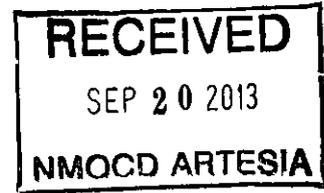




August 28, 2013



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

Mr. Mike Bratcher  
**NMOCD District 2**  
811 S. 1<sup>st</sup> Street  
Artesia, NM 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**  
Cimarex Energy  
Vermejo SWD #1  
API # 30-015-40644 2RP-1789

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

Dear Mr. Bratcher,

Cimarex Energy has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the referenced Vermejo SWD No. 1 release. The incident description, 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**

July 27, 2013

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

**Background Information**

The Vermejo SWD No. 1 is located approximately sixteen (16) miles southeast of Artesia, New Mexico. The legal location for the site is Section 15, Township 17 South and Range 28 East in Eddy County, New Mexico. More Specifically the latitude and longitude for the location are 32.829653 North and -104.1635577 West.

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 National Resources Conservation Services, the soil in this area is made up of Pajarito-Dune land complex with 0 to 3 percent slopes. The local surface and shallow geology, Quaternary Age sedimentary deposits, is comprised of loamy alluvium and eolian sands which include silty soils underlain by hard caliches. Drainage courses in this area are normally dry. According to the Texaco/Chevron Eddy Co. Water Trend Data Map (2005) the depth to groundwater is approximately 80-feet deep.

The ranking for this site is 10 based on the as following:

Depth to ground water 50-100'  
Wellhead Protection Area >1000'  
Distance to surface water body >1000'

ENVIRONMENTAL CONSULTING  
ENGINEERING  
DRILLING  
CONSTRUCTION  
SPILL MANAGEMENT  
GENERAL CONTRACTING

### Incident Description

On July 27, 2013 poly flow line was found to be leaking. The leak occurred along the lease road flowing south into the pasture, releasing 40 barrels of produced water. The lease operator shut in the line, repaired, and put it back into service. No fluids were recovered. The affected area measured approximately 40-feet long by 1-foot wide to the south of the initial release and 130-feet by 2-3 feet wide along the lease road. The water flowed south into the pasture. A site plan is attached.

### Actions Taken

On August 5, 2013 Talon/LPE mobilized personnel to begin the site assessment and soil sampling activities for the construction of a work plan. Grab soil samples were collected utilizing a hand auger to a depth of 3-feet below ground surface. Soil sample locations are illustrated on the attached site plan.

Soil samples were collected by Talon personnel wearing clean nitrile gloves. The samples were placed in laboratory provided sample containers, iced and transported to Cardinal Laboratories in Hobbs, New Mexico. The samples were tested for TPH (Total Petroleum Hydrocarbons) using EPA Method 8015M, volatile organics (BTEX) using EPA Method 8021B and analysis of Chlorides using Method SM4500Cl-B. The complete laboratory report is attached.

### Analytical Results

Analytical results received from Cardinal Laboratories are summarized below:

#### Date of Lab Report: August 15, 2013

S-1	0'	--	<16	--
	1'	--	96	--
	2'	--	320	--
S-2	0'	--	4960	--
	1'	--	1340	--
	Rocky 18"	--	464	--
S-3	0'	<0.300	6560	<10
	1'	<0.300	10300	10.5 DRO
	2'	<0.300	720	<10
	3'	<0.300	256	<10
S-4	0'	--	19200	--
	1'	--	3720	--
	Rocky 20"	--	640	--

--Analyte Not Test

**Lab Report: August 15, 2013, cont.**

<u>Sample</u>	<u>Depth</u>	<u>BTEX</u>	<u>Chlorides</u>	<u>TPH (mg/kg)</u>
S-5	0'	--	<16	--
	1'	--	<16	--
	2'	--	<16	--
S-6	0'	--	6800	--
	1'	--	8800	--
	2'	--	1650	--
	3'	--	528	--

--Analyte Not Tested

For this site's ranking 10, New Mexico Oil Conservation District action level criterion for BTEX is 50 mg/kg, Benzene is 10 mg/kg and TPH is 1,000 mg/kg. The chloride remediation standard is considered to be 1,000 mg/kg.

**Summary**

- Groundwater in the project vicinity is approximately 80-feet below land surface per the Texaco/Chevron Eddy County Water Trend Data Map (2005).
- Based on the depth to groundwater and the contamination levels detected in the soil, it is unlikely that the impacts identified from this release will pose a threat to groundwater after the proposed remediation activities are complete.

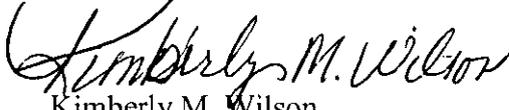
**Proposed Remedial Actions**

- The impacted areas in the vicinity of S-2, S-3 and S-4 will be excavated to a depth of 1.5-feet deep. The impacted area in the vicinity of S-6 will be excavated to a depth of 2.5-feet deep.
- The impacted soil will be transported to a NMOCD approved solid waste disposal facility.
- The excavated areas will be backfilled to grade using new material transported from a local borrow pit. The areas will be contoured to match the existing location and seeded using BLM recommended seed mixture for the area.
- A final report documenting all field activities, lab reports and Final C-141, will be provided to the NMOCD Artesia Office and the BLM.

If we can provide additional information or be of further assistance please contact our office at 575.746.8768.

Respectfully submitted,

TALON/LPE

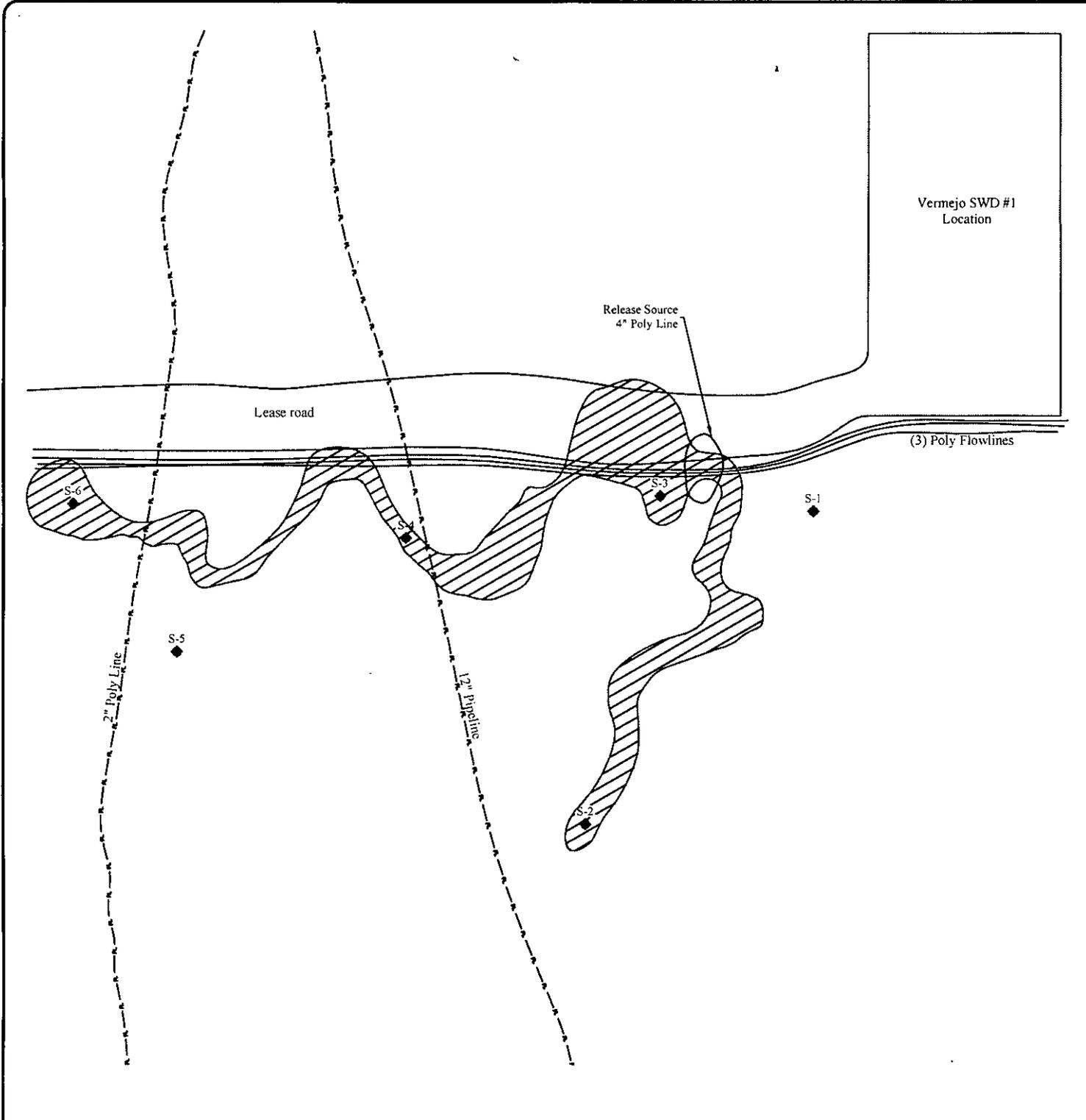


Kimberly M. Wilson  
Project Manager



David J. Adkins  
District Manager

**SITE MAP**



Vermejo SWD #1  
Location

Release Source  
4" Poly Line

Lease road

(3) Poly Flowlines

2" Poly Line

12" Pipeline

S-6

S-3

S-1

S-5

S-2



Legend	
◆	- Sample Location
▨	- Flow Path
- - -	- Pipeline



Date: 08/30/2013  
Scale: NTS  
Drawn By: TJS

Vermejo SWD #1  
Cimarex Energy  
Eddy County, New Mexico  
Figure 1 - Site Plan

**INITIAL C-141**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, 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

*Remediation in Progress*  
*Handy Bear w/ BLM told James Tinney this was all state*

Form C-141  
Revised October 10, 2003

2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

**Release Notification and Corrective Action**

*nJMW 1321848019*

**OPERATOR**

Initial Report  Final Report

Name of Company-Cimarex Energy <i>215099</i>	Contact- James Tinney
Address-600 N Marienfeld Ste 600, Midland Tx 79701	Telephone No. 575 706 0095
Facility Name-VERMAJO SWD#1	Facility Type- DISPOSAL FLOW LINE

Surface Owner <i>FED</i>	Mineral Owner	Lease No. <i>30-115-40644</i>
--------------------------	---------------	-------------------------------

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County - Eddy
<i>O</i>	<i>15</i>	<i>17 S</i>	<i>28 E</i>	<i>900</i>	<i>south</i>	<i>2530</i>	<i>east</i>	

Latitude- 32.829636 Longitude- -104.163492

**NATURE OF RELEASE**

Type of Release- PW	Volume of Release-40 bbls	Volume Recovered-0 bbls
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	Release Date <i>7/27/13</i> If YES, To Whom? JIM AMOS(BLM) MIKE BRATCHER(OCD)	<i>Confirmed 8/6/13</i> <i>via phone call</i>
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

**RECEIVED**  
AUG 01 2013  
NMOCD ARTESIA

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Take  
Pumper was leaving Vermejo SWD 1 when he found a leak in the poly line coming from the Pere Marquette 18 battery. He went to Pere Marquette 18 batt And made sure pump was off. Called out crew to repair poly line.

Describe Area Affected and Cleanup Action Take  
40' x 1' wide area to the south of the ROW and 100yard x 2-3' wide along ROW. Water ran off and was nothing to pick up.

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>James Tinney</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: James Tinney	Approved by District Supervisor:-	Signed By <i>Mike Bratcher</i>
Title: <del>Assistant</del> Production Foreman	Approval Date: <b>AUG 06 2013</b>	Expiration Date:
E-mail Address: jtinney@cimarex.com	Conditions of Approval:	Attached <input type="checkbox"/>

Date: 7/31/13 Phone: 575-706-0095

Remediation per OCD Rule & Guidelines, & like approval by BLM. **SUBMIT REMEDIATION PROPOSAL NO LATER THAN: September 06, 2013**

*2RP-1789*

\* Attach Additional Sheets If Necessary

## **LABORATORY RESULTS**



August 15, 2013

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: VERMEJO SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 08/08/13 8:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive, flowing style.

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	08/08/2013	Sampling Date:	08/05/2013
Reported:	08/15/2013	Sampling Type:	Soil
Project Name:	VERMEJO SWD #1	Sampling Condition:	Cool & Intact
Project Number:	701162.047.01	Sample Received By:	Daniel Wade
Project Location:	0-15-175-28E		

**Sample ID: S-1 0' (H301857-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	08/12/2013	ND	416	104	400	3.92		

**Sample ID: S-1 1' (H301857-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	08/12/2013	ND	416	104	400	3.92		

**Sample ID: S-1 2' (H301857-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	08/12/2013	ND	416	104	400	3.92		

**Sample ID: S-2 0' (H301857-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4960	16.0	08/12/2013	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  
 DAVID ADKINS  
 408 W. TEXAS AVE.  
 ARTESIA NM, 88210  
 Fax To: (575) 745-8905

Received:	08/08/2013	Sampling Date:	08/05/2013
Reported:	08/15/2013	Sampling Type:	Soil
Project Name:	VERMEJO SWD #1	Sampling Condition:	Cool & Intact
Project Number:	701162.047.01	Sample Received By:	Daniel Wade
Project Location:	0-15-17S-28E		

**Sample ID: S-2 1' (H301857-05)**

Chloride, SM4500Cl-B	mg/kg	Analyzed By: AP								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1340	16.0	08/12/2013	ND	416	104	400	3.92		

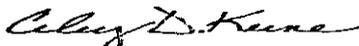
**Sample ID: S-2 18" ROCKY (H301857-06)**

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	08/12/2013	ND	416	104	400	3.92		

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	08/08/2013	Sampling Date:	08/05/2013
Reported:	08/15/2013	Sampling Type:	Soil
Project Name:	VERMEJO SWD #1	Sampling Condition:	Cool & Intact
Project Number:	701162.047.01	Sample Received By:	Daniel Wade
Project Location:	0-15-17S-28E		

**Sample ID: S-3 0' (H301857-07)**

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	08/14/2013	ND	2.15	107	2.00	3.13		
Toluene*	<0.050	0.050	08/14/2013	ND	2.18	109	2.00	3.47		
Ethylbenzene*	<0.050	0.050	08/14/2013	ND	2.14	107	2.00	3.45		
Total Xylenes*	<0.150	0.150	08/14/2013	ND	6.39	107	6.00	3.19		
Total BTEX	<0.300	0.300	08/14/2013	ND						

Surrogate: Dibromofluoromethane 96.0 % 61.3-142

Surrogate: Toluene-d8 101 % 71.3-129

Surrogate: 4-Bromofluorobenzene 101 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6560	16.0	08/12/2013	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	08/12/2013	ND	189	94.7	200	1.66		
DRO >C10-C28	<10.0	10.0	08/12/2013	ND	205	103	200	4.93		

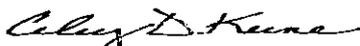
Surrogate: 1-Chlorooctane 98.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 124 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	08/08/2013	Sampling Date:	08/05/2013
Reported:	08/15/2013	Sampling Type:	Soil
Project Name:	VERMEJO SWD #1	Sampling Condition:	Cool & Intact
Project Number:	701162.047.01	Sample Received By:	Daniel Wade
Project Location:	0-15-17S-28E		

**Sample ID: S-3 1' (H301857-08)**

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	08/14/2013	ND	2.15	107	2.00	3.13		
Toluene*	<0.050	0.050	08/14/2013	ND	2.18	109	2.00	3.47		
Ethylbenzene*	<0.050	0.050	08/14/2013	ND	2.14	107	2.00	3.45		
Total Xylenes*	<0.150	0.150	08/14/2013	ND	6.39	107	6.00	3.19		
Total BTEX	<0.300	0.300	08/14/2013	ND						

Surrogate: Dibromofluoromethane 94.2 % 61.3-142

Surrogate: Toluene-d8 101 % 71.3-129

Surrogate: 4-Bromofluorobenzene 102 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	10300	16.0	08/12/2013	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	08/12/2013	ND	189	94.7	200	1.66		
DRO >C10-C28	10.5	10.0	08/12/2013	ND	205	103	200	4.93		

Surrogate: 1-Chlorooctane 106 % 65.2-140

Surrogate: 1-Chlorooctadecane 128 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	08/08/2013	Sampling Date:	08/05/2013
Reported:	08/15/2013	Sampling Type:	Soil
Project Name:	VERMEJO SWD #1	Sampling Condition:	Cool & Intact
Project Number:	701162.047.01	Sample Received By:	Daniel Wade
Project Location:	0-15-17S-28E		

**Sample ID: S-3 2' (H301857-09)**

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	08/14/2013	ND	2.15	107	2.00	3.13		
Toluene*	<0.050	0.050	08/14/2013	ND	2.18	109	2.00	3.47		
Ethylbenzene*	<0.050	0.050	08/14/2013	ND	2.14	107	2.00	3.45		
Total Xylenes*	<0.150	0.150	08/14/2013	ND	6.39	107	6.00	3.19		
Total BTEX	<0.300	0.300	08/14/2013	ND						

Surrogate: Dibromofluoromethane 98.5 % 61.3-142

Surrogate: Toluene-d8 102 % 71.3-129

Surrogate: 4-Bromofluorobenzene 103 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	720	16.0	08/12/2013	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	08/12/2013	ND	189	94.7	200	1.66		
DRO >C10-C28	<10.0	10.0	08/12/2013	ND	205	103	200	4.93		

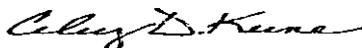
Surrogate: 1-Chlorooctane 90.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 102 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	08/08/2013	Sampling Date:	08/05/2013
Reported:	08/15/2013	Sampling Type:	Soil
Project Name:	VERMEJO SWD #1	Sampling Condition:	Cool & Intact
Project Number:	701162.047.01	Sample Received By:	Daniel Wade
Project Location:	0-15-17S-28E		

**Sample ID: S-3 3' (H301857-10)**

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	08/14/2013	ND	2.15	107	2.00	3.13		
Toluene*	<0.050	0.050	08/14/2013	ND	2.18	109	2.00	3.47		
Ethylbenzene*	<0.050	0.050	08/14/2013	ND	2.14	107	2.00	3.45		
Total Xylenes*	<0.150	0.150	08/14/2013	ND	6.39	107	6.00	3.19		
Total BTEX	<0.300	0.300	08/14/2013	ND						

Surrogate: Dibromofluoromethane 96.6 % 61.3-142

Surrogate: Toluene-d8 103 % 71.3-129

Surrogate: 4-Bromofluorobenzene 102 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	08/12/2013	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	08/12/2013	ND	189	94.7	200	1.66		
DRO >C10-C28	<10.0	10.0	08/12/2013	ND	205	103	200	4.93		

Surrogate: 1-Chlorooctane 92.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 103 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	08/08/2013	Sampling Date:	08/05/2013
Reported:	08/15/2013	Sampling Type:	Soil
Project Name:	VERMEJO SWD #1	Sampling Condition:	Cool & Intact
Project Number:	701162.047.01	Sample Received By:	Daniel Wade
Project Location:	0-15-17S-28E		

**Sample ID: S-4 0' (H301857-11)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	19200	16.0	08/12/2013	ND	400	100	400	0.00		

**Sample ID: S-4 1' (H301857-12)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3720	16.0	08/12/2013	ND	400	100	400	0.00		

**Sample ID: S-4 20" ROCKY (H301857-13)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	640	16.0	08/12/2013	ND	400	100	400	0.00		

**Sample ID: S-5 0' (H301857-14)**

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	08/12/2013	ND	400	100	400	0.00		

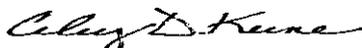
**Sample ID: S-5 1' (H301857-15)**

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	08/12/2013	ND	400	100	400	0.00		

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	08/08/2013	Sampling Date:	08/05/2013
Reported:	08/15/2013	Sampling Type:	Soil
Project Name:	VERMEJO SWD #1	Sampling Condition:	Cool & Intact
Project Number:	701162.047.01	Sample Received By:	Daniel Wade
Project Location:	0-15-17S-28E		

**Sample ID: S-5 2' (H301857-16)**

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	08/12/2013	ND	400	100	400	0.00		

**Sample ID: S-6 0' (H301857-17)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6800	16.0	08/12/2013	ND	400	100	400	0.00		

**Sample ID: S-6 1' (H301857-18)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8800	16.0	08/12/2013	ND	400	100	400	0.00		

**Sample ID: S-6 2' (H301857-19)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1650	16.0	08/12/2013	ND	400	100	400	0.00		

**Sample ID: S-6 3' (H301857-20)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	528	16.0	08/12/2013	ND	400	100	400	0.00		

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

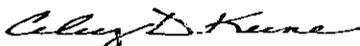
- QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
- ND Analyte NOT DETECTED at or above the reporting 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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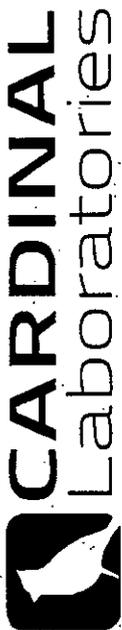
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Celey D. Keene, Lab Director/Quality Manager



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

101 East Marland, Hobbs, NM 88240  
(576) 393-2326 FAX (576) 393-2476

Company Name: <u>Jaloni/PE</u>		P.O. #:		ANALYSIS REQUEST	
Project Manager: <u>Jaloni/PE</u>		Company: <u>Jaloni</u>			
Address: <u>408 W. Jelas</u>		City: <u>Artesia</u>		<p style="text-align: center;">(Molden)</p> <p style="text-align: center;">TPH</p> <p style="text-align: center;">BTEX</p>	
State: <u>NM</u> Zip: <u>88210</u>		Attn: <u>Jaloni</u>			
Phone # <u>575-746-8768</u> Fax # <u>575-746-8905</u>		Address: <u></u>			
Project #: <u>701162.0470</u> Project Owner: <u>Linmax</u>		City: <u></u>			
Project Name: <u>Vermejo SWD #1</u>		State: <u></u> Zip: <u></u>			
Project Location: <u>0-15-17S-28E</u>		Phone #: <u></u>			
Sampler Name: <u>Robbie Reviser</u>		Fax #: <u></u>			
FOR LAB USE ONLY		PRESERV		SAMPLING	
Lab I.D.	Sample I.D.	MATRIX	DATE	TIME	
1301857	5-4 1'	GROUNDWATER	8-5-13	1:34	
12	5-4 20-inches Rocky	WASTEWATER	8-5-13	1:36	
13	5-5 0'	SOIL	8-5-13	1:43	
14	5-5 1'	SLUDGE	8-5-13	1:45	
15	5-5 2'	OTHER:	8-5-13	1:47	
16	5-6 0'	ACID/BASE:	8-5-13	1:50	
17	5-6 1'	ICE/COOL	8-5-13	1:52	
18	5-6 2'	OTHER:	8-5-13	1:55	
19	5-6 3'	OTHER:	8-5-13	1:58	
20	5-2 18-inches Rocky	OTHER:	8-5-13	1:50	

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Relinquished By: <u>[Signature]</u>	Received By: <u>[Signature]</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #: <u></u>
Relinquished By: <u></u>	Received By: <u></u>	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #: <u></u>
Delivered By: (Circle One)	Sample Condition	REMARKS:	
Sampler - UPS - Bus - Other:	Cool <input type="checkbox"/> Intact <input type="checkbox"/> (Initials)		
	Yes <input type="checkbox"/> No <input type="checkbox"/>		
	50		

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476 #54



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

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

Company Name: <u>Valon/PE</u>		P.O. #:		ANALYSIS REQUEST	
Project Manager: <u>Valon</u>		Company: <u>Valon</u>			
Address: <u>408 W. Tayan</u>		Attn:			
City: <u>Artesia</u>		Address:			
State: <u>NM</u>		City:			
Zip: <u>88210</u>		State:			
Phone #: <u>575-746-8768</u>		Phone #:			
Fax #: <u>575-746-8905</u>		Fax #:			
Project #: <u>71162.047.01</u>		Project Owner: <u>Amarex</u>			
Project Name: <u>Vermejo SWD #1</u>					
Project Location: <u>0-15-17S-28E</u>					
Sampler Name: <u>Robbie Donovan</u>					

Lab I.D.	Sample I.D.	FOR LAB USE ONLY		DATE	TIME
		MATRIX	PRESERV		
1	S-1 0'	GROUNDWATER	ICE / COOL	8-5-13	12:34
2	S-1 1'	GROUNDWATER	ICE / COOL	8-5-13	12:36
3	S-1 2'	GROUNDWATER	ICE / COOL	8-5-13	12:41
4	S-2 0'	GROUNDWATER	ICE / COOL	8-5-13	12:45
5	S-2 1'	GROUNDWATER	ICE / COOL	8-5-13	12:47
7	S-3 0'	GROUNDWATER	ICE / COOL	8-5-13	1:17
8	S-3 1'	GROUNDWATER	ICE / COOL	8-5-13	1:19
9	S-3 2'	GROUNDWATER	ICE / COOL	8-5-13	1:21
10	S-3 3'	GROUNDWATER	ICE / COOL	8-5-13	1:23
11	S-4 0'	GROUNDWATER	ICE / COOL	8-5-13	1:32

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Relinquished By: [Signature] Date: 8/7/13 Time: 8:00

Received By: [Signature] Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Delivered By: (Circle One) 52

Sampler - UPS - Bus - Other: \_\_\_\_\_

Checked By: [Signature]

REMARKS: TPH BTEX (Molden)

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476