



# Linn Energy Turner B #95

## CLOSURE REPORT

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API No. 30-015-26612

Release Date: 3/18/2014

Unit Letter L, Section 20, Township 17 South, Range 31 East

June 2, 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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Figure – Site Diagram with Sample Data

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Appendix V – Seed Report

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# Turner B #95

## 1 INTRODUCTION

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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, Unit letter 'L', sec. 20, T17S R31E, in Eddy County. The incident at this site location resulted from an injection line leak approximately 200 yards north of the field office. There was a release of approximately 20 bbls of produced water that affected approximately 4284 sq. ft. of pasture. Linn Energy took proactive measures by utilizing a vacuum truck to recover approximately 10 bbls of free standing fluids and constructing a temporary containment around the spill area. (Figure).

A form C-141 was submitted to the NMOCD on February 19, 2014 2RP-2205 (Appendix I)

## 2 SITE ACTIVITIES

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On February 17, 2014 DFSI field personnel visited the site to conduct an initial site assessment, establishing sample points and mapping the spill area. (Appendix IV). There were six (6) sample points established around the impacted site area. Using a Mini RAE Photoionization Detector (PID), personnel collected soil samples at surface and at 1ft. intervals until two consecutive samples returned acceptable levels of chloride. All positions at surface indicated elevated chloride levels. The field technician, using a hand auger retrieved a soil sample for SP2 at 1ft. bgs, for confirmation of chloride the return result at this depth was 699mg/kg.

On February 24, 2014 DFSI field personnel delineated SP1 to 13 ft. bgs., whereby auger refusal was encountered. At that depth the field tests for chloride analysis was 1,624 mg/kg., indicating a steady decrease in chloride. SP6 was also delineated to 7ft. bgs., whereby auger refusal was encountered. With the use of a backhoe this sample point was simultaneously field tested revealing a reduction in chlorides at 9ft. bgs. to 1025 mg/kg.

On February 25, 2014 DFSI personnel revisited the site to conduct simultaneous field tests of representative sample points. Additional delineation of SP2 thru SP5 at depths of 5ft. bgs. to 8 ft. bgs. were conducted, whereas representative soil samples were retrieved and submitted to a commercial laboratory for analyses. The results returned were as follows: SP2 at 6ft. bgs. for chloride was 288 mg/kg., SP3 at 7ft. bgs. was 192 mg/kg, SP4 at 8ft. bgs. was 128 mg/kg, SP5 at 7ft. bgs. returned chloride results of 672 mg.kg. (Appendix IV).

On April 01, 2014 DFSI submitted a proposed remediation plan for this site to the NM OCD and the BLM respectively. It was proposed to excavate SP1 to 4ft. bgs. and line with a 20mil. liner.

SP2 thru SP4 would also be excavated to 4ft. bgs. without the use of a liner, SP5 and SP6 would also be excavated to 4ft. bgs., and lined with a 20mil. liner. The entire excavation was to be backfilled with fresh imported topsoil and seeded.

On April 03, 2014, the BLM approved the aforementioned plan of remediation.

On April 10, 2014, DFSI contracted a hydro-vac in order to fully remediate the area around SP1 to 4ft. bgs. This was conducted due to the number of lines in this vicinity.

On April 24, 2014 DFSI field personnel revisited the site in order to retrieve side wall confirmations of the excavation. Representative soil samples were retrieved at the north, south, east and west wall of the excavation in order to ascertain the vertical extent of impact, and submitted to a commercial laboratory for analyses. The results returned acceptable levels of chloride, in that chloride was <1460 mg/kg, BTEX was <.300, GRO DRO was non-detect.

On May 01, 2014 the excavation of the impacted area was complete. A 20mil. liner was installed at SP1, SP5 and SP6 respectively prohibiting downward migration of vadose zone. All impacted soils were removed to an NMOCD approved facility. The lined excavation was then backfilled with fresh topsoil contouring to the site, and preparation of surface conducive to seeding.

On May 06, 2014 DFSI personnel tilled and seeded the site with 100lbs of native vegetation and seed mixture promoting vegetation and providing an infiltration barrier. Photographs of site activities can be viewed in Appendix II.

### **3 CONCLUSION**

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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 236 ft. bgs indicating no potential threat to groundwater or life forms (Appendix III). Based on the removal of soils containing elevated chloride and visual staining at the site, and the reseeded of the site restoring it to its natural state 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.



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised October 10, 2003

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

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company: Linn Operating	Contact: Brian Wall
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No.: 575-738-1739
Facility Name: Turner B #95	Facility Type: Oil Producer

Surface Owner: Federal	Mineral Owner:	API No.: 30-015-26612
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**LOCATION OF RELEASE**

Unit Letter L	Section 20	Township 17S	Range 31E	Feet from the 2610	North/South Line South	Feet from the 1000	East/West Line West	County Eddy
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**Latitude:** 32.8199711236509 **Longitude:** -103.897239412252

**NATURE OF RELEASE**

Type of Release: Produced Water	Volume of Release: 20 bbls	Volume Recovered: 10 bbls
Source of Release: Fiber glass pipeline	Date and Hour of Occurrence: 02/18/2014	Date and Hour of Discovery: 02/18/2014 12:30pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Burton-BLM Mike Bratcher-NM OCD	
By Whom? Brian Wall	Date and Hour 02/19/2014 0655	
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.\*: Running daily lease received alarm call low discharge pressure at russell turner injection plant. Drove to plant noticed header #2 had 0 psi. Closed main valve on #2 header. Restarted pump went down on high discharge psi. Then called vac trucks to haul water to public SWD.

Describe Area Affected and Cleanup Action Taken.\* : Also notified other lease operators about injection line leak. began looking for leak on my lease and found it about 200 yards north of field office at N 32.82103 W103.89724. Affected area is 10'X120' South of lat/long. Build temporary containment around spill area. Remove free fluids.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	<b><u>OIL CONSERVATION DIVISION</u></b>	
Printed Name: Brian Wall	Approved by District Supervisor:	
Title: Construction Foreman II	Approval Date:	Expiration Date:
E-mail Address: bwall@linenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 02/19/2014 Phone: 806-367-0645		

\* Attach Additional Sheets If Necessary

# Linn Energy Turner B #95

Unit Letter L, Section 20, T17S R31E



Location and spill area 2/18/14



Impacted soil site 2/18/14



Stockpile of impacted soil for removal 2/18/14



Hydro-vac of leak source 4/10/14

# Linn Energy Turner B #95

Unit Letter L, Section 20, T17S R31E



Excavation of site 4/25/14



Installation of liner 5/1/14



Backfilling of lined area 5/2/14



Site at completion of tilling and seeding 5/6/14





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

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No records found.

**PLSS Search:**

**Township:** 16S    **Range:** 30E

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WATER COLUMN/ AVERAGE  
DEPTH TO WATER



# 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
<a href="#">L 03435</a>	L	LE		1	1	05	16S	31E		602954	3646955*			
<a href="#">L 03852</a>	R	L	LE	2	2	2	14	16S	31E	609126	3643913*	370	314	56
<a href="#">L 03852 POD4</a>	L	LE		3	4	3	13	16S	31E	609744	3642516*	333	299	34
<a href="#">L 03852 POD5</a>	L	LE		3	2	13	16S	31E		610238	3643427*	328	295	33
<a href="#">L 03852 X</a>	R	L	LE	4	4	4	13	16S	31E	610749	3642526*	333	299	34
<a href="#">L 03852 X2</a>	L	LE		3	2	2	13	16S	31E	610535	3643733*	330	287	43
<a href="#">L 04671</a>	L	LE		1	1	2	12	16S	31E	610114	3645538*	340	288	52
<a href="#">L 10203</a>	L	LE		4	4	3	14	16S	31E	608334	3642495*	310		
<a href="#">L 10206</a>	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

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# 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)

WR File Nbr	Sub	basin	Use	Diversion	Owner	Code	Grant	Source	q	q	q	Sec	Tws	Rng	X	Y
<a href="#">L 03435</a>	L	PRO	0	LOWE DRILLING COMPANY				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**

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

**Record Count:** 6

**POD Search:**

**POD Number:** L 03852

**Sorted by:** File Number

\*UTM location was derived from PLSS - see Help

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

q q q  
 Source 6416 4 Sec Tws Rng X Y  
 Shallow 1 1 2 12 16S 31E 610114 3645538\*

County POD Number  
 LE L 04671

Sub (acre ft per annum)  
 basin Use Diversion Owner  
 L PRO 0 JOHN H. TRIGG

**Record Count:** 1

**POD Search:**

**POD Number:** L 04671

**Sorted by:** File Number

\*UTM location was derived from PLSS - see Help

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# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

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

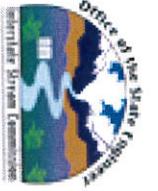
(NAD83 UTM in meters)

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

\*UTM location was derived from PLSS - see Help

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# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

(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)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	6416	4	Sec	Tws	Ring	619086	X	Y
<a href="#">L 02381</a>	L	PRO	0	GULF REFINING COMPANY	LE	<a href="#">L 02381</a>			Shallow	3	1	13	16S	32E	619086	X	3643515*

**Record Count:** 1

**POD Search:**

**POD Number:** L 02381

**Sorted by:** File Number

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WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q	q	q	Sec	Tws	Rng	X	Y
<a href="#">L 02449</a>	L	PRO	0	PLYMOUTH OIL COMPANY	LE	<a href="#">L 02449</a>				Shallow	64	16	32	01	16S	32E	619661	3646531*

Record Count: 1

POD Search:

POD Number: L 02449

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSION



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WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q	q	q	Sec	Tws	Rng	X	Y
<a href="#">L 02617</a>	L	PRO		0	GULF OIL CORPORATION	LE	<a href="#">L 02617</a>		Shallow	4	4	02	16S	32E	618656		3645924*

Record Count: 1

POD Search:

POD Number: L 02617

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSION



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WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q	q	q	Sec	Tws	Rng	X	Y
<a href="#">L 02752</a>	L	DOL		3	W W WILLIAMS	LE	<a href="#">L 02752</a>			Shallow	1	3	26	16S	32E		617521	3639880*

Record Count: 1

POD Search:

POD Number: L 02752

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSION



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WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q	q	q	Sec	Tws	Rng	X	Y
<a href="#">L 02846</a>	L	PRO	0	CONTINENTAL OIL COMPANY		LE	<a href="#">L 02846</a>			Shallow	4	2	1	11	16S	32E	617956	3645413*

Record Count: 1

POD Search:

POD Number: L 02846

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSION



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WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q	q	q	q	Sec	Tws	Rng	X	Y
<a href="#">L 02954</a>	L	PRO	0	SCHOENFELD-HUNTER-KITCH DRG CO	LE	<a href="#">L 02954</a>		Shallow	2	4	03	16S	32E		617043		3646310*

**Record Count:** 1

**POD Search:**

**POD Number:** L 02954

**Sorted by:** File Number

\*UTM location was derived from PLSS - see Help

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# New Mexico Office of the State Engineer

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(with Ownership Information)

(acre ft per annum)

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C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	1	2	02	16S	32E	618240	X	3647126'	Y
<a href="#">L 03631</a>	L	PRO	0	MAGNOLIA PETROLEUM COMPANY	LE	<a href="#">L 03631</a>				Shallow	1	2	02	16S	32E	618240	X	3647126'	Y

Record Count: 1

POD Search:

**POD Number:** L 03631

Sorted by: File Number

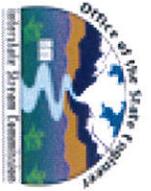
\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

(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)

WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q	q	q	Sec	Tws	Rng	X	Y
<a href="#">L 04930</a>	L	STK		3	JULLIA WILLIAMS	LE	<a href="#">L 04930</a>			Shallow	1	23	16S	32E			617698	3642092*

Record Count: 1

POD Search:

POD Number: L 04930

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSI



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

(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)

WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q	q	q	q	Sec	Tws	Rng	X	Y
<a href="#">L 05494</a>	L	COM		165	CITY OF CARLSBAD	LE	<a href="#">L 05494</a>			Shallow	64	16	32	61	97	58			3638489*

Record Count: 1

POD Search:

POD Number: L 05494

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

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

WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q	q	q	q	Sec	Tws	Rng	X	Y
<a href="#">L 06557</a>	L	STK		3	TAYLOR CATTLE COMPANY	LE	<a href="#">L 06557</a>			Shallow	1	4	21	16S	32E			615089	3641466*

Record Count: 1

POD Search:

**POD Number:** L 06557

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

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

WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q	q	q	Sec	Tws	Rng	X	Y
<a href="#">L 06807</a>	L	PRO	0	SHARP DRILLING COMPANY	LE	<a href="#">L 06807</a>				Shallow	1	4	4	09	16S	32E	615356	3644383*

Record Count: 1

POD Search:

POD Number: L 06807

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

(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)

WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q	q	q	q	Sec	Tws	Rng	X	Y
<a href="#">L 07823</a>	L	PRO	0	E R WEST ENGINEERING		LE	<a href="#">L 07823</a>		Shallow	2	2	2	16	16S	32E	615561	X	3643981*

Record Count: 1

POD Search:

**POD Number:** L 07823

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

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

WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q				X	Y		
											64	16	4	Sec			Tws	Rng
<a href="#">L 08084</a>	L	COM		750	MOR-WEST CORPORATION	LE	<a href="#">L 08084</a>			Shallow	1	1	1	16	16S	32E	614157	3643970*
						LE	<a href="#">L 08084</a> POD4			Shallow	2	26	16S	32E			618522	3640492*
						LE	<a href="#">L 08084</a> POD5			Shallow	4	1	4	26	16S	32E	618425	3639788*
						LE	<a href="#">L 08084</a> S	R		Shallow	2	1	1	36	16S	32E	619239	3639192*
						LE	<a href="#">L 08084</a> S2	R		Shallow	3	1	1	36	16S	32E	619039	3638992*
						LE	<a href="#">L 08084</a> S3			Shallow	2	26	16S	32E			618522	3640492*

**Record Count:** 6

**POD Search:**

**POD Number:** L 08084

**Sorted by:** File Number

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

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# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

(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)

WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	Shallow	2	26	16S	32E	618522	X	Y
<a href="#">L 08084</a>	L	COM	750	MOR-WEST CORPORATION	LE	<a href="#">L 08084 S3</a>				6416 4	q q q	2	26	16S	32E	618522	X	3640492*

Record Count: 1

POD Search:

POD Number: L 08084 S3

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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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**

---

No records found.

**PLSS Search:**

**Township:** 17S    **Range:** 30E

---

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WATER COLUMN/ AVERAGE  
DEPTH TO WATER



# 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							X	Y	Depth Well	Depth Water	Water Column
	basin	County	64	16	4	Sec	Tws					
<a href="#">RA 11590 POD1</a>	ED		2	1	3	32	17S	31E	603315	3628545	158	
<a href="#">RA 11590 POD3</a>	ED		3	1	2	32	17S	31E	603932	3629260	60	
<a href="#">RA 11590 POD4</a>	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

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



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

closed) (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 Column	Water
<a href="#">L 04019</a>	L	LE		4	3	4	02	17S	32E	618468	3636166*	182		
<a href="#">L 04020</a>	L	LE		3	3	4	02	17S	32E	618268	3636166*	200		
<a href="#">L 04021</a>	R	L	LE	3	4	4	02	17S	32E	618670	3636170*	190		
<a href="#">L 04021 POD3</a>	L	LE			3	4	03	17S	32E	616761	3636252*	247		
<a href="#">L 04021 S</a>	L	LE		2	4	4	03	17S	32E	617262	3636354*	260		
<a href="#">L 13047 POD1</a>	L	LE					11	17S	32E	618187	3635254*	140		
<a href="#">L 13050 POD1</a>	L	LE		2	2	1	10	17S	32E	616463	3635945*	156	132	24
<a href="#">RA 08855</a>		LE		4	1	1	10	17S	32E	616061	3635742*	158		
<a href="#">RA 09505</a>		LE		2	2	1	10	17S	32E	616462	3635944	147		
<a href="#">RA 09505 S</a>		LE		2	2	1	10	17S	32E	616463	3635945*	144		
<a href="#">RA 10175</a>		LE			2	1	28	17S	32E	614814	3631005*	158		
<a href="#">RA 11684 POD1</a>		LE		1	1	4	11	17S	32E	618216	3635124	275		
<a href="#">RA 11684 POD2</a>		LE		1	1	4	11	17S	32E	618313	3635248	275		
<a href="#">RA 11684 POD3</a>		LE		3	3	1	11	17S	32E	618262	3635371	275		
<a href="#">RA 11684 POD4</a>		LE		1	3	2	11	17S	32E	618334	3635521	275		
<a href="#">RA 11684 POD5</a>		LE		3	1	4	11	17S	32E	618353	3635047	275		
<a href="#">RA 11734 POD1</a>		LE		2	2	1	10	17S	32E	616556	3635929	165		

Average Depth to Water: 132 feet

Minimum Depth: 132 feet

Maximum Depth: 132 feet

Record Count: 17

PLSS Search:

Township: 17S

Range: 32E

\*UTM location was derived from PLSS - see Help

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# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

**POD Search:**

**POD Number:** L 13050 1

No PODs found.

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ACTIVE & INACTIVE POINTS OF DIVERSION



# 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
<a href="#">CP 00818</a>			LE	1	4	26	18S	30E		599289	3620364*	240		
<a href="#">CP 00819</a>			LE	2	4	32	18S	30E		594878	3618720*	150		
<a href="#">L 01978</a>	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

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# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

(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)

WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q	q	q	Sec	Tws	Rng	X	Y
<a href="#">L 01978</a>	L	DOM		3	L A JOHNSON	LE	<a href="#">L 01978</a>			Shallow	1	3	23	18S	30E		598469	3621964*

Record Count: 1

POD Search:

POD Number: L 01978

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSION



# 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 1	Q 2	Q 3	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
<a href="#">L 11092</a>	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

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# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

(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)

WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code Grant	Source	q	q	q	Sec	Tws	Ring	X	Y
<a href="#">L 11092</a>	L	DOM		3	NEW HOPE BAPTIST	LE	<a href="#">L 11092</a>		Shallow	2	3	15	18S	31E	606849		3623669*

Record Count: 1

POD Search:

**POD Number:** L 11092

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSION



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

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

(In feet)

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

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# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q	q	q	Sec	Tws	Rng	X	Y
<a href="#">CP 00566</a>		DOM			3 B.E. FRIZZELL	LE	<a href="#">CP 00566</a>			Shallow	4	4	1	04	18S	32E	614960	3627280*

Record Count: 1

POD Search:

**POD Number:** CP 00566

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q	q	q	Sec	Tws	Rng	X	Y
<a href="#">CP 00672</a>		STK			3 VIRGIL LINAM ESTATE	LE	<a href="#">CP 00672</a>			Shallow	4	4	07	18S	32E	612475		3624947*
<p>(acre ft per annum)</p> <p>(R=POD has been replaced and no longer serves this file, C=the file is closed)</p> <p>(quarters are 1=NW 2=NE 3=SW 4=SE)</p> <p>(quarters are smallest to largest) (NAD83 UTM in meters)</p>																		

Record Count: 1

POD Search:

**POD Number:** CP 00672

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

12/18/13 2:46 PM



*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

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

12/18/13 2:46 PM

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

(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)

WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	64	16	4	Sec	Tws	Rng	X	Y
<a href="#">CP 00677</a>		PRO		0	T X O PROD.	LE	<a href="#">CP 00677</a>			1	1	26	18S	32E		617750	X	3621373*

Record Count: 1

POD Search:

**POD Number:** CP 00677

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

12/18/13 2:47 PM



March 03, 2014

BRIAN WALL

LINN OPERATING-HOBBS

2130 W. BENDER

HOBBS, NM 88240

RE: TURNER B #95 INJECTION LINE

Enclosed are the results of analyses for samples received by the laboratory on 02/25/14 13:56.

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

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, flowing "C" and "K".

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:	02/25/2014	Sampling Date:	02/25/2014
Reported:	03/03/2014	Sampling Type:	Soil
Project Name:	TURNER B #95 INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 3 @ 7 (H400569-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	02/28/2014	ND	416	104	400	3.92	

**Sample ID: SP 4 @ 8 (H400569-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	02/28/2014	ND	416	104	400	7.41	

**Sample ID: SP 3 @ 6 (H400569-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	608	16.0	02/28/2014	ND	416	104	400	7.41	

**Sample ID: SP 2 @ 5 (H400569-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	02/28/2014	ND	416	104	400	7.41	

Cardinal Laboratories

\*=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:	02/25/2014	Sampling Date:	02/25/2014
Reported:	03/03/2014	Sampling Type:	Soil
Project Name:	TURNER B #95 INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 2 @ 6 (H400569-05)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>288</b>	16.0	02/28/2014	ND	416	104	400	7.41	

**Sample ID: SP 5 @ 7 (H400569-06)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>672</b>	16.0	02/28/2014	ND	416	104	400	7.41	

**Sample ID: SP 5 @ 6 (H400569-07)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1020</b>	16.0	02/28/2014	ND	416	104	400	7.41	

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Celey D. Keene, Lab Director/Quality Manager

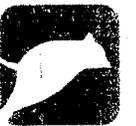
**Notes and Definitions**

- 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



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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

### BILL TO

### ANALYSIS REQUEST

Company Name: Linn Energy  
Project Manager: Brian Wall  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_  
Project #: \_\_\_\_\_ Project Owner: \_\_\_\_\_  
Project Name: \_\_\_\_\_  
Project Location: Turner Gas Injection Line  
Sampler Name: \_\_\_\_\_  
FOR LAB USE ONLY

P.O. #: \_\_\_\_\_  
Company: Linn Energy  
Attn: Brian Wall  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :			
4400569			1			X				7/25/14	9:00	
	1		1			X				7/25/14	9:00	X
	2		1			X				7/25/14	9:00	X
	3		1			X				7/25/14	9:00	X
	4		1			X				7/25/14	9:00	X
	5		1			X				7/25/14	9:00	X
	6		1			X				7/25/14	9:00	X
	7		1			X				7/25/14	9:00	X

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Reinquished By: Michael A. [Signature] Date: 7/25/14 Received By: [Signature]  
Time: 1:50 Date: \_\_\_\_\_ Received By: \_\_\_\_\_  
Delivered By: (Circle One) UPS Sample Condition: Cool  Intact   
Sampler - UPS - Bus - Other: 520  Yes  No  No  No

CHECKED BY: [Signature]  
REMARKS: bwall@linenergy.com  
ngladdon@linenergy.com

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



May 08, 2014

BRIAN WALL

LINN OPERATING-HOBBS

2130 W. BENDER

HOBBS, NM 88240

RE: TURNER B #95 INJECTION LINE

Enclosed are the results of analyses for samples received by the laboratory on 04/30/14 16:05.

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

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in 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:	04/30/2014	Sampling Date:	04/24/2014
Reported:	05/08/2014	Sampling Type:	Soil
Project Name:	TURNER B #95 INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SW 1 - E WALL (H401307-01)**

BTEX 8260B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/07/2014	ND	2.35	117	2.00	1.96		
Toluene*	<0.050	0.050	05/07/2014	ND	2.42	121	2.00	0.610		
Ethylbenzene*	<0.050	0.050	05/07/2014	ND	2.35	118	2.00	1.11		
Total Xylenes*	<0.150	0.150	05/07/2014	ND	7.21	120	6.00	0.185		
Total BTEX	<0.300	0.300	05/07/2014	ND						

Surrogate: Dibromofluoromethane 92.0 % 61.3-142

Surrogate: Toluene-d8 105 % 71.3-129

Surrogate: 4-Bromofluorobenzene 101 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>48.0</b>	16.0	05/05/2014	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	05/07/2014	ND	160	80.1	200	7.99		
DRO >C10-C28	<10.0	10.0	05/07/2014	ND	176	88.2	200	9.93		

Surrogate: 1-Chlorooctane 105 % 65.2-140

Surrogate: 1-Chlorooctadecane 106 % 63.6-154

Cardinal Laboratories

\*=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:	04/30/2014	Sampling Date:	04/24/2014
Reported:	05/08/2014	Sampling Type:	Soil
Project Name:	TURNER B #95 INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SW 2 - W WALL (H401307-02)**

BTEX 8260B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/07/2014	ND	2.35	117	2.00	1.96		
Toluene*	<0.050	0.050	05/07/2014	ND	2.42	121	2.00	0.610		
Ethylbenzene*	<0.050	0.050	05/07/2014	ND	2.35	118	2.00	1.11		
Total Xylenes*	<0.150	0.150	05/07/2014	ND	7.21	120	6.00	0.185		
Total BTEX	<0.300	0.300	05/07/2014	ND						

Surrogate: Dibromofluoromethane 99.4 % 61.3-142

Surrogate: Toluene-d8 106 % 71.3-129

Surrogate: 4-Bromofluorobenzene 101 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>64.0</b>	16.0	05/05/2014	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	05/07/2014	ND	160	80.1	200	7.99		
DRO >C10-C28	<10.0	10.0	05/07/2014	ND	176	88.2	200	9.93		

Surrogate: 1-Chlorooctane 105 % 65.2-140

Surrogate: 1-Chlorooctadecane 103 % 63.6-154

Cardinal Laboratories

\*=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:	04/30/2014	Sampling Date:	04/28/2014
Reported:	05/08/2014	Sampling Type:	Soil
Project Name:	TURNER B #95 INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SW 3 - N WALL (H401307-03)**

BTEX 8260B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/08/2014	ND	2.31	115	2.00	7.09		
Toluene*	<0.050	0.050	05/08/2014	ND	2.34	117	2.00	7.54		
Ethylbenzene*	<0.050	0.050	05/08/2014	ND	2.25	112	2.00	7.31		
Total Xylenes*	<0.150	0.150	05/08/2014	ND	6.84	114	6.00	7.16		
Total BTEX	<0.300	0.300	05/08/2014	ND						

Surrogate: Dibromofluoromethane 98.2 % 61.3-142

Surrogate: Toluene-d8 104 % 71.3-129

Surrogate: 4-Bromofluorobenzene 103 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>1460</b>	16.0	05/05/2014	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	05/07/2014	ND	160	80.1	200	7.99		
DRO >C10-C28	<10.0	10.0	05/07/2014	ND	176	88.2	200	9.93		

Surrogate: 1-Chlorooctane 111 % 65.2-140

Surrogate: 1-Chlorooctadecane 108 % 63.6-154

Cardinal Laboratories

\*=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:	04/30/2014	Sampling Date:	04/30/2014
Reported:	05/08/2014	Sampling Type:	Soil
Project Name:	TURNER B #95 INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SW 4 - S WALL (H401307-04)**

BTEX 8260B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/08/2014	ND	2.31	115	2.00	7.09		
Toluene*	<0.050	0.050	05/08/2014	ND	2.34	117	2.00	7.54		
Ethylbenzene*	<0.050	0.050	05/08/2014	ND	2.25	112	2.00	7.31		
Total Xylenes*	<0.150	0.150	05/08/2014	ND	6.84	114	6.00	7.16		
Total BTEX	<0.300	0.300	05/08/2014	ND						

Surrogate: Dibromofluoromethane 96.6 % 61.3-142

Surrogate: Toluene-d8 104 % 71.3-129

Surrogate: 4-Bromofluorobenzene 101 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>352</b>	16.0	05/05/2014	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	05/07/2014	ND	160	80.1	200	7.99		
DRO >C10-C28	<10.0	10.0	05/07/2014	ND	176	88.2	200	9.93		

Surrogate: 1-Chlorooctane 109 % 65.2-140

Surrogate: 1-Chlorooctadecane 111 % 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: Lin Energy  
 Project Manager: Brian Wall  
 Address: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 City: \_\_\_\_\_  
 Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_  
 Project #: \_\_\_\_\_ Project Owner: \_\_\_\_\_  
 Project Name: Sidewall samples  
 Project Location: Turn 8 95 Injection Line  
 Sampler Name: Michael Alvar  
 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							DATE	TIME	C	TPH	GREY
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
<u>H401307</u>	<u>sw1 - East wall</u>	<u>g</u>	<u>1</u>			<u>X</u>					<u>4/24/14</u>	<u>8:00</u>	<u>X</u>	<u>X</u>	<u>X</u>
	<u>sw2 - west wall</u>	<u>g</u>	<u>1</u>			<u>X</u>					<u>4/24/14</u>	<u>8:30</u>	<u>X</u>	<u>X</u>	<u>X</u>
	<u>sw3 - North wall</u>	<u>g</u>	<u>1</u>			<u>X</u>					<u>4/28/14</u>	<u>10:00</u>	<u>X</u>	<u>X</u>	<u>X</u>
	<u>sw4 - South wall</u>	<u>g</u>	<u>1</u>			<u>X</u>					<u>4/30/14</u>	<u>11:00</u>	<u>X</u>	<u>X</u>	<u>X</u>

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Relinquished By: [Signature]  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received By: [Signature]  
 Date: 4/30/14 Time: 4:05  
 Sample Condition:  Intact  Cool  Yes  No  
 Delivered By: (Circle One) UPS 2.40c  
 Checked By: [Signature]

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  
 Tjenmings@diversifiedfsi.com

\* Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2826

# DIVERSIFIED FIELD SERVICES, INC.

## RECLAMATION FORM

SITE: TB 95

Start Date:

5-6-14

Completion Date:

5-6-14

- Step 1 Remove caliche and/or all discolored material (soil, caliche, et al) for disposal.
- Step 2 Look for any discolored material under pad. Sample and perform field tests.  
If above limits, remove 1' and resample and test. If sample is still above limits, contact Environmental Director before proceeding further.
- Step 3 Grid clean area and establish between 2 and 5 sample points.
- Step 4 Take appropriate samples and run field tests on samples.
- Step 5 When field sample tests are shown to be acceptable, backfill and contour soil to depth as required.
- Step 6 Re-seed reclaimed area with seed required by landowner (BLM) and give seed tag to Environmental Office upon completion.

**Note:** If any samples come back higher than allowed limit or are close to limit, contact Environmental Director before proceeding.

**Note:** Record the amount of seed used on tag.

Seed Type:

LPC

Lbs. Used:

100 ~~lb~~

- Step 7 Ensure samples are taken to the appropriate Scientific Lab for analyses and **this form** is returned to the Environmental Office upon job completion.

**NOTES:**

Site Completed

Supervisor:

Stephen McNamee

# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

LPC Sand Shinery with Ragweed and Saltbush 800

Permit # TX00905  
INV53471

Description	Pure Seed	Germ	Dormant	Origin
Bluestem, Big "Kaw" ( <i>Andropogon gerardii</i> )	16.49%	95.00%	0.00%	TX
Bluestem, Little "Cimarron" ( <i>Schizachyrium scoparium</i> )	7.92%	90.00%	8.00%	TX
Bluestem, Sand "Woodward" ( <i>Andropogon hallii</i> )	13.68%	95.00%	0.00%	TX
Bristlegrass, Plains, "VNS" ( <i>Setaria vulpiseta</i> )	14.93%	83.00%	4.00%	TX
Coreopsis Plains ( <i>Coreopsis tinctoria</i> )	5.46%	97.00%	0.00%	TX
Dropseed, Sand, "VNS" ( <i>Sporobolus cryptandrus</i> )	2.74%	95.00%	3.00%	TX
Fourwing saltbush, "VNS" ( <i>Atriplex canescens</i> )	15.48%	52.00%	15.00%	NM
Ragweed, "Western" ( <i>Ambrosia L.</i> )	6.71%	9.00%	68.00%	KY
Purity: 83.41%	Inert Matter: 10.19%	Other Crop Seed: 6.37%	Weed Seed: 0.03%	

Noxious Weeds: None

Test Date: 01/2014

Net Wt: 25.00 lbs

# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

LPC Sand Shinery with Ragweed and Saltbush 800

Permit # TX00905  
INV53471

Description	Pure Seed	Germ	Dormant	Origin
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Bluestem, Sand "Woodward" ( <i>Andropogon hallii</i> )	13.68%	95.00%	0.00%	TX
Bristlegrass, Plains, "VNS" ( <i>Setaria vulpiseta</i> )	14.93%	83.00%	4.00%	TX
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Purity: 83.41%	Inert Matter: 10.19%	Other Crop Seed: 6.37%	Weed Seed: 0.03%	

Noxious Weeds: None

Test Date: 01/2014

Net Wt: 25.00 lbs

# Bamert Seed Company Inc.

1897 CR 1018 Muleshoe, TX 79347

(800) 262-9892

Permit # TX00905

LPC Sand Shinery with Ragweed and Saltbush 800

INV53471

Bulk #

Description	Pure Seed	Germ	Dormant	Origin
Bluestem, Big "Kaw" ( <i>Andropogon gerardii</i> )	16.49%	95.00%	0.00%	TX
Bluestem, Little "Cimaron" ( <i>Schizachyrium scoparium</i> )	7.92%	90.00%	8.00%	TX
Bluestem, Sand "Woodward" ( <i>Andropogon hallii</i> )	13.68%	95.00%	0.00%	TX
Bristlegrass, Plains, "VNS" ( <i>Setaria vulpiseta</i> )	14.93%	83.00%	4.00%	TX
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Ragweed, "Western" ( <i>Ambrosia L.</i> )	6.71%	9.00%	68.00%	KY
Purity: 83.41%	Inert Matter: 10.19%	Other Crop Seed: 6.37%	Weed Seed: 0.03%	

Noxious Weeds: None

Test Date: 01/2014

Net Wt: 25.00 lbs

Environmental Department

3412 N. Dal Paso

Hobbs, NM 88240

Phone: (575)964-8394

Fax: (575)964-8396

---

Mike Bratcher

Environmental Specialist

NM Oil Conservation District – Division 2

811 S. First St.

Artesia, NM 88210

**RE: Turner B #95 – Work Plan Remediation**

UL/L, Section 20, T17S, R31E

API No. 30-015-26612

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 southwest of Maljamar NM, in Eddy County. This leak site resulted from a Fiberglass injection line leak that release approximately 20 bbls of produced water. The main valve was closed and a vacuum truck was utilized to recover 10bbls of fluid. This leak affected an approximate 1607 sq. ft. of pasture area. A temporary containment was built to retain fluids, minimizing impacted area. A form C-141 was submitted to the NMOCD on February 19, 2014.

**Site Delineation**

On February 24, 2014 DFSI personnel used a hand auger to vertically delineate the leak area at several sample points. Soil samples were field screened for chloride and sent to a commercial lab for confirmation. Headspace measurements were also performed using a Mini RAE Photoionization Detector (PID). Samples were collected at surface and in 1 ft. intervals until two consecutive samples show chloride well below 1,000 mg/kg. Personnel delineated SP1 to 13ft. bgs., and the Chloride remained elevated at 1624 mg/kg. Personnel encountered auger refusal at 14ft bgs. SP2 thru SP4 were augured to 6ft bgs and 8ft. bs respectively and the labs confirmed a reduction in chlorides at 128 mg/kg to 608 mg/kg. Therefore, a backhoe was used to sample simultaneously and further delineate the site. On March 05, 2014 DFSI personnel revisited the site and continued delineation of the site on SP5 and SP6 respectively. Personnel received auger refusal at 8ft bgs on each of these sample points respectively. However, at depths to 9ft bgs Chlorides were significantly reduced to 1020 mg/kg and 1025 mg/kg respectively.

**Diversified Field Service, Inc.**

Tuesday April 1, 2014

Environmental Department

3412 N. Dal Paso

Hobbs, NM 88240

Phone: (575)964-8394

Fax: (575)964-8396

**Conclusion**

DFSI is proposing to excavate SP1 to 4ft bgs, and lined with a 20mil liner. Sample points 2 thru 4 would be excavated to 4ft bgs, and backfilled with topsoil. SP5 and SP6 would be excavated to 4ft bgs, and lined with a 20 mil liner. DFSI will remove any impacted soil to an NMOCD approved facility. The entire site would then be seeded and restored to its natural state. DFSI will then submit all proper closure documentation to NMOCD and BLM in accordance with regulatory compliance.

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

Sincerely,



Natalie Gladden  
Environmental Consultant  
Diversified Field Service, Inc.  
315 S. Leech  
Hobbs, NM 88240  
Office: (575)397-6437  
Mobile: (575)390-5454  
Fax: (575)393-2981

cc Mike Burton  
NM Bureau of Land Management

Attachments:

C-141  
Photo Page  
Site Diagram with Proposed excavation  
Labs  
Analytical

## Natalie Gladden

---

**From:** Burton, Michael <mburton@blm.gov>  
**Sent:** Thursday, April 03, 2014 3:42 PM  
**To:** Natalie Gladden  
**Subject:** Re: Turner B #95 - Remediation Plan

Natalie.  
This plan is approved.  
Thanks

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

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On Thu, Apr 3, 2014 at 1:41 PM, Natalie Gladden <[ngladden@diversifiedfsi.com](mailto:ngladden@diversifiedfsi.com)> wrote:

Mr. Burton/Mr. Bratcher,

Attached you will find the Turner B #95 Remediation Plan. Please review and if approved this project will be underway.

Thank you for your time in advance,

*Natalie Gladden*

ENVIRONMENTAL DIRECTOR

DFSI ENVIRONMENTAL SERVICES

CELL: 575-602-1786

**OFFICE: 575-964-8394**

**FAX: 575-964-8396**

**EMAIL: [ngladden@diversifiedfsi.com](mailto:ngladden@diversifiedfsi.com)**

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District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised October 10, 2003

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

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company: Linn Operating	Contact: Brian Wall
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No.: 575-738-1739
Facility Name: Turner B #95	Facility Type: Oil Producer

Surface Owner: Federal	Mineral Owner:	API No.: 30-015-26612
------------------------	----------------	-----------------------

**LOCATION OF RELEASE**

Unit Letter L	Section 20	Township 17S	Range 31E	Feet from the 2610	North/South Line South	Feet from the 1000	East/West Line West	County Eddy
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**Latitude:** 32.8199711236509 **Longitude:** -103.897239412252

**NATURE OF RELEASE**

Type of Release: Produced Water	Volume of Release: 20 bbls	Volume Recovered: 10 bbls
Source of Release: Fiber glass pipeline	Date and Hour of Occurrence: 02/18/2014	Date and Hour of Discovery: 02/18/2014 12:30pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Burton-BLM Mike Bratcher-NM OCD	
By Whom? Brian Wall	Date and Hour 02/19/2014 0655	
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.\*: Running daily lease received alarm call low discharge pressure at russell turner injection plant. Drove to plant noticed header #2 had 0 psi. Closed main valve on #2 header. Restarted pump went down on high discharge psi. Then called vac trucks to haul water to public SWD.

Describe Area Affected and Cleanup Action Taken.\* : Also notified other lease operators about injection line leak. began looking for leak on my lease and found it about 200 yards north of field office at N 32.82103 W103.89724. Affected area is 10'X120' South of lat/long. Build temporary containment around spill area. Remove free fluids.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	<b><u>OIL CONSERVATION DIVISION</u></b>	
Printed Name: Brian Wall	Approved by District Supervisor:	
Title: Construction Foreman II	Approval Date:	Expiration Date:
E-mail Address: bwall@linenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 02/19/2014 Phone: 806-367-0645		

\* Attach Additional Sheets If Necessary

# Linn Energy Turner B #95

Unit Letter L, Section 20, T17S R31E



Location and spill area 02/18/14



Impacted soil site 02/18/14



Stockpile of impacted soil for removal 02/18/14

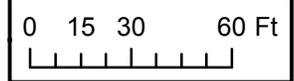
# Site Diagram

## Linn, Turner B95 Injection

UL/L, Sec. 20, T17S R31E

Eddy, NM

Drafted By: Lance Crenshaw 2/28/14



Due to auger refusal, SP1 and SP5-SP6 excavated to 4' bgs with liner. SP2-SP4 excavated to 4' bgs with no liner.

Landowner: BLM

Depth to Groundwater: 236 ft.

Spill Area: 1607 sq. ft.

### Legend

- ▲ Sample Points
- ★ Source
- Above Ground Line
- - - Buried Line
- Spill



Lance Crenshaw  
GIS Technician

Soil Remediation and Ground Water Remediation  
Environmental Assessments  
Regulatory Compliance

**Environmental DFSI Services**

Office: 575-964-8394      Cell: 575-441-2359  
Fax: 575-964-8396      Email: lcrenshaw@diversifiedfsi.com

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



March 03, 2014

BRIAN WALL

LINN OPERATING-HOBBS

2130 W. BENDER

HOBBS, NM 88240

RE: TURNER B #95 INJECTION LINE

Enclosed are the results of analyses for samples received by the laboratory on 02/25/14 13:56.

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

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in 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:	02/25/2014	Sampling Date:	02/25/2014
Reported:	03/03/2014	Sampling Type:	Soil
Project Name:	TURNER B #95 INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 3 @ 7 (H400569-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>192</b>	16.0	02/28/2014	ND	416	104	400	3.92	

**Sample ID: SP 4 @ 8 (H400569-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>128</b>	16.0	02/28/2014	ND	416	104	400	7.41	

**Sample ID: SP 3 @ 6 (H400569-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>608</b>	16.0	02/28/2014	ND	416	104	400	7.41	

**Sample ID: SP 2 @ 5 (H400569-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>544</b>	16.0	02/28/2014	ND	416	104	400	7.41	

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:	02/25/2014	Sampling Date:	02/25/2014
Reported:	03/03/2014	Sampling Type:	Soil
Project Name:	TURNER B #95 INJECTION LINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: SP 2 @ 6 (H400569-05)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>288</b>	16.0	02/28/2014	ND	416	104	400	7.41	

**Sample ID: SP 5 @ 7 (H400569-06)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>672</b>	16.0	02/28/2014	ND	416	104	400	7.41	

**Sample ID: SP 5 @ 6 (H400569-07)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>1020</b>	16.0	02/28/2014	ND	416	104	400	7.41	

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



Company Name: Limn Energy  
 Location Name: Turner B #95 Injection Line Leak

Date: 2/24/2014

SP1	CHL	4273	SP2	CHL	12446	SP3	CHL	12521	SP4	CHL	13095	SP5	CHL	12746	SP6	CHL	10656
Surface		4098	Surface		699	Surface		9746	Surface		2174	Surface		2949	Surface		1549
1'		10721	2'		974	1'		3873	1'		1199	1'		3298	2'		1699
2'		9022	3'		874	2'		4198	2'		1274	2'		2599	3'		1874
3'		1699	4'		1049	3'		2499	3'		1474	3'		3373	4'		2499
4'		2749	5'		874	4'		1074	4'		1799	4'		1499	5'		1999
5'		1624	6'		624	5'		774	5'		1024	5'		949	6'		1949
6'		1924	7'		544	6'		324	6'		1024	6'		299	7'		2549
7'		1124	8'		298	7'		192	7'		608	7'		672	Auger Refusal		
8'		2474	9'			8'			8'		128	Auger Refusal		1020	Auger Refusal		
9'			10'			10'											
11'		1574															
12'		1324															
13'		1624															
14'		AR															

Will need hydrovac on this site.  
 Cannot install liner, so many production  
 lines in this area

SP11	CHL		SP12	CHL		SP13	CHL		SP14	CHL		SP15	CHL		SP16	CHL		SP17	CHL		SP18	CHL		SP19	CHL		SP20	CHL	

SP21	CHL		SP22	CHL		SP22	CHL		SP23	CHL		SP24	CHL		SP25	CHL		SP26	CHL		SP27	CHL		SP28	CHL		SP29	CHL		SP30	CHL	

Lab Confirmation Sample  
 Field Sampling  
 Needs Delineation and confirmation samples



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

Form C-141  
Revised August 8, 2011

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

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company: Linn Operating, Inc.	Contact: Brian Wall
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No. 575-738-1739
Facility Name: Turner B North #95	Facility Type: Injection

Surface Owner Federal	Mineral Owner Federal	API No. 30-015-26612
-----------------------	-----------------------	----------------------

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from	East/West Line	County Eddy
L	20	17S	31E	2610	South	1000	West	

Latitude: 32.8199711236509 Longitude -103.897239412252

**NATURE OF RELEASE**

Type of Release: Produced Water	Volume of Release 20 bbls	Volume Recovered 10 bbls
Source of Release: Fiberglass pipeline	Date and Hour of Occurrence 02/18/2014	Date and Hour of Discovery 02/18/2014 12:30 PM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Burton-BLM Mike Bratcher-NMOCD	
By Whom? Brian Wall	Date and Hour: 02/19/2014 0655	
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.\*  
NA

Describe Cause of Problem and Remedial Action Taken.\*  
Construction Foreman was running daily lease and received an alarm call indicating low discharge at the Russell Turner injection plant. Drove to the plant and noticed the header #2 had 0 psi. I closed the main valve on #2 header, restarted the pump and the main discharge psi went down. I called vac trucks to haul water to public SWD.

Describe Area Affected and Cleanup Action Taken. I notified the other lease operators about the injection line leak. I proceeded with locating the leak on my lease and found it about 200 yards north of the field office at N 32.82103 W 103.89724. Affected area was approximately 10'X120' South of the lat/long. Built temporary containment around the spill area. Removed free fluids. DFSI was contracted for full site remediation.

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>Fred B Wall</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Brian Wall	Approved by Environmental Specialist:	
Title: Construction Foreman II	Approval Date:	Expiration Date:
E-mail Address: bwall@linenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 06/02/2014 Phone: 806-367-0645		

\* Attach Additional Sheets If Necessary