



January 5, 2016

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: **Remediation and Closure Report**
Devon Energy Corporation
Hackberry 16 SWD No. 1
API # 30-015-41783, 2RP-3145 & 2RP-3146

Dear Mr. Bratcher,

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

Devon Energy has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the referenced Hackberry 16 SWD No. 1. The incident description, soil sampling results, remediation activities and closure request are submitted herein.

Incident Date

The dates of the releases are July 15th and July 16th, 2015.

Background Information

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

The Hackberry 16 SWD No. 1 is located approximately forty-four (44) miles southeast of Artesia, New Mexico. The legal location for the site is Section 16, Township 19 South and Range 31 East in Eddy County, New Mexico. More specifically the latitude and longitude for the location are 32.653260 North and 103.890311 West. See site map attached in [Appendix I](#).

SAN ANTONIO
11 Commercial Place
Schertz, Texas 78154
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 loamy alluvium and eolian sands which include silty soils underlain by clay loam and hard caliches. Drainage courses in this area are normally dry. The New Mexico State Engineer web site indicates the nearest ground water data to be in S19-T19S-R31E. The ground water in the area is reported to be 180-feet below ground surface (bgs). The referenced groundwater data is presented in [Appendix II](#).

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

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

Page 1 of 4

ENVIRONMENTAL CONSULTING
ENGINEERING
DRILLING
CONSTRUCTION
SPILL MANAGEMENT
GENERAL CONTRACTING

Incident Description

On July 15, 2015 the lay flat transfer line malfunctioned causing 75-100 barrels of treated water to be released into the pasture and to flow along the 2-track road. No fluids were recovered. The following day the lay flat line came apart and released an additional 150 barrels of treated water within the same impacted area. A vac truck was called to the location and recovered 70 barrels of fluid. Talon personnel measured the release at 850-feet along the lease road by 15-feet wide, with additional impacts in the pasture resulting from overspray as shown on the attached site plan.

Remedial Action Taken

Following site assessment activities and a work plan approved by OCD and BLM, Talon mobilized personnel to perform remediation activities. The impacted areas in the vicinity of sample locations S-1, S-5 and S-8 were excavated to a depth of 2-feet deep.

The impacted area in the vicinity of S-10 was excavated to a depth of 1-foot deep and the impacted soil in the area of S-4 was excavated to a depth of 2.5-feet deep.

The area in the vicinity of sample location S-12 was excavated to a depth of 3.5-feet.

The remaining impacted areas were removed to a depth of 4-feet below land surface which include areas S-2 and S-3 along the lease road and between S-6 and S-7 in the pasture.

All excavated material was hauled to Lea Land, LLC an approved disposal facility.

Upon permission from the NMOCD and the BLM, a 20 mil liner measuring 10-feet wide by 70-feet long was installed in the 4-foot deep excavation at sample location S-2 in the lease road. The excavation was backfilled. Clean top soil was obtained from a local borrow pit and transported to the location. The excavation was backfilled, re-contoured to match the surrounding terrain and seeded with LPC seed mixture for the area.

Laboratory results from the confirmation sampling events are summarized in the table below and the full lab report is presented in the [Appendix III](#).

Laboratory Results

October 16, 2015

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1					
W. Sidewall	1'	--	<16	--	--
S-2					
	4'	--	2440	--	--
	5'	--	832	--	--
Refusal	6'	--	80	--	--

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-3					
	4'	--	80	--	--
S-4					
Bottom	2.5'	--	336	--	--
S-5					
E. Sidewall	1'	--	<16	--	--
S-6					
W. Sidewall	2'	--	<16	--	--
N. Sidewall	2'	--	<16	--	--
S. Sidewall	2'	--	112	--	--
Bottom	4'	--	<16	--	--
S-7					
W. Sidewall	2'	--	<16	--	--
Bottom DCP Line	4'	--	<16	--	--
Bottom	4'	--	32	--	--
S-8					
NE Sidewall	1'	--	<16	--	--
E. Sidewall	1'	--	<16	--	--
Bottom	2'	--	768	--	--
Bottom	4.5'	--	64	--	--
S-10					
N. Sidewall	1'	--	<16	--	--
S-12					
Bottom	3.5'	--	48	--	--
S-13					
N. Sidewall	2'	--	<16	--	--
S-14					
S. Sidewall	2'	--	144	--	--

--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 standard is considered to be 1,000 mg/kg.

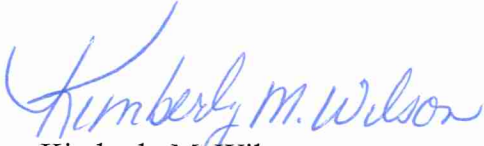
Closure

On behalf of Devon Energy we respectfully request that no further actions be required and that closure with respect to this release be granted. A Final C-141 is also attached. See [Appendix IV](#).

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

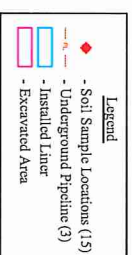
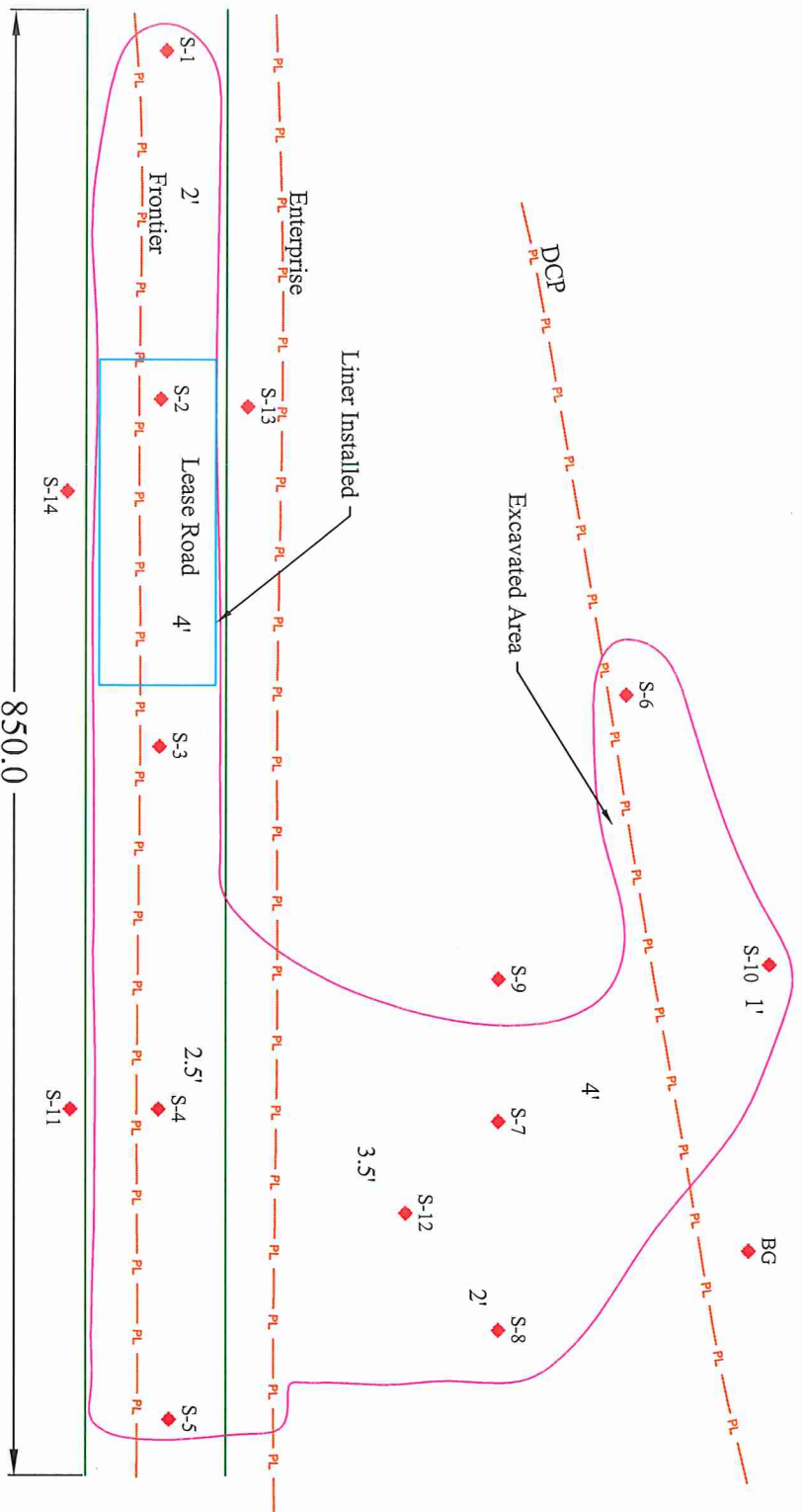
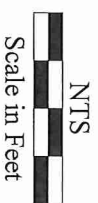


David J. Adkins
District Manager

APPENDIX I

SITE MAP

Pasture
Lands



Date: 01/05/2016

Scale: NTS

Drawn By: TJS

Hackberry 16 SWD #1
Devon Energy Corporation
Eddy County, New Mexico
Figure 1 - Site Plan

APPENDIX II
GROUNDWATER DATA
REGULATOR'S STIPULATIONS



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 00829			LE	2	4	16	19S	31E		606165	3614009*	1401	120		
CP 00725			ED	1	3	3	28	19S	31E	604906	3610473*	3018	231		
CP 00873			ED	1	1	19	19S	31E		601772	3613147*	3110	340	180	160
CP 00722			ED	4	3	3	28	19S	31E	605106	3610273*	3227	204		
CP 00723			ED	2	1	1	33	19S	31E	605111	3610071*	3428	139		

Average Depth to Water: **180 feet**

Minimum Depth: **180 feet**

Maximum Depth: **180 feet**

Record Count: 5

UTMNAD83 Radius Search (in meters):

Easting (X): 604863

Northing (Y): 3613491

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.

Kimberly M. Wilson

From: Tucker, Shelly [stucker@blm.gov]
Sent: Tuesday, October 20, 2015 8:29 AM
To: Bratcher, Mike, EMNRD
Cc: Kimberly M. Wilson; Patterson, Heather, EMNRD; Fulks, Brett; David Adkins; jshirley@rockwaterenergy.com
Subject: Re: Hackberry 16 SWD #1 * 30-015-41783 * 2RP- 3145 & 3146

The BLM concurs with the OCD.

The BLM approval/acceptance does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment or if the location fails to reclaim properly. In such an event that the location does not revegetate, or future issues with contaminants are encountered, the operator will be asked to address the issues until the contaminant issues are fully mitigated and the location is successfully reclaimed. In addition, BLM approval does not relieve the operator of responsibility for compliance with any other federal, state or local laws/regulations.

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Shelly J Tucker

Environmental Protection Specialist
Bureau of Land Management

620 E. Greene St
Carlsbad, NM 88220

575.234.5905 - Direct
575.361.0084 - Cellular

stucker@blm.gov



On Tue, Oct 20, 2015 at 7:09 AM, Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us> wrote:

Kimberly,

Your proposal for backfill and liner placement at this site is approved. Federal sites require like approval by BLM.

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, and for notification, please contact me.

Mike Bratcher

NMOCD District 2

811 S. First Street

Artesia, NM 88210

O: 575-748-1283 X108

C: 575-626-0857

F: 575-748-9720

From: Kimberly M. Wilson [mailto:kwilson@talonlpe.com]

Sent: Monday, October 19, 2015 1:37 PM

To: Tucker, Shelly; Bratcher, Mike, EMNRD

Cc: Patterson, Heather, EMNRD; Fulks, Brett; David Adkins; jshirley@rockwaterenergy.com

Subject: RE: Hackberry 16 SWD #1 * 30-015-41783 * 2RP- 3145 & 3146

Shelly and Mike,

Talon completed excavation activities on October 14, 2015 with confirmation sampling being obtained at that time. Attached please find the complete laboratory report along with a site map. After reviewing the lab data and the stipulations, we request permission to backfill the excavation and to install a liner **ONLY** at sample location S-2 measuring 8' x 70'.

Thank you.

Kimberly

From: Tucker, Shelly [mailto:stucker@blm.gov]
Sent: Wednesday, September 09, 2015 11:06 AM
To: Bratcher, Mike, EMNRD
Cc: Kimberly M. Wilson; Patterson, Heather, EMNRD; Fulks, Brett
Subject: Re: Hackberry 16 SWD #1 * 30-015-41783 * 2RP- 3145 & 3146

Additionally,

BLM will need to approve sample results prior to backfill....

The BLM approval/acceptance does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment or if the location fails to reclaim properly. In such an event that the location does not revegetate, or future issues with contaminants are encountered, the operator will be asked to address the issues until the contaminant issues are fully mitigated and the location is successfully reclaimed. In addition, BLM approval does not relieve the operator of responsibility for compliance with any other federal, state or local laws/regulations.

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Shelly J Tucker

Environmental Protection Specialist

Bureau of Land Management

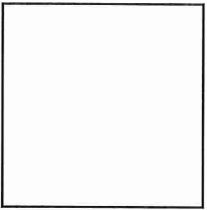
620 E. Greene St

Carlsbad, NM 88220

575.234.5905 - Direct

575.361.0084 - Cellular

stucker@blm.gov



On Wed, Sep 9, 2015 at 11:03 AM, Tucker, Shelly <stucker@blm.gov> wrote:

Kimberly,

In regards to the: Devon * Hackberry 16 SWD 1 * 30-015-41783 * M-16-19s-31e * Date of release: 7/15 & 16/2015

BLM accepts the remediation proposal and agrees with the NMOCD COA's, with the following additional stipulations:

1. Confirmation samples will need to be taken in areas of S-4, S-8 and S-12.
2. BLM agrees with further delineation of S-2, S-3, and S-6.
3. In the area identified as S-6, BLM agrees with the proposed 4' excavation and the NMOCD COA's.
4. Horizontal and vertical confirmation samples will need to be taken in the excavation area.

The BLM approval/acceptance does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment or if the location fails to reclaim properly. In such an event that the location does not revegetate, or future issues with contaminants are encountered, the operator will be asked to address the issues until the contaminant issues

are fully mitigated and the location is successfully reclaimed. In addition, BLM approval does not relieve the operator of responsibility for compliance with any other federal, state or local laws/regulations.

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Shelly J Tucker

Environmental Protection Specialist

Bureau of Land Management

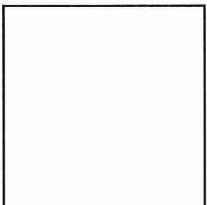
620 E. Greene St

Carlsbad, NM 88220

575.234.5905 - Direct

575.361.0084 - Cellular

stucker@blm.gov



On Tue, Sep 8, 2015 at 1:30 PM, Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us> wrote:

RE: Devon * Hackberry 16 SWD 1 * 30-015-41783 * Hackberry Recycling Facility (2RF-102) * M-16-19s-31e

Greetings,

The remediation proposal, submitted on behalf of Devon Energy by Talon LPE, for the above referenced releases, is approved with the following conditions of approval:

- Further delineation for chloride will be required in the areas identified as S-2 and S-3. Target delineation goal is 250 mg/kg.
- In the area identified as S-6, OCD agrees with the proposed 4' excavation. Deeper confirmation/delineation sample/samples will be required, with delineation target being 250 mg/kg. OCD does request samples be obtained during excavation of this area from S-6 to the area around the pipeline towards S-7. For this site, if data shows the 4' interval to be in the 1500 mg/kg range, a liner will not be required under the DCP pipeline. Field screens are acceptable for this procedure, including the S-6 delineation.
- Like approval by BLM.

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, and for notification, please contact me.

Mike Bratcher

NMOCD District 2

811 S. First Street

Artesia, NM 88210

O: 575-748-1283 X108

C: 575-626-0857

F: 575-748-9720

APPENDIX III

LABORATORY RESULTS



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

October 16, 2015

KIMBERLY WILSON
TALON LPE
408 W. TEXAS AVE.
ARTESIA, NM 88210

RE: HACKBERRY 16 SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 10/15/15 15:00.

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:	10/15/2015	Sampling Date:	10/14/2015
Reported:	10/16/2015	Sampling Type:	Soil
Project Name:	HACKBERRY 16 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	700794.160.01	Sample Received By:	Jodi Henson
Project Location:	SEC 16. T19S ,R31E		

Sample ID: S-1 1' W. SIDEWALL (H502702-01)

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	10/16/2015	ND	416	104	400	7.41	

Sample ID: S-2 4' BOTTOM (H502702-02)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2440	16.0	10/16/2015	ND	416	104	400	7.41	

Sample ID: S-2 5' (H502702-03)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	832	16.0	10/16/2015	ND	416	104	400	7.41	

Sample ID: S-2 6' REFUSAL (H502702-04)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/16/2015	ND	416	104	400	7.41	

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:	10/15/2015	Sampling Date:	10/14/2015
Reported:	10/16/2015	Sampling Type:	Soil
Project Name:	HACKBERRY 16 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	700794.160.01	Sample Received By:	Jodi Henson
Project Location:	SEC 16. T19S ,R31E		

Sample ID: S-3 4' BOTTOM (H502702-05)

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/16/2015	ND	416	104	400	7.41	

Sample ID: S-4 2.5' BOTTOM (H502702-06)

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	10/16/2015	ND	416	104	400	7.41	

Sample ID: S-5 1' E. SIDEWALL (H502702-07)

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	10/16/2015	ND	416	104	400	7.41	

Sample ID: S-6 2' W. SIDEWALL (H502702-08)

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	10/16/2015	ND	416	104	400	7.41	

Sample ID: S-6 2' N. SIDEWALL (H502702-09)

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/16/2015	ND	416	104	400	7.41	

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:	10/15/2015	Sampling Date:	10/14/2015
Reported:	10/16/2015	Sampling Type:	Soil
Project Name:	HACKBERRY 16 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	700794.160.01	Sample Received By:	Jodi Henson
Project Location:	SEC 16. T19S ,R31E		

Sample ID: S-6 2' S. SIDEWALL (H502702-10)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	10/16/2015	ND	416	104	400	7.41		

Sample ID: S-6 4' BOTTOM (H502702-11)

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	10/16/2015	ND	416	104	400	7.41		

Sample ID: S-7 2' W. SIDEWALL (H502702-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/16/2015	ND	416	104	400	7.41		

Sample ID: S-7 4' BOTTOM DCP LINE (H502702-13)

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	10/16/2015	ND	416	104	400	7.41		

Sample ID: S-7 4' BOTTOM (H502702-14)

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	10/16/2015	ND	416	104	400	7.41		

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	10/15/2015	Sampling Date:	10/14/2015
Reported:	10/16/2015	Sampling Type:	Soil
Project Name:	HACKBERRY 16 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	700794.160.01	Sample Received By:	Jodi Henson
Project Location:	SEC 16. T19S ,R31E		

Sample ID: S-8 1' NE SIDEWALL (H502702-15)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/16/2015	ND	416	104	400	7.41	

Sample ID: S-8 1' E. SIDEWALL (H502702-16)

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	10/16/2015	ND	416	104	400	7.41	

Sample ID: S-8 2' BOTTOM (H502702-17)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	768	16.0	10/16/2015	ND	416	104	400	7.41	

Sample ID: S-8 4.5' BOTTOM (H502702-18)

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	10/16/2015	ND	416	104	400	7.41	

Sample ID: S-10 1' N. SIDEWALL (H502702-19)

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	10/16/2015	ND	416	104	400	7.41	

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:	10/15/2015	Sampling Date:	10/14/2015
Reported:	10/16/2015	Sampling Type:	Soil
Project Name:	HACKBERRY 16 SWD #1	Sampling Condition:	** (See Notes)
Project Number:	700794.160.01	Sample Received By:	Jodi Henson
Project Location:	SEC 16. T19S ,R31E		

Sample ID: S-12 3.5' BOTTOM (H502702-20)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/16/2015	ND	416	104	400	3.77	

Sample ID: S-13 2' N. SIDEWALL (H502702-21)

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	10/16/2015	ND	416	104	400	3.77	

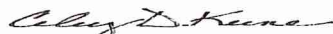
Sample ID: S-14 2' S. SIDEWALL (H502702-22)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	10/16/2015	ND	416	104	400	3.77	

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

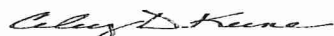
Notes and Definitions

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

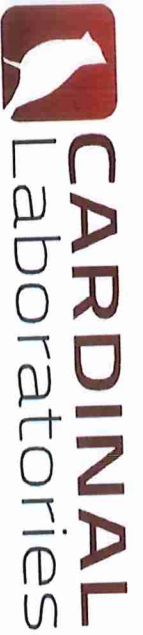
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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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 #: 700794.160.01 Project Owner: Devon

Project Name: Hackberry 16 SWD #1

Project Location: S16-T19S-R31E

Sampler Name: K. Wilson

P.O. #:

Company: Talon/LPE

Attn:

Address:

City:

State: Zip:

Phone #:

Fax #:

FOR LAB USE ONLY

MATRIX

PRESERV

SAMPLING

Lab I.D.

Sample I.D.

H502102

3-1' W. Side wall

3-2' 4' Bottom

3-2' 5' Bottom

3-2' 6' Refusal

3-3' 4' Bottom

3-4' 2.5' Bottom

3-5' 1' E. Side wall

3-6' 2' W. Side wall

3-6' 2' N. Side wall

3-6' 2' S. Side wall

(G)RAB OR (C)OMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE

TIME

10/14/15 12:08

12:10

12:20

12:22

12:16

12:19

11:45

11:54

11:56

11:58

11:59

11:59

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11:59

11:59

11:59

11:59

Chlorides

Relinquished By:

Date:

Received By:

Phone Result:

Yes

No

Add'l Phone #:

Fax Result:

Yes

No

Add'l Fax #:

REMARKS:

Relinquished By:

Date:

Received By:

Phone Result:

Yes

No

Add'l Phone #:

Fax Result:

Yes

No

Add'l Fax #:

REMARKS:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

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

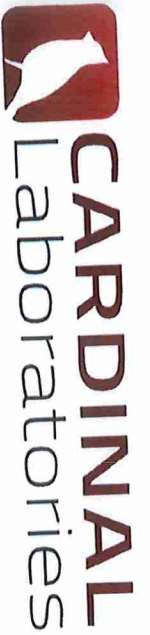


CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(575) 393-2326 FAX (575) 393-2476

[illegible]

PLATE 17



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/PE

Project Manager: K. Wilson

Address: 408 W. Texas Ave.

City: Artesia

Phone #: 575-746-8768

Project #: 700794.160.01

Project Name: Hackberry 16 SWD #1

Project Location: S16-T19S-R31E

Sampler Name: K. Wilson

P.O. #:

Company: Talon/PE

Attn:

Address:

City:

State:

Phone #:

Fax #:

FOR LAB USE ONLY

Lab I.D.

Sample I.D.

H502102

5-13 2' N. side well
22 5-14 2' S. side well

(G) GRAB OR (C) COMP.

CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER :

ACID/BASE:

ICE / COOL

OTHER :

DATE TIME

10/14/15 12:14

10/14/15 12:12

Chlorides

Relinquished By:

Relinquished By:

Date:

Time:

Received By:

Time:

Received By:

Time:

Time:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Sample Condition

Cool Intact

Yes Yes No No

CHECKED BY:

(Initials)

1742

REMARKS:

Phone Result: ☐ Yes ☐ No Add'l Phone #:

Fax Result: ☐ Yes ☐ No Add'l Fax #:

Rush

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

APPENDIX IV

FINAL C-141