



Linn Energy Skelly #230

CLOSURE REPORT

API No. 30-015-29236

Unit Letter A, Section 23, Township 17 South, Range 31 East

RP# 2RP-1240

BLM Event #NU12163TG

March 11, 2015

Prepared by:

Environmental Department
Diversified Field Service, Inc.

206 W. Snyder

Hobbs, NM 88240

Phone: (575)964-8394

Fax: (575)393-8396

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Skelly #230

1 INTRODUCTION

Linn Energy (Linn) has retained Diversified Field Service, Inc. (DFSI) to address environmental issues for the site detailed herein.

The site is located south west of Maljamar, NM, in Eddy County. The leak site resulted from a hydrocarbon and produced water leak. The source of the leak was due to corrosion on the poly line located in the pasture area. A C-141 (Appendix I) was submitted to the NMOCD on July 9, 2012 (2RP-1240) and the BLM (NU12163TG)

2 SITE ACTIVITIES

On June 3, 2014 DFSI personnel delineated the leak area, which included SP1-SP3. All samples cleaned up below the required levels. Field samples were taken on three sample points, each sample was tested for chlorides levels as well as TPH. The TPH samples were performed using a Mini Rae Photoionization Detector (PID). All clean field samples found under the BLM/NMOCD standards, were taken to Cardinal Lab of Hobbs to obtain confirmation samples. And the results confirmed that bottom samples of each sample point were as follows (Appendix V):

SP1: 2' – 16 mg/kg chlorides, <0.300 mg/kg BTEX and <10 mg/kg DRO/GRO

SP2: 3' – 16 mg/kg chlorides, <0.300 mg/kg BTEX and <10 mg/kg DRO/GRO

SP3: 3' – 48 mg/kg chlorides, <0.300 mg/kg BTEX and <10 mg/kg DRO/GRO

On July 7, 2014 a written plan of remediation for the site was submitted to the NMOCD and the BLM respectively. The plan was approved based on the following: Excavate the area around SP2 and SP3 to 1'bgs, haul the contaminated soil to an approved disposal facility and backfill with imported topsoil. Till the area around SP1 and then reseed the entire area with a native vegetation mixture as per the BLM's guidelines for returning the site to its natural state

On July 24, 2014, DFSI personnel returned to the site to begin excavation. The contaminated soil was hauled to an approved disposal facility, and fresh topsoil was brought in for backfill.

On July 25, 2014 DFSI personnel returned to the site to seed and till the area, restoring it to its natural state. Photographs can be seen in Appendix II.

3 CONCLUSION

According to the U.S. Geological Survey and the NM Office of the State Engineer, there were no records of groundwater in the immediate vicinity, however depth to groundwater in the area averages greater than 220 ft. bgs indicating no potential threat to groundwater or life forms (Appendix III).

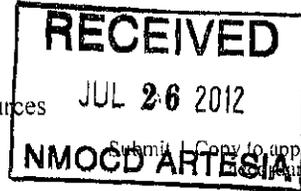
Appendix I

INITIAL FORM C-141

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

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 Copy to appropriate District Office in accordance with 19.15.29 NMAC

Release Notification and Corrective Action

nJMW1221452878 OPERATOR Initial Report Final Report

Name of Company: Linn Operating <i>269324</i>	Contact: Joe Hernandez
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No.: 575-738-1739
Facility Name: Skelly 230	Facility Type: Oil Producer
Surface Owner: Federal	Mineral Owner: Federal
API No.: 3001529236	

LOCATION OF RELEASE

Unit Letter A	Section 23	Township 17S	Range 31E	Feet from the 1198	North/South Line North	Feet from the 1296	East/West Line East	County Eddy
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Latitude: 32.8240764485059 Longitude: -103.835982145475

NATURE OF RELEASE

Type of Release: Produced Water / Oil	Volume of Release: 9 / 1	Volume Recovered: 6 / .5
Source of Release: Poly Pipeline	Date and Hour of Occurrence: 07/09/2012 2pm	Date and Hour of Discovery: 07/09/2012 2:30pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? M. Bratcher-NM OCD Terry Gregston-BLM	
By Whom? Joe Hernandez	Date and Hour 07/16/2012 4.45pm	
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.*: Polyline leaked due to weathering.		
Describe Area Affected and Cleanup Action Taken.*: 5 x 20 ft area in pasture and on caliche road. Vac truck picked up fluid. Further remedial action pending....		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		

Signature: <i>[Signature]</i>	OIL CONSERVATION DIVISION	
Printed Name: Joe Hernandez	Approved by District Supervisor:	Signed By: <i>[Signature]</i>
Title: Production Foreman	Approval Date: AUG 01 2012	Expiration Date:
E-mail Address: jhernandez@linenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 07/26/2012 Phone: 575-942-9492		

* Attach Additional Sheets If Necessary

Remediation per OCD Rules & Guidelines. **SUBMIT REMEDIATION PROPOSAL NOT LATER THAN:**

9/1/12

ZRP-1240

Appendix II

SITE PHOTOS

Linn Energy, Skelly #230 Unit Letter A, Section 23, T17S R31E



Sign marking location 07/09/2012



Spill location 07/09/2012



Excavation of impacted area 07/24/2014



Excavation of impacted area 07/24/2014

**Linn Energy, Skelly #230
Unit Letter A, Section 23, T17S R31E**



Importing fresh topsoil 07/25/2014



Tilling area with tractor 07/25/2014



Seeding area 07/25/2014



Site at Completion 07/25/2014

Appendix III

GROUNDWATER DATA

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

GROUND WATER SEARCH

Linn Energy Skelly Unit #230

UL: A Sec: 23 T: 17S R: 31E

Groundwater Depth: 236 ft. averaged

- = NM Office of the State Engineer
- = U.S. Geological Survey (unknown well)
- ✗ = Site Location

Date: 05/13/14

By: Amy Ruth

	16S 30E	288' 314' 16S 31E	65' 260' 265' 248' 275' 16S 32E 254' 215' 210' 210' 221' 200'
	17S 30E	✗ 17S 31E	132' 17S 32E
	18S 30E 44'	98' 18S 31E	65' 430' 18S 32E 460'

Appendix IV

SITE DIAGRAM

Site Diagram

Linn, Skelly 230
UL/A, Sec. 23 T17S R31E
Eddy County, NM
Drafted By: Lance Crenshaw, 5-22-14

0 0.00125 0.0025 0.005 Miles

Legend

Misc_points

Types

-  Electrical Box
-  Power Pole
-  Headers
-  Injection
-  Pumpjacks
-  Tanks
-  Valves
-  Other
-  Soil Bores
-  sample_pts
-  Source

Pipeline

Type

-  Above Ground Line
-  Buried Line

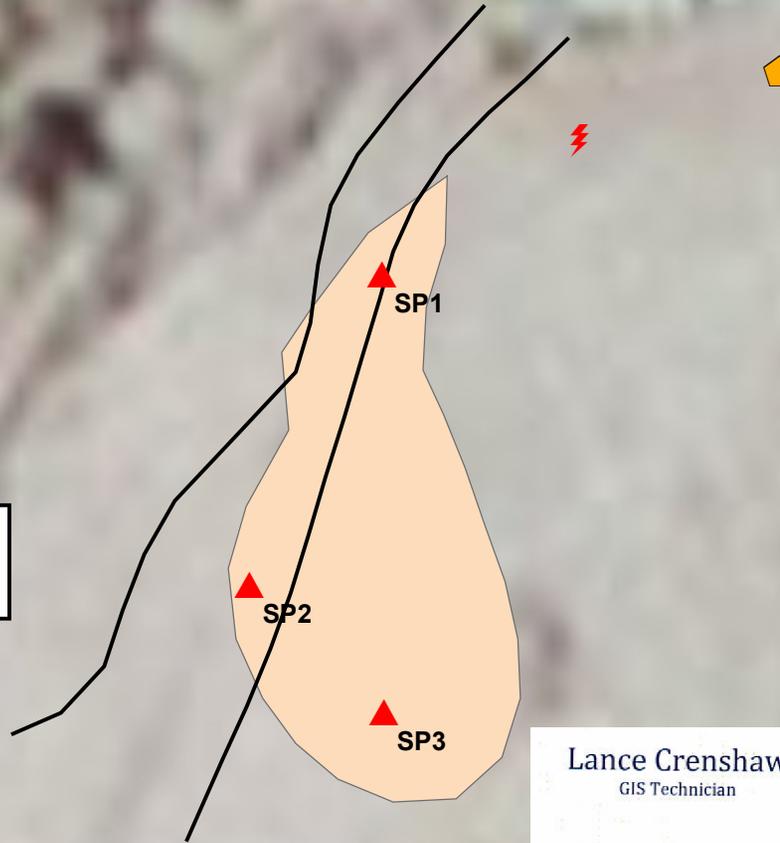
Spill

-  <all other values>

Spill_Media

-  Oil and Produced H2O
-  Oil
-  Other
-  Produced Water

Spill Area:
699 sq. ft.



Lance Crenshaw
 GIS Technician

Soil Remediation and Ground Water Remediation
 Environmental Assessments
 Regulatory Compliance



Environmental **DFSI** Services

Office: 575-964-8394
 Fax: 575-964-8396

Cell: 575-441-2359
 Email: lcrenshaw@diversifiedfsi.com

Source: Esri, DigitalGlobe, GeoEye, IGN, swisstopo, and the GIS User Community

Appendix V

LABORATORY ANALYSES

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394



June 12, 2014

BRIAN WALL

LINN OPERATING-HOBBS

2130 W. BENDER

HOBBS, NM 88240

RE: SKELLY #230

Enclosed are the results of analyses for samples received by the laboratory on 06/03/14 14:22.

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.

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 cursive script that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

Received:	06/03/2014	Sampling Date:	06/03/2014
Reported:	06/12/2014	Sampling Type:	Soil
Project Name:	SKELLY #230	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Kathy Perez
Project Location:			

Sample ID: SP 1 @ 2' (H401692-01)

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	06/06/2014	ND	2.00	99.9	2.00	2.96	
Toluene*	<0.050	0.050	06/06/2014	ND	2.15	107	2.00	3.33	
Ethylbenzene*	<0.050	0.050	06/06/2014	ND	1.92	96.2	2.00	3.37	
Total Xylenes*	<0.150	0.150	06/06/2014	ND	5.97	99.5	6.00	3.41	
Total BTEX	<0.300	0.300	06/06/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	06/05/2014	ND	416	104	400	3.77	

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	06/10/2014	ND	173	86.4	200	6.38	
DRO >C10-C28	<10.0	10.0	06/10/2014	ND	173	86.3	200	6.55	

Surrogate: 1-Chlorooctane 71.2 % 65.2-140
Surrogate: 1-Chlorooctadecane 78.5 % 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:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

 Received: 06/03/2014
 Reported: 06/12/2014
 Project Name: SKELLY #230
 Project Number: NOT GIVEN
 Project Location:

 Sampling Date: 06/03/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Kathy Perez

Sample ID: SP 2 @ 3' (H401692-02)

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	06/06/2014	ND	2.00	99.9	2.00	2.96	
Toluene*	<0.050	0.050	06/06/2014	ND	2.15	107	2.00	3.33	
Ethylbenzene*	<0.050	0.050	06/06/2014	ND	1.92	96.2	2.00	3.37	
Total Xylenes*	<0.150	0.150	06/06/2014	ND	5.97	99.5	6.00	3.41	
Total BTEX	<0.300	0.300	06/06/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	06/05/2014	ND	416	104	400	3.77	

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	06/11/2014	ND	173	86.4	200	6.38	
DRO >C10-C28	<10.0	10.0	06/11/2014	ND	173	86.3	200	6.55	

Surrogate: 1-Chlorooctane 70.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 86.5 % 63.6-154

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

Received:	06/03/2014	Sampling Date:	06/03/2014
Reported:	06/12/2014	Sampling Type:	Soil
Project Name:	SKELLY #230	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Kathy Perez
Project Location:			

Sample ID: SP 3 @ 3' (H401692-03)

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	06/06/2014	ND	2.00	99.9	2.00	2.96	
Toluene*	<0.050	0.050	06/06/2014	ND	2.15	107	2.00	3.33	
Ethylbenzene*	<0.050	0.050	06/06/2014	ND	1.92	96.2	2.00	3.37	
Total Xylenes*	<0.150	0.150	06/06/2014	ND	5.97	99.5	6.00	3.41	
Total BTEX	<0.300	0.300	06/06/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	06/05/2014	ND	416	104	400	3.77	

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	06/10/2014	ND	173	86.4	200	6.38	
DRO >C10-C28	<10.0	10.0	06/10/2014	ND	173	86.3	200	6.55	

Surrogate: 1-Chlorooctane 81.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 90.1 % 63.6-154

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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



Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO		ANALYSIS REQUEST									
Company Name: <u>Linn Energy</u>		P.O. #:		Company: <u>Linn Energy</u>		TPH		BTEX			
Project Manager: <u>Brian Wall</u>		Attn: <u>Brian Wall</u>		Address:		DATE		TIME			
Address:		City:		State:		Zip:		CC			
Phone #:		Project Owner:		Matrix		PRESERV.		SAMPLING			
Project #:		Project Location: <u>Skelly 230</u>		GROUNDWATER		ACID/BASE:		OTHER:			
Sampler Name: <u>Michael Alvar</u>		Project Name: <u>Eddy CO</u>		WASTEWATER		ICE / COOL		OTHER:			
FOR LAB USE ONLY		Sample I.D.:		# CONTAINERS		OTHER:		SLUDGE			
Lab I.D.:		Date:		(G) RAB OR (C) OMP.		SOIL		OIL			
<u>H401692</u>		<u>6/3/14</u>		1		WASTEWATER		OIL			
<u>SP1021</u>		<u>8:15</u>		1		GROUNDWATER		OIL			
<u>SP2031</u>		<u>8:40</u>		1		WASTEWATER		OIL			
<u>SP3031</u>		<u>9:10</u>		1		WASTEWATER		OIL			

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Relinquished By: [Signature] Date: 6/2/14 Time: 2:00

Received By: [Signature] Date: 6/3/14 Time: 4:20 PM

Relinquished By: [Signature] Date: 6/3/14 Time: 9:30

Received By: [Signature] Date: 6/3/14 Time: 9:30

Delivered By: (Circle One) UPS

Sampler - UPS - Bus - Other:

Sample Condition: Cool Intact Yes No Yes No

Checked By: [Signature] (Initials)

Phone Result: Yes No Yes No Yes No Yes No Fax Result: Yes No Yes No Add'l Phone #: Add'l Fax #:

REMARKS:

E-mail Results To: Ngladden@diversifiedfsi.com
Rpons@diversifiedfsi.com
Tjennings@diversifiedfsi.com



August 01, 2014

BRIAN WALL

LINN OPERATING-HOBBS

2130 W. BENDER

HOBBS, NM 88240

RE: SKELLY UNIT #230

Enclosed are the results of analyses for samples received by the laboratory on 07/25/14 15:20.

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.

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 "Hope S. Moreno".

Hope S. Moreno For Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

Received:	07/25/2014	Sampling Date:	07/25/2014
Reported:	08/01/2014	Sampling Type:	Soil
Project Name:	SKELLY UNIT #230	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SW 1 EAST (H402295-01)

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	07/30/2014	ND	2.04	102	2.00	5.35	
Toluene*	<0.050	0.050	07/30/2014	ND	2.07	103	2.00	4.93	
Ethylbenzene*	<0.050	0.050	07/30/2014	ND	2.10	105	2.00	5.15	
Total Xylenes*	<0.150	0.150	07/30/2014	ND	6.43	107	6.00	4.74	
Total BTEX	<0.300	0.300	07/30/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 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	07/31/2014	ND	416	104	400	7.41	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/29/2014	ND	171	85.6	200	0.932	
DRO >C10-C28	<10.0	10.0	07/29/2014	ND	178	89.0	200	3.57	

Surrogate: 1-Chlorooctane 133 % 65.2-140

Surrogate: 1-Chlorooctadecane 149 % 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.



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

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

Received:	07/25/2014	Sampling Date:	07/25/2014
Reported:	08/01/2014	Sampling Type:	Soil
Project Name:	SKELLY UNIT #230	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SW 2 WEST (H402295-02)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/30/2014	ND	2.04	102	2.00	5.35		
Toluene*	<0.050	0.050	07/30/2014	ND	2.07	103	2.00	4.93		
Ethylbenzene*	<0.050	0.050	07/30/2014	ND	2.10	105	2.00	5.15		
Total Xylenes*	<0.150	0.150	07/30/2014	ND	6.43	107	6.00	4.74		
Total BTEX	<0.300	0.300	07/30/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 124 % 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	07/31/2014	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	07/29/2014	ND	179	89.7	200	14.0		
DRO >C10-C28	<10.0	10.0	07/29/2014	ND	209	104	200	14.8		

Surrogate: 1-Chlorooctane 130 % 65.2-140

Surrogate: 1-Chlorooctadecane 144 % 63.6-154

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

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

Received:	07/25/2014	Sampling Date:	07/25/2014
Reported:	08/01/2014	Sampling Type:	Soil
Project Name:	SKELLY UNIT #230	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SW 3 NORTH (H402295-03)

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	07/30/2014	ND	2.04	102	2.00	5.35		
Toluene*	<0.050	0.050	07/30/2014	ND	2.07	103	2.00	4.93		
Ethylbenzene*	<0.050	0.050	07/30/2014	ND	2.10	105	2.00	5.15		
Total Xylenes*	<0.150	0.150	07/30/2014	ND	6.43	107	6.00	4.74		
Total BTEX	<0.300	0.300	07/30/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 125 % 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	07/31/2014	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	07/29/2014	ND	179	89.7	200	14.0		
DRO >C10-C28	<10.0	10.0	07/29/2014	ND	209	104	200	14.8		

Surrogate: 1-Chlorooctane 122 % 65.2-140

Surrogate: 1-Chlorooctadecane 137 % 63.6-154

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

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

Received:	07/25/2014	Sampling Date:	07/25/2014
Reported:	08/01/2014	Sampling Type:	Soil
Project Name:	SKELLY UNIT #230	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SW 4 SOUTH (H402295-04)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/30/2014	ND	2.04	102	2.00	5.35		
Toluene*	<0.050	0.050	07/30/2014	ND	2.07	103	2.00	4.93		
Ethylbenzene*	<0.050	0.050	07/30/2014	ND	2.10	105	2.00	5.15		
Total Xylenes*	<0.150	0.150	07/30/2014	ND	6.43	107	6.00	4.74		
Total BTEX	<0.300	0.300	07/30/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 125 % 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	07/31/2014	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	07/29/2014	ND	179	89.7	200	14.0		
DRO >C10-C28	<10.0	10.0	07/29/2014	ND	209	104	200	14.8		

Surrogate: 1-Chlorooctane 123 % 65.2-140

Surrogate: 1-Chlorooctadecane 142 % 63.6-154

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

Analytical Results For:

 LINN OPERATING-HOBBS
 BRIAN WALL
 2130 W. BENDER
 HOBBS NM, 88240
 Fax To: (575) 738-1740

 Received: 07/25/2014
 Reported: 08/01/2014
 Project Name: SKELLY UNIT #230
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 07/25/2014
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: BS 1 (H402295-05)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/30/2014	ND	2.04	102	2.00	5.35		
Toluene*	<0.050	0.050	07/30/2014	ND	2.07	103	2.00	4.93		
Ethylbenzene*	<0.050	0.050	07/30/2014	ND	2.10	105	2.00	5.15		
Total Xylenes*	<0.150	0.150	07/30/2014	ND	6.43	107	6.00	4.74		
Total BTEX	<0.300	0.300	07/30/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 126 % 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	07/31/2014	ND	416	104	400	7.41		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	07/29/2014	ND	179	89.7	200	14.0		
DRO >C10-C28	<10.0	10.0	07/29/2014	ND	209	104	200	14.8		

Surrogate: 1-Chlorooctane 127 % 65.2-140

Surrogate: 1-Chlorooctadecane 139 % 63.6-154

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Hope S. Moreno For 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

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

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Lin Energy
 Project Manager: Brian Wall
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone #: _____ Fax #: _____
 Project #: _____ Project Owner: _____
 Project Name: Sideroxilis
 Project Location: Stall 230
 Sampler Name: Michael Alvar
 FOR LAB USE ONLY

BILL TO

P.O. #: _____
 Company: Lin Energy
 Attn: Brian Wall
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone #: _____ Fax #: _____

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	SAMPLING	DATE	TIME	α	TPH	STX
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :							
<u>HD02295</u>	<u>1 SW1 East</u>	<u>g</u>	<u>1</u>			<u>X</u>					<u>7/25/14</u>	<u>7:00</u>	<u>X</u>	<u>X</u>	<u>X</u>	
	<u>2 SW2 West</u>	<u>g</u>	<u>1</u>			<u>X</u>					<u>7/25/14</u>	<u>7:30</u>	<u>X</u>	<u>X</u>	<u>X</u>	
	<u>3 SW3 North</u>	<u>g</u>	<u>1</u>			<u>X</u>					<u>7/25/14</u>	<u>7:35</u>	<u>X</u>	<u>X</u>	<u>X</u>	
	<u>4 SW4 South</u>	<u>g</u>	<u>1</u>			<u>X</u>					<u>7/25/14</u>	<u>9:40</u>	<u>X</u>	<u>X</u>	<u>X</u>	
	<u>5 BS1</u>	<u>g</u>	<u>1</u>			<u>X</u>					<u>7/25/14</u>	<u>7:45</u>	<u>X</u>	<u>X</u>	<u>X</u>	

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Relinquished By: _____ Date: 7/25/14
 Received By: Spedi Jensen
 Type: 5:30
 Date: _____
 Time: _____

Delivered By: (Circle One) UPS
 Sampler - UPS - Bus - Other: _____
 Sample Condition: Intact Cool Yes No
 CHECKED BY: _____ (Inflator)
 Phone Result: Yes No Add'l Phone #: _____
 Fax Result: Yes No Add'l Fax #: _____
 REMARKS: _____
 E-mail Results To: Ngladden@diversifiedfsi.com
Rpons@diversifiedfsi.com
Tjennings@diversifiedfsi.com

* Cardinal cannot accept verbal change. Please fax written change to (575) 393-2476.

DIVERSIFIED FIELD SERVICES, INC.

Project: Shelby Unit 230

Date Started: 7-25-14

Seed and lbs. used: 25# 1 Bag

Date Completed: 7-25-14

Supervisor:

Stephen Mosh

Seed Company Inc.

1997 CR 1018 Mustang (80) 262 Permit 1995
 PC Sand Shine & Ragweed 1965

Description:	Pure Seed	3mm	10000%	Max	Chain
Bluestem, Big "Kaw" (Andropogon gerardii)	16.62%	95.00%	0.00%		TX
Bluestem, "Cimarron" (Schizanthus scoparium)	8.00%	90.00%	8.00%	0.00%	TX
Bluestem, Sand "Woodward" (Andropogon hallii)	13.80%	95.00%	0.00%	0.00%	TX
Aristida, Plains, "VNS" (Seteria vulpina)	14.48%	90.00%	0.00%	0.00%	TX
Coreopsis Plains (Coreopsis tinctoria)	5.39%	97.00%	0.00%	0.00%	TX
Beardgrass, Sand, "VNS" (Sporobolus cryptandrus)	2.68%	95.00%	3.00%	0.00%	TX
Fourwing saltbush, "VNS" (Atriplex canescens)	15.00%	95.00%	15.00%	0.00%	NM
Ragweed, Western (Ambrosia L.)	6.79%	9.00%	29.00%	0.00%	KY
Purity: 83.35%		Inert Matter: 10.31%		Other Crop Seed: 6.32%	
				Weed Seed: 0.02%	

Noxious Weeds: None

Test Date: 02/2014

Net Wt: 25.00 lbs