



July 9, 2014

Mr. Mike Bratcher  
NMOCD District 2  
811 S. 1<sup>st</sup> 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

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

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

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

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

Subject: **Remedial Activities and Closure Report**  
Cimarex Energy  
Intrepid 3 Federal Com No. 1  
30-015-38979 (2RP-2340)

Cimarex Energy (Cimarex) has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced Intrepid 3 Federal Com No. 1. The incident description, soil sampling results, remediation activities and closure request are submitted herein.

### **Background Information**

The Intrepid 3 Fed #1 is located approximately 30 miles southeast of Artesia, New Mexico the legal location for this site is Unit Letter D, Section 3, Township 19 South, and Range 20 East. More specifically the latitude and longitude for this release are 32.695989 North and -103.965168 West.

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 Simona-Bippus complex with 0 to 5 percent slopes. Per the New Mexico Bureau of Geology and Mineral Resources, the local surface and shallow geology is comprised of Holocene to middle Pleistocene alluvium. Drainage courses in this area are normally dry. Groundwater in the project vicinity is approximately 150-feet below ground surface (bgs) according to the New Mexico Office of the State Engineer. See Appendix II for the referenced groundwater data.

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

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

ENVIRONMENTAL CONSULTING  
ENGINEERING  
DRILLING  
CONSTRUCTION  
SPILL MANAGEMENT  
GENERAL CONTRACTING

Toll Free: 866.742.0742  
www.talonlpe.com

## Incident Description

A stuffing box leak caused a release of approximately 4bbls of oil and 9bbls of produced water. 3bbls of oil and 7bbls of produced water were recovered. A backhoe was used to scrape the saturated soil off of the surface of the impacted area. Talon mobilized personnel to perform a site assessment and conduct soil sampling in the impacted area. Laboratory results from the sampling activities is summarized in the table below.

## Laboratory Results

See [Appendix III](#) for complete report of laboratory results.

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	0	39.9	2280	936	33500
S-1	1	ND	96	ND	82.7
S-1 refusal	2	ND	240	ND	64.2
S-2	0	ND	46400	ND	9030
S-2	1	ND	1550	ND	ND
S-2 refusal	2	ND	128	ND	ND

(ND) Analyte Not Detected

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 remediation standard is considered to be 1,000 mg/kg for Total Chlorides.

## Remedial Actions

- The area in the vicinity of sample location S-1 was excavated to a depth of 1-foot bgs.
- The area in the vicinity of sample location S-2 was excavated to a depth of 2-feet bgs.
- All of the excavated material was hauled to an NMOCD approved solid waste disposal facility.
- The excavation was backfilled with caliche and contoured to match the surrounding location.


## Closure

On behalf of Cimarex Energy we respectfully request that no further actions be required and that closure with regard to this release be granted.

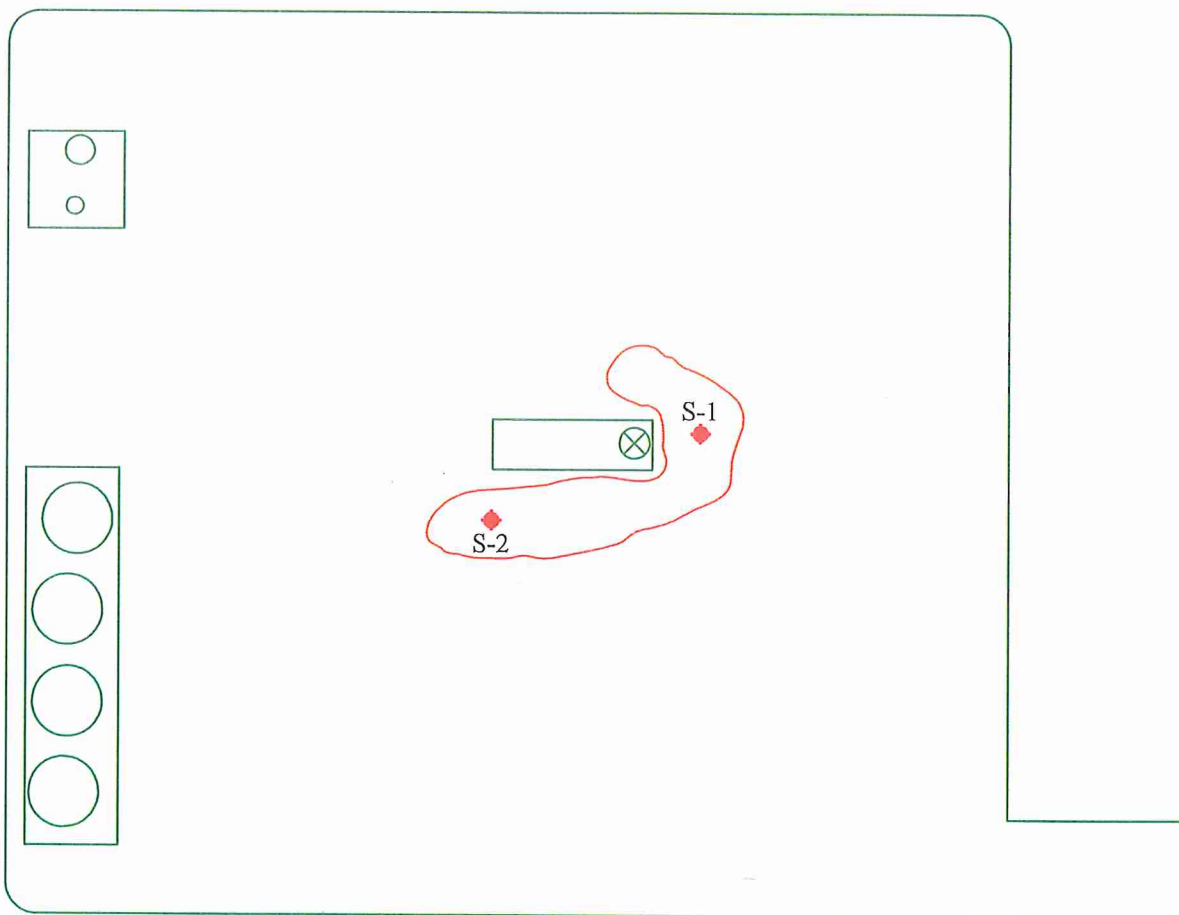
If we can provide additional information or be of further assistance, please contact our office at (575)-746-8768.

Respectfully submitted,  
TALON/LPE



  
Sheldon Hitchcock  
Project Manager

  
David J. Adkins  
District Manager

# SITE PLAN



0 15 30  
Scale in Feet

Legend	
	- Sample Location
	- Impacted Area



Date: 07/03/2014

Scale: 1" = 30'

Drawn By: TJS

Intrepid 3 Fed #1  
Cimarex Energy  
Eddy County, New Mexico  
Figure 1 - Site Plan

**GROUNDWATER DATA**  
**INITIAL C-141**  
**&**  
**FINAL 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-		Q Q Q				Rng	X	Y	Distance	Depth		Water
	Code	basin	64	16	4	Sec	Tws				Well	Water	
<a href="#">CP 00819</a>		LE	2	4	32	18S	30E	594878	3618720*	2040	150		
<a href="#">CP 00818</a>		LE	1	4	26	18S	30E	599289	3620364*	3416	240		
<a href="#">CP 00822</a>		LE	4	4	15	19S	30E	598148	3613516*	4708	90		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 3

UTMNAD83 Radius Search (in meters):

Easting (X): 596797

Northing (Y): 3618027

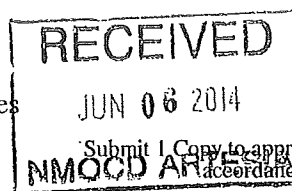
Radius: 5000

\*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

### Release Notification and Corrective Action

n HMP 1416348097		<b>OPERATOR</b>		X Initial Report <input type="checkbox"/> Final Report	
Name of Company: CIMAREX ENERGY 16283		Contact: James Tinney			
Address : 600 N Marienfeld Ste 600, Midland TX 79701		Telephone No. (575) 706-0095			
Facility Name: Intrepid 3 federal 1		Facility Type: Battery-Oil well			
Surface Owner		Mineral Owner		API No: 30-015-38979	

### LOCATION OF RELEASE

Unit Letter D	Section 3	Township 19-S	Range 30-E	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
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Latitude 32.695989 \_ Longitude -103.965168

### NATURE OF RELEASE

Type of Release : Oil-Produce Water	Volume of Release 4 Oil / 9 PW	Volume Recovered 3 Oil / 7 PW
Source of Release Stuffing box packing	Date and Hour of Occurrence 6/2/14 @ 7:00 am	Date and Hour of Discovery 6/2/2014 @ 12:00pm
Was Immediate Notice Given? Required X <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not	If YES, To Whom? Mike Bratcher NMOC (by email) Jennifer Van Curran BLM (by email)	
By Whom? James Tinney	Date and Hour 6/2/14 @ 1:00 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes x No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
stuffing box packing leaked

Describe Area Affected and Cleanup Action Taken.\*

Area around well head 22' wide x 32' long x 1" - 2" deep. Repaired stuffing box. Picked up standing fluid and scrapped area with back hoe to pick up contaminated soil. Talon to sample affected area.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC 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 NMOC 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, NMOC 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: James Tinney		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: James Tinney		Approved by Environmental Specialist:	
Title: Production Foreman		Approval Date: 6/12/14	Expiration Date: NA
E-mail Address: jtinney@cimarex.com		Conditions of Approval: Remediation per OCD Rule & Guidelines, & like approval by BLM. <b>SUBMIT REMEDIATION</b>	
Date: 6/6/2014 Phone: (575) 706-0095		Attached <input type="checkbox"/>	

\* Attach Additional Sheets If Necessary

PROPOSAL NO LATER THAN:

7/12/14

2RP-2340



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 Cimarex Energy	Contact James Tinney
Address 600 N Marienfeld Ste 600, Midland TX 79701	Telephone No. 575-706-0095
Facility Name Intrepid 3 Federal #1	Facility Type Battery-Oil well

Surface Owner BLM	Mineral Owner Federal	API No. 30-015-38979
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**LOCATION OF RELEASE**

Unit Letter D	Section 3	Township 19S	Range 30E	Feet from the 250 FNL	North/South Line N	Feet from the 990	East/West Line W	County EDDY
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Latitude 32.695989 Longitude -103.965168

**NATURE OF RELEASE**

Type of Release Mixed fluids	Volume of Release 4bbls oil & 9bbls PW	Volume Recovered 3bbls oil & 7bbls pw
Source of Release	Date and Hour of Occurrence 6/2/14 @ 7:00 am	Date and Hour of Discovery 6/2/14 @ 12:00 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jennifer Van Curran-BLM Mike Bratcher-NMOCD	
By Whom? James Tinney	Date and Hour 6/2/14 @ 1:00 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

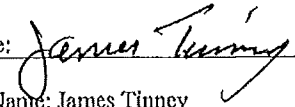
If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

Stuffing box leaked causing a release of approximately 4bbls of oil and 9bbls of produced water. A vacuum truck was immediately dispatched to recover standing fluid. The vacuum truck was able to successfully recover approximately 3bbls of oil and 7bbls of produced water.

Describe Area Affected and Cleanup Action Taken.\* The impacted area around the well head was approximately 22-feet wide by 32-feet long. A vacuum truck was utilized to recover the standing fluid and Talon/LPE mobilized personnel to conduct a site assessment and soil sampling within the impacted area. Upon receipt of the analytical results from the soil sampling activities a work plan was generated and subsequently approved by the OCD and BLM. The impacted area was excavated to the depths specified in the work plan, the contaminated soil was hauled to an NMOCD approved solid waste disposal facility, and the excavation was backfilled with caliche.

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.

		<b>OIL CONSERVATION DIVISION</b>	
Signature: 		Approved by Environmental Specialist:	
Printed Name: James Tinney			
Title: Production Foreman		Approval Date:	Expiration Date:
E-mail Address: jtinney@cimarex.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: Phone: 575-706-0095			

\* Attach Additional Sheets If Necessary

# LABORATORY RESULTS

June 17, 2014

SHELDON HITCHCOCK

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: INTREPID 3 FED #1

Enclosed are the results of analyses for samples received by the laboratory on 06/11/14 12:30.

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

Received: 06/11/2014  
Reported: 06/17/2014  
Project Name: INTREPID 3 FED #1  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 06/11/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S-1 0' (H401781-01)**

BTX 8021B		mg/kg	Analyzed By: CK					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	06/13/2014	ND	2.10	105	2.00	2.72	
<b>Toluene*</b>	<b>1.27</b>	1.00	06/13/2014	ND	2.25	113	2.00	3.44	
<b>Ethylbenzene*</b>	<b>9.30</b>	1.00	06/13/2014	ND	2.03	102	2.00	3.01	
<b>Total Xylenes*</b>	<b>29.4</b>	3.00	06/13/2014	ND	6.28	105	6.00	3.21	
<b>Total BTX</b>	<b>39.9</b>	6.00	06/13/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 131 % 89.4-126

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>2280</b>	16.0	06/16/2014	ND	416	104	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>936</b>	100	06/17/2014	ND	178	88.9	200	3.26	
<b>DRO &gt;C10-C28</b>	<b>33500</b>	100	06/17/2014	ND	186	93.2	200	10.1	

Surrogate: 1-Chlorooctane 130 % 65.2-140

Surrogate: 1-Chlorooctadecane 961 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 06/11/2014  
Reported: 06/17/2014  
Project Name: INTREPID 3 FED #1  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 06/11/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S-1 1' (H401781-02)**

BTX 8021B			mg/kg		Analyzed By: CK				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/13/2014	ND	2.10	105	2.00	2.72	
Toluene*	<0.050	0.050	06/13/2014	ND	2.25	113	2.00	3.44	
Ethylbenzene*	<b>0.063</b>	0.050	06/13/2014	ND	2.03	102	2.00	3.01	
<b>Total Xylenes*</b>	<b>0.206</b>	0.150	06/13/2014	ND	6.28	105	6.00	3.21	
Total BTX	<0.300	0.300	06/13/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 110 % 89.4-126

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>96.0</b>	16.0	06/16/2014	ND	416	104	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/17/2014	ND	178	88.9	200	3.26	
<b>DRO &gt;C10-C28</b>	<b>82.7</b>	10.0	06/17/2014	ND	186	93.2	200	10.1	

Surrogate: 1-Chlorooctane 68.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 79.0 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 06/11/2014  
Reported: 06/17/2014  
Project Name: INTREPID 3 FED #1  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 06/11/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S-1 2' REFUSAL (H401781-03)**

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/13/2014	ND	2.10	105	2.00	2.72		
Toluene*	<0.050	0.050	06/13/2014	ND	2.25	113	2.00	3.44		
Ethylbenzene*	0.054	0.050	06/13/2014	ND	2.03	102	2.00	3.01		
Total Xylenes*	0.164	0.150	06/13/2014	ND	6.28	105	6.00	3.21		
Total BTEx	<0.300	0.300	06/13/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	06/16/2014	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/17/2014	ND	178	88.9	200	3.26	
DRO >C10-C28	64.2	10.0	06/17/2014	ND	186	93.2	200	10.1	


Surrogate: 1-Chlorooctane 82.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 94.0 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

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

Received: 06/11/2014  
Reported: 06/17/2014  
Project Name: INTREPID 3 FED #1  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 06/11/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S-2 0' (H401781-04)**

BTEx 8021B			mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/13/2014	ND	2.10	105	2.00	2.72		
Toluene*	<0.050	0.050	06/13/2014	ND	2.25	113	2.00	3.44		
Ethylbenzene*	<0.050	0.050	06/13/2014	ND	2.03	102	2.00	3.01		
Total Xylenes*	<0.150	0.150	06/13/2014	ND	6.28	105	6.00	3.21		
Total BTEx	<0.300	0.300	06/13/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 107 % 89.4-126

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	46400	16.0	06/16/2014	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	06/17/2014	ND	178	88.9	200	3.26	
DRO >C10-C28	9030	50.0	06/17/2014	ND	186	93.2	200	10.1	

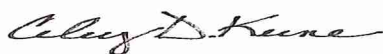
Surrogate: 1-Chlorooctane 71.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 340 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 06/11/2014  
 Reported: 06/17/2014  
 Project Name: INTREPID 3 FED #1  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 06/11/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S-2 1' (H401781-05)**

BTX 8021B			mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/13/2014	ND	2.10	105	2.00	2.72		
Toluene*	<0.050	0.050	06/13/2014	ND	2.25	113	2.00	3.44		
Ethylbenzene*	<0.050	0.050	06/13/2014	ND	2.03	102	2.00	3.01		
Total Xylenes*	<0.150	0.150	06/13/2014	ND	6.28	105	6.00	3.21		
Total BTX	<0.300	0.300	06/13/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 105 % 89.4-126

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1550	16.0	06/16/2014	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/17/2014	ND	178	88.9	200	3.26	
DRO >C10-C28	<10.0	10.0	06/17/2014	ND	186	93.2	200	10.1	

Surrogate: 1-Chlorooctane 70.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 81.2 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

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

Received: 06/11/2014  
Reported: 06/17/2014  
Project Name: INTREPID 3 FED #1  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 06/11/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S-2 2' REFUSAL (H401781-06)**

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/13/2014	ND	2.10	105	2.00	2.72	
Toluene*	<0.050	0.050	06/13/2014	ND	2.25	113	2.00	3.44	
Ethylbenzene*	<0.050	0.050	06/13/2014	ND	2.03	102	2.00	3.01	
Total Xylenes*	<0.150	0.150	06/13/2014	ND	6.28	105	6.00	3.21	
Total BTX	<0.300	0.300	06/13/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 105 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/16/2014	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/17/2014	ND	178	88.9	200	3.26	
DRO >C10-C28	<10.0	10.0	06/17/2014	ND	186	93.2	200	10.1	


Surrogate: 1-Chlorooctane 72.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 81.5 % 63.6-154

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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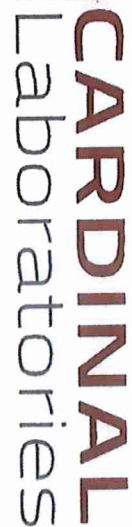
\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Talon/LPE		P.O. #:	
Project Manager: S. Hittchcock		Company: Talon/LPE	
Address: 408 W. Texas Ave.		Attn:	
City: Artesia		State: NM Zip: 88210	
Phone #: 575-746-8768		Fax #: 575-746-8905	
Project #:		Project Owner: Cimarex	
Project Name: interid 3 Fed #1		City:	
Project Location:		State:	
Sampler Name: S. Hittchcock		Phone #:	
FOR LAB USE ONLY		Fax #:	

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	ANALYSIS REQUEST
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:			
4401381	S-10'	G	1								6/11/14	10:40	TPH
	S-11'	G	1								6/11/14	10:43	BT EX
	S-12' RECURSAL	G	1								6/11/14	10:46	Chlorides
	S-20'	G	1								6/11/14	10:56	
	S-21'	G	1								6/11/14	10:55	
	S-22' RECURSAL	G	1								6/11/14	11:00	

Relinquished By: <u>S. Hittchcock</u>	Date: <u>6/11/14</u>	Received By: <u>Shadi Shender</u>	Date: <u>6/11/14</u>
Time: <u>12:30</u>	Time: <u>12:30</u>	Time: <u>12:30</u>	Time: <u>12:30</u>

Delivered By: (Circle One) Driver: <u>570</u> Driver: <u>570</u>	Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CHECKED BY: (Initials) <u>SH</u>
--	--	-------------------------------------

REMARKS:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #: