



March 20, 2015

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

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

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

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

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

Subject: **Soil Assessment and Remediation Work Plan**  
Oxy Permian LTD  
SDS 11 Federal #001 SWD  
30-015-27627 (2RP-2859)

Dear Mr. Bratcher,

Oxy Permian (Oxy) has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced location. The results of our soil assessment and proposed remediation activities consist of the following.

#### **Incident Date**

The release was discovered on February 22, 2015

#### **Background Information**

The SDS 11 Federal 1 SWD Battery is located approximately forty (40) miles southeast of Carlsbad, New Mexico. The legal location for the site is Section 11, Township 24 South and Range 31 East in Eddy County, New Mexico. More specifically, the latitude and longitude for the release are 32.23339 North and - 103.750704 West. A site plan is presented in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture National Resources Conservation Service, the soil in this area is made up of Berino complex with 0 to 3 percent slopes, eroded. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology, Quaternary Age sedimentary deposits is comprised of alluvium and eolian sands which includes fine sandy loam underlain by sandy clay loam and hard caliches. Drainage courses in this area are normally dry. The New Mexico State Engineer web site indicates the nearest ground water data to be in S2-T24S-R31E. The ground water in Section 2 is reported to be at depth of 205' below ground surface (bgs). The referenced groundwater data is presented in Appendix I.

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

ENVIRONMENTAL CONSULTING	Depth to ground water	>100'
ENGINEERING	Wellhead Protection Area	>1000'
DRILLING	Distance to surface water body	>1000'
CONSTRUCTION		
SPILL MANAGEMENT		
GENERAL CONTRACTING		

## Incident Description

On February 22, 2015 high pressures on a pump caused the plunger packing to loosen from the over pressure causing a release of 44bbbls of produced water on the SDS 11 Fed #1 location, no fluids were recovered. All of the fluid was contained within the berms of the location.

Talon mobilized personnel to conduct a site assessment and perform soil sampling within the impacted area. Talon also conducted a remediation on this site in November of 2013 (2RP-1704). As part of the OCD & BLM approved remediation strategy at this site a 1-foot thick clay barrier was installed at a depth of 3-feet bgs to encapsulate the remaining chloride impacted from this release. In order to preserve the integrity of the clay liner Talon personnel utilized a hand auger to vertically delineate the site to the top of the clay at a depth of 3-feet bgs. Results from our soil sampling activities are summarized in the table below.

## Laboratory Results

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

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	0	ND	32000	ND	ND
S-1	1	ND	3160	ND	ND
S-1	2	--	ND	--	--
S-1	3	--	1660	--	--
S-2	0	ND	40000	ND	ND
S-2	1	ND	5120	ND	ND
S-2	2	--	832	--	--
S-2	3	--	800	--	--
S-3	0	ND	32000	ND	ND
S-3	1	ND	3400	ND	ND
S-3	2	--	1120	ND	ND
S-3	3	--	176	--	--

(-- ) Analyte Not Tested

(ND) Analyte Not Detected

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

### **Proposed Remedial Actions**

- The impacted area in the vicinity of sample location S-1 will be excavated to a maximum depth of 3-feet bgs. While excavating care will be taken to protect the integrity of the clay liner.
- The impacted area in the vicinity of S-2 and S-3 will be excavated to a depth of 2-feet bgs.
- All of the excavated material will be hauled to an NMOCD approved solid waste disposal facility.
- The excavation will be backfilled with caliche and contoured to match the surrounding location.

Should you have any questions or if further information is required, please do not hesitate to contact our office at (575)-746-8768

Respectfully submitted,

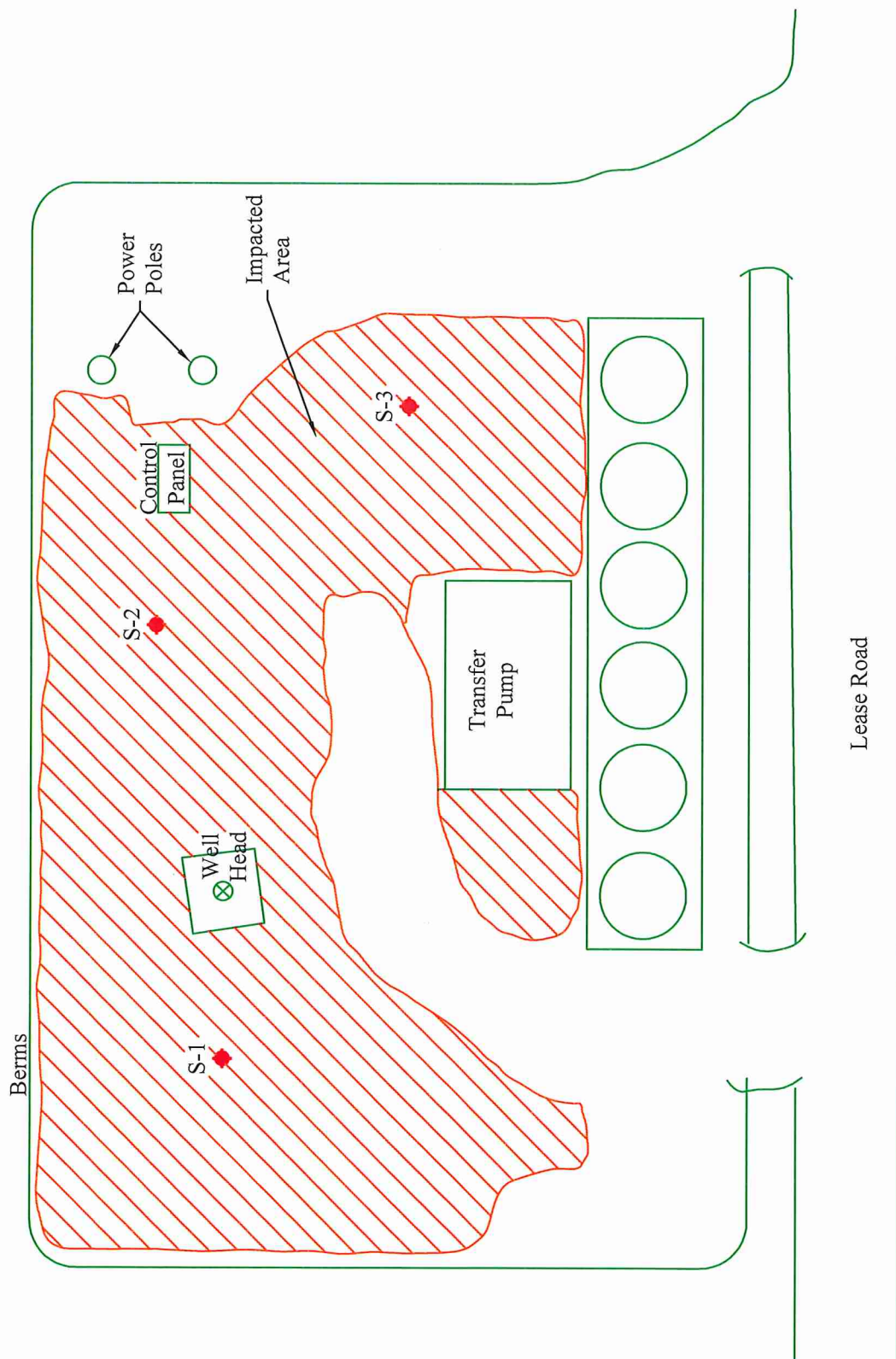
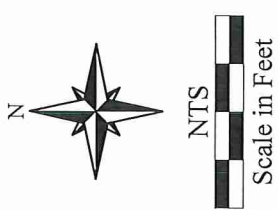


Sheldon Hitchcock  
Project Manager



David J. Adkins  
District Manager

# SITE PLAN



Date: 02/27/2015

Scale: NTS

Drawn By: TJS

SDS 11 Federal 1 SWD Battery  
Oxy - NM - North  
Eddy County, New Mexico  
Figure 1 - Site Plan

**GROUNDWATER DATA**  
**INITIAL C-141**



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the  
POD suffix indicates the  
POD has been replaced  
& no longer serves a  
water right file.)

(R=POD has  
been replaced,  
O=orphaned,  
C=the file is  
closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub- Code	basin	County	Q Q Q				Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
				64	16	4	4									
<a href="#">C 02460</a>	C	ED		3	02	24S	31E				617496	3568022*	1529	320		
<a href="#">C 02460 POD2</a>	C	ED		3	02	24S	31E				617496	3568022*	1529	320		
<a href="#">C 02464</a>	C	ED		3	4	1	02	24S	31E		617589	3568530*	1977	320	205	115

Average Depth to Water: **205 feet**

Minimum Depth: **205 feet**

Maximum Depth: **205 feet**

Record Count: 3

### Basin/County Search:

County: Eddy

### UTMNAD83 Radius Search (in meters):

Easting (X): 618114

Northing (Y): 3566623

Radius: 2000

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

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

# NM OIL CONSERVATION

ARTESIA DISTRICT

MAR 04 2015

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

RECEIVED

Form C-141  
Revised August 8, 2011

## Release Notification and Corrective Action

**NAB1506443259**

<b>OPERATOR</b>		<input checked="" type="checkbox"/> Initial Report	<input type="checkbox"/> Final Report
Name of Company: <b>Oxy Permian LTD (192463) 160916</b>		Contact: <b>Chris Jones</b>	
Address: <b>102 S. Main St. Carlsbad, NM 88220</b>		Telephone No.: <b>575-628-4121</b>	
Facility Name: <b>SDS 11 Federal #1. SWD Battery</b>		Facility Type: <b>SWD</b>	
Surface Owner: <b>Federal</b>		Mineral Owner:	
		API No.: Lease #: <b>30-015-27627</b>	

## LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	11	24S	31E	2090'	North	1980'	West	Eddy

Latitude **32.23339 N** Longitude **-103.75070 W**

## NATURE OF RELEASE

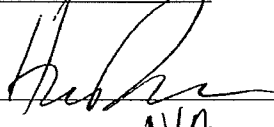
Type of Release: <b>Produced Water</b>	Volume of Release: <b>44 bbls</b>	Volume Recovered: <b>0 bbls</b>
Source of Release: <b>Triplex Pump failed</b>	Date and Hour of Occurrence <b>2/22/15</b>	Date and Hour of Discovery <b>2/22/15</b>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* **High pressure on the triplex pump 2 caused the plunger packing to loosen from over pressure causing a release of 44 bbls of produced water inside the facility. No fluids were recovered and did the release not leave the location. Talon/LPE was contracted to perform an initial site assessment and soil sampling.**

Describe Area Affected and Cleanup Action Taken.\* **The release remained within the facility and on the location.**

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <b>Chris Jones</b> <small>Digitally signed by Chris Jones DN: cn=Chris Jones, o, ou, email=ckjones83@yahoo.com, c=US, Date: 2015.02.27 14:20:10 -06'00'</small>	<b>OIL CONSERVATION DIVISION</b>	
	Approved by Environmental Specialist: 	
Printed Name: <b>Chris Jones</b>	Approval Date: <b>3/5/15</b>	Expiration Date: <b>N/A</b>
Title: <b>HES Specialist</b>	Conditions of Approval:	
E-mail Address: <b>Christopher.Jones@oxy.com</b>	Attached <input type="checkbox"/>	
Date: <b>2/27/2015</b>	Phone: <b>575-628-4121</b>	

\* Attach Additional Sheets If Necessary

**Remediation per O.C.D. Rules & Guidelines**  
**SUBMIT REMEDIATION PROPOSAL NO**  
**LATER THAN: 4/5/15**

**2RP-2859**

# LABORATORY RESULTS

March 06, 2015

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: SDS 11 FED #1 SWD (#2)

Enclosed are the results of analyses for samples received by the laboratory on 03/03/15 7:45.

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:	03/03/2015	Sampling Date:	02/26/2015
Reported:	03/06/2015	Sampling Type:	Soil
Project Name:	SDS 11 FED #1 SWD (#2)	Sampling Condition:	Cool & Intact
Project Number:	700608.417.01	Sample Received By:	Mike Snyder
Project Location:	NOT GIVEN		

**Sample ID: S-1 0' (H500581-01)**

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2015	ND	2.04	102	2.00	1.08	
<b>Toluene*</b>	<b>0.055</b>	0.050	03/05/2015	ND	1.83	91.4	2.00	1.15	
Ethylbenzene*	<0.050	0.050	03/05/2015	ND	2.05	103	2.00	1.03	
Total Xylenes*	<0.150	0.150	03/05/2015	ND	5.47	91.2	6.00	0.645	
Total BTX	<0.300	0.300	03/05/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 87.3 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32000</b>	16.0	03/03/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/03/2015	ND	180	90.0	200	1.71	
DRO >C10-C28	<10.0	10.0	03/03/2015	ND	175	87.5	200	5.84	

Surrogate: 1-Chlorooctane 87.1 % 47.2-157

Surrogate: 1-Chlorooctadecane 88.9 % 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:	03/03/2015	Sampling Date:	02/26/2015
Reported:	03/06/2015	Sampling Type:	Soil
Project Name:	SDS 11 FED #1 SWD (#2)	Sampling Condition:	Cool & Intact
Project Number:	700608.417.01	Sample Received By:	Mike Snyder
Project Location:	NOT GIVEN		

**Sample ID: S-1 1' (H500581-02)**

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2015	ND	2.04	102	2.00	1.08	
Toluene*	<0.050	0.050	03/05/2015	ND	1.83	91.4	2.00	1.15	
Ethylbenzene*	<0.050	0.050	03/05/2015	ND	2.05	103	2.00	1.03	
Total Xylenes*	<0.150	0.150	03/05/2015	ND	5.47	91.2	6.00	0.645	
Total BTEx	<0.300	0.300	03/05/2015	ND					

Surrogate: 4-Bromofluorobenzene (PII) 84.5 % 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	3160	16.0	03/03/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/03/2015	ND	180	90.0	200	1.71	
DRO >C10-C28	<10.0	10.0	03/03/2015	ND	175	87.5	200	5.84	

Surrogate: 1-Chlorooctane 79.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 79.1 % 52.1-176

**Sample ID: S-1 2' (H500581-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/03/2015	ND	416	104	400	0.00	

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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:	03/03/2015	Sampling Date:	02/26/2015
Reported:	03/06/2015	Sampling Type:	Soil
Project Name:	SDS 11 FED #1 SWD (#2)	Sampling Condition:	Cool & Intact
Project Number:	700608.417.01	Sample Received By:	Mike Snyder
Project Location:	NOT GIVEN		

**Sample ID: S-1 3' (H500581-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1660	16.0	03/03/2015	ND	416	104	400	0.00	

**Sample ID: S-2 0' (H500581-05)**

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2015	ND	2.02	101	2.00	6.87	
Toluene*	0.056	0.050	03/05/2015	ND	1.81	90.3	2.00	6.73	
Ethylbenzene*	<0.050	0.050	03/05/2015	ND	2.02	101	2.00	6.87	
Total Xylenes*	<0.150	0.150	03/05/2015	ND	5.41	90.1	6.00	7.35	
Total BTX	<0.300	0.300	03/05/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 85.1 % 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	40000	16.0	03/03/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/03/2015	ND	180	90.0	200	1.71	
DRO >C10-C28	<10.0	10.0	03/03/2015	ND	175	87.5	200	5.84	

Surrogate: 1-Chlorooctane 74.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 77.0 % 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: 03/03/2015  
 Reported: 03/06/2015  
 Project Name: SDS 11 FED #1 SWD (#2)  
 Project Number: 700608.417.01  
 Project Location: NOT GIVEN

 Sampling Date: 02/26/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Mike Snyder

**Sample ID: S-2 1' (H500581-06)**

BTX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2015	ND	2.02	101	2.00	6.87	
Toluene*	<0.050	0.050	03/05/2015	ND	1.81	90.3	2.00	6.73	
Ethylbenzene*	<0.050	0.050	03/05/2015	ND	2.02	101	2.00	6.87	
Total Xylenes*	<0.150	0.150	03/05/2015	ND	5.41	90.1	6.00	7.35	
Total BTX	<0.300	0.300	03/05/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 82.4 % 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	5120	16.0	03/03/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/03/2015	ND	180	90.0	200	1.71	
DRO >C10-C28	<10.0	10.0	03/03/2015	ND	175	87.5	200	5.84	

Surrogate: 1-Chlorooctane 77.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 79.1 % 52.1-176

**Sample ID: S-2 2' (H500581-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	832	16.0	03/03/2015	ND	416	104	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 03/03/2015  
 Reported: 03/06/2015  
 Project Name: SDS 11 FED #1 SWD (#2)  
 Project Number: 700608.417.01  
 Project Location: NOT GIVEN

 Sampling Date: 02/26/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Mike Snyder

**Sample ID: S-2 3' (H500581-08)**

Chloride, SM4500Cl-B			mg/kg							
			Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	800	16.0	03/03/2015	ND	416	104	400	0.00		

**Sample ID: S-3 0' (H500581-09)**

BTX 8021B			mg/kg							
			Analyzed By: ms							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/05/2015	ND	2.02	101	2.00	6.87		
Toluene*	0.078	0.050	03/05/2015	ND	1.81	90.3	2.00	6.73		
Ethylbenzene*	<0.050	0.050	03/05/2015	ND	2.02	101	2.00	6.87		
Total Xylenes*	<0.150	0.150	03/05/2015	ND	5.41	90.1	6.00	7.35		
Total BTX	<0.300	0.300	03/05/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 82.9 % 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	32000	16.0	03/03/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/03/2015	ND	180	90.0	200	1.71	
DRO >C10-C28	<10.0	10.0	03/03/2015	ND	175	87.5	200	5.84	

Surrogate: 1-Chlorooctane 80.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 81.6 % 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:	03/03/2015	Sampling Date:	02/26/2015
Reported:	03/06/2015	Sampling Type:	Soil
Project Name:	SDS 11 FED #1 SWD (#2)	Sampling Condition:	Cool & Intact
Project Number:	700608.417.01	Sample Received By:	Mike Snyder
Project Location:	NOT GIVEN		

**Sample ID: S-3 1' (H500581-10)**

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/05/2015	ND	2.02	101	2.00	6.87	
Toluene*	<0.050	0.050	03/05/2015	ND	1.81	90.3	2.00	6.73	
Ethylbenzene*	<0.050	0.050	03/05/2015	ND	2.02	101	2.00	6.87	
Total Xylenes*	<0.150	0.150	03/05/2015	ND	5.41	90.1	6.00	7.35	
Total BTEX	<0.300	0.300	03/05/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 82.4 % 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	3400	16.0	03/03/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/03/2015	ND	180	90.0	200	1.71	
DRO >C10-C28	<10.0	10.0	03/03/2015	ND	175	87.5	200	5.84	

Surrogate: 1-Chlorooctane 73.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 74.4 % 52.1-176

**Sample ID: S-3 2' (H500581-11)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1120	16.0	03/03/2015	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	03/03/2015	Sampling Date:	02/26/2015
Reported:	03/06/2015	Sampling Type:	Soil
Project Name:	SDS 11 FED #1 SWD (#2)	Sampling Condition:	Cool & Intact
Project Number:	700608.417.01	Sample Received By:	Mike Snyder
Project Location:	NOT GIVEN		

**Sample ID: S-3 3' (H500581-12)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	03/03/2015	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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

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Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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# CARDINAL Laboratories

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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Talon/LPE		P.O. #:		ANALYSIS REQUEST									
Project Manager: D. Adkins		Company: Oxy											
Address: 408 W. Texas Ave.		Attn:											
City: Artesia		State: NM		Zip: 88210									
Phone #: 575-746-8768		Fax #: 575-746-8905		Address:									
Project #: 700608.417.01		Project Owner: Oxy		City:									
Project Name: SDS 11 Fed 1 SMD (#2)		State:		Zip:									
Project Location:		Phone #:											
Sampler Name: S. Hitchcock		Fax #:											
FOR LAB USE ONLY													
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX			PRESERV.	SAMPLING					
		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :	
		ACID/BASE:		ICE / COOL		OTHER :		DATE	TIME	TPH	BTEX	Chlorides	
11	5-3 2'	G	1					2/24/15	10:11				
12	5-3 3'	G	1					2/24/15	10:13				
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Relinquished By:	Date: 3/3/15	Received By:											
Relinquished By: <i>Shelley Pearson</i>	Time: 1:15	Received By: <i>Andrew Boyd</i>											
Date:	Time:	Date:	Time:										
Delivered By: (Circle One)	Sample Condition	CHECKED BY: (Initials)											
Sampler - UPS - Bus - Other:	Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>												
	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>												
REMARKS:													
OP: 56249847													
Tsk: 01040502													
Ele: 2019													
D 84													

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

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