

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

Form C-141  
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Linn Energy	Contact	Gary Wink
Address	2130 W. Bender Blvd., Hobbs, NM 88240	Telephone No.	(575) 738-1739
Facility Name	East Hobbs San Andres Unit Main Battery	Facility Type	Battery
Surface Owner	Arena Resources, Inc.	Mineral Owner	
		Lease No.	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	30	18S	39E	2007'	FSL	677'	FEL	Lea

Latitude 32°42'59.934"N Longitude 103°4'42.14"W

NATURE OF RELEASE

Type of Release	Oil	Volume of Release	Volume Recovered
Source of Release		Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?		Date and Hour	
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.\*

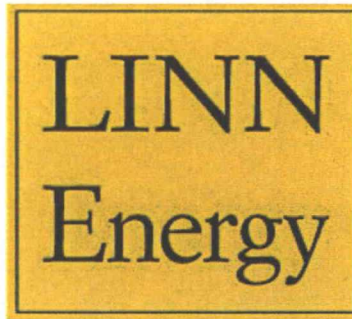
Describe Cause of Problem and Remedial Action Taken.\*

Describe Area Affected and Cleanup Action Taken.\* A total of 7,227 sq ft of battery pad, lease road and pasture was affected. RECS personnel were on site to begin work at the East Hobbs San Andres Unit Main Battery on January 9<sup>th</sup>, 2013. Surface samples and samples at depth were taken throughout the site. The samples were taken to a commercial laboratory for analysis of chlorides, TPH and the samples at depth for BTEX. Based on the laboratory data, the area to the south, located on the pad, was scraped down 6 inches and the area to the north, located in the pasture, was excavated down 1.5 ft. The excavated soil was taken to a NMOCD approved facility for disposal. A bottom composite sample of both the scrape and the excavation were taken to a commercial laboratory for analysis of TPH and BTEX. On May 2<sup>nd</sup>, 2013, NMOCD District 1 office verbally approved backfilling the pasture excavation. The north excavation was backfill with clean, imported top soil and the south scrape was backfilled with clean, imported 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.

Signature: <u>Gary W. Wink</u>	OIL CONSERVATION DIVISION <u>Gary W. Wink</u> Environmental Specialist	
Printed Name: Gary Wink	Approved by District Supervisor	
Title: Production Foreman	Approval Date: <u>10/10/13</u>	Expiration Date: <u>-</u>
E-mail Address: <u>gawink@linenergy.com</u>	Conditions of Approval: <u>-</u>	Attached <input type="checkbox"/>
Date: <u>10/10/13</u> Phone: (575) 738-1739	IRP-10-13-2970	

\* Attach Additional Sheets If Necessary



## **LINN ENERGY**

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

# East Hobbs San Andres Unit Main Battery

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## Closure Report

Release Date: January 9<sup>th</sup>, 2013

Unit Letter I, Section 30, Township 18S, Range 39E



## Rice Environmental Consulting & Safety

P.O. Box 2948, Hobbs, NM 88241

Phone 575.393.2967

**June 24<sup>th</sup>, 2013**

### **Geoff Leking**

New Mexico Energy, Minerals, & Natural Resources

Oil Conservation Division, Environmental Bureau – District 1

1625 N. French Drive

Hobbs, NM 88240

**RE: Termination Request**

**Linn Energy Resources**

**East Hobbs San Andres Unit Main Battery**

**UL/I sec. 30 T-18-S R-39-E**

Mr. Leking:

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

### **Background and Previous Work**

The site is located approximately 2 miles west of Hobbs, New Mexico at UL/I sec. 30 T18S R39E. NM OSE and BLM records indicate that groundwater will likely be encountered at a depth of approximately 80 +/- feet.

RECS personnel were on site to begin work at the East Hobbs San Andres Unit Main Battery on January 9<sup>th</sup>, 2013. Surface samples and samples at depth were taken throughout the site (Figure 1). The samples were taken to a commercial laboratory for analysis of chlorides, TPH and the samples at depth for BTEX (Appendix A). Throughout the site, the chloride values were low; however, TPH and BTEX levels were elevated but decreased with depth.

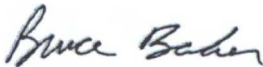
Based on the laboratory data, the area to the south, located on the pad, was scraped down 6 inches and the area to the north, located in the pasture, was excavated down 1.5 ft (Figure 2). The excavated soil was taken to a NMOCD approved facility for disposal. A bottom composite sample of both the scrape and the excavation were taken to a commercial laboratory for analysis of TPH and BTEX (Appendix B). The north excavation returned a TPH reading of 12.2 mg/kg. The south scrape returned a TPH reading of 990 mg/kg and a Total BTEX reading of 2.423 mg/kg.

On May 2<sup>nd</sup>, 2013, NMOCD District 1 office verbally approved backfilling the pasture excavation. The north excavation was backfill with clean, imported top soil and the south scrape was backfilled with clean, imported caliche. Photo documentation of these activities can be found in Appendix C.

Due to the removal of impacted soils and their replacement with clean, imported soil, Linn, submits the final C-141 (Appendix D) and respectfully requests the closure of the regulatory file for this site.

RECS appreciates the opportunity to work with you on this project. Please call the number below if you have any questions or wish to discuss the site.

Sincerely,

A handwritten signature in cursive script that reads "Bruce Baker".

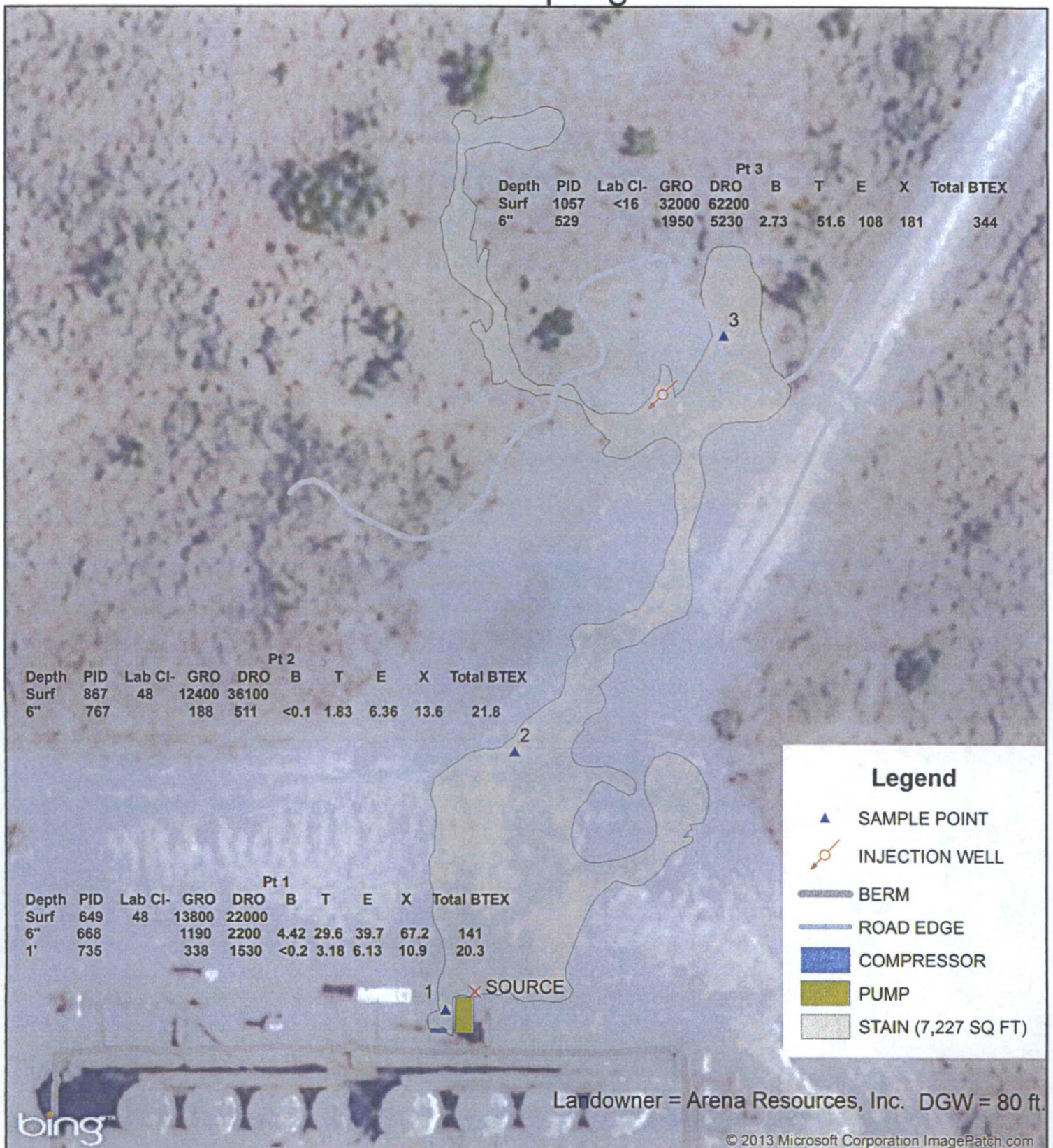
Bruce Baker  
Project Manager  
RECS  
(575) 631-5157

Attachments:

- Figure 1 – Initial Sampling Data
- Figure 2 – Excavation Data
- Appendix A – Initial Sampling Laboratory Analyses
- Appendix B – Final Sampling Laboratory Analyses
- Appendix C – Photo Documentation
- Appendix D – Final C-141



# Initial Sampling Data



## LINN EAST HOBBS SA UNIT MAIN BATTERY AD

UL I SECTION 30  
T-18-S R-39-E  
LEA COUNTY, NM

Figure 1

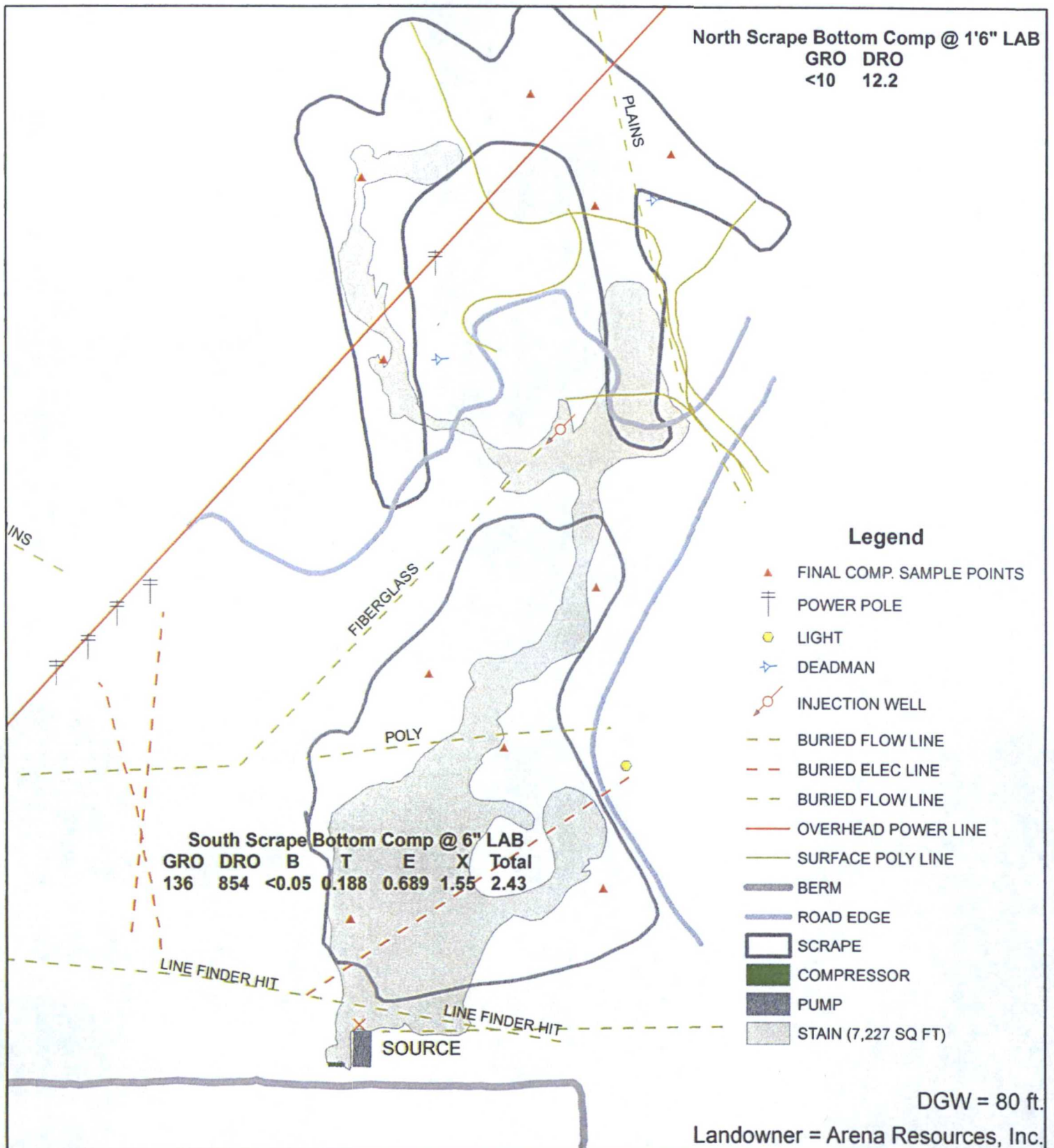


0 40 80  
Feet

GPS date: 1/9/13 TG  
Drawing date: 1/10/13  
Drafted by: Tony Grieco



# Excavation Data



## LINN EAST HOBBS SA UNIT MAIN BATTERY AD

UL I SECTION 30  
T-18-S R-39-E  
LEA COUNTY, NM

Figure 2



0 40 80 Feet

GPS date: 3/15/13 JK, 3/20/13 WJ  
Drawing date: 3/27/13  
Drafted by: L. Weinheimer





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

January 16, 2013

BRUCE BAKER

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

112 W. TAYLOR

HOBBS, NM 88240

RE: LINN HOBBS EAST SA UNIT BATTERY AD

Enclosed are the results of analyses for samples received by the laboratory on 01/10/13 9:20.

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,

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

RICE ENVIRONMENTAL CONSULTING & SAFETY  
BRUCE BAKER  
112 W. TAYLOR  
HOBBS NM, 88240  
Fax To: (575) 397-1471

Received:	01/10/2013	Sampling Date:	01/09/2013
Reported:	01/16/2013	Sampling Type:	Soil
Project Name:	LINN HOBBS EAST SA UNIT BATTERY AC	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 1 (H300075-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	01/15/2013	ND	432	108	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	13800	100	01/16/2013	ND	204	102	200	8.39		
DRO >C10-C28	22000	100	01/16/2013	ND	220	110	200	11.0		
Surrogate: 1-Chlorooctane	276 %	65.2-140								
Surrogate: 1-Chlorooctadecane	562 %	63.6-154								

**Sample ID: SP 2 (H300075-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	01/15/2013	ND	432	108	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	12400	100	01/16/2013	ND	204	102	200	8.39		
DRO >C10-C28	36100	100	01/16/2013	ND	220	110	200	11.0		
Surrogate: 1-Chlorooctane	434 %	65.2-140								
Surrogate: 1-Chlorooctadecane	919 %	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:

RICE ENVIRONMENTAL CONSULTING & SAFETY  
BRUCE BAKER  
112 W. TAYLOR  
HOBBS NM, 88240  
Fax To: (575) 397-1471

Received:	01/10/2013	Sampling Date:	01/09/2013
Reported:	01/16/2013	Sampling Type:	Soil
Project Name:	LINN HOBBS EAST SA UNIT BATTERY AC	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

### Sample ID: SP 3 (H300075-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	01/15/2013	ND	432	108	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	32000	200	01/16/2013	ND	204	102	200	8.39		
DRO >C10-C28	62200	200	01/16/2013	ND	220	110	200	11.0		
Surrogate: 1-Chlorooctane		802 %	65.2-140							
Surrogate: 1-Chlorooctadecane		1650 %	63.6-154							

Cardinal Laboratories

\*=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.
- 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



**ARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603  
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

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

January 25, 2013

BRUCE BAKER

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

112 W. TAYLOR

HOBBS, NM 88240

RE: EAST HOBBS SAN ANDRES UNIT CENTRAL BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 01/18/13 16:34.

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,



Celey D. Keene

Lab Director/Quality Manager



**Analytical Results For:**

RICE ENVIRONMENTAL CONSULTING & SAFETY  
BRUCE BAKER  
112 W. TAYLOR  
HOBBS NM, 88240  
Fax To: (575) 397-1471

Received:	01/18/2013	Sampling Date:	01/18/2013
Reported:	01/25/2013	Sampling Type:	Soil
Project Name:	EAST HOBBS SAN ANDRES UNIT CENTR	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 1 @ 6" (H300151-01)**

BTEX 8021B		mg/kg	Analyzed By: AP					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>4.42</b>	0.500	01/24/2013	ND	1.98	99.0	2.00	7.86	
<b>Toluene*</b>	<b>29.6</b>	0.500	01/24/2013	ND	2.00	100	2.00	7.97	
<b>Ethylbenzene*</b>	<b>39.7</b>	0.500	01/24/2013	ND	2.04	102	2.00	8.20	
<b>Total Xylenes*</b>	<b>67.2</b>	1.50	01/24/2013	ND	6.20	103	6.00	8.16	
<b>Total BTEX</b>	<b>141</b>	3.00	01/24/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 143 % 89.4-126

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>1190</b>	50.0	01/23/2013	ND	167	83.7	200	6.36	
<b>DRO &gt;C10-C28</b>	<b>2200</b>	50.0	01/23/2013	ND	166	83.0	200	5.23	

Surrogate: 1-Chlorooctane 93.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 98.2 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 RICE ENVIRONMENTAL CONSULTING & SAFETY  
 BRUCE BAKER  
 112 W. TAYLOR  
 HOBBS NM, 88240  
 Fax To: (575) 397-1471

 Received: 01/18/2013  
 Reported: 01/25/2013  
 Project Name: EAST HOBBS SAN ANDRES UNIT CENTR  
 Project Number: NOT GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 01/18/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 1 @ 1' (H300151-02)**

BTX 8021B		mg/kg	Analyzed By: AP					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	01/24/2013	ND	1.98	99.0	2.00	7.86	
Toluene*	3.18	0.200	01/24/2013	ND	2.00	100	2.00	7.97	
Ethylbenzene*	6.13	0.200	01/24/2013	ND	2.04	102	2.00	8.20	
Total Xylenes*	10.9	0.600	01/24/2013	ND	6.20	103	6.00	8.16	
Total BTX	20.3	1.20	01/24/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 130 % 89.4-126

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	338	50.0	01/23/2013	ND	167	83.7	200	6.36	
DRO >C10-C28	1530	50.0	01/23/2013	ND	166	83.0	200	5.23	

Surrogate: 1-Chlorooctane 77.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 101 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

RICE ENVIRONMENTAL CONSULTING & SAFETY  
BRUCE BAKER  
112 W. TAYLOR  
HOBBS NM, 88240  
Fax To: (575) 397-1471

Received:	01/18/2013	Sampling Date:	01/18/2013
Reported:	01/25/2013	Sampling Type:	Soil
Project Name:	EAST HOBBS SAN ANDRES UNIT CENTR	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 2 @ 6" (H300151-03)**

BTEX 8021B		mg/kg		Analyzed By: AP				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	01/24/2013	ND	1.98	99.0	2.00	7.86	
Toluene*	<b>1.83</b>	0.100	01/24/2013	ND	2.00	100	2.00	7.97	
Ethylbenzene*	<b>6.36</b>	0.100	01/24/2013	ND	2.04	102	2.00	8.20	
Total Xylenes*	<b>13.6</b>	0.300	01/24/2013	ND	6.20	103	6.00	8.16	
Total BTEX	<b>21.8</b>	0.600	01/24/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 175 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<b>188</b>	50.0	01/23/2013	ND	167	83.7	200	6.36	
DRO >C10-C28	<b>511</b>	50.0	01/23/2013	ND	166	83.0	200	5.23	

Surrogate: 1-Chlorooctane 70.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 73.9 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

RICE ENVIRONMENTAL CONSULTING & SAFETY  
BRUCE BAKER  
112 W. TAYLOR  
HOBBS NM, 88240  
Fax To: (575) 397-1471

Received:	01/18/2013	Sampling Date:	01/18/2013
Reported:	01/25/2013	Sampling Type:	Soil
Project Name:	EAST HOBBS SAN ANDRES UNIT CENTR	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 3 @ 6" (H300151-04)**

BTEX 8021B		mg/kg		Analyzed By: AP				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>2.73</b>	1.00	01/24/2013	ND	1.98	99.0	2.00	7.86	
<b>Toluene*</b>	<b>51.6</b>	1.00	01/24/2013	ND	2.00	100	2.00	7.97	
<b>Ethylbenzene*</b>	<b>108</b>	1.00	01/24/2013	ND	2.04	102	2.00	8.20	
<b>Total Xylenes*</b>	<b>181</b>	3.00	01/24/2013	ND	6.20	103	6.00	8.16	
<b>Total BTEX</b>	<b>344</b>	6.00	01/24/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 160 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>1950</b>	50.0	01/23/2013	ND	167	83.7	200	6.36	
<b>DRO &gt;C10-C28</b>	<b>5230</b>	50.0	01/23/2013	ND	166	83.0	200	5.23	

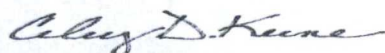
Surrogate: 1-Chlorooctane 101 % 65.2-140

Surrogate: 1-Chlorooctadecane 72.2 % 63.6-154

Cardinal Laboratories

\*=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.
- 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: <b>RECS</b>		<b>BILL TO</b>		ANALYSIS REQUEST											
Project Manager: <b>BRUCE BAKER</b>		P.O. #:													
Address:		Company:													
City:		Attn:													
Phone #:		Address:													
Project #:		City:													
Project Name: <b>LINN</b>		State:													
Project Location: <b>EAST HOBBS SAN ANALYSIS UNIT</b>		Phone #:													
Sampler Name: <b>TONY GIERCO</b>		Fax #:													
FOR LAB USE ONLY		# CONTAINERS		MATRIX		PRESERV		SAMPLING		DATE		TIME			
Lab I.D.		(G) RAB OR (C) OMP		GROUNDWATER		ACID/BASE				1-18-13		11:40			
H300151-01		G		WASTEWATER		ICE / COOL				1-18-13		3:30			
SP1 @ 6"		G		SLUDGE		OTHER:				1-18-13		1:50			
SP1 @ 1'		G		OIL		OTHER:				1-18-13		2:00			
SP2 @ 6"		G		SOIL											
SP3 @ 6"		G													

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Relinquished By: 	Date: <b>1/18/13</b>	Received By: 	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Time: <b>4:34p</b>	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One)			REMARKS:	
Sampler - UPS - Bus - Other:			L. Weinheimer B. Baker A. Ruth H. Conder	
Sample Condition				
Cook Intact				
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
1.5°C				



March 21, 2013

BRUCE BAKER

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

112 W. TAYLOR

HOBBS, NM 88240

RE: EAST HOBBS SAN ANDRES UNIT CENTRAL BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 03/19/13 9:15.

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,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

RICE ENVIRONMENTAL CONSULTING & SAFETY  
BRUCE BAKER  
112 W. TAYLOR  
HOBBS NM, 88240  
Fax To: (575) 397-1471

Received:	03/19/2013	Sampling Date:	03/18/2013
Reported:	03/21/2013	Sampling Type:	Soil
Project Name:	EAST HOBBS SAN ANDRES UNIT CENTR	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: S SCRAPE BOTTOM COMP @ 6" (H300650-01)**

BTX 8021B		mg/kg	Analyzed By: AP					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/19/2013	ND	2.01	101	2.00	16.1	
Toluene*	<b>0.188</b>	0.050	03/19/2013	ND	2.01	101	2.00	15.8	
Ethylbenzene*	<b>0.689</b>	0.050	03/19/2013	ND	1.95	97.3	2.00	16.1	
Total Xylenes*	<b>1.55</b>	0.150	03/19/2013	ND	5.88	98.0	6.00	16.5	
Total BTX	<b>2.43</b>	0.300	03/19/2013	ND					

Surrogate: 4-Bromofluorobenzene (PI) 146 % 89.4-126

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<b>136</b>	50.0	03/19/2013	ND	181	90.6	200	7.45	
DRO >C10-C28	<b>854</b>	50.0	03/19/2013	ND	179	89.7	200	7.13	

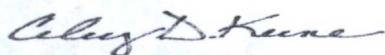
Surrogate: 1-Chlorooctane 92.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 117 % 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



### 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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Celey D. Keene, Lab Director/Quality Manager

**ARDINAL LABORATORIES**

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603  
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

[illegible]

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

92#



April 19, 2013

BRUCE BAKER

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

112 W. TAYLOR

HOBBS, NM 88240

RE: EAST HOBBS SAN ANDRES UNIT CENTRAL BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 04/16/13 8:30.

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).

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Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

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Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

RICE ENVIRONMENTAL CONSULTING & SAFETY  
BRUCE BAKER  
112 W. TAYLOR  
HOBBS NM, 88240  
Fax To: (575) 397-1471

Received: 04/16/2013  
Reported: 04/19/2013  
Project Name: EAST HOBBS SAN ANDRES UNIT CENTRU  
Project Number: NOT GIVEN  
Project Location: NOT GIVEN

Sampling Date: 04/15/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

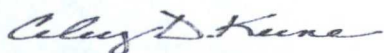
**Sample ID: 5 PT. COMPOSITE (H300905-01)**

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	04/17/2013	ND	214	107	200	1.59	
<b>DRO &gt;C10-C28</b>	<b>12.2</b>	10.0	04/17/2013	ND	231	116	200	8.38	
Surrogate: 1-Chlorooctane	86.9 %	65.2-140							
Surrogate: 1-Chlorooctadecane	105 %	63.6-154							

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Notes and Definitions**

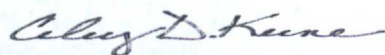
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

# CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603  
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

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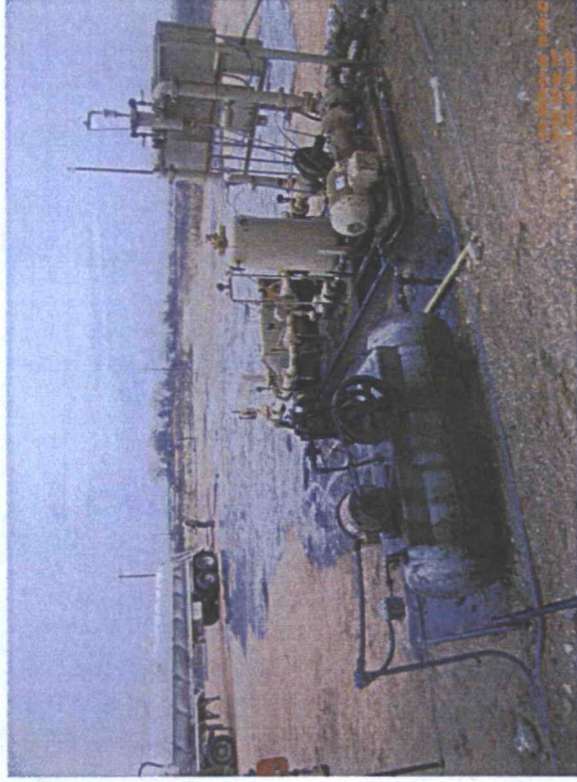
+ Cardinal cannot accept verbal changes. Please fax written changes to 505-393-476

#54



# Linn East Hobbs SA Unit Main Battery AD

Unit Letter I, Section 30, T18S, R39E



Initial release area, facing northeast

1/9/13



Initial release area, facing southwest

1/9/13



Initial release area, facing southwest

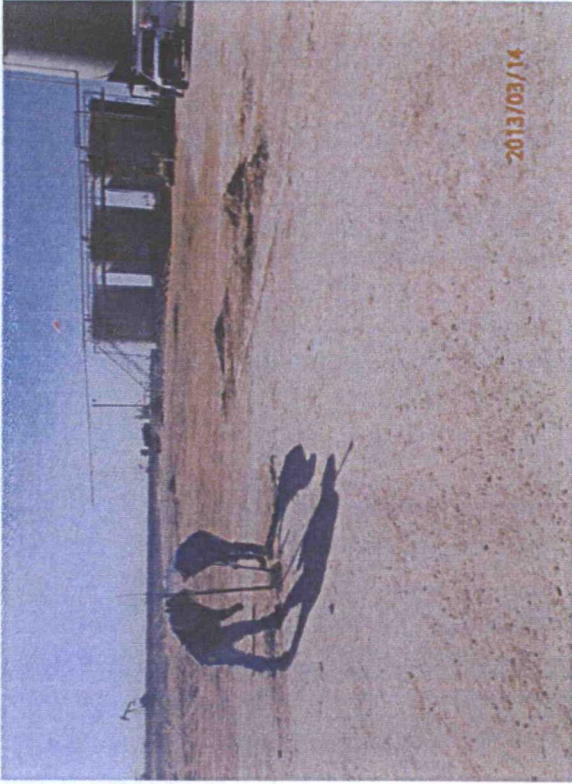
1/9/13



Initial release area, facing south

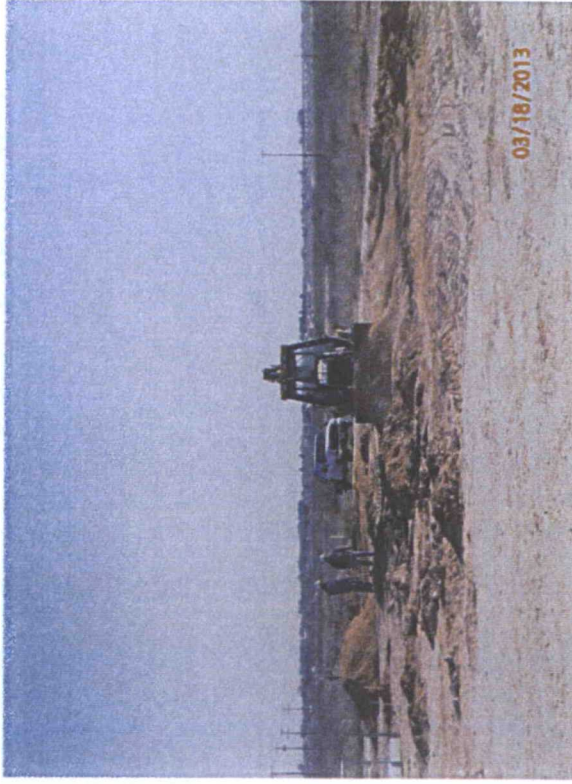
1/9/13





Spotting lines, facing southeast

3/14/13



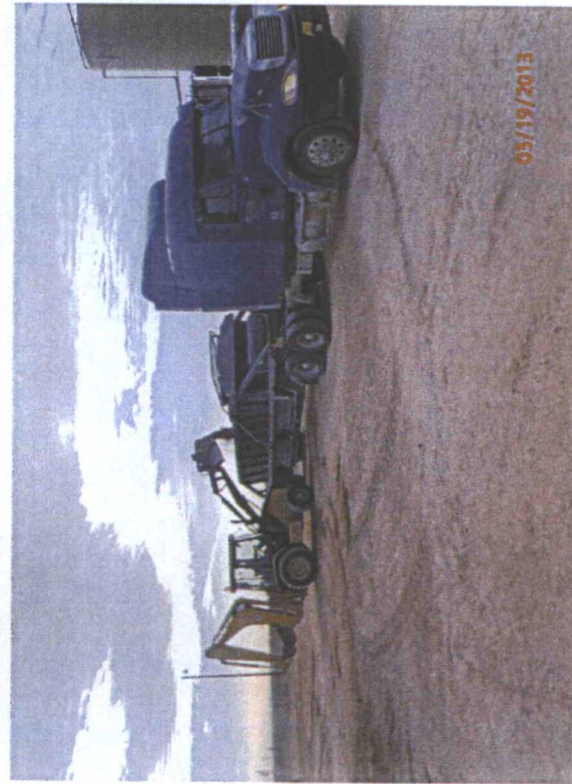
Scraping south area, facing northeast

3/18/13



Scraping north area, facing east

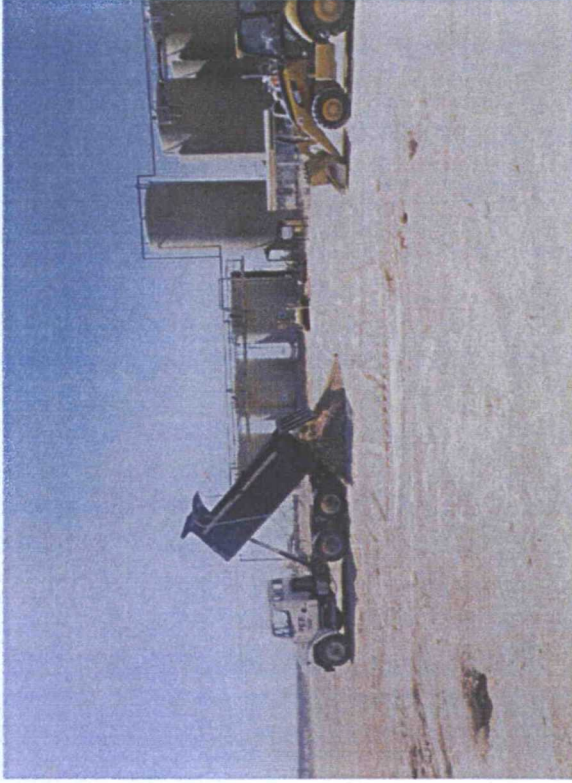
3/18/13



Exporting soil, facing northeast

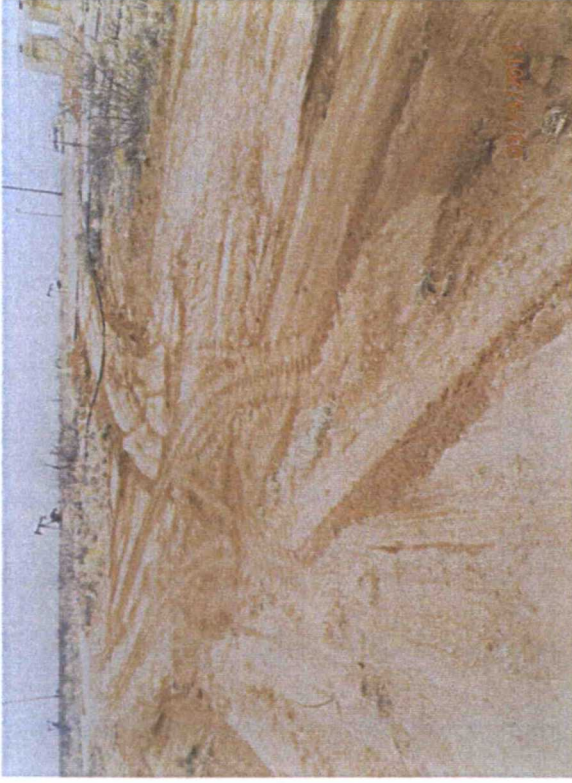
3/19/13





Importing soil, facing south

4/4/13



Scrape completed to 1', facing southeast

4/19/13



Scrape completed to 1', facing southeast

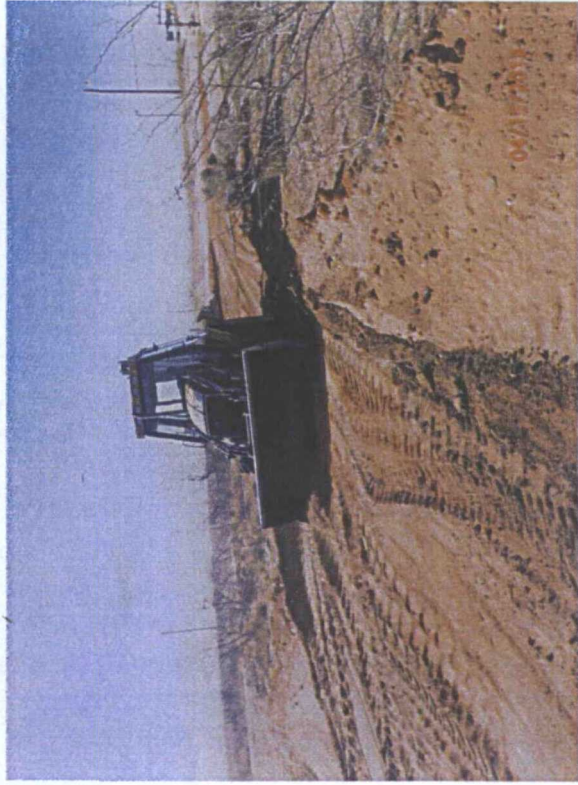
4/19/13



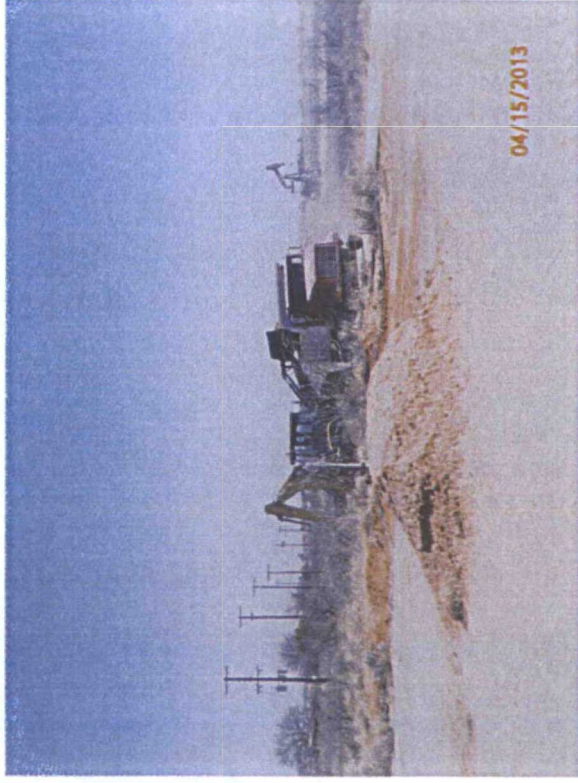
Backfilling pad, facing southwest

4/4/13

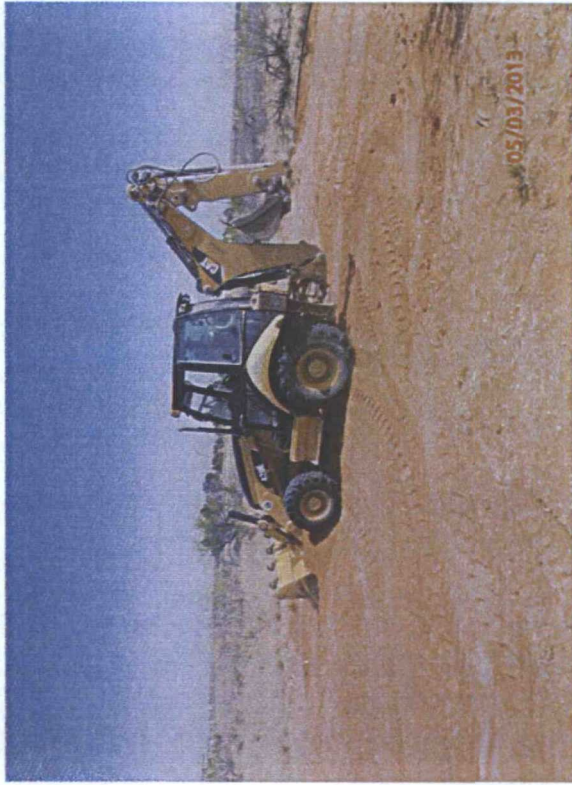




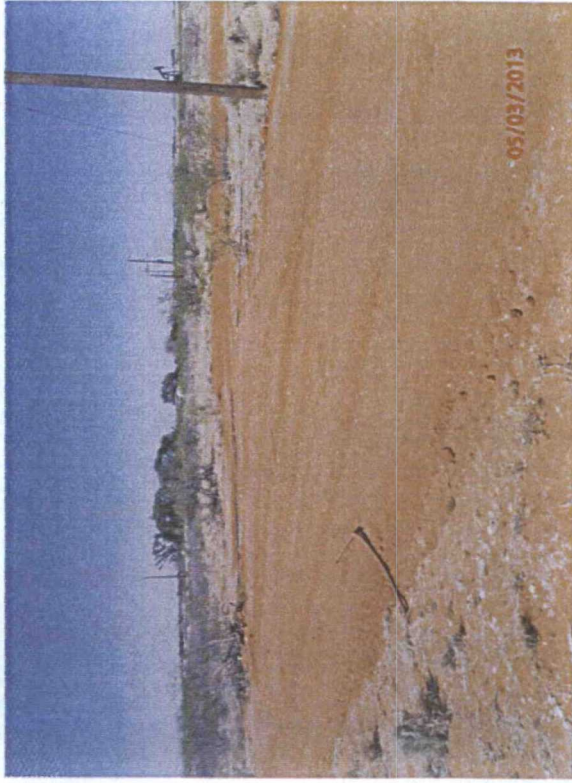
Excavating pasture 6 more inches, facing southeast  
4/15/13



Exporting soil, facing northeast  
4/15/13

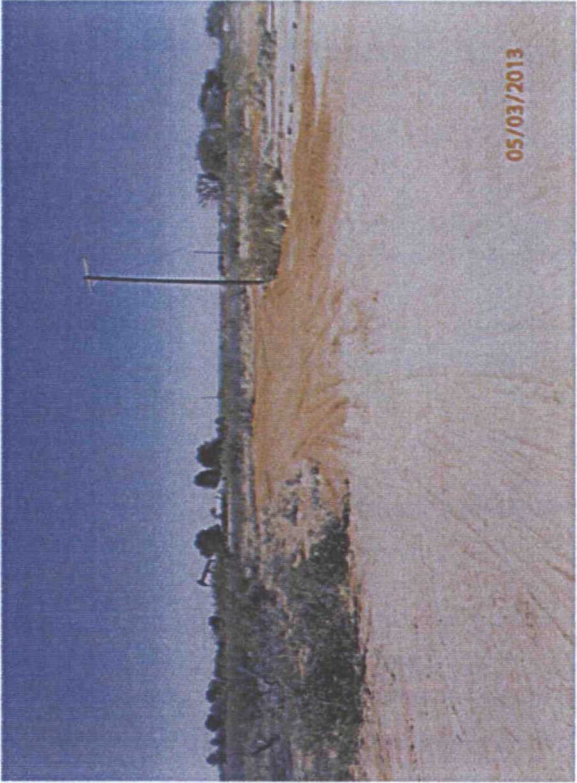


Backfilling site, facing west  
5/3/13



Site completed, facing southeast  
5/3/13





Excavation completed in north area, facing northwest  
5/3/13



Site completed, facing southwest  
5/3/13