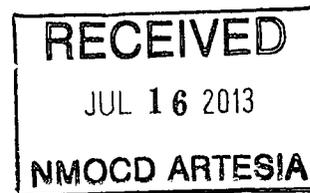




July 10, 2013

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



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

Subject: **Remediation and Closure Report**
Lime Rock Resources II-A, L.P.
Logan State No. 2
30-015-30406 2RP-1514

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

Dear Mr. Bratcher,

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

Lime Rock Resources II-A, L.P. (Lime Rock) contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the referenced Logan State No. 2. The completed remediation activities and closure request are submitted herein.

Incident Date

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

January 9, 2013

Background Information

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

The Logan State No. 2 is located approximately twelve (12) miles southeast of Artesia, New Mexico. The legal location for the site is Section 2, Township 18 South and Range 27 East in Eddy County, New Mexico. More specifically, the latitude and longitude for the release are 32.78018 North and -104.25143 West.

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

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 Gypsum land Cottonwood complex with 0 to 3 percent slopes. The local surface and shallow geology, Paleozoic Age sedimentary deposits, is comprised of the Guadeloupien Artesia Group, Tansil and Yates formations which include silty soils under lain by 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 S10-T18S-R27E. The ground water in the area is reported to be 50' below ground surface (bgs). The referenced groundwater data is presented in Appendix I.

The ranking for this site is 10 based on the as 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

On January 9, 2013 a transfer pump malfunctioned causing the water tank to overflow. Approximately 102 barrels of produced water were released breaching the earthen berms. A vacuum truck was brought to the location and 20 barrels of produced water were recovered.

Actions Taken

On January 21, 2013 Talon/LPE mobilized personnel to begin the site assessment and soil sampling activities for the construction of a work plan. Grab soil samples were collected utilizing a hand auger to a depth of 1-foot below ground surface. The soil sample locations are illustrated on the attached site plan.

On February 13, 2013 Talon returned to the site to collect additional soil samples utilizing an air rotary rig for vertical delineation of the impacted area. Grab soil samples were collected from surface to a depth of 10-feet deep.

Soil samples were collected by Talon personnel wearing clean nitrile gloves. The samples were placed in laboratory provided sample containers, iced and transported to Cardinal Laboratories in Hobbs, New Mexico. The samples were tested for TPH (Total Petroleum Hydrocarbons) using EPA Method 8015M, volatile organics (BTEX) using EPA Method 8021B and analysis of Chlorides using Method SM4500CL-B. The complete laboratory report is attached as Appendix II.

Analytical Results

Analytical results received from Cardinal Laboratories are summarized below:

January 28, 2013

<u>Sample, Depth</u>	<u>Chlorides</u>	<u>BTEX</u>	<u>TPH (mg/kg)</u>
S-1 0'	80000	69.7	32930
1'	32000	14.9	35.1
S-2 0'	28400	<0.300	243
0.5'	12200	<0.300	<10
S-3 0'	19800	<0.300	462
1'	16800	<0.300	<10

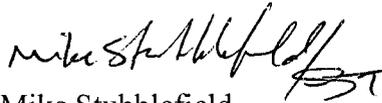
Remedial Actions

- The impacted areas located inside of the berm and outside of the berm were excavated to a depth of 2 to 6-feet deep and then transported to Lea Land LLC a NMOCD approved solid waste disposal facility.
- Confirmation soil samples were collected from the sidewalls of the excavated area. The soil samples were submitted to the laboratory for TPH analysis using Method 8015M, BTEX analysis using Method 8021B. The chloride samples were analyzed per Method SM4500Cl-B.
- On May 7, 2013 a meeting was conducted at the NMOCD office. Laboratory data from the excavated areas were presented for review. Permission was granted to backfill the excavation.
- The excavated area was then backfilled to grade using new material transported to location. The backfilled area was contoured to match the existing location.

On behalf of Lime Rock Resources II-A, L.P. Talon/LPE requests closure for the release that occurred on January 9, 2013 at the Logan State No.2 tank battery.

Respectfully submitted,

TALON/LPE



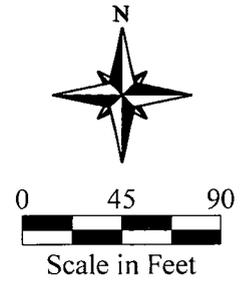
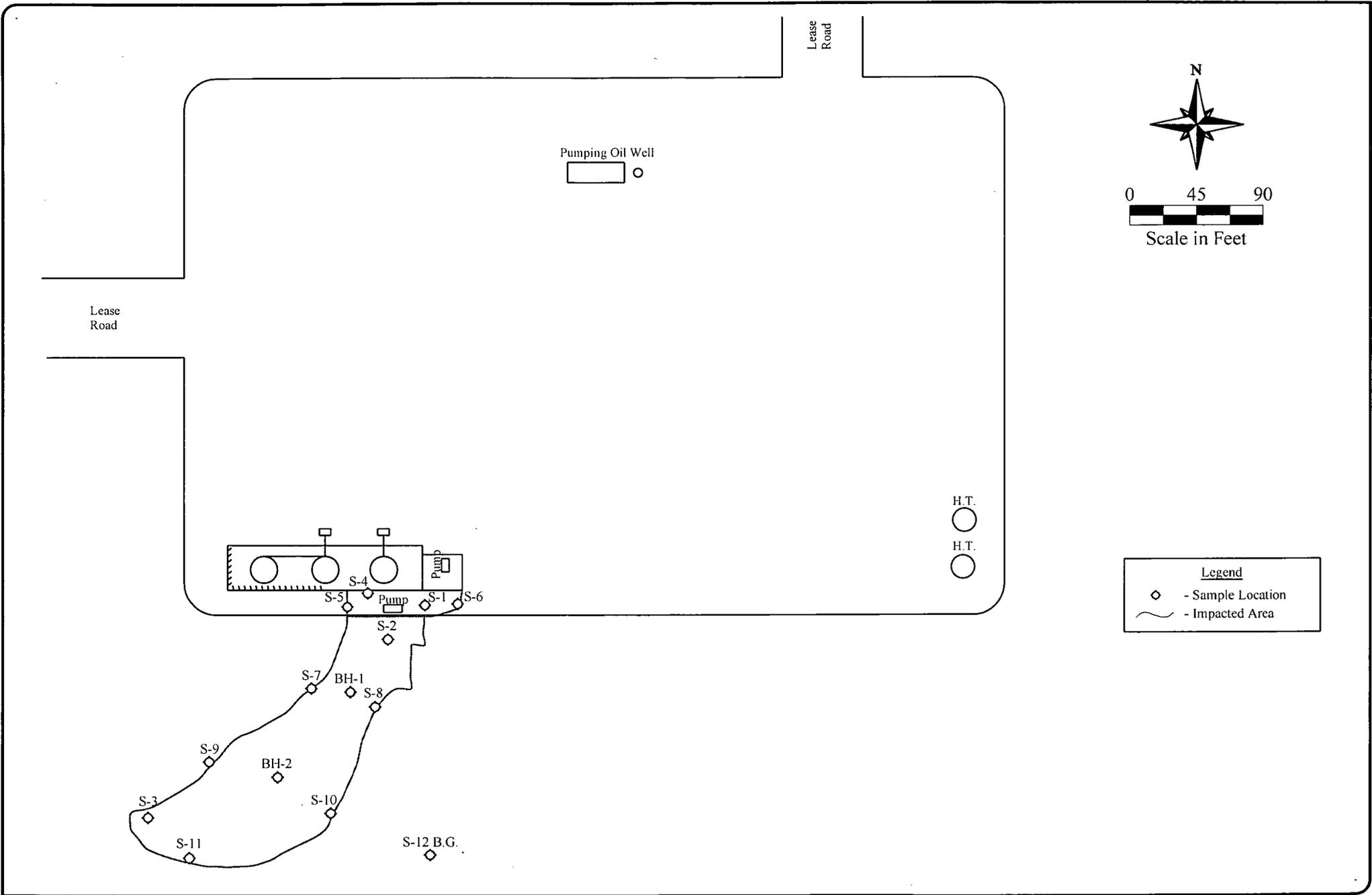
Mike Stubblefield
Project Manager



David J. Adkins
District Manager

1

SITE PLAN



Legend

- ◊ - Sample Location
- ~ - Impacted Area



Date: 04/25/2013
 Scale: 1" = 90'
 Drawn By: TJS

Logan 2 State Battery
 Lime Rock Resources
 Eddy County, New Mexico
 Figure 1 - Site Plan



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

January 28, 2013

MIKE STUBBLEFIELD

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: LOGAN 2 STATE BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 01/22/13 12:45.

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 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 cursive script that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received:	01/22/2013	Sampling Date:	01/21/2013
Reported:	01/28/2013	Sampling Type:	Soil
Project Name:	LOGAN 2 STATE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R27E		

Sample ID: S-1 0' (H300170-01)

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	4.02	0.500	01/25/2013	ND	1.81	90.3	2.00	13.2		
Toluene*	19.8	0.500	01/25/2013	ND	1.92	96.0	2.00	13.2		
Ethylbenzene*	15.9	0.500	01/25/2013	ND	1.99	99.7	2.00	13.4		
Total Xylenes*	29.9	1.50	01/25/2013	ND	6.04	101	6.00	13.5		
Total BTEX	69.7	3.00	01/25/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 119 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80000	16.0	01/25/2013	ND	416	104	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	1030	50.0	01/24/2013	ND	188	94.2	200	1.42			
DRO >C10-C28	31900	50.0	01/24/2013	ND	196	98.0	200	0.134			

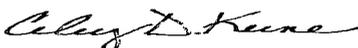
Surrogate: 1-Chlorooctane 148 % 65.2-140

Surrogate: 1-Chlorooctadecane 861 % 63.6-154

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	01/22/2013	Sampling Date:	01/21/2013
Reported:	01/28/2013	Sampling Type:	Soil
Project Name:	LOGAN 2 STATE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R27E		

Sample ID: S-1 1' (H300170-02)

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	1.40	0.100	01/26/2013	ND	1.81	90.3	2.00	13.2		
Toluene*	5.38	0.100	01/26/2013	ND	1.92	96.0	2.00	13.2		
Ethylbenzene*	2.97	0.100	01/26/2013	ND	1.99	99.7	2.00	13.4		
Total Xylenes*	5.16	0.300	01/26/2013	ND	6.04	101	6.00	13.5		
Total BTEX	14.9	0.600	01/26/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 112 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32000	16.0	01/25/2013	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS							S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10	13.3	10.0	01/24/2013	ND	188	94.2	200	1.42			
DRO >C10-C28	21.8	10.0	01/24/2013	ND	196	98.0	200	0.134			

Surrogate: 1-Chlorooctane 59.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 69.5 % 63.6-154

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	01/22/2013	Sampling Date:	01/21/2013
Reported:	01/28/2013	Sampling Type:	Soil
Project Name:	LOGAN 2 STATE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R27E		

Sample ID: S-2 0' (H300170-03)

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	01/26/2013	ND	1.81	90.3	2.00	13.2		
Toluene*	<0.050	0.050	01/26/2013	ND	1.92	96.0	2.00	13.2		
Ethylbenzene*	<0.050	0.050	01/26/2013	ND	1.99	99.7	2.00	13.4		
Total Xylenes*	<0.150	0.150	01/26/2013	ND	6.04	101	6.00	13.5		
Total BTEX	<0.300	0.300	01/26/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 107 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	28400	16.0	01/25/2013	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	01/24/2013	ND	188	94.2	200	1.42		
DRO >C10-C28	243	10.0	01/24/2013	ND	196	98.0	200	0.134		

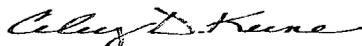
Surrogate: 1-Chlorooctane 77.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 85.1 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celest D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	01/22/2013	Sampling Date:	01/21/2013
Reported:	01/28/2013	Sampling Type:	Soil
Project Name:	LOGAN 2 STATE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R27E		

Sample ID: S-2 0.5' (H300170-04)

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	01/26/2013	ND	1.81	90.3	2.00	13.2		
Toluene*	<0.050	0.050	01/26/2013	ND	1.92	96.0	2.00	13.2		
Ethylbenzene*	<0.050	0.050	01/26/2013	ND	1.99	99.7	2.00	13.4		
Total Xylenes*	<0.150	0.150	01/26/2013	ND	6.04	101	6.00	13.5		
Total BTEX	<0.300	0.300	01/26/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 103 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	12200	16.0	01/25/2013	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	01/26/2013	ND	205	103	200	19.4		
DRO >C10-C28	<10.0	10.0	01/26/2013	ND	198	99.0	200	15.1		

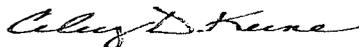
Surrogate: 1-Chlorooctane 98.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 115 % 63.6-154

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 01/22/2013
 Reported: 01/28/2013
 Project Name: LOGAN 2 STATE BATTERY
 Project Number: NONE GIVEN
 Project Location: SEC. 2 - T18S - R27E

 Sampling Date: 01/21/2013
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S-3 0' (H300170-05)

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	01/26/2013	ND	1.81	90.3	2.00	13.2		
Toluene*	<0.050	0.050	01/26/2013	ND	1.92	96.0	2.00	13.2		
Ethylbenzene*	<0.050	0.050	01/26/2013	ND	1.99	99.7	2.00	13.4		
Total Xylenes*	<0.150	0.150	01/26/2013	ND	6.04	101	6.00	13.5		
Total BTEX	<0.300	0.300	01/26/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 104 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	19800	16.0	01/25/2013	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	01/24/2013	ND	205	103	200	19.4		
DRO >C10-C28	462	10.0	01/24/2013	ND	198	99.0	200	15.1		

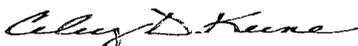
Surrogate: 1-Chlorooctane 66.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 80.7 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	01/22/2013	Sampling Date:	01/21/2013
Reported:	01/28/2013	Sampling Type:	Soil
Project Name:	LOGAN 2 STATE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R27E		

Sample ID: S-3 1' (H300170-06)

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	01/26/2013	ND	1.81	90.3	2.00	13.2		
Toluene*	<0.050	0.050	01/26/2013	ND	1.92	96.0	2.00	13.2		
Ethylbenzene*	<0.050	0.050	01/26/2013	ND	1.99	99.7	2.00	13.4		
Total Xylenes*	<0.150	0.150	01/26/2013	ND	6.04	101	6.00	13.5		
Total BTEX	<0.300	0.300	01/26/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 104 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16800	16.0	01/25/2013	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	01/24/2013	ND	205	103	200	19.4		
DRO >C10-C28	<10.0	10.0	01/24/2013	ND	198	99.0	200	15.1		

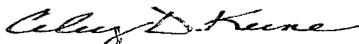
Surrogate: 1-Chlorooctane 66.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 78.1 % 63.6-154

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

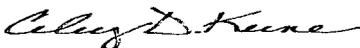
Notes and Definitions

- 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.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>Talon / LPE</u>		BILL TO				ANALYSIS REQUEST																					
Project Manager: <u>Mike Stubblefield</u>		P.O. #:																									
Address: <u>408 West Texas Ave.</u>		Company: <u>Talon / LPE</u>																									
City: <u>Artesia</u> State: <u>NM</u> Zip: <u>88210</u>		Attn:																									
Phone #: <u>575-441-7254</u> Fax #:		Address:																									
Project #: _____ Project Owner: <u>Devon Energy Corp.</u>		City:																									
Project Name: <u>Strawberry 7 Fed. Com. No. 2</u>		State: _____ Zip: _____																									
Project Location: <u>sec. 7 - T195-R31E</u>		Phone #:																									
Sampler Name: <u>Mike Stubblefield</u>		Fax #:																									
FOR LAB USE ONLY																											
Lab I.D.		Sample I.D.		# GRAB OR (C)OMP.	# CONTAINERS	MATRIX					PRESERV.		SAMPLING														
						GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE/COOL	OTHER:	DATE	TIME											
<u>WSD/MA</u>																											
1 S-1 0'		S-1 0.5'		5									1/21/13	2:19 P	80157 TPH	80218 BTEX	Total Chlorides										
2 S-1 0.5'		S-1 1'		5									1/21/13	2:21 P													
3 S-1 1'				5									1/21/13	2:23 P													

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Relinquished By: <u>Mike Stubblefield</u>	Date: <u>1/22/2013</u>	Received By: <u>Kristi Newson</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
REMARKS:				
Delivered By: (Circle One) Sampler - UPS - Bus - <u>Other</u>		Sample Condition Cool: <input type="checkbox"/> Intact <input type="checkbox"/> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: (Initials) <u>MS</u>	

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



February 19, 2013

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: LOGAN 2 STATE NO. 2

Enclosed are the results of analyses for samples received by the laboratory on 02/13/13 14:45.

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 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
 DAVID ADKINS
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	02/13/2013	Sampling Date:	02/13/2013
Reported:	02/19/2013	Sampling Type:	Soil
Project Name:	LOGAN 2 STATE NO. 2	Sampling Condition:	Cool & Intact
Project Number:	701307.045.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R27E		

Sample ID: BH - 1 0' (H300412-01)

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	02/19/2013	ND	2.38	119	2.00	0.589		
Toluene*	<0.050	0.050	02/19/2013	ND	2.33	117	2.00	0.465		
Ethylbenzene*	<0.050	0.050	02/19/2013	ND	2.27	113	2.00	0.379		
Total Xylenes*	<0.150	0.150	02/19/2013	ND	6.91	115	6.00	0.715		
Total BTEX	<0.300	0.300	02/19/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 109 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	14200	16.0	02/18/2013	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	02/19/2013	ND	208	104	200	3.34		
DRO >C10-C28	<10.0	10.0	02/19/2013	ND	207	104	200	15.6		

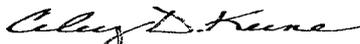
Surrogate: 1-Chlorooctane 78.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 93.5 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	02/13/2013	Sampling Date:	02/13/2013
Reported:	02/19/2013	Sampling Type:	Soil
Project Name:	LOGAN 2 STATE NO. 2	Sampling Condition:	Cool & Intact
Project Number:	701307.045.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R27E		

Sample ID: BH - 1 2' (H300412-02)

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	02/19/2013	ND	2.38	119	2.00	0.589		
Toluene*	<0.050	0.050	02/19/2013	ND	2.33	117	2.00	0.465		
Ethylbenzene*	<0.050	0.050	02/19/2013	ND	2.27	113	2.00	0.379		
Total Xylenes*	<0.150	0.150	02/19/2013	ND	6.91	115	6.00	0.715		
Total BTEX	<0.300	0.300	02/19/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 110 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	12000	16.0	02/18/2013	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	02/19/2013	ND	208	104	200	3.34		
DRO >C10-C28	<10.0	10.0	02/19/2013	ND	207	104	200	15.6		

Surrogate: 1-Chlorooctane 67.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 85.3 % 63.6-154

Sample ID: BH - 1 4' (H300412-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5120	16.0	02/18/2013	ND	448	112	400	0.00		

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	02/13/2013	Sampling Date:	02/13/2013
Reported:	02/19/2013	Sampling Type:	Soil
Project Name:	LOGAN 2 STATE NO. 2	Sampling Condition:	Cool & Intact
Project Number:	701307.045.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R27E		

Sample ID: BH - 1 6' (H300412-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5360	16.0	02/18/2013	ND	448	112	400	0.00		

Sample ID: BH - 1 8' (H300412-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	02/18/2013	ND	448	112	400	0.00		

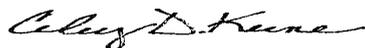
Sample ID: BH - 1 10' (H300412-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	02/18/2013	ND	448	112	400	0.00		

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	02/13/2013	Sampling Date:	02/13/2013
Reported:	02/19/2013	Sampling Type:	Soil
Project Name:	LOGAN 2 STATE NO. 2	Sampling Condition:	Cool & Intact
Project Number:	701307.045.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R27E		

Sample ID: BH - 2 0' (H300412-07)

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	02/19/2013	ND	2.38	119	2.00	0.589		
Toluene*	<0.050	0.050	02/19/2013	ND	2.33	117	2.00	0.465		
Ethylbenzene*	<0.050	0.050	02/19/2013	ND	2.27	113	2.00	0.379		
Total Xylenes*	<0.150	0.150	02/19/2013	ND	6.91	115	6.00	0.715		
Total BTEX	<0.300	0.300	02/19/2013	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6000	16.0	02/18/2013	ND	448	112	400	0.00		

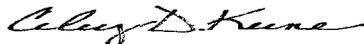
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	02/19/2013	ND	208	104	200	3.34		
DRO >C10-C28	<10.0	10.0	02/19/2013	ND	207	104	200	15.6		

Surrogate: 1-Chlorooctane 75.7 % 65.2-140
Surrogate: 1-Chlorooctadecane 95.2 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	02/13/2013	Sampling Date:	02/13/2013
Reported:	02/19/2013	Sampling Type:	Soil
Project Name:	LOGAN 2 STATE NO. 2	Sampling Condition:	Cool & Intact
Project Number:	701307.045.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R27E		

Sample ID: BH - 2 2' (H300412-08)

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	02/19/2013	ND	2.38	119	2.00	0.589		
Toluene*	<0.050	0.050	02/19/2013	ND	2.33	117	2.00	0.465		
Ethylbenzene*	<0.050	0.050	02/19/2013	ND	2.27	113	2.00	0.379		
Total Xylenes*	<0.150	0.150	02/19/2013	ND	6.91	115	6.00	0.715		
Total BTEX	<0.300	0.300	02/19/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2000	16.0	02/18/2013	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	02/19/2013	ND	208	104	200	3.34		
DRO >C10-C28	56.2	10.0	02/19/2013	ND	207	104	200	15.6		

Surrogate: 1-Chlorooctane 68.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 86.6 % 63.6-154

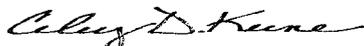
Sample ID: BH - 2 4' (H300412-09)

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	912	16.0	02/18/2013	ND	448	112	400	0.00		

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	02/13/2013	Sampling Date:	02/13/2013
Reported:	02/19/2013	Sampling Type:	Soil
Project Name:	LOGAN 2 STATE NO. 2	Sampling Condition:	Cool & Intact
Project Number:	701307.045.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R27E		

Sample ID: BH - 2 6' (H300412-10)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	672	16.0	02/18/2013	ND	448	112	400	0.00		

Sample ID: BH - 2 8' (H300412-11)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	02/18/2013	ND	448	112	400	0.00		

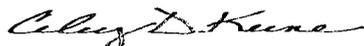
Sample ID: BH - 2 10' (H300412-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	02/18/2013	ND	448	112	400	0.00		

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Celey D. Keene, Lab Director/Quality Manager

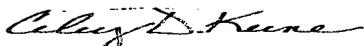
Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

2-2

Company Name:		BILL TO		ANALYSIS REQUEST																					
Project Manager:		P.O. #:																							
Address:		Company:																							
City:	State:	Zip:	Attn:																						
Phone #:	Fax #:		Address:																						
Project #: 701307.045.01		Project Owner: Lime Rock Res. LLC														City:									
Project Name: Logan 2 State No. 2																State:	Zip:								
Project Location:																Phone #:									
Sampler Name: <i>near well</i>																Fax #:									
FOR LAB USE ONLY																									
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS													MATRIX				PRESERV.	SAMPLING		Total chlorides		
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE/COOL	OTHER:	DATE	TIME											
A300412																									
11	BH-2 8'	S				/				/			2/12/13	11:24A											
12	BH-2 10'	S				/				/			2/13/13	11:26A											

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Relinquished By:	Date: 2/13/13	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
<i>Mae Sweetser</i>	Time: 7:45	<i>Jodi Henson</i>	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:			
Delivered By: (Circle One)	Sample Condition	CHECKED BY:		
Sampler - UPS - Bus - Other:	Cool/Intact	(Initials)		
	<input type="checkbox"/> Yes <input type="checkbox"/> No	<i>[Signature]</i>		

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



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

May 01, 2013

MIKE STUBBLEFIELD

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: LOGAN STATE NO. 2

Enclosed are the results of analyses for samples received by the laboratory on 04/24/13 13:10.

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 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 cursive script that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/24/2013	Sampling Date:	04/24/2013
Reported:	05/01/2013	Sampling Type:	Soil
Project Name:	LOGAN STATE NO. 2	Sampling Condition:	Cool & Intact
Project Number:	701307.045.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R31E		

Sample ID: S - 4 (H300968-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	04/26/2013	ND	432	108	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	04/26/2013	ND	221	110	200	0.0421		
DRO >C10-C28	34.6	10.0	04/26/2013	ND	215	107	200	0.553		
Surrogate: 1-Chlorooctane	102 %	65.2-140								
Surrogate: 1-Chlorooctadecane	103 %	63.6-154								

Sample ID: S - 5 (H300968-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1260	16.0	04/26/2013	ND	432	108	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	04/26/2013	ND	221	110	200	0.0421		
DRO >C10-C28	<10.0	10.0	04/26/2013	ND	215	107	200	0.553		
Surrogate: 1-Chlorooctane	111 %	65.2-140								
Surrogate: 1-Chlorooctadecane	116 %	63.6-154								

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/24/2013	Sampling Date:	04/24/2013
Reported:	05/01/2013	Sampling Type:	Soil
Project Name:	LOGAN STATE NO. 2	Sampling Condition:	Cool & Intact
Project Number:	701307.045.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R31E		

Sample ID: S - 6 (H300968-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	04/26/2013	ND	432	108	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	04/26/2013	ND	221	110	200	0.0421		
DRO >C10-C28	<10.0	10.0	04/26/2013	ND	215	107	200	0.553		
<i>Surrogate: 1-Chlorooctane</i>		<i>97.3 %</i>	<i>65.2-140</i>							
<i>Surrogate: 1-Chlorooctadecane</i>		<i>88.4 %</i>	<i>63.6-154</i>							

Sample ID: S - 7 (H300968-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	672	16.0	05/01/2013	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/26/2013	ND	221	110	200	0.0421		
DRO >C10-C28	<10.0	10.0	04/26/2013	ND	215	107	200	0.553		
<i>Surrogate: 1-Chlorooctane</i>		<i>112 %</i>	<i>65.2-140</i>							
<i>Surrogate: 1-Chlorooctadecane</i>		<i>116 %</i>	<i>63.6-154</i>							

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/24/2013
 Reported: 05/01/2013
 Project Name: LOGAN STATE NO. 2
 Project Number: 701307.045.01
 Project Location: SEC. 2 - T18S - R31E

 Sampling Date: 04/24/2013
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S - 8 (H300968-05)

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5240	16.0	05/01/2013	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/26/2013	ND	221	110	200	0.0421		
DRO >C10-C28	<10.0	10.0	04/26/2013	ND	215	107	200	0.553		

Surrogate: 1-Chlorooctane 112 % 65.2-140

Surrogate: 1-Chlorooctadecane 114 % 63.6-154

Sample ID: S - 9 (H300968-06)

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	05/01/2013	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/26/2013	ND	171	85.5	200	11.1		
DRO >C10-C28	56.6	10.0	04/26/2013	ND	164	82.0	200	13.4		

Surrogate: 1-Chlorooctane 102 % 65.2-140

Surrogate: 1-Chlorooctadecane 114 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/24/2013
 Reported: 05/01/2013
 Project Name: LOGAN STATE NO. 2
 Project Number: 701307.045.01
 Project Location: SEC. 2 - T18S - R31E

 Sampling Date: 04/24/2013
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S - 10 (H300968-07)

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	05/01/2013	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/26/2013	ND	171	85.5	200	11.1		
DRO >C10-C28	<10.0	10.0	04/26/2013	ND	164	82.0	200	13.4		
Surrogate: 1-Chlorooctane	104 %	65.2-140								
Surrogate: 1-Chlorooctadecane	115 %	63.6-154								

Sample ID: S - 11 (H300968-08)

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	05/01/2013	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/27/2013	ND	171	85.5	200	11.1		
DRO >C10-C28	13.8	10.0	04/27/2013	ND	164	82.0	200	13.4		
Surrogate: 1-Chlorooctane	95.9 %	65.2-140								
Surrogate: 1-Chlorooctadecane	109 %	63.6-154								

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/24/2013	Sampling Date:	04/24/2013
Reported:	05/01/2013	Sampling Type:	Soil
Project Name:	LOGAN STATE NO. 2	Sampling Condition:	Cool & Intact
Project Number:	701307.045.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R31E		

Sample ID: S - 12 BACKGROUND (H300968-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/01/2013	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/27/2013	ND	171	85.5	200	11.1		
DRO >C10-C28	<10.0	10.0	04/27/2013	ND	164	82.0	200	13.4		

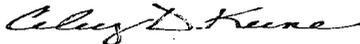
Surrogate: 1-Chlorooctane 97.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 107 % 63.6-154

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*=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

Analytical Results For:

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

Received:	04/24/2013	Sampling Date:	04/24/2013
Reported:	05/01/2013	Sampling Type:	Soil
Project Name:	LOGAN STATE NO. 2	Sampling Condition:	Cool & Intact
Project Number:	701307.045.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R31E		

Sample ID: S - 4 (H300968-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	04/26/2013	ND	432	108	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	04/26/2013	ND	221	110	200	0.0421		
DRO >C10-C28	34.6	10.0	04/26/2013	ND	215	107	200	0.553		
<i>Surrogate: 1-Chlorooctane</i>		<i>102 %</i>	<i>65.2-140</i>							
<i>Surrogate: 1-Chlorooctadecane</i>		<i>103 %</i>	<i>63.6-154</i>							

Sample ID: S - 5 (H300968-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1260	16.0	04/26/2013	ND	432	108	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	04/26/2013	ND	221	110	200	0.0421		
DRO >C10-C28	<10.0	10.0	04/26/2013	ND	215	107	200	0.553		
<i>Surrogate: 1-Chlorooctane</i>		<i>111 %</i>	<i>65.2-140</i>							
<i>Surrogate: 1-Chlorooctadecane</i>		<i>116 %</i>	<i>63.6-154</i>							

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/24/2013	Sampling Date:	04/24/2013
Reported:	05/01/2013	Sampling Type:	Soil
Project Name:	LOGAN STATE NO. 2	Sampling Condition:	Cool & Intact
Project Number:	701307.045.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R31E		

Sample ID: S - 6 (H300968-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	04/26/2013	ND	432	108	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	04/26/2013	ND	221	110	200	0.0421		
DRO >C10-C28	<10.0	10.0	04/26/2013	ND	215	107	200	0.553		

Surrogate: 1-Chlorooctane 97.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 88.4 % 63.6-154

Sample ID: S - 7 (H300968-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	672	16.0	05/01/2013	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/26/2013	ND	221	110	200	0.0421		
DRO >C10-C28	<10.0	10.0	04/26/2013	ND	215	107	200	0.553		

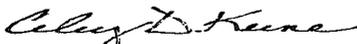
Surrogate: 1-Chlorooctane 112 % 65.2-140

Surrogate: 1-Chlorooctadecane 116 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/24/2013	Sampling Date:	04/24/2013
Reported:	05/01/2013	Sampling Type:	Soil
Project Name:	LOGAN STATE NO. 2	Sampling Condition:	Cool & Intact
Project Number:	701307.045.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R31E		

Sample ID: S - 8 (H300968-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5240	16.0	05/01/2013	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/26/2013	ND	221	110	200	0.0421		
DRO >C10-C28	<10.0	10.0	04/26/2013	ND	215	107	200	0.553		
<i>Surrogate: 1-Chlorooctane</i>	<i>112 %</i>	<i>65.2-140</i>								
<i>Surrogate: 1-Chlorooctadecane</i>	<i>114 %</i>	<i>63.6-154</i>								

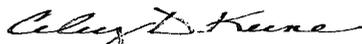
Sample ID: S - 9 (H300968-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	05/01/2013	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/26/2013	ND	171	85.5	200	11.1		
DRO >C10-C28	56.6	10.0	04/26/2013	ND	164	82.0	200	13.4		
<i>Surrogate: 1-Chlorooctane</i>	<i>102 %</i>	<i>65.2-140</i>								
<i>Surrogate: 1-Chlorooctadecane</i>	<i>114 %</i>	<i>63.6-154</i>								

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/24/2013	Sampling Date:	04/24/2013
Reported:	05/01/2013	Sampling Type:	Soil
Project Name:	LOGAN STATE NO. 2	Sampling Condition:	Cool & Intact
Project Number:	701307.045.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R31E		

Sample ID: S - 10 (H300968-07)

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	05/01/2013	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/26/2013	ND	171	85.5	200	11.1		
DRO >C10-C28	<10.0	10.0	04/26/2013	ND	164	82.0	200	13.4		

Surrogate: 1-Chlorooctane 104 % 65.2-140
 Surrogate: 1-Chlorooctadecane 115 % 63.6-154

Sample ID: S - 11 (H300968-08)

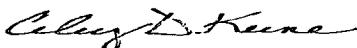
Chloride, SM4500CI-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	05/01/2013	ND	416	104	400	0.00		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/27/2013	ND	171	85.5	200	11.1		
DRO >C10-C28	13.8	10.0	04/27/2013	ND	164	82.0	200	13.4		

Surrogate: 1-Chlorooctane 95.9 % 65.2-140
 Surrogate: 1-Chlorooctadecane 109 % 63.6-154

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

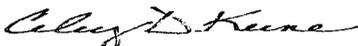
Notes and Definitions

- 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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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: <u>Talon/LPE</u>				BILL TO				ANALYSIS REQUEST																							
Project Manager: <u>Mike Stubblefield</u>				P.O. #:																											
Address: <u>408 West Texas Ave.</u>				Company: <u>Talon/LPE</u>																											
City: <u>Artesia</u> State: <u>NM</u> Zip: <u>88210</u>				Attn:																											
Phone #: <u>575.441.7254</u> Fax #:				Address:																											
Project #: <u>701307.045.01</u> Project Owner: <u>Line Rock Res, LLC</u>				City:																											
Project Name: <u>Logan State No. 2</u>				State: Zip:																											
Project Location: <u>sec. 2 - T185 - R31E</u>				Phone #:																											
Sampler Name: <u>Mike Stubblefield</u>				Fax #:																											
FOR LAB USE ONLY																															
Lab I.D.	Sample I.D.			GRAB OR (COMP. # CONTAINERS)	MATRIX															PRESERV.			SAMPLING		8015M Total Chloride						
H300968																															
1	S-4			S																											
2	S-5			S																											
3	S-6			S																											
4	S-7			S																											
5	S-8			S																											
6	S-9			S																											
7	S-10			S																											
8	S-11			S																											
9	S-12 background			S																											

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Relinquished By: <u>Mike Stubblefield</u>		Date: <u>4/24/2013</u>		Received By: <u>Jodi Benson</u>		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
Relinquished By:		Time: <u>7:10</u>		Received By:		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Delivered By: (Circle One)		Sample Condition		CHECKED BY:		REMARKS:			
Sampler - UPS - Bus <u>Other</u>		Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>		<u>JS</u>					

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

#54



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

May 06, 2013

MIKE STUBBLEFIELD

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: LOGAN STATE NO. 2

Enclosed are the results of analyses for samples received by the laboratory on 05/03/13 11:20.

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 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".

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received:	05/03/2013	Sampling Date:	05/02/2013
Reported:	05/06/2013	Sampling Type:	Soil
Project Name:	LOGAN STATE NO. 2	Sampling Condition:	Cool & Intact
Project Number:	701307.045.01	Sample Received By:	Jodi Henson
Project Location:	SEC. 2 - T18S - R27E		

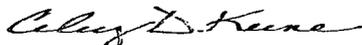
Sample ID: S-12 (H301056-01)

Chloride, SM4500CI-B	mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	05/06/2013	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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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

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

RECEIVED
JUL 16 2013
NMOCD ARTESIA

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 : LRE Operating, LLC	Contact : Mike Barrett
Address : 1111 Bagby Street Suite 4600, Houston, TX 77002	Telephone No. : 575-623-8424
Facility Name : Logan 2 State No.2	Facility Type: tank battery
Surface Owner : Bogle	Mineral Owner: State
	Lease No. : API #30-015-30406 2RP-1514

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	2	18S	27E	990'	FNL	1750'	FWL	Eddy

Latitude 32.78018 N Longitude -104.25143 W

NATURE OF RELEASE

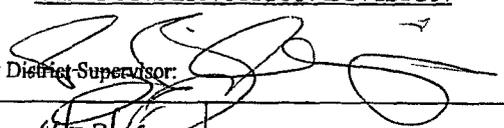
Type of Release : Produced Water	Volume of Release : 102 bbls	Volume Recovered: 20 bbl
Source of Release : Tank over flow	Date and Hour of Occurrence: 01/09/13 am	Date and Hour of Discovery: 01/09/13 8:00 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher	
By Whom? Mike Stubblefield with Talon/LPE	Date and Hour : 01/09/13 @ 9:30 am	
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.*
Transfer pump failed causing the water tank to overflow. Approximately 102 barrels of produced water were released. 20 barrels standing fluids were immediately recovered by vacuum truck.

Describe Area Affected and Cleanup Action Taken.*
Talon/LPE was contacted for the correction of the release. The impacted areas were excavated to a depth of 2-6 feet deep in the bermed area and pasture located behind tank battery. Analytical testing was completed and the impacted soil was transported to Lea Land, LLC a NMOCD approved solid waste disposal facility. Following approval from the NMOCD, the excavated areas were backfilled to grade using new material transported to location.

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: 5/22/13	Expiration Date:
E-mail Address: mbarrett@limerockresources.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 5/22/2013	Phone: 575-623-8424	

* Attach Additional Sheets If Necessary

2RP 1514
Final