

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
**- Engineering Bureau -**  
 1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]  
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]
- [A] Location - Spacing Unit - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD
- Check One Only for [B] or [C]
- [B] Commingling - Storage - Measurement  
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR
- [D] Other: Specify \_\_\_\_\_

*SWD*  
*Operator: Mack Energy Corp*  
*Well: Paker SWD*  
*API: Pending*

- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ☐ Does Not Apply
- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☒ Offset Operators, Leaseholders or Surface Owner
- [C] ☒ Application is One Which Requires Published Legal Notice
- [D] ☒ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

RECEIVED OCD  
 2015 JUN - 8 P 3:19

- [3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division.

**Note: Statement must be completed by an individual with managerial and/or supervisory capacity.**

Deana Weaver  
 Print or Type Name

*Deana Weaver*  
 Signature

Production Clerk  
 Title

*6.5.15*  
 Date

dweaver@mec.com  
 e-mail Address

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: \_\_\_\_\_ Secondary Recovery \_\_\_\_\_ Pressure Maintenance X \_\_\_\_\_ Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval? X Yes \_\_\_\_\_ No
- II. OPERATOR: Mack Energy Corporation  
ADDRESS: P.O. Box 960 Artesia, NM 88211-0960  
CONTACT PARTY: Deana Weaver PHONE: (575)748-1288
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.  
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? \_\_\_\_\_ Yes X \_\_\_\_\_ No  
If yes, give the Division order number authorizing the project: \_\_\_\_\_
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- X. Attach appropriate logging and test data on the well. (if well logs have been filed with the Division, they need not be resubmitted).
- XI. **Attach a chemical analysis of freshwater from two or more freshwater wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.**
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Deana Weaver TITLE: Production Clerk  
SIGNATURE: Deana Weaver DATE: 6.5.15
- \* if the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted.  
Please show the date and circumstances of the earlier submittal: \_\_\_\_\_

## INJECTION WELL DATA SHEET

OPERATOR: **Mack Energy Corporation**WELL NAME & NUMBER: **Poker SWD #1**WELL LOCATION: **1150 FNL & 1320 FWL**

FOOTAGE LOCATION

**D**

UNIT LETTER

**32**

SECTION

**23S**

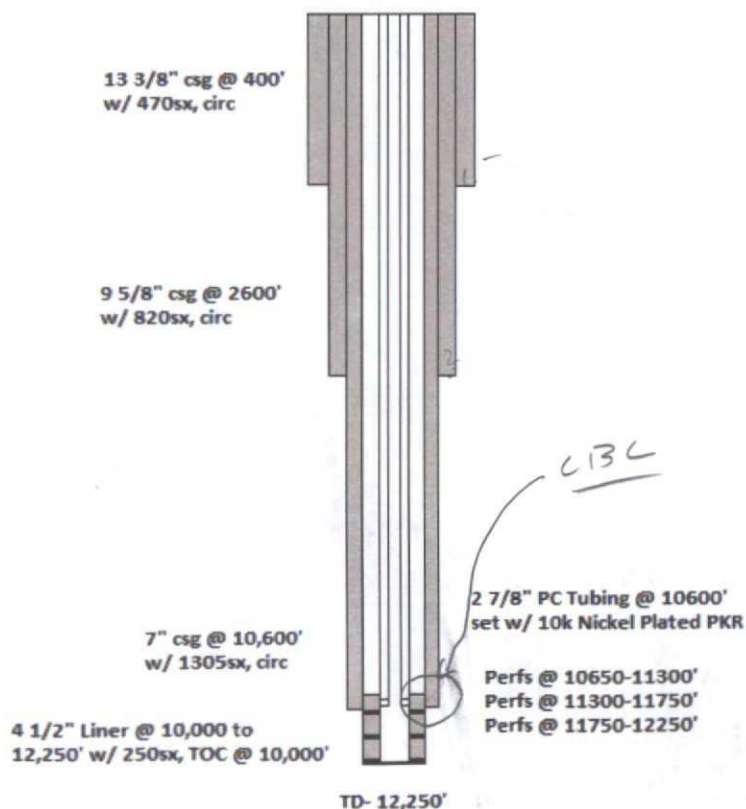
TOWNSHIP

**23E**

RANGE

**WELLBORE SCHEMATIC****WELL CONSTRUCTION DATA**Surface CasingHole Size: 17 1/2" Casing Size: 13 3/8" J-55Cemented with: 470sx sx. or \_\_\_\_\_ ftTop of Cement: Surface Method Determined: CirculatedIntermediate CasingHole Size: 12 1/4" Casing Size: 9 5/8" J-55Cemented with: 820sx sx. or \_\_\_\_\_ ftTop of Cement: Surface Method Determined: CirculatedProduction CasingHole Size: 8 3/4" (Liner- 6 1/8") Casing Size: 7" HCP-110 (Liner- 4 1/2" HCP-110)Cemented with: 1305sx (Liner-250sx) sx. or \_\_\_\_\_ ftTop of Cement: Surface (Liner-10,000') Method Determined: CirculatedTotal Depth: 12,250'Injection Interval10,650 feet to 12,250' perforated

(Perforated or Open Hole; indicate which)



INJECTION WELL DATA SHEETTubing Size: 2 7/8" Lining Material: Plastic CoatedType of Packer: Halliburton Trump PackerPacker Setting Depth: 10,600'

Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

Additional Data

1. Is this a new well drilled for injection? ☒ Yes ☐ No

If no, for what purpose was the well originally drilled? \_\_\_\_\_

2. Name of the Injection Formation: Devonian, Montoya & Ellenburger → *no Ellenburger*

3. Name of Field or Pool (if applicable): \_\_\_\_\_

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Overlying- Woodford; Underlying- Basement

## **VII. DATA SHEET: PROPOSED OPERATIONS**

1. Proposed average and maximum daily rate and volume of fluids to be injected;  
**Respectively, 2000 BWPD and 4000 BWPD**
2. The system is closed or open;  
**Closed**
3. Proposed average and maximum injection pressure;  
**0-2130#**
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than re-injected produced water;  
**We will be re-injecting produced water**
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water;  
**N/A**

## **VIII. GEOLOGICAL DATA**

1. Lithologic Detail; **Dolomite**
2. Geological Name; **SWD; Devonian, Montoya, Ellenburger**
3. Thickness; **1600'**
4. Depth; **10,650-12,250'**

## **IX. PROPOSED STIMULATION PROGRAM**

1. To be treated with 10000 gallons 15% acid

## **X. LOGS AND TEST DATA**

1. Well data will be filed with the OCD.

## **XI. ANALYSIS OF FRESHWATER WELLS**

1. Will be forwarded, when complete.

Additional Information

Waters Injected: Glorieta, Paddock, Bone Spring & Wolfcamp


## **XII. AFFIRMATIVE STATEMENT**

RE: Poker SWD #1

We have examined the available geologic and engineering data and find no evidence of open faults or any other hydraulic connection between the disposal zone and any underground source of drinking water.

Mack Energy Corporation

Date: 6/5/15

  
\_\_\_\_\_  
Charles Sadler, Geologist

District I  
1625 N. French Dr., Hobbs, NM 88246  
Phone: (575) 393-6161 Fax: (575) 393-6720  
District II  
311 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
1000 Rio Brazos Road, Artesia, NM 88210  
Phone: (505) 334-6175 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3360 Fax: (505) 476-3362

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number		<sup>2</sup> Pool Code	<sup>3</sup> Pool Name
		96103	SWD; Ellenburger
<sup>4</sup> Property Code	<sup>5</sup> Property Name		<sup>6</sup> Well Number
	POKER SWD		1
<sup>7</sup> GRID No.	<sup>8</sup> Operator Name		<sup>9</sup> Elevation
13837	MACK ENERGY CORPORATION		4367.9

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	32	23 S	23 E		1150	NORTH	1320	WEST	EDDY

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

<sup>12</sup> Dedicated Acres 40	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<p>NW CORNER SEC. 32 LAT. = 32.267521°N LONG. = 104.6139354°W NMSP EAST (FT) N = 461184.77 E = 449353.11</p>		<p>N/4 CORNER SEC. 32 LAT. = 32.2675582°N LONG. = 104.6224006°W NMSP EAST (FT) N = 461191.06 E = 451991.13</p>		<p>NE CORNER SEC. 32 LAT. = 32.2675551°N LONG. = 104.6138586°W NMSP EAST (FT) N = 461182.93 E = 454631.35</p>	
<p>1320'</p> <p>SURFACE LOCATION</p> <p>POKER SWD 1 ELEV. = 4367.9' LAT. = 32.2643796°N (NAD83) LONG. = 104.6266613°W NMSP EAST (FT) N = 460038.30 E = 450671.04</p>					
<p>NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLATE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLATE EAST COORDINATES MODIFIED TO THE SURFACE.</p>					
<p>SW CORNER SEC. 32 LAT. = 32.2522919°N LONG. = 104.6309132°W NMSP EAST (FT) N = 455644.58 E = 449344.58</p>		<p>S/4 CORNER SEC. 32 LAT. = 32.2523776°N LONG. = 104.6223922°W NMSP EAST (FT) N = 455668.55 E = 451978.85</p>		<p>N/4 CORNER SEC. 5 LAT. = 32.2523770°N LONG. = 104.6223241°W NMSP EAST (FT) N = 455668.29 E = 451999.89</p>	
<p>SE CORNER SEC. 32 LAT. = 32.2523217°N LONG. = 104.6138644°W NMSP EAST (FT) N = 455641.22 E = 454615.05</p>					
<p>1270'</p>					

**" OPERATOR CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or indicated mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or in a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Deana Weaver* 6.5.15  
Signature Date

Deana Weaver  
Printed Name

dweaver@mec.com  
E-mail Address

**"SURVEYOR CERTIFICATION**

I hereby certify that the well location shown on this plat was plotted from field notes of original surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JANUARY 5, 2015 (12797) 10  
Date of Survey

*[Signature]*  
Signature and Seal of Professional Surveyor

Certificate Number ELLIOTT 12-AR-AM-110, PLS 12797  
SURVEY NO. 3579

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
511 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
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1000 Rio Brazos Road, Aztec, NM 87410  
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State of New Mexico  
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1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number		<sup>2</sup> Pool Code	<sup>3</sup> Pool Name
		96101	SWD; Devonian
<sup>4</sup> Property Code	<sup>5</sup> Property Name		<sup>6</sup> Well Number
	POKER SWD		1
<sup>7</sup> OGRID No.	<sup>8</sup> Operator Name		<sup>9</sup> Elevation
13837	MACK ENERGY CORPORATION		4367.9

**" Surface Location**

U.L. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	32	23 S	23 E		1150	NORTH	1320	WEST	EDDY

**" Bottom Hole Location If Different From Surface**

U.L. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.			
40									

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<p>NW CORNER SEC. 32 LAT. = 32.2675511°N LONG. = 104.6309354°W NMSP EAST (FT) N = 46184.77 E = 449353.11</p>		<p>N/4 CORNER SEC. 32 LAT. = 32.2675582°N LONG. = 104.6224006°W NMSP EAST (FT) N = 46191.06 E = 451991.13</p>		<p>NE CORNER SEC. 32 LAT. = 32.2675551°N LONG. = 104.6138566°W NMSP EAST (FT) N = 46182.93 E = 454631.35</p>	
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<p>NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES ADJUSTED TO THE SURFACE.</p>					
<p>SW CORNER SEC. 32 LAT. = 32.2522919°N LONG. = 104.6309132°W NMSP EAST (FT) N = 455644.58 E = 449344.58</p>		<p>S/4 CORNER SEC. 32 LAT. = 32.2523776°N LONG. = 104.6223922°W NMSP EAST (FT) N = 455668.55 E = 451978.85</p>		<p>N/4 CORNER SEC. 5 LAT. = 32.2523770°N LONG. = 104.6223241°W NMSP EAST (FT) N = 455608.29 E = 451999.39</p>	
<p>SE CORNER SEC. 32 LAT. = 32.2523217°N LONG. = 104.6138614°W NMSP EAST (FT) N = 455641.22 E = 454615.06</p>					
<p>2635.13 FT 189°16'53"W 21.05 FT</p>					

**" OPERATOR CERTIFICATION**  
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Deana Weaver* 6.5.15  
Signature Date

Deana Weaver  
Printed Name

dweaver@mec.com  
E-mail Address

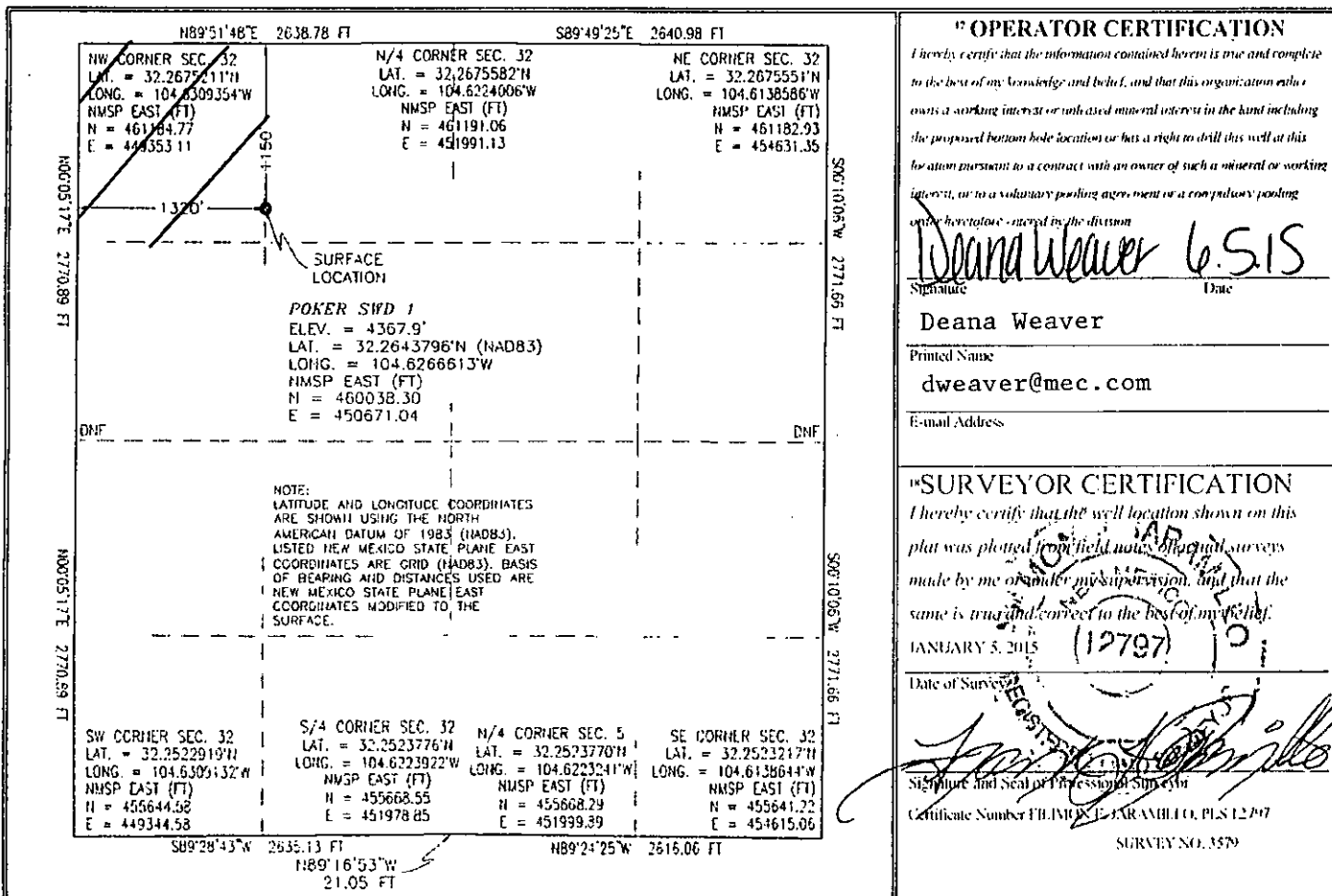
**"SURVEYOR CERTIFICATION**  
I hereby certify that the well location shown on this plat was plotted from field notes of legal surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JANUARY 5, 2015 (12797)  
Date of Survey

*Frank J. Smith*  
Signature and Seal of Professional Surveyor

Certificate Number FRANK J. SMITH, PLS 12797  
SURVEY NO. 3570

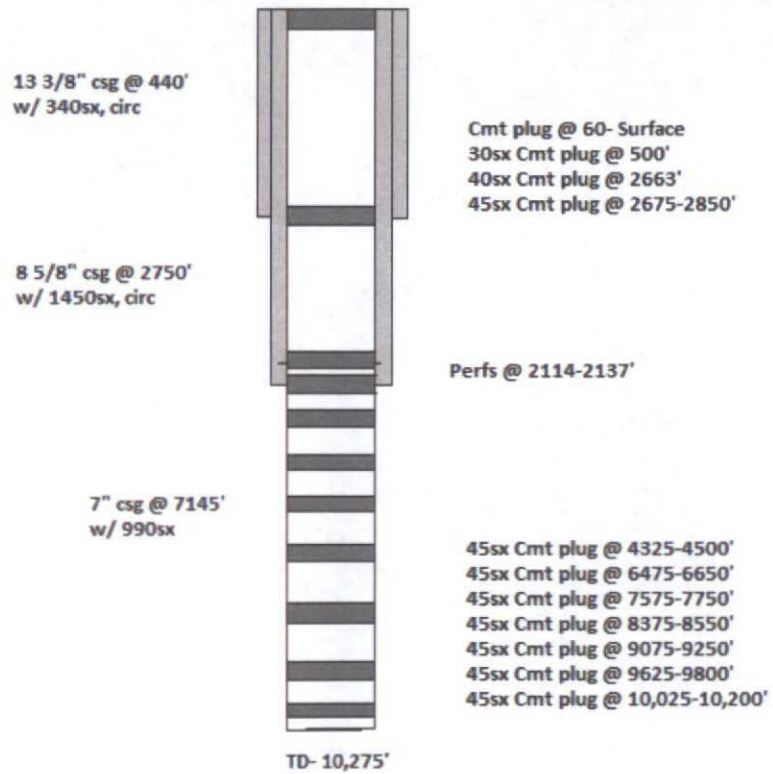




## AREA OF REVIEW WELL DATA

[illegible]

Chip State #1  
1980 FNL 1980 FEL  
Sec. 32 T23S R23E  
API # 30-015-22723



Chip State #2  
1980 FNL 2015 FEL  
Sec. 32 T23S R23E  
API # 30-015-42107

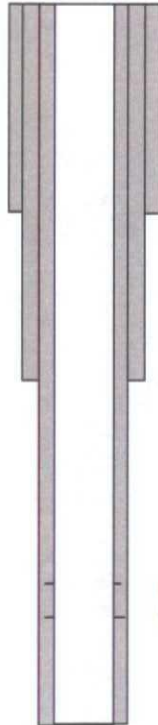
13 3/8" csg @ 451'  
w/ 500sx, circ

9 5/8" csg @ 2022'  
w/ 1200sx, circ

7" csg @ 7145'  
w/ 990sx

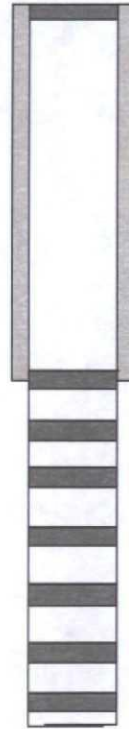
Perfs @ 6724-6793'  
Perfs @ 6825-6947'

TD- 7145'



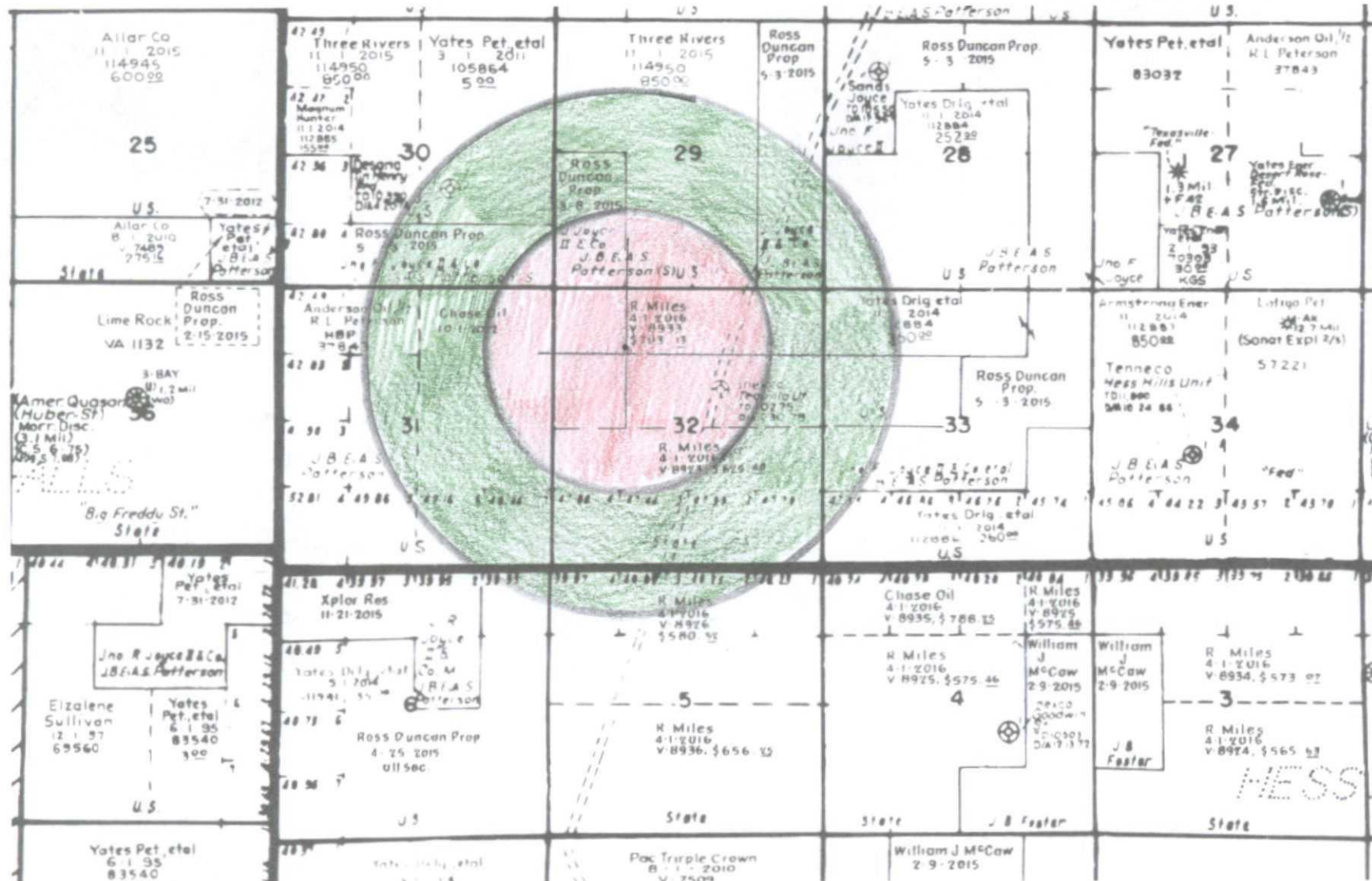
Tin Henry Fed. Com #1  
1980 FSL 1980 FEL  
Sec. 30 T23S R23E  
API # 30-015-21093

12 1/4" csg @ 2800'  
w/ 900sx, circ



TD- 10,390'

15sx Cmt Plug @ 20'- Surface  
60sx Cmt Plug @ 2,750-2,850'  
50sx Cmt Plug @ 4,150-4,250'  
50sx Cmt Plug @ 5,500-5,600'  
50sx Cmt Plug @ 6,940-7,040'  
55sx Cmt Plug @ 8,160-8,260'  
45sx Cmt Plug @ 9,200-9,300'  
40sx Cmt Plug @ 9,900-10,000'



Legal Notice

Mack Energy Corporation, Post Office Box 960, Artesia, NM 88211-0960, has filed an Application with the New Mexico Oil Conservation Division seeking authorization to inject produced water into the Poker SWD #1 1150 FNL & 1320 FWL of Section 32, T23S R23E, NMPM, Eddy County, New Mexico. The water will be injected into the Devonian, Montoya and Ellenburger formations at a disposal depth of 10,650-12,250'. Water will be injected at a maximum surface pressure of 2130# pounds and a maximum injection rate of 4000 BWPD. Any interested party with questions or comments may contact Deana Weaver at Mack Energy Corporation, Post Office Box 960, Artesia, New Mexico 88211-0960 or call (575) 748-1288. Objections to this application or requests for hearing must be filed with the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, within fifteen days of the date of the publication of this notice.

## LEGAL NOTICE

Mack Energy Corporation, Post Office Box 960, Artesia, NM 88211-0960, has filed an Application with the New Mexico Oil Conservation Division seeking authorization to inject produced water into the Poker SWD #1 1150 FNL & 1320 FWL of Section 32, T23S R23E, NMPM, Eddy County, New Mexico. The water will be injected into the Devonian, Montoya and Ellenburger formations at a disposal depth of 10,650-12,250'. Water will be injected at a maximum surface pressure of 2130# pounds and a maximum injection rate of 4000 BWPD. Any interested party with questions or comments may contact Deana Weaver at Mack Energy Corporation, Post Office Box 960, Artesia, New Mexico 88211-0960 or call (575) 748-1288. Objections to this application or requests for hearing must be filed with the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, within fifteen days of the date of the publication of this notice.

Published in the Artesia Daily Press, Artesia, N.M., June 7 2015 Legal No. 23520.





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*New Mexico Office of the State Engineer*  
**Active & Inactive Points of Diversion**  
(with Ownership Information)

---

No PODs found.

**UTMNAD83 Radius Search (in meters):**

Easting (X): 543542

Northing (Y): 4004282

Radius: 1609

**Usage Filter:**

Use: All Usages

Poker SWD #1  
1150 FNL & 1320 FWL, Sec. 32 T23S R23E  
Formation Tops

<u>Quaternary</u>	<u>Surface</u>
San Andres	700'
Glorieta	1,985'
Paddock	2,115'
Delaware Sd.	3,000'
Bone Spring	3,850'
Wolfcamp	6,540'
Cisco	7,800'
Canyon	8,200'
Strawn	8,570'
Morrow	9,340'
Chester	10,250'
Woodford	10,550'
Devonian	10,650' SWD Interval
Montoya	11,300' SWD Interval
Ellenburger	11,750' SWD Interval



P.O. Box 960  
Artesia, NM 88211-0960  
Office (575) 748-1288  
Fax (575) 746-9539

---

June 4, 2015

**VIA CERTIFIED MAIL 7015 0640 0006 7031 3823**  
**RETURN RECEIPT REQUESTED**

COG Operating LLC  
600 W. Illinois Ave  
Midland, TX 79701

Gentlemen:

Enclosed for your review, is a copy of Mack Energy Corporation's application for a Devonian, Montoya and Ellenburger SWD well. Produced water will be injected at a proposed depth of 10,650-12,250'. The Poker SWD #1 located 1150 FNL & 1320 FWL, Sec. 32 T23S R23E, Eddy County.

This letter will serve as a notice that Mack Energy Corporation has requested administrative approval from the NMOCD to drill this well into a water disposal well. If you have any objections, you must notify the Oil Conservation Division in Santa Fe in writing at 1220 South St. Francis Drive, Santa Fe, NM 87505 within fifteen (15) days of receiving this letter.

Sincerely,

MACK ENERGY CORPORATION

*Deana Weaver*

Deana Weaver  
Production Clerk

DW

Attachments



P.O. Box 960  
Artesia, NM 88211-0960  
Office (575) 748-1288  
Fax (575) 746-9539

June 4, 2015

**VIA CERTIFIED MAIL 7015 0640 0006 7031 3830**  
**RETURN RECEIPT REQUESTED**

The Allar Company  
EG3 Inc.  
P.O. Box 1567  
Graham, TX 76450

Gentlemen:

Enclosed for your review, is a copy of Mack Energy Corporation's application for a Devonian, Montoya and Ellenburger SWD well. Produced water will be injected at a proposed depth of 10,650-12,250'. The Poker SWD #1 located 1150 FNL & 1320 FWL, Sec. 32 T23S R23E, Eddy County.

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Sincerely,

MACK ENERGY CORPORATION

Deana Weaver  
Production Clerk

DWM

Attachments



P.O. Box 960  
Artesia, NM 88211-0960  
Office (575) 748-1288  
Fax (575) 746-9539

June 4, 2015

**VIA CERTIFIED MAIL 7015 0640 0006 7031 3847**  
**RETURN RECEIPT REQUESTED**

Pardue Limited Company  
P.O. Box 2018  
Carlsbad, NM 88221

Gentlemen:

Enclosed for your review, is a copy of Mack Energy Corporation's application for a Devonian, Montoya and Ellenburger SWD well. Produced water will be injected at a proposed depth of 10,650-12,250'. The Poker SWD #1 located 1150 FNL & 1320 FWL, Sec. 32 T23S R23E, Eddy County.

This letter will serve as a notice that Mack Energy Corporation has requested administrative approval from the NMOCD to drill this well into a water disposal well. If you have any objections, you must notify the Oil Conservation Division in Santa Fe in writing at 1220 South St. Francis Drive, Santa Fe, NM 87505 within fifteen (15) days of receiving this letter.

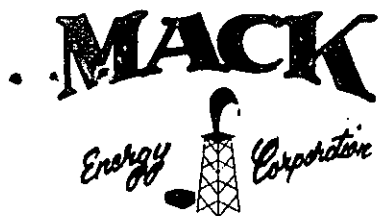
Sincerely,

MACK ENERGY CORPORATION

*Deana Weaver*  
Deana Weaver  
Production Clerk

DW

Attachments



P.O. Box 960  
Artesia, NM 88211-0960  
Office (575) 748-1288  
Fax (575) 746-9539

---

June 4, 2015

**VIA CERTIFIED MAIL 7015 0640 0006 7031 3854**  
**RETURN RECEIPT REQUESTED**

Commissioner of Public Lands  
PO Box 1148  
Santa Fe, NM 87504-1148

Gentlemen:

Enclosed for your review, is a copy of Mack Energy Corporation's application for a Devonian, Montoya and Ellenburger SWD well. Produced water will be injected at a proposed depth of 10,650-12,250'. The Poker SWD #1 located 1150 FNL & 1320 FWL, Sec. 32 T23S R23E, Eddy County.

This letter will serve as a notice that Mack Energy Corporation has requested administrative approval from the NMOCD to drill this well into a water disposal well. If you have any objections, you must notify the Oil Conservation Division in Santa Fe in writing at 1220 South St. Francis Drive, Santa Fe, NM 87505 within fifteen (15) days of receiving this letter.

Sincerely,

MACK ENERGY CORPORATION

Deana Weaver  
Production Clerk

DW

Attachments

**Goetze, Phillip, EMNRD**

---

**From:** Holm, Anchor <aholm@slo.state.nm.us>  
**Sent:** Wednesday, July 08, 2015 9:29 AM  
**To:** Goetze, Phillip, EMNRD  
**Cc:** Martin, Ed; Khalsa, Niranjana K.; Warnell, Terry G.  
**Subject:** Mack Energy - Poker (State) SWD #1 Application dated June 5, 2015

Phil,

The State Land Office agrees that deep disposal is reasonable for this site.

However, several miles to the north, the produced water disposal into the Devonian has been somewhat linked to recent seismic activity. This seismic area appears to be a unique situation in the Permian Basin, which may allow connection to deeper Precambrian bedrock faults.

This is not an objection on our part, merely a heads up to you.

Have a great Wednesday,

*Anchor Holm*

*GeoScientist/Petroleum Engineering Specialist  
NM State Land Office  
Oil, Gas and Minerals Division  
P.O. Box 1148  
310 Old Santa Fe Trail  
Santa Fe, NM 87504-1148  
Ph. 505-827-5759  
[aholm@slo.state.nm.us](mailto:aholm@slo.state.nm.us)*

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For more information please visit <http://www.symanteccloud.com>

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

August 13, 2015

WES SHIELDS

LYNX PETROLEUM

P. O. BOX 1708

HOBBS, NM 88241

RE: AIR PATH DISPOSAL

Enclosed are the results of analyses for samples received by the laboratory on 08/03/15 14:30.

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



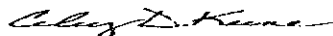
**Analytical Results For:**LYNX PETROLEUM  
P. O. BOX 1708  
HOBBS NM, 88241Project: AIR PATH DISPOSAL  
Project Number: NONE GIVEN  
Project Manager: WES SHIELDS  
Fax To: (575) 392-7886Reported:  
13-Aug-15 15:47

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ARCO ST. #1 WOLFCAMP ZONE	H502001-01	Wastewater	03-Aug-15 11:30	03-Aug-15 14:30
DUNKEL 7 ST. 1H BONE SPRINGS	H502001-02	Wastewater	03-Aug-15 11:30	03-Aug-15 14:30

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 LYNX PETROLEUM  
 P. O. BOX 1708  
 HOBBS NM, 88241

 Project: AIR PATH DISPOSAL  
 Project Number: NONE GIVEN  
 Project Manager: WES SHIELDS  
 Fax To: (575) 392-7886

 Reported:  
 13-Aug-15 15:47

**ARCO ST. #1 WOLFCAMP ZONE**
**H502001-01 (Wastewater)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**
**Inorganic Compounds**

Alkalinity, Bicarbonate	671		5.00	mg/L	1	5080504	AP	05-Aug-15	310.1	
Alkalinity, Carbonate	ND		0.00	mg/L	1	5080504	AP	05-Aug-15	310.1	
Chloride*	79000		4.00	mg/L	1	5072706	AP	05-Aug-15	4500-Cl-B	
Conductivity*	135000		1.00	uS/cm	1	5081103	AP	11-Aug-15	120.1	
pH*	7.73		0.100	pH Units	1	5081104	AP	11-Aug-15	150.1	
Sulfate*	1950		250	mg/L	25	5081105	AP	13-Aug-15	375.4	
TDS*	116000		5.00	mg/L	1	5080403	AP	06-Aug-15	160.1	
Alkalinity, Total*	550		4.00	mg/L	1	5080504	AP	05-Aug-15	310.1	

**Green Analytical Laboratories**
**Total Recoverable Metals by ICP (E200.7)**

Calcium*	3220		2.00	mg/L	100	B508088	JGS	12-Aug-15	EPA200.7	
Magnesium*	725		10.0	mg/L	100	B508088	JGS	12-Aug-15	EPA200.7	
Potassium*	664		100	mg/L	100	B508088	JGS	12-Aug-15	EPA200.7	
Sodium*	40000		100	mg/L	100	B508088	JGS	12-Aug-15	EPA200.7	

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

LYNX PETROLEUM  
P. O. BOX 1708  
HOBBS NM, 88241

Project: AIR PATH DISPOSAL  
Project Number: NONE GIVEN  
Project Manager: WES SHIELDS  
Fax To: (575) 392-7886

Reported:  
13-Aug-15 15:47

**DUNKEL 7 ST. 1H BONE SPRINGS**  
**H502001-02 (Wastewater)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

**Cardinal Laboratories**
**Inorganic Compounds**

Alkalinity, Bicarbonate	87.0		5.00	mg/L	1	5080504	AP	05-Aug-15	310.1	
Alkalinity, Carbonate	ND		0.00	mg/L	1	5080504	AP	05-Aug-15	310.1	
Chloride*	118000		4.00	mg/L	1	5072706	AP	05-Aug-15	4500-Cl-B	
Conductivity*	252000		1.00	uS/cm	1	5081103	AP	11-Aug-15	120.1	
pH*	6.18		0.100	pH Units	1	5081104	AP	11-Aug-15	150.1	
Sulfate*	1590		250	mg/L	25	5081105	AP	13-Aug-15	375.4	
TDS*	217000		5.00	mg/L	1	5080407	AP	07-Aug-15	160.1	
Alkalinity, Total*	72.0		4.00	mg/L	1	5080504	AP	05-Aug-15	310.1	

**Green Analytical Laboratories**
**Total Recoverable Metals by ICP (E200.7)**

Calcium*	11700		2.00	mg/L	100	B508088	JGS	12-Aug-15	EPA200.7	
Magnesium*	2700		10.0	mg/L	100	B508088	JGS	12-Aug-15	EPA200.7	
Potassium*	2310		100	mg/L	100	B508088	JGS	12-Aug-15	EPA200.7	
Sodium*	57700		100	mg/L	100	B508088	JGS	12-Aug-15	EPA200.7	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

LYNX PETROLEUM  
P. O. BOX 1708  
HOBBS NM, 88241

Project: AIR PATH DISPOSAL  
Project Number: NONE GIVEN  
Project Manager: WES SHIELDS  
Fax To: (575) 392-7886

Reported:  
13-Aug-15 15:47

### Inorganic Compounds - Quality Control

#### Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

#### Batch 5072706 - General Prep - Wet Chem

<b>Blank (5072706-BLK1)</b>				Prepared: 27-Jul-15 Analyzed: 28-Jul-15						
Chloride	ND	4.00	mg/L							
<b>LCS (5072706-BS1)</b>				Prepared: 27-Jul-15 Analyzed: 28-Jul-15						
Chloride	100	4.00	mg/L	100		100	80-120			
<b>LCS Dup (5072706-BSD1)</b>				Prepared: 27-Jul-15 Analyzed: 28-Jul-15						
Chloride	108	4.00	mg/L	100		108	80-120	7.69	20	

#### Batch 5080403 - Filtration

<b>Blank (5080403-BLK1)</b>				Prepared: 28-Jul-15 Analyzed: 04-Aug-15						
TDS	ND	5.00	mg/L							
<b>LCS (5080403-BS1)</b>				Prepared: 28-Jul-15 Analyzed: 04-Aug-15						
TDS	530	5.00	mg/L	527		101	80-120			
<b>Duplicate (5080403-DUP1)</b>				Prepared: 28-Jul-15 Analyzed: 04-Aug-15						
TDS	15300	5.00	mg/L		15700			2.75	20	

#### Batch 5080407 - Filtration

<b>Blank (5080407-BLK1)</b>				Prepared: 04-Aug-15 Analyzed: 11-Aug-15						
TDS	ND	5.00	mg/L							
<b>LCS (5080407-BS1)</b>				Prepared: 04-Aug-15 Analyzed: 11-Aug-15						
TDS	502		mg/L	527		95.3	80-120			

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Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

LYNX PETROLEUM  
P. O. BOX 1708  
HOBBS NM, 88241

Project: AIR PATH DISPOSAL  
Project Number: NONE GIVEN  
Project Manager: WES SHIELDS  
Fax To: (575) 392-7886

Reported:  
13-Aug-15 15:47

### Inorganic Compounds - Quality Control

#### Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 5080407 - Filtration

Duplicate (5080407-DUP1) Source: H502001-02 Prepared: 04-Aug-15 Analyzed: 11-Aug-15

TDS	216000	5.00	mg/L		217000			0.397	20	
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#### Batch 5080504 - General Prep - Wet Chem

Blank (5080504-BLK1) Prepared & Analyzed: 05-Aug-15

Alkalinity, Carbonate	ND	0.00	mg/L							
Alkalinity, Bicarbonate	ND	5.00	mg/L							
Alkalinity, Total	ND	4.00	mg/L							

LCS (5080504-BS1) Prepared & Analyzed: 05-Aug-15

Alkalinity, Carbonate	ND	0.00	mg/L				80-120			
Alkalinity, Bicarbonate	126	5.00	mg/L				80-120			
Alkalinity, Total	104	4.00	mg/L	100		104	80-120			

LCS Dup (5080504-BS1) Prepared & Analyzed: 05-Aug-15

Alkalinity, Carbonate	ND	0.00	mg/L				80-120		20	
Alkalinity, Bicarbonate	131	5.00	mg/L				80-120	3.89	20	
Alkalinity, Total	108	4.00	mg/L	100		108	80-120	3.77	20	

#### Batch 5081103 - General Prep - Wet Chem

LCS (5081103-BS1) Prepared & Analyzed: 11-Aug-15

Conductivity	489		uS/cm	500		97.8	80-120			
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Duplicate (5081103-DUP1) Source: H501986-01 Prepared & Analyzed: 11-Aug-15

Conductivity	277000	1.00	uS/cm		320000			14.3	20	
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Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 LYNX PETROLEUM  
 P. O. BOX 1708  
 HOBBS NM, 88241

 Project: AIR PATH DISPOSAL  
 Project Number: NONE GIVEN  
 Project Manager: WES SHIELDS  
 Fax To: (575) 392-7886

 Reported:  
 13-Aug-15 15:47


**Inorganic Compounds - Quality Control**
**Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 5081104 - General Prep - Wet Chem</b>										
<b>LCS (5081104-BS1)</b>				Prepared & Analyzed: 11-Aug-15						
pH	7.11		pH Units	7.00		102	90-110			
<b>Duplicate (5081104-DUP1)</b>				Source: H502001-01 Prepared & Analyzed: 11-Aug-15						
pH	7.76	0.100	pH Units		7.73			0.387	20	
<b>Batch 5081105 - General Prep - Wet Chem</b>										
<b>Blank (5081105-BLK1)</b>				Prepared: 11-Aug-15 Analyzed: 13-Aug-15						
Sulfate	ND	10.0	mg/L							
<b>LCS (5081105-BS1)</b>				Prepared: 11-Aug-15 Analyzed: 13-Aug-15						
Sulfate	19.6	10.0	mg/L	20.0		98.1	80-120			
<b>LCS Dup (5081105-BSD1)</b>				Prepared: 11-Aug-15 Analyzed: 13-Aug-15						
Sulfate	22.5	10.0	mg/L	20.0		112	80-120	13.6	20	

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 LYNX PETROLEUM  
 P. O. BOX 1708  
 HOBBS NM, 88241

 Project: AIR PATH DISPOSAL  
 Project Number: NONE GIVEN  
 Project Manager: WES SHIELDS  
 Fax To: (575) 392-7886

 Reported:  
 13-Aug-15 15:47

**Total Recoverable Metals by ICP (E200.7) - Quality Control**
**Green Analytical Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	--------------	----------------	-----	--------------	-------

**Batch B508088 - EPA 200.2**
**Blank (B508088-BLK1)**

Prepared &amp; Analyzed: 11-Aug-15

Calcium	0.023	0.020	mg/L							B1
Magnesium	ND	0.100	mg/L							
Sodium	ND	1.00	mg/L							
Potassium	ND	1.00	mg/L							

**LCS (B508088-BS1)**

Prepared &amp; Analyzed: 11-Aug-15

Potassium	8.34	1.00	mg/L	8.00		104	85-115			
Calcium	4.11	0.020	mg/L	4.00		103	85-115			
Sodium	6.52	1.00	mg/L	6.48		101	85-115			
Magnesium	21.0	0.100	mg/L	20.0		105	85-115			

**LCS Dup (B508088-BSD1)**

Prepared &amp; Analyzed: 11-Aug-15

Magnesium	20.5	0.100	mg/L	20.0		103	85-115	2.44	20	
Potassium	8.08	1.00	mg/L	8.00		101	85-115	3.06	20	
Sodium	6.39	1.00	mg/L	6.48		98.7	85-115	1.89	20	
Calcium	4.02	0.020	mg/L	4.00		101	85-115	2.22	20	

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**


B1	Target analyte detected in method blank at or above method reporting limit. Sample concentration found to be 10 times above the concentration found in the method blank or less than the reporting limit.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





## Page 10 of 10

[illegible]

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

Sec. 16-205-24E

## HALLIBURTON DIVISION LABORATORY

## HALLIBURTON SERVICES

## ARTESIA DISTRICT

## LABORATORY REPORT

No. W531-90

TO Mr. Harvey AppleDate September 20, 1990Yates Petroleum Corporation105 South Fourth StreetArtesia, NM 88210

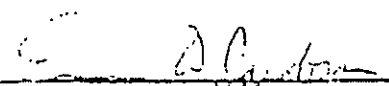
This report is the property of Halliburton Services and neither it nor any part thereof, nor a copy thereof is to be published or disclosed without first securing the express written approval of Laboratory Management. It may, however, be used in the course of regular business operations by any person or company and employees thereof receiving such report from Halliburton Services.

Submitted by Danny PanzerDate Rec. September 20, 1990Well No. State D #1 Depth 10963' - 11052' Formation Bliss Sand

Field \_\_\_\_\_ County \_\_\_\_\_ Source \_\_\_\_\_

Resistivity ..... 0.052Specific Gravity .. 1.1706pH ..... 6.5Calcium ..... 29,025Magnesium ..... 392Chlorides ..... 157,000Sulfates ..... 700Bicarbonates ..... 305Soluble Iron ..... 500..... .52

REMARKS:

  
 Respectfully submitted
Analyst: Eric Jacobson - Field Engineer

HALLIBURTON SERVICES

*injection zone analysis*



Catalyst Oilfield Services  
 11999 E Hwy 158  
 Gardendale, TX 79758  
 (432) 563-0727  
 Fax: (432) 224-1038

## Water Analysis Report

Customer: Mack Energy Corporation Sample #: 26178  
 Area: Artesia Analysis ID #: 24684  
 Lease: Chip State  
 Location: #2 0  
 Sample Point: Wellhead

		Anions		Cations	
		mg/l	meq/l	mg/l	meq/l
Sampling Date:	2/5/2015	Chloride:	21207.0	Sodium:	13110.0
Analysis Date:	2/17/2015	Bicarbonate:	197.6	Magnesium:	192.5
Analyst:	Catalyst	Carbonate:		Calcium:	800.1
TDS (mg/l or g/m3):	37188.1	Sulfate:	1300.0	Potassium:	134.6
Density (g/cm3):	1.027	Borate*:	186.8	Strontium:	53.1
		*Calculated based on measured elemental boron.		Barium:	0.0
Hydrogen Sulfide:	0			Iron:	6.4
Carbon Dioxide:	20			Manganese:	0.000
Comments:		pH at time of sampling:	7		
		pH at time of analysis:			
		pH used in Calculation:	7		
		Temperature @ lab conditions (F):	75	Conductivity (micro-ohms/cm):	67000
				Resistivity (ohm meter):	.1493

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Calcite CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> ·2H <sub>2</sub> O		Anhydrite CaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		Barite BaSO <sub>4</sub>	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	-0.03	0.00	-0.60	0.00	-0.65	0.00	0.00	0.34	0.00	0.00
100	0.08	1.69	-0.63	0.00	-0.62	0.00	0.00	0.00	0.00	0.00
120	0.19	4.73	-0.65	0.00	-0.55	0.00	0.01	1.01	0.00	0.00
140	0.30	7.77	-0.65	0.00	-0.47	0.00	0.03	2.36	0.00	0.00
160	0.41	11.49	-0.65	0.00	-0.37	0.00	0.05	4.05	0.00	0.00
180	0.52	15.54	-0.65	0.00	-0.25	0.00	0.08	6.08	0.00	0.00
200	0.63	19.93	-0.64	0.00	-0.12	0.00	0.11	8.45	0.00	0.00
220	0.74	24.32	-0.63	0.00	0.02	18.58	0.15	10.47	0.00	0.00



C-108 Review Checklist: Received 6/03/ Add. Request: 8/14/2015 Reply Date: \_\_\_\_\_ Suspended: \_\_\_\_\_

PERMIT TYPE: WFX / PMX (SWD) Number: 1581 Permit Date: \_\_\_\_\_ Legacy Permits/Orders: \_\_\_\_\_

Well No. 1 Well Name(s): POKER LAKE SWD#1

API: 30-0 15-Pending Spud Date: \_\_\_\_\_ New or Old: N (UIC Class II Primacy 03/07/1982)

Footages 1150 FNL 1320 FNL Lot \_\_\_\_\_ or Unit D Sec 32 Tsp 23S Rge 32E County EDDY

General Location: 22.5 miles W JAI Pool: SWD, DEVONIAN-MONTANA Pool No.: 97903  
MAACK DEAN

BLM 100K Map: JAI Operator: Energy Corp OGRID: 13837 Contact: WEAVER

COMPLIANCE RULE 5.9: Total Wells: 469 Inactive: 1 Fincl Assur: y Compl. Order? N/A IS 5.9 OK? \_\_\_\_\_ Date: \_\_\_\_\_

WELL FILE REVIEWED ☐ Current Status: Proposed

WELL DIAGRAMS: NEW: Proposed ☒ or RE-ENTER: Before Conv. ☐ After Conv. ☐ Logs in Imaging: N/A

Planned Rehab Work to Well: \* L132 51W 7" casing / 4" Liner

Well Construction Details:	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Sx or Cf	Cement Top and Determination Meth
Planned ___ or Existing ___ Surface	<u>17 1/2 / 13 3/4</u>	<u>400</u>	<u>470</u>	<u>SURFACE / VISUAL</u>
Planned ___ or Existing ___ Interm/Prod	<u>12 1/4 / 4 5/8</u>	<u>2600</u>	<u>820</u>	<u>SURFACE / VISUAL</u>
Planned ___ or Existing ___ Interm/Prod	<u>8 3/4 / 7</u>	<u>10600</u>	<u>1305</u>	<u>SURFACE / VISUAL</u>
Planned ___ or Existing ___ Prod/Liner				
Planned ___ or Existing ___ Liner	<u>4 1/2</u>	<u>12250</u>	<u>250</u>	<u>40000</u>
Planned ___ or Existing ___ OH / PERF	<u>10650 / 12250</u>			
		Inj Length <u>1600</u>	Completion/Operation Details:	

Injection Stratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops	Completion/Operation Details:
Adjacent Unit: Litho. Struc. Por.		<u>WD</u>	<u>10550</u>	Drilled TD <u>12250</u> PBDT _____
Confining Unit: Litho. Struc. Por.		<u>DEV</u>	<u>10650</u>	NEW TD _____ NEW PBDT _____
Proposed Inj Interval TOP:				NEW Open Hole <input type="radio"/> or NEW Perfs <input checked="" type="radio"/>
Proposed Inj Interval BOTTOM:				Tubing Size <u>2 7/8</u> in. Inter Coated? <input checked="" type="checkbox"/>
Confining Unit: Litho. Struc. Por.				Proposed Packer Depth <u>10600</u> ft
Adjacent Unit: Litho. Struc. Por.				Min. Packer Depth <u>10550</u> (100-ft limit)
				Proposed Max. Surface Press. <u>2130</u> p.
				Admin. Inj. Press. <u>2130</u> (0.2 psi per

AOR: Hydrologic and Geologic Information

POTASH: R-111-P ☐ Noticed? \_\_\_\_\_ BLM Sec Ord ☐ WIPP ☐ Noticed? \_\_\_\_\_ SALT/SALADO T: \_\_\_\_\_ B: \_\_\_\_\_ CLIFF HOUSE

FRESH WATER: Aquifer N/A Max Depth \_\_\_\_\_ HYDRO AFFIRM STATEMENT By Qualified Person ☒

NMOSE Basin: CARLSBAD CAPITAN REEF: thru ☐ adj ☐ NAD ☒ No. Wells within 1-Mile Radius? \_\_\_\_\_ FW Analysis ☐

Disposal Fluid: Formation Source(s) \_\_\_\_\_ Analysis? \_\_\_\_\_ On Lease ☐ Operator Only ☐ or Commercial ☒

Disposal Int: Inject Rate (Avg/Max BWPD): 2000/4000 Protectable Waters? \_\_\_\_\_ Source: \_\_\_\_\_ System: Closed ☒ or Open ☐

HC Potential: Producing Interval? \_\_\_\_\_ Formerly Producing? \_\_\_\_\_ Method: Logs/DST/P&A ☒ Other Manlog 2-Mile Radius Pool Ma

AOR Wells: 1/2-M Radius Map? ☒ Well List? ☒ Total No. Wells Penetrating Interval: \_\_\_\_\_ Horizontals? N/A

Penetrating Wells: No. Active Wells 1 Num Repairs? \_\_\_\_\_ on which well(s)? \_\_\_\_\_ Diagrams? \_\_\_\_\_

Penetrating Wells: No. P&A Wells 1 Num Repairs? \_\_\_\_\_ on which well(s)? \_\_\_\_\_ Diagrams? \_\_\_\_\_

NOTICE: Newspaper Date 6-7-2015 Mineral Owner NMSLO Surface Owner NMSLO N. Date 6-04-2015

RULE 26.7(A): Identified Tracts? \_\_\_\_\_ Affected Persons: COG, Allan, Pandya Farms N. Date 6-04-2015

Permit Conditions: Issues: NO INJECTION INTO ELLENBARGER

Add Permit Cond: \_\_\_\_\_