



December 16, 2014

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

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

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

Subject: **Remediation and Sampling Report**  
Mewbourne Oil Company  
San Lorenzo SWD No. 1  
API: 30-015-23067, 2RP-2532

Dear Mr. Bratcher,

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

Mewbourne Oil Company (MOC) contracted Talon/LPE (Talon) to perform remediation and sampling services at the above referenced location. The results of our completed remedial actions, soil and surface water sampling program and closure request for this phase of the project are submitted herein.

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

### **Background Information**

The San Lorenzo SWD No.1 is located approximately 12 miles southeast of Loving, New Mexico. The legal location for this release is Unit Letter H, Section 34, Township 25 South, and Range 28 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.086841 North and - 104.069744 West. A site plan is presented in [Appendix I](#).

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

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 Karro fine sandy loam with 0 to 3 percent slopes. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is made up of the Rustler Formation, upper Permian Age, comprised of siltstone, gypsum, sandstone, dolomite. Groundwater in the project vicinity is approximately 0-5 feet below ground surface (bgs).

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

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

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

ENVIRONMENTAL CONSULTING  
ENGINEERING  
DRILLING  
CONSTRUCTION  
SPILL MANAGEMENT  
GENERAL CONTRACTING

## Incident Description

On September 26, 2014, the SWD line running along the west side of Highway 285 from the San Lorenzo SWD to the Delaware Ranch SWD was damaged in the draw between mile marker 6 and 7 by debris and rising flood waters causing a release of 1726 barrels mixed fluids. Upon discovery, approximately 253 barrels of oil and 267 barrels of water were immediately recovered utilizing vac trucks. The area affected was approximately 6,000-feet in length from the bridge south down the draw. The Initial C-141 is presented in [Appendix II](#).

## Remedial Actions Taken

Between September 30 and October 16, 2014, Talon mobilized personnel to the release location. Absorbent pads and booms were used for hand-recovery of free phase oil. The impact soil was hand-excavated and stockpiled on plastic sheeting and construction bags were used to dispose of the oily pads and booms. One truck load of contaminated soil and sorbent media was disposed of at Lea Land, LLC, an approved NMOCD disposal facility. See [Appendix III](#) for the disposal manifest.

On November 6, 2014 Talon/LPE mobilized personnel to obtain surface water samples and on November 26, 2014 soil sampling from bank sediments was completed. See [Table 1](#) below for resulting lab data analysis. A site map presenting surface water (W-1), soil/sediment (S-1) and background (BG-1) soil sampling is attached hereto in [Appendix I](#).

All soil samples were collected by Talon personnel wearing clean nitrile gloves. The soil samples were placed in laboratory provided sample containers, iced and transported to Cardinal Laboratories in Hobbs, New Mexico for analysis. The samples were tested for volatile organics (BTEX) via EPA Method 8021B (soil) and EPA Method 8026B (water), TPH (Total Petroleum Hydrocarbons) using EPA Method 8015M and Total Chlorides by Method SM 4500Cl-B.

## Laboratory Results

See [Appendix IV](#) for complete laboratory reports.

November 12, 2014

[Table 1](#)

Sample ID	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO	TPH (mg/kg) EXT DRO
W-1	<0.006	840	<1.00	<1.00	<1.00
W-2	<0.006	600	<1.00	<1.00	<1.00
W-3	<0.006	630	<1.00	<1.00	<1.00

December 5, 2014

Table 1, cont.

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	0	<0.300	1300	<10	<10
	0.5	<0.300	1700	<10	<10
S-2	0	<0.300	112	<10	<10
	0.5	<0.300	48	<10	<10
S-3	0	<0.300	112	<10	<10
	0.5	<0.300	96	<10	<10
BG-1	0	<0.300	32	<10	<10
BG-2	0	<0.300	9060	<10	<10
BG-3	0	<0.300	9200	<10	<10

Based upon the site ranking of **20**, the NMOCD Recommended Remedial Action Levels (RRAL's) are 50 mg/kg for BTEX, 10 mg/kg for Benzene and 100 mg/kg for TPH.

#### Closure

On behalf of the Mewbourne Oil Company, we respectfully request that no further actions be required and that closure with respect to this portion of this project 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

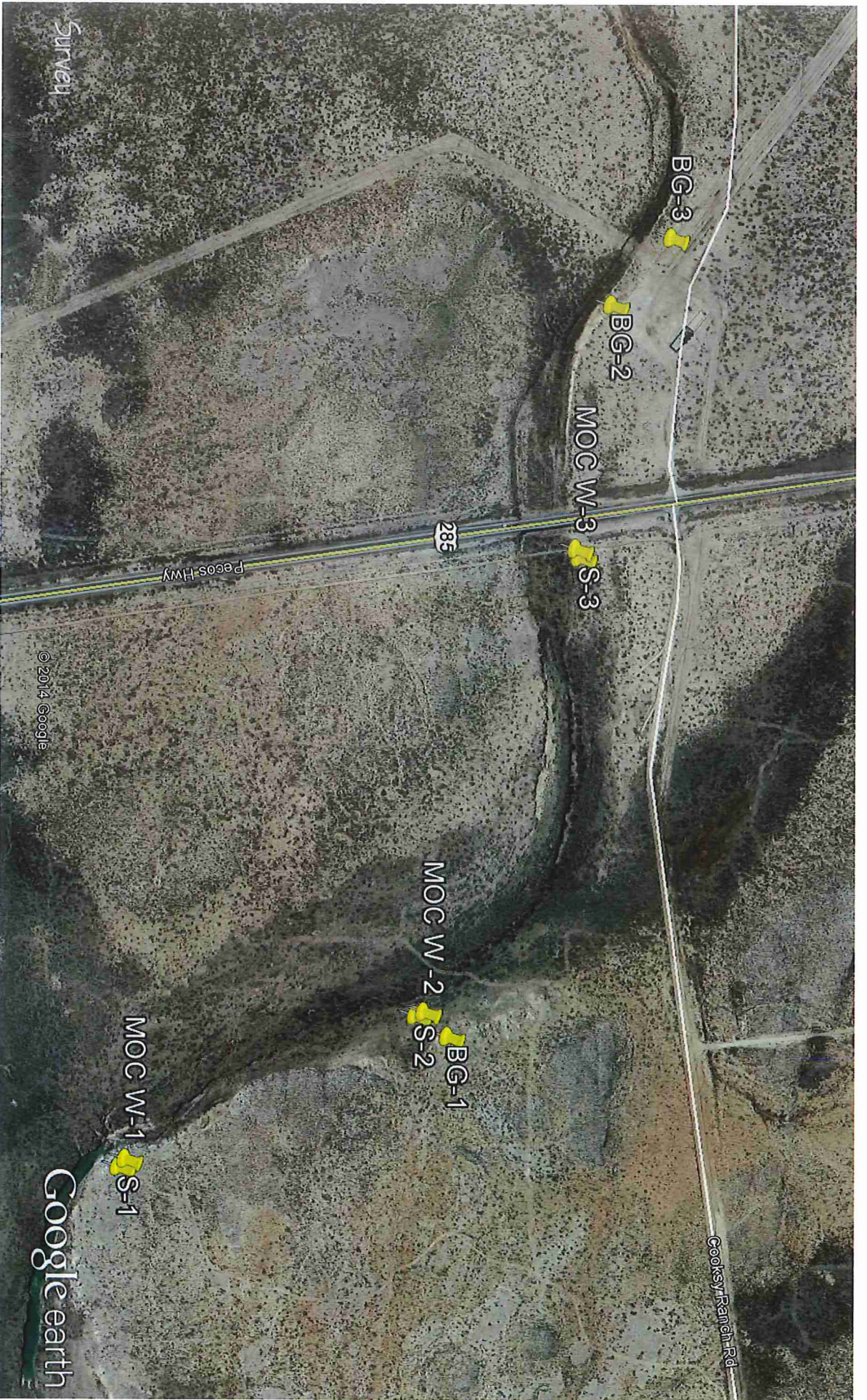


David J. Adkins  
District Manager

## **APPENDIX I**

### **SITE PLAN**

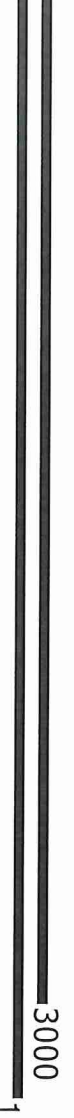




© 2014 Google

Google earth

feet  
km



Google earth

## **APPENDIX II**

### **INITIAL C-141**



**NM OIL CONSERVATION**  
ARTESIA DISTRICT

**OCT 06 2014**

Form C-141  
Revised August 8, 2011

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

Sub **RECEIVED** appropriate District Office in  
accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action**

**NAB1428148585**

**OPERATOR**

☒ Initial Report ☐ Final Report

Name of Company: Mewbourne Oil Company	Contact: Zack Thomas
Address: PO Box 5270 Hobbs NM 88241	Telephone No. 575-393-5905
Facility Name: San Lorenzo SWD #001	Facility Type: SWD

Surface Owner: State	Mineral Owner:	API No. 30-015-23067
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**LOCATION OF RELEASE**

Unit Letter H	Section 34	Township 25S	Range 28E	Feet from the 2450'	North/South Line North	Feet from the 1140'	East/West Line East	County Eddy
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Latitude 32.08707 Longitude -104.06766

**NATURE OF RELEASE**

Type of Release: Produced water/Oil	Volume of Release: estimated 1726 bbls total fluid <b>(1473 bbls Oil) (253 bbls PW)</b>	Volume Recovered: Oil (253 bbls) PW/rain water (267 bbls)
Source of Release: Damaged 4" SDR7 poly line	Date and Hour of Occurrence 9-26-14	Date and Hour of Discovery 9-28-14 5:00 pm
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?	Date and Hour 9-28-14 6:50 pm	
Was a Watercourse Reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse. 1726 bbls	

If a Watercourse was Impacted, Describe Fully.\*

SWD line ran alongside west side highway 285 from the San Lorenzo SWD to the Delaware Ranch SWD was damaged in the draw between mile marker 6 and mile marker 7 under bridge while draw was flowing.

Describe Cause of Problem and Remedial Action Taken.\*

Debris and flood waters caused damage to poly line underneath bridge. The line was capped off on the 9-28-2014 stopping the release.

Describe Area Affected and Cleanup Action Taken.\*

Affected area- The draw was affected from the bridge at highway 285 to approximately six thousand feet east down the draw, small remnants of oil believed to be from the same release were found an additional six thousand feet down the draw. Mewbourne Oil Company has recovered 253 bbls of oil from the area with vacuum trucks and skimmers, and is continuing cleanup efforts via hydrocarbon absorbing pads and booms across the flowing draw.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC 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 NMOC 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, NMOC 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: <i>Z. Thomas</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Zack Thomas	Signed By: <i>Mike Bratcher</i> Approved by Environmental Specialist:	
Title: Environmental Rep.	Approval Date: <u>10/8/14</u>	Expiration Date: <u>N/A</u>
E-mail Address: zthomas@mewbourne.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 10-3-14	<b>Remediation per O.C.D. Rules &amp; Guidelines</b>	

\* Attach Additional Sheets If Necessary

**SUBMIT REMEDIATION PROPOSAL NO**  
**LATER THAN: 11/8/14**

**2RP-2532**

**APPENDIX III**  
**DISPOSAL MANIFESTS**



# LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

## LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

Talon

### NON-HAZARDOUS WASTE MANIFEST

NO **103340**

1. PAGE \_\_\_ OF \_\_\_

2. TRAILER NO. **1142**

G

3. COMPANY NAME

Mewbourne Oil  
PHONE NO.

4. ADDRESS

701 S. Cecil St.  
CITY

STATE

ZIP

5. PICK-UP DATE

**10/18/2011**

6. TNRCC I.D. NO.

E

(575) 383-5885

Hobbs

NM

88348

7. NAME OR DESCRIPTION OF WASTE SHIPPED:

8. CONTAINERS  
No. Type

9. TOTAL  
QUANTITY

10. UNIT  
Wt/Vol.

11. TEXAS  
WASTE ID #

N

a. **Non-Regulated, Non Hazardous Waste**

1

CM

E

b.

c.

R

WWT: **8,640 2340**

12. COMMENTS OR SPECIAL INSTRUCTIONS:

13. WASTE PROFILE NO.

A

**SAN LORENZO SWD**

**TOTAL 10980**

**708592**

T

14. **IN CASE OF EMERGENCY OR SPILL, CONTACT**

NAME

PHONE NO

24-HOUR EMERGENCY NO.

**Kin Slaughter**

**575-887-4048**

O

15. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC

R

PRINTED/TYPED NAME

SIGNATURE

DATE

T

16. **TRANSPORTER (1)**

NAME:

**TALON LPE**

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

**KEN**

EMERGENCY PHONE:

**(575) 882-1311**

18. **TRANSPORTER (1):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

**Billy Stiles**

SIGNATURE

**Billy Stiles**

**10/18/2011**

17.

**TRANSPORTER (2)**

NAME:

TEXAS I.D. NO.

IN CASE OF EMERGENCY CONTACT:

EMERGENCY PHONE:

19. **TRANSPORTER (2):** Acknowledgment of receipt of material

PRINTED/TYPED NAME

SIGNATURE

DATE

D  
F  
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Y

Lea Land, LLC

ADDRESS:

Mile Marker 64, U.S. Hwy 62/180,  
30 Miles East of Carlsbad, NM

PHONE:

**575-887-4048**

PERMIT NO.

**WM-01-035 - New Mexico**

20. COMMENTS

21. **DISPOSAL FACILITY'S CERTIFICATION:** I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE

**Santos Gonzalez**

CELL NO.

DATE

TIME

**10/18/2011**

**12:25**

GENERATOR: COPIES 1 & 6

DISPOSAL SITE: COPIES 2 & 3

TRANSPORTERS: COPIES 4 & 5

**COPY 1**

**APPENDIX IV**  
**LABORATORY REPORTS**

November 12, 2014

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: SAN LORENZO SWD

Enclosed are the results of analyses for samples received by the laboratory on 11/07/14 16:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 11/07/2014  
Reported: 11/12/2014  
Project Name: SAN LORENZO SWD  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 11/06/2014  
Sampling Type: Water  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: W-1 (H403437-01)**

BTX 8260B		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	11/11/2014	ND	0.020	102	0.0200	5.71	
Toluene*	<0.001	0.001	11/11/2014	ND	0.017	86.4	0.0200	7.57	
Ethylbenzene*	<0.001	0.001	11/11/2014	ND	0.017	85.3	0.0200	9.17	
Total Xylenes*	<0.003	0.003	11/11/2014	ND	0.054	90.2	0.0600	8.64	
Total BTX	<0.006	0.006	11/11/2014	ND					

Surrogate: Dibromofluoromethane 107 % 88.3-113

Surrogate: Toluene-d8 94.4 % 90.3-115

Surrogate: 4-Bromofluorobenzene 96.4 % 87.2-114

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	840	4.00	11/11/2014	ND	104	104	100	3.92	

TPH 8015M		mg/L		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<1.00	1.00	11/11/2014	ND	41.8	83.6	50.0	22.3	
DRO >C10-C28	<1.00	1.00	11/11/2014	ND	47.3	94.7	50.0	25.3	
EXT DRO >C28-C35	<1.00	1.00	11/11/2014	ND	ND		0.00		

Surrogate: 1-Chlorooctane 81.7 % 36.1-161

Surrogate: 1-Chlorooctadecane 96.2 % 36-171

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: 11/07/2014  
 Reported: 11/12/2014  
 Project Name: SAN LORENZO SWD  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 11/06/2014  
 Sampling Type: Water  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: W-2 (H403437-02)**

BTEX 8260B		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	11/11/2014	ND	0.020	102	0.0200	5.71	
Toluene*	<0.001	0.001	11/11/2014	ND	0.017	86.4	0.0200	7.57	
Ethylbenzene*	<0.001	0.001	11/11/2014	ND	0.017	85.3	0.0200	9.17	
Total Xylenes*	<0.003	0.003	11/11/2014	ND	0.054	90.2	0.0600	8.64	
Total BTEX	<0.006	0.006	11/11/2014	ND					

Surrogate: Dibromofluoromethane 106 % 88.3-113

Surrogate: Toluene-d8 96.6 % 90.3-115

Surrogate: 4-Bromofluorobenzene 99.2 % 87.2-114

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	600	4.00	11/11/2014	ND	104	104	100	3.92	

TPH 8015M		mg/L		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<1.00	1.00	11/11/2014	ND	41.8	83.6	50.0	22.3	
DRO >C10-C28	<1.00	1.00	11/11/2014	ND	47.3	94.7	50.0	25.3	
EXT DRO >C28-C35	<1.00	1.00	11/11/2014	ND	ND		0.00		

Surrogate: 1-Chlorooctane 76.8 % 36.1-161

Surrogate: 1-Chlorooctadecane 97.3 % 36-171

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: 11/07/2014  
Reported: 11/12/2014  
Project Name: SAN LORENZO SWD  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 11/06/2014  
Sampling Type: Water  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: W-3 (H403437-03)**

BTEx 8260B		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.001	0.001	11/11/2014	ND	0.020	102	0.0200	5.71	
Toluene*	<0.001	0.001	11/11/2014	ND	0.017	86.4	0.0200	7.57	
Ethylbenzene*	<0.001	0.001	11/11/2014	ND	0.017	85.3	0.0200	9.17	
Total Xylenes*	<0.003	0.003	11/11/2014	ND	0.054	90.2	0.0600	8.64	
Total BTEX	<0.006	0.006	11/11/2014	ND					

Surrogate: Dibromofluoromethane 111 % 88.3-113

Surrogate: Toluene-d8 95.1 % 90.3-115

Surrogate: 4-Bromofluorobenzene 93.5 % 87.2-114

Chloride, SM4500Cl-B		mg/L		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride*	630	4.00	11/11/2014	ND	104	104	100	3.92	

TPH 8015M		mg/L		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<1.00	1.00	11/11/2014	ND	41.8	83.6	50.0	22.3	
DRO >C10-C28	<1.00	1.00	11/11/2014	ND	47.3	94.7	50.0	25.3	
EXT DRO >C28-C35	<1.00	1.00	11/11/2014	ND	ND		0.00		

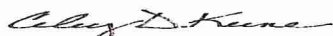
Surrogate: 1-Chlorooctane 81.1 % 36.1-161

Surrogate: 1-Chlorooctadecane 98.6 % 36-171

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
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.



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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: Talon/LE

Project Manager:

DAVID ADKINS

Address: 408 W. Texas Ave.

City: Artesia

State: NM Zip: 88210

Phone #: 575-746-8768

Fax #: 575-746-8905

Project #:

Project Owner:

MOC

Project Name:

San Lorenzo SWD

Project Location:

Sampler Name:

D-ADKINS

FOR LAB USE ONLY

(G)RAB OR (C)OMP.

# CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

DATE

TIME

DATE

TIME

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TIME

Lab I.D.

Sample I.D.

1403437

W-1

W-2

W-3

W-4

W-5

W-6

W-7

W-8

W-9

W-10

W-11

W-12

W-13

W-14

W-15

W-16

W-17

W-18

W-19

W-20

W-21

W-22

W-23

TOTAL chlorides  
BTX  
TPH

ANALYSIS REQUEST

P.O. #: Newbourn

Company: Oil company

Attn: Zack Thomas

Address:

City:

State:

Zip:

Phone #:

Fax #:

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Relinquished By:

Date:

Time:

Received By:

Date:

Time:

Relinquished By:

Date:

Time:

Received By:

Date:

Time:

Delivered By: (Circle One)

Date:

Time:

Received By:

Date:

Time:

Sampler - UPS - Bus - Other:

Date:

Time:

Received By:

Date:

Time:

Sample Condition

Good

Intact

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

Yes

No

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

Fax Result: ☐ Yes ☐ No Add'l Fax #:

REMARKS:



December 05, 2014

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: SAN LORENZO SWD

Enclosed are the results of analyses for samples received by the laboratory on 12/02/14 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 12/02/2014  
Reported: 12/05/2014  
Project Name: SAN LORENZO SWD  
Project Number: 70073802501  
Project Location: EDDY

Sampling Date: 11/26/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Kathy Perez

**Sample ID: S - 1 0' (H403673-01)**

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2014	ND	1.93	96.7	2.00	3.49	
Toluene*	<0.050	0.050	12/03/2014	ND	1.90	95.2	2.00	2.81	
Ethylbenzene*	<0.050	0.050	12/03/2014	ND	1.79	89.6	2.00	3.02	
Total Xylenes*	<0.150	0.150	12/03/2014	ND	5.42	90.4	6.00	3.67	
Total BTX	<0.300	0.300	12/03/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1300	16.0	12/03/2014	ND	416	104	400	3.77	

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	12/03/2014	ND	199	99.7	200	0.672	
DRO >C10-C28	<10.0	10.0	12/03/2014	ND	205	102	200	1.18	

Surrogate: 1-Chlorooctane 121 % 47.2-157

Surrogate: 1-Chlorooctadecane 139 % 52.1-176

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: 12/02/2014  
Reported: 12/05/2014  
Project Name: SAN LORENZO SWD  
Project Number: 70073802501  
Project Location: EDDY

Sampling Date: 11/26/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Kathy Perez

**Sample ID: S - 1 .5' (H403673-02)**

BTEx 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2014	ND	1.93	96.7	2.00	3.49	
Toluene*	<0.050	0.050	12/03/2014	ND	1.90	95.2	2.00	2.81	
Ethylbenzene*	<0.050	0.050	12/03/2014	ND	1.79	89.6	2.00	3.02	
Total Xylenes*	<0.150	0.150	12/03/2014	ND	5.42	90.4	6.00	3.67	
Total BTEx	<0.300	0.300	12/03/2014	ND					

Surrogate: 4-Bromofluorobenzene (PII) 98.0 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1700	16.0	12/03/2014	ND	416	104	400	3.77	

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	12/03/2014	ND	199	99.7	200	0.672	
DRO >C10-C28	<10.0	10.0	12/03/2014	ND	205	102	200	1.18	

Surrogate: 1-Chlorooctane 122 % 47.2-157

Surrogate: 1-Chlorooctadecane 137 % 52.1-176

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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: 12/02/2014  
Reported: 12/05/2014  
Project Name: SAN LORENZO SWD  
Project Number: 70073802501  
Project Location: EDDY

Sampling Date: 11/26/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Kathy Perez

**Sample ID: S - 2 0' (H403673-03)**

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2014	ND	1.93	96.7	2.00	3.49	
Toluene*	<0.050	0.050	12/03/2014	ND	1.90	95.2	2.00	2.81	
Ethylbenzene*	<0.050	0.050	12/03/2014	ND	1.79	89.6	2.00	3.02	
Total Xylenes*	<0.150	0.150	12/03/2014	ND	5.42	90.4	6.00	3.67	
Total BTEX	<0.300	0.300	12/03/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.1 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/03/2014	ND	416	104	400	3.77	

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	12/03/2014	ND	199	99.7	200	0.672	
DRO >C10-C28	<10.0	10.0	12/03/2014	ND	205	102	200	1.18	


Surrogate: 1-Chlorooctane 123 % 47.2-157

Surrogate: 1-Chlorooctadecane 139 % 52.1-176

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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: 12/02/2014  
Reported: 12/05/2014  
Project Name: SAN LORENZO SWD  
Project Number: 70073802501  
Project Location: EDDY

Sampling Date: 11/26/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Kathy Perez

**Sample ID: S - 2 .5' (H403673-04)**

BTEX 8021B			mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/03/2014	ND	1.93	96.7	2.00	3.49		
Toluene*	<0.050	0.050	12/03/2014	ND	1.90	95.2	2.00	2.81		
Ethylbenzene*	<0.050	0.050	12/03/2014	ND	1.79	89.6	2.00	3.02		
Total Xylenes*	<0.150	0.150	12/03/2014	ND	5.42	90.4	6.00	3.67		
Total BTEX	<0.300	0.300	12/03/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 61-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	12/03/2014	ND	416	104	400	3.77		

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	12/03/2014	ND	199	99.7	200	0.672		
DRO >C10-C28	<10.0	10.0	12/03/2014	ND	205	102	200	1.18		

Surrogate: 1-Chlorooctane 123 % 47.2-157

Surrogate: 1-Chlorooctadecane 140 % 52.1-176

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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: 12/02/2014  
 Reported: 12/05/2014  
 Project Name: SAN LORENZO SWD  
 Project Number: 70073802501  
 Project Location: EDDY

 Sampling Date: 11/26/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kathy Perez

**Sample ID: S - 3 0' (H403673-05)**

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2014	ND	1.93	96.7	2.00	3.49	
Toluene*	<0.050	0.050	12/03/2014	ND	1.90	95.2	2.00	2.81	
Ethylbenzene*	<0.050	0.050	12/03/2014	ND	1.79	89.6	2.00	3.02	
Total Xylenes*	<0.150	0.150	12/03/2014	ND	5.42	90.4	6.00	3.67	
Total BTEX	<0.300	0.300	12/03/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	12/03/2014	ND	416	104	400	3.77	

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	12/03/2014	ND	199	99.7	200	0.672	
DRO >C10-C28	<10.0	10.0	12/03/2014	ND	205	102	200	1.18	

Surrogate: 1-Chlorooctane 121 % 47.2-157

Surrogate: 1-Chlorooctadecane 138 % 52.1-176

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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: 12/02/2014  
 Reported: 12/05/2014  
 Project Name: SAN LORENZO SWD  
 Project Number: 70073802501  
 Project Location: EDDY

 Sampling Date: 11/26/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kathy Perez

**Sample ID: S - 3 .5' (H403673-06)**

BTX 8021B			mg/kg		Analyzed By: CK				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2014	ND	1.93	96.7	2.00	3.49	
Toluene*	<0.050	0.050	12/03/2014	ND	1.90	95.2	2.00	2.81	
Ethylbenzene*	<0.050	0.050	12/03/2014	ND	1.79	89.6	2.00	3.02	
Total Xylenes*	<0.150	0.150	12/03/2014	ND	5.42	90.4	6.00	3.67	
Total BTX	<0.300	0.300	12/03/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 101 % 61-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	12/03/2014	ND	416	104	400	3.77	

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	12/03/2014	ND	199	99.7	200	0.672	
DRO >C10-C28	<10.0	10.0	12/03/2014	ND	205	102	200	1.18	

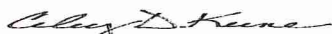
Surrogate: 1-Chlorooctane 120 % 47.2-157

Surrogate: 1-Chlorooctadecane 137 % 52.1-176

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\*=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: 12/02/2014  
Reported: 12/05/2014  
Project Name: SAN LORENZO SWD  
Project Number: 70073802501  
Project Location: EDDY

Sampling Date: 11/26/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Kathy Perez

**Sample ID: BG - 1 0' (H403673-07)**

BTEx 8021B			mg/kg		Analyzed By: CK				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2014	ND	1.93	96.7	2.00	3.49	
Toluene*	<0.050	0.050	12/03/2014	ND	1.90	95.2	2.00	2.81	
Ethylbenzene*	<0.050	0.050	12/03/2014	ND	1.79	89.6	2.00	3.02	
Total Xylenes*	<0.150	0.150	12/03/2014	ND	5.42	90.4	6.00	3.67	
Total BTEX	<0.300	0.300	12/03/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 99.4 % 61-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/03/2014	ND	416	104	400	3.77	

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	12/03/2014	ND	199	99.7	200	0.672	
DRO >C10-C28	<10.0	10.0	12/03/2014	ND	205	102	200	1.18	

Surrogate: 1-Chlorooctane 114 % 47.2-157

Surrogate: 1-Chlorooctadecane 131 % 52.1-176

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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: 12/02/2014  
 Reported: 12/05/2014  
 Project Name: SAN LORENZO SWD  
 Project Number: 70073802501  
 Project Location: EDDY

 Sampling Date: 11/26/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Kathy Perez

**Sample ID: BG - 2 0' (H403673-08)**

BTEX 8021B			mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/03/2014	ND	1.93	96.7	2.00	3.49		
Toluene*	<0.050	0.050	12/03/2014	ND	1.90	95.2	2.00	2.81		
Ethylbenzene*	<0.050	0.050	12/03/2014	ND	1.79	89.6	2.00	3.02		
Total Xylenes*	<0.150	0.150	12/03/2014	ND	5.42	90.4	6.00	3.67		
Total BTEX	<0.300	0.300	12/03/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 101 % 61-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	9060	16.0	12/03/2014	ND	416	104	400	3.77		

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	12/03/2014	ND	199	99.7	200	0.672		
DRO >C10-C28	<10.0	10.0	12/03/2014	ND	205	102	200	1.18		

Surrogate: 1-Chlorooctane 122 % 47.2-157

Surrogate: 1-Chlorooctadecane 141 % 52.1-176

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: 12/02/2014  
Reported: 12/05/2014  
Project Name: SAN LORENZO SWD  
Project Number: 70073802501  
Project Location: EDDY

Sampling Date: 11/26/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Kathy Perez

**Sample ID: BG - 3 0' (H403673-09)**

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2014	ND	1.93	96.7	2.00	3.49	
Toluene*	<0.050	0.050	12/03/2014	ND	1.90	95.2	2.00	2.81	
Ethylbenzene*	<0.050	0.050	12/03/2014	ND	1.79	89.6	2.00	3.02	
Total Xylenes*	<0.150	0.150	12/03/2014	ND	5.42	90.4	6.00	3.67	
Total BTX	<0.300	0.300	12/03/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 101 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9200	16.0	12/03/2014	ND	416	104	400	3.77	

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	12/03/2014	ND	199	99.7	200	0.672	
DRO >C10-C28	<10.0	10.0	12/03/2014	ND	205	102	200	1.18	

Surrogate: 1-Chlorooctane 126 % 47.2-157

Surrogate: 1-Chlorooctadecane 145 % 52.1-176

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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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\*=Accredited Analyte

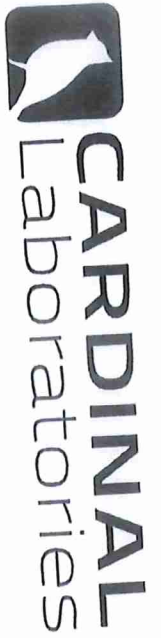
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Celey D. Keene, Lab Director/Quality Manager





CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: Talon/LPE

Project Manager: D Hkins

Address: 408 W. Texas Ave.

City: Artesia

Phone #: 575-746-8768

Project #: 700238025

Project Name: Sander #420 SCD

Project Location: Eddy D Hkins

Sample Name:

FOR LAB USE ONLY

P.O. #: Newbourne

Company: Fidelity

Attn: Zach Thomas

Address:

City:

State:

Phone #:

Fax #:

PRESERV

SAMPLING

Lab I.D.

Sample I.D.

(G)RAB OR (C)OMP.

# CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

11-26-11

10:30

10:50

10:55

11:10

11:15

11:30

11:45

Total Chlorides

BTE2

TPH

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Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

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

Fax Result: ☐ Yes ☐ No Add'l Fax #:

REMARKS:

Sample Condition

Intact

Cool

Yes

No

Checked By: (Initials)

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