



August 14, 2015

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

Matt Nettles  
Brett Fulks  
**Devon Energy Corporation**  
6488 Seven Rivers Highway  
Artesia, New Mexico 88210

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  
Cotton Draw Unit #153  
30-015-38535

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

Dear Mr. Nettles,

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.

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

#### **Incident Date**

The date of release was July 19, 2015

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

#### **Background Information**

The Cotton Draw Unit #153 is located approximately forty-five (45) miles southeast of Carlsbad, New Mexico. The legal location for this site is Unit Letter B, Section 3, Township 25 South, and Range 31 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.166176° North and -103.763611° West. See the 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 the Berino complex with 0 to 3 percent slopes, eroded. Drainage courses in this area are normally dry. Ground water in the project vicinity is approximately greater than 100' according to the Chevron Texaco Water Trend map. No groundwater data is provided by the New Mexico Office of the State Engineers office. See [Appendix II](#).

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 July 19, 2015 the suction lines in the circulation pumps were not closed which caused a release of 40 barrels of oil on the Cotton Draw #153 location. A vac truck was immediately called to the location and recovered 35 barrels of oil. All the oil stayed on location. See the site plan and pictures in [Appendix I](#).

## Actions Taken

On July 21, 2015 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 from 0.5-feet to 4-feet below ground surface. Laboratory results from the soil sampling event are summarized in the table below. [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.

July 29, 2015				Table 1	
Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	0'	2700	928	40700	131000
	0.5'	654	1580	9120	17700
S-2	0'	840	5520	11500	28800
	1'	<0.300	2520	10.4	157
	2'	<0.300	3840	<10	42.4
	3'	<0.300	3120	<10	64.6
	4'	<0.300	5920	<10	26.6
S-3	0'	105	432	2220	48900
	1'	0.510	128	<10	96.7
	2'	<0.300	464	<10	21.4
	3'	<0.300	1060	<10	<10
	4'	<0.300	2920	<10	<10
S-4	0'	253	32	4280	18500
	1'	<0.300	16	<10	<10
	2'	<0.300	32	<10	81.8
	3'	<0.300	64	<10	<10
	4'	<0.300	224	<10	<10

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

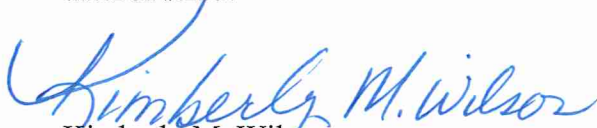
### **Proposed Remedial Actions**


- The impacted areas will be scraped 0.5-feet deep and treated with both high nitrogen fertilizer and mircoblaze as bioremediation agents. Confirmation samples will be collected after 60 to 90 days to verify effectiveness of treatment. Multiple applications may be needed depending on the analytical results.
- All contaminated soil will be transported to Lea Land, LLC disposal facility.
- It appears that the chlorides on location are historical so therefore on behalf of Devon Energy, we respectfully request that the chloride impact on the location be remediated upon the closure of the facility.
- Upon NMOCD approval of the confirmation samples, the excavated areas will be backfilled with new caliche. Once the backfill activities are complete the work areas will be compacted, 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,

TALON/LPE

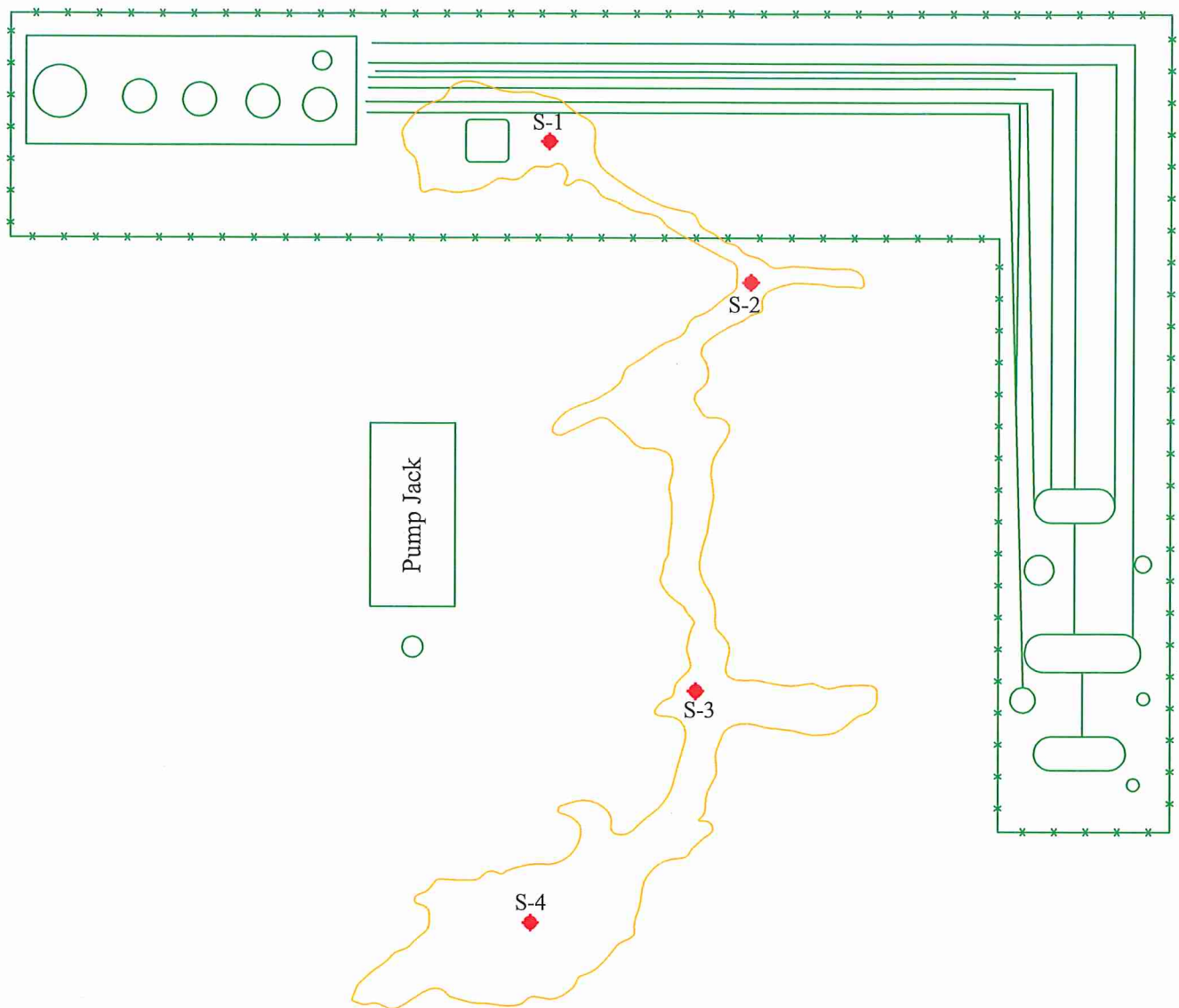
  
Kimberly M. Wilson  
Project Manager

  
David J. Adkins  
District Manager



## **APPENDIX I**

### **SITE MAP**





NTS  
Scale in Feet

Legend	
	- Sample Location
	- Impacted Area



Date: 08/14/2015

Scale: NTS

Drawn By: TJS

Cotton Draw #153  
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
<a href="#">C 02572</a>			ED	4	2	2	02	25S	31E	618695	3559294*	282	852		
<a href="#">C 02571</a>			ED	4	1	2	02	25S	31E	618292	3559294*	284	860		
<a href="#">C 02574</a>			ED	1	1	2	02	25S	31E	618092	3559494*	403			
<a href="#">C 02573</a>			ED	1	4	2	02	25S	31E	618499	3559091*	403			
<a href="#">C 02569</a>			ED	4	4	2	02	25S	31E	618699	3558891*	636	1016		
<a href="#">C 02568</a>			ED	4	3	1	01	25S	31E	619103	3558892*	855	1025		
<a href="#">C 02570</a>			ED	4	2	4	02	25S	31E	618704	3558489*	1026	895		
<a href="#">C 03830 POD1</a>		CUB	ED	4	2	4	02	25S	31E	618632	3558432	1069	450		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 8

UTMNAD83 Radius Search (in meters):

Easting (X): 618495

Northing (Y): 3559494

Radius: 5000

\*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

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 Production	Contact	Garry Michael
Address	6488 Seven Rivers Hwy Artesia, NM 88220	Telephone No.	575-513-4895
Facility Name	Cotton Draw Unit 153H	Facility Type	Oil
Surface Owner	Federal	Mineral Owner	Federal
		API No.	30-015-38535

### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	3	25 S	31 E	200	North	1980	East	Eddy

Latitude: N 32°16'62.16"

Longitude: W 103°76'35.73"

### NATURE OF RELEASE

Type of Release Spill Oil	Volume of Release 40 bbls	Volume Recovered 35 bbls
Source of Release Suction Lines in the circulating pump where not closed	Date and Hour of Occurrence 7.19.2015 @ 4:00 AM	Date and Hour of Discovery 7.19.2015 @ 4:00 AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jim Amos BLM Mike Bratcher OCD	
By Whom? Eduardo Enriquez	Date and Hour 7.19.2015 @ 4:56 AM 7.19.2015 @ 4:58 AM	
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.\*

On July 19, 2015 Pace Energy Lease Operator was driving by the Cotton Draw Unit 153 H at 4:00 AM when he noticed fluid on location. The fluid was coming from the suction lines in-the circulating pump, Lease Operator proceeded to close the valves to stop the spill.

Describe Area Affected and Cleanup Action Taken.\*

Horizon trucking was called to recover 35 bbls. Further documentation to follow.

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: <i>Corina Moya</i>	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: Corina Moya	Approved by Environmental Specialist:		
Title: Field Admin Support	Approval Date:	Expiration Date:	
E-mail Address: corina.moya@dmv.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 7.20.2015	Phone: 575.746.5559		

\* Attach Additional Sheets If Necessary

**APPENDIX III**  
**LABORATORY RESULTS**



July 29, 2015

KIMBERLY WILSON

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: COTTON DRAW #153

Enclosed are the results of analyses for samples received by the laboratory on 07/22/15 14:04.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 07/22/2015  
Reported: 07/29/2015  
Project Name: COTTON DRAW #153  
Project Number: 70079416201  
Project Location: SEC 3, T25S, R31E

Sampling Date: 07/21/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Judy Garcia

**Sample ID: S-1 0' (H501910-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>242</b>	20.0	07/27/2015	ND	2.03	102	2.00	8.11	
<b>Toluene*</b>	<b>1200</b>	20.0	07/27/2015	ND	2.06	103	2.00	6.56	
<b>Ethylbenzene*</b>	<b>224</b>	20.0	07/27/2015	ND	2.17	108	2.00	7.81	
<b>Total Xylenes*</b>	<b>1040</b>	60.0	07/27/2015	ND	5.74	95.6	6.00	7.18	
<b>Total BTEX</b>	<b>2700</b>	120	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 121 % 85.6-137

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>928</b>	16.0	07/28/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>40700</b>	200	07/24/2015	ND	182	90.9	200	0.943		
<b>DRO &gt;C10-C28</b>	<b>131000</b>	200	07/24/2015	ND	186	93.0	200	0.951		

Surrogate: 1-Chlorooctane 1260 % 47.2-157

Surrogate: 1-Chlorooctadecane 4380 % 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: 07/22/2015  
Reported: 07/29/2015  
Project Name: COTTON DRAW #153  
Project Number: 70079416201  
Project Location: SEC 3, T25S, R31E

Sampling Date: 07/21/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Judy Garcia

**Sample ID: S-1 .5' (H501910-02)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	50.0	5.00	07/27/2015	ND	2.03	102	2.00	8.11	
Toluene*	283	5.00	07/27/2015	ND	2.06	103	2.00	6.56	
Ethylbenzene*	56.6	5.00	07/27/2015	ND	2.17	108	2.00	7.81	
Total Xylenes*	265	15.0	07/27/2015	ND	5.74	95.6	6.00	7.18	
Total BTEX	654	30.0	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 125 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1580	16.0	07/28/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	9120	100	07/24/2015	ND	182	90.9	200	0.943		
DRO >C10-C28	17700	100	07/24/2015	ND	186	93.0	200	0.951		

Surrogate: 1-Chlorooctane 263 % 47.2-157

Surrogate: 1-Chlorooctadecane 325 % 52.1-176

Cardinal Laboratories

\*=Accredited Analyte

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

Received: 07/22/2015  
Reported: 07/29/2015  
Project Name: COTTON DRAW #153  
Project Number: 70079416201  
Project Location: SEC 3, T25S, R31E

Sampling Date: 07/21/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Judy Garcia

**Sample ID: S-2 0' (H501910-03)**

BTEX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>15.6</b>	5.00	07/27/2015	ND	2.03	102	2.00	8.11	
<b>Toluene*</b>	<b>257</b>	5.00	07/27/2015	ND	2.06	103	2.00	6.56	
<b>Ethylbenzene*</b>	<b>88.6</b>	5.00	07/27/2015	ND	2.17	108	2.00	7.81	
<b>Total Xylenes*</b>	<b>478</b>	15.0	07/27/2015	ND	5.74	95.6	6.00	7.18	
<b>Total BTEX</b>	<b>840</b>	30.0	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PII) 150 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>5520</b>	16.0	07/28/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>11500</b>	100	07/24/2015	ND	182	90.9	200	0.943	
<b>DRO &gt;C10-C28</b>	<b>28800</b>	100	07/24/2015	ND	186	93.0	200	0.951	

Surrogate: 1-Chlorooctane 492 % 47.2-157

Surrogate: 1-Chlorooctadecane 282 % 52.1-176

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

 Received: 07/22/2015  
 Reported: 07/29/2015  
 Project Name: COTTON DRAW #153  
 Project Number: 70079416201  
 Project Location: SEC 3, T25S, R31E

 Sampling Date: 07/21/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Judy Garcia

**Sample ID: S-2 1' (H501910-04)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/27/2015	ND	2.03	102	2.00	8.11	
<b>Toluene*</b>	<b>0.070</b>	0.050	07/27/2015	ND	2.06	103	2.00	6.56	
Ethylbenzene*	<0.050	0.050	07/27/2015	ND	2.17	108	2.00	7.81	
Total Xylenes*	<0.150	0.150	07/27/2015	ND	5.74	95.6	6.00	7.18	
Total BTEx	<0.300	0.300	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 120 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>2520</b>	16.0	07/28/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>10.4</b>	10.0	07/24/2015	ND	182	90.9	200	0.943	
<b>DRO &gt;C10-C28</b>	<b>157</b>	10.0	07/24/2015	ND	186	93.0	200	0.951	

Surrogate: 1-Chlorooctane 101 % 47.2-157

Surrogate: 1-Chlorooctadecane 122 % 52.1-176

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

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

Received: 07/22/2015  
Reported: 07/29/2015  
Project Name: COTTON DRAW #153  
Project Number: 70079416201  
Project Location: SEC 3, T25S, R31E

Sampling Date: 07/21/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Judy Garcia

**Sample ID: S-2 2' (H501910-05)**

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	07/27/2015	ND	2.03	102	2.00	8.11	
Toluene*	<0.050	0.050	07/27/2015	ND	2.06	103	2.00	6.56	
Ethylbenzene*	<0.050	0.050	07/27/2015	ND	2.17	108	2.00	7.81	
Total Xylenes*	<0.150	0.150	07/27/2015	ND	5.74	95.6	6.00	7.18	
Total BTX	<0.300	0.300	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PII) 120 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3840	16.0	07/28/2015	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	07/24/2015	ND	182	90.9	200	0.943		
DRO >C10-C28	42.4	10.0	07/24/2015	ND	186	93.0	200	0.951		

Surrogate: 1-Chlorooctane 97.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 111 % 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: 07/22/2015  
Reported: 07/29/2015  
Project Name: COTTON DRAW #153  
Project Number: 70079416201  
Project Location: SEC 3, T25S, R31E

Sampling Date: 07/21/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Judy Garcia

**Sample ID: S-2 3' (H501910-06)**

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/27/2015	ND	2.03	102	2.00	8.11	
Toluene*	<0.050	0.050	07/27/2015	ND	2.06	103	2.00	6.56	
Ethylbenzene*	<0.050	0.050	07/27/2015	ND	2.17	108	2.00	7.81	
Total Xylenes*	<0.150	0.150	07/27/2015	ND	5.74	95.6	6.00	7.18	
Total BTEX	<0.300	0.300	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 118 % 85.6-137

Chloride, SM4500CI-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3120	16.0	07/28/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/24/2015	ND	182	90.9	200	0.943	
DRO >C10-C28	64.6	10.0	07/24/2015	ND	186	93.0	200	0.951	

Surrogate: 1-Chlorooctane 90.6 % 47.2-157

Surrogate: 1-Chlorooctadecane 104 % 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: 07/22/2015  
Reported: 07/29/2015  
Project Name: COTTON DRAW #153  
Project Number: 70079416201  
Project Location: SEC 3, T25S, R31E

Sampling Date: 07/21/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Judy Garcia

**Sample ID: S-2 4' (H501910-07)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/27/2015	ND	2.03	102	2.00	8.11	
Toluene*	<0.050	0.050	07/27/2015	ND	2.06	103	2.00	6.56	
Ethylbenzene*	<0.050	0.050	07/27/2015	ND	2.17	108	2.00	7.81	
Total Xylenes*	<0.150	0.150	07/27/2015	ND	5.74	95.6	6.00	7.18	
Total BTEx	<0.300	0.300	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 119 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5920	16.0	07/28/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/24/2015	ND	182	90.9	200	0.943	
DRO >C10-C28	26.6	10.0	07/24/2015	ND	186	93.0	200	0.951	


Surrogate: 1-Chlorooctane 96.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 109 % 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: 07/22/2015  
 Reported: 07/29/2015  
 Project Name: COTTON DRAW #153  
 Project Number: 70079416201  
 Project Location: SEC 3, T25S, R31E

 Sampling Date: 07/21/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Judy Garcia

**Sample ID: S-3 0' (H501910-08)**

BTX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	1.51	1.00	07/27/2015	ND	2.03	102	2.00	8.11	
Toluene*	28.4	1.00	07/27/2015	ND	2.06	103	2.00	6.56	
Ethylbenzene*	12.0	1.00	07/27/2015	ND	2.17	108	2.00	7.81	
Total Xylenes*	63.4	3.00	07/27/2015	ND	5.74	95.6	6.00	7.18	
Total BTEX	105	6.00	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 142 % 85.6-137

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	07/28/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg	Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	2220	200	07/24/2015	ND	182	90.9	200	0.943	
DRO >C10-C28	48900	200	07/24/2015	ND	186	93.0	200	0.951	

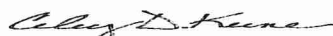
Surrogate: 1-Chlorooctane 188 % 47.2-157

Surrogate: 1-Chlorooctadecane 394 % 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: 07/22/2015  
Reported: 07/29/2015  
Project Name: COTTON DRAW #153  
Project Number: 70079416201  
Project Location: SEC 3, T25S, R31E

Sampling Date: 07/21/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Judy Garcia

**Sample ID: S-3 1' (H501910-09)**

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	07/27/2015	ND	2.03	102	2.00	8.11	
Toluene*	<0.050	0.050	07/27/2015	ND	2.06	103	2.00	6.56	
Ethylbenzene*	<b>0.081</b>	0.050	07/27/2015	ND	2.17	108	2.00	7.81	
<b>Total Xylenes*</b>	<b>0.429</b>	0.150	07/27/2015	ND	5.74	95.6	6.00	7.18	
<b>Total BTEX</b>	<b>0.510</b>	0.300	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 127 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>128</b>	16.0	07/28/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/24/2015	ND	182	90.9	200	0.943	
<b>DRO &gt;C10-C28</b>	<b>96.7</b>	10.0	07/24/2015	ND	186	93.0	200	0.951	


Surrogate: 1-Chlorooctane 93.5 % 47.2-157

Surrogate: 1-Chlorooctadecane 108 % 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: 07/22/2015  
 Reported: 07/29/2015  
 Project Name: COTTON DRAW #153  
 Project Number: 70079416201  
 Project Location: SEC 3, T25S, R31E

 Sampling Date: 07/21/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Judy Garcia

**Sample ID: S-3 2' (H501910-10)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/27/2015	ND	2.25	113	2.00	3.58	
Toluene*	<0.050	0.050	07/27/2015	ND	2.26	113	2.00	4.24	
Ethylbenzene*	<0.050	0.050	07/27/2015	ND	2.43	121	2.00	5.59	
Total Xylenes*	<0.150	0.150	07/27/2015	ND	6.38	106	6.00	6.15	
Total BTEX	<0.300	0.300	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 118 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	07/28/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/24/2015	ND	182	90.9	200	0.943	
DRO >C10-C28	21.4	10.0	07/24/2015	ND	186	93.0	200	0.951	

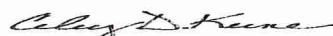
Surrogate: 1-Chlorooctane 104 % 47.2-157

Surrogate: 1-Chlorooctadecane 115 % 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: 07/22/2015  
 Reported: 07/29/2015  
 Project Name: COTTON DRAW #153  
 Project Number: 70079416201  
 Project Location: SEC 3, T25S, R31E

 Sampling Date: 07/21/2015  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Judy Garcia

**Sample ID: S-3 3' (H501910-11)**

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	07/27/2015	ND	2.25	113	2.00	3.58	
Toluene*	<0.050	0.050	07/27/2015	ND	2.26	113	2.00	4.24	
Ethylbenzene*	<0.050	0.050	07/27/2015	ND	2.43	121	2.00	5.59	
Total Xylenes*	<0.150	0.150	07/27/2015	ND	6.38	106	6.00	6.15	
Total BTEX	<0.300	0.300	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 116 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1060	16.0	07/28/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/24/2015	ND	182	90.9	200	0.943	
DRO >C10-C28	<10.0	10.0	07/24/2015	ND	186	93.0	200	0.951	

Surrogate: 1-Chlorooctane 87.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 100 % 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: 07/22/2015  
Reported: 07/29/2015  
Project Name: COTTON DRAW #153  
Project Number: 70079416201  
Project Location: SEC 3, T25S, R31E

Sampling Date: 07/21/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Judy Garcia

**Sample ID: S-3 4' (H501910-12)**

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	07/27/2015	ND	2.25	113	2.00	3.58	
Toluene*	<0.050	0.050	07/27/2015	ND	2.26	113	2.00	4.24	
Ethylbenzene*	<0.050	0.050	07/27/2015	ND	2.43	121	2.00	5.59	
Total Xylenes*	<0.150	0.150	07/27/2015	ND	6.38	106	6.00	6.15	
Total BTEX	<0.300	0.300	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2920	16.0	07/28/2015	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/24/2015	ND	182	90.9	200	0.943	
DRO >C10-C28	<10.0	10.0	07/24/2015	ND	186	93.0	200	0.951	

Surrogate: 1-Chlorooctane 85.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 94.4 % 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:	07/22/2015	Sampling Date:	07/21/2015
Reported:	07/29/2015	Sampling Type:	Soil
Project Name:	COTTON DRAW #153	Sampling Condition:	Cool & Intact
Project Number:	70079416201	Sample Received By:	Judy Garcia
Project Location:	SEC 3, T25S, R31E		

**Sample ID: S-4 0' (H501910-13)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<2.00	2.00	07/29/2015	ND	2.04	102	2.00	1.20	
Toluene*	27.1	2.00	07/29/2015	ND	2.10	105	2.00	1.21	
Ethylbenzene*	30.9	2.00	07/29/2015	ND	2.24	112	2.00	0.960	
Total Xylenes*	195	6.00	07/29/2015	ND	5.93	98.8	6.00	2.60	
Total BTX	253	12.0	07/29/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 122 % 85.6-137

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	07/28/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	4280	50.0	07/24/2015	ND	182	90.9	200	0.943		
DRO >C10-C28	18500	50.0	07/24/2015	ND	186	93.0	200	0.951		


Surrogate: 1-Chlorooctane 248 % 47.2-157

Surrogate: 1-Chlorooctadecane 212 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

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

Received: 07/22/2015  
Reported: 07/29/2015  
Project Name: COTTON DRAW #153  
Project Number: 70079416201  
Project Location: SEC 3, T25S, R31E

Sampling Date: 07/21/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Judy Garcia

**Sample ID: S-4 1' (H501910-14)**

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	07/27/2015	ND	2.25	113	2.00	3.58	
Toluene*	<0.050	0.050	07/27/2015	ND	2.26	113	2.00	4.24	
Ethylbenzene*	<0.050	0.050	07/27/2015	ND	2.43	121	2.00	5.59	
Total Xylenes*	<0.150	0.150	07/27/2015	ND	6.38	106	6.00	6.15	
Total BTEx	<0.300	0.300	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 85.6-137

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	07/28/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/24/2015	ND	182	90.9	200	0.943	
DRO >C10-C28	<10.0	10.0	07/24/2015	ND	186	93.0	200	0.951	

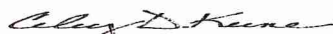
Surrogate: 1-Chlorooctane 97.5 % 47.2-157

Surrogate: 1-Chlorooctadecane 107 % 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: 07/22/2015  
Reported: 07/29/2015  
Project Name: COTTON DRAW #153  
Project Number: 70079416201  
Project Location: SEC 3, T25S, R31E

Sampling Date: 07/21/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Judy Garcia

**Sample ID: S-4 2' (H501910-15)**

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	07/27/2015	ND	2.25	113	2.00	3.58	
Toluene*	<0.050	0.050	07/27/2015	ND	2.26	113	2.00	4.24	
Ethylbenzene*	<0.050	0.050	07/27/2015	ND	2.43	121	2.00	5.59	
Total Xylenes*	<0.150	0.150	07/27/2015	ND	6.38	106	6.00	6.15	
Total BTX	<0.300	0.300	07/27/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 85.6-137

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	07/28/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/24/2015	ND	182	90.9	200	0.943	
DRO >C10-C28	81.8	10.0	07/24/2015	ND	186	93.0	200	0.951	

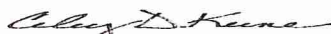
Surrogate: 1-Chlorooctane 91.9 % 47.2-157

Surrogate: 1-Chlorooctadecane 106 % 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: 07/22/2015  
Reported: 07/29/2015  
Project Name: COTTON DRAW #153  
Project Number: 70079416201  
Project Location: SEC 3, T25S, R31E

Sampling Date: 07/21/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Judy Garcia

**Sample ID: S-4 3' (H501910-16)**

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	07/28/2015	ND	2.25	113	2.00	3.58	
Toluene*	<0.050	0.050	07/28/2015	ND	2.26	113	2.00	4.24	
Ethylbenzene*	<0.050	0.050	07/28/2015	ND	2.43	121	2.00	5.59	
Total Xylenes*	<0.150	0.150	07/28/2015	ND	6.38	106	6.00	6.15	
Total BTX	<0.300	0.300	07/28/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 118 % 85.6-137

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	07/28/2015	ND	432	108	400	3.77	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/24/2015	ND	182	90.9	200	0.943	
DRO >C10-C28	<10.0	10.0	07/24/2015	ND	186	93.0	200	0.951	

Surrogate: 1-Chlorooctane 99.8 % 47.2-157

Surrogate: 1-Chlorooctadecane 110 % 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: 07/22/2015  
Reported: 07/29/2015  
Project Name: COTTON DRAW #153  
Project Number: 70079416201  
Project Location: SEC 3, T25S, R31E

Sampling Date: 07/21/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Judy Garcia

**Sample ID: S-4 4' (H501910-17)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/28/2015	ND	2.25	113	2.00	3.58	
Toluene*	<0.050	0.050	07/28/2015	ND	2.26	113	2.00	4.24	
Ethylbenzene*	<0.050	0.050	07/28/2015	ND	2.43	121	2.00	5.59	
Total Xylenes*	<0.150	0.150	07/28/2015	ND	6.38	106	6.00	6.15	
Total BTEx	<0.300	0.300	07/28/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 117 % 85.6-137

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	07/28/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/27/2015	ND	191	95.6	200	2.17	
DRO >C10-C28	<10.0	10.0	07/27/2015	ND	171	85.5	200	3.18	

Surrogate: 1-Chlorooctane 93.5 % 47.2-157

Surrogate: 1-Chlorooctadecane 115 % 52.1-176

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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.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
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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(575) 393-2326 FAX (575) 393-2476

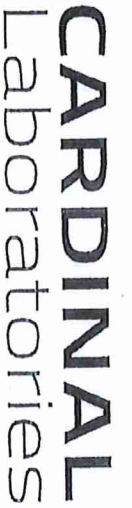
## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

DS 1012

#54

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





**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

#54

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