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

AUSTIN
911 West Anderson Lane
Suite 202
Austin, Texas 78757
Phone 512.989.3428
Fax 512.989.3487

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

SAN ANTONIO
11 Commercial Place
Schertz, Texas 78154
Phone 210.265.8025
Fax 210.568.2191

TULSA
525 South Main Street
Suite 535
Tulsa, Oklahoma 74103
Phone 918.742.0871
Fax 918.382.0232

ENVIRONMENTAL CONSULTING
ENGINEERING
DRILLING
CONSTRUCTION
SPILL MANAGEMENT
GENERAL CONTRACTING

Toll Free: 866.742.0742
www.talonlpe.com

September 28, 2012

Mr. Mike Bratcher
NMOCD District 2
1301 West Grand Avenue
Artesia, NM 88210

Subject: **Soil Assessment and Remediation Work Plan**
Lime Rock Resources II-A, L.P.
Atoka San Andres Unit No. 100
30-015-00298 2RP-1289

Dear Mr. Bratcher,

Lime Rock Resources II-A, L.P. (Lime Rock) has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the referenced Atoka San Andres Unit No. 100. The results of our soil assessment and proposed remediation activities consist of the following:

Incident Date

Unknown

Background Information

The Atoka San Andres Unit No. 100 is located approximately nine (9) miles southeast of Artesia, New Mexico. The legal location for the site is Section 12, Township 18 South and Range 26 East in Eddy County, New Mexico. More Specifically the latitude and longitude for the release are 32.76704 North and -104.342689 West.

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 Reeves loam with a 0 to 1 percent slope. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology, Paleozoic Age sedimentary deposits, is comprised of the Guadeloupian Artesia Group, Tansil and Yates formations which include silty soils under lain by weathered gypsum and hard caliches. Drainage courses in this area are normally dry. The New Mexico State Engineer web site indicates the nearest ground water data to be in S1-T18S-R26E. The ground water in the area is reported to be 8' below ground surface (bgs). The referenced groundwater data is presented in Appendix I.

The ranking for this site is 20 based on the as following:

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

Incident Description

On August 20, 2012 an injection line ruptured causing 95 barrels of produced water to be released. The well was shut in and the line was replaced. No fluids were recovered.

Actions Taken

On September 11, 2012 Talon/LPE mobilized personnel to the site to carry out soil sampling activities for the construction of a work plan. Grab soil samples were collected utilizing an air rotary drill rig and split spoon sampling techniques. Grab samples were collected to a depth of 14-feet below land surface. A site map is attached.

All soil samples were collected by Talon personnel wearing clean nitrile gloves. The soil samples were placed in laboratory provided sample containers, iced and transported to Cardinal Laboratories in Hobbs, New Mexico for analysis. The samples were tested for volatile organics (BTEX) per EPA Method 8021B, Total Petroleum Hydrocarbons (TPH) per EPA Method 8015M, and total chlorides via Method SM 4500Cl-B. The complete laboratory report is attached as Appendix II.

Analytical Results

Analytical results received from Cardinal Laboratories are summarized below:

September 21, 2012

Sample	Depth	BTEX	Chlorides	TPH (mg/kg)
BH-1	0'	<0.150	832	<10
	2'	<0.150	12300	<10
	4'	--	16200	--
	6'	--	12000	--
	8'	--	12400	--
	10'	--	4080	--
	12'	--	432	--
	14'	--	528	--
BH-2	5'	--	96	--
	10'	--	240	--

--Analyte Not Tested

For this site's ranking, New Mexico Oil Conservation District action level criterion for BTEX is 50 mg/kg, Benzene is 10 mg/kg and TPH is 100 mg/kg. Chloride cleanup levels are considered to be 1,000 mg/kg or as agreed upon.

Summary

- The depth to groundwater in the project vicinity is 8-feet below land surface per the New Mexico State Engineer Database.

- Based upon the results of the laboratory data obtained for this investigation, the vertical impacts of chlorides have been documented to extend deeper than 14-feet below ground surface.

Proposed Remedial Actions

- The chloride impacted area measuring 122-feet long by 50-feet wide will be excavated to a depth of 8-feet deep. The excavated soil will be transported to a NMOCD approved solid waste disposal facility.

- Confirmation samples will be collected from the sidewalls of the excavation and presented to the OCD for permission to complete excavation activities.

- Upon approval of the confirmation samples, the excavated area will be backfilled using new material transported from a local borrow pit to 4' below land surface.

- A 20 mil. liner will be placed into the bottom of excavated area at 4' deep and the excavation will then be backfilled to grade. The area will be contoured to match the surrounding location.

- A final report documenting all field activities and lab reports will be provided to the NMOCD Artesia Office, including Form C-141.

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

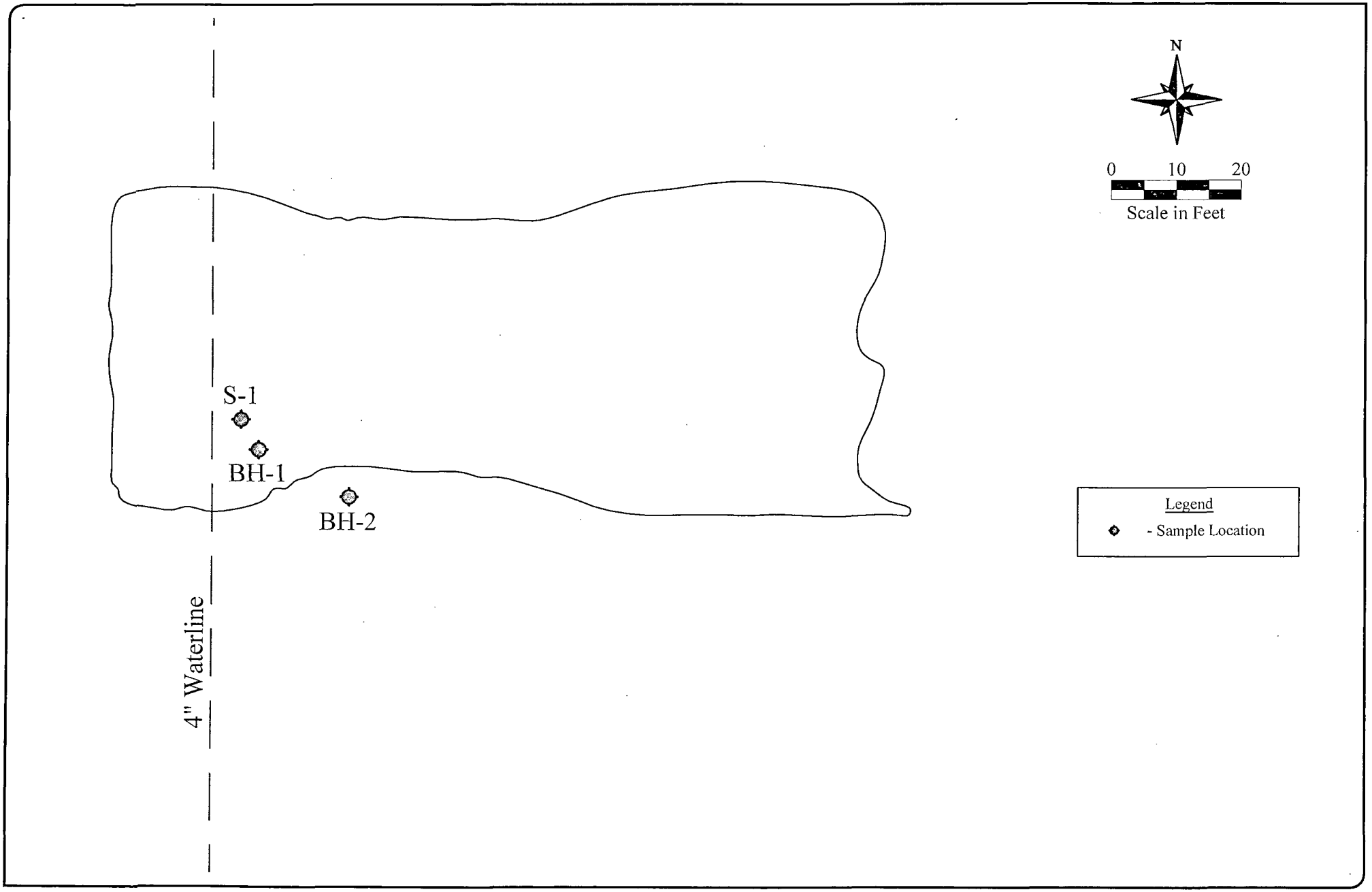
Respectfully submitted,

TALON/LPE

Mike Stubblefield
Project Manager

David J. Adkins
District Manager

SITE MAP



TALON LPE

Date:	09/26/2012
Scale:	1" = 20'
Drawn By:	TJS

Atoka San Andres Unit No. 100
Lime Rock Resources, LLC
Artesia, New Mexico
Figure 1 - Site Plan

APPENDIX I

GROUNDWATER DATA

INITIAL C-141

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	Subbasin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
RA 02432			ED	2	3	1	12	18S	26E	561764	3625443*	452	100		
RA 02043			ED				02	18S	26E	560654	3626749*	1280			
RA 03634			ED	3	1	4	11	18S	26E	560757	3624835*	1296	1797		
RA 05989			ED	3	2	4	01	18S	26E	562774	3626466*	1357	72	8	64
RA 00012	O		ED		3	4	11	18S	26E	560858	3624531*	1495	600		
RA 03596			ED		3	4	11	18S	26E	560858	3624531*	1495	1736		
RA 01288			ED	3	3	3	02	18S	26E	559950	3626045*	1626	186	50	136
RA 01288 CLW319630	O		ED	3	3	3	02	18S	26E	559950	3626045*	1626	200		
RA 00012 A			ED	3	3	4	11	18S	26E	560757	3624430*	1632	600		
RA 03639			ED	4	4	3	11	18S	26E	560555	3624429*	1742	1710		
RA 02808			ED		4	4	03	18S	26E	559648	3626145*	1939	100	30	70

Average Depth to Water: **29 feet**

Minimum Depth: **8 feet**

Maximum Depth: **50 feet**

Record Count: 11

UTMNAD83 Radius Search (in meters):

Easting (X): 561565 **Northing (Y):** 3625849 **Radius:** 2000

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

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

State of New Mexico
Energy Minerals and Natural Resources

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

RECEIVED
AUG 31 2012
NMOCD ARTESIA

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

nJMW1225651459 277558 OPERATOR ☒ Initial Report ☐ Final Report

Name of Company Lime Rock Resources II-A, L.P.	Contact Michael Barrett
Address 1111 Bagby Street Suite 4600, Houston, TX 77002	Telephone No. 575-623-8424
Facility Name Atoka San Andres Unit #100	Facility Type Injection Line

Surface Owner Fanning Farms	Mineral Owner Unknown	API No. 30-015-00298

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	12	18S	26E	990'	FNL	330'	FWL	Eddy

Latitude 32.767048 **Longitude** 104.342689

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 95 bbls	Volume Recovered 0 bbls
Source of Release Injection Line	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 8/20/2012 @ 3:30 pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher, NMOCD	
By Whom? Michael Barrett	Date and Hour 8/21/2012 @ 11:30 am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

*Describe Cause of Problem and Remedial Action Taken.**
Injection line leak. Line has been isolated and taken out of service.
Waiting on agreed work plan before any remediation begins.

Describe Area Affected and Cleanup Action Taken.*
Alfalfa field.
No standing fluid.

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:

Printed Name: Michael Barrett

Title: Production Supervisor

E-mail Address: mbarrett@limerockresources.com

Date: 08/21/2012 Phone: 575-623-8424

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By Mike Bratcher

Approval Date: SEP 12 2012 Expiration Date:

Conditions of Approval: Attached ☐

* Attach Additional Sheets If Necessary

Remediation per OCD Rules & Guidelines. **SUBMIT REMEDIATION PROPOSAL NOT LATER THAN:** October 12th 2012

2RP-1289

APPENDIX II

LABORATORY RESULTS

CARDINAL Laboratories

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

September 21, 2012

MIKE STUBBLEFIELD

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: ATOKA SAN ANDRES UNIT NO. 100

Enclosed are the results of analyses for samples received by the laboratory on 09/14/12 14:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/14/2012	Sampling Date:	09/11/2012
Reported:	09/21/2012	Sampling Type:	Soil
Project Name:	ATOKA SAN ANDRES UNIT NO. 100	Sampling Condition:	Cool & Intact
Project Number:	701307.040.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 12 - T18S - R26E		

Sample ID: BH - 1 0' (H202234-01)

BTEX 8021B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2012	ND	1.84	92.0	2.00	13.8	
Toluene*	<0.050	0.050	09/20/2012	ND	2.07	103	2.00	11.4	
Ethylbenzene*	<0.050	0.050	09/20/2012	ND	2.04	102	2.00	11.1	
Total Xylenes*	<0.150	0.150	09/20/2012	ND	6.32	105	6.00	9.78	

Surrogate: 4-Bromofluorobenzene (PID *98.5 %* *89.4-126*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**832**	16.0	09/20/2012	ND	400	100	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	09/19/2012	ND	177	88.4	200	8.27	
DRO >C10-C28	<10.0	10.0	09/19/2012	ND	172	86.1	200	12.5	

Surrogate: 1-Chlorooctane *79.9 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *80.1 %* *63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/14/2012	Sampling Date:	09/11/2012
Reported:	09/21/2012	Sampling Type:	Soil
Project Name:	ATOKA SAN ANDRES UNIT NO. 100	Sampling Condition:	Cool & Intact
Project Number:	701307.040.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 12 - T18S - R26E		

Sample ID: BH - 1 2' (H202234-02)

BTEX 8021B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/20/2012	ND	1.84	92.0	2.00	13.8	
Toluene*	<0.050	0.050	09/20/2012	ND	2.07	103	2.00	11.4	
Ethylbenzene*	<0.050	0.050	09/20/2012	ND	2.04	102	2.00	11.1	
Total Xylenes*	<0.150	0.150	09/20/2012	ND	6.32	105	6.00	9.78	

Surrogate: 4-Bromofluorobenzene (PID *99.5 %* *89.4-126*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**12300**	16.0	09/20/2012	ND	400	100	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	09/19/2012	ND	177	88.4	200	8.27	
DRO >C10-C28	<10.0	10.0	09/19/2012	ND	172	86.1	200	12.5	

Surrogate: 1-Chlorooctane *76.3 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *77.1 %* *63.6-154*

Sample ID: BH - 1 4' (H202234-03)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16200**	16.0	09/20/2012	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/14/2012	Sampling Date:	09/11/2012
Reported:	09/21/2012	Sampling Type:	Soil
Project Name:	ATOKA SAN ANDRES UNIT NO. 100	Sampling Condition:	Cool & Intact
Project Number:	701307.040.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 12 - T18S - R26E		

Sample ID: BH - 1 6' (H202234-04)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**12000**	16.0	09/20/2012	ND	400	100	400	3.92	

Sample ID: BH - 1 8' (H202234-05)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**12400**	16.0	09/20/2012	ND	400	100	400	3.92	

Sample ID: BH - 1 10' (H202234-06)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**4080**	16.0	09/20/2012	ND	400	100	400	3.92	

Sample ID: BH - 1 12' (H202234-07)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**432**	16.0	09/20/2012	ND	400	100	400	3.92	

Sample ID: BH - 1 14' (H202234-08)

Chloride, SM4500Cl-B mg/kg **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**528**	16.0	09/20/2012	ND	400	100	400	3.92	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	09/14/2012	Sampling Date:	09/11/2012
Reported:	09/21/2012	Sampling Type:	Soil
Project Name:	ATOKA SAN ANDRES UNIT NO. 100	Sampling Condition:	Cool & Intact
Project Number:	701307.040.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 12 - T18S - R26E		

Sample ID: BH - 2 5' BACKGROUND (H202234-09)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	09/20/2012	ND	400	100	400	3.92	

Sample ID: BH - 2 10' BACKGROUND (H202234-10)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: HM**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	09/20/2012	ND	400	100	400	3.92	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Talon/LPE	BILL TO	
Project Manager:	mike Stubblefield	P.O. #:	
Address:	408 West Texas Ave.	Company:	Talon/LPE
City:	Artesia State: NM Zip: 88210	Attn:	
Phone #:	575-441-7254 Fax #:	Address:	
Project #:	201302.040.01 Project Owner: Lime Rock Res., LLC	City:	
Project Name:	Atoka San Andres Unit No. 100	State: Zip:	
Project Location:	Sec. 12 - T18S - R26E	Phone #:	
Sampler Name:	mike Stubblefield	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING DATE	SAMPLING TIME	8015 TPH	8021B BTEX	Total chlorides
H20223																	
1	BH-1 0'	G	1			X					X		9/11/12	11:20 A	X	X	X
2	BH-1 2'	G	1			X					X		9/11/12	11:23 A	X	X	X
3	BH-1 4'	G	1			X					X		9/11/12	11:26 A			X
4	BH-1 6'	G	1			X					X		9/11/12	11:33 A			X
5	BH-1 8'	G	1			X					X		9/11/12	11:37 A			X
6	BH-1 10'	G	1			X					X		9/11/12	12:15 A			X
7	BH-1 12'	G	1			X					X		9/11/12	12:20 A			X
8	BH-1 14'	G	1			X					X		9/11/12	12:51 A			X
9	BH-2 5' background	G	1			X					X		9/11/12	1:05 P			X
10	BH-2 10' background	G	1			X					X		9/11/12	1:10 P			X

Relinquished By:	Date: 9-14-12	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
mike Stubblefield	Time: 9:20		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - (Other:)

Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No
CHECKED BY: (Initials)

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

#26