



December 3, 2014

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

AMARILLO  
921 North Bivins  
Amarillo, Texas 79107  
Phone 806.467.0607  
Fax 806.467.0622

ARTESIA  
408 West Texas Ave.  
Artesia, New Mexico 88210  
Phone 575.746.8768  
Fax 575.746.8905

HOBBS  
318 East Taylor Street  
Hobbs, New Mexico 88240  
Phone 575.393.4261  
Fax 575.393.4658

MIDLAND  
2901 State Hwy 349  
Midland, Texas 79706  
Phone 432.522.2133  
Fax 432.522.2180

OKLAHOMA CITY  
7700 North Hudson Avenue  
Suite 10  
Oklahoma City, Oklahoma 73116  
Phone 405.486.7030  
Fax 806.467.0622

SAN ANTONIO  
13111 Lookout Way  
San Antonio, Texas 78233  
Phone 210.265.8025  
Fax 210.568.2191

Subject: **Remediation and Closure Report**  
Lime Rock Resources II-A, L.P.  
Windfohr 4 Federal No. 2  
30-015-30411 **2RP-2553**

Dear Mr. Bratcher:

Lime Rock Resources II-A, LP (Lime Rock) has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced location. The results of our soil assessment and proposed remediation activities consist of the following.

#### Incident Date

October 13, 2014

#### Background Information

The Windfohr 4 Federal No. 2 is located approximately fourteen (14) miles southeast of Artesia, New Mexico. The legal location for this site is Section 4, Township 18 South, and Range 27 East. More specifically the latitude and longitude for the release are 32.77428 North and -104.27538 West. A site plan 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 Reeves-Gypsum land complex soils with 0 to 3 percent slopes. The local surface and shallow geology, Quaternary Age sedimentary deposits, is comprised of alluvium and eolian sands which includes silty soils underlain by gypsum and hard caliches. Drainage courses in this area are normally dry. According to the New Mexico Office of the State Engineer groundwater in the project vicinity is approximately 50-feet below ground surface (bgs). See [Appendix II](#) for the referenced groundwater data.

The ranking for this site is **10** based on the following:

ENVIRONMENTAL CONSULTING	Depth to ground water	50' - 100'
ENGINEERING	Wellhead Protection Area	>1000'
DRILLING	Distance to surface water body	>1000'
CONSTRUCTION		
SPILL MANAGEMENT		
GENERAL CONTRACTING		

## Incident Description

A transport driver ran over a surface flow line at the battery causing a release of 45 barrels of produced water. A vac truck was immediately called to the site and recovered 15 barrels. All wells were shut in and the flow line was repaired. Talon mobilized personnel to conduct soil sampling within the facility and along the flow path. The results of these sampling activities are summarized in the table below. A site plan is attached.

## Remedial Actions Taken

The impacted area in the vicinity of sample location S-5 was excavated to a depth of 3.5-feet deep and the remaining areas were excavated to a depth of 2-feet. Confirmation samples were taken from the bottom of the excavation. Confirmation sampling analytical results are presented below.

The excavated soil was transported to Lea Land for disposal. The excavation was subsequently backfilled with new caliche transported from Lea Land. The area was re-contoured to match the surrounding terrain.

## Laboratory Results

See [Appendix III](#) for complete report of laboratory results.

November 17, 2014

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	2'	--	176	--	--
S-3	2'	--	176	--	--
S-5	3.5'	--	272	--	--

--Analyte Not Tested

Based upon the site ranking of **10**, NMOCD Recommended Remedial Action Levels (RRAL's) are 50 mg/kg for BTEX, 10 mg for Benzene, and 1,000 mg/kg for TPH. The chloride standard is considered to be 1,000 mg/kg.

## Closure

On behalf of Lime Rock, we respectfully request that no further actions be required and that closure with respect to these releases be granted. A Final C-141 is also attached in Appendix [IV](#).

If we can provide additional information or be of further assistance please contact our office at 575.746.8768.

Respectfully submitted,

TALON/LPE



Kimberly M. Wilson  
Project Manager



David J. Adkins  
District Manager

## **APPENDIX I**

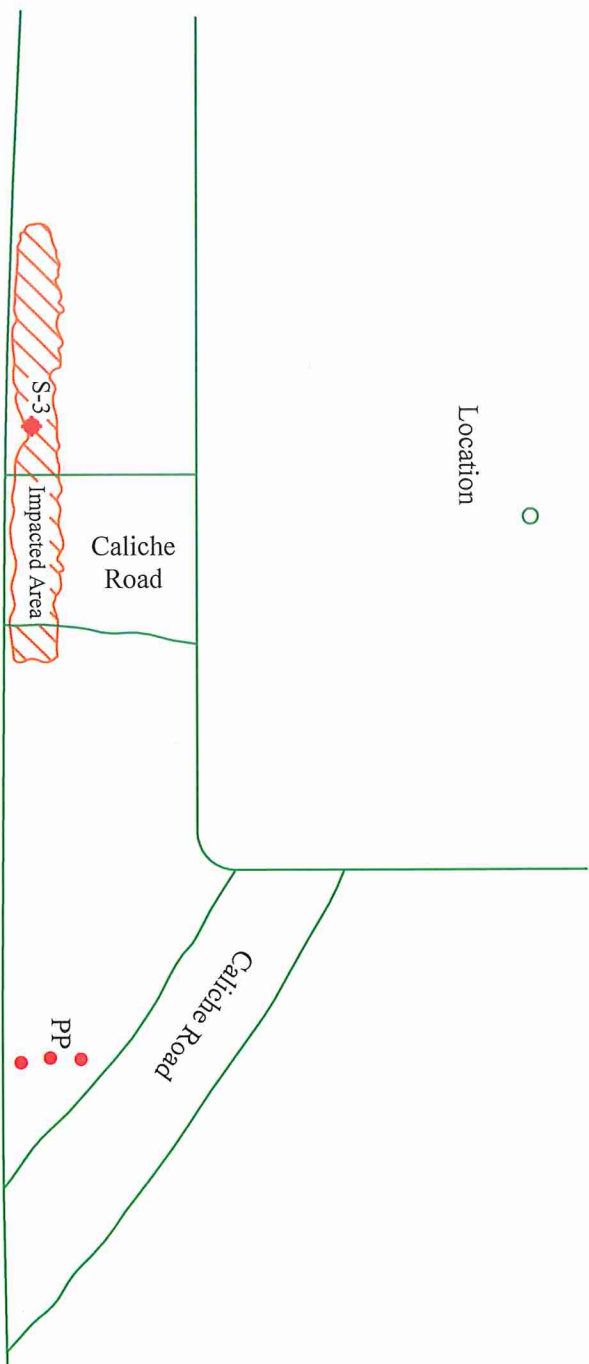
### **SITE MAP**

Location



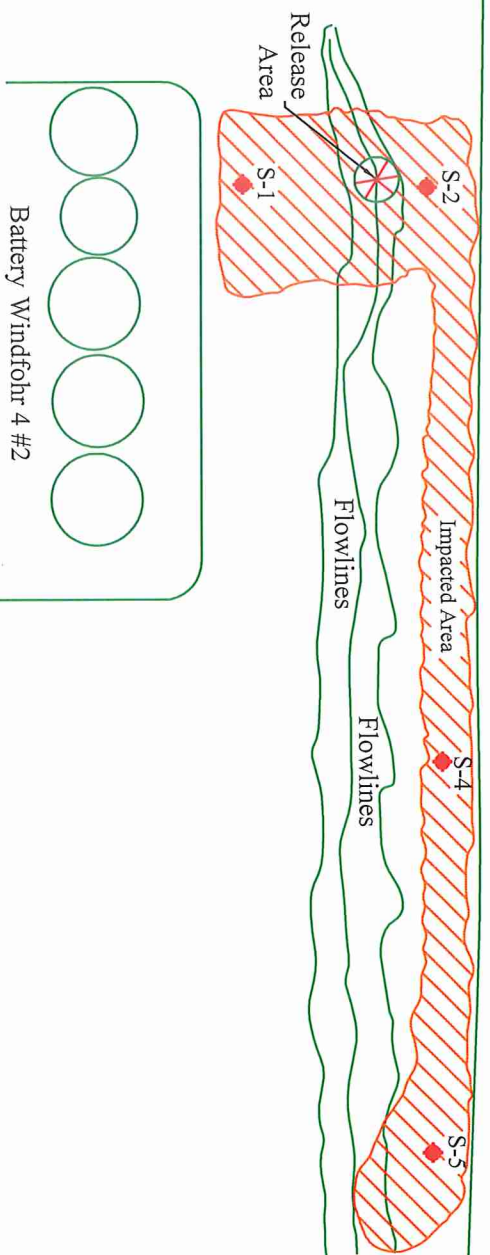
NTS

Scale in Feet



Pavement

Little Diamond



Battery Windfohr 4 #2



Date: 10/28/2014

Scale: NTS

Drawn By: TJS

Windfohr 4 Federal #2 Battery

Lime Rock Resources

Eddy County, New Mexico

Figure 1 - Site Plan

**APPENDIX II**  
**GROUNDWATER DATA**





# 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 Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
<a href="#">RA 03917</a>			LE	4	1	2	10	18S	27E	569019	3625660*	1349	130	50	80
<a href="#">RA 03714</a>			CH	4	4	2	08	18S	27E	566212	3625253*	1895	381		

Average Depth to Water: 50 feet

Minimum Depth: 50 feet

Maximum Depth: 50 feet

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 567814

Northing (Y): 3626267

Radius: 2000

\*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.

**APPENDIX III**  
**LABORATORY RESULTS**



November 17, 2014

KIMBERLY WILSON

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: WINDFOHR 4 FED #2

Enclosed are the results of analyses for samples received by the laboratory on 11/14/14 14:42.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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](http://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  
KIMBERLY WILSON  
408 W. TEXAS AVE.  
ARTESIA NM, 88210  
Fax To: (575) 745-8905

Received: 11/14/2014  
Reported: 11/17/2014  
Project Name: WINDFOHR 4 FED #2  
Project Number: 70130707101  
Project Location: EDDY COUNTY, NM

Sampling Date: 11/14/2014  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson

**Sample ID: S-1 2.0 (H403526-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	11/17/2014	ND	416	104	400	3.92	

**Sample ID: S-3 2.0 (H403526-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	11/17/2014	ND	416	104	400	3.92	

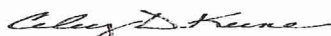
**Sample ID: S-5 3.5 (H403526-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	11/17/2014	ND	416	104	400	3.92	

Cardinal Laboratories

\* = Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**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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Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



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Celey D. Keene, Lab Director/Quality Manager



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

+ Cardinal cannot account verbal channels. Please for written channels for 1574-200-2020 #54

**APPENDIX IV**

**FINAL C-141**



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

## Release Notification and Corrective Action

### OPERATOR

☐ Initial Report ☒ Final Report

Name of Company : LIME ROCK RESOURCES II-A, LP	Contact : Mike Barrett
Address : 1111 Bagby Street Suite 4600, Houston, TX 77002	Telephone No. : 575-623-8424
Facility Name: Windfohr 4 Federal #2 Battery	Facility Type: Battery
Surface Owner : Bogle Farms	Mineral Owner: BLM
	API #30-015-30411 Lease No. # MNL-061783A

### LOCATION OF RELEASE

Unit Letter I	Section 4	Township 18S	Range 27E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
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Latitude 32.775006 N Longitude -104.276077 W

### NATURE OF RELEASE

Type of Release : Produced Water	Volume of Release : 45 bbls PW	Volume Recovered: 15 bbls PW
Source of Release : Surface Flow Line	Date and Hour of Occurrence: 10/13/14 3:00 pm	Date and Hour of Discovery: 10/13/14 @ 3:00 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? BLM/Jeffery Robertson & OCD/Mike Bratcher	
By Whom? Kimberly Wilson with Talon/LPE	Date and Hour :10/13/14 @ 4:00 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	


If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* A surface flow line was run over at the battery by a Par Five driver causing a release of 45 barrels of produced water. A vac truck was immediately called to the site and recovered 15 barrels. All wells were shut in and the flow line was repaired. The initial release point measured approximately 24-feet long by 21-feet wide then flowed east along both sides of Little Diamond Road for approximately 411-feet long by 10 feet wide. A backhoe was used to berm the flow path to prevent further migration.

Describe Area Affected and Cleanup Action Taken.\*

Talon/LPE was contracted for correction of this release. The impacted area in the vicinity of sample location S-5 was excavated to a depth of 3.5-feet deep and the remaining areas were excavated to a depth of 2-feet. Confirmation samples were taken from the bottom of the excavation. The excavated soil was transported to Lea Land for disposal. The excavation was subsequently backfilled with new caliche transported from Lea Land. The area was re-contoured to match the surrounding terrain. No further actions are required.

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Michael Barrett	Approved by District Supervisor:	
Title: Production Supervisor	Approval Date:	Expiration Date:
E-mail Address: mbarrett@limerockresources.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 12/3/2014 Phone: 575-623-8424		

\* Attach Additional Sheets If Necessary