



December 17, 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

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
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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**
Devon Energy Corporation
Todd 26 G Federal #2
API # 30-015-20277 – 2RP-2611

Dear Mr. Bratcher

Devon Energy Corporation (Devon) 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

November 9, 2014

Background Information

The Todd 26 G Federal #2 is located approximately thirty-eight (38) miles southeast of Carlsbad, New Mexico. The legal location for the site is Unit letter G of Section 26, Township 23S, Range 31E in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.2771913 North and -103.7454125 West. See site plan in [Appendix I](#).

According to the soil survey provided by the United States Department of Agriculture Natural Resources Conservation Service, the soil in this area is made up of Simona and Wink fine sandy loams with 0 to 3 percent slopes. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is Holocene to Middle Pleistocene in age and is comprised of eolian sands. Drainage courses in this area are normally dry. Ground water in the project vicinity is approximately 430-feet below ground surface (bgs), according to the New Mexico Office of the State Engineer. See [Appendix II](#) for the referenced groundwater data.

The ranking for this site is 0 based on the 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

A power failure at the Todd 26 G Fed 2 SWD caused the release of 45 barrels of oil. The wells were shut-in and the faulty unit was replaced. The wells were put back into service. A vac truck was immediately called to the location and recovered 40 barrels of oil. The area affected remained on the north side of the location with a flow path measuring approximately 217-feet long by 30-feet wide. See site plan in [Appendix I](#).

Actions Taken

On November 14, 2014 Talon 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. [See Table 1](#).

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.

Laboratory Results

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

November 20, 2014

[Table 1](#)

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	0'	<0.300	48	<10	<10
	1'	<0.300	1340	<10	69.4
	2'	--	1760	--	--
S-2	0'	<0.300	144	<10	<10
	1'	<0.300	<16	<10	<10
	2'	--	<16	--	--
S-3	0'	54.7	<16	1070	5630
	1'	<0.300	<16	<10	<10
	2'	--	<16	--	--
S-4	0'	167	32	4250	15800
	1'	<0.300	32	13.4	<10
	2'	--	<16	--	--
S-5	0'	59.2	48	1130	4320
	1'	<0.300	48	<10	10.1
	2'	--	<16	--	--

--Analyte Not Tested

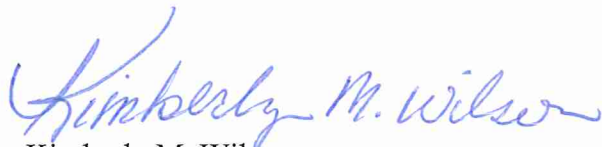
Based upon the site ranking of 0, NMOCD Recommended Remedial Action Levels (RRAL) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, 5,000 mg/kg for TPH. The chloride standard is 1,000 mg/kg.

Proposed Remedial Actions

- The impacted area in the vicinity of sample points S-1 will be excavated to a depth of 2.5-feet deep. Field chloride titration testing will be used to guide the excavation. Once field results indicate that the impacted soil is below NMOCD Recommended Remedial Action Level's (RRAL's) a confirmation soil sample will be taken to insure all of the impacted material was removed.
- The impacted area in the vicinity of sample points S-3, S-4 and S-5 will be excavated to a depth of 0.5-feet deep.
- All the contaminated soil will be transported to Lea Land, LLC, an approved disposal facility.
- The excavated areas will be backfilled with new/clean caliche from Lea Land and re-contoured to match the surrounding location.
- A final closure report documenting all remedial actions and analytical results will be provided to the NMOCD Artesia Office 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,



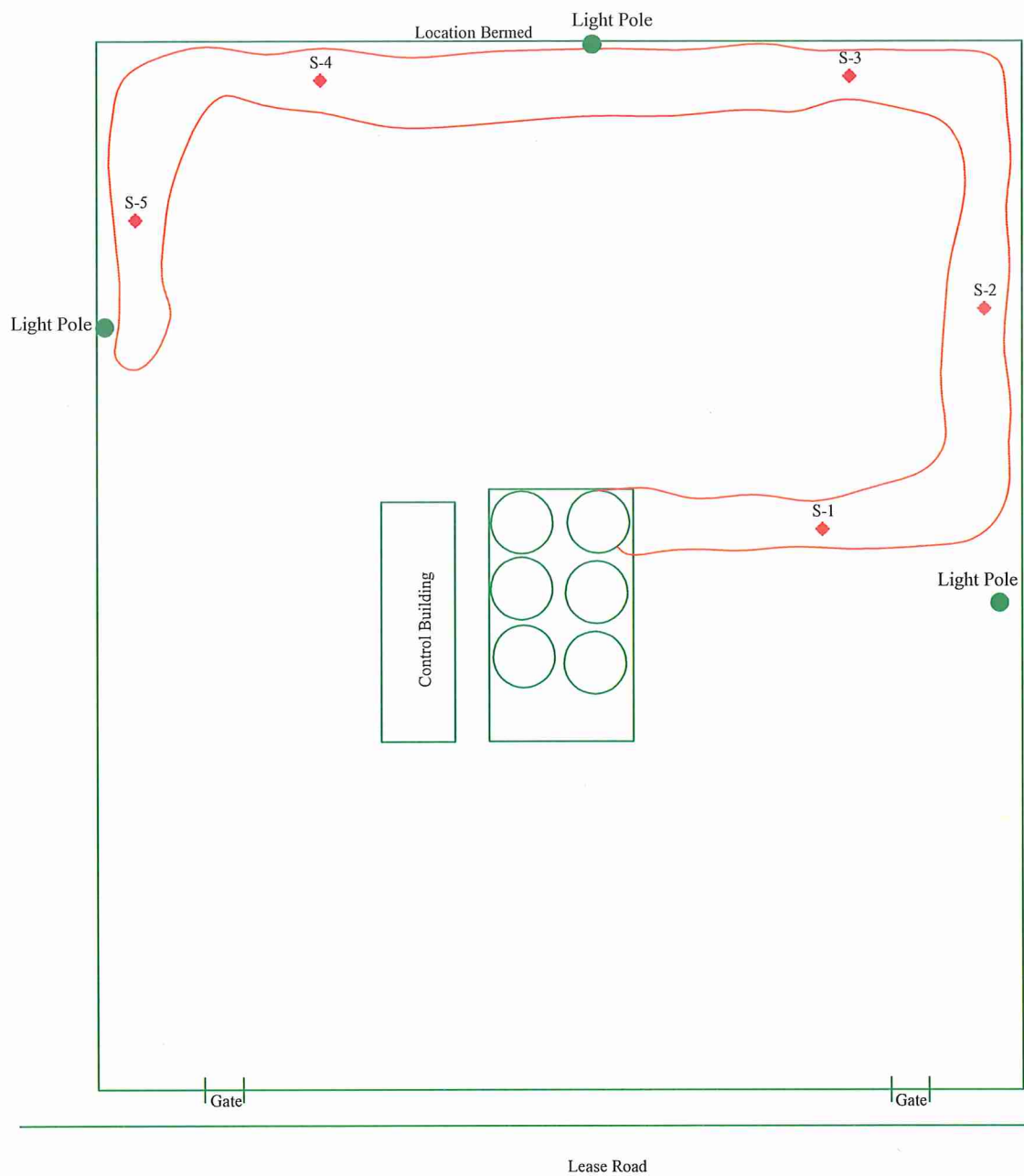
Kimberly M. Wilson
Project Manager



David J. Adkins
District Manager

APPENDIX I

SITE MAP



Legend	
◆	- Sample Location



Date: 11/18/2014

Scale: NTS

Drawn By: TJS

Todd 26 SWD
Devon Energy Corporation
Eddy County, New Mexico
Figure 1 - Site Plan

APPENDIX II
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 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02258	C		ED	3	2	26	23S	31E		618055	3571853*	425	662		
C 02348	C		ED	1	4	3	26	23S	31E	617648	3571068	1298	700	430	270

Average Depth to Water: **430 feet**

Minimum Depth: **430 feet**

Maximum Depth: **430 feet**

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 618351

Northing (Y): 3572159

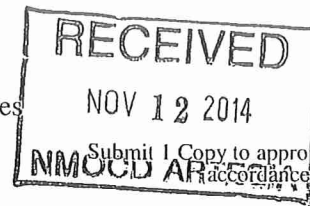
Radius: 3000

*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



Form C-141
Revised August 8, 2011

Release Notification and Corrective Action

11 AB143 235 3445

OPERATOR		<input checked="" type="checkbox"/> Initial Report	<input type="checkbox"/> Final Report
Name of Company Devon Energy Production <u>60137</u>		Contact Daniel Suniga- Devon Production Foreman	
Address 6488 Seven Rivers Hwy Artesia, NM 88220		Telephone No. 575-390-5850	
Facility Name Todd 26G Fed 2 SWD		Facility Type Salt Water Disposal	
Surface Owner Federal		Mineral Owner Federal	API No. 30-015-20277

LOCATION OF RELEASE

Unit Letter G	Section S26	Township T23S	Range R31E	Feet from the 1980	North/South Line FNL	Feet from the 1650	East/West Line FEL	County Eddy
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Latitude: 32.277191377827 Longitude: -103.745412550316

NATURE OF RELEASE

Type of Release Spill Oil	Volume of Release 45 bbls oil	Volume Recovered 40bbls oil
Source of Release Oil tank overflow	Date and Hour of Occurrence November 09, 2014 ~8:30 AM	Date and Hour of Discovery November 09, 2014 9:00 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher- OCD Jeff Robertson- BLM	
By Whom? Wesley Ryan- Devon Assistant Production Foreman	Date and Hour November 10, 2014 11:21 AM; November 11, 2014 3:00 PM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse N/A	

If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.*

The DR-120-24V power supply that provides 24 VDC to the PLC failed and a loss of power occurred at the Todd 26G Fed 2 SWD that led to a spill of 45 bbls of oil. As a result of the power outage pumps and alarms lost power and communication with each other. The faulty unit was replaced and power was restored to the PLC.

Describe Area Affected and Cleanup Action Taken.*

A 60'x20' area of the pad at the Northwest side near the storage tanks inside the berm containment was affected by the spill requiring the aid of a vacuum truck provided by Standard Energy Services. 40 bbls of the 45 bbls of oil spilled were recovered. The contaminated caliche will be removed and replaced with clean caliche.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC D 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 D 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 D 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>Yuri Fernandez</u>		OIL CONSERVATION DIVISION	
Printed Name: Yuri Fernandez		Approved by Environmental Specialist <u>Mike Bratcher</u>	
Title: Field Admin Support		Approval Date: <u>11/10/14</u>	Expiration Date: <u>N/A</u>
E-mail Address: Yuri.Fernandez@dvn.com		Conditions of Approval: Remediation per O.C.D. Rules & Guidelines <input type="checkbox"/> Attached <input type="checkbox"/>	
Date: November 11, 2014 Phone: 575.748.1846		SUBMIT REMEDIATION PROPOSAL NO <u>12119114</u>	

* Attach Additional Sheets If Necessary

LATER THAN: 12/19/14

2RP-2611

APPENDIX III
LABORATORY RESULTS

November 20, 2014

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: TODD 26 SWD

Enclosed are the results of analyses for samples received by the laboratory on 11/14/14 14:05.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Caley D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

 Received: 11/14/2014
 Reported: 11/20/2014
 Project Name: TODD 26 SWD
 Project Number: 700794.073.01
 Project Location: DEVON F-26-23-31

 Sampling Date: 11/14/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S-1 0' (H403524-01)

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	11/18/2014	ND	1.76	88.1	2.00	7.77	
Toluene*	<0.050	0.050	11/18/2014	ND	1.71	85.4	2.00	8.13	
Ethylbenzene*	<0.050	0.050	11/18/2014	ND	1.67	83.7	2.00	9.31	
Total Xylenes*	<0.150	0.150	11/18/2014	ND	5.02	83.7	6.00	9.55	
Total BTX	<0.300	0.300	11/18/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 97.8 % 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	11/17/2014	ND	400	100	400	3.92	

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	11/15/2014	ND	223	111	200	0.588	
DRO >C10-C28	<10.0	10.0	11/15/2014	ND	220	110	200	0.939	

Surrogate: 1-Chlorooctane 119 % 47.2-157

Surrogate: 1-Chlorooctadecane 131 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

Received: 11/14/2014
Reported: 11/20/2014
Project Name: TODD 26 SWD
Project Number: 700794.073.01
Project Location: DEVON F-26-23-31

Sampling Date: 11/14/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-1 1' (H403524-02)

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	11/18/2014	ND	1.76	88.1	2.00	7.77	
Toluene*	<0.050	0.050	11/18/2014	ND	1.71	85.4	2.00	8.13	
Ethylbenzene*	<0.050	0.050	11/18/2014	ND	1.67	83.7	2.00	9.31	
Total Xylenes*	<0.150	0.150	11/18/2014	ND	5.02	83.7	6.00	9.55	
Total BTX	<0.300	0.300	11/18/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 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	1340	16.0	11/17/2014	ND	400	100	400	3.92	

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	11/15/2014	ND	223	111	200	0.588	
DRO >C10-C28	69.4	10.0	11/15/2014	ND	220	110	200	0.939	

Surrogate: 1-Chlorooctane 112 % 47.2-157

Surrogate: 1-Chlorooctadecane 120 % 52.1-176

Sample ID: S-1 2' (H403524-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1760	16.0	11/17/2014	ND	400	100	400	3.92	

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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: 11/14/2014
 Reported: 11/20/2014
 Project Name: TODD 26 SWD
 Project Number: 700794.073.01
 Project Location: DEVON F-26-23-31

 Sampling Date: 11/14/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S-2 0' (H403524-04)

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	11/18/2014	ND	1.76	88.1	2.00	7.77	
Toluene*	<0.050	0.050	11/18/2014	ND	1.71	85.4	2.00	8.13	
Ethylbenzene*	<0.050	0.050	11/18/2014	ND	1.67	83.7	2.00	9.31	
Total Xylenes*	<0.150	0.150	11/18/2014	ND	5.02	83.7	6.00	9.55	
Total BTX	<0.300	0.300	11/18/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.9 % 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	144	16.0	11/17/2014	ND	400	100	400	3.92	

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	11/15/2014	ND	223	111	200	0.588	
DRO >C10-C28	<10.0	10.0	11/15/2014	ND	220	110	200	0.939	

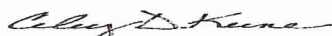
Surrogate: 1-Chlorooctane 115 % 47.2-157

Surrogate: 1-Chlorooctadecane 120 % 52.1-176

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*=Accredited Analyte

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 Fax To: (575) 745-8905

 Received: 11/14/2014
 Reported: 11/20/2014
 Project Name: TODD 26 SWD
 Project Number: 700794.073.01
 Project Location: DEVON F-26-23-31

 Sampling Date: 11/14/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S-2 1' (H403524-05)

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	11/18/2014	ND	1.76	88.1	2.00	7.77	
Toluene*	<0.050	0.050	11/18/2014	ND	1.71	85.4	2.00	8.13	
Ethylbenzene*	<0.050	0.050	11/18/2014	ND	1.67	83.7	2.00	9.31	
Total Xylenes*	<0.150	0.150	11/18/2014	ND	5.02	83.7	6.00	9.55	
Total BTX	<0.300	0.300	11/18/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.3 % 61-154

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	11/17/2014	ND	400	100	400	3.92	

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	11/15/2014	ND	223	111	200	0.588	
DRO >C10-C28	<10.0	10.0	11/15/2014	ND	220	110	200	0.939	

Surrogate: 1-Chlorooctane 119 % 47.2-157

Surrogate: 1-Chlorooctadecane 125 % 52.1-176

Sample ID: S-2 2' (H403524-06)

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	11/17/2014	ND	400	100	400	3.92	

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

Received: 11/14/2014
Reported: 11/20/2014
Project Name: TODD 26 SWD
Project Number: 700794.073.01
Project Location: DEVON F-26-23-31

Sampling Date: 11/14/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-3 0' (H403524-07)

BTEX 8021B		mg/kg	Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	11/19/2014	ND	1.76	88.1	2.00	7.77	
Toluene*	7.92	0.200	11/19/2014	ND	1.71	85.4	2.00	8.13	
Ethylbenzene*	9.25	0.200	11/19/2014	ND	1.67	83.7	2.00	9.31	
Total Xylenes*	37.6	0.600	11/19/2014	ND	5.02	83.7	6.00	9.55	
Total BTEX	54.7	1.20	11/19/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 122 % 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	<16.0	16.0	11/17/2014	ND	400	100	400	3.92	

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	1070	50.0	11/15/2014	ND	223	111	200	0.588		
DRO >C10-C28	5630	50.0	11/15/2014	ND	220	110	200	0.939		

Surrogate: 1-Chlorooctane 192 % 47.2-157

Surrogate: 1-Chlorooctadecane 184 % 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: 11/14/2014
Reported: 11/20/2014
Project Name: TODD 26 SWD
Project Number: 700794.073.01
Project Location: DEVON F-26-23-31

Sampling Date: 11/14/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-3 1' (H403524-08)

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	11/19/2014	ND	1.79	89.3	2.00	5.43	
Toluene*	<0.050	0.050	11/19/2014	ND	1.72	85.9	2.00	5.80	
Ethylbenzene*	<0.050	0.050	11/19/2014	ND	1.67	83.4	2.00	6.56	
Total Xylenes*	<0.150	0.150	11/19/2014	ND	5.01	83.6	6.00	6.86	
Total BTX	<0.300	0.300	11/19/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 99.0 % 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	<16.0	16.0	11/17/2014	ND	400	100	400	3.92	

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	11/17/2014	ND	190	95.2	200	0.694	
DRO >C10-C28	<10.0	10.0	11/17/2014	ND	191	95.5	200	0.179	

Surrogate: 1-Chlorooctane 113 % 47.2-157

Surrogate: 1-Chlorooctadecane 124 % 52.1-176

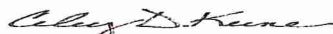
Sample ID: S-3 2' (H403524-09)

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	11/17/2014	ND	400	100	400	3.92	

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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: 11/14/2014
Reported: 11/20/2014
Project Name: TODD 26 SWD
Project Number: 700794.073.01
Project Location: DEVON F-26-23-31

Sampling Date: 11/14/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-4 0' (H403524-10)

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	3.62	2.00	11/19/2014	ND	1.79	89.3	2.00	5.43	
Toluene*	49.8	2.00	11/19/2014	ND	1.72	85.9	2.00	5.80	
Ethylbenzene*	21.8	2.00	11/19/2014	ND	1.67	83.4	2.00	6.56	
Total Xylenes*	92.0	6.00	11/19/2014	ND	5.01	83.6	6.00	6.86	
Total BTEX	167	12.0	11/19/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 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	11/17/2014	ND	400	100	400	3.92	

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	4250	50.0	11/17/2014	ND	190	95.2	200	0.694		
DRO >C10-C28	15800	50.0	11/17/2014	ND	191	95.5	200	0.179		

Surrogate: 1-Chlorooctane 300 % 47.2-157

Surrogate: 1-Chlorooctadecane 430 % 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: 11/14/2014
Reported: 11/20/2014
Project Name: TODD 26 SWD
Project Number: 700794.073.01
Project Location: DEVON F-26-23-31

Sampling Date: 11/14/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-4 1' (H403524-11)

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	11/19/2014	ND	1.79	89.3	2.00	5.43	
Toluene*	0.064	0.050	11/19/2014	ND	1.72	85.9	2.00	5.80	
Ethylbenzene*	<0.050	0.050	11/19/2014	ND	1.67	83.4	2.00	6.56	
Total Xylenes*	<0.150	0.150	11/19/2014	ND	5.01	83.6	6.00	6.86	
Total BTEX	<0.300	0.300	11/19/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 98.9 % 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	32.0	16.0	11/17/2014	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	13.4	10.0	11/17/2014	ND	190	95.2	200	0.694	
DRO >C10-C28	<10.0	10.0	11/17/2014	ND	191	95.5	200	0.179	

Surrogate: 1-Chlorooctane 117 % 47.2-157

Surrogate: 1-Chlorooctadecane 130 % 52.1-176

Sample ID: S-4 2' (H403524-12)

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	11/17/2014	ND	400	100	400	3.92	

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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: 11/14/2014
Reported: 11/20/2014
Project Name: TODD 26 SWD
Project Number: 700794.073.01
Project Location: DEVON F-26-23-31

Sampling Date: 11/14/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-5 0' (H403524-13)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	11/19/2014	ND	1.79	89.3	2.00	5.43	
Toluene*	10.1	0.500	11/19/2014	ND	1.72	85.9	2.00	5.80	
Ethylbenzene*	8.45	0.500	11/19/2014	ND	1.67	83.4	2.00	6.56	
Total Xylenes*	40.7	1.50	11/19/2014	ND	5.01	83.6	6.00	6.86	
Total BTEX	59.2	3.00	11/19/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 111 % 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	11/17/2014	ND	400	100	400	3.92	

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	1130	50.0	11/17/2014	ND	190	95.2	200	0.694		
DRO >C10-C28	4320	50.0	11/17/2014	ND	191	95.5	200	0.179		

Surrogate: 1-Chlorooctane 180 % 47.2-157

Surrogate: 1-Chlorooctadecane 176 % 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: 11/14/2014
Reported: 11/20/2014
Project Name: TODD 26 SWD
Project Number: 700794.073.01
Project Location: DEVON F-26-23-31

Sampling Date: 11/14/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-5 1' (H403524-14)

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	11/19/2014	ND	1.79	89.3	2.00	5.43	
Toluene*	<0.050	0.050	11/19/2014	ND	1.72	85.9	2.00	5.80	
Ethylbenzene*	<0.050	0.050	11/19/2014	ND	1.67	83.4	2.00	6.56	
Total Xylenes*	<0.150	0.150	11/19/2014	ND	5.01	83.6	6.00	6.86	
Total BTEX	<0.300	0.300	11/19/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 98.2 % 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	11/17/2014	ND	400	100	400	3.92	

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	11/17/2014	ND	190	95.2	200	0.694	
DRO >C10-C28	10.1	10.0	11/17/2014	ND	191	95.5	200	0.179	

Surrogate: 1-Chlorooctane 119 % 47.2-157

Surrogate: 1-Chlorooctadecane 132 % 52.1-176

Sample ID: S-5 2' (H403524-15)

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	11/17/2014	ND	400	100	400	3.92	

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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.
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

Company Name: Talon/LPE		P.O. #:		BILL TO		ANALYSIS REQUEST			
Project Manager: K. Wilson		Company: Talon/LPE							
Address: 408 W. Texas Ave.		Attn:							
City: Artesia		Address:							
Phone #: 575-746-8768		State: NM Zip: 88210							
Fax #: 575-746-8905		City:							
Project #:		State:							
Project Name: Todd #24		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				
11403504	5-1 0'	G	1	11/14/14	10:22	TPH	BTEX	Chlorides	
2	5-1 1'	G	1		10:24				
3	5-1 2'	G	1		10:26				
4	5-2 0'	G	1		10:30				
5	5-2 1'	G	1		10:32				
6	5-2 2'	G	1		10:34				
7	5-3 0'	G	1		10:40				
8	5-3 1'	G	1		10:42				
9	5-3 2'	G	1		10:44				
10	5-11 0'	G	1		10:57				
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Relinquished By: [Signature]		Date: 11/14/14		Received By: [Signature]		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:			
Time: 8:05		Date: 11/14/14		Time: 4:12		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #:			
Delivered By: (Circle One)		Sample Condition		CHECKED BY: [Signature]					
Sampler - UPS - Bus - Other:		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		[Signature]					
		Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>		[Signature]					
† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326									

Pg 1 of 2



Pg 2 of 2

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

Page 14 of 14