



February 12, 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 575.748.8905

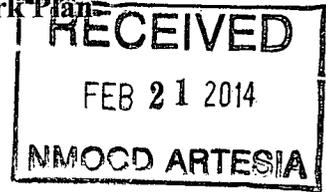
HOBBS
318 East Taylor Street
Hobbs, New Mexico 88241
Phone 505.393.4261
Fax 505.393.4658

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

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

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

Subject: **Soil Assessment and Remediation Work Plan**
Oxy Permian LTD
McKittrick Hills Central Tank Battery
2RP-2107



Dear Mr. Bratcher,

Oxy Permian LTD has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the referenced McKittrick Hills Central Tank Battery release. The results of our soil assessment and proposed remediation activities consist of the following:

Incident Date

December 8, 2013

Background Information

The McKittrick Hills Central Tank Battery is located approximately thirty-six (36) miles southwest of Artesia, New Mexico. The legal location for the site is Section 14, Township 22 South and Range 24 East in Eddy County, New Mexico. More specifically, the latitude and longitude for the release are 32.397740 North and - 104.4611 West.

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 Ector extremely rocky loam with a 9 to 25 percent slopes. The local surface and shallow geology, Paleozoic Age sedimentary deposits, is comprised of the Guadeloupien Artesia Group, Tansil and Yates formations, which are made up of residuum weathered limestone underlain by very cobbly loam and hard caliches. The New Mexico State Engineer web site indicates the nearest ground water data to be in S12-T22S-R24E. The ground water in Section 12 is reported to be a depth of 400' 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:

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

ENVIRONMENTAL CONSULTING
ENGINEERING
DRILLING
CONSTRUCTION
SPILL MANAGEMENT
GENERAL CONTRACTING

Proposed Remedial Actions

- Microblaze, a bioremediation agent, will be spray applied into the hand-excavated tank battery and within the entire length of the flow paths.
- New gravel will be placed into the bottom of the tank battery and the berms will be reconstructed as needed.
- A final closure report documenting all remedial actions and analytical results will be provided to the NMOCD Artesia Office and the BLM along with a Final C-141 Form.

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,

TALON/LPE


Kimberly M. Wilson
Project Manager


David J. Adkins
District Manager

SITE MAP

Incident Description

The transmitter froze allowing the water tanks to overflow resulting in a release of 200 barrels of mixed fluids. Emergency response activities included the shut-in of the tank battery and use of vacuum trucks which were immediately called to the location to pick up all standing fluids. Approximately 160 barrels of mixed fluids were recovered and the transmitter was replaced. The area affected from this release was inside the earthen berms surrounding the tank battery and flow path off the north side of the location which traveled down the draw.

Actions Taken

On December 9, 2013 Talon/LPE mobilized personnel to begin the site assessment and soil sampling activities for the construction of a work plan. Grab soil samples were collected utilizing a hand auger to a depth of 2-feet below ground surface. Soil sample locations are illustrated on the attached site plan.

All soil samples were collected by Talon personnel wearing clean nitrile gloves. The soil samples were placed in laboratory provided sample containers, iced and transported to Cardinal Laboratories in Hobbs, New Mexico for analysis. The samples were tested for TPH (Total Petroleum Hydrocarbons) using EPA Method 8015M, and volatile organics (BTEX) using EPA Method 8021B. The chloride samples were analyzed per method SM4500Cl-B. The complete laboratory reports are attached as Appendix II.

Laboratory Results

December 23, 2013

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	0	1.87	<16	69.7	1830
	8-inches refusal	0.394	64	19.2	782
S-2	0	21.1	<16	402	5510
	1	<0.300	48	<10	796
	2	<0.300	96	<10	<10
	3	<0.300	176	<10	<10
	4	<0.300	160	<10	22.9
	5	<0.300	112	<10	44.1
S-3	0	320	<16	7160	63800
	6-inches	40.3	128	801	6740
S-4	0	518	<16	9610	35500
	6-inches	300	<16	4310	16900
S-5	0	187	<16	2370	9570
	8-inches	277	<16	5400	21000
S-6	0	408	<16	7810	33400
	8-inches	104	<16	1980	8410

December 23, 2013

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-7	0	<0.300	<16	<10	19.1
	6-inches	<0.300	<16	<10	<10
S-8	0	120	<16	3720	16300
S-9	0	323	<16	1970	8870

December 26, 2013

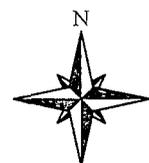
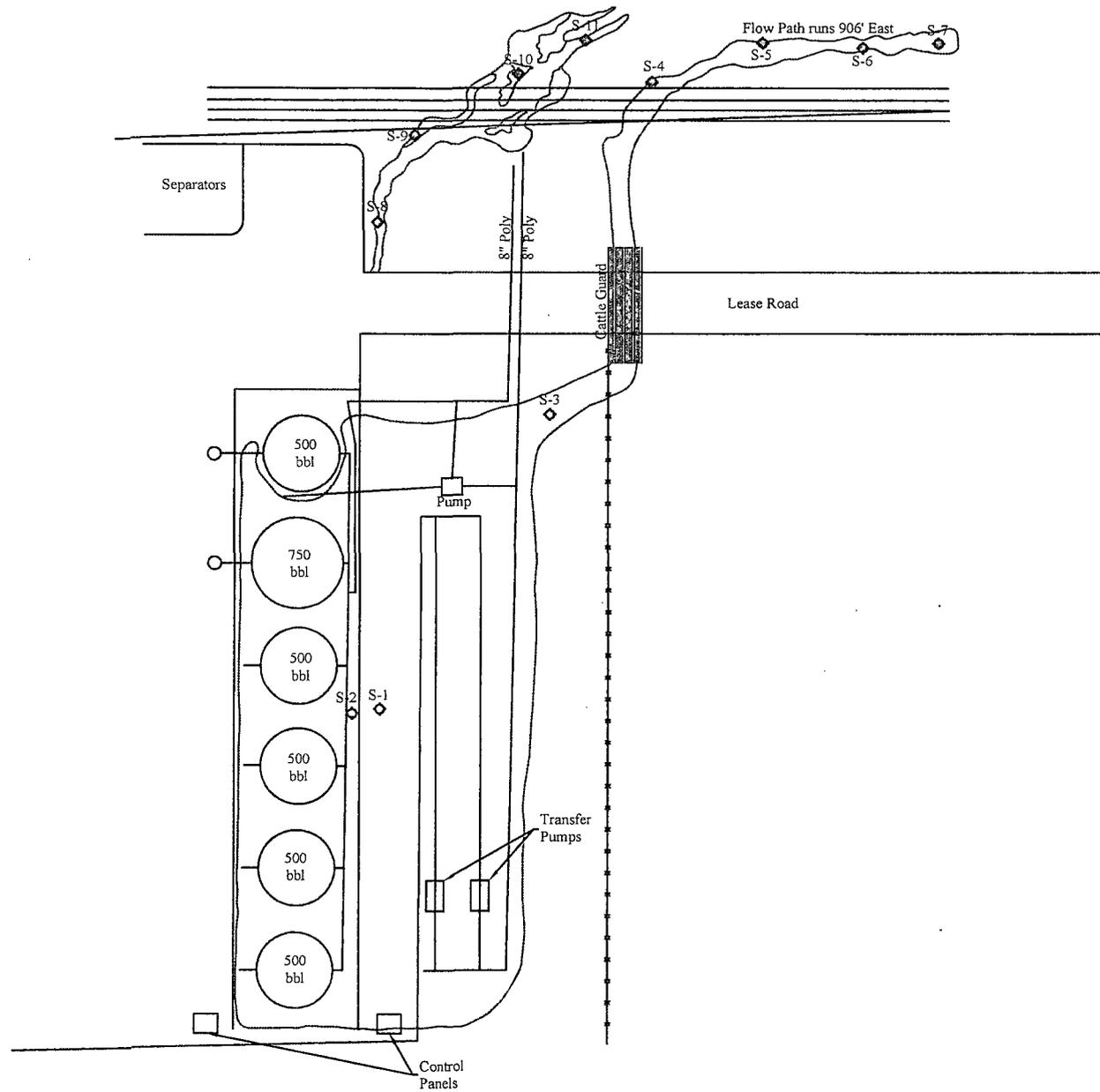
Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-10	0	220	<16	5790	32400
S-11	0	87.2	<16	2360	18700

Completed Remedial Activities

- The impacted area inside the tank battery was hand-excavated to a depth of 1.0-foot deep.
- The impacted berms were removed and reconstructed.
- The pooling areas within the flow paths of the draw were excavated to the top of rock at depths ranging between 0.5-0.75 feet below land surface.
- All excavated material was transported and disposed of at Lea Land, LLC.

Summary and Conclusions

- Ground water in the project vicinity is 400-feet below land surface per the New Mexico State Engineer Database.
- Based on the depth to groundwater, it is unlikely that the impacts identified from this release will pose a threat to groundwater after proposed remediation activities are complete.



NTS
Scale in Feet

Legend

- ◆ - Sample Location
- ~ - Release Area
- - Fence line



Date: 01/08/2014

Scale: NTS

Drawn By: TJS

McKittrick Hills CTB Leak
Oxy - NM - North
Eddy County, New Mexico
Figure 1 - Site Plan

APPENDIX I
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 1	Q 2	Q 3	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02428			ED	4	2	1	12	22S	24E	551426	3586017*	1624	450	400	50	
C 02351			ED	3	2	2	15	22S	24E	548817	3584393*	1821	120	100	20	
C 02384			ED	3	2	2	15	22S	24E	548817	3584393*	1821	120	100	20	
C 01403	C		ED	3	2	1	24	22S	24E	551238	3582798*	1905	238	213	25	

Average Depth to Water: **203 feet**

Minimum Depth: **100 feet**

Maximum Depth: **400 feet**

Record Count: 4

UTMNAD83 Radius Search (in meters):

Easting (X): 550626

Northing (Y): 3584603

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
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company : Oxy Permian LTD (192463)	Contact : Chris Jones
Address : 1502 W. Commerce, Carlsbad, NM 88220	Telephone No. : 575-628-4121
Facility Name : McKittrick Hills Central Tank Battery	Facility Type: Central Tank Battery

Surface Owner : Federal	Mineral Owner	API#: <u>ZRP-2107</u>
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LOCATION OF RELEASE

Unit Letter A	Section 14	Township 22S	Range 24E	Feet from the	North/South Line	Feet from the	East/West Line	County: Eddy
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Latitude 32.397740 Longitude 104.4611

NATURE OF RELEASE

Type of Release : Mix Fluids	Volume of Release : 200 bbls	Volume Recovered: 160 bbls
Source of Release : Transmitter malfunction	Date and Hour of Occurrence: 12/8/2013	Date and Hour of Discovery: 12/8/2013
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Email: OCD/Mike Bratcher & BLM/Jim Amos	
By Whom: Chris Jones	Date and Hour :12/9/2013	
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 * Produced fluids exited location and flowed into Little Water Draw, an ephemeral water course that runs only during precipitous events.

Describe Cause of Problem and Remedial Action Taken.* The transmitter froze causing the water tanks to overflow. It resulted in a release of 200 barrels of mixed fluids. Emergency response included immediate shut-in of the tank battery and vac trucks on site to pick up all standing fluids. They recovered 160 barrels of mixed fluids. The transmitter was replaced. Talon/LPE was contacted to complete the site assessment and collect soil samples.

Describe Area Affected and Cleanup Action Taken.* The area impacted was inside of the earthen berm surrounding the tank battery, 80'x150' and off the north side of location.

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Chris Jones	Approved by District Supervisor:	
Title: HES Specialist	Approval Date:	Expiration Date:
E-mail Address: Christopher.Jones@ocy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 12/10/2013 Phone: 575-628-4121		

* Attach Additional Sheets If Necessary

APPENDIX II
LABORATORY RESULTS



December 23, 2013

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: OXY MC KITTRICK CTB

Enclosed are the results of analyses for samples received by the laboratory on 12/13/13 16:35.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in cursive script that reads "Celey D. Keene".

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:	12/13/2013	Sampling Date:	12/10/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-1 0' (H303036-01)

BTEX 8021B	mg/kg	Analyzed By: MS				S-04				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/20/2013	ND	1.94	97.0	2.00	2.13		
Toluene*	0.065	0.050	12/20/2013	ND	1.93	96.5	2.00	2.25		
Ethylbenzene*	0.242	0.050	12/20/2013	ND	1.91	95.5	2.00	2.12		
Total Xylenes*	1.56	0.150	12/20/2013	ND	5.63	93.8	6.00	1.25		
Total BTEX	1.87	0.300	12/20/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 162 % 89.4-126

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AP								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/20/2013	ND	416	104	400	0.00		

TPH 8015M	mg/kg	Analyzed By: ms								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	69.7	10.0	12/19/2013	ND	192	95.8	200	0.0892		
DRO >C10-C28	1830	10.0	12/19/2013	ND	181	90.5	200	1.64		

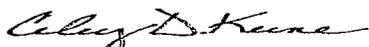
Surrogate: 1-Chlorooctane 99.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 116 % 63.6-154

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	12/13/2013	Sampling Date:	12/10/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-1 8" REFUSAL (H303036-02)

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	12/20/2013	ND	1.94	97.0	2.00	2.13		
Toluene*	<0.050	0.050	12/20/2013	ND	1.93	96.5	2.00	2.25		
Ethylbenzene*	0.053	0.050	12/20/2013	ND	1.91	95.5	2.00	2.12		
Total Xylenes*	0.340	0.150	12/20/2013	ND	5.63	93.8	6.00	1.25		
Total BTEX	0.394	0.300	12/20/2013	ND						

Surrogate: 4-Bromofluorobenzene (PID) 121 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	12/20/2013	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	19.2	10.0	12/19/2013	ND	189	94.3	200	8.78		
DRO >C10-C28	782	10.0	12/19/2013	ND	183	91.7	200	17.1		

Surrogate: 1-Chlorooctane 95.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 95.1 % 63.6-154

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* = Accredited Analyte

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 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	12/13/2013	Sampling Date:	12/10/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-2 0' (H303036-03)

BTEX 8021B		mg/kg		Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	0.230	0.200	12/20/2013	ND	1.94	97.0	2.00	2.13		
Toluene*	2.79	0.200	12/20/2013	ND	1.93	96.5	2.00	2.25		
Ethylbenzene*	1.78	0.200	12/20/2013	ND	1.91	95.5	2.00	2.12		
Total Xylenes*	16.3	0.600	12/20/2013	ND	5.63	93.8	6.00	1.25		
Total BTEX	21.1	1.20	12/20/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 174 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/20/2013	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	402	50.0	12/19/2013	ND	189	94.3	200	8.78		
DRO >C10-C28	5510	50.0	12/19/2013	ND	183	91.7	200	17.1		

Surrogate: 1-Chlorooctane 136 % 65.2-140

Surrogate: 1-Chlorooctadecane 209 % 63.6-154

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*=Accredited Analyte

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 Fax To: (575) 745-8905

Received:	12/13/2013	Sampling Date:	12/10/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-2 1' (H303036-04)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/20/2013	ND	1.94	97.0	2.00	2.13		
Toluene*	<0.050	0.050	12/20/2013	ND	1.93	96.5	2.00	2.25		
Ethylbenzene*	<0.050	0.050	12/20/2013	ND	1.91	95.5	2.00	2.12		
Total Xylenes*	<0.150	0.150	12/20/2013	ND	5.63	93.8	6.00	1.25		
Total BTEX	<0.300	0.300	12/20/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 102 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	12/20/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	12/19/2013	ND	189	94.3	200	8.78		
DRO >C10-C28	796	10.0	12/19/2013	ND	183	91.7	200	17.1		

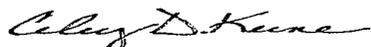
Surrogate: 1-Chlorooctane 94.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 133 % 63.6-154

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* = Accredited Analyte

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Received:	12/13/2013	Sampling Date:	12/10/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-2 2' (H303036-05)

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	12/20/2013	ND	1.94	97.0	2.00	2.13		
Toluene*	<0.050	0.050	12/20/2013	ND	1.93	96.5	2.00	2.25		
Ethylbenzene*	<0.050	0.050	12/20/2013	ND	1.91	95.5	2.00	2.12		
Total Xylenes*	<0.150	0.150	12/20/2013	ND	5.63	93.8	6.00	1.25		
Total BTEX	<0.300	0.300	12/20/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 101 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	12/20/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	12/19/2013	ND	189	94.3	200	8.78		
DRO >C10-C28	<10.0	10.0	12/19/2013	ND	183	91.7	200	17.1		

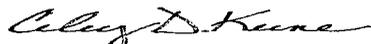
Surrogate: 1-Chlorooctane 92.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 92.6 % 63.6-154

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Analytical Results For:

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

Received:	12/13/2013	Sampling Date:	12/10/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-2 3' (H303036-06)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/20/2013	ND	1.94	97.0	2.00	2.13		
Toluene*	<0.050	0.050	12/20/2013	ND	1.93	96.5	2.00	2.25		
Ethylbenzene*	<0.050	0.050	12/20/2013	ND	1.91	95.5	2.00	2.12		
Total Xylenes*	<0.150	0.150	12/20/2013	ND	5.63	93.8	6.00	1.25		
Total BTEX	<0.300	0.300	12/20/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 99.6 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	12/20/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	12/19/2013	ND	189	94.3	200	8.78		
DRO >C10-C28	<10.0	10.0	12/19/2013	ND	183	91.7	200	17.1		

Surrogate: 1-Chlorooctane 93.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 92.4 % 63.6-154

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 Received: 12/13/2013
 Reported: 12/23/2013
 Project Name: OXY MC KITTRICK CTB
 Project Number: 7000608.338.01
 Project Location: NOT GIVEN

 Sampling Date: 12/10/2013
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Amanda Ponce

Sample ID: S-2 4' (H303036-07)

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	12/20/2013	ND	1.94	97.0	2.00	2.13		
Toluene*	<0.050	0.050	12/20/2013	ND	1.93	96.5	2.00	2.25		
Ethylbenzene*	<0.050	0.050	12/20/2013	ND	1.91	95.5	2.00	2.12		
Total Xylenes*	<0.150	0.150	12/20/2013	ND	5.63	93.8	6.00	1.25		
Total BTEX	<0.300	0.300	12/20/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 99.8 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	160	16.0	12/20/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	12/19/2013	ND	189	94.3	200	8.78		
DRO >C10-C28	22.9	10.0	12/19/2013	ND	183	91.7	200	17.1		

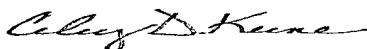
Surrogate: 1-Chlorooctane 90.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 89.1 % 63.6-154

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Analytical Results For:

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Received:	12/13/2013	Sampling Date:	12/10/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-2 5' REFUSAL (H303036-08)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/23/2013	ND	1.94	97.0	2.00	2.13		
Toluene*	<0.050	0.050	12/23/2013	ND	1.93	96.5	2.00	2.25		
Ethylbenzene*	<0.050	0.050	12/23/2013	ND	1.91	95.5	2.00	2.12		
Total Xylenes*	<0.150	0.150	12/23/2013	ND	5.63	93.8	6.00	1.25		
Total BTEX	<0.300	0.300	12/23/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 102 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	12/20/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	12/19/2013	ND	189	94.3	200	8.78		
DRO >C10-C28	44.1	10.0	12/19/2013	ND	183	91.7	200	17.1		

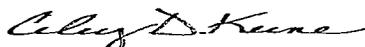
Surrogate: 1-Chlorooctane 94.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 96.6 % 63.6-154

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Received:	12/13/2013	Sampling Date:	12/10/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-3 0' (H303036-09)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	7.93	5.00	12/20/2013	ND	1.94	97.0	2.00	2.13		
Toluene*	61.0	5.00	12/20/2013	ND	1.93	96.5	2.00	2.25		
Ethylbenzene*	21.6	5.00	12/20/2013	ND	1.91	95.5	2.00	2.12		
Total Xylenes*	229	15.0	12/20/2013	ND	5.63	93.8	6.00	1.25		
Total BTEX	320	30.0	12/20/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 125 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/20/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10	7160	500	12/20/2013	ND	189	94.3	200	8.78			
DRO >C10-C28	63800	500	12/20/2013	ND	183	91.7	200	17.1			

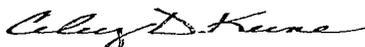
Surrogate: 1-Chlorooctane 422 % 65.2-140

Surrogate: 1-Chlorooctadecane 1960 % 63.6-154

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Received:	12/13/2013	Sampling Date:	12/10/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-3 6" REFUSAL (H303036-10)

BTEX 8021B		mg/kg		Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.500	0.500	12/20/2013	ND	1.94	97.0	2.00	2.13		
Toluene*	5.58	0.500	12/20/2013	ND	1.93	96.5	2.00	2.25		
Ethylbenzene*	3.82	0.500	12/20/2013	ND	1.91	95.5	2.00	2.12		
Total Xylenes*	30.9	1.50	12/20/2013	ND	5.63	93.8	6.00	1.25		
Total BTEX	40.3	3.00	12/20/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 145 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	12/20/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	801	10.0	12/19/2013	ND	189	94.3	200	8.78		
DRO >C10-C28	6740	10.0	12/19/2013	ND	183	91.7	200	17.1		

Surrogate: 1-Chlorooctane 169 % 65.2-140

Surrogate: 1-Chlorooctadecane 197 % 63.6-154

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 ARTESIA NM, 88210
 Fax To: (575) 745-8905

Received:	12/13/2013	Sampling Date:	12/11/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-4 0' (H303036-11)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	20.8	10.0	12/20/2013	ND	1.94	97.0	2.00	2.13		
Toluene*	151	10.0	12/20/2013	ND	1.93	96.5	2.00	2.25		
Ethylbenzene*	30.9	10.0	12/20/2013	ND	1.91	95.5	2.00	2.12		
Total Xylenes*	316	30.0	12/20/2013	ND	5.63	93.8	6.00	1.25		
Total BTEX	518	60.0	12/20/2013	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/20/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10	9610	50.0	12/19/2013	ND	189	94.3	200	8.78			
DRO >C10-C28	35500	50.0	12/19/2013	ND	183	91.7	200	17.1			

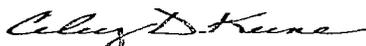
Surrogate: 1-Chlorooctane 311 % 65.2-140

Surrogate: 1-Chlorooctadecane 1050 % 63.6-154

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 Fax To: (575) 745-8905

Received:	12/13/2013	Sampling Date:	12/11/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-4 6" (H303036-12)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	9.88	5.00	12/20/2013	ND	1.94	97.0	2.00	2.13		
Toluene*	84.9	5.00	12/20/2013	ND	1.93	96.5	2.00	2.25		
Ethylbenzene*	18.1	5.00	12/20/2013	ND	1.91	95.5	2.00	2.12		
Total Xylenes*	188	15.0	12/20/2013	ND	5.63	93.8	6.00	1.25		
Total BTEX	300	30.0	12/20/2013	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/20/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10	4310	50.0	12/19/2013	ND	189	94.3	200	8.78			
DRO >C10-C28	16900	50.0	12/19/2013	ND	183	91.7	200	17.1			

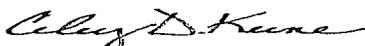
Surrogate: 1-Chlorooctane 211 % 65.2-140

Surrogate: 1-Chlorooctadecane 478 % 63.6-154

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Analytical Results For:

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 Fax To: (575) 745-8905

Received:	12/13/2013	Sampling Date:	12/11/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-5 0' (H303036-13)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	5.85	2.00	12/20/2013	ND	1.94	97.0	2.00	2.13		
Toluene*	48.3	2.00	12/20/2013	ND	1.93	96.5	2.00	2.25		
Ethylbenzene*	12.1	2.00	12/20/2013	ND	1.91	95.5	2.00	2.12		
Total Xylenes*	121	6.00	12/20/2013	ND	5.63	93.8	6.00	1.25		
Total BTEX	187	12.0	12/20/2013	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/20/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms							S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10	2370	10.0	12/19/2013	ND	189	94.3	200	8.78			
DRO >C10-C28	9570	10.0	12/19/2013	ND	183	91.7	200	17.1			

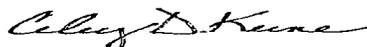
Surrogate: 1-Chlorooctane 151 % 65.2-140

Surrogate: 1-Chlorooctadecane 255 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	12/13/2013	Sampling Date:	12/11/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-5 8" (H303036-14)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	9.28	5.00	12/20/2013	ND	1.94	97.0	2.00	2.13		
Toluene*	72.7	5.00	12/20/2013	ND	1.93	96.5	2.00	2.25		
Ethylbenzene*	17.5	5.00	12/20/2013	ND	1.91	95.5	2.00	2.12		
Total Xylenes*	177	15.0	12/20/2013	ND	5.63	93.8	6.00	1.25		
Total BTEX	277	30.0	12/20/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 105 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/20/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10	5400	50.0	12/19/2013	ND	189	94.3	200	8.78			
DRO >C10-C28	21000	50.0	12/19/2013	ND	183	91.7	200	17.1			

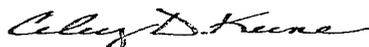
Surrogate: 1-Chlorooctane 234 % 65.2-140

Surrogate: 1-Chlorooctadecane 627 % 63.6-154

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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:	12/13/2013	Sampling Date:	12/11/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-6 0' (H303036-15)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	12.2	10.0	12/20/2013	ND	1.94	97.0	2.00	2.13		
Toluene*	101	10.0	12/20/2013	ND	1.93	96.5	2.00	2.25		
Ethylbenzene*	26.6	10.0	12/20/2013	ND	1.91	95.5	2.00	2.12		
Total Xylenes*	269	30.0	12/20/2013	ND	5.63	93.8	6.00	1.25		
Total BTEX	408	60.0	12/20/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 106 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/20/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10	7810	50.0	12/19/2013	ND	189	94.3	200	8.78			
DRO >C10-C28	33400	50.0	12/19/2013	ND	183	91.7	200	17.1			

Surrogate: 1-Chlorooctane 311 % 65.2-140

Surrogate: 1-Chlorooctadecane 1030 % 63.6-154

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Analytical Results For:

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

Received:	12/13/2013	Sampling Date:	12/11/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-6 8" (H303036-16)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<2.00	2.00	12/20/2013	ND	1.94	97.0	2.00	2.13		
Toluene*	22.0	2.00	12/20/2013	ND	1.93	96.5	2.00	2.25		
Ethylbenzene*	8.23	2.00	12/20/2013	ND	1.91	95.5	2.00	2.12		
Total Xylenes*	74.0	6.00	12/20/2013	ND	5.63	93.8	6.00	1.25		
Total BTEX	104	12.0	12/20/2013	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/20/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms							S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10	1980	10.0	12/19/2013	ND	189	94.3	200	8.78			
DRO >C10-C28	8410	10.0	12/19/2013	ND	183	91.7	200	17.1			

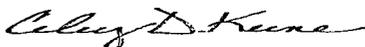
Surrogate: 1-Chlorooctane 219 % 65.2-140

Surrogate: 1-Chlorooctadecane 237 % 63.6-154

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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: 12/13/2013
 Reported: 12/23/2013
 Project Name: OXY MC KITTRICK CTB
 Project Number: 7000608.338.01
 Project Location: NOT GIVEN

 Sampling Date: 12/11/2013
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Amanda Ponce

Sample ID: S-7 0' (H303036-17)

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	12/20/2013	ND	1.94	97.0	2.00	2.13		
Toluene*	<0.050	0.050	12/20/2013	ND	1.93	96.5	2.00	2.25		
Ethylbenzene*	<0.050	0.050	12/20/2013	ND	1.91	95.5	2.00	2.12		
Total Xylenes*	<0.150	0.150	12/20/2013	ND	5.63	93.8	6.00	1.25		
Total BTEX	<0.300	0.300	12/20/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 101 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/20/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	12/19/2013	ND	189	94.3	200	8.78		
DRO >C10-C28	19.1	10.0	12/19/2013	ND	183	91.7	200	17.1		

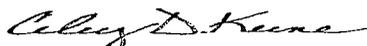
Surrogate: 1-Chlorooctane 95.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 91.5 % 63.6-154

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Analytical Results For:

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

Received:	12/13/2013	Sampling Date:	12/11/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-7 6" (H303036-18)

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	12/23/2013	ND	1.84	91.8	2.00	5.76		
Toluene*	<0.050	0.050	12/23/2013	ND	1.84	91.8	2.00	5.79		
Ethylbenzene*	<0.050	0.050	12/23/2013	ND	1.82	90.9	2.00	5.55		
Total Xylenes*	<0.150	0.150	12/23/2013	ND	5.34	88.9	6.00	6.08		
Total BTEX	<0.300	0.300	12/23/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 101 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/20/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	12/19/2013	ND	189	94.3	200	8.78		
DRO >C10-C28	<10.0	10.0	12/19/2013	ND	183	91.7	200	17.1		

Surrogate: 1-Chlorooctane 98.9 % 65.2-140
Surrogate: 1-Chlorooctadecane 93.3 % 63.6-154

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Analytical Results For:

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

Received:	12/13/2013	Sampling Date:	12/11/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-8 0' (H303036-19)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<2.00	2.00	12/23/2013	ND	1.84	91.8	2.00	5.76		
Toluene*	22.3	2.00	12/23/2013	ND	1.84	91.8	2.00	5.79		
Ethylbenzene*	9.78	2.00	12/23/2013	ND	1.82	90.9	2.00	5.55		
Total Xylenes*	87.6	6.00	12/23/2013	ND	5.34	88.9	6.00	6.08		
Total BTEX	120	12.0	12/23/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 125 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/20/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms							S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
GRO C6-C10	3720	50.0	12/19/2013	ND	189	94.3	200	8.78			
DRO >C10-C28	16300	50.0	12/19/2013	ND	183	91.7	200	17.1			

Surrogate: 1-Chlorooctane 212 % 65.2-140

Surrogate: 1-Chlorooctadecane 452 % 63.6-154

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Analytical Results For:

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

Received:	12/13/2013	Sampling Date:	12/11/2013
Reported:	12/23/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-9 0' (H303036-20)

BTEX 8021B		mg/kg		Analyzed By: MS				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	6.31	2.00	12/23/2013	ND	1.84	91.8	2.00	5.76		
Toluene*	76.2	2.00	12/23/2013	ND	1.84	91.8	2.00	5.79		
Ethylbenzene*	21.3	2.00	12/23/2013	ND	1.82	90.9	2.00	5.55		
Total Xylenes*	219	6.00	12/23/2013	ND	5.34	88.9	6.00	6.08		
Total BTEX	323	12.0	12/23/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 138 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	12/20/2013	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: ms				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	1970	10.0	12/20/2013	ND	198	98.8	200	1.26		
DRO >C10-C28	8870	10.0	12/20/2013	ND	197	98.6	200	1.90		

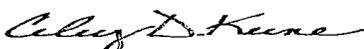
Surrogate: 1-Chlorooctane 76.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 239 % 63.6-154

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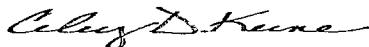
Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celest D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>Talon LPE</u>		BILL TO		ANALYSIS REQUEST											
Project Manager: <u>D. Adkins</u>		P.O. #:													
Address: <u>408 W TEXAS</u>		Company: <u>Talon</u>													
City: <u>Artesia</u> State: <u>NM</u> Zip: <u>88210</u>		Attn:													
Phone #: <u>575-746-9768</u> Fax #:		Address:													
Project #: <u>700608 338.01</u> Project Owner: <u>Oxy</u>		City:													
Project Name: <u>Oxy McKittrick CIB</u>		State: Zip:													
Project Location:		Phone #:													
Sampler Name: <u>S. Hitchcock / G. Barza</u>		Fax #:													

FOR LAB USE ONLY		# CONTAINERS	MATRIX					PRESERV		SAMPLING		DATE	TIME	pH	BTEX	Chlorides
Lab I.D.	Sample I.D.		GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE/COOL	OTHER:					
H303036																
1	S-1 0"	/			/							12-10-13	1:45	/	/	/
2	S-1 8" Refusal	/			/							12-10-13	1:50	/	/	/
3	S-2 0"	/			/							12-10-13	2:00	/	/	/
4	S-2 1"	/			/							12-10-13	3:11	/	/	/
5	S-2 2"	/			/							12-10-13	3:05	/	/	/
6	S-2 3"	/			/							12-10-13	3:09	/	/	/
7	S-2 4"	/			/							12-10-13	2:56	/	/	/
8	S-2 5" Refusal	/			/							12-10-13	2:45	/	/	/
9	S-3 0"	/			/							12-10-13	3:35	/	/	/
10	S-3 6" Refusal	/			/							12-10-13	3:45	/	/	/

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Relinquished By:	Date: <u>12/13/13</u> Time: <u>4:35</u>	Received By:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
Relinquished By:	Date: _____ Time: _____	Received By: _____	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: <u>9.10 CIBSV</u>	Sample Condition: Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	CHECKED BY:	REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

December 26, 2013

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: OXY MC KITTRICK CTB

Enclosed are the results of analyses for samples received by the laboratory on 12/13/13 16:40.

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.

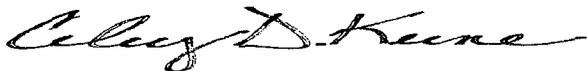
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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:	12/13/2013	Sampling Date:	12/11/2013
Reported:	12/26/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-10 0' (H303038-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	2.94	2.50	12/23/2013	ND	1.84	91.8	2.00	5.76	
Toluene*	39.5	5.00	12/23/2013	ND	1.84	91.8	2.00	5.79	
Ethylbenzene*	16.0	5.00	12/23/2013	ND	1.82	90.9	2.00	5.55	
Total Xylenes*	161	15.0	12/23/2013	ND	5.34	88.9	6.00	6.08	
Total BTEX	220	27.5	12/23/2013	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/21/2013	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	5790	50.0	12/20/2013	ND	198	98.8	200	1.26		
DRO >C10-C28	32400	50.0	12/20/2013	ND	197	98.6	200	1.90		

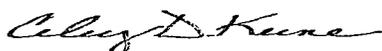
Surrogate: 1-Chlorooctane 304 % 65.2-140

Surrogate: 1-Chlorooctadecane 921 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	12/13/2013	Sampling Date:	12/11/2013
Reported:	12/26/2013	Sampling Type:	Soil
Project Name:	OXY MC KITTRICK CTB	Sampling Condition:	** (See Notes)
Project Number:	7000608.338.01	Sample Received By:	Amanda Ponce
Project Location:	NOT GIVEN		

Sample ID: S-11 0' (H303038-02)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	12/23/2013	ND	1.84	91.8	2.00	5.76	
Toluene*	10.5	2.00	12/23/2013	ND	1.84	91.8	2.00	5.79	
Ethylbenzene*	7.01	2.00	12/23/2013	ND	1.82	90.9	2.00	5.55	
Total Xylenes*	69.6	6.00	12/23/2013	ND	5.34	88.9	6.00	6.08	
Total BTEX	87.2	11.0	12/23/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 117 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	12/21/2013	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	2360	10.0	12/20/2013	ND	198	98.8	200	1.26		
DRO >C10-C28	18700	10.0	12/20/2013	ND	197	98.6	200	1.90		

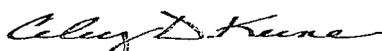
Surrogate: 1-Chlorooctane 188 % 65.2-140

Surrogate: 1-Chlorooctadecane 529 % 63.6-154

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

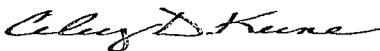
Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

