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ENVIRONMENTAL CONSULTING
ENGINEERING
DRILLING
CONSTRUCTION
SPILL MANAGEMENT
GENERAL CONTRACTING

Toll Free: 866.742.0742
www.talonlpe.com

June 18, 2014

Mr. Tomas Oberding
NMOCD District I
1625 N. French Dr.
Hobbs, NM 88240

Subject: **Soil Assessment and Remediation Work Plan**
Devon Energy
Mad Dog 15 Federal No. 1
API #: 30-025-36778

Dear Mr. Oberding:

Devon Energy 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

February 14, 2014

Background Information

The Mad Dog 15 Federal No. 1 is located approximately thirty-four (34) miles west of Jal in Lea County, New Mexico. The legal location for this site is Section 15, Township 23 South, and Range 34 East. More specifically the latitude and longitude for the release point are 32.303128 North and - 103.45488 West. A site plan is presented 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 Berino-Cacique fine sandy loams with 0 to 3 percent slopes. The local surface and shallow geology, Quaternary Age sedimentary deposits, is comprised of sandy eolian deposits derived from sedimentary rock over calcareous sandy alluvium derived from sedimentary rock. Drainage courses in this area are normally dry. According to the New Mexico State Engineer web site indicates the nearest ground water data to be in S3-T23S-R24E. The ground water in Section 3 is reported to be a depth of 318' below ground surface (bgs). See Appendix II for the referenced groundwater data.

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

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

Incident Description

A water transfer line from the Mad Dog 15 Federal Com No. 1 was found to be leaking. Approximately 80 barrels of produced water was released off the east side of Adobe Road into the drainage ditch. The affected area measured approximately 3-4 feet wide by 900-feet long. No fluids were recovered. Talon mobilized personnel to conduct soil sampling along the flow path on February 17, 2014. The results of these sampling activities are summarized in the table below.

Laboratory Results

See Appendix III for complete report of laboratory results.

February 27, 2014

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
BG-1	0.25'	--	48	--	--
	0.5'	--	64	--	--
S-1	0'	1.66	16000	54.3	267
	0.5'	<0.300	6400	11.8	38.9
S-2	0'	<0.300	19200	<10	<10
	0.25'	<0.300	4000	<10	11.5
	0.5'	<0.300	5280	<10	26.6
S-3	0'	3.27	27600	28	113
	0.25'	2.90	10000	24.5	92.7

--Analyte Not Tested

On June 6, 2014 Talon personnel returned to the site to obtain deeper vertical delineation samples from the worst case scenario locations (S-1 and S-3). The backhoe hit refusal due to the rocky shelf in the area at 4-feet below land surface. The analytical results from this sampling event are presented below.

May 12, 2014

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	1'	--	3680	--	--
	2'	--	4000	--	--
	3'	--	272	--	--
	4'	--	160	--	--
S-3	1'	--	2520	--	--
	2'	--	2880	--	--
	3'	--	32	--	--
	4'	--	<16	--	--

--Analyte Not Tested

Based upon the site ranking of 0, NMOCD Recommended Remedial Action Levels (RRAL's) are 50 mg/kg for BTEX, 10 mg for Benzene, and 5,000 mg/kg for TPH. The chloride remediation standard to be 1,000 mg/kg based upon a water table depth greater than 100-feet deep.

Proposed Remedial Actions

- The impacted area in the drainage ditch will be excavated to and depth of 2.5-feet deep. All the contaminated soil will be transported to an approved disposal facility.
- The excavation will then be backfilled with new topsoil and contoured to match the surrounding terrain.

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,



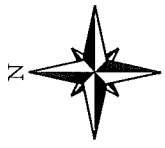
Kimberly M. Wilson
Project Manager



David J. Adkins
District Manager

APPENDIX I

SITE MAP



NTS



Scale in Feet

Legend

◆ - Sample Location

BG

Release
Point

Culvert

S-1

S-2

S-3

Storm Water
Drainage Swale

Adobe Road

Adobe Road



Date: 06/18/2014

Scale: NTS

Drawn By: TJS

Maddog 15 Fed #1
Devon Energy Corporation
Lea County, New Mexico
Figure 1 - Site Plan

APPENDIX II
GROUNDWATER DATA
INITIAL C-141

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

Form C-141
Revised August 8, 2011

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

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Devon Energy	Contact	Kenny Kidd
Address	PO Box 250, Artesia, NM 88211	Telephone No.	575-748-3371
Facility Name	Mad Dog 15 Federal Com #1	Facility Type	Oil Well

Surface Owner	Mineral Owner	API No.	30-025-36778
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	15	23S	34E	660	South	660	East	LEA

Latitude: 32.7271300239255 Longitude: 103.909386055786

NATURE OF RELEASE

Type of Release	Spill	Volume of Release	80 bbls	Volume Recovered	0
Source of Release	Water transfer line leak	Date and Hour of Occurrence	2/14/14, 8:15 AM	Date and Hour of Discovery	2/14/14, 8:15 AM
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?			
By Whom?		Date and Hour			
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

At the Mad Dog 15 -1, Lease Operator found an 80 barrel water leak on water transfer line.

Describe Area Affected and Cleanup Action Taken.*

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.

		<u>OIL CONSERVATION DIVISION</u>	
Signature: <i>Shammy Ingram</i>		Approved by Environmental Specialist:	
Printed Name: Shammy Ingram			
Title: Field Admin. Support		Approval Date:	Expiration Date:
E-mail Address: Shammy.Ingram@dvn.com		Conditions of Approval:	
Date: 2/17/2014 Phone: 575-748-0174		Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary



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
CP 01120 POD1			LE	2	3	3	14	23S	34E	646366	3574753	514	397	318	79
CP 00637			LE	3	3	4	15	23S	34E	645293	3574541*	602	430	430	0
CP 00606			LE		4	1	23	23S	34E	646613	3573854*	997	650	265	385
CP 00618			LE	1	2	4	22	23S	34E	645713	3573539*	1023	428	295	133
CP 01258 POD1			LE	1	4	3	22	23S	34E	645015	3573221	1590	25		
CP 00580			LE	3	4	3	23	23S	34E	646524	3572948*	1717	220		
CP 01258 POD2			LE	1	4	3	22	23S	34E	644941	3572883	1916	65		
CP 01258 POD3			LE	1	4	3	22	23S	34E	644941	3572883	1916	25		

Average Depth to Water: **327 feet**

Minimum Depth: **265 feet**

Maximum Depth: **430 feet**

Record Count: 8

UTMNAD83 Radius Search (in meters):

Easting (X): 645895

Northing (Y): 3574546

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.

APPENDIX III
LABORATORY RESULTS



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 27, 2014

KIMBERLY WILSON

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: MAD DOG 15 FED COM #1

Enclosed are the results of analyses for samples received by the laboratory on 02/18/14 14:50.

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:	02/18/2014	Sampling Date:	02/17/2014
Reported:	02/27/2014	Sampling Type:	Soil
Project Name:	MAD DOG 15 FED COM #1	Sampling Condition:	Cool & Intact
Project Number:	700794.0	Sample Received By:	Jodi Henson
Project Location:	P -15 - 23 -34		

Sample ID: BG-1 0.25' (H400492-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/23/2014	ND	416	104	400	3.92	

Sample ID: BG-1 0.5' (H400492-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/23/2014	ND	416	104	400	3.92	

Sample ID: S-1 0' (H400492-03)

BTX 8260B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2014	ND	1.99	99.7	2.00	0.204	
Toluene*	0.088	0.050	02/26/2014	ND	2.07	103	2.00	3.76	
Ethylbenzene*	0.063	0.050	02/26/2014	ND	1.92	96.2	2.00	2.22	
Total Xylenes*	1.51	0.150	02/26/2014	ND	5.86	97.7	6.00	2.99	
Total BTX	1.66	0.300	02/26/2014	ND					

Surrogate: Dibromofluoromethane 97.8 % 61.3-142

Surrogate: Toluene-d8 103 % 71.3-129

Surrogate: 4-Bromofluorobenzene 132 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16000	16.0	02/23/2014	ND	416	104	400	3.92	

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: 02/18/2014
Reported: 02/27/2014
Project Name: MAD DOG 15 FED COM #1
Project Number: 700794.0
Project Location: P -15 - 23 -34

Sampling Date: 02/17/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

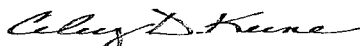
Sample ID: S-1 0' (H400492-03)

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	54.3	10.0	02/22/2014	ND	212	106	200	3.59	
DRO >C10-C28	267	10.0	02/22/2014	ND	208	104	200	3.19	
<hr/>									
Surrogate: 1-Chlorooctane	105 %	65.2-140							
Surrogate: 1-Chlorooctadecane	109 %	63.6-154							

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Celey D. Keene, Lab Director/Quality Manager

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

Received:	02/18/2014	Sampling Date:	02/17/2014
Reported:	02/27/2014	Sampling Type:	Soil
Project Name:	MAD DOG 15 FED COM #1	Sampling Condition:	Cool & Intact
Project Number:	700794.0	Sample Received By:	Jodi Henson
Project Location:	P -15 - 23 -34		

Sample ID: S-1 0.5' (H400492-04)

BTEX 8260B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
-Benzene*	<0.050	0.050	02/26/2014	ND	1.99	99.7	2.00	0.204	
Toluene*	<0.050	0.050	02/26/2014	ND	2.07	103	2.00	3.76	
Ethylbenzene*	<0.050	0.050	02/26/2014	ND	1.92	96.2	2.00	2.22	
Total Xylenes*	<0.150	0.150	02/26/2014	ND	5.86	97.7	6.00	2.99	
Total BTEX	<0.300	0.300	02/26/2014	ND					

Surrogate: Dibromofluoromethane 95.3 % 61.3-142

Surrogate: Toluene-d8 102 % 71.3-129

Surrogate: 4-Bromofluorobenzene 102 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6400	16.0	02/23/2014	ND	416	104	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	11.8	10.0	02/24/2014	ND	188	93.9	200	5.40	
DRO >C10-C28	38.9	10.0	02/24/2014	ND	183	91.3	200	4.69	

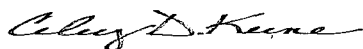
Surrogate: 1-Chlorooctane 91.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 99.7 % 63.6-154

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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: 02/18/2014
Reported: 02/27/2014
Project Name: MAD DOG 15 FED COM #1
Project Number: 700794.0
Project Location: P -15 - 23 -34

Sampling Date: 02/17/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-2 0' (H400492-05)

BTX 8260B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2014	ND	1.81	90.6	2.00	4.38	
Toluene*	<0.050	0.050	02/26/2014	ND	1.87	93.3	2.00	5.57	
Ethylbenzene*	<0.050	0.050	02/26/2014	ND	1.73	86.4	2.00	4.47	
Total Xylenes*	<0.150	0.150	02/26/2014	ND	5.19	86.5	6.00	4.68	
Total BTX	<0.300	0.300	02/26/2014	ND					

Surrogate: Dibromofluoromethane 94.5 % 61.3-142

Surrogate: Toluene-d8 98.6 % 71.3-129

Surrogate: 4-Bromofluorobenzene 103 % 65.7-141

Chloride, SM4500Cl-B			mg/kg		Analyzed By: CK				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16000	16.0	02/23/2014	ND	416	104	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	02/24/2014	ND	188	93.9	200	5.40	
DRO >C10-C28	65.2	10.0	02/24/2014	ND	183	91.3	200	4.69	

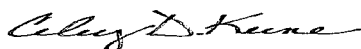
Surrogate: 1-Chlorooctane 97.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 105 % 63.6-154

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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: 02/18/2014
Reported: 02/27/2014
Project Name: MAD DOG 15 FED COM #1
Project Number: 700794.0
Project Location: P -15 - 23 -34

Sampling Date: 02/17/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S-2 0.25' (H400492-06)

BTX 8260B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2014	ND	1.81	90.6	2.00	4.38	
Toluene*	<0.050	0.050	02/26/2014	ND	1.87	93.3	2.00	5.57	
Ethylbenzene*	<0.050	0.050	02/26/2014	ND	1.73	86.4	2.00	4.47	
Total Xylenes*	<0.150	0.150	02/26/2014	ND	5.19	86.5	6.00	4.68	
Total BTX	<0.300	0.300	02/26/2014	ND					

Surrogate: Dibromofluoromethane 98.6 % 61.3-142

Surrogate: Toluene-d8 102 % 71.3-129

Surrogate: 4-Bromofluorobenzene 104 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4000	16.0	02/23/2014	ND	416	104	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	02/24/2014	ND	188	93.9	200	5.40	
DRO >C10-C28	11.5	10.0	02/24/2014	ND	183	91.3	200	4.69	

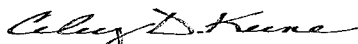
Surrogate: 1-Chlorooctane 102 % 65.2-140

Surrogate: 1-Chlorooctadecane 110 % 63.6-154

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:	02/18/2014	Sampling Date:	02/17/2014
Reported:	02/27/2014	Sampling Type:	Soil
Project Name:	MAD DOG 15 FED COM #1	Sampling Condition:	Cool & Intact
Project Number:	700794.0	Sample Received By:	Jodi Henson
Project Location:	P -15 - 23 -34		

Sample ID: S-2 0.5' (H400492-07)

BTX 8260B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2014	ND	1.81	90.6	2.00	4.38	
Toluene*	<0.050	0.050	02/26/2014	ND	1.87	93.3	2.00	5.57	
Ethylbenzene*	<0.050	0.050	02/26/2014	ND	1.73	86.4	2.00	4.47	
Total Xylenes*	<0.150	0.150	02/26/2014	ND	5.19	86.5	6.00	4.68	
Total BTX	<0.300	0.300	02/26/2014	ND					

Surrogate: Dibromofluoromethane 95.0 % 61.3-142

Surrogate: Toluene-d8 103 % 71.3-129

Surrogate: 4-Bromofluorobenzene 104 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5280	16.0	02/23/2014	ND	416	104	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	02/24/2014	ND	188	93.9	200	5.40	
DRO >C10-C28	26.6	10.0	02/24/2014	ND	183	91.3	200	4.69	

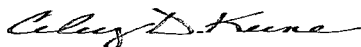
Surrogate: 1-Chlorooctane 100 % 65.2-140

Surrogate: 1-Chlorooctadecane 106 % 63.6-154

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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:	02/18/2014	Sampling Date:	02/17/2014
Reported:	02/27/2014	Sampling Type:	Soil
Project Name:	MAD DOG 15 FED COM #1	Sampling Condition:	Cool & Intact
Project Number:	700794.0	Sample Received By:	Jodi Henson
Project Location:	P -15 - 23 -34		

Sample ID: S-3 0' (H400492-08)

BTX 8260B		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	02/26/2014	ND	1.81	90.6	2.00	4.38	
Toluene*	0.183	0.050	02/26/2014	ND	1.87	93.3	2.00	5.57	
Ethylbenzene*	0.119	0.050	02/26/2014	ND	1.73	86.4	2.00	4.47	
Total Xylenes*	2.97	0.150	02/26/2014	ND	5.19	86.5	6.00	4.68	
Total BTX	3.27	0.300	02/26/2014	ND					

Surrogate: Dibromofluoromethane 97.9 % 61.3-142

Surrogate: Toluene-d8 109 % 71.3-129

Surrogate: 4-Bromofluorobenzene 206 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	27600	16.0	02/23/2014	ND	416	104	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	28.0	10.0	02/24/2014	ND	188	93.9	200	5.40	
DRO >C10-C28	113	10.0	02/24/2014	ND	183	91.3	200	4.69	

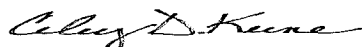
Surrogate: 1-Chlorooctane 98.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 108 % 63.6-154

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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:	02/18/2014	Sampling Date:	02/17/2014
Reported:	02/27/2014	Sampling Type:	Soil
Project Name:	MAD DOG 15 FED COM #1	Sampling Condition:	Cool & Intact
Project Number:	700794.0	Sample Received By:	Jodi Henson
Project Location:	P -15 - 23 -34		

Sample ID: S-3 0.25' (H400492-09)

BTEX 8260B			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	02/26/2014	ND	1.81	90.6	2.00	4.38			
Toluene*	0.180	0.050	02/26/2014	ND	1.87	93.3	2.00	5.57			
Ethylbenzene*	0.109	0.050	02/26/2014	ND	1.73	86.4	2.00	4.47			
Total Xylenes*	2.61	0.150	02/26/2014	ND	5.19	86.5	6.00	4.68			
Total BTEX	2.90	0.300	02/26/2014	ND							

Surrogate: Dibromofluoromethane 97.0 % 61.3-142

Surrogate: Toluene-d8 105 % 71.3-129

Surrogate: 4-Bromofluorobenzene 181 % 65.7-141

Chloride, SM4500Cl-B			mg/kg					Analyzed By: CK			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	10000	16.0	02/23/2014	ND	416	104	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	24.5	10.0	02/24/2014	ND	188	93.9	200	5.40			
DRO >C10-C28	92.7	10.0	02/24/2014	ND	183	91.3	200	4.69			

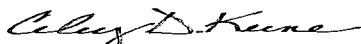
Surrogate: 1-Chlorooctane 99.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 108 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

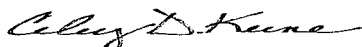
Notes and Definitions

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

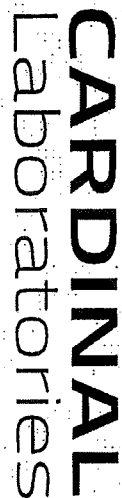
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Celey D. Keene, Lab Director/Quality Manager



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ANALYSIS REQUEST

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PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

June 17, 2014

KIMBERLY WILSON

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: MAD DOG 15 FED COM #1

Enclosed are the results of analyses for samples received by the laboratory on 06/10/14 8:35.

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,

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:	06/10/2014	Sampling Date:	06/06/2014
Reported:	06/17/2014	Sampling Type:	Soil
Project Name:	MAD DOG 15 FED COM #1	Sampling Condition:	Cool & Intact
Project Number:	700794096.01	Sample Received By:	Jodi Henson
Project Location:	P -15 - 23 -34		

Sample ID: S-1 1' (H401750-01)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3680	16.0	06/16/2014	ND	416	104	400	3.77	

Sample ID: S-1 2' (H401750-02)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4000	16.0	06/16/2014	ND	416	104	400	3.77	

Sample ID: S-1 3' (H401750-03)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	06/16/2014	ND	416	104	400	3.77	

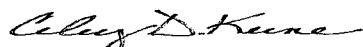
Sample ID: S-1 4' (H401750-04)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	06/16/2014	ND	416	104	400	3.77	

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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:	06/10/2014	Sampling Date:	06/06/2014
Reported:	06/17/2014	Sampling Type:	Soil
Project Name:	MAD DOG 15 FED COM #1	Sampling Condition:	Cool & Intact
Project Number:	700794096.01	Sample Received By:	Jodi Henson
Project Location:	P -15 - 23 -34		

Sample ID: S-3 1' (H401750-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2520	16.0	06/16/2014	ND	416	104	400	3.77	

Sample ID: S-3 2' (H401750-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2880	16.0	06/16/2014	ND	416	104	400	3.77	

Sample ID: S-3 3' (H401750-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/16/2014	ND	416	104	400	3.77	

Sample ID: S-3 4' (H401750-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	06/16/2014	ND	416	104	400	3.77	

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Celey D. Keene, Lab Director/Quality Manager

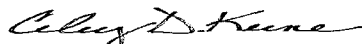
Notes and Definitions

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

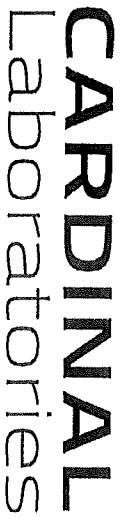
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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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