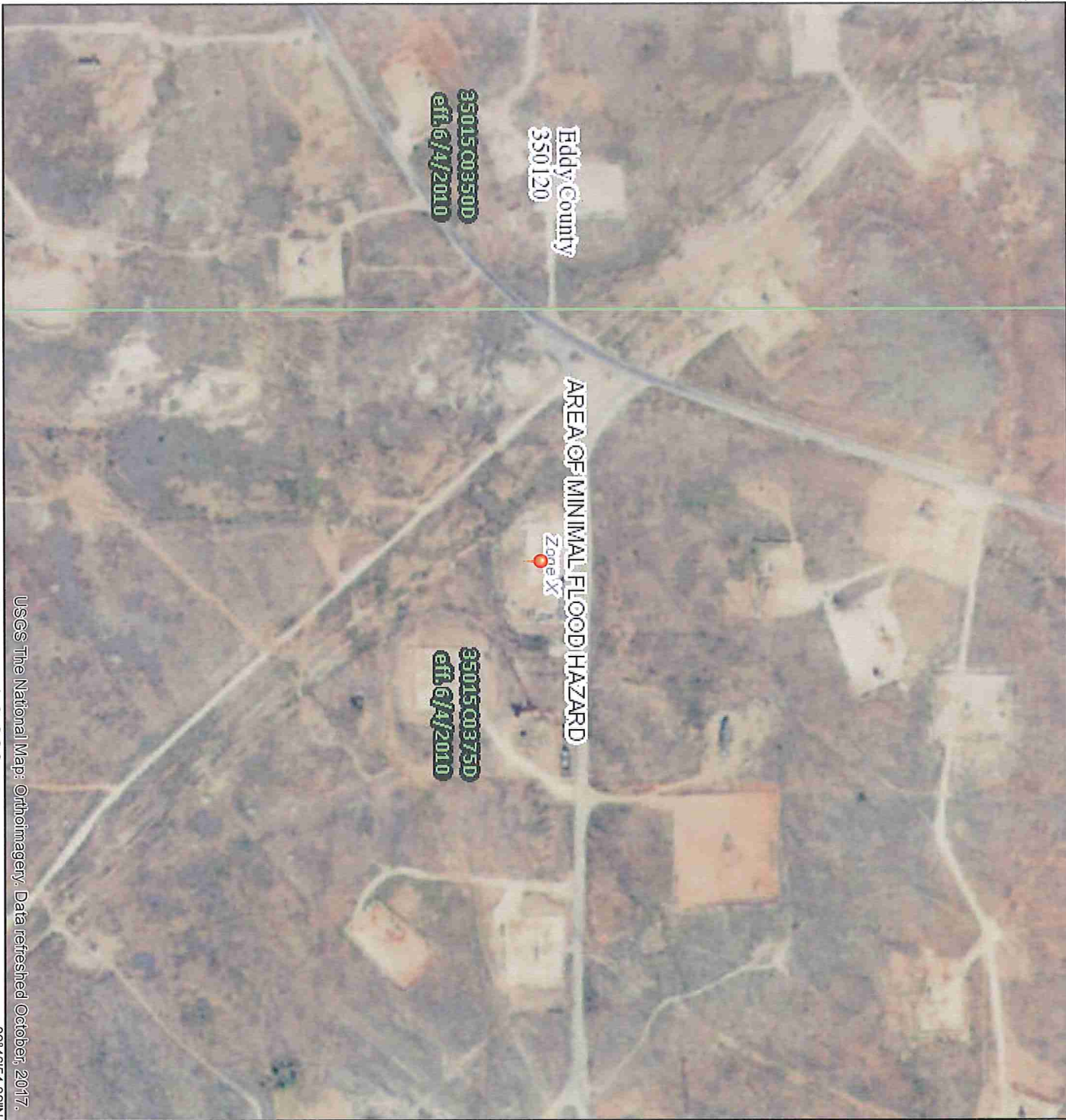
Google Earth

© 2013 Google
Image Landsat / Copernicus

National Flood Hazard Layer FIRMette



32°47'25.07"N







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




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

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

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

 0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with draining areas of less than one square mile (Zone 1)
 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 OF FLOOD HAZARD	 NO SCREEN Area of Minimal Flood Hazard (Zone X)
	 Effective LOMRs
OTHER AREAS	 Area of Undetermined Flood Hazard (Zone X)
GENERAL STRUCTURES	 Channel, Culvert, or Storm Sewer
	 Levee, Dike, or Floodwall

 20.2 Cross Sections with 1% Annual Chance
 17.5 Water Surface Elevation
 59 Coastal Transect
 Base Flood Elevation Line (BFE)
 Limit of Study
 Jurisdiction Boundary
Coastal Transect Baseline
Profile Baseline
Hydrographic Feature

 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 4/11/2019 at 4:05:04 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 unmapped areas cannot be used for regulatory purposes.

Eddy Area, New Mexico

GC—Gypsum land-Cottonwood complex, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w4g
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: 60 percent
Cottonwood and similar soils: 30 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

Description of Cottonwood

Setting

Landform: Ridges, hills
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

Typical profile

H1 - 0 to 8 inches: loam
H2 - 8 to 60 inches: bedrock

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: 3 to 12 inches to paralithic bedrock

Natural drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat):

Moderately high to high (0.20 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 15 percent

Gypsum, maximum in profile: 5 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 1.0

Available water storage in profile: Very low (about 1.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: D

Ecological site: Gyp Upland (R042XC006NM)

Hydric soil rating: No

Minor Components

Cottonwood

Percent of map unit:

Ecological site: Salty Bottomland (R042XC033NM)

Hydric soil rating: No

Rock outcrop

Percent of map unit:

Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico

Survey Area Data: Version 14, Sep 12, 2018



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 32.7860947 Longitude -104.2476501
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Logan 35 B Federal Battery	Site Type Production Facility
Date Release Discovered 4-11-19	API# (if applicable)

Unit Letter	Section	Township	Range	County
O	35	17S	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 checked="" type="checkbox"/> Crude Oil	Volume Released (10 bbls)	Volume Recovered (6 bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (340 bbls)	Volume Recovered (304 bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input 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 4-10-19 a wind storm occurred causing loss of power in the area of this battery. With the loss of power the transfer pumps we not able to pump down the produced water tanks resulting in them over flowing. The spill was contained inside the bermed battery, with very little over spray to the NE side outside the battery. The approximated amount of fluid loss was 350 bbls, Lime Rock dispatched equipment as soon as this was found and vac trucks were able to recover 310 bbls.


State of New Mexico
Oil Conservation Division

Incident ID	NMAP1827465907
District RP	2RP-4989
Facility ID	fMAP1827465258
Application ID	pMAP1827465656

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? The release was more than 25 barrels of produced water.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Yes, David Adkins-Talon LPE to Mike Bratcher-NMOCD via phone call.	

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	Title: Production Superintendent
Signature: 	Date: 9-17-18
email: mbarrett@limerockresources.com	Telephone: 575-365-9724
OCD Only	
Received by: 	Date: 10/01/18

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	_____ (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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


State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: Mike Barrett

Title: Production Superintendent

Signature: 

Date: 3-21-19

email: mbarrett@limerockresources.com

Telephone: 575-365-9724

OCD Only

Received by: _____

Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

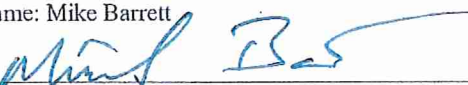
Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

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

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

Printed Name: Mike Barrett

Title: Production Superintendent

Signature: 

Date: 3-21-19

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: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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


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

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

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

Printed Name: Mike Barrett

Title: Production Superintendent

Signature: 

Date: 3-21-19

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: _____

Title: _____

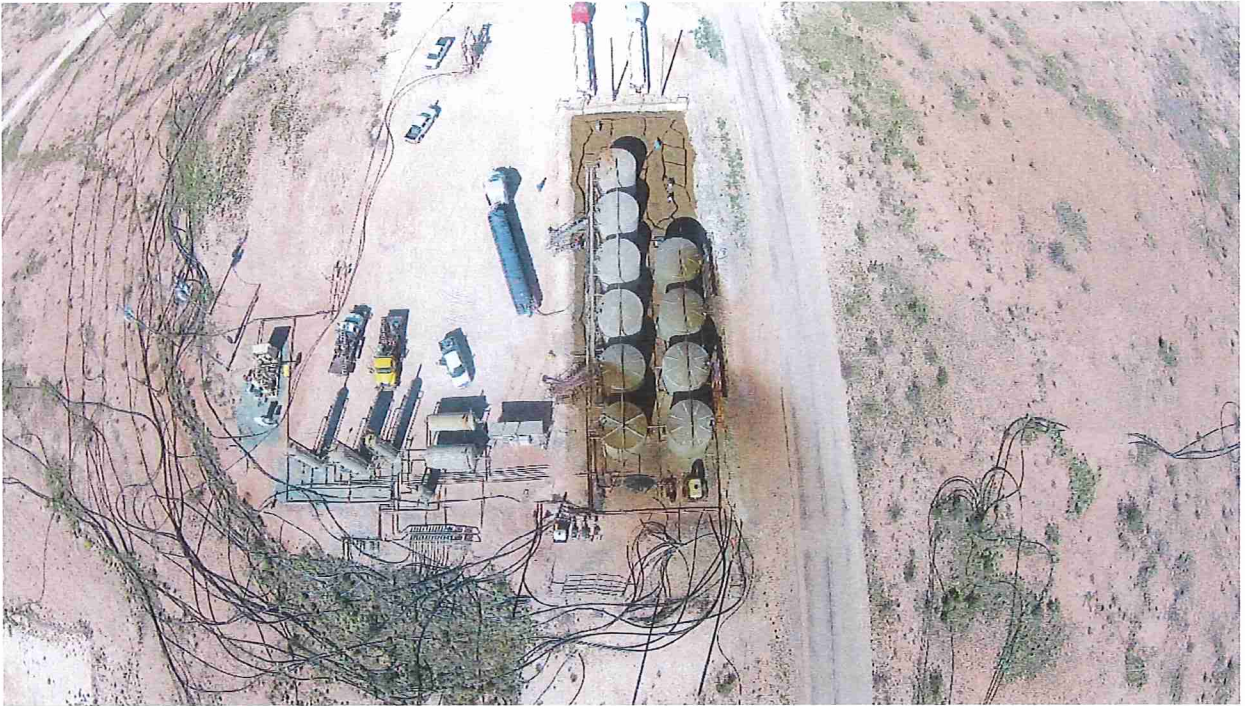


APPENDIX IV

PHOTOGRAPHIC DOCUMENTATION

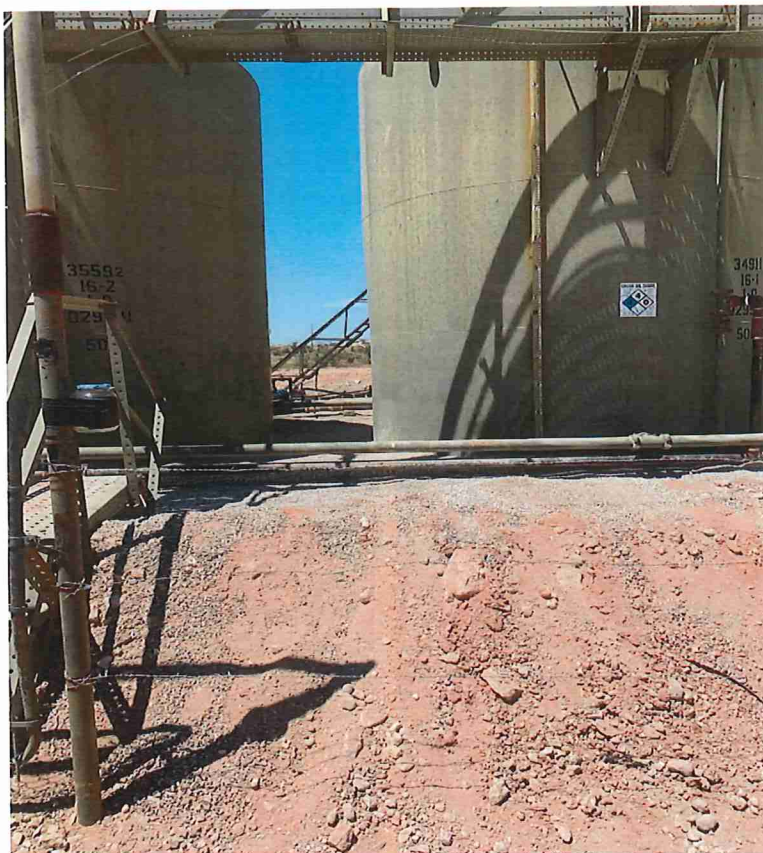
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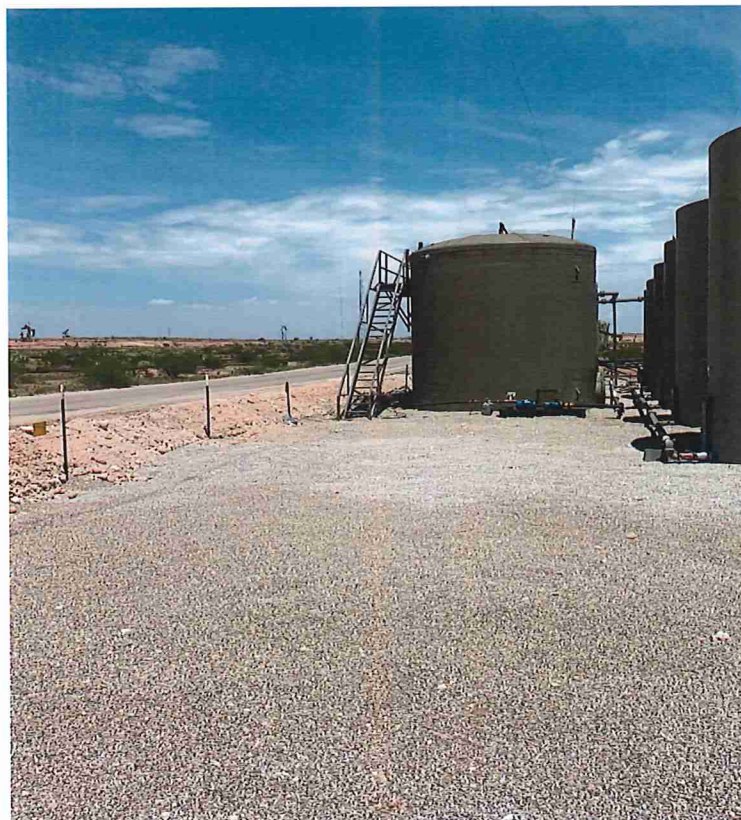
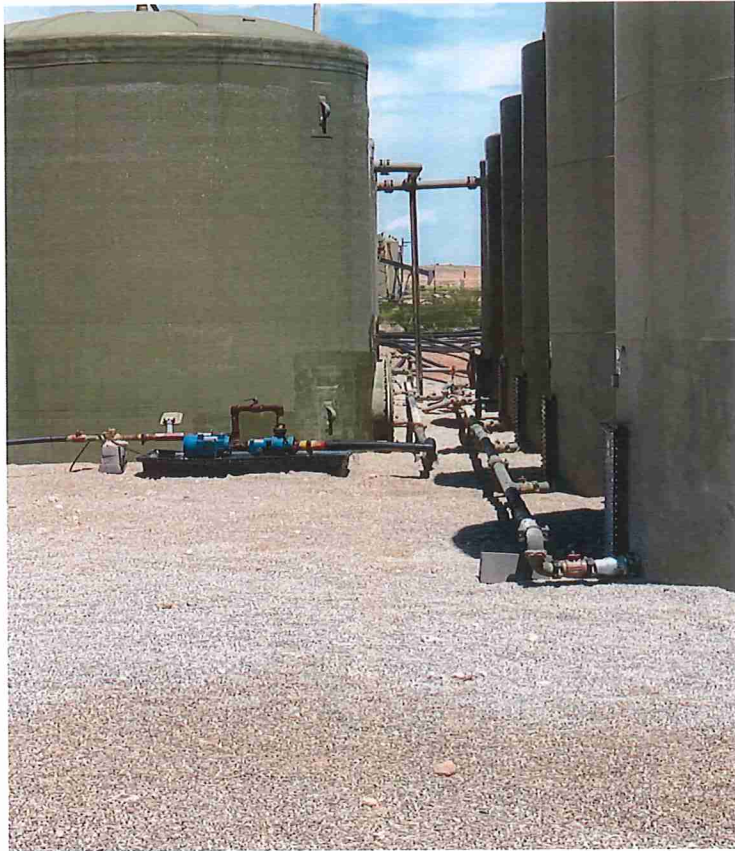


Completed













APPENDIX V

LABORATORY DATA



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

April 16, 2019

CHRIS JONES

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: LOGAN 35 B FED BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 04/11/19 15:40.

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,

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/11/2019
 Reported: 04/16/2019
 Project Name: LOGAN 35 B FED BATTERY
 Project Number: 701307.119.01
 Project Location: LIMEROCK - EDDY CO NM

 Sampling Date: 04/11/2019
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: S - 1 0 (H901335-01)

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	04/12/2019	ND	2.06	103	2.00	0.775	
Toluene*	<0.050	0.050	04/12/2019	ND	1.96	97.8	2.00	0.878	
Ethylbenzene*	<0.050	0.050	04/12/2019	ND	2.04	102	2.00	0.624	
Total Xylenes*	<0.150	0.150	04/12/2019	ND	6.23	104	6.00	0.453	
Total BTX	<0.300	0.300	04/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 94.7 % 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	8480	16.0	04/15/2019	ND	416	104	400	3.77	

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	04/12/2019	ND	204	102	200	0.864	
DRO >C10-C28*	169	10.0	04/12/2019	ND	208	104	200	2.17	
EXT DRO >C28-C36	14.3	10.0	04/12/2019	ND					

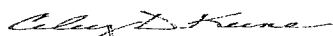
Surrogate: 1-Chlorooctane 88.0 % 41-142

Surrogate: 1-Chlorooctadecane 98.4 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/11/2019
 Reported: 04/16/2019
 Project Name: LOGAN 35 B FED BATTERY
 Project Number: 701307.119.01
 Project Location: LIMEROCK - EDDY CO NM

 Sampling Date: 04/11/2019
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: S - 1 1 (H901335-02)

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	04/12/2019	ND	2.06	103	2.00	0.775	
Toluene*	<0.050	0.050	04/12/2019	ND	1.96	97.8	2.00	0.878	
Ethylbenzene*	<0.050	0.050	04/12/2019	ND	2.04	102	2.00	0.624	
Total Xylenes*	<0.150	0.150	04/12/2019	ND	6.23	104	6.00	0.453	
Total BTX	<0.300	0.300	04/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 93.0 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	04/16/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/12/2019	ND	204	102	200	0.864	
DRO >C10-C28*	<10.0	10.0	04/12/2019	ND	208	104	200	2.17	
EXT DRO >C28-C36	<10.0	10.0	04/12/2019	ND					

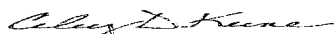
Surrogate: 1-Chlorooctane 89.1 % 41-142

Surrogate: 1-Chlorooctadecane 93.2 % 37.6-147

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/11/2019
 Reported: 04/16/2019
 Project Name: LOGAN 35 B FED BATTERY
 Project Number: 701307.119.01
 Project Location: LIMEROCK - EDDY CO NM

 Sampling Date: 04/11/2019
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: S - 2 0 (H901335-04)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/12/2019	ND	2.06	103	2.00	0.775	
Toluene*	<0.050	0.050	04/12/2019	ND	1.96	97.8	2.00	0.878	
Ethylbenzene*	<0.050	0.050	04/12/2019	ND	2.04	102	2.00	0.624	
Total Xylenes*	<0.150	0.150	04/12/2019	ND	6.23	104	6.00	0.453	
Total BTEx	<0.300	0.300	04/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 92.9 % 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	480	16.0	04/16/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/12/2019	ND	204	102	200	0.864	
DRO >C10-C28*	110	10.0	04/12/2019	ND	208	104	200	2.17	
EXT DRO >C28-C36	<10.0	10.0	04/12/2019	ND					

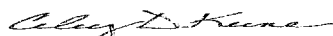
Surrogate: 1-Chlorooctane 86.1 % 41-142

Surrogate: 1-Chlorooctadecane 95.1 % 37.6-147

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 04/11/2019
Reported: 04/16/2019
Project Name: LOGAN 35 B FED BATTERY
Project Number: 701307.119.01
Project Location: LIMEROCK - EDDY CO NM

Sampling Date: 04/11/2019
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Tamara Oldaker

Sample ID: S - 2 1 (H901335-05)

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	04/12/2019	ND	2.06	103	2.00	0.775	
Toluene*	<0.050	0.050	04/12/2019	ND	1.96	97.8	2.00	0.878	
Ethylbenzene*	<0.050	0.050	04/12/2019	ND	2.04	102	2.00	0.624	
Total Xylenes*	<0.150	0.150	04/12/2019	ND	6.23	104	6.00	0.453	
Total BTX	<0.300	0.300	04/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 92.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	04/16/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/12/2019	ND	204	102	200	0.864	
DRO >C10-C28*	<10.0	10.0	04/12/2019	ND	208	104	200	2.17	
EXT DRO >C28-C36	<10.0	10.0	04/12/2019	ND					

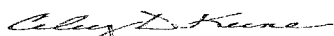
Surrogate: 1-Chlorooctane 85.0 % 41-142

Surrogate: 1-Chlorooctadecane 88.5 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/11/2019
 Reported: 04/16/2019
 Project Name: LOGAN 35 B FED BATTERY
 Project Number: 701307.119.01
 Project Location: LIMEROCK - EDDY CO NM

 Sampling Date: 04/11/2019
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: S - 2 2 (H901335-06)

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	04/12/2019	ND	2.06	103	2.00	0.775	
Toluene*	<0.050	0.050	04/12/2019	ND	1.96	97.8	2.00	0.878	
Ethylbenzene*	<0.050	0.050	04/12/2019	ND	2.04	102	2.00	0.624	
Total Xylenes*	<0.150	0.150	04/12/2019	ND	6.23	104	6.00	0.453	
Total BTX	<0.300	0.300	04/12/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 93.4 % 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	464	16.0	04/16/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/12/2019	ND	204	102	200	0.864	
DRO >C10-C28*	<10.0	10.0	04/12/2019	ND	208	104	200	2.17	
EXT DRO >C28-C36	<10.0	10.0	04/12/2019	ND					

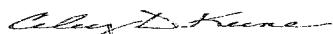
Surrogate: 1-Chlorooctane 85.9 % 41-142

Surrogate: 1-Chlorooctadecane 89.7 % 37.6-147

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/11/2019
 Reported: 04/16/2019
 Project Name: LOGAN 35 B FED BATTERY
 Project Number: 701307.119.01
 Project Location: LIMEROCK - EDDY CO NM

 Sampling Date: 04/11/2019
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: S - 3 0 (H901335-07)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	39.5	2.00	04/15/2019	ND	2.06	103	2.00	0.775	
Toluene*	228	2.00	04/15/2019	ND	1.96	97.8	2.00	0.878	
Ethylbenzene*	115	2.00	04/15/2019	ND	2.04	102	2.00	0.624	
Total Xylenes*	242	6.00	04/15/2019	ND	6.23	104	6.00	0.453	
Total BTEX	625	12.0	04/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 99.7 % 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	1220	16.0	04/16/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10*	3780	50.0	04/12/2019	ND	204	102	200	0.864		
DRO >C10-C28*	6120	50.0	04/12/2019	ND	208	104	200	2.17		
EXT DRO >C28-C36	626	50.0	04/12/2019	ND						

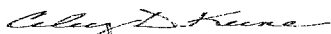
Surrogate: 1-Chlorooctane 175 % 41-142

Surrogate: 1-Chlorooctadecane 226 % 37.6-147

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/11/2019
 Reported: 04/16/2019
 Project Name: LOGAN 35 B FED BATTERY
 Project Number: 701307.119.01
 Project Location: LIMEROCK - EDDY CO NM

 Sampling Date: 04/11/2019
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: S - 3 1 (H901335-08)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.324	0.050	04/15/2019	ND	2.06	103	2.00	0.775	
Toluene*	7.02	0.050	04/15/2019	ND	1.96	97.8	2.00	0.878	
Ethylbenzene*	7.85	0.050	04/15/2019	ND	2.04	102	2.00	0.624	
Total Xylenes*	18.7	0.150	04/15/2019	ND	6.23	104	6.00	0.453	
Total BTEX	33.9	0.300	04/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 129 % 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	768	16.0	04/16/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	228	10.0	04/12/2019	ND	204	102	200	0.864	
DRO >C10-C28*	925	10.0	04/12/2019	ND	208	104	200	2.17	
EXT DRO >C28-C36	115	10.0	04/12/2019	ND					

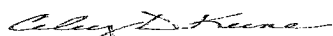
Surrogate: 1-Chlorooctane 102 % 41-142

Surrogate: 1-Chlorooctadecane 107 % 37.6-147

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/11/2019
 Reported: 04/16/2019
 Project Name: LOGAN 35 B FED BATTERY
 Project Number: 701307.119.01
 Project Location: LIMEROCK - EDDY CO NM

 Sampling Date: 04/11/2019
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: S - 3 2 (H901335-09)

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.056	0.050	04/15/2019	ND	2.06	103	2.00	0.775	
Toluene*	1.60	0.050	04/15/2019	ND	1.96	97.8	2.00	0.878	
Ethylbenzene*	2.41	0.050	04/15/2019	ND	2.04	102	2.00	0.624	
Total Xylenes*	6.58	0.150	04/15/2019	ND	6.23	104	6.00	0.453	
Total BTX	10.6	0.300	04/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 114 % 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	1260	16.0	04/16/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	80.2	10.0	04/12/2019	ND	204	102	200	0.864	
DRO >C10-C28*	440	10.0	04/12/2019	ND	208	104	200	2.17	
EXT DRO >C28-C36	33.8	10.0	04/12/2019	ND					

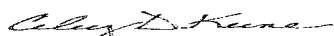
Surrogate: 1-Chlorooctane 90.2 % 41-142

Surrogate: 1-Chlorooctadecane 96.7 % 37.6-147

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/11/2019
 Reported: 04/16/2019
 Project Name: LOGAN 35 B FED BATTERY
 Project Number: 701307.119.01
 Project Location: LIMEROCK - EDDY CO NM

 Sampling Date: 04/11/2019
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: S - 4 0 (H901335-10)

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	04/15/2019	ND	2.06	103	2.00	0.775	
Toluene*	0.467	0.050	04/15/2019	ND	1.96	97.8	2.00	0.878	
Ethylbenzene*	0.794	0.050	04/15/2019	ND	2.04	102	2.00	0.624	
Total Xylenes*	2.20	0.150	04/15/2019	ND	6.23	104	6.00	0.453	
Total BTX	3.47	0.300	04/15/2019	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	35200	16.0	04/16/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	56.5	10.0	04/12/2019	ND	204	102	200	0.864	
DRO >C10-C28*	595	10.0	04/12/2019	ND	208	104	200	2.17	
EXT DRO >C28-C36	76.8	10.0	04/12/2019	ND					

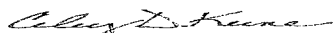
Surrogate: 1-Chlorooctane 94.3 % 41-142

Surrogate: 1-Chlorooctadecane 110 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/11/2019
 Reported: 04/16/2019
 Project Name: LOGAN 35 B FED BATTERY
 Project Number: 701307.119.01
 Project Location: LIMEROCK - EDDY CO NM

 Sampling Date: 04/11/2019
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

Sample ID: S - 4 0.5 (H901335-11)

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	04/15/2019	ND	2.06	103	2.00	0.775	
Toluene*	0.131	0.050	04/15/2019	ND	1.96	97.8	2.00	0.878	
Ethylbenzene*	0.192	0.050	04/15/2019	ND	2.04	102	2.00	0.624	
Total Xylenes*	0.487	0.150	04/15/2019	ND	6.23	104	6.00	0.453	
Total BTX	0.810	0.300	04/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 94.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6640	16.0	04/16/2019	ND	400	100	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	04/12/2019	ND	204	102	200	0.864	
DRO >C10-C28*	74.7	10.0	04/12/2019	ND	208	104	200	2.17	
EXT DRO >C28-C36	14.1	10.0	04/12/2019	ND					

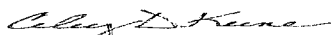
Surrogate: 1-Chlorooctane 84.0 % 41-142

Surrogate: 1-Chlorooctadecane 94.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager

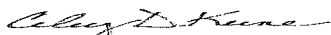
Notes and Definitions

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

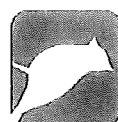
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Celey D. Keene, Lab Director/Quality Manager



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

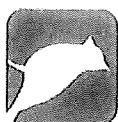
101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: <u>Talco</u>				P.O. #:			
Project Manager: <u>Chris Jones</u>				Company: <u>Talco</u>			
Address: <u>408 W. Texas</u>				Attn:			
City: <u>Artesia</u>				Address:			
State: <u>NM</u> Zip: <u>88270</u>				City:			
Phone #: <u>631-6977</u> Fax #:				State: <u>NM</u> Zip:			
Project #: <u>101307.119.01</u> Project Owner: <u>Line Rock</u>				Phone #:			
Project Location: <u>Eddy</u>				Fax #:			
Sampler Name: <u>C Jones</u>							
FOR LAB USE ONLY:							

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			
4901335	5-1 0	✓	1							4-1-12	1000	Chlorides
1	5-1 1	✓	1							1005	1005	TPH
2	5-1 2	✓	1							1010	1010	BTEX
3	5-2 0	✓	1							1015	1015	
4	5-2 1	✓	1							1020	1020	
5	5-2 2	✓	1							1025	1025	
6	5-3 0	✓	1							1030	1030	
7	5-3 1	✓	1							1035	1035	
8	5-3 2	✓	1							1040	1040	

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Relinquished By: <u>[Signature]</u>		Received By: <u>[Signature]</u>	
Date: <u>4-11-19</u>	Time: <u>15:40</u>	Date:	Time:
Relinquished By:		Received By:	
Delivered By: (Circle One)		Sample Condition	
Sampler - UPS - Bus - Other: <u>11.8c #97</u>	<input type="checkbox"/> Cool <input checked="" type="checkbox"/> Intact	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	CHECKED BY: <u>[Signature]</u>
REMARKS:		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 #:	



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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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[illegible]