

WORK PLAN FOR INCIDENT 2RP-2532

MEWBOURNE OIL COMPANY
SAN LORENZO SWD #001
API# 30-015-23067
SECTION 34, T25S R28E, NM
EDDY, NM



Prepared by:
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Carlsbad, NM 88221
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Prepared for:
Mewbourne Oil Company
Zach Thomas
P.O Box 5270
Hobbs, New Mexico 88241

March 25, 2015
Reference 5B23672 BG1



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INTRODUCTION

On behalf of Mewbourne Oil Company, Souder Miller & Associates (SMA) has prepared this Workplan for closure activities related to incident # 2RP-2532. This document also provides a summary of the release and spill response efforts at the San Lorenzo SWD #001, a lease held by Mewbourne Oil.

According to the Release Notification and Corrective Action Form C-141 submitted by Mewbourne Oil *“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.”* When Souder, Miller & Associates (SMA) personnel arrived, previous remediation actions had been taken by Talon LPE on behalf of Mewbourne Oil. The following is an excerpt from the Talon LPE, Remediation and Sample Report. Refer to Appendix C.

“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.”

The site is located in Unit H, Section 34, Township 25 South, Range 28 East, Eddy County, New Mexico. Figure 1, Site Location Map, illustrates the location of the release.

This document presents the results of the initial assessment and soil sampling performed at the Site, the regulatory framework for existing activities, and a summary of work done at the location designed to facilitate incident mitigation and closure. Site details, sampling locations, and the remedial excavation area are presented in Figure 2. Appendices include the laboratory analytical reports for the initial sampling and New Mexico Oil Conservation Division (NMOCD) form C-141 (initial).

REGULATORY FRAMEWORK AND SITE CLASSIFICATION

This project was conducted under the regulatory jurisdiction of the NMOCD, which requires the vadose zone to be abated so that water contaminants in the vadose zone will not, with reasonable probability, contaminate groundwater or surface water (toxic pollutants as defined in 20.6.2.7 New Mexico Administration Code shall not be present) through leaching, percolation, or other transport mechanisms (19.15.1.19 NMAC, Subsection B, Paragraphs 1 and 2). The NMOCD hydrocarbon soil remediation levels are determined by ranking criteria on a site-by-site basis, as outlined in the NMOCD "Guidelines for Remediation of Spills, Leaks, and Releases", dated August 13, 1993. The ranking criteria are based on three site characteristics: depth to groundwater, wellhead protection, and distance to surface water.

According to the Office of the State Engineer's records, no water wells are located within 1,000 feet of the well pad and tank battery. The estimated depth to groundwater is less than 50 feet below ground surface. A surface water body is located within 1,000 feet of the well pad and battery. The table below illustrates the ranking criteria, used by the NMOCD, and includes site specific characteristics at the West Brushy 8 location.

Criteria Site Characteristics	Ranking Score	
Depth to Ground Water	<50 feet	20
Wellhead Protection Area	>1000 feet	0
Distance to Surface Water	<1000 feet	<u>20</u>
Total Ranking Score	20	

Based on the site characteristics and the NMOCD guidelines, the site has a ranking score of 20. Consequently, Recommended Remediation Action Levels (RRALs) of 10 milligrams per kilogram (mg/Kg) Benzene, 50 mg/Kg total Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX); and 100 mg/Kg Total Petroleum Hydrocarbons (TPH) are proposed for remediation at the site.

SOIL SAMPLING RESULTS

All samples in Table 1 below were collected by Talon LPE and their staff. Refer to Appendix C.

TABLE 1

Analytical Report-H403437, H403673	Sample Date	Depth	BTEX mg/Kg	GRO mg/Kg	DRO mg/Kg
W-1	11-12-14	N/A	<0.006	<1.00	<1.00
W-2	11-12-14	N/A	<0.006	<1.00	<1.00
W-3	11-12-14	N/A	<0.006	<1.00	<1.00
S-1	11-12-14	0, 0.5	<0.300	<10	<10
S-2	11-12-14	0, 0.5	<0.300	<10	<10
S-3	11-12-14	0, 0.5	<0.300	<10	<10
BG-1	11-12-14	0	<0.300	<10	<10
BG-2	11-12-14	0	<0.300	<10	<10
BG-3	11-12-14	0	<0.300	<10	<10

N/A – Not Analyzed Refer to Analytical Reports, Appendix A

All laboratory analytical results are below the site specific NMOCD RRALs based on the ranking criteria.

SPILL MITIGATION WORKPLAN

The spill mitigation approach proposed in this Workplan is primarily to improve the vegetation found in the draw for area livestock through a thermal treatment. A mitigation by prescribed burn will be utilized to accomplish the goals stated above. The efficacy of the treatment, a prescribed fire, has been evaluated as a tool to thermally remove higher order hydrocarbons from the draw's vegetation, not the area soils or surface water. The levels of hydrocarbons remaining in Red Bluff Draw's soil from the incident are below the NMOCD recommendations for closure. The main concerns to be addressed by the thermal treatment are the removal of affected vegetation and the rejuvenation of the feeding value of the draw for area livestock and wildlife.

SMA researched and documented existing evidence that supports the anticipated effectiveness of a prescribed fire as a remediation approach for hydrocarbon-impacted vegetation. SMA also collected representative paraffin samples from the draw for laboratory analysis to help characterize the hydrocarbons that need to be consumed and understand their behavior with fire.

Because of the heavy rain events, the long duration of time since the release occurrences, and the recommended February-March prescribed burn season, it is likely that the majority of the hydrocarbons found in Red Bluff Draw have volatilized or degraded months before the issuance of this report. Most light and medium weight components of crude oil generally break down or volatilize within the first month of a release, depending on spill composition, volume and ambient temperature. With this in mind, SMA has concentrated on the mitigation of higher molecular weight components of crude oil, those comprised of 23 carbon atoms or greater. These larger chain hydrocarbons typically take years to break down and volatilize.

Through several field visits, sample collection and operator field notes, SMA has reached the conclusion that the majority of the residual hydrocarbon found in and around the vegetation in Red Bluff Draw is "slack wax" or raw unrefined petroleum paraffin wax. Paraffin wax is a complex combination of hydrocarbons, most being chains of greater than or equal to 23 carbon atoms, from raw or crude petroleum fractions. Slack wax or unrefined paraffin has an estimated melting point between 94 °F and 150 °F and a flash point between 400 °F and 440 °F. With the estimated temperatures of the prescribed burn in Red Bluff Draw ranging from 380 °F to 620 °F, a large portion of the residual paraffin should be consumed by the fire.

CONFIRMATION SAMPLING

Soil samples were taken by a 3rd party company, Talon LPE. The samples are presented in Table 1 with locations shown in Figure 2. The sample results are under the site specific RRALs according to NMOCD. The soil samples were collected on 11/26/14 by Talon LPE. The soil samples were delivered on 12/02/14

to Cardinal Laboratory, in Hobbs, New Mexico. Soil and water samples were analyzed for BTEX, TPH and Total Chlorides. Using EPA Method 8021B, Method 8015M and SM4500Cl-B.

SITE CLOSURE

Shown in Appendix C “On behalf of Mewbourne Oil Company, we respectfully request that no further action be required and that closure with respect to this portion of this project be granted.”

LIST OF FIGURES

FIGURE 1 SITE LOCATION MAP

FIGURE 2 SITE DETAILS AND SAMPLE LOCATION MAP

APPENDICES

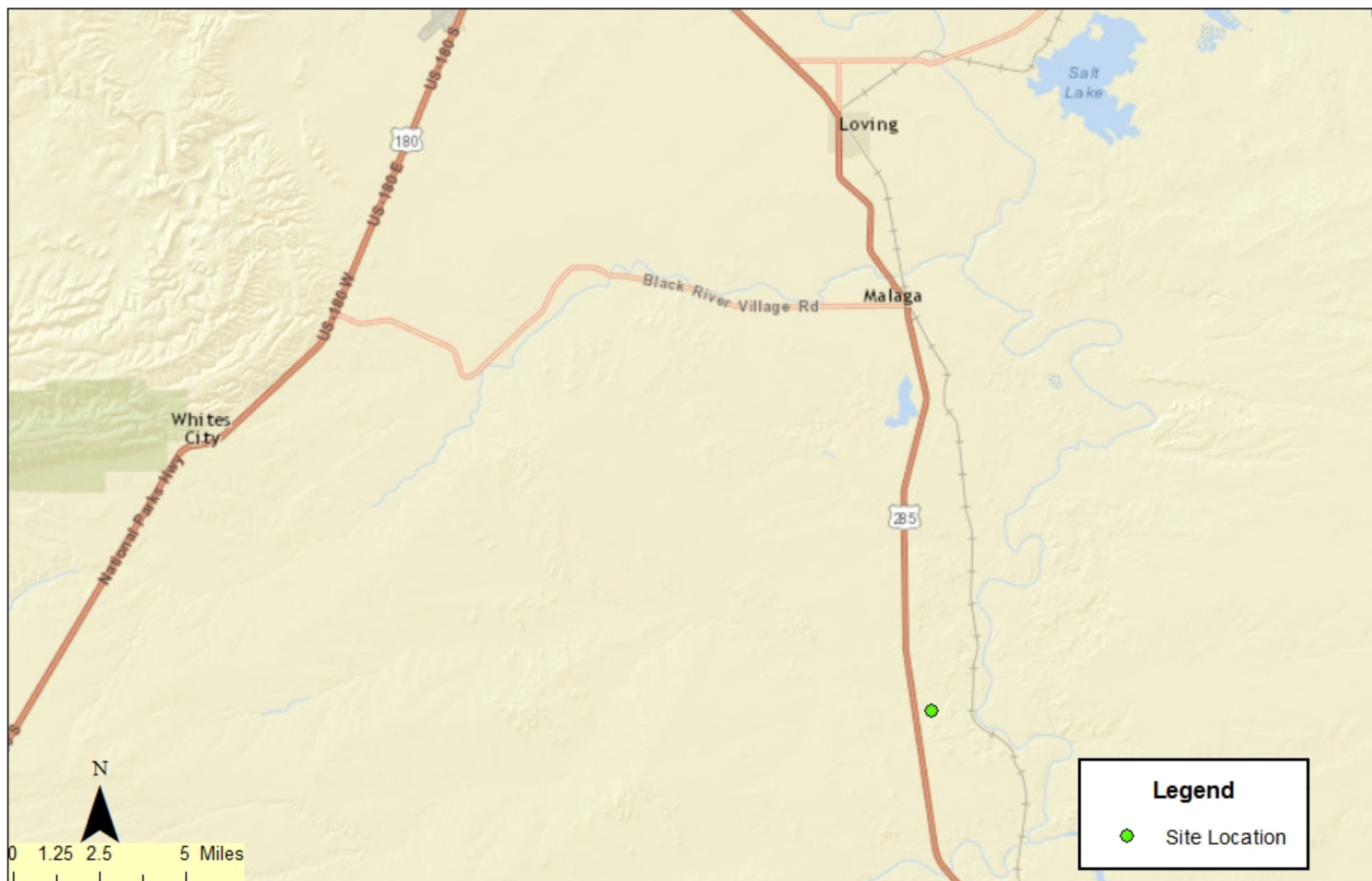
APPENDIX A LABORATORY ANALYTICAL REPORTS

APPENDIX B FORM C141 INITIAL

APPENDIX C Talon LPE Remediation and Soil Sample Report

FIGURE 1

SITE LOCATION MAP



Location Map
Work Plan- 2RP-2532 Newbourne Oil Company
Malaga, New Mexico

Figure 1

Date Saved:
3/24/2015

Revisions		
By: _____	Date: _____	Desc: _____
By: _____	Date: _____	Desc: _____

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Drawn	Lucas Middleton
Checked	_____
Approved	_____



201 South Halaguena Street
Corliss, New Mexico 88221
(575) 689-7040
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Serving the Southwest & Rocky Mountains

FIGURE 2

SITE DETAILS AND SAMPLE LOCATIONS MAP



Sample Map
Work Plan- 2RP-2532 Newbourn Oil Company
Malaga, New Mexico

Figure 2

Date Saved:
3/24/2015

By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____

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Drawn Lucas Middleton
Checked _____
Approved _____



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APPENDIX A

LABORATORY ANALYTICAL 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.

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		

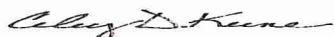
Surrogate: 1-Chlorooctane 81.1 % 36.1-161

Surrogate: 1-Chlorooctadecane 98.6 % 36-171

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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

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Celey D. Keene, Lab Director/Quality Manager



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† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2328.

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.

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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*=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 - 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	

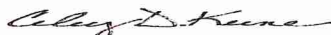
Surrogate: 1-Chlorooctane 123 % 47.2-157

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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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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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	

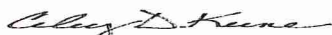
Surrogate: 1-Chlorooctane 120 % 47.2-157

Surrogate: 1-Chlorooctadecane 137 % 52.1-176

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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	

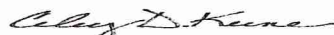
Surrogate: 1-Chlorooctane 122 % 47.2-157

Surrogate: 1-Chlorooctadecane 141 % 52.1-176

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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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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

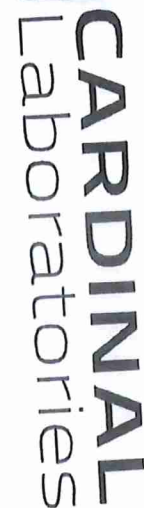
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Celey D. Keene, Lab Director/Quality Manager



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

Page 12 of 12

APPENDIX B

FORM C141 INITIAL

NM OIL CONSERVATION
ARTESIA DISTRICT

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1090 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

OCT 06 2014

Form C-141
Revised August 8, 2011

Submittal to 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 14144	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
----------------------	----------------	----------------------

LOCATION OF RELEASE

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

Latitude 32.08707 Longitude -104.06766

NATURE OF RELEASE

Type of Release: Produced water/Oil	Volume of Release: estimated 1726 bbls total fluid (1473 bbls (253 bbls Oil) PW)	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? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher	
By Whom?	Date and Hour 9-28-14 6:50 pm	
Was a Watercourse Reached? ☒ Yes ☐ 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 NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature: Z. Thomas	OIL CONSERVATION DIVISION	
Printed Name: Zack Thomas	Signed By: Mike Bratcher Approved by Environmental Specialist:	
Title: Environmental Rep.	Approval Date: 10/8/14	Expiration Date: N/A
E-mail Address: zthomas@mewbourne.com	Conditions of Approval:	Attached ☐
Date: 10-3-14	Phone: 575-602-2188	

Remediation per O.C.D. Rules & Guidelines

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

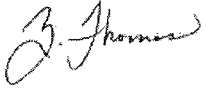
2RP-2532

* Attach Additional Sheets If Necessary

Bratcher, Mike, EMNRD

From: Zack Thomas <zthomas@mewbourne.com>
Sent: Monday, October 06, 2014 11:29 AM
To: Patterson, Heather, EMNRD; Bratcher, Mike, EMNRD
Subject: San Lorenzo SWD Release
Attachments: C141- San Lorenzo SWD #001 (9-26-14) initial.pdf

Please sign and send back. Thank you



Zack Thomas

Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88241 US

Phone: (575) 393-5905 | Fax: (575) 397-6252
(575) 602-2188
Email: zthomas@mewbourne.com

waiting on response
re oil vs. PW amounts

253 bbls
oil

2RP-2532

APPENDIX C

Talon LPE Remediation and Soil Sample Report



December 16, 2014

Mr. Mike Bratcher
NMOCD District 2
811 S. 1st 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,

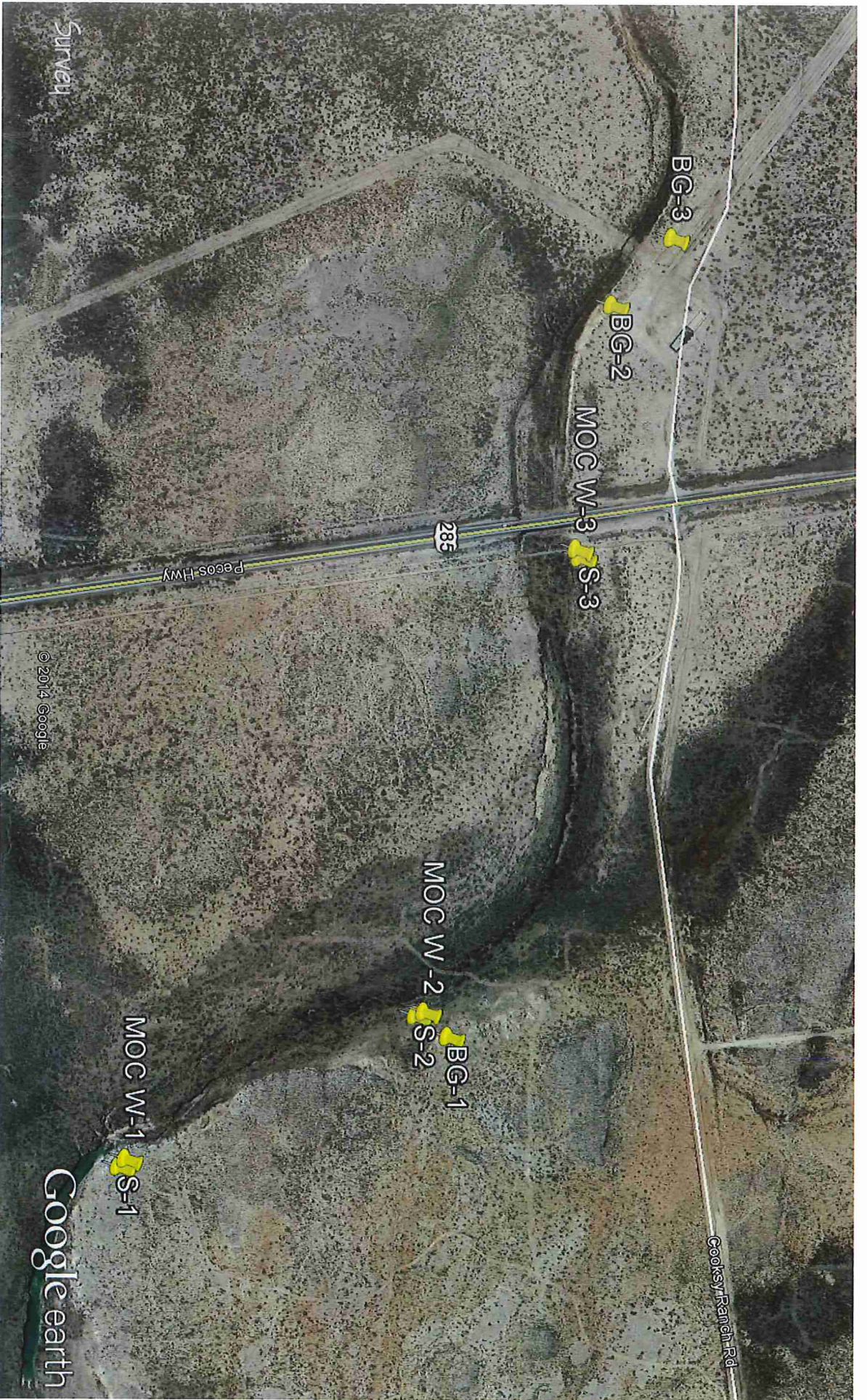
TALON/LPE



David J. Adkins
District Manager

APPENDIX I

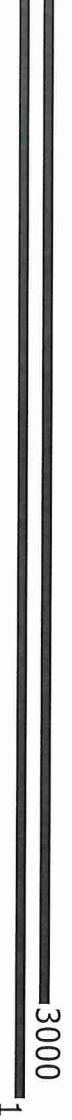
SITE PLAN



© 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
----------------------	----------------	----------------------

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
------------------	---------------	-----------------	--------------	------------------------	---------------------------	------------------------	------------------------	----------------

Latitude 32.08707 Longitude -104.06766

NATURE OF RELEASE

Type of Release: Produced water/Oil	Volume of Release: estimated 1726 bbls total fluid (1473 bbls (253 bbls Oil) PW)	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? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher	
By Whom?	Date and Hour 9-28-14 6:50 pm	
Was a Watercourse Reached? ☒ Yes ☐ 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: <u>Z. Thomas</u>	OIL CONSERVATION DIVISION	
Printed Name: Zack Thomas	Signed By: <u>Mike Bratcher</u> 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 ☐
Date: 10-3-14	Remediation per O.C.D. Rules & Guidelines	

* 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.

R

WWT: **8,640 2340**

12. COMMENTS OR SPECIAL INSTRUCTIONS:

SAN LORENZO SWD

TOTAL 10980

13. WASTE PROFILE NO.

708592

A

14. IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME

PHONE NO

24-HOUR EMERGENCY NO.

Kin Slaughter

575-887-4048

T

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

Lea Land, LLC

ADDRESS:

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

PHONE:

575-887-4048

F

PERMIT NO.

WM-01-035 - New Mexico

20. COMMENTS

S

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.

A

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.

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

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
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

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
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		

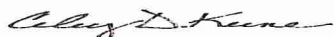
Surrogate: 1-Chlorooctane 81.1 % 36.1-161

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

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Celey D. Keene, Lab Director/Quality Manager



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

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

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.

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

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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 (PIE) 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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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	

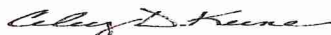
Surrogate: 1-Chlorooctane 123 % 47.2-157

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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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)

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	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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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		

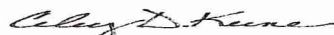
Surrogate: 1-Chlorooctane 122 % 47.2-157

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)

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	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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Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

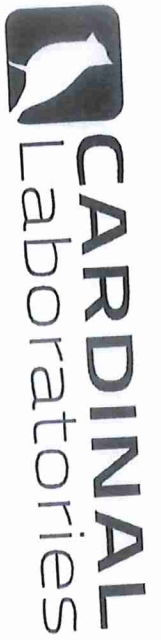
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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

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

11-26-11/03D

1035

1050

1055

1110

1115

1130

1145

Total Chlorides

BTE2

TPH

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Relinquished By:

Date: 12/1/14

Time: 10:30

Received By:

Date: 12/1/14

Time: 10:30

Signature:

Signature:

Signature:

Signature:

Signature:

Relinquished By:

Date: 12/1/14

Time: 10:30

Received By:

Date: 12/1/14

Time: 10:30

Signature:

Signature:

Signature:

Signature:

Signature:

Delivered By: (Circle One)

Sample: UPS - Bus - Other:

Sample Condition

Intact

Cool

Yes

No

CHECKED BY:

(Initials)

REMARKS:

Phone Result:

Yes

No

Add'l Phone #:

Add'l Fax #:

Add'l Fax #:

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