



## Remediation Final Report Form

### General Information

This section provides general information about the operator and the site where the spill occurred.

**Date:** October 31, 2014

**Client:** LINN Energy

**Site Name:** Sinagua 18 Federal 2

**County:** Lea

**State:** NM

**Site Coordinates** Latitude: 32.5714830169451

Longitude: -103.598153358334

**Property Owner:** Federal

**State Report No.:** 1RP-3232

### Release Description and Assessment

The information below is related to the spill (Date, Type, Cause and Quantity) and the area impacted.

**Date of Spill:** 3/22/14

**Type of Spill:** ☒ Oil ☒ Produced Water ☐ Condensate ☐ Other (Specify):

**Cause of Spill:** ☐ Equipment Failure ☒ Valve Failure ☐ Line Rupture ☐ Leaking Tank ☐ Tank Overfill  
☐ Other (List):

#### **Other Contributing Factors or Comments:**

**Quantity Spilled:** 20 bbls /2 bbls. **Quantity Recovered:** 0/0 bbls. **Total Released:** 20 bbls/ 2 bbls.

**Method of Recovery:** ☐ Vacuum Truck ☐ Other (Specify):

**OCD Notified:** ☒ Yes ☐ No **C-141 Completed and Submitted:** ☒ Yes ☐ No

**Spill Area Impacted:** ☐ Inside Firewall ☐ On Production Pad ☒ In Pasture ☐ In Cultivated Land  
☐ Other (List):

**Total Square Footage Impacted:** 3600 **Estimated Depth:** 1-5' **Volume (Cu. Yds):** 624

**Other Comments:**

### Remediation Activity Summary

The following summarizes the activities used to remediate the spill.

Impacted soils above regulatory threshold levels were manually and mechanically excavated from the spill area.

The affected area was excavated and hauled to Lealand for disposal. Then backfilled with clean compacted material to within 1.5 – 2 feet of surface then the backfill was completed with compatible soil which is conducive to growing vegetation. The site was then seeded with an approved BLM mix.

A review of the analytical data indicated the sample is within the Oil Conservation Division (OCD) regulatory threshold limits. Based upon this information it has been determined that remediation of the site is complete. Copies of analytical reports, seed tickets, photographs, BLM closure and final C-141 are attached.

Prepared by:

A handwritten signature in blue ink, appearing to read 'Kit Prichard', with a stylized, cursive script.

Kit Prichard  
Etech Environmental & Safety Solutions, Inc.



Site before excavation.



Site before excavation.





Site during excavation.



Site during excavation.





Site during seeding.



Site during seeding.



Electronic Correspondence

August 12, 2014

Dr. Tomas Oberding  
State of New Mexico  
Oil Conservation Division  
1625 N. French Dr,  
Hobbs, New Mexico 88240  
[tomas.oberding@state.nm.us](mailto:tomas.oberding@state.nm.us)

Re: Corrective Action Plan  
LINN Energy, Sinagua 18 Fed #2  
API No.: 30-025-32694  
Legal: Unit J – Sec 18 – T20S – R34E – 2041 FSL, 2171 FEL - Lea Co., NM  
GPS: 32.5714830169451, -103.598153358334

Dear Tomas:

Etech Environmental & Safety Solutions, Inc. (Etech) is pleased to submit the following corrective action plan on the aforementioned site for your review and approval.

### **Scope of Work**

The scope of this project is for the remediation of a produced water/hydrocarbon impact. Completion of remediation will involve the following actions:

1. Placement of a one-call for utility location.
2. Excavation of impacted soils as far as practicable or until the chloride levels are less than 1,000 mg/kg and/or hydrocarbon levels of less than 5,000 mg/kg are reached. Preliminary assessment data indicated the chlorides exceeded regulatory threshold levels to a depth of 6 feet where refusal was encountered. Please note: The delineation data was collected from the lowest point in the impacted area where it was evident liquids had pooled. The assessment map includes the delineation data and the sampling points (SP's) that will be used to determine that the excavation has reached remediation objectives.
3. During the course of excavation soil samples will be screened on site to determine the progress of the remediation. Screening is achieved using a YSI chloride meter with a tolerance of +/- 6% which is the same tolerance as laboratory titration methods.
4. Once the screening determines the remediation objectives have been reached, confirmation samples will be collected from the bottom of the excavation to confirm that remediation goals have been reached. If the excavation depth is greater than 2 feet vertical, side wall samples will be collected as well.
5. If the results of analysis determine that the chloride levels are above regulatory threshold levels, additional excavation will be performed until the remediation objectives are met. It should be noted that due to the depth of the impact from the delineation, there may be

circumstance that arise where additional excavation is not practical. This includes reaching the limits of excavation with chlorides that are close to objective levels, safety issues such as the close proximity of equipment, or other site specific issues. In this event, it will be likely to install a liner or a layer of gypsum at the bottom of the excavation before backfilling.

6. Backfilling of the excavated area(s) will be achieved by placing clean fill similar to the existing material from the site to within 2 foot of the surface. The last two feet will be backfilled with top soil of similar configuration to the surrounding area and contoured to match the existing grade.
7. Where pad areas or interior areas of tank batteries are excavated, they will be backfilled to within 6 inches of surface then backfilled to grade with compacted caliche. Any firewalls or containment berms removed during remediation will be reinstalled.
8. The site will be seeded with a 50/50 mixture of BLM #2 and #4 seed. Seeding will take place when the seasonal conditions are conducive to maximizing the potential for seed germination. Actual seeding will be accomplished by broadcast or drilling; whichever is the most practical for the site.

#### **Notifications and Special Conditions**

1. The OCD and BLM will be notified prior to the commencement of on-site operations.
2. The OCD and BLM will be notified prior to each sampling event to allow the opportunity to witness the sampling events. Splits will be made available if requested.
3. The OCD and BLM (if applicable) will be notified when the site is closed for final inspection prior to seeding.
4. A final report documenting the closure of the site will be submitted along with a final C-141.

Thank you for your assistance on this matter. Should you have any questions, require additional information, or have any additional stipulations for this site, please contact Mr. Brian Wall at (575) 738-1739 (Office) or via email at [bwall@linenergy.com](mailto:bwall@linenergy.com) or myself at (432) 563-2200 (office) or via email at [Kit@etechnv.com](mailto:Kit@etechnv.com).

Respectfully:



Kit Prichard  
Environmental Professional

cc: Jeffery Robertson, BLM Carlsbad District Office



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

---

June 05, 2014

KIT PRICHARD

ETECH Environmental & Safety Solutions, Inc.

P. O. BOX 8469

MIDLAND, TX 79708

RE: SINAGUA 18 FED COM #2

Enclosed are the results of analyses for samples received by the laboratory on 05/29/14 16:50.

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,

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:**

ETECH Environmental & Safety Solutions, Inc.  
KIT PRICHARD  
P. O. BOX 8469  
MIDLAND TX, 79708  
Fax To: (432) 563-2213

Received:	05/29/2014	Sampling Date:	05/29/2014
Reported:	06/05/2014	Sampling Type:	Soil
Project Name:	SINAGUA 18 FED COM #2	Sampling Condition:	** (See Notes)
Project Number:	253-5063-000	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 1 5-6' (H401656-03)**

BTX 8021B			mg/L		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2014	ND	1.98	98.9	2.00	1.28	
Toluene*	<0.050	0.050	06/05/2014	ND	2.15	108	2.00	3.58	
Ethylbenzene*	<0.050	0.050	06/05/2014	ND	1.94	97.0	2.00	2.80	
Total Xylenes*	<0.150	0.150	06/05/2014	ND	6.09	101	6.00	4.91	
Total BTX	<0.300	0.300	06/05/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 89.5-126

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	06/02/2014	ND	464	116	400	10.9	

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	06/03/2014	ND	187	93.4	200	0.381	
DRO >C10-C28	21.9	10.0	06/03/2014	ND	205	103	200	1.81	

Surrogate: 1-Chlorooctane 126 % 65.2-140

Surrogate: 1-Chlorooctadecane 124 % 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:**

ETECH Environmental & Safety Solutions, Inc.  
KIT PRICHARD  
P. O. BOX 8469  
MIDLAND TX, 79708  
Fax To: (432) 563-2213

Received: 05/29/2014  
Reported: 06/05/2014  
Project Name: SINAGUA 18 FED COM #2  
Project Number: 253-5063-000  
Project Location: LEA COUNTY, NM

Sampling Date: 05/29/2014  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson

**Sample ID: SP 2 5-6' (H401656-06)**

BTX 8021B		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	1.50	0.500	06/05/2014	ND	1.98	98.9	2.00	1.28	
Toluene*	20.1	0.500	06/05/2014	ND	2.15	108	2.00	3.58	
Ethylbenzene*	33.7	0.500	06/05/2014	ND	1.94	97.0	2.00	2.80	
Total Xylenes*	90.6	1.50	06/05/2014	ND	6.09	101	6.00	4.91	
Total BTX	146	3.00	06/05/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 89.5-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	06/02/2014	ND	464	116	400	10.9	

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	4960	100	06/03/2014	ND	187	93.4	200	0.381		
DRO >C10-C28	13500	100	06/03/2014	ND	205	103	200	1.81		

Surrogate: 1-Chlorooctane 204 % 65.2-140

Surrogate: 1-Chlorooctadecane 260 % 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:**

ETECH Environmental & Safety Solutions, Inc.  
KIT PRICHARD  
P. O. BOX 8469  
MIDLAND TX, 79708  
Fax To: (432) 563-2213

Received: 05/29/2014  
Reported: 06/05/2014  
Project Name: SINAGUA 18 FED COM #2  
Project Number: 253-5063-000  
Project Location: LEA COUNTY, NM

Sampling Date: 05/29/2014  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson

**Sample ID: SP 3 5-6' (H401656-09)**

BTX 8021B		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2014	ND	1.98	98.9	2.00	1.28	
Toluene*	<0.050	0.050	06/05/2014	ND	2.15	108	2.00	3.58	
Ethylbenzene*	0.145	0.050	06/05/2014	ND	1.94	97.0	2.00	2.80	
Total Xylenes*	0.326	0.150	06/05/2014	ND	6.09	101	6.00	4.91	
Total BTX	0.471	0.300	06/05/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 89.5-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	06/02/2014	ND	464	116	400	10.9	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	24.7	10.0	06/03/2014	ND	187	93.4	200	0.381	
DRO >C10-C28	618	10.0	06/03/2014	ND	205	103	200	1.81	

Surrogate: 1-Chlorooctane 121 % 65.2-140

Surrogate: 1-Chlorooctadecane 121 % 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:**

ETECH Environmental & Safety Solutions, Inc.  
KIT PRICHARD  
P. O. BOX 8469  
MIDLAND TX, 79708  
Fax To: (432) 563-2213

Received: 05/29/2014  
Reported: 06/05/2014  
Project Name: SINAGUA 18 FED COM #2  
Project Number: 253-5063-000  
Project Location: LEA COUNTY, NM

Sampling Date: 05/29/2014  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson

**Sample ID: SP 4 5-6' (H401656-12)**

BTX 8021B		mg/L		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2014	ND	1.98	98.9	2.00	1.28	
Toluene*	<0.050	0.050	06/05/2014	ND	2.15	108	2.00	3.58	
Ethylbenzene*	<0.050	0.050	06/05/2014	ND	1.94	97.0	2.00	2.80	
Total Xylenes*	<0.150	0.150	06/05/2014	ND	6.09	101	6.00	4.91	
Total BTEX	<0.300	0.300	06/05/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 89.5-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4640	16.0	06/02/2014	ND	464	116	400	10.9	

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	06/03/2014	ND	187	93.4	200	0.381	
DRO >C10-C28	60.7	10.0	06/03/2014	ND	205	103	200	1.81	

Surrogate: 1-Chlorooctane 118 % 65.2-140

Surrogate: 1-Chlorooctadecane 119 % 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:**

ETECH Environmental & Safety Solutions, Inc.  
KIT PRICHARD  
P. O. BOX 8469  
MIDLAND TX, 79708  
Fax To: (432) 563-2213

Received: 05/29/2014  
Reported: 06/05/2014  
Project Name: SINAGUA 18 FED COM #2  
Project Number: 253-5063-000  
Project Location: LEA COUNTY, NM

Sampling Date: 05/29/2014  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Jodi Henson

**Sample ID: SP 5 5-6' (H401656-15)**

BTEx 8021B		mg/L		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2014	ND	1.98	98.9	2.00	1.28	
Toluene*	<0.050	0.050	06/05/2014	ND	2.15	108	2.00	3.58	
Ethylbenzene*	0.244	0.050	06/05/2014	ND	1.94	97.0	2.00	2.80	
Total Xylenes*	0.787	0.150	06/05/2014	ND	6.09	101	6.00	4.91	
Total BTEX	1.03	0.300	06/05/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 151 % 89.5-126

Chloride, SM4500Cl-B			mg/kg					Analyzed By: AP	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1580</b>	16.0	06/02/2014	ND	464	116	400	10.9	

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>87.7</b>	10.0	06/04/2014	ND	187	93.4	200	0.381	
<b>DRO &gt;C10-C28</b>	<b>1600</b>	10.0	06/04/2014	ND	205	103	200	1.81	

Surrogate: 1-Chlorooctane 124 % 65.2-140

Surrogate: 1-Chlorooctadecane 121 % 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-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

---

Cardinal Laboratories

\*=Accredited Analyte

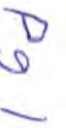
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived 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





## Page 8 of 9

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

FOR LAB USE ONLY

10 SPY 1-21

affiliates or successors arising out of or related to the performance of services hereunder by Cardinal regardless of whether such claim is based upon any of the above stated theories of causation.

**Received By:** \_\_\_\_\_

**Phone Resul**

1992

Sampler - UPS - BUS - Other:

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



### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Day 7

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

**Company Name:** Etech

**Project Manager:** Kit Pritchard

**Address:**

**City:** State: Zip:

**Phone #:** Fax #:

**Project #:** 253-5063-000 Project Owner:

**Project Name:** Sangua 18 Fed com #2

**Project Location:** Lea County

**Sample Name:** Terry Osborn

**P.O. #:** 253-5063-000

**Company:**

**Attn:**

**Address:**

**City:** State: Zip:

**Phone #:** Fax #:

**FOR LAB USE ONLY**

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX										DATE	TIME	SAMPLING	ANALYSIS REQUEST
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :					
11	SP4 3-4)												5-29-14				chlorides
12	SP4 5-6)																Tph
13	SP5 1-2)																BTEX
14	SP5 3-4)																
15	SP5 5-6)																

**Relinquished By:** [Signature] **Date:** 5-20-14 **Received By:** [Signature] **Time:** 4:50

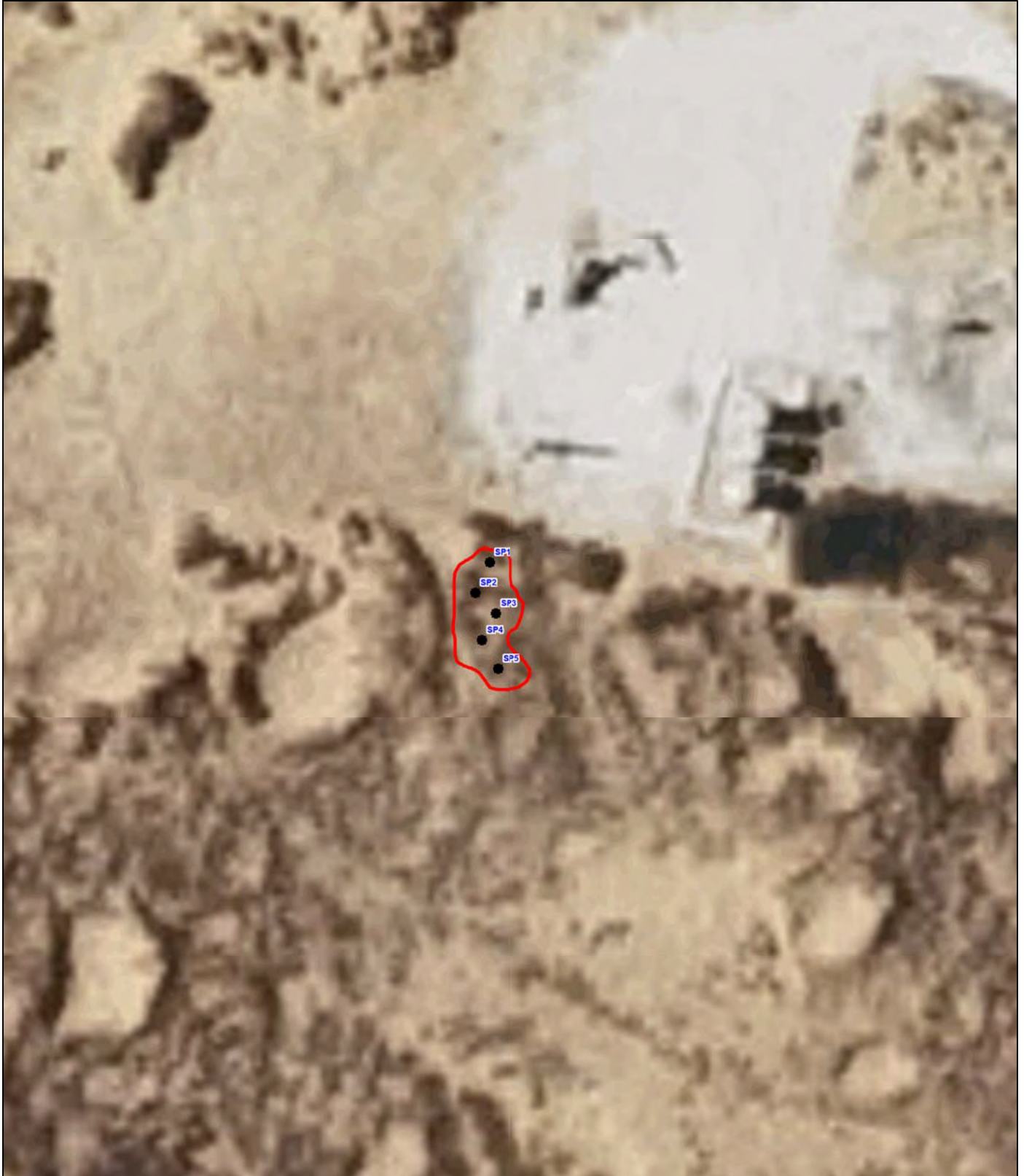
**Relinquished By:** [Signature] **Date:** [ ] **Received By:** [Signature] **Time:** [ ]

**Delivered By:** (Circle One) **Sample Condition:** Cool ☒ Intact ☐ **CHECKED BY:** [Signature]

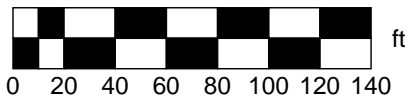
**Sampler:** UPS ☐ Bus ☐ Other ☐ **17c**

**REMARKS:**





Scale 1:900



1" = 75.0 ft

Data Zoom 17-7

LINN Energy  
Sinagua 18 Fed #2  
Sample Points Map



MN (7.3° E)

Data use subject to license.

© DeLorme. XMap® 8.

www.delorme.com



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 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: Sinagua 18 Fed #2	Facility Type: Oil	
Surface Owner: Federal	Mineral Owner:	API No.: 30-025-32694

### LOCATION OF RELEASE

Unit Letter J	Section 18	Township 20S	Range 34E	Feet from the 2041	North/South Line South	Feet from the 2171	East/West Line East	County Lea
------------------	---------------	-----------------	--------------	-----------------------	---------------------------	-----------------------	------------------------	---------------

**Latitude:** 32.5714830169451 **Longitude:** -103.598153358334

### NATURE OF RELEASE


Type of Release: Oil / Produced Water	Volume of Release: 20 bbls / 2 bbls	Volume Recovered: 0 / 0
Source of Release: Heater Treater	Date and Hour of Occurrence: 03/22/2014	Date and Hour of Discovery: 03/22/2014 0930
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher- BLM Geoffrey Leking- NM OCD	
By Whom? Brian Wall	Date and Hour 03/24/2014	
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.\*: When arriving to location on Saturday 3/22/2014. I noticed the vent was flowing oil out of gas vent. When I was looking at heater treater I noticed the balon valves on the oil and water lines were closed. I opened the valves to dump the fluid down in heater treater. then the oil that was in the vent pipe quit flowing.

Describe Area Affected and Cleanup Action Taken.\* : Delineate site. Send in CAP to BLM and OCD for approval. Remove contaminates and haul to approved disposal site. Replace with clean soil and fill void. Return to natural terrian and reseed.

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><u>OIL CONSERVATION DIVISION</u></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: 03/24/2014 Phone: 806-367-0645				

\* Attach Additional Sheets If Necessary



Electronic Correspondence

October 21, 2014

Dr. Tomas Oberding  
State of New Mexico  
Oil Conservation Division  
1625 North French Dr.  
Hobbs, NM 88240  
[tomas.oberding@state.nm.us](mailto:tomas.oberding@state.nm.us)

Re: Backfill Request  
LINN Energy, Sinagua 18 Federal 2  
API No.: 30-025-32694  
Legal: Unit J, Section 18, T20S, R34E, 2041 FSL, 2171 FEL, Lea Co., NM  
GPS: 32.5714830169451, -103.598153358334

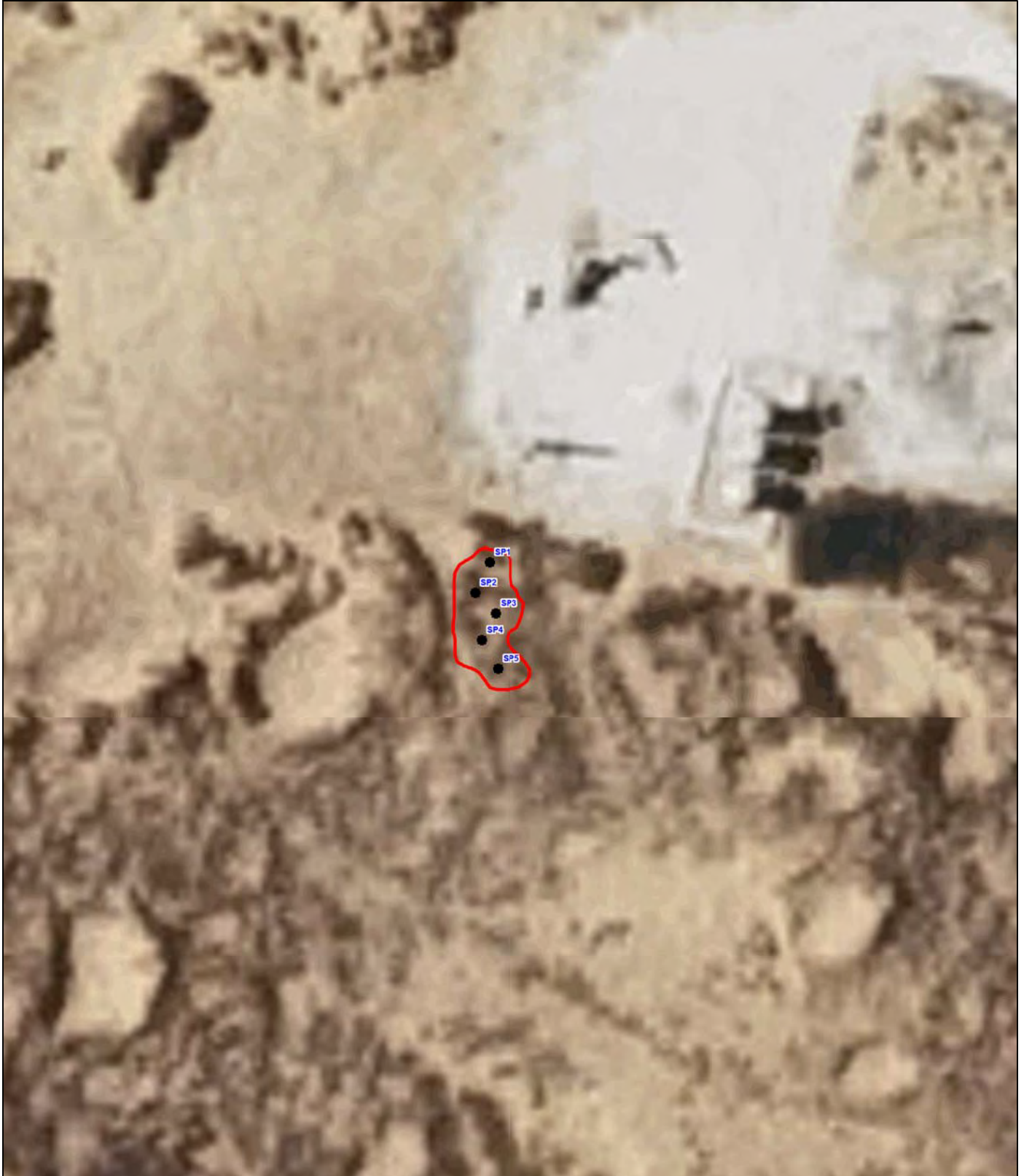
Dear Tomas & Jeff:

1. Attached is the sample points map and analytical data for the clearance sampling of the Sinagua 18 Federal 2.
2. Grab samples were collected from each corresponding sampling site at depth then placed in certified clean jars, labeled, and custody seals applied. Nitrile gloves were used and changed during each sample collection, as well as proper decontamination procedures.
3. Samples were preserved according to the requirements ASATM/EPA requirements. Normal Chain of Custody procedures were observed.
4. LINN Energy is requesting permission to backfill and close the site in accordance with the stipulations for the site.

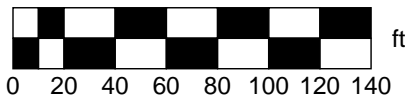
Thank you for your assistance.

A handwritten signature in blue ink, appearing to read "Kit Prichard", is written over a light blue grid background.

Kit Prichard  
Project Manager – Etech Environmental & Safety Solutions, Inc.



Scale 1:900



1" = 75.0 ft

Data Zoom 17-7

LINN Energy  
Sinagua 18 Fed #2  
Sample Points Map



MN (7.3° E)

Data use subject to license.

© DeLorme. XMap® 8.

www.delorme.com



September 03, 2014

KIT PRICHARD

ETECH Environmental & Safety Solutions, Inc.

P. O. BOX 8469

MIDLAND, TX 79708

RE: SINAGUA 18 FED COM #2

Enclosed are the results of analyses for samples received by the laboratory on 08/26/14 16:50.

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,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

ETECH Environmental & Safety Solutions, Inc.  
KIT PRICHARD  
P. O. BOX 8469  
MIDLAND TX, 79708  
Fax To: (432) 563-2213

Received:	08/26/2014	Sampling Date:	08/26/2014
Reported:	09/03/2014	Sampling Type:	Soil
Project Name:	SINAGUA 18 FED COM #2	Sampling Condition:	Cool & Intact
Project Number:	253-5063-000	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 1 BOTTOM 5' (H402624-01)**

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	09/02/2014	ND	1.71	85.6	2.00	10.8	
Toluene*	<0.050	0.050	09/02/2014	ND	1.58	78.9	2.00	10.1	
Ethylbenzene*	<0.050	0.050	09/02/2014	ND	1.76	87.8	2.00	11.2	
Total Xylenes*	<0.150	0.150	09/02/2014	ND	5.24	87.3	6.00	11.1	
Total BTEX	<0.300	0.300	09/02/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	<16.0	16.0	08/28/2014	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	08/28/2014	ND	180	89.9	200	0.125	
DRO >C10-C28	<10.0	10.0	08/28/2014	ND	189	94.6	200	3.50	

Surrogate: 1-Chlorooctane 92.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 115 % 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:**

ETECH Environmental & Safety Solutions, Inc.  
KIT PRICHARD  
P. O. BOX 8469  
MIDLAND TX, 79708  
Fax To: (432) 563-2213

Received: 08/26/2014  
Reported: 09/03/2014  
Project Name: SINAGUA 18 FED COM #2  
Project Number: 253-5063-000  
Project Location: LEA COUNTY, NM

Sampling Date: 08/26/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 1 N. WALL 2.5' (H402624-02)**

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	09/02/2014	ND	1.71	85.6	2.00	10.8	
Toluene*	<0.050	0.050	09/02/2014	ND	1.58	78.9	2.00	10.1	
Ethylbenzene*	<0.050	0.050	09/02/2014	ND	1.76	87.8	2.00	11.2	
Total Xylenes*	<0.150	0.150	09/02/2014	ND	5.24	87.3	6.00	11.1	
Total BTX	<0.300	0.300	09/02/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 89.4-126

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	08/28/2014	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	08/28/2014	ND	180	89.9	200	0.125	
DRO >C10-C28	<10.0	10.0	08/28/2014	ND	189	94.6	200	3.50	

Surrogate: 1-Chlorooctane 87.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 108 % 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:**

ETECH Environmental & Safety Solutions, Inc.  
KIT PRICHARD  
P. O. BOX 8469  
MIDLAND TX, 79708  
Fax To: (432) 563-2213

Received: 08/26/2014  
Reported: 09/03/2014  
Project Name: SINAGUA 18 FED COM #2  
Project Number: 253-5063-000  
Project Location: LEA COUNTY, NM

Sampling Date: 08/26/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 1 W. WALL 2.5' (H402624-03)**

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	09/02/2014	ND	1.71	85.6	2.00	10.8	
Toluene*	<0.050	0.050	09/02/2014	ND	1.58	78.9	2.00	10.1	
Ethylbenzene*	<0.050	0.050	09/02/2014	ND	1.76	87.8	2.00	11.2	
Total Xylenes*	<0.150	0.150	09/02/2014	ND	5.24	87.3	6.00	11.1	
Total BTEx	<0.300	0.300	09/02/2014	ND					

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

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	08/28/2014	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	08/28/2014	ND	180	89.9	200	0.125	
DRO >C10-C28	126	10.0	08/28/2014	ND	189	94.6	200	3.50	

Surrogate: 1-Chlorooctane 100 % 65.2-140

Surrogate: 1-Chlorooctadecane 118 % 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:**

ETECH Environmental & Safety Solutions, Inc.  
KIT PRICHARD  
P. O. BOX 8469  
MIDLAND TX, 79708  
Fax To: (432) 563-2213

Received:	08/26/2014	Sampling Date:	08/26/2014
Reported:	09/03/2014	Sampling Type:	Soil
Project Name:	SINAGUA 18 FED COM #2	Sampling Condition:	Cool & Intact
Project Number:	253-5063-000	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 1 E. WALL 2.5' (H402624-04)**

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	09/02/2014	ND	1.71	85.6	2.00	10.8		
Toluene*	<0.050	0.050	09/02/2014	ND	1.58	78.9	2.00	10.1		
Ethylbenzene*	<0.050	0.050	09/02/2014	ND	1.76	87.8	2.00	11.2		
Total Xylenes*	<0.150	0.150	09/02/2014	ND	5.24	87.3	6.00	11.1		
Total BTEx	<0.300	0.300	09/02/2014	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	08/28/2014	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	08/28/2014	ND	180	89.9	200	0.125	
DRO >C10-C28	29.8	10.0	08/28/2014	ND	189	94.6	200	3.50	

Surrogate: 1-Chlorooctane 100 % 65.2-140

Surrogate: 1-Chlorooctadecane 124 % 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:**

 ETECH Environmental & Safety Solutions, Inc.  
 KIT PRICHARD  
 P. O. BOX 8469  
 MIDLAND TX, 79708  
 Fax To: (432) 563-2213

Received:	08/26/2014	Sampling Date:	08/26/2014
Reported:	09/03/2014	Sampling Type:	Soil
Project Name:	SINAGUA 18 FED COM #2	Sampling Condition:	Cool & Intact
Project Number:	253-5063-000	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 2 BOTTOM 5' (H402624-05)**

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	08/29/2014	ND	1.87	93.4	2.00	3.17		
Toluene*	<0.050	0.050	08/29/2014	ND	1.70	85.2	2.00	3.09		
Ethylbenzene*	<0.050	0.050	08/29/2014	ND	1.84	92.2	2.00	3.50		
Total Xylenes*	<0.150	0.150	08/29/2014	ND	5.50	91.7	6.00	2.99		
Total BTX	<0.300	0.300	08/29/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	08/28/2014	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	08/28/2014	ND	180	89.9	200	0.125	
DRO >C10-C28	18.7	10.0	08/28/2014	ND	189	94.6	200	3.50	

Surrogate: 1-Chlorooctane 98.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 119 % 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:**

 ETECH Environmental & Safety Solutions, Inc.  
 KIT PRICHARD  
 P. O. BOX 8469  
 MIDLAND TX, 79708  
 Fax To: (432) 563-2213

 Received: 08/26/2014  
 Reported: 09/03/2014  
 Project Name: SINAGUA 18 FED COM #2  
 Project Number: 253-5063-000  
 Project Location: LEA COUNTY, NM

 Sampling Date: 08/26/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 2 W. WALL 2.5' (H402624-06)**

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	08/29/2014	ND	1.87	93.4	2.00	3.17		
Toluene*	<0.050	0.050	08/29/2014	ND	1.70	85.2	2.00	3.09		
Ethylbenzene*	<0.050	0.050	08/29/2014	ND	1.84	92.2	2.00	3.50		
Total Xylenes*	<0.150	0.150	08/29/2014	ND	5.50	91.7	6.00	2.99		
Total BTEX	<0.300	0.300	08/29/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	<16.0	16.0	08/28/2014	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	08/28/2014	ND	180	89.9	200	0.125	
DRO >C10-C28	<10.0	10.0	08/28/2014	ND	189	94.6	200	3.50	

Surrogate: 1-Chlorooctane 111 % 65.2-140

Surrogate: 1-Chlorooctadecane 125 % 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:**

ETECH Environmental & Safety Solutions, Inc.  
 KIT PRICHARD  
 P. O. BOX 8469  
 MIDLAND TX, 79708  
 Fax To: (432) 563-2213

Received:	08/26/2014	Sampling Date:	08/26/2014
Reported:	09/03/2014	Sampling Type:	Soil
Project Name:	SINAGUA 18 FED COM #2	Sampling Condition:	Cool & Intact
Project Number:	253-5063-000	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 2 E. WALL 2.5' (H402624-07)**

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	08/29/2014	ND	1.87	93.4	2.00	3.17	
Toluene*	<0.050	0.050	08/29/2014	ND	1.70	85.2	2.00	3.09	
Ethylbenzene*	<0.050	0.050	08/29/2014	ND	1.84	92.2	2.00	3.50	
Total Xylenes*	<0.150	0.150	08/29/2014	ND	5.50	91.7	6.00	2.99	
Total BTX	<0.300	0.300	08/29/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 89.4-126

Chloride, SM4500CI-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/28/2014	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	08/28/2014	ND	180	89.9	200	0.125	
DRO >C10-C28	10.0	10.0	08/28/2014	ND	189	94.6	200	3.50	

Surrogate: 1-Chlorooctane 98.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 121 % 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:**

ETECH Environmental & Safety Solutions, Inc.  
KIT PRICHARD  
P. O. BOX 8469  
MIDLAND TX, 79708  
Fax To: (432) 563-2213

Received: 08/26/2014  
Reported: 09/03/2014  
Project Name: SINAGUA 18 FED COM #2  
Project Number: 253-5063-000  
Project Location: LEA COUNTY, NM

Sampling Date: 08/26/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 3 BOTTOM 6.5' (H402624-08)**

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	08/29/2014	ND	1.87	93.4	2.00	3.17	
Toluene*	<0.050	0.050	08/29/2014	ND	1.70	85.2	2.00	3.09	
Ethylbenzene*	<0.050	0.050	08/29/2014	ND	1.84	92.2	2.00	3.50	
Total Xylenes*	<0.150	0.150	08/29/2014	ND	5.50	91.7	6.00	2.99	
Total BTX	<0.300	0.300	08/29/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 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	64.0	16.0	08/28/2014	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	08/28/2014	ND	180	89.9	200	0.125	
DRO >C10-C28	<10.0	10.0	08/28/2014	ND	189	94.6	200	3.50	

Surrogate: 1-Chlorooctane 98.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 120 % 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:**

 ETECH Environmental & Safety Solutions, Inc.  
 KIT PRICHARD  
 P. O. BOX 8469  
 MIDLAND TX, 79708  
 Fax To: (432) 563-2213

 Received: 08/26/2014  
 Reported: 09/03/2014  
 Project Name: SINAGUA 18 FED COM #2  
 Project Number: 253-5063-000  
 Project Location: LEA COUNTY, NM

 Sampling Date: 08/26/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 3 W. WALL 3' (H402624-09)**

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	08/29/2014	ND	1.87	93.4	2.00	3.17	
Toluene*	<0.050	0.050	08/29/2014	ND	1.70	85.2	2.00	3.09	
Ethylbenzene*	<0.050	0.050	08/29/2014	ND	1.84	92.2	2.00	3.50	
Total Xylenes*	<0.150	0.150	08/29/2014	ND	5.50	91.7	6.00	2.99	
Total BTEX	<0.300	0.300	08/29/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 89.4-126

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	08/28/2014	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	08/28/2014	ND	180	89.9	200	0.125	
DRO >C10-C28	<10.0	10.0	08/28/2014	ND	189	94.6	200	3.50	

Surrogate: 1-Chlorooctane 108 % 65.2-140

Surrogate: 1-Chlorooctadecane 120 % 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:**

ETECH Environmental & Safety Solutions, Inc.  
KIT PRICHARD  
P. O. BOX 8469  
MIDLAND TX, 79708  
Fax To: (432) 563-2213

Received:	08/26/2014	Sampling Date:	08/26/2014
Reported:	09/03/2014	Sampling Type:	Soil
Project Name:	SINAGUA 18 FED COM #2	Sampling Condition:	Cool & Intact
Project Number:	253-5063-000	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 3 E. WALL 3' (H402624-10)**

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	08/29/2014	ND	1.87	93.4	2.00	3.17		
Toluene*	<0.050	0.050	08/29/2014	ND	1.70	85.2	2.00	3.09		
Ethylbenzene*	<0.050	0.050	08/29/2014	ND	1.84	92.2	2.00	3.50		
Total Xylenes*	<0.150	0.150	08/29/2014	ND	5.50	91.7	6.00	2.99		
Total BTX	<0.300	0.300	08/29/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	08/28/2014	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	08/28/2014	ND	180	89.9	200	0.125	
DRO >C10-C28	131	10.0	08/28/2014	ND	189	94.6	200	3.50	

Surrogate: 1-Chlorooctane 104 % 65.2-140

Surrogate: 1-Chlorooctadecane 133 % 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:**

ETECH Environmental & Safety Solutions, Inc.  
KIT PRICHARD  
P. O. BOX 8469  
MIDLAND TX, 79708  
Fax To: (432) 563-2213

Received: 08/26/2014  
Reported: 09/03/2014  
Project Name: SINAGUA 18 FED COM #2  
Project Number: 253-5063-000  
Project Location: LEA COUNTY, NM

Sampling Date: 08/26/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 4 BOTTOM 5' (H402624-11)**

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	08/29/2014	ND	1.87	93.4	2.00	3.17		
Toluene*	<0.050	0.050	08/29/2014	ND	1.70	85.2	2.00	3.09		
Ethylbenzene*	<0.050	0.050	08/29/2014	ND	1.84	92.2	2.00	3.50		
Total Xylenes*	<0.150	0.150	08/29/2014	ND	5.50	91.7	6.00	2.99		
Total BTEX	<0.300	0.300	08/29/2014	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	624	16.0	08/28/2014	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	08/28/2014	ND	180	89.9	200	0.125	
DRO >C10-C28	<10.0	10.0	08/28/2014	ND	189	94.6	200	3.50	

Surrogate: 1-Chlorooctane 99.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 121 % 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:**

ETECH Environmental & Safety Solutions, Inc.  
KIT PRICHARD  
P. O. BOX 8469  
MIDLAND TX, 79708  
Fax To: (432) 563-2213

Received:	08/26/2014	Sampling Date:	08/26/2014
Reported:	09/03/2014	Sampling Type:	Soil
Project Name:	SINAGUA 18 FED COM #2	Sampling Condition:	Cool & Intact
Project Number:	253-5063-000	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 4 EAST 2.5' (H402624-12)**

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	08/29/2014	ND	1.87	93.4	2.00	3.17		
Toluene*	<0.050	0.050	08/29/2014	ND	1.70	85.2	2.00	3.09		
Ethylbenzene*	<0.050	0.050	08/29/2014	ND	1.84	92.2	2.00	3.50		
Total Xylenes*	<0.150	0.150	08/29/2014	ND	5.50	91.7	6.00	2.99		
Total BTEx	<0.300	0.300	08/29/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	<16.0	16.0	08/29/2014	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	08/28/2014	ND	180	89.9	200	0.125	
DRO >C10-C28	<10.0	10.0	08/28/2014	ND	189	94.6	200	3.50	

Surrogate: 1-Chlorooctane 105 % 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

**Analytical Results For:**

ETECH Environmental & Safety Solutions, Inc.  
KIT PRICHARD  
P. O. BOX 8469  
MIDLAND TX, 79708  
Fax To: (432) 563-2213

Received: 08/26/2014  
Reported: 09/03/2014  
Project Name: SINAGUA 18 FED COM #2  
Project Number: 253-5063-000  
Project Location: LEA COUNTY, NM

Sampling Date: 08/26/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 4 WEST 2.5' (H402624-13)**

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	08/29/2014	ND	1.87	93.4	2.00	3.17		
Toluene*	<0.050	0.050	08/29/2014	ND	1.70	85.2	2.00	3.09		
Ethylbenzene*	<0.050	0.050	08/29/2014	ND	1.84	92.2	2.00	3.50		
Total Xylenes*	<0.150	0.150	08/29/2014	ND	5.50	91.7	6.00	2.99		
Total BTX	<0.300	0.300	08/29/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 89.4-126

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/29/2014	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	08/28/2014	ND	180	89.9	200	0.125	
DRO >C10-C28	<10.0	10.0	08/28/2014	ND	189	94.6	200	3.50	

Surrogate: 1-Chlorooctane 97.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 118 % 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:**

ETECH Environmental & Safety Solutions, Inc.  
KIT PRICHARD  
P. O. BOX 8469  
MIDLAND TX, 79708  
Fax To: (432) 563-2213

Received:	08/26/2014	Sampling Date:	08/26/2014
Reported:	09/03/2014	Sampling Type:	Soil
Project Name:	SINAGUA 18 FED COM #2	Sampling Condition:	Cool & Intact
Project Number:	253-5063-000	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 5 BOTTOM 5' (H402624-14)**

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	08/29/2014	ND	1.87	93.4	2.00	3.17	
Toluene*	<0.050	0.050	08/29/2014	ND	1.70	85.2	2.00	3.09	
Ethylbenzene*	<0.050	0.050	08/29/2014	ND	1.84	92.2	2.00	3.50	
Total Xylenes*	<0.150	0.150	08/29/2014	ND	5.50	91.7	6.00	2.99	
Total BTEX	<0.300	0.300	08/29/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	<16.0	16.0	08/29/2014	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	08/28/2014	ND	180	89.9	200	0.125	
DRO >C10-C28	<10.0	10.0	08/28/2014	ND	189	94.6	200	3.50	

Surrogate: 1-Chlorooctane 105 % 65.2-140

Surrogate: 1-Chlorooctadecane 118 % 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:**

ETECH Environmental & Safety Solutions, Inc.  
KIT PRICHARD  
P. O. BOX 8469  
MIDLAND TX, 79708  
Fax To: (432) 563-2213

Received: 08/26/2014  
Reported: 09/03/2014  
Project Name: SINAGUA 18 FED COM #2  
Project Number: 253-5063-000  
Project Location: LEA COUNTY, NM

Sampling Date: 08/26/2014  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: SP 5 S. WALL 2.5' (H402624-15)**

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	08/29/2014	ND	1.87	93.4	2.00	3.17	
Toluene*	<0.050	0.050	08/29/2014	ND	1.70	85.2	2.00	3.09	
Ethylbenzene*	<0.050	0.050	08/29/2014	ND	1.84	92.2	2.00	3.50	
Total Xylenes*	<0.150	0.150	08/29/2014	ND	5.50	91.7	6.00	2.99	
Total BTX	<0.300	0.300	08/29/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 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	<16.0	16.0	08/29/2014	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	08/28/2014	ND	180	89.9	200	0.125	
DRO >C10-C28	<10.0	10.0	08/28/2014	ND	189	94.6	200	3.50	

Surrogate: 1-Chlorooctane 94.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 113 % 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:**

ETECH Environmental & Safety Solutions, Inc.  
 KIT PRICHARD  
 P. O. BOX 8469  
 MIDLAND TX, 79708  
 Fax To: (432) 563-2213

Received: 08/26/2014  
 Reported: 09/03/2014  
 Project Name: SINAGUA 18 FED COM #2  
 Project Number: 253-5063-000  
 Project Location: LEA COUNTY, NM

Sampling Date: 08/26/2014  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 5 W. WALL 2.5' (H402624-16)**

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	08/30/2014	ND	1.87	93.4	2.00	3.17	
Toluene*	<0.050	0.050	08/30/2014	ND	1.70	85.2	2.00	3.09	
Ethylbenzene*	<0.050	0.050	08/30/2014	ND	1.84	92.2	2.00	3.50	
Total Xylenes*	<0.150	0.150	08/30/2014	ND	5.50	91.7	6.00	2.99	
Total BTEX	<0.300	0.300	08/30/2014	ND					

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

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	08/29/2014	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	08/28/2014	ND	180	89.9	200	0.125	
DRO >C10-C28	<10.0	10.0	08/28/2014	ND	189	94.6	200	3.50	

Surrogate: 1-Chlorooctane 105 % 65.2-140

Surrogate: 1-Chlorooctadecane 118 % 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:**

ETECH Environmental & Safety Solutions, Inc.  
KIT PRICHARD  
P. O. BOX 8469  
MIDLAND TX, 79708  
Fax To: (432) 563-2213

Received:	08/26/2014	Sampling Date:	08/26/2014
Reported:	09/03/2014	Sampling Type:	Soil
Project Name:	SINAGUA 18 FED COM #2	Sampling Condition:	Cool & Intact
Project Number:	253-5063-000	Sample Received By:	Jodi Henson
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 5 E. WALL 2.5' (H402624-17)**

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	08/30/2014	ND	1.87	93.4	2.00	3.17	
Toluene*	<0.050	0.050	08/30/2014	ND	1.70	85.2	2.00	3.09	
Ethylbenzene*	<0.050	0.050	08/30/2014	ND	1.84	92.2	2.00	3.50	
Total Xylenes*	<0.150	0.150	08/30/2014	ND	5.50	91.7	6.00	2.99	
Total BTX	<0.300	0.300	08/30/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 89.4-126

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	08/29/2014	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	08/29/2014	ND	174	87.1	200	6.04	
DRO >C10-C28	<10.0	10.0	08/29/2014	ND	181	90.6	200	9.60	

Surrogate: 1-Chlorooctane 97.6 % 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**

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

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



## Page 20 of 21

ANALYSIS REQUEST

Company Name: Eichen						
Project Manager: K.T. Prichard						
Address:						
City:						
State:						
Zip:						
Phone #:						
Fax #:						
Project #: 253-5063-000 Project Owner:						
Project Location: Simmsburg IA						
Sample Name: Lea County NM						
Sampler Name: Terry Osborn						
FOR LAB USE ONLY						
Lab I.D.						
Sample I.D.						
H402624	SP1 Bottom 5'	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	DATE	TIME
1	SP1 N.Wall 2.5'	SOIL	V	8/26	12:00	V
2	SP1 W.Wall 2.5'	OIL				V
3	SP1 F.Wall 2.5'	SLUDGE				V
4	SP2 Bottom 5'	OTHER :				V
5	SP2 W.Wall 2.5'	ACID/BASE:				V
6	SP2 E.Wall 2.5'	ICE / COOL				V
7	SP3 Bottom 6.5'	OTHER :				V
8	SP3 WestWall 3'					V
9	SP3 E.Wall 3'					V
10						V
PLEASE NOTE: Liability and Damages. Cardrains liability and client's exclusive remedy for any claim arising whether based in contract or tort shall be limited to the amount paid by the client for the 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 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.						
Relinquished By: [Signature]						Received By: [Signature]
Date:	Time:	Date:				
8-26-2014	4:00pm	8-26-2014				
Delivered By: (Circle One)						Sampler - UPS - Bus - Other:
5.9c						5.9c
Sample Condition Cool Intact Yes No						CHECKED BY: [Initials]
REMARKS:						Phone Result: Yes No Add'l Phone #: Add'l Fax #:

**BILL TO**

ANALYSIS REQUEST

Page 21 of 21

# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 40.00 lbs



# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 40.00 lbs

# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 40.00 lbs

# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 40.00 lbs



# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 40.00 lbs

# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 40.00 lbs

# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 40.00 lbs



# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 40.00 lbs

# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 40.00 lbs

# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 40.00 lbs



# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 40.00 lbs

# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 40.00 lbs

# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 40.00 lbs

# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 40.00 lbs



# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 40.00 lbs

# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 40.00 lbs

# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 40.00 lbs

# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

***LPC Sand Shinery W/Fourwing & Ragweed 600# bulk***

**INV54703**

<b>Description</b>	<b>Pure Seed</b>	<b>Germ</b>	<b>Dormant</b>	<b>Hard Seed</b>	<b>Origin</b>
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Big, "Kaw" (Andropogon gerardii)	10.50%	92.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem Sand, "Woodward" (Andropogon hallii)	5.71%	90.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bluestem, Little "Cimarron" (Schizachyrium scoparium)	5.38%	96.00%	0.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Bristlegrass Plains, "VNS" (Setaria vulpiseta)	8.58%	87.00%	1.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	4.14%	97.00%	0.00%	0.00%	TX
Dropseed, Sand, "VNS" (Sporobolus cryptandrus)	2.09%	9.00%	89.00%	0.00%	
Fourwing Saltbush, "VNS" (Atriplex canescens)	8.36%	52.00%	15.00%	0.00%	NM

Ragweed, Western (Ambrosia L.)

3.44%

74.00%

13.00%

0.00%

Purity: 78.37%

Inert Matter: 16.53%

Other Crop Seed: 5.06%

Weed Seed: 0.04%

Noxious Weeds: None

Test Date:

Net Wt: 6.05 lbs



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 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: LINN Energy	Contact: Brian Wall	
Address: 2130 W Bender Blvd. - Hobbs, NM	Telephone No.: 575-942-8675	
Facility Name: Sinagua 18 Fed #2	Facility Type: Oil producer	
Surface Owner: Federal	Mineral Owner:	API No.: 30-025-32694

**LOCATION OF RELEASE**

Unit Letter J	Section 18	Township 20S	Range 34E	Feet from the 2041	North/South Line South	Feet from the 2171	East/West Line East	County Lea
------------------	---------------	-----------------	--------------	-----------------------	---------------------------	-----------------------	------------------------	---------------

Latitude: 32.5714830169451 Longitude: -103.598153358334

**NATURE OF RELEASE**


Type of Release: Oil / Produced Water	Volume of Release: 20bbls / 2bbls	Volume Recovered: 0 / 0
Source of Release: Heater	Date and Hour of Occurrence: 3/22/14	Date and Hour of Discovery: 3/22/14 - 0930
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher - BLM / Geoffery Leking - OCD	
By Whom? Brian Wall	Date and Hour: 3/24/14	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse:	

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

Describe Cause of Problem and Remedial Action Taken.\*: When arriving on location, Saturday 3/22/14. I noticed the vent was flowing oil out of the gas vent. When I was looking at the heater, I noticed the balon valves on the oil and water lines were closed. I opened the valves to dump the fluid down in the heater, then the oil that was in the vent pipe quit flowing.

1. Describe Area Affected and Cleanup Action Taken.\*: The affected area was excavated and hauled to Lealand for disposal. Then backfilled with clean compacted material to within 1.5 - 2 feet of surface then the backfill was completed with compatible soil which is conducive to growing vegetation. The site was then seeded with an approved BLM mix.

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: EL Gonzales	Approved by District Supervisor:		
Title: Production Supervisor	Approval Date:	Expiration Date:	
E-mail Address: elgonzales@linnenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>	
Date: 11/17/14	Phone: 505-504-8002		

\* Attach Additional Sheets If Necessary