



December 18, 2014

Mr. Mike Bratcher
NMOCD District 2
811 S. 1st Street
Artesia, NM 88210

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

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

Subject: **Soil Assessment and Remediation Work Plan**
Devon Energy Corporation
Sand 7 Federal #1
API # 30-015-25901 – 2RP-2642

Dear Mr. Bratcher

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

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

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

December 3, 2014

Background Information

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

The Sand 7 Federal #1 is located approximately thirty-eight (38) miles southeast of Artesia, New Mexico. The legal location for the site is Unit letter K of Section 7, Township 18S, Range 31E in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.75989 North and -103.90954 West. See site plan in [Appendix I](#).

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

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 Kermit-Berino fine sands 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 greater than 100-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

On December 3, 2014 the hammer union on the recirculation pump malfunctioned causing a release of 7 barrels of mix fluids. The well was shut-in and the pump replaced. A vac truck was called to the location and recovered 2 barrels of fluid. The area affected was on location surrounding the transfer pump with a flow path that moved north along the lease road and west into the pasture. See site plan in [Appendix I](#).

Actions Taken

On December 5, 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.

December 15, 2014

[Table 1](#)

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	0'	2780	<16	15100	30100
Refusal	0.5'	14.6	<16	87.5	336
S-2	0'	2270	<16	10600	22800
	0.5'	147	<16	892	2700
S-3	0'	67.5	240	680	2990
	1'	0.419	<16	<10	<10
S-4	0'	1510	270	8470	16100
	1'	62.1	<16	287	762
	2'	35.3	<16	320	1140
S-5	0'	1710	<16	10900	20700
	1'	22.6	<16	278	893
Refusal	2'	1.41	<16	<10	170
S-6	0'	1900	<16	11100	20400
	1'	2.28	<16	<10	164
	2'	0.395	<16	<10	67.6
S-7	0'	2420	<16	13700	28900
	1'	169	<16	703	1840
	2'	1.67	<16	<10	100

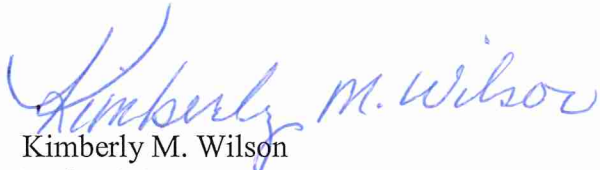
Based upon the site ranking of 0, NMOCD Recommended Remedial Action Levels (RRAL) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, 5,000 mg/kg for TPH. The chloride standard is considered to be 1,000 mg/kg.


Proposed Remedial Actions

- The impacted area in the vicinity of sample points S-1, S-3, S-5, S-6 and S-7 will be excavated to a depth of 0.5-feet deep. The impacted area in the vicinity of sample point S-2 will be excavated to depth of 1-foot deep. Field PID readings 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-4 and S-7 will be excavated to a depth of 1.5-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 and topsoil from Lea Land. The excavation will be re-contoured to match the surrounding location. The areas in the pasture will be seeded using the BLM LPC seed mix.
- 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

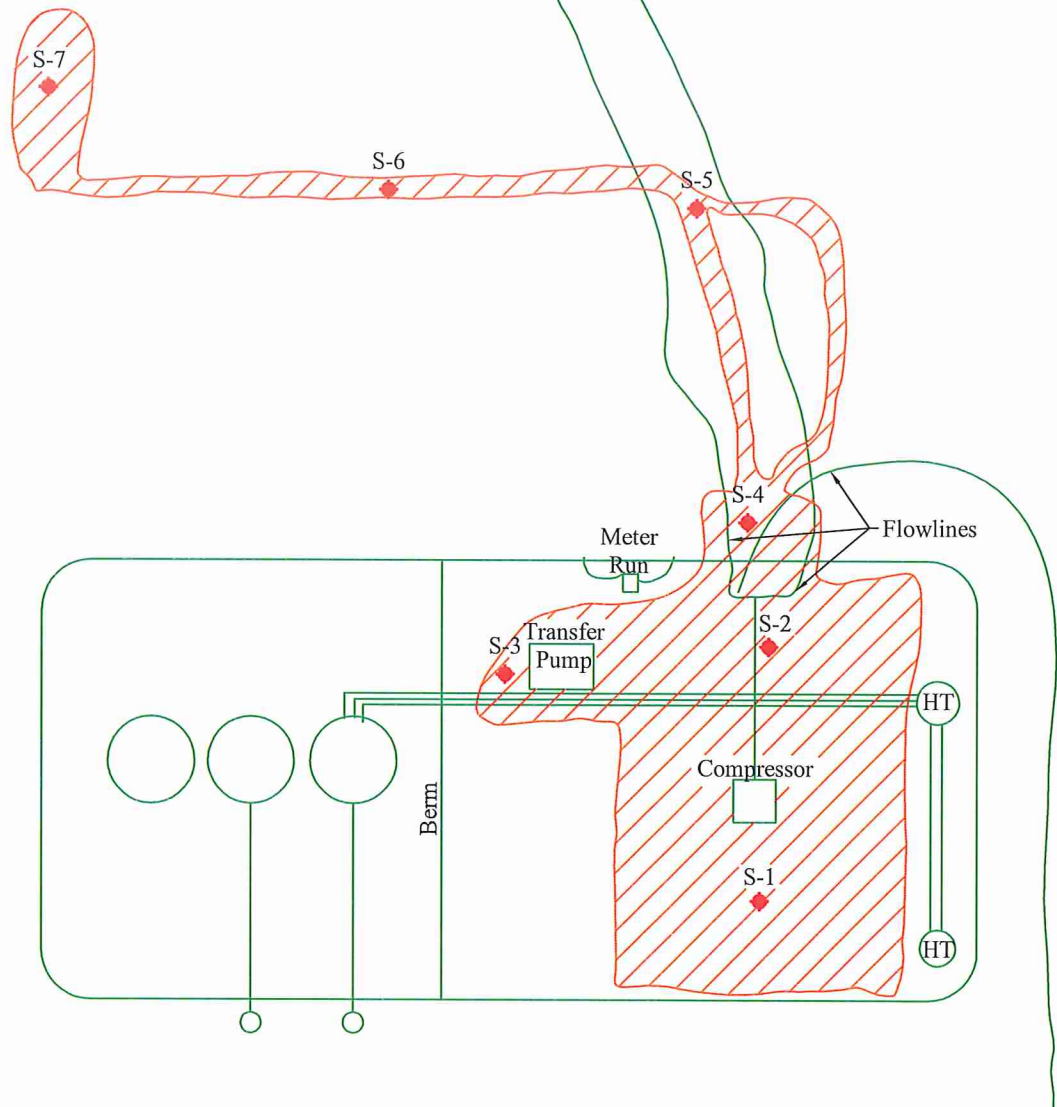
Respectfully submitted,


Kimberly M. Wilson
Project Manager


David J. Adkins
District Manager

APPENDIX I
SITE MAP

Lease Road



NTS



Scale in Feet

Legend

- ◆ - Sample Location
- ▨ - Impacted Area



Date: 12/11/2014

Scale: NTS

Drawn By: NTS

Sand 7 Fed #1
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
RA 11590 POD1			ED	2	1	3	32	17S	31E	603315	3628545	3954	158		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 601760

Northing (Y): 3624909

Radius: 4000

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

Form C-141
Revised August 8, 2011

DEC 04 2014
Submit copy to appropriate District Office in accordance with 19.15.29 NMAC.

RECEIVED

Release Notification and Corrective Action

NAME <u>NAB1433855615</u>		OPERATOR	<input checked="" type="checkbox"/> Initial Report <input type="checkbox"/> Final Report
Name of Company Devon Energy Production <u>6137</u>		Contact Rudy Zuniga, Production Foreman	
Address 6488 Seven Rivers Hwy Artesia, NM 88220		Telephone No. 575-390-5435	
Facility Name Sand 7 Fed 1		Facility Type Oil	
Surface Owner Federal		Mineral Owner Federal	API No. 30-015-25901

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	7	18S	31E	1980'	FSL	2121'	FWL	Eddy

Latitude: 32.75989

Longitude: -103.90954

NATURE OF RELEASE

Type of Release Spill	Volume of Release 7bbls	Volume Recovered 2bbls
Source of Release hammer union on recirculation pump	Date and Hour of Occurrence December 3, 2014 10:30 AM	Date and Hour of Discovery December 3, 2014 10:30 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jeff Robertson, BLM & Mike Bratcher, OCD	
By Whom? Rudy Zuniga, Production Foreman	Date and Hour December 3, 2014 11:20 AM	
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.*

On December 3, 2014 at 10:30am Lease Operator was transferring oil with the recirculation pump at the Sand 7 Fed 1 when he discovered the hammer union leaking releasing 7bbls of oil in pasture. When Lease Operator discovered the leak he immediately shut down the recirculation pump and notified the Assistant Production Foreman.

Describe Area Affected and Cleanup Action Taken.*

The area affected is approximately 2'x10' in the pasture area North of the Sand 7 Fed 1. Franco's Trucking was contacted and were able to recover 2bbls of oil from the spill by vac truck.

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: <u>Sheila Fisher</u>	OIL CONSERVATION DIVISION	
Printed Name: Sheila Fisher	Signed By <u>Mike Bratcher</u>	
Title: Field Admin Support	Approved by Environmental Specialist:	
E-mail Address: Sheila.Fisher@dm.com	Approval Date: <u>12/4/14</u>	Expiration Date: <u>N/A</u>
Date: <u>12/4/14</u> Phone: 575.748.1829	Conditions of Approval:	
	Remediation per O.C.D. Rules & Guidelines	
	Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 1/4/15

2RP-2642

APPENDIX III
LABORATORY RESULTS

December 15, 2014

KIMBERLY WILSON

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: SAND 7 FED. NO. 1

Enclosed are the results of analyses for samples received by the laboratory on 12/08/14 12:00.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

 Received: 12/08/2014
 Reported: 12/15/2014
 Project Name: SAND 7 FED. NO. 1
 Project Number: 700794.010.01
 Project Location: SEC.7 - T18S - R31E

 Sampling Date: 12/05/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S-1 0' (H403734-01)

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	319	10.0	12/11/2014	ND	2.06	103	2.00	0.335	
Toluene*	1260	10.0	12/11/2014	ND	2.03	101	2.00	0.553	
Ethylbenzene*	504	10.0	12/11/2014	ND	1.91	95.7	2.00	1.50	
Total Xylenes*	702	30.0	12/11/2014	ND	5.75	95.9	6.00	1.57	
Total BTX	2780	60.0	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	12/09/2014	ND	400	100	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	15100	100	12/09/2014	ND	205	102	200	0.0332		
DRO >C10-C28	30100	100	12/09/2014	ND	214	107	200	2.07		


Surrogate: 1-Chlorooctane 450 % 47.2-157

Surrogate: 1-Chlorooctadecane 768 % 52.1-176

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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 Reported: 12/15/2014
 Project Name: SAND 7 FED. NO. 1
 Project Number: 700794.010.01
 Project Location: SEC.7 - T18S - R31E

 Sampling Date: 12/05/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S-1 0.5' REFUSAL (H403734-02)

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.478	0.050	12/11/2014	ND	2.06	103	2.00	0.335	
Toluene*	2.76	0.050	12/11/2014	ND	2.03	101	2.00	0.553	
Ethylbenzene*	3.97	0.050	12/11/2014	ND	1.91	95.7	2.00	1.50	
Total Xylenes*	7.39	0.150	12/11/2014	ND	5.75	95.9	6.00	1.57	
Total BTX	14.6	0.300	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 131 % 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	12/09/2014	ND	400	100	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	87.5	10.0	12/09/2014	ND	205	102	200	0.0332	
DRO >C10-C28	336	10.0	12/09/2014	ND	214	107	200	2.07	

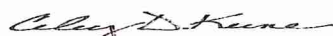
Surrogate: 1-Chlorooctane 125 % 47.2-157

Surrogate: 1-Chlorooctadecane 146 % 52.1-176

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 12/08/2014
Reported: 12/15/2014
Project Name: SAND 7 FED. NO. 1
Project Number: 700794.010.01
Project Location: SEC.7 - T18S - R31E

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-2 0' (H403734-03)

BTEx 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	182	10.0	12/11/2014	ND	2.06	103	2.00	0.335	
Toluene*	1040	10.0	12/11/2014	ND	2.03	101	2.00	0.553	
Ethylbenzene*	439	10.0	12/11/2014	ND	1.91	95.7	2.00	1.50	
Total Xylenes*	611	30.0	12/11/2014	ND	5.75	95.9	6.00	1.57	
Total BTEX	2270	60.0	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 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	12/09/2014	ND	400	100	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	10600	200	12/09/2014	ND	205	102	200	0.0332		
DRO >C10-C28	22800	200	12/09/2014	ND	214	107	200	2.07		

Surrogate: 1-Chlorooctane 339 % 47.2-157

Surrogate: 1-Chlorooctadecane 570 % 52.1-176

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*=Accredited Analyte

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Fax To: (575) 745-8905

Received: 12/08/2014
Reported: 12/15/2014
Project Name: SAND 7 FED. NO. 1
Project Number: 700794.010.01
Project Location: SEC.7 - T18S - R31E

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-2 0.5' REFUSAL (H403734-04)

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	6.46	0.500	12/11/2014	ND	2.06	103	2.00	0.335	
Toluene*	57.8	0.500	12/11/2014	ND	2.03	101	2.00	0.553	
Ethylbenzene*	33.0	0.500	12/11/2014	ND	1.91	95.7	2.00	1.50	
Total Xylenes*	49.5	1.50	12/11/2014	ND	5.75	95.9	6.00	1.57	
Total BTX	147	3.00	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 115 % 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	12/09/2014	ND	400	100	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	892	10.0	12/09/2014	ND	205	102	200	0.0332		
DRO >C10-C28	2700	10.0	12/09/2014	ND	214	107	200	2.07		

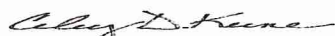
Surrogate: 1-Chlorooctane 169 % 47.2-157

Surrogate: 1-Chlorooctadecane 172 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Received: 12/08/2014
Reported: 12/15/2014
Project Name: SAND 7 FED. NO. 1
Project Number: 700794.010.01
Project Location: SEC.7 - T18S - R31E

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-3 0' (H403734-05)

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.569	0.500	12/11/2014	ND	2.06	103	2.00	0.335	
Toluene*	7.68	0.500	12/11/2014	ND	2.03	101	2.00	0.553	
Ethylbenzene*	18.2	0.500	12/11/2014	ND	1.91	95.7	2.00	1.50	
Total Xylenes*	41.0	1.50	12/11/2014	ND	5.75	95.9	6.00	1.57	
Total BTX	67.5	3.00	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 125 % 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	240	16.0	12/09/2014	ND	400	100	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	680	100	12/09/2014	ND	205	102	200	0.0332		
DRO >C10-C28	2990	100	12/09/2014	ND	214	107	200	2.07		

Surrogate: 1-Chlorooctane 108 % 47.2-157

Surrogate: 1-Chlorooctadecane 223 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 12/08/2014
Reported: 12/15/2014
Project Name: SAND 7 FED. NO. 1
Project Number: 700794.010.01
Project Location: SEC.7 - T18S - R31E

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-3 1' REFUSAL (H403734-06)

BTX 8021B			mg/kg		Analyzed By: CK				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.171	0.050	12/11/2014	ND	2.06	103	2.00	0.335	
Toluene*	0.186	0.050	12/11/2014	ND	2.03	101	2.00	0.553	
Ethylbenzene*	0.061	0.050	12/11/2014	ND	1.91	95.7	2.00	1.50	
Total Xylenes*	<0.150	0.150	12/11/2014	ND	5.75	95.9	6.00	1.57	
Total BTX	0.419	0.300	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 102 % 61-154

Chloride, SM4500CI-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	12/09/2014	ND	400	100	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	12/09/2014	ND	205	102	200	0.0332	
DRO >C10-C28	<10.0	10.0	12/09/2014	ND	214	107	200	2.07	

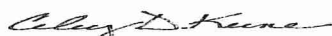
Surrogate: 1-Chlorooctane 105 % 47.2-157

Surrogate: 1-Chlorooctadecane 121 % 52.1-176

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Analytical Results For:

TALON LPE
KIMBERLY WILSON
408 W. TEXAS AVE.
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Fax To: (575) 745-8905

Received: 12/08/2014
Reported: 12/15/2014
Project Name: SAND 7 FED. NO. 1
Project Number: 700794.010.01
Project Location: SEC.7 - T18S - R31E

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-4 0' (H403734-07)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	176	5.00	12/11/2014	ND	2.06	103	2.00	0.335	
Toluene*	677	5.00	12/11/2014	ND	2.03	101	2.00	0.553	
Ethylbenzene*	273	5.00	12/11/2014	ND	1.91	95.7	2.00	1.50	
Total Xylenes*	383	15.0	12/11/2014	ND	5.75	95.9	6.00	1.57	
Total BTEX	1510	30.0	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 106 % 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	272	16.0	12/09/2014	ND	400	100	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	8470	100	12/09/2014	ND	205	102	200	0.0332		
DRO >C10-C28	16100	100	12/09/2014	ND	214	107	200	2.07		

Surrogate: 1-Chlorooctane 235 % 47.2-157

Surrogate: 1-Chlorooctadecane 402 % 52.1-176

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Analytical Results For:

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Received: 12/08/2014
Reported: 12/15/2014
Project Name: SAND 7 FED. NO. 1
Project Number: 700794.010.01
Project Location: SEC.7 - T18S - R31E

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-4 1' (H403734-08)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	1.87	0.200	12/11/2014	ND	2.06	103	2.00	0.335	
Toluene*	22.6	0.200	12/11/2014	ND	2.03	101	2.00	0.553	
Ethylbenzene*	15.0	0.200	12/11/2014	ND	1.91	95.7	2.00	1.50	
Total Xylenes*	22.7	0.600	12/11/2014	ND	5.75	95.9	6.00	1.57	
Total BTEX	62.1	1.20	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 118 % 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	12/09/2014	ND	400	100	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	287	10.0	12/09/2014	ND	205	102	200	0.0332	
DRO >C10-C28	762	10.0	12/09/2014	ND	214	107	200	2.07	


Surrogate: 1-Chlorooctane 124 % 47.2-157

Surrogate: 1-Chlorooctadecane 131 % 52.1-176

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Fax To: (575) 745-8905

Received: 12/08/2014
Reported: 12/15/2014
Project Name: SAND 7 FED. NO. 1
Project Number: 700794.010.01
Project Location: SEC.7 - T18S - R31E

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-4 2' (H403734-09)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.460	0.200	12/11/2014	ND	2.06	103	2.00	0.335	
Toluene*	9.51	0.200	12/11/2014	ND	2.03	101	2.00	0.553	
Ethylbenzene*	9.63	0.200	12/11/2014	ND	1.91	95.7	2.00	1.50	
Total Xylenes*	15.7	0.600	12/11/2014	ND	5.75	95.9	6.00	1.57	
Total BTEX	35.3	1.20	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 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	12/09/2014	ND	400	100	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	320	10.0	12/09/2014	ND	205	102	200	0.0332	
DRO >C10-C28	1140	10.0	12/09/2014	ND	214	107	200	2.07	

Surrogate: 1-Chlorooctane 137 % 47.2-157

Surrogate: 1-Chlorooctadecane 144 % 52.1-176

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Received: 12/08/2014
Reported: 12/15/2014
Project Name: SAND 7 FED. NO. 1
Project Number: 700794.010.01
Project Location: SEC.7 - T18S - R31E

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-5 0' (H403734-10)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	189	10.0	12/11/2014	ND	2.06	103	2.00	0.335	
Toluene*	768	10.0	12/11/2014	ND	2.03	101	2.00	0.553	
Ethylbenzene*	316	10.0	12/11/2014	ND	1.91	95.7	2.00	1.50	
Total Xylenes*	441	30.0	12/11/2014	ND	5.75	95.9	6.00	1.57	
Total BTEX	1710	60.0	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	12/09/2014	ND	400	100	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	10900	100	12/10/2014	ND	188	93.9	200	0.211		
DRO >C10-C28	20700	100	12/10/2014	ND	201	100	200	0.909		

Surrogate: 1-Chlorooctane 277 % 47.2-157

Surrogate: 1-Chlorooctadecane 335 % 52.1-176

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Fax To: (575) 745-8905

Received: 12/08/2014
Reported: 12/15/2014
Project Name: SAND 7 FED. NO. 1
Project Number: 700794.010.01
Project Location: SEC.7 - T18S - R31E

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-5 1' (H403734-11)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.637	0.200	12/11/2014	ND	2.06	103	2.00	0.335	
Toluene*	7.08	0.200	12/11/2014	ND	2.03	101	2.00	0.553	
Ethylbenzene*	5.82	0.200	12/11/2014	ND	1.91	95.7	2.00	1.50	
Total Xylenes*	9.09	0.600	12/11/2014	ND	5.75	95.9	6.00	1.57	
Total BTEX	22.6	1.20	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	12/09/2014	ND	400	100	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	278	10.0	12/10/2014	ND	188	93.9	200	0.211	
DRO >C10-C28	893	10.0	12/10/2014	ND	201	100	200	0.909	

Surrogate: 1-Chlorooctane 101 % 47.2-157

Surrogate: 1-Chlorooctadecane 89.3 % 52.1-176

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Analytical Results For:

TALON LPE
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Fax To: (575) 745-8905

Received: 12/08/2014
Reported: 12/15/2014
Project Name: SAND 7 FED. NO. 1
Project Number: 700794.010.01
Project Location: SEC.7 - T18S - R31E

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-5 2' REFUSAL (H403734-12)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.051	0.050	12/11/2014	ND	1.98	98.9	2.00	4.25	
Toluene*	0.241	0.050	12/11/2014	ND	1.97	98.7	2.00	4.01	
Ethylbenzene*	0.363	0.050	12/11/2014	ND	1.89	94.4	2.00	3.87	
Total Xylenes*	0.759	0.150	12/11/2014	ND	5.72	95.3	6.00	3.73	
Total BTEX	1.41	0.300	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	12/09/2014	ND	400	100	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	12/10/2014	ND	188	93.9	200	0.211	
DRO >C10-C28	170	10.0	12/10/2014	ND	201	100	200	0.909	


Surrogate: 1-Chlorooctane 85.5 % 47.2-157

Surrogate: 1-Chlorooctadecane 80.5 % 52.1-176

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Fax To: (575) 745-8905

Received: 12/08/2014
Reported: 12/15/2014
Project Name: SAND 7 FED. NO. 1
Project Number: 700794.010.01
Project Location: SEC.7 - T18S - R31E

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-6 0' (H403734-13)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	193	10.0	12/11/2014	ND	1.98	98.9	2.00	4.25	
Toluene*	869	10.0	12/11/2014	ND	1.97	98.7	2.00	4.01	
Ethylbenzene*	352	10.0	12/11/2014	ND	1.89	94.4	2.00	3.87	
Total Xylenes*	491	30.0	12/11/2014	ND	5.72	95.3	6.00	3.73	
Total BTEX	1900	60.0	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	12/09/2014	ND	400	100	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	11100	200	12/10/2014	ND	188	93.9	200	0.211		
DRO >C10-C28	20400	200	12/10/2014	ND	201	100	200	0.909		

Surrogate: 1-Chlorooctane 255 % 47.2-157

Surrogate: 1-Chlorooctadecane 503 % 52.1-176

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 Received: 12/08/2014
 Reported: 12/15/2014
 Project Name: SAND 7 FED. NO. 1
 Project Number: 700794.010.01
 Project Location: SEC.7 - T18S - R31E

 Sampling Date: 12/05/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S-6 1' (H403734-14)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.299	0.050	12/11/2014	ND	1.98	98.9	2.00	4.25	
Toluene*	0.589	0.050	12/11/2014	ND	1.97	98.7	2.00	4.01	
Ethylbenzene*	0.462	0.050	12/11/2014	ND	1.89	94.4	2.00	3.87	
Total Xylenes*	0.926	0.150	12/11/2014	ND	5.72	95.3	6.00	3.73	
Total BTEX	2.28	0.300	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	12/09/2014	ND	400	100	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	12/10/2014	ND	188	93.9	200	0.211	
DRO >C10-C28	164	10.0	12/10/2014	ND	201	100	200	0.909	

Surrogate: 1-Chlorooctane 93.3 % 47.2-157

Surrogate: 1-Chlorooctadecane 87.3 % 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
 KIMBERLY WILSON
 408 W. TEXAS AVE.
 ARTESIA NM, 88210
 Fax To: (575) 745-8905

 Received: 12/08/2014
 Reported: 12/15/2014
 Project Name: SAND 7 FED. NO. 1
 Project Number: 700794.010.01
 Project Location: SEC.7 - T18S - R31E

 Sampling Date: 12/05/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S-6 2' REFUSAL (H403734-15)

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2014	ND	1.98	98.9	2.00	4.25	
Toluene*	0.108	0.050	12/11/2014	ND	1.97	98.7	2.00	4.01	
Ethylbenzene*	0.097	0.050	12/11/2014	ND	1.89	94.4	2.00	3.87	
Total Xylenes*	0.189	0.150	12/11/2014	ND	5.72	95.3	6.00	3.73	
Total BTX	0.395	0.300	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 103 % 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	12/09/2014	ND	400	100	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	12/10/2014	ND	188	93.9	200	0.211	
DRO >C10-C28	67.6	10.0	12/10/2014	ND	201	100	200	0.909	

Surrogate: 1-Chlorooctane 84.9 % 47.2-157

Surrogate: 1-Chlorooctadecane 81.3 % 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
KIMBERLY WILSON
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received: 12/08/2014
Reported: 12/15/2014
Project Name: SAND 7 FED. NO. 1
Project Number: 700794.010.01
Project Location: SEC.7 - T18S - R31E

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-7 0' (H403734-16)

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	176	10.0	12/11/2014	ND	1.98	98.9	2.00	4.25	
Toluene*	1070	10.0	12/11/2014	ND	1.97	98.7	2.00	4.01	
Ethylbenzene*	484	10.0	12/11/2014	ND	1.89	94.4	2.00	3.87	
Total Xylenes*	689	30.0	12/11/2014	ND	5.72	95.3	6.00	3.73	
Total BTEX	2420	60.0	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 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	12/09/2014	ND	400	100	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	13700	200	12/10/2014	ND	188	93.9	200	0.211		
DRO >C10-C28	28900	200	12/10/2014	ND	201	100	200	0.909		

Surrogate: 1-Chlorooctane 290 % 47.2-157

Surrogate: 1-Chlorooctadecane 422 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 12/08/2014
Reported: 12/15/2014
Project Name: SAND 7 FED. NO. 1
Project Number: 700794.010.01
Project Location: SEC.7 - T18S - R31E

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-7 1' (H403734-17)

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	4.75	0.500	12/11/2014	ND	1.98	98.9	2.00	4.25	
Toluene*	65.2	0.500	12/11/2014	ND	1.97	98.7	2.00	4.01	
Ethylbenzene*	39.5	0.500	12/11/2014	ND	1.89	94.4	2.00	3.87	
Total Xylenes*	59.1	1.50	12/11/2014	ND	5.72	95.3	6.00	3.73	
Total BTEX	169	3.00	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 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	12/09/2014	ND	400	100	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	703	10.0	12/10/2014	ND	188	93.9	200	0.211	
DRO >C10-C28	1840	10.0	12/10/2014	ND	201	100	200	0.909	


Surrogate: 1-Chlorooctane 102 % 47.2-157

Surrogate: 1-Chlorooctadecane 88.7 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received: 12/08/2014
Reported: 12/15/2014
Project Name: SAND 7 FED. NO. 1
Project Number: 700794.010.01
Project Location: SEC.7 - T18S - R31E

Sampling Date: 12/05/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-7 2' (H403734-18)

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.054	0.050	12/11/2014	ND	1.98	98.9	2.00	4.25	
Toluene*	0.378	0.050	12/11/2014	ND	1.97	98.7	2.00	4.01	
Ethylbenzene*	0.433	0.050	12/11/2014	ND	1.89	94.4	2.00	3.87	
Total Xylenes*	0.810	0.150	12/11/2014	ND	5.72	95.3	6.00	3.73	
Total BTX	1.67	0.300	12/11/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 104 % 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	12/09/2014	ND	400	100	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	12/10/2014	ND	188	93.9	200	0.211	
DRO >C10-C28	100	10.0	12/10/2014	ND	201	100	200	0.909	

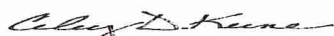
Surrogate: 1-Chlorooctane 87.2 % 47.2-157

Surrogate: 1-Chlorooctadecane 82.3 % 52.1-176

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*=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

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*—Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Sheldon Hitchcock

From: eticket@nm811.org
Sent: Monday, December 15, 2014 4:21 PM
To: Sheldon Hitchcock
Subject: DO NOT REPLY: Request 2014510660

New Mexico One Call

Locate Request Confirmation Header Code: STANDARD LOCATE

Request Type:

Ticket No: 2014510660 Seq. No: 0

Update of:

Original Call Date: 12/15/2014 Time: 04:18:15 PM OP: 240

Transmit Date: 12/15/2014 Time: 04:20:31 PM

Work to Begin Date: 12/17/2014 Time: 04:18:00 PM

Company: TALON LPE

Contact Name: SHELDON HITCHCOCK Contact Phone: (575)689-5198

Alternate Contact: KIMBERLY WILSON Alternate Phone: (575)602-3826

Best Time to Call: Fax No:

Cell Phone: Pager No:

Email: slhitchcock@talonlpe.com

State: NM County: EDDY City: RURAL EDDY

Address: , SAND 7 FED #1

To Address:

Nearest Intersecting Street:

2nd Intersecting Street:

Subdivision:

Latitude: 32.75988200 Longitude: -103.90950500

Zip Code:

Grid:

Location of Work: W1412151558070 FROM US-82 & CR-222, DRIVE S ON 222
FOR 2.8MI, R ON LEASE RD, CONT ON MAIN LEASE RD
FOR 1.33MI, TRN L, GO 0.2MI R, GO 0.2MI L, GO
0.53MI R, GO 0.17MI TURN R TO LOCATION. SPOT
BATTERY AND NNW OF BATTERY FOR 200-FEET.

Remarks: MARKED IN WHITE LAT:32.75989 LONG:-103.90954

Type of Work: SOIL SAMPLING

Private Property: Street: Overhead Lines: Blasting:

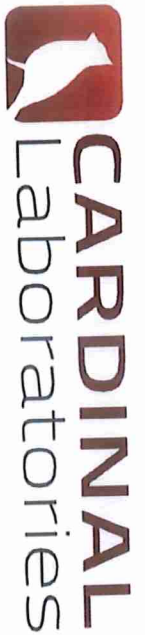
Easement: Mechanical Boring: Premarked: Y

Work Being Done For: DEVON ENERGY

The following utility owners have been notified:

NAVA PENA LIN FFS TW07

DEVN



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: Talon/LPE

Project Manager: K. Wilson

Address: 408 W. Texas Ave.

City: Artesia State: NM Zip: 88210

Phone #: 575-746-8768 Fax #: 575-746-8905

Project #: Project Owner: Devon

Project Name: Sand 7 Fed #1

Project Location:

Sampler Name: S. Hitchcock

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

#403734

5-1 0' ncfusa

5-1 0.5' ncfusa

5-2 0' ncfusa

5-2 0.5' ncfusa

5-3 0' ncfusa

5-3 1' ncfusa

5-4 0' ncfusa

5-4 1' ncfusa

5-4 2' ncfusa

5-5 0' ncfusa

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

12/5/14 9:34

9:43

9:46

9:49

9:51

10:25

10:27

10:31

10:34

TPH

BTEX

Chlorides

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Relinquished By:

Date:

Received By:

Date:

Time:

Relinquished By:

Date:

Time:

Relinquished By:

Time:

Relinquished By:

Date:

Received By:

Date:

Time:

Relinquished By:

Date:

Time:

Relinquished By:

Time:

Relinquished By:

Date:

Received By:

Date:

Time:

Relinquished By:

Date:

Time:

Relinquished By:

Time:

Relinquished By:

Date:

Received By:

Date:

Time:

Relinquished By:

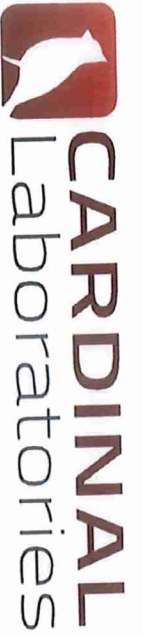
Date:

Time:

Relinquished By:

Time:

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Company Name: Talon/LPE

Project Manager: K. Wilson

Address: 408 W. Texas Ave.

City: Artesia

Phone #: 575-746-8768

Project #:

Project Name: Sand 7 Fed #1

Project Location:

Sampler Name: S. Hitchcock

P.O. #:

Company: Talon/LPE

Attn:

Address:

City:

State:

Phone #:

Fax #:

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	ANALYSIS REQUEST									
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			TPH	BTEX	Chlorides							
11	5-5-1'	G-1	1							2/5/14	10:36	/	/	/							
12	5-5-2' PCFUSA	G-1	1								10:40	/	/	/							
13	5-6-0'	G-1	1								10:42	/	/	/							
14	5-6-1'	G-1	1								10:43	/	/	/							
15	5-6-2' PCFUSA	G-1	1								10:45	/	/	/							
16	5-7-0'	G-1	1								10:50	/	/	/							
17	5-7-1'	G-1	1								10:52	/	/	/							
18	5-7-2'	G-1	1								10:57	/	/	/							

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Relinquished By:

Date:

Received By:

Phone Result:

Yes

No

Add'l Phone #:

Add'l Fax #:

Relinquished By:

Date:

Received By:

Phone Result:

Yes

No

Add'l Phone #:

Add'l Fax #:

Delivered By: (Circle One)

Date:

Received By:

Phone Result:

Yes

No

Add'l Phone #:

Add'l Fax #:

Sampler - UPS - Bus - Other:

Date:

Received By:

Phone Result:

Yes

No

Add'l Phone #:

Add'l Fax #:

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