



REVIEWED

By Kellie Jones at 7:28 am, Dec 09, 2015

November 20, 2015

APPROVED

By Kellie Jones at 7:28 am, Dec 09, 2015

Ms. Kellie Jones
NMOCD District I
1625 N. French Dr.
Hobbs, NM 88240

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 575.748.8905

HOBBS
318 East Taylor Street
Hobbs, New Mexico 88241
Phone 505.393.4261
Fax 505.393.4658

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

OKLAHOMA CITY
430 West Wilshire, 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: **Remedial Activities and Closure Report**
Legacy Reserves Operating, LP
Rock Queen Unit #86
API #: 30-005-00931
(1RP-3900)

Dear Ms. Jones,

Legacy Reserves (Legacy) has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced location. The results of our remediation activities and closure request are submitted herein.

Incident Date

August 28, 2015

Background Information

The Rock Queen Unit No. 86 is located approximately forty-seven (47) miles northwest of Lovington in Chaves County, New Mexico. The legal location for this site is Section 36, Township 13 South, and Range 31 East. More specifically the latitude and longitude for the release are 33.1485596 North and -103.7815247 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 the Kimbrough gravelly loam with 0 to 3 percent slopes. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is comprised of Holocene to middle Pleistocene eolian deposits. Drainage courses in this area are normally dry. The New Mexico State Engineer's web site indicates the nearest ground water data to be in S35-T13S-R31E. The ground water in Section 35 is reported to be a depth of 165-feet below ground surface (bgs). See [Appendix II](#) for the referenced groundwater data.

The ranking for this site is **0** based on the following:

Depth to ground water	>100'
Wellhead Protection Area	>1000'
Distance to surface water body	>1000'

ENVIRONMENTAL CONSULTING
ENGINEERING
DRILLING
CONSTRUCTION
SPILL MANAGEMENT
GENERAL CONTRACTING

Incident Description

On August 28, 2015 a flow line leak was discovered. The amount of the mixed fluids released was approximately 20 barrels. All wells were shut in and the flow line was repaired. A vacuum truck was called to the location and recovered approximately 5 barrels of fluid. The impacted area is off the well pad and measured approximately 170-feet long by 100-feet wide. A site plan is presented in [Appendix I](#).

Initial Actions Taken

On September 8, 2015 Talon mobilized personnel to begin site assessment and soil sampling activities for the generation of a work plan. Grab soil samples were collected utilizing a hand auger to a depth of 1.5-feet below ground surface where refusal was encountered. A summary laboratory results are presented in Table 1.

On September 16, 2015 Talon personnel returned to the site to obtain deeper vertical delineation samples utilizing a backhoe to a depth of 11-feet bgs where hard rock refusal was encountered. A summary of laboratory results are presented in Table 2.

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 TPH (Total Petroleum Hydrocarbons) using EPA Method 8015M, volatile organics (BTEX) using EPA Method 8021B and the chloride samples were analyzed per Method SM4500Cl-B.

Laboratory Results

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

September 4, 2015

Table 1

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	0'	0.431	22800	<200	20100
S-1	1'	<0.300	12200	<10	<10
S-1 Refusal	1.5'	<0.300	13800	<50	976
S-2	0'	<0.300	13800	<10	11.5
S-2	1'	<0.300	432	<10	<10
S-2 Refusal	1.5'	<0.300	128	<10	<10
S-3	0'	<0.300	23600	<200	16800
S-3	1'	<0.300	13200	<10	35.6
S-3 Refusal	1.5'	<0.300	13600	<10	<10

September 24, 2015

Table 2

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	2'	--	11600	--	--
S-1	3'	--	4800	--	--
S-1	4'	--	3760	--	--
S-1	6'	--	7200	--	--
S-1	7'	--	800	--	--
S-1	8'	--	528	--	--
S-1	9'	--	400	--	--
S-1	10'	--	288	--	--
S-2	2'	--	<16	--	--
S-2	3'	--	96	--	--
S-2	4'	--	<16	--	--
S-2	5'	--	32	--	--
S-3	2'	--	3760	--	--
S-3	3'	--	1320	--	--
S-3	4'	--	9400	--	--
S-3	5'	--	6200	--	--
S-3	6'	--	9500	--	--
S-3	7'	--	11600	--	--
S-3	8'	--	16000	--	--
S-3	9'	--	19600	--	--
S-3	10'	--	6300	--	--
S-3	11'	--	3320	--	--

Based upon the site ranking of **0**, NMOCD Recommended Remedial Action Levels (RRAL's) are 50 mg/kg for BTEX, 10 mg for Benzene, and 5,000 mg/kg for TPH. The chloride remediation standard is considered to be 1,000 mg/kg based upon a water table depth of 100-feet bgs.

Remedial Actions Taken

- The impacted area in the vicinity of sample location S-2 was excavated to a depth of 1-foot bgs.
- The impacted area in the vicinity of sample locations S-1 and S-3 was excavated to a depth of 4-feet bgs.
- A 20-mil liner was installed in the bottom of the 4-foot excavation at sample locations S-1 and S-3.
- All of the excavated soil was hauled to an NMOCD approved solid waste disposal facility.
- Geotagged photographs were taken of the remediation process. Photographic documentation is presented in [Appendix IV](#)
- The excavated areas were backfilled with top soil and contoured to match the surrounding terrain.


Closure

On behalf of Legacy Reserves Operating LP, we respectfully request that no further actions be required and that closure with regard to this release be granted.

If we can provide additional information or be of further assistance, please contact our office at (575)-746-8768.

Respectfully submitted,
TALON/LPE


Sheldon Hitchcock
Project Manager


David J. Adkins
District Manager

SITE PLAN



NTS
Scale in Feet

Legend
♦ - Sample Location



Date: 09/15/2015

Scale: NTS

Drawn By: TJS

Rock Queen Unit #86
Legacy Reserves Operating, LP
Chaves County, New Mexico
Figure 1 - Site Plan

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
L 10218	L		LE	4	1	35	13S	31E		612429	3668393*	1147	185	165	20
RA 11846 POD1			CH	2	4	2	34	13S	31E	611764	3668407	1793	375	90	285

Average Depth to Water: **127 feet**

Minimum Depth: **90 feet**

Maximum Depth: **165 feet**

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 613532

Northing (Y): 3668710

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.

INITIAL C-141

&

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 : Legacy Reserves Operating, LP	Contact : Daniel Rosa
Address : 303 W. Wall St. Ste 1300, Midland, TX 79701	Telephone No. : 432-631-0099
Facility Name : Rock Queen Unit # 86	Facility Type: Well
Surface Owner : STATE	Mineral Owner:
API #: 30-005-00931	

LOCATION OF RELEASE

Unit Letter E	Section 36	Township 13S	Range 31E	Feet from the 1980	North/South Line North	Feet from the 660	East/West Line West	County: CHAVES
------------------	---------------	-----------------	--------------	-----------------------	---------------------------	----------------------	------------------------	----------------

Latitude 33.1485596 N Longitude -103.7815247 W

NATURE OF RELEASE

Type of Release : Mixed Fluids	Volume of Release : 20 bbls	Volume Recovered: 5 bbls
Source of Release : Flow line leak	Date and Hour of Occurrence: 8/28/2015	Date and Hour of Discovery: 8/28/2015
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacted the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		

RECEIVED

By OCD District 1 at 10:55 am, Oct 07, 2015

Describe Cause of Problem and Remedial Action Taken.* A flow line leaked causing a release of 20 barrels of mixed fluids. A vac truck was called to the location and recovered 5 barrels of fluid.

Describe Area Affected and Cleanup Action Taken.* The area affected was off the well pad. Talon/LPE was contacted for initial site assessment and soil sampling to generate a work plan.

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.

OIL CONSERVATION DIVISION

Signature: <i>Daniel Rosa</i>	Approved by District Supervisor: <i>Kelly</i>	
Printed Name: Daniel Rosa	Approval Date: 10/07/2015	Expiration Date: 12/07/2015
Title: Foreman	Conditions of Approval:	
E-mail Address: Drosa@legacyp.com	Site samples required. Delineate and remediate as per MNOCD guides. Geotag photographs of remediation required.	Attached <input type="checkbox"/> 1RP-3900
Date: 9/29/2015 Phone: 432-631-0099		

* Attach Additional Sheets If Necessary

nKJ1528038998
pKJ1528039219

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

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

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Legacy Reserves Operating, LP	Contact: Freddie Gibbs
Address: 303 W. Wall St. Ste 1300, Midland, TX 79701	Telephone No. 432-664-1692
Facility Name: Rock Queen Unit #86	Facility Type: Well

Surface Owner: State	Mineral Owner: State	API No. 30-005-00931
----------------------	----------------------	----------------------

LOCATION OF RELEASE

Unit Letter E	Section 36	Township 13S	Range 31E	Feet from the 1980	North/South Line North	Feet from the 660	East/West Line West	County Chaves
------------------	---------------	-----------------	--------------	-----------------------	---------------------------	----------------------	------------------------	------------------

Latitude 33.1485596 Longitude -103.7815247

NATURE OF RELEASE

Type of Release: Mixed Fluids	Volume of Release: 20bbls	Volume Recovered: 5bbls
Source of Release: Flowline	Date and Hour of Occurrence: 8/28/2015	Date and Hour of Discovery: 8/28/2015
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
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 flowline leaked causing a release of approximately 20bbls of mixed fluids. A vacuum truck was utilized to recover approximately 5bbls of fluid.

Describe Area Affected and Cleanup Action Taken.*

The impacted area was in the pasture southeast of the location. Talon/LPE was contacted to conduct a site assessment and soil sampling within the impacted area. Upon receipt of analytical results from the soil sampling events a remediation work plan was drafted and subsequently approved by NMOCD. The remediation was conducted to the scope laid out in the approved work plan. The area was backfilled and contoured to match the surrounding terrain.

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.

OIL CONSERVATION DIVISION

Signature: 

Printed Name: Freddie Gibbs

Title: Production Superintendent

E-mail Address: fgibbs@legacyp.com

Date: 11/20/15

Phone: 432-644-1692

Approved by Environmental Specialist:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

* Attach Additional Sheets If Necessary

PHOTOGRAPHIC DOCUMENTATION



33.146617 -103.779667



33.146717 -103.779533



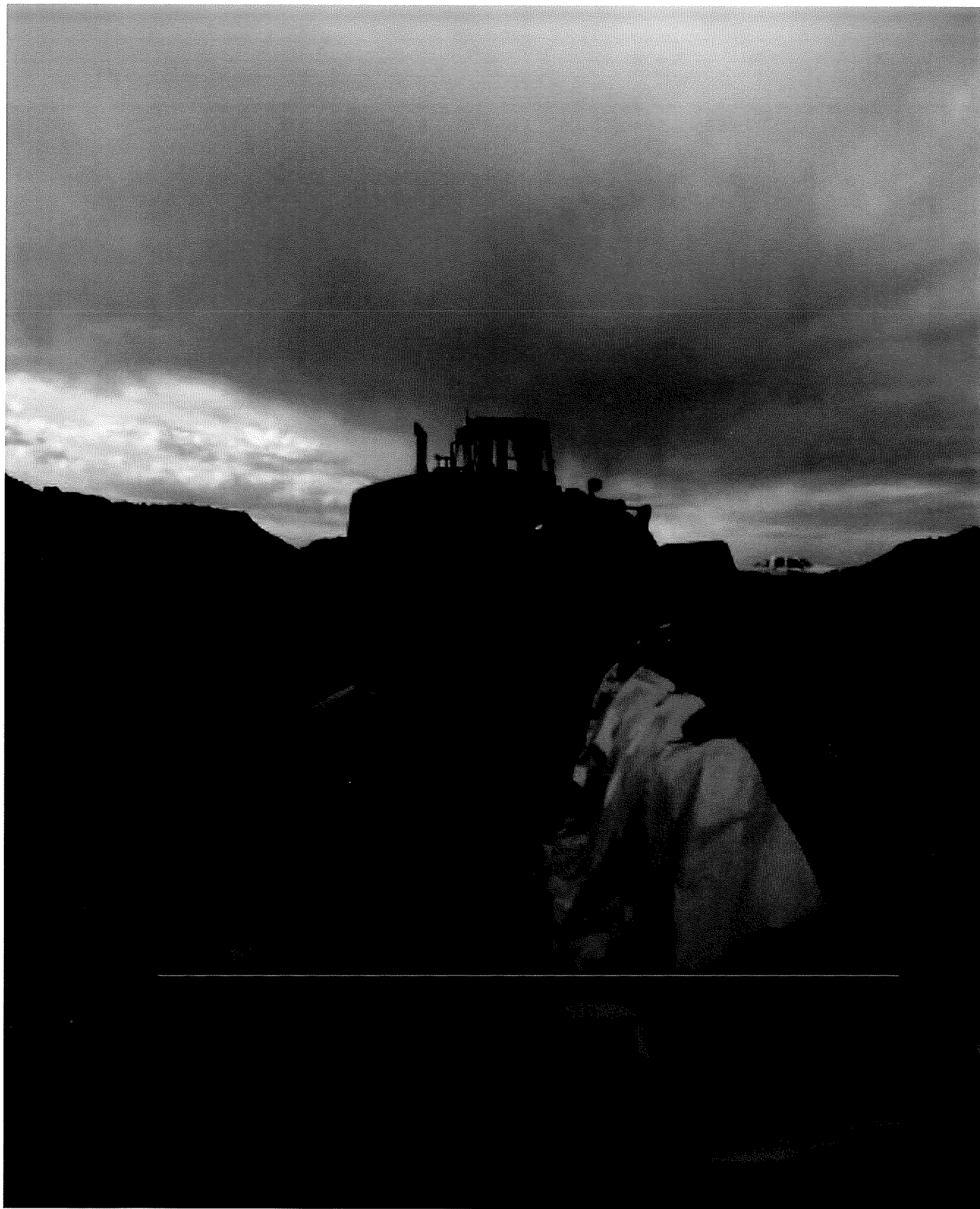
33.146967 -103.779683



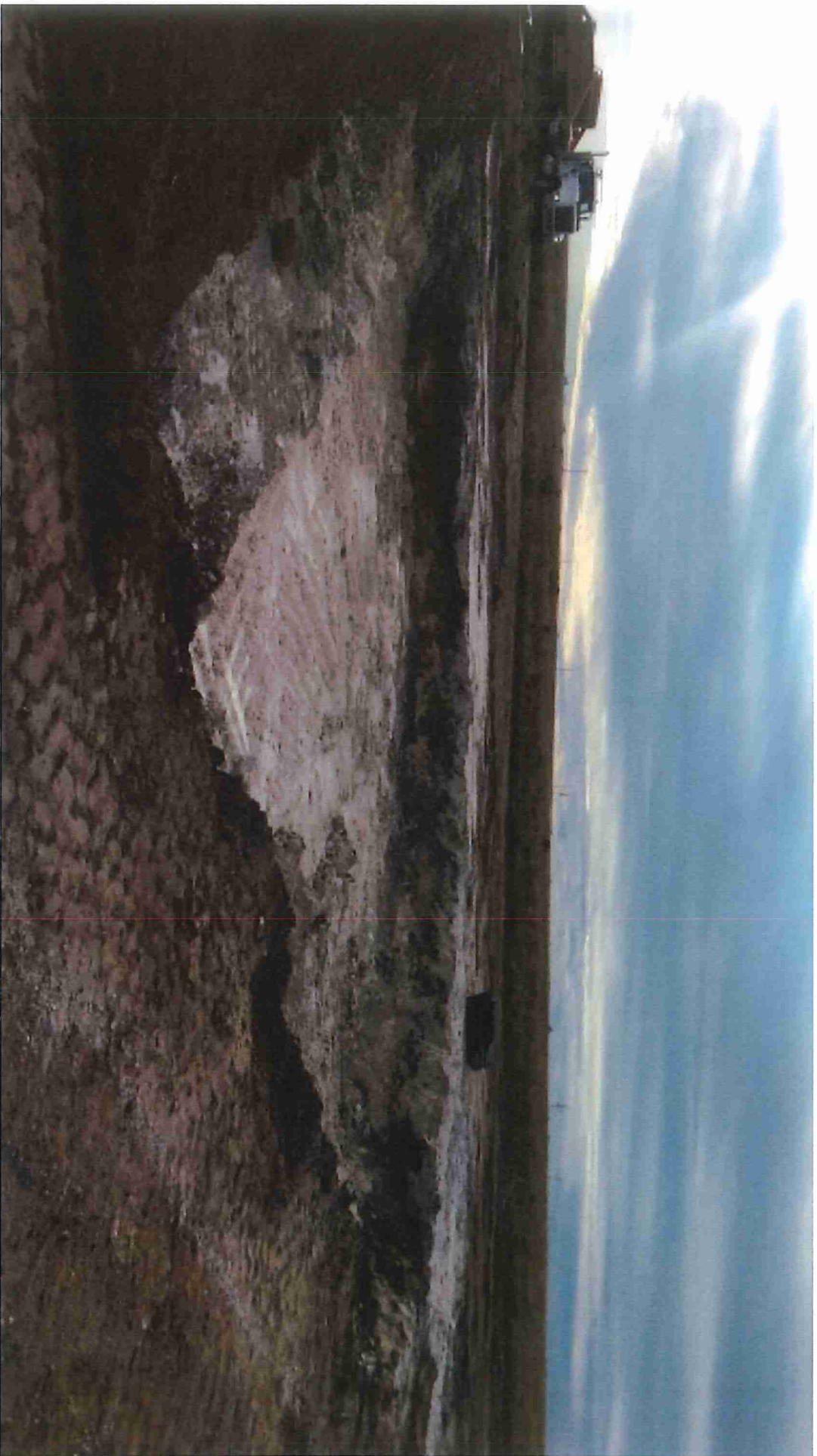
33.147033 -103.779283



33.146833 -103.77945



33.146833 -103.77945



33.146849 -103.779462



33.146848 -103.779463

LABORATORY RESULTS

September 14, 2015

SHELDON HITCHCOCK

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: ROCK QUEEN UNIT #86

Enclosed are the results of analyses for samples received by the laboratory on 09/09/15 10:35.

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.

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

Received: 09/09/2015
Reported: 09/14/2015
Project Name: ROCK QUEEN UNIT #86
Project Number: 701047.156.01
Project Location: LEGACY

Sampling Date: 09/08/2015
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-1 0' (H502367-01)

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2015	ND	2.04	102	2.00	1.40	
Toluene*	<0.050	0.050	09/11/2015	ND	1.87	93.3	2.00	1.27	
Ethylbenzene*	0.126	0.050	09/11/2015	ND	1.91	95.7	2.00	0.474	
Total Xylenes*	0.305	0.150	09/11/2015	ND	6.31	105	6.00	0.796	
Total BTEX	0.431	0.300	09/11/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 85.6-137

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	22800	16.0	09/14/2015	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: CK							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<200	200	09/10/2015	ND	189	94.3	200	2.02		
DRO >C10-C28	20100	200	09/10/2015	ND	216	108	200	1.76		

Surrogate: 1-Chlorooctane 57.5 % 47.2-157

Surrogate: 1-Chlorooctadecane 598 % 52.1-176

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

Analytical Results For:

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

Received:	09/09/2015	Sampling Date:	09/08/2015
Reported:	09/14/2015	Sampling Type:	Soil
Project Name:	ROCK QUEEN UNIT #86	Sampling Condition:	Cool & Intact
Project Number:	701047.156.01	Sample Received By:	Jodi Henson
Project Location:	LEGACY		

Sample ID: S-1 1' (H502367-02)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2015	ND	2.04	102	2.00	1.40	
Toluene*	<0.050	0.050	09/11/2015	ND	1.87	93.3	2.00	1.27	
Ethylbenzene*	<0.050	0.050	09/11/2015	ND	1.91	95.7	2.00	0.474	
Total Xylenes*	<0.150	0.150	09/11/2015	ND	6.31	105	6.00	0.796	
Total BTEX	<0.300	0.300	09/11/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 107 % 85.6-137

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	09/14/2015	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	09/10/2015	ND	189	94.3	200	2.02		
DRO >C10-C28	<10.0	10.0	09/10/2015	ND	216	108	200	1.76		


Surrogate: 1-Chlorooctane 73.8 % 47.2-157

Surrogate: 1-Chlorooctadecane 73.7 % 52.1-176

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

Analytical Results For:

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

 Received: 09/09/2015
 Reported: 09/14/2015
 Project Name: ROCK QUEEN UNIT #86
 Project Number: 701047.156.01
 Project Location: LEGACY

 Sampling Date: 09/08/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S-1 1.5' REFUSAL (H502367-03)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2015	ND	2.04	102	2.00	1.40	
Toluene*	<0.050	0.050	09/11/2015	ND	1.87	93.3	2.00	1.27	
Ethylbenzene*	<0.050	0.050	09/11/2015	ND	1.91	95.7	2.00	0.474	
Total Xylenes*	<0.150	0.150	09/11/2015	ND	6.31	105	6.00	0.796	
Total BTX	<0.300	0.300	09/11/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13800	16.0	09/14/2015	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	09/10/2015	ND	189	94.3	200	2.02	
DRO >C10-C28	976	50.0	09/10/2015	ND	216	108	200	1.76	

Surrogate: 1-Chlorooctane 71.3 % 47.2-157

Surrogate: 1-Chlorooctadecane 88.8 % 52.1-176

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

Analytical Results For:

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

Received:	09/09/2015	Sampling Date:	09/08/2015
Reported:	09/14/2015	Sampling Type:	Soil
Project Name:	ROCK QUEEN UNIT #86	Sampling Condition:	Cool & Intact
Project Number:	701047.156.01	Sample Received By:	Jodi Henson
Project Location:	LEGACY		

Sample ID: S-2 0' (H502367-04)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2015	ND	2.04	102	2.00	1.40	
Toluene*	<0.050	0.050	09/11/2015	ND	1.87	93.3	2.00	1.27	
Ethylbenzene*	<0.050	0.050	09/11/2015	ND	1.91	95.7	2.00	0.474	
Total Xylenes*	<0.150	0.150	09/11/2015	ND	6.31	105	6.00	0.796	
Total BTEX	<0.300	0.300	09/11/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13800	16.0	09/14/2015	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/10/2015	ND	189	94.3	200	2.02	
DRO >C10-C28	11.5	10.0	09/10/2015	ND	216	108	200	1.76	

Surrogate: 1-Chlorooctane 73.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 72.7 % 52.1-176

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

Analytical Results For:

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

Received:	09/09/2015	Sampling Date:	09/08/2015
Reported:	09/14/2015	Sampling Type:	Soil
Project Name:	ROCK QUEEN UNIT #86	Sampling Condition:	Cool & Intact
Project Number:	701047.156.01	Sample Received By:	Jodi Henson
Project Location:	LEGACY		

Sample ID: S-2 1' (H502367-05)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2015	ND	2.04	102	2.00	1.40	
Toluene*	<0.050	0.050	09/11/2015	ND	1.87	93.3	2.00	1.27	
Ethylbenzene*	<0.050	0.050	09/11/2015	ND	1.91	95.7	2.00	0.474	
Total Xylenes*	<0.150	0.150	09/11/2015	ND	6.31	105	6.00	0.796	
Total BTX	<0.300	0.300	09/11/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 105 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	09/14/2015	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/10/2015	ND	189	94.3	200	2.02	
DRO >C10-C28	<10.0	10.0	09/10/2015	ND	216	108	200	1.76	

Surrogate: 1-Chlorooctane 72.1 % 47.2-157

Surrogate: 1-Chlorooctadecane 70.9 % 52.1-176

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

Analytical Results For:

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

 Received: 09/09/2015
 Reported: 09/14/2015
 Project Name: ROCK QUEEN UNIT #86
 Project Number: 701047.156.01
 Project Location: LEGACY

 Sampling Date: 09/08/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S-2 1.5' REFUSAL (H502367-06)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2015	ND	2.04	102	2.00	1.40	
Toluene*	<0.050	0.050	09/11/2015	ND	1.87	93.3	2.00	1.27	
Ethylbenzene*	<0.050	0.050	09/11/2015	ND	1.91	95.7	2.00	0.474	
Total Xylenes*	<0.150	0.150	09/11/2015	ND	6.31	105	6.00	0.796	
Total BTEX	<0.300	0.300	09/11/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	09/14/2015	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/10/2015	ND	189	94.3	200	2.02	
DRO >C10-C28	<10.0	10.0	09/10/2015	ND	216	108	200	1.76	

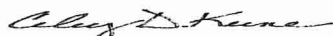
Surrogate: 1-Chlorooctane 69.9 % 47.2-157

Surrogate: 1-Chlorooctadecane 79.7 % 52.1-176

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

Analytical Results For:

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

Received:	09/09/2015	Sampling Date:	09/08/2015
Reported:	09/14/2015	Sampling Type:	Soil
Project Name:	ROCK QUEEN UNIT #86	Sampling Condition:	Cool & Intact
Project Number:	701047.156.01	Sample Received By:	Jodi Henson
Project Location:	LEGACY		

Sample ID: S-3 0' (H502367-07)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2015	ND	2.04	102	2.00	1.40	
Toluene*	<0.050	0.050	09/11/2015	ND	1.87	93.3	2.00	1.27	
Ethylbenzene*	<0.050	0.050	09/11/2015	ND	1.91	95.7	2.00	0.474	
Total Xylenes*	<0.150	0.150	09/11/2015	ND	6.31	105	6.00	0.796	
Total BTX	<0.300	0.300	09/11/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	23600	16.0	09/14/2015	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<200	200	09/10/2015	ND	189	94.3	200	2.02		
DRO >C10-C28	16800	200	09/10/2015	ND	216	108	200	1.76		


Surrogate: 1-Chlorooctane 77.9 % 47.2-157

Surrogate: 1-Chlorooctadecane 437 % 52.1-176

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

Analytical Results For:

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

Received:	09/09/2015	Sampling Date:	09/08/2015
Reported:	09/14/2015	Sampling Type:	Soil
Project Name:	ROCK QUEEN UNIT #86	Sampling Condition:	Cool & Intact
Project Number:	701047.156.01	Sample Received By:	Jodi Henson
Project Location:	LEGACY		

Sample ID: S-3 1' (H502367-08)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2015	ND	2.04	102	2.00	1.40	
Toluene*	<0.050	0.050	09/11/2015	ND	1.87	93.3	2.00	1.27	
Ethylbenzene*	<0.050	0.050	09/11/2015	ND	1.91	95.7	2.00	0.474	
Total Xylenes*	<0.150	0.150	09/11/2015	ND	6.31	105	6.00	0.796	
Total BTEx	<0.300	0.300	09/11/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 107 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13200	16.0	09/14/2015	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/10/2015	ND	189	94.3	200	2.02	
DRO >C10-C28	35.6	10.0	09/10/2015	ND	216	108	200	1.76	

Surrogate: 1-Chlorooctane 72.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 82.7 % 52.1-176

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

Analytical Results For:

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

Received:	09/09/2015	Sampling Date:	09/08/2015
Reported:	09/14/2015	Sampling Type:	Soil
Project Name:	ROCK QUEEN UNIT #86	Sampling Condition:	Cool & Intact
Project Number:	701047.156.01	Sample Received By:	Jodi Henson
Project Location:	LEGACY		

Sample ID: S-3 1.5' REFUSAL (H502367-09)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/11/2015	ND	2.04	102	2.00	1.40	
Toluene*	<0.050	0.050	09/11/2015	ND	1.87	93.3	2.00	1.27	
Ethylbenzene*	<0.050	0.050	09/11/2015	ND	1.91	95.7	2.00	0.474	
Total Xylenes*	<0.150	0.150	09/11/2015	ND	6.31	105	6.00	0.796	
Total BTEX	<0.300	0.300	09/11/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 105 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13600	16.0	09/14/2015	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/10/2015	ND	189	94.3	200	2.02	
DRO >C10-C28	<10.0	10.0	09/10/2015	ND	216	108	200	1.76	

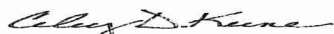
Surrogate: 1-Chlorooctane 74.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 83.9 % 52.1-176

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

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Talon/LPE		P.O. #:		Company: Talon/LPE		Attn:		Address:		City:		State:		Zip:		Phone #:		Fax #:		ANALYSIS REQUEST											
Project Manager: S. Hitchcock		State: NM		Zip: 88210		Phone #: 575-746-8768		Fax #: 575-746-8905		Project #: 101247154.01		Project Owner: Legacy		Project Name: RAIN WATER UNIT # 26		Project Location:		Sampler Name: S. Hitchcock													
FOR LAB USE ONLY		Lab I.D.		Sample I.D.		# CONTAINERS		MATRIX		PRESERV.		SAMPLING		DATE		TIME															
1		5-10'				G		GROUNDWATER						9/8/15		1:12															
2		5-11'				G		WASTEWATER								1:14															
3		5-11.5' re Payal				G		SLUDGE								1:16															
4		5-20'				G		OIL								1:20															
5		5-21'				G		SOIL								1:22															
6		5-21.5' re Payal				G		WASTEWATER								1:26															
7		5-30'				G		GROUNDWATER								1:30															
8		5-31'				G		SLUDGE								1:32															
9		5-31.5' re Payal				G		OIL								1:34															

PLEASE NOTE: Liability and Damages. Cardinal's liability and clients exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: <u>Sharon A. Kavan</u>	Received By: <u>Debbie Benson</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #: _____
Relinquished By: _____	Received By: _____	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #: _____
REMARKS: _____			
Delivered By: (Circle One) _____			
Sampler - UPS - Bus - Other: _____			
Sample Condition: Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>			
CHECKED BY: (Initials) <u>DA</u>			
4.02			

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

September 24, 2015

SHELDON HITCHCOCK

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: ROCK QUEEN UNIT #86

Enclosed are the results of analyses for samples received by the laboratory on 09/18/15 13:45.

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.

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

Received:	09/18/2015	Sampling Date:	09/18/2015
Reported:	09/24/2015	Sampling Type:	Soil
Project Name:	ROCK QUEEN UNIT #86	Sampling Condition:	Cool & Intact
Project Number:	701047.156.01	Sample Received By:	Judy Garcia
Project Location:	E-36-13-31		

Sample ID: S-1 2' (H502467-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11600	16.0	09/22/2015	ND	416	104	400	3.77	

Sample ID: S-1 3' (H502467-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4800	16.0	09/22/2015	ND	416	104	400	3.77	

Sample ID: S-1 4' (H502467-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3760	16.0	09/22/2015	ND	416	104	400	3.77	

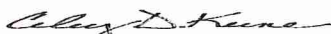
Sample ID: S-1 6' (H502467-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7200	16.0	09/22/2015	ND	416	104	400	3.77	

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

Analytical Results For:

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

Received:	09/18/2015	Sampling Date:	09/18/2015
Reported:	09/24/2015	Sampling Type:	Soil
Project Name:	ROCK QUEEN UNIT #86	Sampling Condition:	Cool & Intact
Project Number:	701047.156.01	Sample Received By:	Judy Garcia
Project Location:	E-36-13-31		

Sample ID: S-1 7' (H502467-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	09/22/2015	ND	416	104	400	3.77	

Sample ID: S-1 8' (H502467-06)

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	09/22/2015	ND	416	104	400	3.77	

Sample ID: S-1 9' (H502467-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	09/22/2015	ND	416	104	400	3.77	

Sample ID: S-1 10' (H502467-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	09/22/2015	ND	416	104	400	3.77	

Sample ID: S-2 2' (H502467-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/22/2015	ND	416	104	400	3.77		

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

Analytical Results For:

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

 Received: 09/18/2015
 Reported: 09/24/2015
 Project Name: ROCK QUEEN UNIT #86
 Project Number: 701047.156.01
 Project Location: E-36-13-31

 Sampling Date: 09/18/2015
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Judy Garcia

Sample ID: S-2 3' (H502467-10)

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	09/22/2015	ND	416	104	400	3.77	

Sample ID: S-2 4' (H502467-11)

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	09/22/2015	ND	416	104	400	3.77		

Sample ID: S-2 5' (H502467-12)

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	09/22/2015	ND	416	104	400	3.77	

Sample ID: S-3 2' (H502467-13)

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3760	16.0	09/22/2015	ND	416	104	400	3.77		

Sample ID: S-3 3' (H502467-14)

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13200	16.0	09/23/2015	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

Analytical Results For:

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

Received:	09/18/2015	Sampling Date:	09/18/2015
Reported:	09/24/2015	Sampling Type:	Soil
Project Name:	ROCK QUEEN UNIT #86	Sampling Condition:	Cool & Intact
Project Number:	701047.156.01	Sample Received By:	Judy Garcia
Project Location:	E-36-13-31		

Sample ID: S-3 4' (H502467-15)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9400	16.0	09/23/2015	ND	416	104	400	3.92	

Sample ID: S-3 5' (H502467-16)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6200	16.0	09/23/2015	ND	416	104	400	3.92	

Sample ID: S-3 6' (H502467-17)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9500	16.0	09/23/2015	ND	416	104	400	3.92	

Sample ID: S-3 7' (H502467-18)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11600	16.0	09/23/2015	ND	416	104	400	3.92	

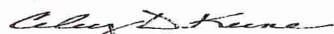
Sample ID: S-3 8' (H502467-19)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16000	16.0	09/23/2015	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

Analytical Results For:

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

Received:	09/18/2015	Sampling Date:	09/18/2015
Reported:	09/24/2015	Sampling Type:	Soil
Project Name:	ROCK QUEEN UNIT #86	Sampling Condition:	Cool & Intact
Project Number:	701047.156.01	Sample Received By:	Judy Garcia
Project Location:	E-36-13-31		

Sample ID: S-3 9' (H502467-20)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	19600	16.0	09/23/2015	ND	416	104	400	3.92	

Sample ID: S-3 10' (H502467-21)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6300	16.0	09/23/2015	ND	416	104	400	3.92	

Sample ID: S-3 11' (H502467-22)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3320	16.0	09/23/2015	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

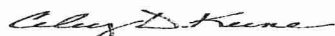
Notes and Definitions

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

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: Talon/LPE		P.O. #:
Project Manager: S. Hitchcock		Company: Talon/LPE
Address: 408 W. Texas Ave.		Attn:
City: Artesia	State: NM Zip: 88210	Address:
Phone #: 575-746-8768	Fax #: 575-746-8905	City:
Project #: 701047.156.01	Project Owner: Legacy	State:
Project Name: Rock Queen Unit #86		Zip:
Project Location: E-36-13-31		Phone #:
Sampler Name: S. Hitchcock		Fax #:

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					DATE	TIME										
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE			OTHER :	ACID/BASE:	ICE / COOL	OTHER :						
4502461	5-12	C	1						9/18/15	9:06										
	5-13	C	1						9:02											
	5-14	C	1						9:04											
	5-15	C	1						9:06											
	5-16	C	1						9:09											
	5-17	C	1						9:16											
	5-18	C	1						9:12											
	5-19	C	1						9:14											
	5-110	C	1						9:11											
	5-22	C	1						10:00											

PLEASE NOTE: Liability and Damages: Cardinal's liability and clients exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated remedies or otherwise.

Relinquished By: <i>[Signature]</i>	Date: _____	Received By: _____	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #: _____
	Time: _____		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #: _____

Delivered By: (Circle One)	Date: 9/18/15	Received By: <i>[Signature]</i>	Sample Condition: <input checked="" type="checkbox"/> Good <input type="checkbox"/> Intact	CHECKED BY: (Initials) <i>[Initials]</i>
Sampler - UPS - Bus - Other:	Time: 1:45		<input type="checkbox"/> Yes <input type="checkbox"/> No	

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

PG 1 of 3



CARDINAL Laboratories

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Talon/LPE		P.O. #:		BILL TO																				
Project Manager: S. H. Haddock		Company: Talon/LPE		ANALYSIS REQUEST																				
Address: 408 W. Texas Ave.		Attn:																						
City: Artesia		State: NM		Zip: 88210																				
Phone #: 575-746-8768		Fax #: 575-746-8905																						
Project #: 701047, 15601		Project Owner: Legacy																						
Project Name: RAL Quon Unit # 86		City:																						
Project Location:		State:																						
Sampler Name: S. H. Haddock		Phone #:																						
FOR LAB USE ONLY		Fax #:																						
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	SAMPLING													
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME										
10	5-23'		1										9/18/15	10:02										
11	6-24'		1										10:04											
12	5-25'		1										10:06											
13	5-32'		1										10:09											
14	5-33'		1										11:08											
15	5-34'		1										11:08											
16	5-35'		1										11:08											
17	5-36'		1										11:17											
18	5-37'		1										11:14											
19	5-38'		1																					
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 the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.																								
Relinquished By: <i>Steven Haddock</i>		Date:		Received By:																				
Relinquished By:		Time:		Received By:																				
Delivered By: (Circle One)		Date: 9/18/15		Received By: <i>Quyen Garcia</i>																				
Sampler - UPS - Bus - Other:		Time: 1:45		Sample Condition																				
				Good <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>																				
				Checked By: (Initials) <i>Q</i>																				
REMARKS:																								
† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326																								

P 62 OF 3



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Talon/LPE

Project Manager: S. Hitchcock

Address: 408 W. Texas Ave.

City: Artesia State: NM Zip: 88210

Phone #: 575-746-8768 Fax #: 575-746-8905

Project #: 70147156.01 Project Owner: Legay

Project Name: Rock Auction Unit #86

Project Location:

Sampler Name: S. Hitchcock

FOR LAB USE ONLY

Lab I.D. Sample I.D.

HC02467
20 24 5-3 4'
21 24 5-3 10'
22 24 5-3 11'

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

DATE

TIME

Chlorides

BILL TO

ANALYSIS REQUEST

P.O. #:

Company: Talon/LPE

Attn:

Address:

City:

State:

Zip:

Phone #:

Fax #:

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 the client for the analysis. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:

Date:

Received By:

Relinquished By: *S. Hitchcock*

Date: 9/18/15

Received By: *Andy Garcia*

Time:

Time: 1:45

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Sample Condition

CHECKED BY: (Initials)

Cool - Intact

Yes ☒ No ☐

Yes ☐ No ☐

Phone Result: ☐ Yes ☐ No ☐ Add'l Phone #:

Fax Result: ☐ Yes ☐ No ☐ Add'l Fax #:

REMARKS:

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

0630P3



December 8, 2015

Ms. Kellie Jones
NMOCD District I
1625 N. French Dr.
Hobbs, NM 88240

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 575.748.8905

HOBBS
318 East Taylor Street
Hobbs, New Mexico 88241
Phone 505.393.4261
Fax 505.393.4658

Subject: Remedial Activities and Closure Report (**Addendum 1**)
Legacy Reserves Operating, LP
Rock Queen Unit #86
API #: 30-005-00931
(1RP-3900)

Sample Location S-3 Vertical Delineation

10/21/2015

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-3	12	--	1040	--	--
S-3	13	--	608	--	--
S-3	14	--	480	--	--
S-3	15	--	ND	--	--

(--) Analyte Not Tested
(ND) Analyte Not Detected

Based upon the site ranking of **0**, NMOCD Recommended Remedial Action Levels (RRAL) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, 5,000 mg/kg for TPH, 1,000 mg/kg for Chloride.

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

OKLAHOMA CITY
430 West Wilshire, 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

ENVIRONMENTAL CONSULTING
ENGINEERING
DRILLING
CONSTRUCTION
SPILL MANAGEMENT
GENERAL CONTRACTING

Toll Free: 866.742.0742
www.talonlpe.com

LABORATORY RESULTS

October 22, 2015

SHELDON HITCHCOCK

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: ROCK QUEEN UNIT #86

Enclosed are the results of analyses for samples received by the laboratory on 10/21/15 15:36.

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/ga/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Caley D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received:	10/21/2015	Sampling Date:	10/21/2015
Reported:	10/22/2015	Sampling Type:	Soil
Project Name:	ROCK QUEEN UNIT #86	Sampling Condition:	** (See Notes)
Project Number:	701047.156.01	Sample Received By:	Judy Garcia
Project Location:	E-36-13-31		

Sample ID: S-3 12' (H502751-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1040	16.0	10/22/2015	ND	416	104	400	0.00	

Sample ID: S-3 13' (H502751-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	608	16.0	10/22/2015	ND	432	108	400	3.77	

Sample ID: S-3 14' (H502751-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	10/22/2015	ND	432	108	400	3.77	

Sample ID: S-3 15' (H502751-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/22/2015	ND	432	108	400	3.77	

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

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: Talon/PE

Project Manager: S. Hitchcock

Address: 408 W. Texas Ave.

City: Artesia State: NM Zip: 88210

Phone #: 575-746-8768 Fax #: 575-746-8905

Project #: 201047.15601 Project Owner: L. C. Gage

Project Name: Rock Queen Unit # 86

Project Location:

Sample Name: S. Hitchcock

FOR LAB USE ONLY

MATRIX

PRESERV

SAMPLING

Lab I.D.

Sample I.D.

H502151

5-3 12'

5-3 13'

5-3 14'

5-3 15'

6-1

6-1

6-1

6-1

6-1

6-1

6-1

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

10/2/15

1:39

1:45

1:50

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

10/2/15

1:39

1:45

1:50

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

10/2/15

1:39

1:45

1:50

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

10/2/15

1:39

1:45

1:50

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

10/2/15

1:39

1:45

1:50

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

10/2/15

1:39

1:45

1:50

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55

1:55