



## **LINN ENERGY**

2130 W. Bender Blvd.  
Hobbs, NM 88241  
Phone 575.738.1739

**H.E. West B #40**  
**2RP-2399**

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# **Corrective Action Plan**

API No. 30-015-26024

Release Date: July 19<sup>th</sup>, 2014

Unit Letter D, Section 10, Township 17S, Range 31E

**September 17<sup>th</sup>, 2014**

**Mike Bratcher**

New Mexico Energy, Minerals, & Natural Resources  
Oil Conservation Division, Environmental Bureau – District 2  
811 S. First St.  
Artesia, NM 88210

**RE: Corrective Action Plan  
Linn H.E. West B #40 (2RP-2399)  
UL/D sec. 10 T17S R31E  
API No. 30-015-26024**

Mr. Bratcher:

Linn Energy (Linn) has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced site.

**Background and Previous Work**

The site is located approximately 5.8 miles west of Maljamar, New Mexico at UL/D, sec. 10 T17S R31E. This site is located in an area of no known groundwater.

On July 19<sup>th</sup>, 2014, Linn discovered a release from a fiberglass line in a tin horn. The tin horn was emptied and the line was isolated. A total of 22 barrels of produced water was released over 1,864 square feet of pasture land. A vacuum truck was called to the site and recovered a total of 15 barrels of produced water. NMOCD and BLM were notified of the release on July 21<sup>st</sup>, 2014, and an initial C-141 was sent to NMOCD on July 21<sup>st</sup>, 2014 and approved on July 29<sup>th</sup>, 2014 (Appendix A).

RECS personnel were on site beginning on July 21<sup>st</sup>, 2014 to assess the release. Two points within the release were field sampled at the surface and with depth (Figure 1). Representative samples from the points were taken to a commercial laboratory for analysis (Appendix B). Point 1 returned laboratory chloride, Gasoline Range Organics (GRO), Diesel Range Organics (DRO) and BTEX readings below regulatory standards at 2 ft bgs. Point 2 returned laboratory chloride, GRO, DRO and BTEX readings below regulatory standards at 6 ft bgs.

Photo documentation of the release will be found in Appendix C.

**Corrective Action Plan**

Based on the laboratory sampling data, the release will be excavated in two parts. The area around Point 1 will be excavated to 2 ft bgs, and the area around Point 2 will be excavated to 3 ft bgs (Figure 2). Once the excavations are completed, grab samples from the outer walls of both

excavations and the bottom of the excavation around Point 1 will be taken and sent to a commercial laboratory to confirm that chloride, GRO and DRO readings are all below regulatory standards. The excavation around Point 2 will then have a 20-mil reinforced poly liner installed and properly seated into the base of the excavation.

All excavated soil will be evaluated for use as backfill and any soils that do not meet regulatory standards will be taken to a NMOCD approved facility for disposal. Clean soil will be imported to the site to replace any soils taken for disposal. A sample of the backfill material will be taken to a commercial laboratory to confirm that the chloride value is below regulatory standards. The site will be backfilled with the clean soil and contoured to the surrounding location. The disturbed area will then be seeded with a blend of native vegetation.

Once these activities have been completed, a final report will be submitted to NMOCD and BLM requesting 'remediation termination' and site closure.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-2967 or me if you have any questions or wish to discuss the site.

Sincerely,

A handwritten signature in dark ink, appearing to read 'L. Weinheimer', with a stylized flourish at the end.

Lara Weinheimer  
Project Scientist  
RECS  
(575) 441-0431

Attachments:

- Figure 1 – Initial Sampling Map
- Figure 2 – Proposed Corrective Actions
- Appendix A – Initial C-141
- Appendix B – Initial Sampling Lab
- Appendix C – Photo Documentation

# Figures

# Initial Sampling Data

## Point 1

	CI-	PID	GRO	DRO	B	T	E	X	BTEX
SS	3640	96.3	<10	175	<0.05	<0.05	<0.05	<0.15	<0.3
6"	2673	22.4							
1'	2971	4.6							
1.5'	3806	1.2							
2'	544	1.6	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
2.5'	112	1.3	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3

HE WEST B # 40

## Point 2

	CI-	PID	GRO	DRO	B	T	E	X	BTEX
SS	2840	87.5	<10	505	<0.05	<0.05	<0.05	<0.15	<0.3
6"	2250	37.2							
1'	2179	10.3							
1.5'	2301	4.3							
2'	2859	1.2							
2.5'	4252	1							
3'	4616	1.6							
3.5'	4224	1.9							
4'	3750	1							
4.5'	3634	1.4							
5'	4560	1.7	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
5.5'	1980	0							
6'	240	0	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3

Source: Esri, DigitalGlobe, GeoEye, CNES/Airbus DS, USDA, USGS, swisstopo, and the GIS User Com

## Legend

▲ SAMPLE POINT

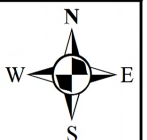
● WELLHEAD

■ TIN HORN

■ STAIN (1864 SQ FT)

DGW: None  
Landowner: BLM

Figure 1



0 25 50  
Feet

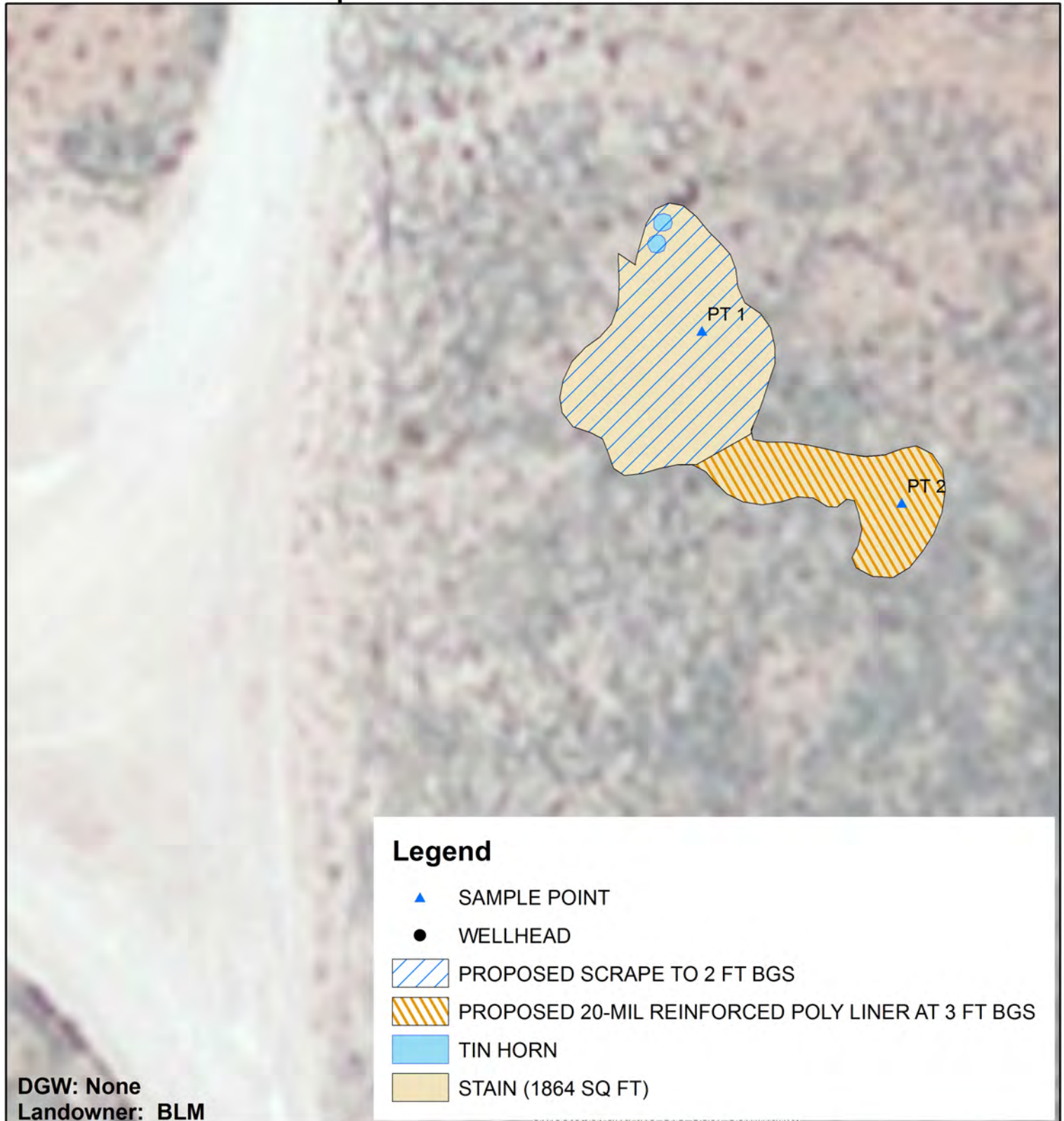
GPS date: 7/22/14 KH  
Drawing date: 8/11/14  
Drafted by: L. Weinheimer



**LINN**  
**H.E. WEST B #40**

Legals: UL/D sec. 10  
T-17-S R-31-E  
EDDY COUNTY, NM

# Proposed Correction Actions



**LINN**  
**H.E. WEST B #40**  
Legals: UL/D sec. 10  
T-17-S R-31-E  
EDDY COUNTY, NM

Figure 2



0 10 20  
HHH Feet

GPS date: 7/22/14 KH  
Drawing date: 9/11/14  
Drafted by: L. Weinheimer

# Appendix A

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

Form C-141  
Revised October 10, 2003

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

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

## Release Notification and Corrective Action

### OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Linn Operating	Contact: Brian Wall	
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No.: 575-738-1739	
Facility Name: H.E. West B #40	Facility Type: Injection	
Surface Owner: Federal	Mineral Owner:	API No.: 30-015-26024

### LOCATION OF RELEASE

Unit Letter D	Section 10	Township 17S	Range 31E	Feet from the 560	North/South Line North	Feet from the 660	East/West Line West	County Eddy
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Latitude: 32.8547837573781 Longitude: -103.864060735174

### NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 22 bbls	Volume Recovered: 15 bbls
Source of Release: fiberglass pipeline	Date and Hour of Occurrence: 07/19/2014	Date and Hour of Discovery: 07/19/2014 2:45pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jeff Robertson- BLM / Mike Bratcher-NMOCD	
By Whom? Brian Wall	Date and Hour 07/21/2014 0900	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

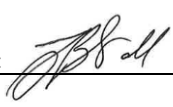
If a Watercourse was Impacted, Describe Fully.\*:

Describe Cause of Problem and Remedial Action Taken.\*: At 2:45P.M. Was notified by Mario Hernandez, That line 1 was down on low pressure. Went looking for leak on trunk line, upon driving on west B #40 looking east of location at 3:P.M. found water coming out of north tinhorn. At 3:15 P.M. called for a truck to pickup water. Notified Rick Rickman at 3:30 P.M. of leak.

Describe Area Affected and Cleanup Action Taken.\* : Area of water on ground was 22feet long X 21 feet wide by 2in deep. (pictures make the spill looking bigger than area actually was to due rain in area.) At 4:30 P.M. truck on location, went to emptying tinhorn to see if leak was on lateral line or on trunk line. After emptying tinhorn, determined that leak was on lateral line. was able to isolate lateral, to get field back going. Picked up about 7 barrells of water off of ground. Will have to do one call before line can be repaired.

Directions to site: From Loco Hills N.M. go east on Hwy 82 3.5 miles, turn left on CR221 go 1.4 miles to dirt road on right, turn right go .5 mile, turn right go .6 mile turn left, go .5 mile turn right, go 2.0 miles to West B#40 spill is 25 yds east of location in pasture, at the tinhorns.

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: 	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: Brian Wall	Approved by District Supervisor:		
Title: Construction Foreman II	Approval Date:	Expiration Date:	
E-mail Address: bwall@linenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>	

Date: 07/21/2014	Phone: 806-367-0645		
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\* Attach Additional Sheets If Necessary

# Appendix B

## Initial Sampling Lab

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 2948 Hobbs, NM 88241  
Phone 575.393.2967



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

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July 31, 2014

LAURA FLORES

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: H. E. WEST B #40

Enclosed are the results of analyses for samples received by the laboratory on 07/25/14 7:50.

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

Hope S. Moreno For Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 RICE ENVIRONMENTAL CONSULTING & SAFETY  
 LAURA FLORES  
 419 W. CAIN  
 HOBBS NM, 88240  
 Fax To: (575) 397-1471

Received:	07/25/2014	Sampling Date:	07/23/2014
Reported:	07/31/2014	Sampling Type:	Soil
Project Name:	H. E. WEST B #40	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT. 1 @ SURFACE (H402279-01)**

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	07/28/2014	ND	2.16	108	2.00	3.97	
Toluene*	<0.050	0.050	07/28/2014	ND	2.18	109	2.00	3.22	
Ethylbenzene*	<0.050	0.050	07/28/2014	ND	2.22	111	2.00	5.39	
Total Xylenes*	<0.150	0.150	07/28/2014	ND	6.78	113	6.00	5.78	
Total BTX	<0.300	0.300	07/28/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 120 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3640	16.0	07/30/2014	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/25/2014	ND	171	85.6	200	2.40	
DRO >C10-C28	175	10.0	07/25/2014	ND	192	95.8	200	3.06	

Surrogate: 1-Chlorooctane 123 % 65.2-140

Surrogate: 1-Chlorooctadecane 137 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Hope S. Moreno For Celey D. Keene, Lab Director/Quality Manager

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 RICE ENVIRONMENTAL CONSULTING & SAFETY  
 LAURA FLORES  
 419 W. CAIN  
 HOBBS NM, 88240  
 Fax To: (575) 397-1471

Received:	07/25/2014	Sampling Date:	07/23/2014
Reported:	07/31/2014	Sampling Type:	Soil
Project Name:	H. E. WEST B #40	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT. 1 @ 2' (H402279-02)**

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	07/28/2014	ND	2.16	108	2.00	3.97	
Toluene*	<0.050	0.050	07/28/2014	ND	2.18	109	2.00	3.22	
Ethylbenzene*	<0.050	0.050	07/28/2014	ND	2.22	111	2.00	5.39	
Total Xylenes*	<0.150	0.150	07/28/2014	ND	6.78	113	6.00	5.78	
Total BTX	<0.300	0.300	07/28/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	544	16.0	07/30/2014	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/25/2014	ND	171	85.6	200	2.40	
DRO >C10-C28	<10.0	10.0	07/25/2014	ND	192	95.8	200	3.06	


Surrogate: 1-Chlorooctane 114 % 65.2-140

Surrogate: 1-Chlorooctadecane 127 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Hope S. Moreno For Caley D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

RICE ENVIRONMENTAL CONSULTING & SAFETY  
LAURA FLORES  
419 W. CAIN  
HOBBS NM, 88240  
Fax To: (575) 397-1471

Received: 07/25/2014  
Reported: 07/31/2014  
Project Name: H. E. WEST B #40  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 07/23/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: PT. 1 @ 2.5' (H402279-03)**

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	07/28/2014	ND	2.16	108	2.00	3.97	
Toluene*	<0.050	0.050	07/28/2014	ND	2.18	109	2.00	3.22	
Ethylbenzene*	<0.050	0.050	07/28/2014	ND	2.22	111	2.00	5.39	
Total Xylenes*	<0.150	0.150	07/28/2014	ND	6.78	113	6.00	5.78	
Total BTX	<0.300	0.300	07/28/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 89.4-126

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	07/30/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/25/2014	ND	171	85.6	200	2.40	
DRO >C10-C28	<10.0	10.0	07/25/2014	ND	192	95.8	200	3.06	


Surrogate: 1-Chlorooctane 123 % 65.2-140

Surrogate: 1-Chlorooctadecane 135 % 63.6-154

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\*=Accredited Analyte

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LAURA FLORES  
419 W. CAIN  
HOBBS NM, 88240  
Fax To: (575) 397-1471

Received:	07/25/2014	Sampling Date:	07/23/2014
Reported:	07/31/2014	Sampling Type:	Soil
Project Name:	H. E. WEST B #40	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT. 2 @ SURFACE (H402279-04)**

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	07/28/2014	ND	2.16	108	2.00	3.97		
Toluene*	<0.050	0.050	07/28/2014	ND	2.18	109	2.00	3.22		
Ethylbenzene*	<0.050	0.050	07/28/2014	ND	2.22	111	2.00	5.39		
Total Xylenes*	<0.150	0.150	07/28/2014	ND	6.78	113	6.00	5.78		
Total BTEx	<0.300	0.300	07/28/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 118 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2840	16.0	07/30/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/25/2014	ND	171	85.6	200	2.40	
DRO >C10-C28	505	10.0	07/25/2014	ND	192	95.8	200	3.06	


Surrogate: 1-Chlorooctane 122 % 65.2-140

Surrogate: 1-Chlorooctadecane 159 % 63.6-154

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\*=Accredited Analyte

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Hope S. Moreno For Celey D. Keene, Lab Director/Quality Manager

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 LAURA FLORES  
 419 W. CAIN  
 HOBBS NM, 88240  
 Fax To: (575) 397-1471

Received:	07/25/2014	Sampling Date:	07/23/2014
Reported:	07/31/2014	Sampling Type:	Soil
Project Name:	H. E. WEST B #40	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT. 2 @ 5' (H402279-05)**

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	07/28/2014	ND	2.16	108	2.00	3.97		
Toluene*	<0.050	0.050	07/28/2014	ND	2.18	109	2.00	3.22		
Ethylbenzene*	<0.050	0.050	07/28/2014	ND	2.22	111	2.00	5.39		
Total Xylenes*	<0.150	0.150	07/28/2014	ND	6.78	113	6.00	5.78		
Total BTX	<0.300	0.300	07/28/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 119 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4560	16.0	07/28/2014	ND	400	100	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	07/25/2014	ND	171	85.6	200	2.40	
DRO >C10-C28	<10.0	10.0	07/25/2014	ND	192	95.8	200	3.06	

Surrogate: 1-Chlorooctane 126 % 65.2-140

Surrogate: 1-Chlorooctadecane 135 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Hope S. Moreno For Caley D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 RICE ENVIRONMENTAL CONSULTING & SAFETY  
 LAURA FLORES  
 419 W. CAIN  
 HOBBS NM, 88240  
 Fax To: (575) 397-1471

Received:	07/25/2014	Sampling Date:	07/23/2014
Reported:	07/31/2014	Sampling Type:	Soil
Project Name:	H. E. WEST B #40	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT. 2 @ 6' (H402279-06)**

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	07/28/2014	ND	2.16	108	2.00	3.97		
Toluene*	<0.050	0.050	07/28/2014	ND	2.18	109	2.00	3.22		
Ethylbenzene*	<0.050	0.050	07/28/2014	ND	2.22	111	2.00	5.39		
Total Xylenes*	<0.150	0.150	07/28/2014	ND	6.78	113	6.00	5.78		
Total BTX	<0.300	0.300	07/28/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 120 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	07/28/2014	ND	400	100	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	07/25/2014	ND	171	85.6	200	2.40	
DRO >C10-C28	<10.0	10.0	07/25/2014	ND	192	95.8	200	3.06	

Surrogate: 1-Chlorooctane 119 % 65.2-140

Surrogate: 1-Chlorooctadecane 133 % 63.6-154

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Hope S. Moreno For Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

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

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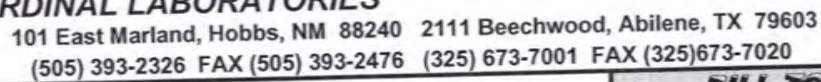
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† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#54

# Appendix C

Photo Documentation

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 2948 Hobbs, NM 88241  
Phone 575.393.2967

**Linn H.E. West B #40**  
Unit Letter D, Section 10, T17S, R31E



Source of release, facing southwest 7/21/14



Initial release area, facing northwest 7/21/14



Initial release area, facing east 7/22/14



Initial release area, facing west 7/22/14