LINN Energy

Linn Energy Turner B #81

CLOSURE REPORT

BLM Event NU12001TG

API No. 30-015-26389

Release Date: 8/23/2012

Unit Letter J, Section 29, Township 17 South, Range 31 East

April 28, 2014

Prepared by:

Environmental Department
Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
Phone: (575)964-8394
Fax: (575)393-8396

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Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

Turner B #81

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 southwest of Maljamar NM, in Eddy County. The site resulted from a non-reportable produced water and oil leak in a ruptured flow line transition at the well head. The line rupture released produced water and oil onto approximately 408 square feet of the well pad. There was minimal impact to pasture area to the northwest of the pad. The corroded valve and elbow on the flow line were replaced. An initial form C-141 was submitted to the NMOCD on September 12, 2012 (Appendix I).

2 SITE ACTIVITIES

On August 20, 2013 DFSI personnel collected surface soil samples from the site (Figure). The samples were field screened for chloride and showed elevated levels one of the sample points. The samples were submitted to a commercial laboratory for chloride, TPH, and BTEX analyses (Appendix IV).

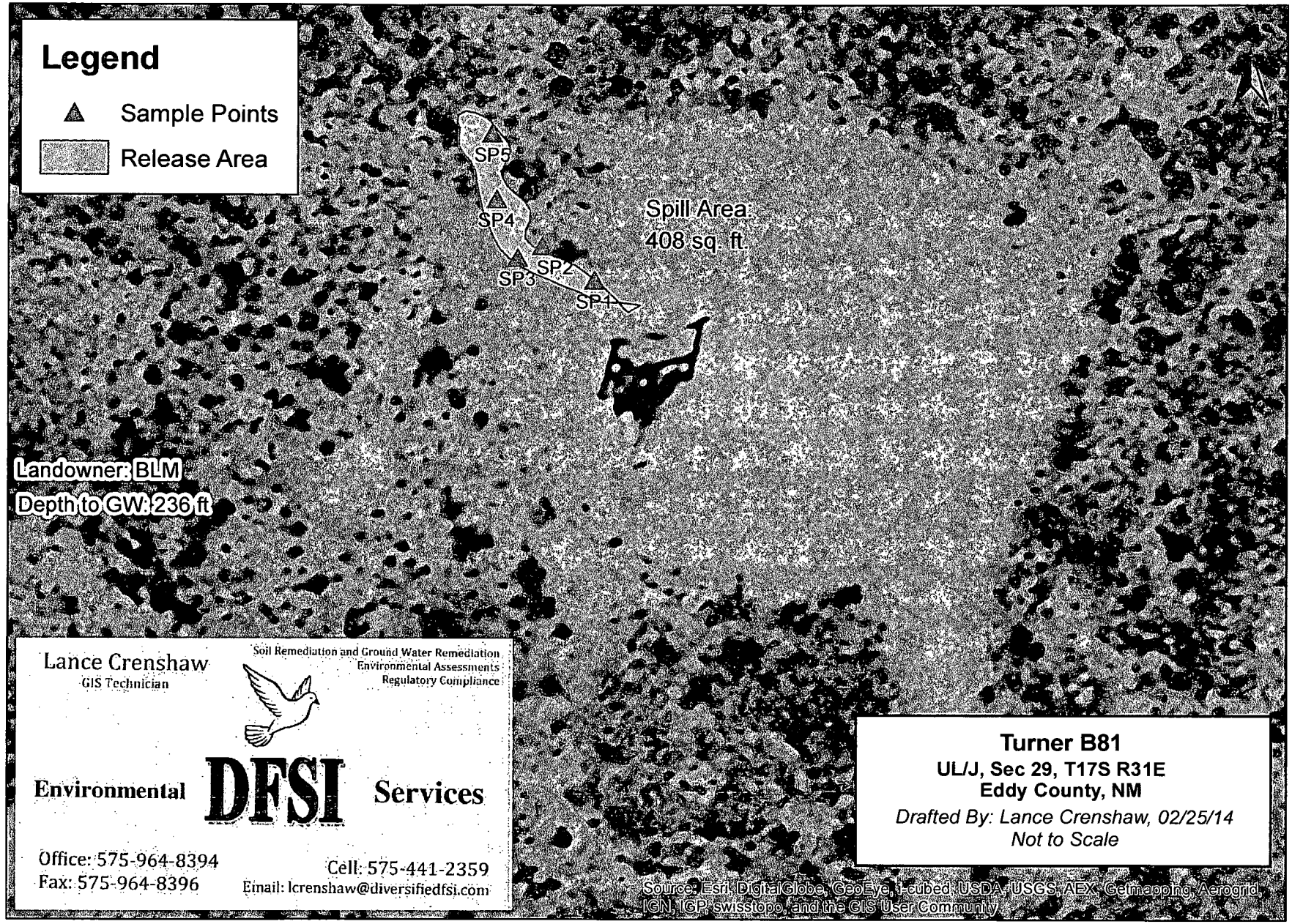
Visually impacted soils were excavated throughout the entire leak area and removed to a NMOCD approved disposal facility. Simultaneous soil field testing revealed low chloride and hydrocarbon levels at 1 to 2 ft. below ground surface (bgs) (Figure). However, chloride remained elevated at 1699 mg/kg at 4 ft. bgs near the well head on the pad. Due to SP1 being at the wellhead it was proposed and accepted by the BLM that this area would be excavated to 4ft. bgs., and backfilled with imported caliche. Soil samples were collected from the excavation floor and submitted to a laboratory for confirmation (Appendix IV). The second sample on the northwest of the well head on the pad indicated significant reduction in chloride at 1 ft. bgs. The lab returned analysis at 32 mg/kg. SP3 thru SP5 were located in the pasture. The commercial lab returned analysis for SP3 at 1ft bgs chloride of 48 mg/kg. SP4 and SP5 returned analyses of acceptable chloride levels at surface level. TPH totaled less than 10.0 mg/kg GRO and less than 21.0 mg/kg DRO in all confirmation samples. Photographs of site activities can be viewed in Appendix II.

On March 27, 2014 DFSI submitted a remediation request to NMOCD and the BLM. Henceforth, DFSI excavated SP1 to 4ft. bgs., and backfilled. Due to the location of SP1 at the well head no liner was installed. SP2, and SP3 were excavated from 1 to 1.5 ft. bgs. respectively, and backfilled with fresh caliche.
SP4 and SP5 were located in the pasture. On April 10, 2014, this area was scraped, blended and re-seeded with Lesser Prairie Chicken seed mixture. Thereby restoring the pasture area to its natural state per BLM requirements.

3 CONCLUSION

According to the U.S. Geological Survey and the NM Office of the State Engineer, depth to groundwater in the area averages greater than 236 ft. bgs (Appendix III). Based on the removal of soils containing elevated chloride and visual staining at the site, DFSI, on behalf of Linn, submits the final form C-141 (Appendix V) and respectfully requests the closure of the regulatory file for the site.

Excavation Plat



Appendix I

INITIAL FORM C-141

Diversified Field Service, Inc.
3412 N. Dal Paso
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

RECEIVED
AUG 30 2012
NMOCD ARTESIA

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

nJMW1225650461

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Linn Operating 2169324	Contact: Joe Hernandez
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No.: 575-738-1739
Facility Name: Turner B # 81	Facility Type: Oil

Surface Owner: Federal	Mineral Owner: Federal	API No.: 3001526389

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	29	17S	31E	2545	South	2615	East	Eddy

Latitude: 32.8053082596052 **Longitude:** -103.891817672312

NATURE OF RELEASE

Type of Release: Produced Water / Oil	Volume of Release: .5bbls / .5bbls	Volume Recovered: 0 / 0
Source of Release: Pipeline	Date and Hour of Occurrence: 08/23/2012 12:15pm	Date and Hour of Discovery: 08/23/2012 12:20pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? M. Bratcher-NM OCD Terry Gregston-BLM	
By Whom? Joe Hernandez	Date and Hour 08/23/2012 12:20pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*:

Describe Cause of Problem and Remedial Action Taken.*: 1/2 inch nipple between Valve and elbow on flow line was leaking due corrosion old fittings leaked around well head.

Describe Area Affected and Cleanup Action Taken.* : ran off 15ft Northwest off location about 30feet long by 1ft wide. 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:

Printed Name: Joe Hernandez

Title: Production Foreman

E-mail Address. jhernandez@linnenergy.com

Date: 08/30/2012 Phone: 575-942-9492

OIL CONSERVATION DIVISION

Approved by District Supervisor: Signed By Mike Bratcher

Approval Date: SEP 12 2012 Expiration Date:

Conditions of Approval: Attached ☐

* Attach Additional Sheets If Necessary

Remediation per OCD Rules & Guidelines. **SUBMIT REMEDIATION PROPOSAL NOT LATER THAN:** October 12th, 2012

2RP-1288

Appendix II

SITE PHOTOGRAPHS

Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

Linn Energy Turner B #81

Unit Letter J, Section 29, T17S R31E

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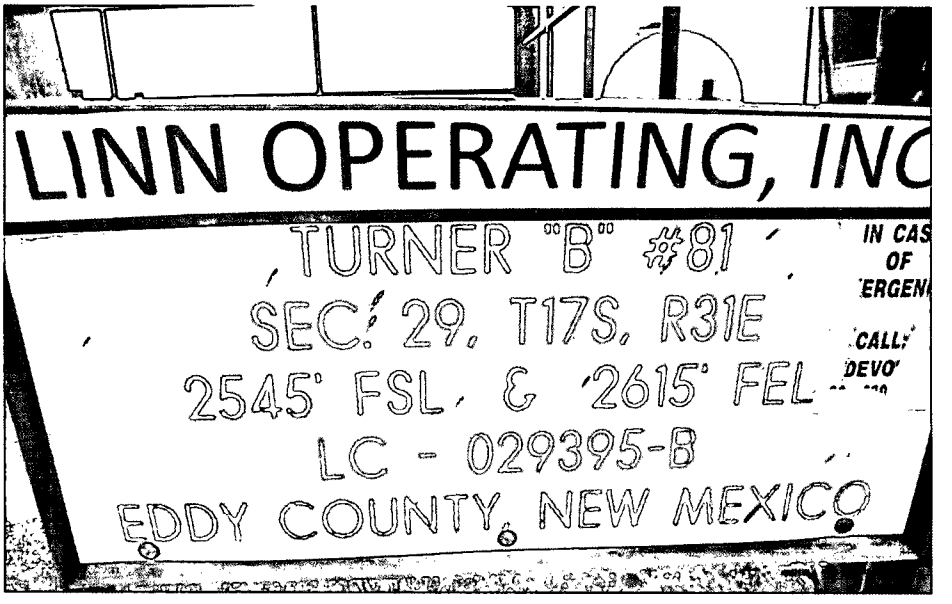
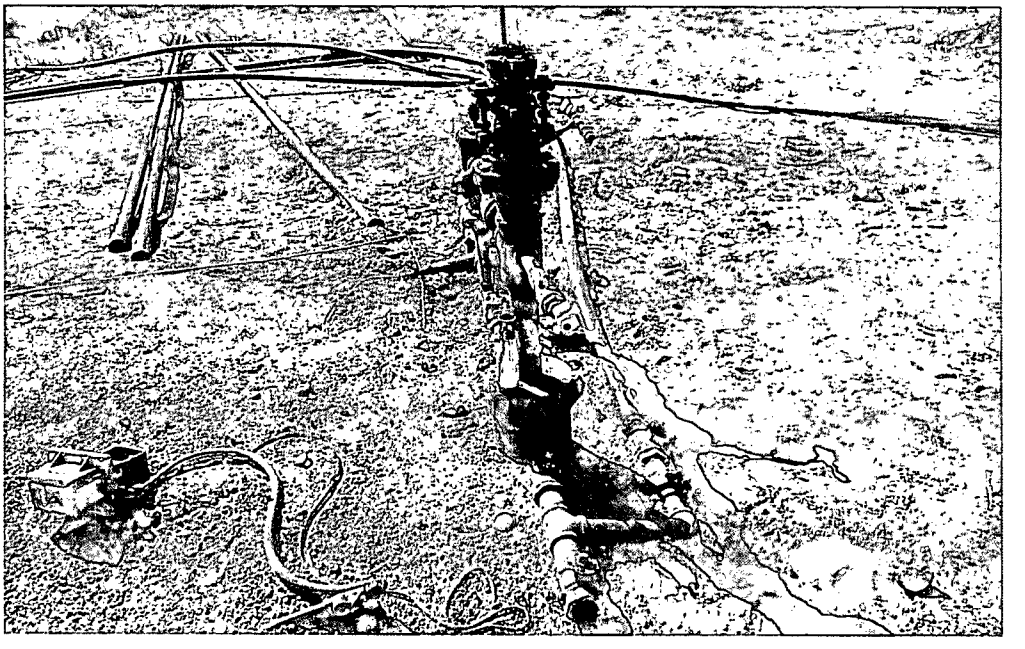
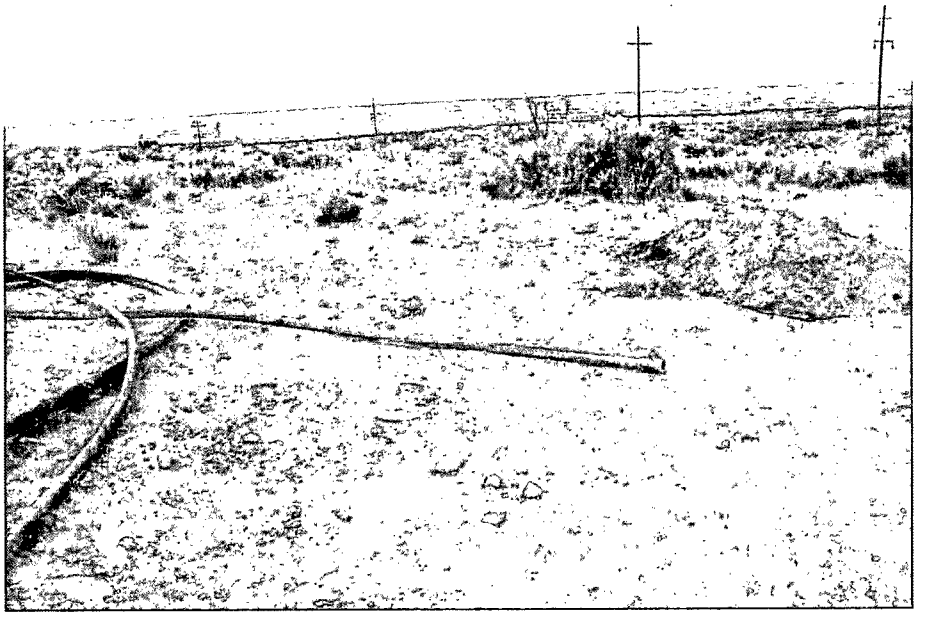


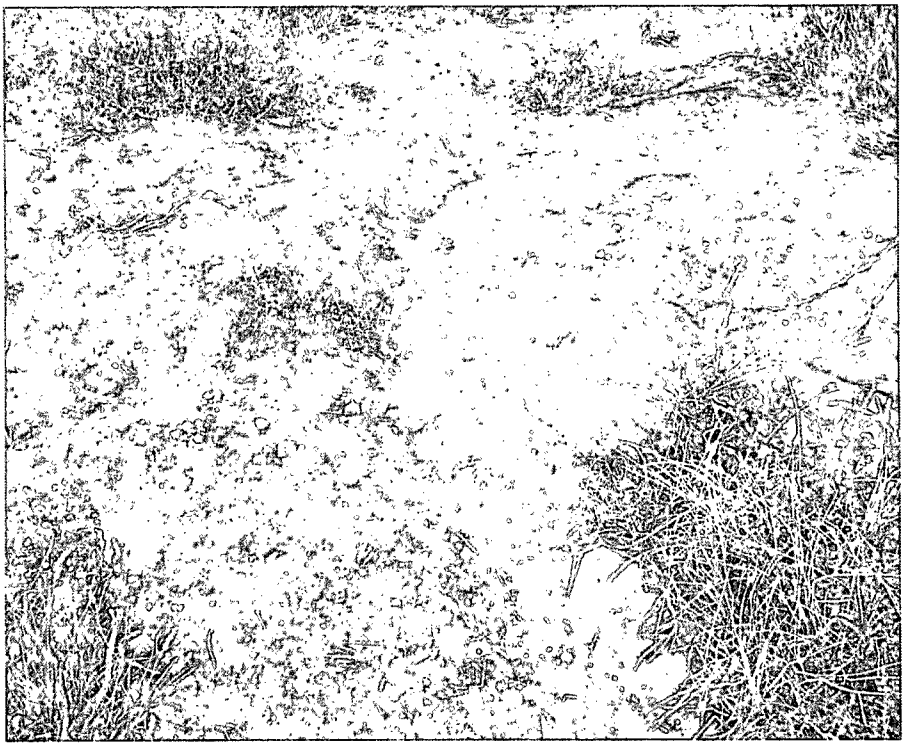
Sign marking location 8/16/13



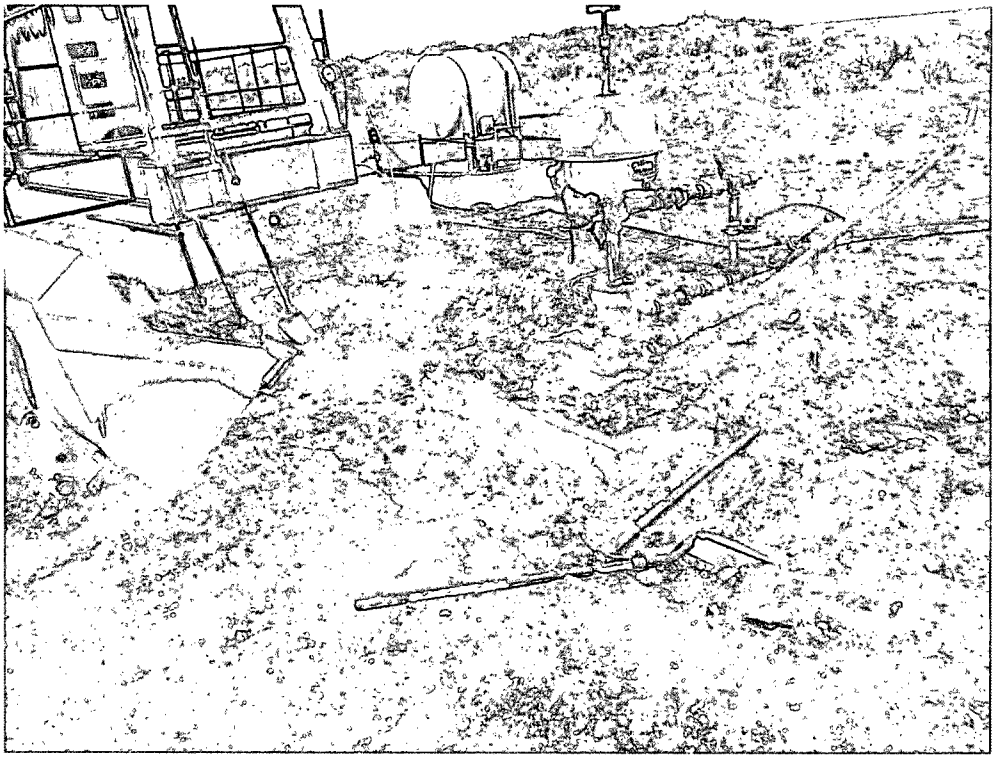
Valve leak location NW of lease road 08/16/13



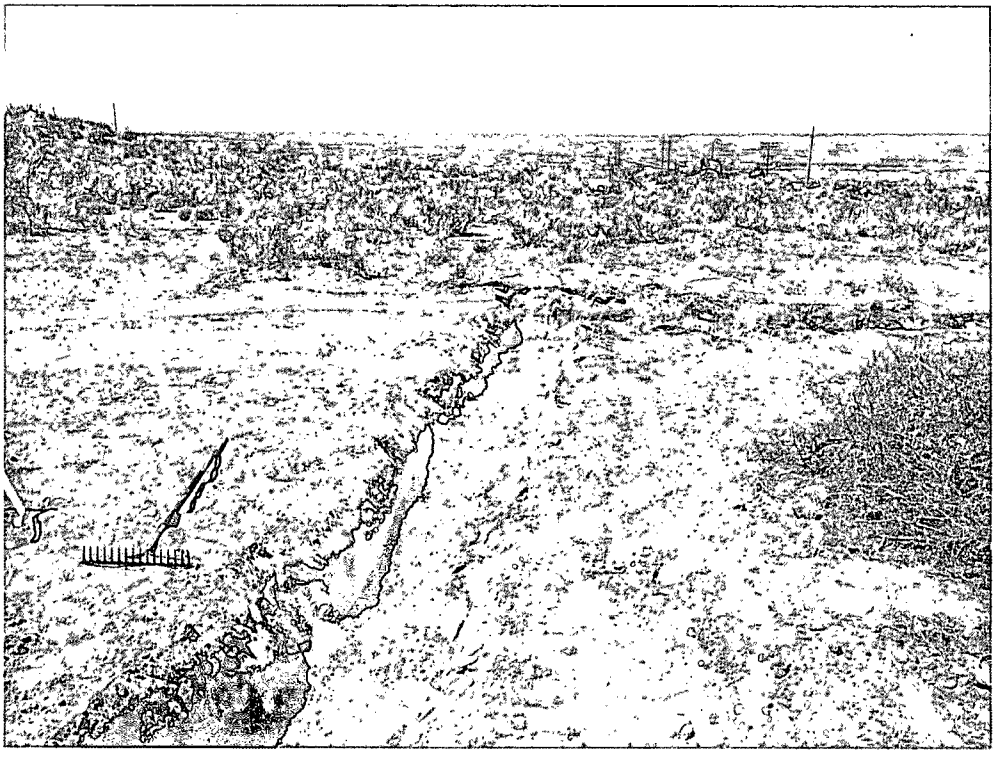
Impacted soil 8/16/12



Affected run off area 15 ft. NW of location 8/16/12

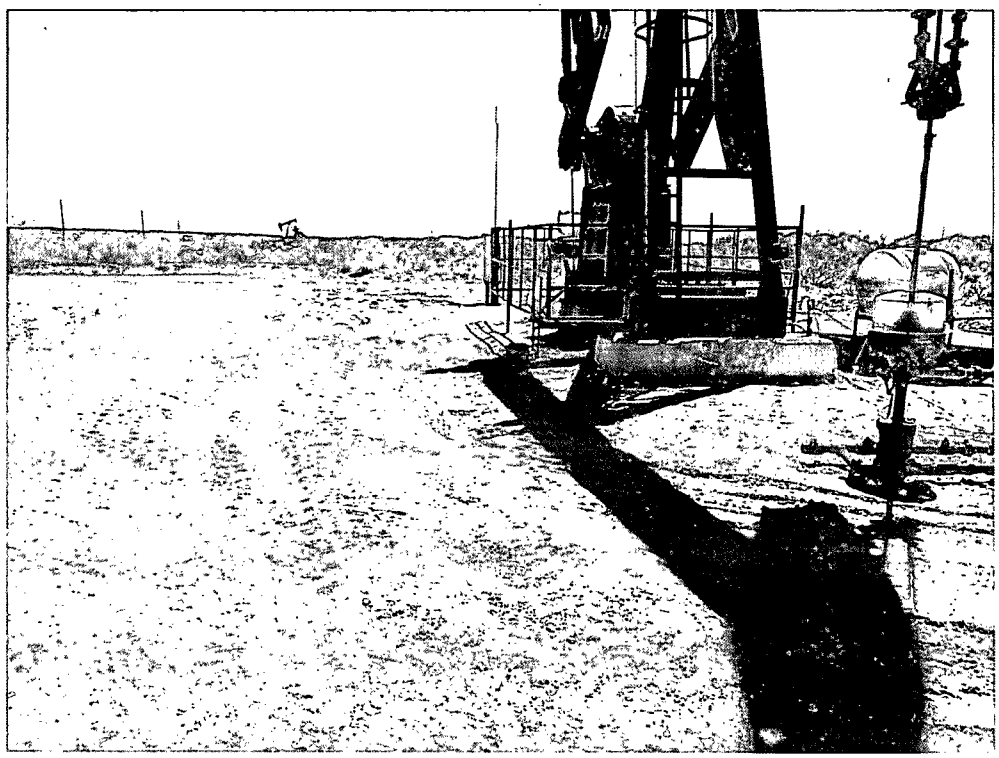


Excavation of impacted area 4/7/14

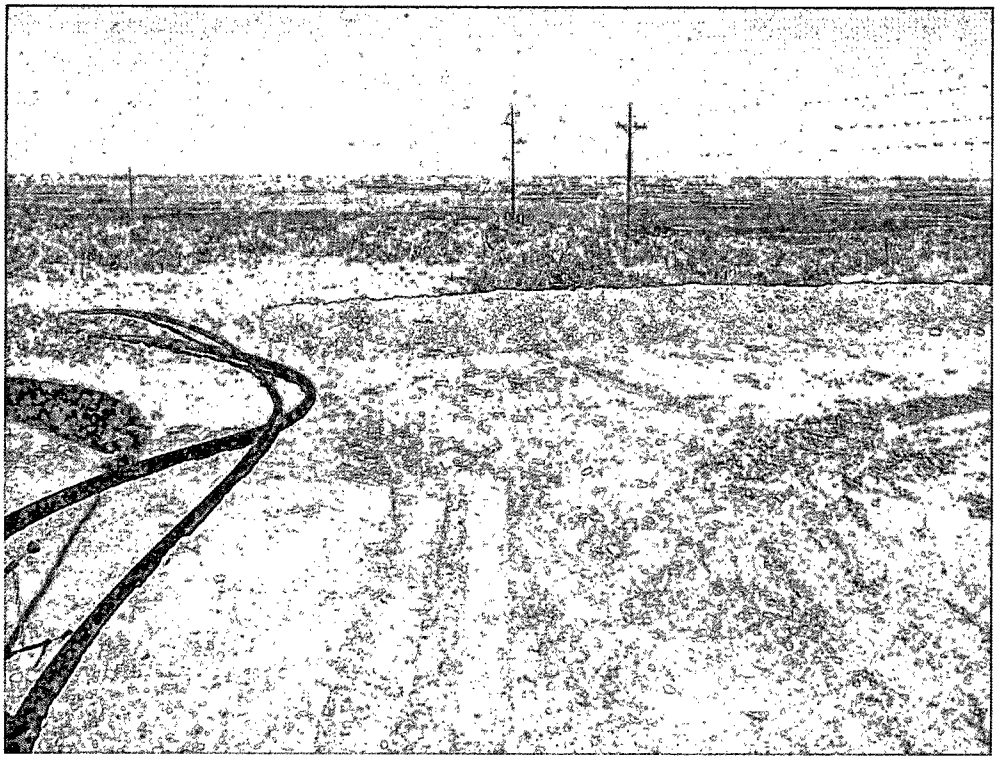


Excavation of impacted run off area 4/8/14

Site at completion 4/11/14



Site at completion of well head area 04/15/14



Pasture area after tilled and seeded 4/22/14

Appendix III

GROUNDWATER DATA

Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

GROUND WATER SEARCH

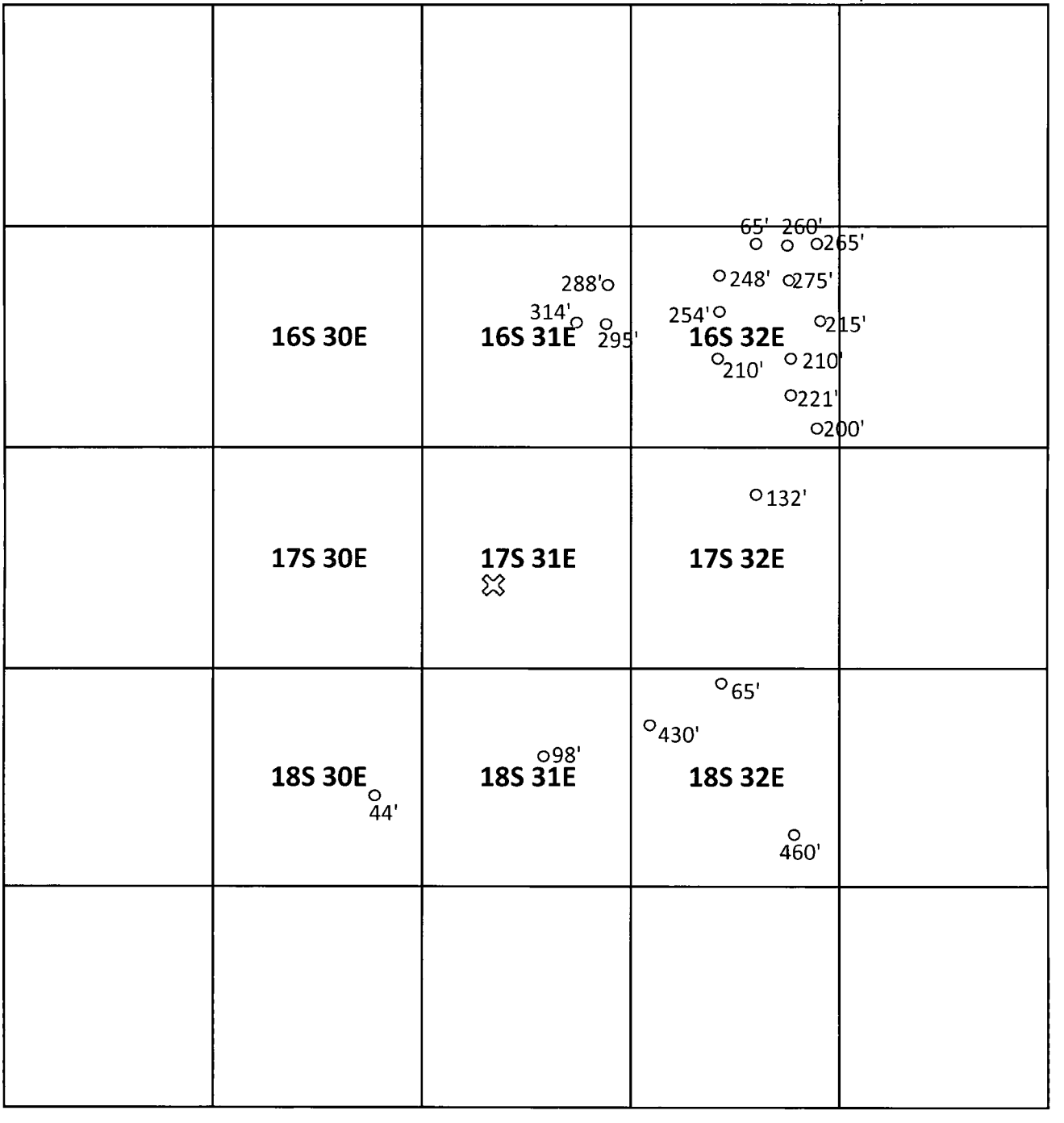
Linn Energy Turner B #81

UL: J **Sec:** 29 **T:** 17S **R:** 31E

Groundwater Depth: 236 ft. averaged

o = NM Office of the State Engineer
● = U.S. Geological Survey (unknown well)
⛒ = Site Location

Date: 04/24/14
By: Rebecca Pons



New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

PLSS Search:

Township: 16S **Range**: 30E

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Depth Well	Depth Water	Water Column
L 03435		L	LE		1	1	05	16S	31E	602954	3646955*			
L 03852	R	L	LE	2	2	2	14	16S	31E	609126	3643913*	370	314	56
L 03852 POD4		L	LE	3	4	3	13	16S	31E	609744	3642516*	333	299	34
L 03852 POD5		L	LE		3	2	13	16S	31E	610238	3643427*	328	295	33
L 03852 X	R	L	LE	4	4	4	13	16S	31E	610749	3642526*	333	299	34
L 03852 X2		L	LE	3	2	2	13	16S	31E	610535	3643733*	330	287	43
L 04671		L	LE	1	1	2	12	16S	31E	610114	3645538*	340	288	52
L 10203		L	LE	4	4	3	14	16S	31E	608334	3642495*	310		
L 10206		L	LE		2	2	23	16S	31E	609045	3642204*	280		

Average Depth to Water: **297 feet**

Minimum Depth: **287 feet**

Maximum Depth: **314 feet**

Record Count: 9

PLSS Search:

Township: 16S **Range:** 31E

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	Y
3435	L	PRO	0	LOWE DRILLING COMPANY	LE	L 03435			Shallow	1 1	05	16S	31E	602954	3646955*

Record Count: 1

POD Search:

POD Number: L 03435

Sorted by: File Number

UTM location was derived from PLSS - see Help

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

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(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(acre ft per annum)

File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	Y
3852	L	MUN	375	CITY OF CARLSBAD	LE	L 03852		R	Shallow	2 2 2	14	16S	31E	609126	3643913*
					LE	L 03852 POD4			Shallow	3 4 3	13	16S	31E	609744	3642516*
					LE	L 03852 POD5		R	Shallow	3 2	13	16S	31E	610238	3643427*
					LE	L 03852 POD6				3 2	13	16S	31E	610390	3643476
					LE	L 03852 X		R	Shallow	4 4 4	13	16S	31E	610749	3642526*
					LE	L 03852 X2			Shallow	3 2 2	13	16S	31E	610535	3643733*

:ord Count: 6

POD Search:

POD Number: L 03852

Sorted by: File Number

M location was derived from PLSS - see Help

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	Y
671	L	PRO	0	JOHN H. TRIGG	LE	L 04671			Shallow	1	1 2	12	16S	31E	610114	3645538*

:ord Count: 1

POD Search:

POD Number: L 04671

Sorted by: File Number

M location was derived from PLSS - see Help

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Depth Well	Depth Water	Water Column
L 02381	L	LE		3	1	13	16S	32E	619086	3643515*	308	215	93
L 02434	L	LE				01	16S	32E	619661	3646531*	337		
L 02449	L	LE				01	16S	32E	619661	3646531*	330	265	65
L 02617	L	LE		4	4	02	16S	32E	618656	3645924*	322	270	52
L 02752	L	LE		1	3	26	16S	32E	617521	3639880*	324	280	44
L 02846	L	LE	4	2	1	11	16S	32E	617956	3645413*	328	275	53
L 02954	L	LE		2	4	03	16S	32E	617043	3646310*	120	65	55
L 02993	L	LE	3	3	2	15	16S	32E	616572	3643391*	100		
L 03631	L	LE		1	2	02	16S	32E	618240	3647126*	315	250	65
L 04930	L	LE			1	23	16S	32E	617698	3642092*	307	210	97
L 05494	L	LE				36	16S	32E	619758	3638489*	303	200	103
L 06557	L	LE		1	4	21	16S	32E	615089	3641466*	295	210	85
L 06807	L	LE	1	4	4	09	16S	32E	615356	3644383*	290	248	42
L 07823	L	LE	2	2	2	16	16S	32E	615561	3643981*	269	247	22
L 08084	L	LE	1	1	1	16	16S	32E	614157	3643970*	317	260	57
L 08084 POD4	L	LE			2	26	16S	32E	618522	3640492*	303	233	70
L 08084 POD5	L	LE	4	1	4	26	16S	32E	618425	3639788*	296	165	131
L 08084 S3	L	LE			2	26	16S	32E	618522	3640492*	305	205	100
L 08241	L	LE		4	4	02	16S	32E	618656	3645924*	316		
L 10204	L	LE	4	2	2	04	16S	32E	615524	3646993*	319		
L 10205	L	LE		4	1	08	16S	32E	613038	3645066*	330		
L 11189	L	LE	1	1	4	04	16S	32E	614932	3646391*	350		

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in mete

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	
L 02381	L	PRO	0	GULF REFINING COMPANY	LE	L 02381			Shallow	3	1	13	16S	32E	619086	36435

Record Count: 1

POD Search:

POD Number: L 02381

Sorted by: File Number

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

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(quarters are smallest to largest)

(acre ft per annum)

(NAD83 UTM in met

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	
L 02449	L	PRO	0	PLYMOUTH OIL COMPANY	LE	L 02449			Shallow		01	16S	32E	619661	3646

Record Count: 1

POD Search:

POD Number: L 02449

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

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(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(acre ft per annum)

(NAD83 UTM in met

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q 6416	q 4	q 4	Sec	Tws	Rng	X	
L 02617	L	PRO	0	GULF OIL CORPORATION	LE	L 02617			Shallow		4	4	02	16S	32E	618656	3645

Record Count: 1

POD Search:

POD Number: L 02617

Sorted by: File Number

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New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

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(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in me

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 64 16 4	Sec	Tws	Rng	X	
L 02752	L	DOL	3	W W WILLIAMS	LE	L 02752			Shallow	1 3	26	16S	32E	617521	3639

Record Count: 1

POD Search:

POD Number: L 02752

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE)

(acre ft per annum) (quarters are smallest to largest) (NAD83 UTM in met

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	
L 02846	L	PRO	0	CONTINENTAL OIL COMPANY	LE	L 02846			Shallow	4	2 1	11	16S	32E	617956	3645

Record Count: 1

POD Search:

POD Number: L 02846

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

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(quarters are smallest to largest)

(acre ft per annum)

(NAD83 UTM in met

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q 6416	q 4	q	Sec	Tws	Rng	X	
L 02954	L	PRO	0	SCHOENFELD-HUNTER-KITCH DRG CO	LE	L 02954			Shallow	2	4		03	16S	32E	617043	36463

Record Count: 1

POD Search:

POD Number: L 02954

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

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(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in met

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	
L 03631	L	PRO	0	MAGNOLIA PETROLEUM COMPANY	LE	L 03631			Shallow	1 2	02	16S	32E	618240	36471

Record Count: 1

POD Search:

POD Number: L 03631

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

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(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in me

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	
L 04930	L	STK	3	JULIA WILLIAMS	LE	L 04930			Shallow		1	23	16S	32E	617698	3642(

Record Count: 1

POD Search:

POD Number: L 04930

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

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(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in me

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	
L 05494	L	COM	165	CITY OF CARLSBAD	LE	L 05494			Shallow		36	16S	32E	619758	3638

Record Count: 1

POD Search:

POD Number: L 05494

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in me

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	
L 06557	L	STK	3	TAYLOR CATTLE COMPANY	LE	L 06557			Shallow	1	4	21	16S	32E	615089	3641

Record Count: 1

POD Search:

POD Number: L 06557

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(acre ft per annum)

(NAD83 UTM in me

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	
L 06807	L	PRO	0	SHARP DRILLING COMPANY	LE	L 06807		Shallow	1	4 4	09	16S	32E	615356	3644

Record Count: 1

POD Search:

POD Number: L 06807

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in met

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	
L 07823	L	PRO	0	E R WEST ENGINEERING	LE	L 07823			Shallow	2	2	2	16	16S	32E	615561	36439

Record Count: 1

POD Search:

POD Number: L 07823

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in me

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q 6416	q 4	Sec	Tws	Rng	X	
L 08084	L	COM	750	MOR-WEST CORPORATION	LE	L 08084			Shallow	1 1	1	16	16S	32E	614157	3643
					LE	L 08084 POD4			Shallow		2	26	16S	32E	618522	3640
					LE	L 08084 POD5			Shallow	4 1	4	26	16S	32E	618425	3639
					LE	L 08084 S		R	Shallow	2 1	1	36	16S	32E	619239	3639
					LE	L 08084 S2		R	Shallow	3 1	1	36	16S	32E	619039	3638
					LE	L 08084 S3			Shallow		2	26	16S	32E	618522	3640

Record Count: 6

POD Search:

POD Number: L 08084

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in met

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	
L 08084	L	COM	750	MOR-WEST CORPORATION	LE	L 08084 S3			Shallow		2	26	16S	32E	618522	36404

Record Count: 1

POD Search:

POD Number: L 08084 S3

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

Average Depth to Water: **224 feet**

Minimum Depth: **65 feet**

Maximum Depth: **280 feet**

Record Count: 22

PLSS Search:

Township: 16S **Range:** 32E

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Twws	Rng	X	Y	Depth Well	Depth Water	Water Column
RA 11914 POD1		ED	2	4	2	20	17S	30E	594801	3632002	85	80	5

Average Depth to Water: **80 feet**

Minimum Depth: **80 feet**

Maximum Depth: **80 feet**

Record Count: 1

PLSS Search:

Township: 17S **Range:** 30E

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(acre ft per annum)

File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	Y
1914		EXP	0	LINN ENERGY	ED	RA 11914 POD1			Shallow	2	4 2	20	17S	30E	594801	3632002

ord Count: 1

POD Search:

POD Number: RA 11914 POD1

Sorted by: File Number

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
RA 11590 POD1		ED	2	1	3	32	17S	31E	603315	3628545	158		
RA 11590 POD3		ED	3	1	2	32	17S	31E	603932	3629260	60		
RA 11590 POD4		ED	4	1	1	32	17S	31E	603308	3629253	55		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 3

PLSS Search:

Township: 17S **Range**: 31E

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 04019		L	LE	4	3	4	02	17S	32E	618468	3636166*	182		
L 04020		L	LE	3	3	4	02	17S	32E	618268	3636166*	200		
L 04021	R	L	LE	3	4	4	02	17S	32E	618670	3636170*	190		
L 04021 POD3		L	LE		3	4	03	17S	32E	616761	3636252*	247		
L 04021 S		L	LE	2	4	4	03	17S	32E	617262	3636354*	260		
L 13047 POD1		L	LE				11	17S	32E	618187	3635254*	140		
L 13050 POD1		L	LE	2	2	1	10	17S	32E	616463	3635945*	156	132	24
RA 08855			LE	4	1	1	10	17S	32E	616061	3635742*	158		
RA 09505			LE	2	2	1	10	17S	32E	616462	3635944	147		
RA 09505 S			LE	2	2	1	10	17S	32E	616463	3635945*	144		
RA 10175			LE		2	1	28	17S	32E	614814	3631005*	158		
RA 11684 POD1			LE	1	1	4	11	17S	32E	618216	3635124	275		
RA 11684 POD2			LE	1	1	4	11	17S	32E	618313	3635248	275		
RA 11684 POD3			LE	3	3	1	11	17S	32E	618262	3635371	275		
RA 11684 POD4			LE	1	3	2	11	17S	32E	618334	3635521	275		
RA 11684 POD5			LE	3	1	4	11	17S	32E	618353	3635047	275		
RA 11734 POD1			LE	2	2	1	10	17S	32E	616556	3635929	165		
RA 11911 POD1			LE	1	3	1	24	17S	32E	619192	3632296	35		
RA 12020 POD1			LE	2	2	1	28	17S	32E	614828	3630954	120	81	39
RA 12042 POD1			LE	2	2	1	28	17S	32E	614891	3631181	400		

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE)

(acre ft per annum) (quarters are smallest to largest) (NAD83 UTM in meters)

File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	Y
050	L	DOL	3	LARRY WOOTEN	LE	L 13050 POD1		Shallow	2	2 1	10	17S	32E	616463	3635945*

ord Count: 1

POD Search:

POD Number: L 13050 POD1

Sorted by: File Number

A location was derived from PLSS - see Help

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

(acre ft per annum)

File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	Y
2020		MON	0	PHILLIPS 66 COMPANY	LE	RA 12020 POD1		Shallow	2	2 1	28	17S	32E	614827	3630954

ord Count: 1

POD Search:

POD Number: RA 12020 POD1

Sorted by: File Number

Minimum Depth: **81 feet**

Maximum Depth: **132 feet**

Record Count: 20

PLSS Search:

Township: 17S **Range:** 32E

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00818		LE	1	4	26	18S	30E		599289	3620364*	240		
CP 00819		LE	2	4	32	18S	30E		594878	3618720*	150		
L 01978	L	LE	1	3	23	18S	30E		598469	3621964*	65	44	21

Average Depth to Water: **44 feet**

Minimum Depth: **44 feet**

Maximum Depth: **44 feet**

Record Count: 3

PLSS Search:

Township: 18S **Range**: 30E

*UTM location was derived from PLSS - see Help

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in me

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	
L 01978	L	DOM	3	L A JOHNSON	LE	L 01978			Shallow	1	3	23	18S	30E	598469	3621

Record Count: 1

POD Search:

POD Number: L 01978

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twp	Rng	X	Y	Depth Well	Depth Water	Water Column
L 11092	L	LE	2	3	15	18S	31E		606849	3623669*	160	98	62

Average Depth to Water: **98 feet**

Minimum Depth: **98 feet**

Maximum Depth: **98 feet**

Record Count: 1

PLSS Search:

Township: 18S **Range:** 31E

*UTM location was derived from PLSS - see Help

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(acre ft per annum)

(NAD83 UTM in met

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q 6416	q 4	q	Sec	Tws	Rng	X	
L 11092	L	DOM	3	NEW HOPE BAPTIST	LE	L 11092			Shallow	2	3		15	18S	31E	606849	3623

Record Count: 1

POD Search:

POD Number: L 11092

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00566			LE	4	4	1	04	18S	32E	614960	3627280*	133	65	68
CP 00672			LE		4	4	07	18S	32E	612475	3624947*	524	430	94
CP 00672 CLW475398	O		LE		4	4	07	18S	32E	612475	3624947*	540	460	80
CP 00677			LE		1	1	26	18S	32E	617750	3621373*	700		

Average Depth to Water: **318 feet**

Minimum Depth: **65 feet**

Maximum Depth: **460 feet**

Record Count: 4

PLSS Search:

Township: 18S **Range**: 32E

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in met

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	
CP 00566		DOM	3	B.E. FRIZZELL	LE	CP 00566			Shallow	4	4	1	04	18S	32E	614960	3627

Record Count: 1

POD Search:

POD Number: CP 00566

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(acre ft per annum)

(NAD83 UTM in met

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q 6416	q 4	q	Sec	Tws	Rng	X	
CP 00672		STK	3	VIRGIL LINAM ESTATE	LE	CP 00672			Shallow	4	4		07	18S	32E	612475	3624

Record Count: 1

POD Search:

POD Number: CP 00672

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

No PODs found.

POD Search:

POD Number: CP 00672 CLW475398

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(acre ft per annum)

(NAD83 UTM in met

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416	4	Sec	Tws	Rng	X	
CP 00677		PRO	0	T X O PROD.	LE	CP 00677				1	1	26	18S	32E	617750	36213

Record Count: 1

POD Search:

POD Number: CP 00677

Sorted by: File Number

***UTM location was derived from PLSS - see Help**

Appendix IV

LABORATORY ANALYSES

Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

CARDINAL Laboratories

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

August 29, 2013

BRIAN WALL

LINN ENERGY

RR1, BOX 24 B

KINGFISHER, OK 73750

RE: TURNER B #81

Enclosed are the results of analyses for samples received by the laboratory on 08/23/13 10:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated 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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN ENERGY
BRIAN WALL
RR1, BOX 24 B
KINGFISHER OK, 73750
Fax To: (405) 375-6693

Received:	08/23/2013	Sampling Date:	08/20/2013
Reported:	08/29/2013	Sampling Type:	Soil
Project Name:	TURNER B #81	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALJAMAR, NM		

Sample ID: SP 1 SURFACE (H302027-01)

BTEX 8021B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/27/2013	ND	1.77	88.3	2.00	4.34	
Toluene*	<0.050	0.050	08/27/2013	ND	1.77	88.6	2.00	2.43	
Ethylbenzene*	<0.050	0.050	08/27/2013	ND	1.85	92.3	2.00	2.93	
Total Xylenes*	<0.150	0.150	08/27/2013	ND	5.58	93.0	6.00	3.42	
Total BTEX	<0.300	0.300	08/27/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID *108 %* *89.4-126*

Chloride, SM4500Cl-B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	08/28/2013	ND	432	108	400	0.00	

TPH 8015M mg/kg **Analyzed By: CK/**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/28/2013	ND	182	90.8	200	1.55	
DRO >C10-C28	**600**	10.0	08/28/2013	ND	168	83.8	200	0.0292	

Surrogate: 1-Chlorooctane *95.2 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *106 %* *63.6-154*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN ENERGY
BRIAN WALL
RR1, BOX 24 B
KINGFISHER OK, 73750
Fax To: (405) 375-6693

Received:	08/23/2013	Sampling Date:	08/20/2013
Reported:	08/29/2013	Sampling Type:	Soil
Project Name:	TURNER B #81	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALJAMAR, NM		

Sample ID: SP 2 SURFACE (H302027-02)

BTEX 8021B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/27/2013	ND	1.77	88.3	2.00	4.34	
Toluene*	<0.050	0.050	08/27/2013	ND	1.77	88.6	2.00	2.43	
Ethylbenzene*	<0.050	0.050	08/27/2013	ND	1.85	92.3	2.00	2.93	
Total Xylenes*	<0.150	0.150	08/27/2013	ND	5.58	93.0	6.00	3.42	
Total BTEX	<0.300	0.300	08/27/2013	ND					

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

Chloride, SM4500Cl-B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	08/28/2013	ND	432	108	400	0.00	

TPH 8015M mg/kg **Analyzed By: CK/**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/28/2013	ND	182	90.8	200	1.55	
DRO >C10-C28	<10.0	10.0	08/28/2013	ND	168	83.8	200	0.0292	

Surrogate: 1-Chlorooctane *93.9 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *98.3 %* *63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN ENERGY
BRIAN WALL
RR1, BOX 24 B
KINGFISHER OK, 73750
Fax To: (405) 375-6693

Received:	08/23/2013	Sampling Date:	08/20/2013
Reported:	08/29/2013	Sampling Type:	Soil
Project Name:	TURNER B #81	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALJAMAR, NM		

Sample ID: SP 2 @ 1' (H302027-03)

BTEX 8021B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/27/2013	ND	1.77	88.3	2.00	4.34	
Toluene*	<0.050	0.050	08/27/2013	ND	1.77	88.6	2.00	2.43	
Ethylbenzene*	<0.050	0.050	08/27/2013	ND	1.85	92.3	2.00	2.93	
Total Xylenes*	<0.150	0.150	08/27/2013	ND	5.58	93.0	6.00	3.42	
Total BTEX	<0.300	0.300	08/27/2013	ND					

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

Chloride, SM4500Cl-B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/28/2013	ND	432	108	400	0.00	

TPH 8015M mg/kg **Analyzed By: CK/**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/28/2013	ND	182	90.8	200	1.55	
DRO >C10-C28	<10.0	10.0	08/28/2013	ND	168	83.8	200	0.0292	

Surrogate: 1-Chlorooctane *96.8 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *101 %* *63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN ENERGY
BRIAN WALL
RR1, BOX 24 B
KINGFISHER OK, 73750
Fax To: (405) 375-6693

Received:	08/23/2013	Sampling Date:	08/20/2013
Reported:	08/29/2013	Sampling Type:	Soil
Project Name:	TURNER B #81	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALJAMAR, NM		

Sample ID: SP 3 SURFACE (H302027-04)

BTEX 8021B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/27/2013	ND	1.77	88.3	2.00	4.34	
Toluene*	<0.050	0.050	08/27/2013	ND	1.77	88.6	2.00	2.43	
Ethylbenzene*	<0.050	0.050	08/27/2013	ND	1.85	92.3	2.00	2.93	
Total Xylenes*	<0.150	0.150	08/27/2013	ND	5.58	93.0	6.00	3.42	
Total BTEX	<0.300	0.300	08/27/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL *109 %* *89.4-126*

Chloride, SM4500Cl-B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**4160**	16.0	08/28/2013	ND	432	108	400	0.00	

TPH 8015M mg/kg **Analyzed By: CK/**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/28/2013	ND	182	90.8	200	1.55	
DRO >C10-C28	<10.0	10.0	08/28/2013	ND	168	83.8	200	0.0292	

Surrogate: 1-Chlorooctane *86.4 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *88.9 %* *63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN ENERGY
BRIAN WALL
RR1, BOX 24 B
KINGFISHER OK, 73750
Fax To: (405) 375-6693

Received:	08/23/2013	Sampling Date:	08/20/2013
Reported:	08/29/2013	Sampling Type:	Soil
Project Name:	TURNER B #81	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALJAMAR, NM		

Sample ID: SP 4 SURFACE (H302027-05)

BTEX 8021B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/27/2013	ND	1.77	88.3	2.00	4.34	
Toluene*	<0.050	0.050	08/27/2013	ND	1.77	88.6	2.00	2.43	
Ethylbenzene*	<0.050	0.050	08/27/2013	ND	1.85	92.3	2.00	2.93	
Total Xylenes*	<0.150	0.150	08/27/2013	ND	5.58	93.0	6.00	3.42	
Total BTEX	<0.300	0.300	08/27/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL *109 %* *89.4-126*

Chloride, SM4500Cl-B mg/kg **Analyzed By: DW**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	08/28/2013	ND	432	108	400	0.00	

TPH 8015M mg/kg **Analyzed By: CK/**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/28/2013	ND	182	90.8	200	1.55	
DRO >C10-C28	**1340**	10.0	08/28/2013	ND	168	83.8	200	0.0292	

Surrogate: 1-Chlorooctane *88.0 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *110 %* *63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN ENERGY
BRIAN WALL
RR1, BOX 24 B
KINGFISHER OK, 73750
Fax To: (405) 375-6693

Received:	08/23/2013	Sampling Date:	08/20/2013
Reported:	08/29/2013	Sampling Type:	Soil
Project Name:	TURNER B #81	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	MALJAMAR, NM		

Sample ID: SP 4 @ 1' (H302027-06)

BTEX 8021B mg/kg Analyzed By: DW

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/28/2013	ND	1.77	88.3	2.00	4.34	
Toluene*	<0.050	0.050	08/28/2013	ND	1.77	88.6	2.00	2.43	
Ethylbenzene*	<0.050	0.050	08/28/2013	ND	1.85	92.3	2.00	2.93	
Total Xylenes*	<0.150	0.150	08/28/2013	ND	5.58	93.0	6.00	3.42	
Total BTEX	<0.300	0.300	08/28/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL *109 %* *89.4-126*

Chloride, SM4500Cl-B mg/kg Analyzed By: DW

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	08/28/2013	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: CK/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	08/28/2013	ND	182	90.8	200	1.55	
DRO >C10-C28	**18.6**	10.0	08/28/2013	ND	168	83.8	200	0.0292	

Surrogate: 1-Chlorooctane *91.3 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *97.2 %* *63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Linn Energy	BILL TO	
Project Manager:	Brian Wall	P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #:	Fax #:	Address:	SAME
Project #:	Project Owner:	City:	
Project Name:	Turner B #81	State: Zip:	
Project Location:	Maljamar	Phone #:	
Sampler Name:	Daniel Lockhart	Fax #:	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	BTEX	TPH 8015m	Cl-
H302027																	
1	SP1 Surf	G	1			✓					✓		8-20-13	11:42	✓	✓	✓
2	SP2 Surf	G	1			✓					✓		8-20-13	11:43	✓	✓	✓
3	SP2 @ 1'	G	1			✓					✓		8-20-13	12:57	✓	✓	✓
4	SP3 Surf	G	1			✓					✓		8-20-13	11:44	✓	✓	✓
5	SP4 Surf	G	1			✓					✓		8-20-13	11:45	✓	✓	✓
6	SP4 @ 1'	G	1			✓					✓		8-20-13	1:36	✓	✓	✓

Relinquished By:	Date: 8/23/13	Received By:	Jodi Henson
Relinquished By:	Time: 10:15	Received By:	
	Date:		
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 5.5°C

Sample Condition: Cool: Yes / No; Intact: Yes / No

CHECKED BY: (Initials) JH

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

REMARKS:
Email results:
bwall@linnenergy.com
aruth@diversifiedfsi.com

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

CARDINAL Laboratories

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

February 27, 2014

BRIAN WALL

LINN OPERATING-HOBBS

2130 W. BENDER

HOBBS, NM 88240

RE: TURNER B #81

Enclosed are the results of analyses for samples received by the laboratory on 02/20/14 13:20.

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 accreditated 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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/20/2014	Sampling Date:	02/20/2014
Reported:	02/27/2014	Sampling Type:	Soil
Project Name:	TURNER B #81	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 2 @ 1 (H400516-01)

Chloride, SM4500Cl-B mg/kg **Analyzed By: CK**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	02/24/2014	ND	432	108	400	3.77	

Sample ID: SP 2 @ 2 (H400516-02)

Chloride, SM4500Cl-B mg/kg **Analyzed By: CK**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	02/24/2014	ND	432	108	400	3.77	

Sample ID: SP 3 @ 1 (H400516-03)

Chloride, SM4500Cl-B mg/kg **Analyzed By: CK**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	02/24/2014	ND	432	108	400	3.77	

Sample ID: SP 3 @ 2 (H400516-04)

Chloride, SM4500Cl-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	02/26/2014	ND	400	100	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

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

Received:	02/20/2014	Sampling Date:	02/20/2014
Reported:	02/27/2014	Sampling Type:	Soil
Project Name:	TURNER B #81	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SP 4 @ 1 (H400516-05)

Chloride, SM4500Cl-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	02/26/2014	ND	400	100	400	0.00	

Sample ID: SP 5 @ SURFACE (H400516-06)

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	02/26/2014	ND	400	100	400	3.92	

Sample ID: SP 4 @ 2 (H400516-07)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**304**	16.0	02/26/2014	ND	400	100	400	3.92	

Sample ID: SP 5 @ 1 (H400516-08)

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	02/26/2014	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Linn Energy	**BILL TO**
Project Manager: Brian Wall	**P.O. #:**
Address:	**Company:** Linn Energy
City: **State:** **Zip:**	**Attn:** Brian Wall
Phone #: **Fax #:**	**Address:**
Project #: **Project Owner:**	**City:**
Project Name:	**State:** **Zip:**
Project Location: Turner B 8L	**Phone #:**
Sampler Name:	**Fax #:**

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	TPH
H400515															
1	SP.2@1	G	1			X					X		2/20/14	12:00	X
2	SP.3@2	G	1			X					X		2/20/14		X
3	SP.3@1	G	1			X					X		2/20/14		X
4	SP.3@2	G	1			X					X		2/20/14		X
5	SP.4@1	G	1			X					X		2/20/14		X
6	SP.5@Surf	G	1			X					X		2/20/14		X
7	SP.4@2	G	1			X					X		2/20/14		X
8	SP.5@1	G	1			X					X		2/20/14		X

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 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 consequental 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:	**Date:** 2/20/14 **Time:** 1:20	**Received By:** Jodi Henson	**Phone Result:** ☐ Yes ☐ No **Add'l Phone #:**
Relinquished By:	**Date:** **Time:**	**Received By:**	**Fax Result:** ☐ Yes ☐ No **Add'l Fax #:**
			REMARKS: bwall@linnenergy.com wgladden@diversifsd.com

Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4.8°C	**Sample Condition** Cool ☑ Yes ☐ No / Intact ☑ Yes ☐ No	**CHECKED BY:** (Initials)	

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

CARDINAL Laboratories

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

April 16, 2014

BRIAN WALL

LINN ENERGY

RR1, BOX 24 B

KINGFISHER, OK 73750

RE: TURNER B #81

Enclosed are the results of analyses for samples received by the laboratory on 04/11/14 14:47.

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 accreditated 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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN ENERGY
BRIAN WALL
RR1, BOX 24 B
KINGFISHER OK, 73750
Fax To: (405) 375-6693

Received:	04/11/2014	Sampling Date:	04/09/2014
Reported:	04/16/2014	Sampling Type:	Soil
Project Name:	TURNER B #81	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	MALJAMAR, NM		

Sample ID: BS 1 @ 3' (H401114-01)

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	04/15/2014	ND	2.25	113	2.00	9.92	
Toluene*	<0.050	0.050	04/15/2014	ND	2.13	106	2.00	10.0	
Ethylbenzene*	<0.050	0.050	04/15/2014	ND	2.10	105	2.00	9.59	
Total Xylenes*	<0.150	0.150	04/15/2014	ND	6.11	102	6.00	9.41	
Total BTEX	<0.300	0.300	04/15/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID *115 %* *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	**48.0**	16.0	04/16/2014	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: ms**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/16/2014	ND	199	99.3	200	1.82	
DRO >C10-C28	<10.0	10.0	04/16/2014	ND	218	109	200	2.81	

Surrogate: 1-Chlorooctane *119 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *112 %* *63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN ENERGY
BRIAN WALL
RR1, BOX 24 B
KINGFISHER OK, 73750
Fax To: (405) 375-6693

Received:	04/11/2014	Sampling Date:	04/09/2014
Reported:	04/16/2014	Sampling Type:	Soil
Project Name:	TURNER B #81	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	MALJAMAR, NM		

Sample ID: BS 2 @ 3' (H401114-02)

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	04/15/2014	ND	2.25	113	2.00	9.92	
Toluene*	<0.050	0.050	04/15/2014	ND	2.13	106	2.00	10.0	
Ethylbenzene*	<0.050	0.050	04/15/2014	ND	2.10	105	2.00	9.59	
Total Xylenes*	<0.150	0.150	04/15/2014	ND	6.11	102	6.00	9.41	
Total BTEX	<0.300	0.300	04/15/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *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	**48.0**	16.0	04/16/2014	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: ms**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/16/2014	ND	199	99.3	200	1.82	
DRO >C10-C28	<10.0	10.0	04/16/2014	ND	218	109	200	2.81	

Surrogate: 1-Chlorooctane *121 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *110 %* *63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN ENERGY
BRIAN WALL
RR1, BOX 24 B
KINGFISHER OK, 73750
Fax To: (405) 375-6693

Received:	04/11/2014	Sampling Date:	04/09/2014
Reported:	04/16/2014	Sampling Type:	Soil
Project Name:	TURNER B #81	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	MALJAMAR, NM		

Sample ID: BS 3 @ 3' (H401114-03)

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	04/15/2014	ND	2.25	113	2.00	9.92	
Toluene*	<0.050	0.050	04/15/2014	ND	2.13	106	2.00	10.0	
Ethylbenzene*	<0.050	0.050	04/15/2014	ND	2.10	105	2.00	9.59	
Total Xylenes*	<0.150	0.150	04/15/2014	ND	6.11	102	6.00	9.41	
Total BTEX	<0.300	0.300	04/15/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *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	**464**	16.0	04/16/2014	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: ms**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/16/2014	ND	199	99.3	200	1.82	
DRO >C10-C28	<10.0	10.0	04/16/2014	ND	218	109	200	2.81	

Surrogate: 1-Chlorooctane *120 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *109 %* *63.6-154*

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Lina Energy	BILL TO
Project Manager: Brian Wall	P.O. #:
Address:	Company: Lina Energy
City: State: Zip:	Attn: Brian Wall
Phone #: Fax #:	Address:
Project #: Project Owner:	City:
Project Name: Sidewall + Bottom Samples	State: Zip:
Project Location: Turner B 81	Phone #:
Sampler Name: Michael Alves	Fax #:

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	CL	TPH	BTEX
H401114-																	
01	BS 1@3'	G	1			X					X		4/9/14	12:40	X	X	X
02	BS 2@3'	G	1			X					X		4/9/14	12:45			
03	BS 3@3'	G	1			X					X		4/9/14	12:50			

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 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:	Date: 4/9/14	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 2:47		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		E-mail Results To: Ngladden@diversifiedfsi.com Rpons@diversifiedfsi.com Tjennings@diversifiedfsi.com
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	5.2°C	Sample Condition Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No	CHECKED BY: (Initials)

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

CARDINAL Laboratories

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

April 21, 2014

BRIAN WALL

LINN ENERGY

RR1, BOX 24 B

KINGFISHER, OK 73750

RE: TURNER B #81

Enclosed are the results of analyses for samples received by the laboratory on 04/11/14 14:47.

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 accreditated 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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN ENERGY
BRIAN WALL
RR1, BOX 24 B
KINGFISHER OK, 73750
Fax To: (405) 375-6693

Received:	04/11/2014	Sampling Date:	04/09/2014
Reported:	04/21/2014	Sampling Type:	Soil
Project Name:	TURNER B #81	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	MALJAMAR, NM		

Sample ID: SW 1 @ 1' (H401115-01)

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	04/16/2014	ND	2.54	127	2.00	0.0570	
Toluene*	<0.050	0.050	04/16/2014	ND	2.42	121	2.00	0.392	
Ethylbenzene*	<0.050	0.050	04/16/2014	ND	2.39	120	2.00	0.684	
Total Xylenes*	<0.150	0.150	04/16/2014	ND	6.93	115	6.00	1.27	
Total BTEX	<0.300	0.300	04/16/2014	ND					

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

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	04/16/2014	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: ms**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/16/2014	ND	199	99.3	200	1.82	
DRO >C10-C28	<10.0	10.0	04/16/2014	ND	218	109	200	2.81	

Surrogate: 1-Chlorooctane *119 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *108 %* *63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN ENERGY
BRIAN WALL
RR1, BOX 24 B
KINGFISHER OK, 73750
Fax To: (405) 375-6693

Received:	04/11/2014	Sampling Date:	04/09/2014
Reported:	04/21/2014	Sampling Type:	Soil
Project Name:	TURNER B #81	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	MALJAMAR, NM		

Sample ID: SW 2 @ 1' (H401115-02)

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	04/16/2014	ND	2.54	127	2.00	0.0570	
Toluene*	<0.050	0.050	04/16/2014	ND	2.42	121	2.00	0.392	
Ethylbenzene*	<0.050	0.050	04/16/2014	ND	2.39	120	2.00	0.684	
Total Xylenes*	<0.150	0.150	04/16/2014	ND	6.93	115	6.00	1.27	
Total BTEX	<0.300	0.300	04/16/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID *116 %* *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	**96.0**	16.0	04/16/2014	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: ms**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/16/2014	ND	199	99.3	200	1.82	
DRO >C10-C28	**21.0**	10.0	04/16/2014	ND	218	109	200	2.81	

Surrogate: 1-Chlorooctane *121 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *110 %* *63.6-154*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN ENERGY
BRIAN WALL
RR1, BOX 24 B
KINGFISHER OK, 73750
Fax To: (405) 375-6693

Received:	04/11/2014	Sampling Date:	04/09/2014
Reported:	04/21/2014	Sampling Type:	Soil
Project Name:	TURNER B #81	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	MALJAMAR, NM		

Sample ID: SW 3 @ 1' (H401115-03)

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	04/16/2014	ND	2.54	127	2.00	0.0570	
Toluene*	<0.050	0.050	04/16/2014	ND	2.42	121	2.00	0.392	
Ethylbenzene*	<0.050	0.050	04/16/2014	ND	2.39	120	2.00	0.684	
Total Xylenes*	<0.150	0.150	04/16/2014	ND	6.93	115	6.00	1.27	
Total BTEX	<0.300	0.300	04/16/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL *116 %* *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	**48.0**	16.0	04/16/2014	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: ms**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/16/2014	ND	199	99.3	200	1.82	
DRO >C10-C28	<10.0	10.0	04/16/2014	ND	218	109	200	2.81	

Surrogate: 1-Chlorooctane *113 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *102 %* *63.6-154*

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN ENERGY
BRIAN WALL
RR1, BOX 24 B
KINGFISHER OK, 73750
Fax To: (405) 375-6693

Received:	04/11/2014	Sampling Date:	04/09/2014
Reported:	04/21/2014	Sampling Type:	Soil
Project Name:	TURNER B #81	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	MALJAMAR, NM		

Sample ID: SW 4 @ 1' (H401115-04)

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	04/16/2014	ND	2.54	127	2.00	0.0570	
Toluene*	<0.050	0.050	04/16/2014	ND	2.42	121	2.00	0.392	
Ethylbenzene*	<0.050	0.050	04/16/2014	ND	2.39	120	2.00	0.684	
Total Xylenes*	<0.150	0.150	04/16/2014	ND	6.93	115	6.00	1.27	
Total BTEX	<0.300	0.300	04/16/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIL *116 %* *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	**48.0**	16.0	04/16/2014	ND	400	100	400	0.00	

TPH 8015M mg/kg **Analyzed By: ms**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/16/2014	ND	199	99.3	200	1.82	
DRO >C10-C28	<10.0	10.0	04/16/2014	ND	218	109	200	2.81	

Surrogate: 1-Chlorooctane *118 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *110 %* *63.6-154*

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN ENERGY
BRIAN WALL
RR1, BOX 24 B
KINGFISHER OK, 73750
Fax To: (405) 375-6693

Received:	04/11/2014	Sampling Date:	04/09/2014
Reported:	04/21/2014	Sampling Type:	Soil
Project Name:	TURNER B #81	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	MALJAMAR, NM		

Sample ID: SW 5 @ 1' (H401115-05)

BTEX 8021B mg/kg **Analyzed By: CK**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/17/2014	ND	2.68	134	2.00	12.6	
Toluene*	<0.050	0.050	04/17/2014	ND	2.55	127	2.00	13.1	
Ethylbenzene*	<0.050	0.050	04/17/2014	ND	2.53	126	2.00	14.0	
Total Xylenes*	<0.150	0.150	04/17/2014	ND	7.29	122	6.00	13.9	
Total BTEX	<0.300	0.300	04/17/2014	ND					

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

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	04/16/2014	ND	400	100	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	04/16/2014	ND	199	99.3	200	1.82	
DRO >C10-C28	<10.0	10.0	04/16/2014	ND	218	109	200	2.81	

Surrogate: 1-Chlorooctane *110 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *99.9 %* *63.6-154*

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN ENERGY
BRIAN WALL
RR1, BOX 24 B
KINGFISHER OK, 73750
Fax To: (405) 375-6693

Received:	04/11/2014	Sampling Date:	04/09/2014
Reported:	04/21/2014	Sampling Type:	Soil
Project Name:	TURNER B #81	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	MALJAMAR, NM		

Sample ID: SW 6 @ 1' (H401115-06)

BTEX 8021B mg/kg **Analyzed By: CK**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/17/2014	ND	2.68	134	2.00	12.6	
Toluene*	<0.050	0.050	04/17/2014	ND	2.55	127	2.00	13.1	
Ethylbenzene*	<0.050	0.050	04/17/2014	ND	2.53	126	2.00	14.0	
Total Xylenes*	<0.150	0.150	04/17/2014	ND	7.29	122	6.00	13.9	
Total BTEX	<0.300	0.300	04/17/2014	ND					

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

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**448**	16.0	04/16/2014	ND	400	100	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	04/16/2014	ND	199	99.3	200	1.82	
DRO >C10-C28	<10.0	10.0	04/16/2014	ND	218	109	200	2.81	

Surrogate: 1-Chlorooctane *113 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *106 %* *63.6-154*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Linn Energy	BILL TO
Project Manager: Brian Wall	P.O. #:
Address:	Company: Linn Energy
City: State: Zip:	Attn: Brian Wall
Phone #: Fax #:	Address:
Project #: Project Owner:	City:
Project Name: Sidewall + Bottom	State: Zip:
Project Location: Turner B 81 SW Samples	Phone #:
Sampler Name: Michael Hunt	Fax #:

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME	TPH	BTEX	
H401115-																	
01	SW 1@1'	G	1			X					X		4/9/14	12:01	X	X	X
02	SW 2@1'	G	1			X					X		4/9/14	12:09	X	X	X
03	SW 3@1'	G	1			X					X		4/9/14	12:11	X	X	X
04	SW 4@1'	G	1			X					X		4/9/14	12:15	X	X	X
	~~SW 5@1'~~	G	1			X					X		4/9/14	12:25	X	X	X
05	SW 5@1'	G	1			X					X		4/9/14	12:30	X	X	X
06	SW 6@1'	G	1			X					X		4/9/14	12:38	X	X	X
07	SW 7@1'	G	1			X					X		4/9/14	12:35	X	X	X

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 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:	Date: 4/10/14	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Time: 2:47	Received By:	Fax Result: ☐ Yes ☐ No Add'l Fax #:
	Date:		REMARKS:
	Time:		E-mail Results To: Ngladden@diversifiedfsi.com Rpons@diversifiedfsi.com Tjennings@diversifiedfsi.com

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 5.2°C

Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No

CHECKED BY: (Initials)

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

Company Name: Linn Energy

Location Name: Turner B #81

SP Date: 8/29/2013, 2/20/2014, 2/21/2014, 4/9/2014

Release Date: 8/23/13

SP1	CHL	TPH
Surface	128	600
1'	899	0.3
2'	1449	0.3
3'	2224	0.3
4'	1699	0.6
5'	1524	1.4
6'	1574	0.02
7'	1399	0.6
8'	1374	1
9'	1449	0.1
10'	1649	0.4
11'	1424	0.1
12'	2499	0.4
13'	1349	1.07
14'	1199	0.7
15'	1399	0.7
16'	1549	0.4
18'	1374	9.9
20'	949	13.8
20'	688	

SP2	CHL	TPH
Surface	128	<10
1'	32	<10
1'	374	0.6
2'	224	0.2
1'	48	
2'	48	

SP3	CHL	TPH
Surface	4160	<10
1'	299	0.2
2'	749	0.3
1'	48	
2'	80	

SP4	CHL	TPH
Surface	160	1340
1'	178	18.6
1'	299	0.4
2'	324	0.3
1'	80	
2'	304	

SP5	CHL	TPH
Surface	274	0.1
1'	299	0.2
2'	299	0
Surface	32	
1'	32	

SW1	CHL	TPH
1'	274	0.4
1'	16	<10

SW2	CHL	TPH
1'	799	0.3
1'	96	21

SW3	CHL	TPH
1'	249	0.3
1'	48	<10

SW4	CHL	TPH
1'	374	0.05
1'	48	<10

SW5	CHL	TPH
1'	523	0.4
1'	240	<10

SW6	CHL	TPH
1'	774	0.3
1'	448	<10

SW7	CHL	TPH
1'	274	0.2
1'	<16	<10

BS1	CHL	TPH
3'	274	0.3
3'	48	<10

BS2	CHL	TPH
3'	349	0.3
3'	48	<10

BS3	CHL	TPH
3'	624	0.2
3'	464	<10

SP16	CHL	TPH

SP17	CHL	TPH

SP18	CHL	TPH

SP19	CHL	TPH

SP20	CHL	TPH

Lab Confirmation Sample

Field Sampling

Needs Delineation and confirmation samples

Appendix V

CORRESPONDENCE

Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

Natalie Gladden

From: Burton, Michael <mburton@blm.gov>
Sent: Monday, March 31, 2014 3:23 PM
To: Natalie Gladden
Subject: Re: Linn Energy Turner B #81

Natalie,
This plan is approved. Thanks

Mike Burton
BLM-CFO
Environmental Protection Specialist
575-234-2226 office
575-361-3574 cell
mburton@blm.gov

On Mon, Mar 31, 2014 at 9:10 AM, Natalie Gladden <ngladden@diversifiedfsi.com> wrote:

Mr. Bratcher and Mr. Burton,

Please find the Remediation Work Plan for the Linn Energy Turner B #81 site. Please review, and concur if approved.

Thanks and have a great week!

Natalie Gladden

ENVIRONMENTAL DIRECTOR

DFSI ENVIRONMENTAL SERVICES

CELL: 575-602-1786

OFFICE: 575-964-8394

FAX: 575-964-8396

EMAIL: ngladden@diversifiedfsi.com

Diversified Field Service, Inc.
Environmental Department
3412 N. Dal Paso
Hobbs, NM 88240 Phone: (575)964-8394 Fax: (575)964-8396

Thursday March 27, 2014

Mike Bratcher
NMOCD
Environmental Specialist
811 S First St.
Artesia, NM 882210

RE: **Linn Energy Turner B #81 – Work Remediation Plan**

UL/J, Section 29, T17S
R31E API No.
30-015-26389

Mr. Bratcher

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

The site is located northwest of Maljamar NM, in Eddy County. The site resulted from a flow line leak due to corrosion of fittings around the well head. The line rupture released fluids approximately 400 ft. east of location impacting a small area about 30 ft. long by 1 ft. wide. This was a non-reportable incident that occurred on August 23, 2012. Therefore, no C-141 was formally filed with the NMOCD.

Proposed Site Activities

DFSI personnel scraped and cleaned the site area. Impacted soils will be removed to an NMOCD approved disposal facility. All soil samples were submitted to a commercial laboratory for analyses. There were five sample points, and all all sample points returned acceptable levels at 1ft. to 2ft. bgs., with the exception of SP1. The lab confirmed a reduction in Chloride analyses to below 304 mg/kg at SP2 thru SP5. SP2 thru SP5 would be excavated from 1ft. bgs. to 1.5 ft. bgs. respectively and backfilled. SP1 was delineated to 20ft. bgs., and indicated a steady decrease in Chlorides. Due to the location of SP1, which is at the wellhead, DFSI is proposing to excavate this area to 4ft. bgs. and backfill. SP4 and SP5 were in pasture area. This area will be re-seeded and restored to its natural state according to BLM guidelines.

Conclusion

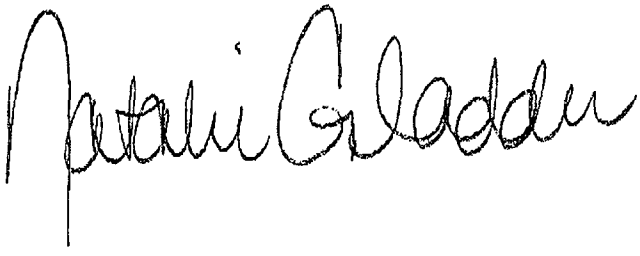
Upon completion of remediation activities in accordance with NMOCD and BLM requirements, DFSI will submit a request to close the regulatory file for the site.

Please contact me with any questions and/or concerns. Thank you.

Diversified Field Service, Inc.
Environmental Department
3412 N. Dal Paso
Hobbs, NM 88240 Phone: (575)964-8394 Fax: (575)964-8396

Thursday March 27, 2014

Sincerely,



Natalie Gladden
Environmental Consultant
Diversified Field Service, Inc.
315 S. Leech
Hobbs, NM 88240
Office: (575)397-6437
Mobile: (575)602-1786
Fax: (575)393-2981

Attachments: Site Diagram
Site Photographs
Initial Form C-141
Labs

cc Mike Bratcher BLM

Appendix VI

FINAL FORM C-141

Diversified Field Service, Inc.
3412 N. Dal Paso
Hobbs, NM 88240
(575) 964-8394

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Linn Operating, Inc.	Contact: Brian Wall
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No. 575-738-1739
Facility Name: Turner B #81	Facility Type: Oil Production

Surface Owner Federal	Mineral Owner Federal	API No. 30-015-26389

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
J	29	17S	31E	2545	South	2615	East	

Latitude 32.8053082596052 Longitude -103.891817672312

NATURE OF RELEASE

Type of Release: Oil	Volume of Release .5bbls/.5bbls	Volume Recovered 0
Source of Release: pipeline	Date and Hour of Occurrence 08/23/2012 12:15 pm	Date and Hour of Discovery 08/23/12 12:20pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? BLM Terry Gregston, Mike Bratcher NMOCD	
By Whom? Joe Hernandez	Date and Hour: 12/23/12 12:20 PM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*
NA

NMOCD ARTESIA
MAY 06 2014
RECEIVED

Describe Cause of Problem and Remedial Action Taken.*
1/2 inch nipple between the valve and elbow on the flow line was leaking die to corrosion on the fittings that leaked around the well head. The fittings were replace.

Describe Area Affected and Cleanup Action Taken.*
The spill traversed approximately 15 ft. Northwest of the location, impacting an area of 30 feet long by 1ft wide. Linn energy retained DFSI for the remediation of this site. All impacted soil was removed to an NMOCD approved facility. The impacted pasture area was remediated and re-seeded according to BLM guidelines.

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:	OIL CONSERVATION DIVISION	
Printed Name: Brian Wall	Approved by Environmental Specialist:	
Title: Construction Foreman II	Approval Date:	Expiration Date:
E-mail Address: bwall@linnenergy.com	Conditions of Approval:	Attached ☐
Date: 04/28/2014 Phone: 806-367-0645		

* Attach Additional Sheets If Necessary