

# AE Order Number Banner

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Revised

Application Number: pMSG2426050732

SWD-2628

MACK ENERGY CORP [13837]

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Geological & 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

Applicant: \_\_\_\_\_ OGRID Number: \_\_\_\_\_  
 Well Name: \_\_\_\_\_ API: \_\_\_\_\_  
 Pool: \_\_\_\_\_ Pool Code: \_\_\_\_\_

**SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION  
 INDICATED BELOW**

1) **TYPE OF APPLICATION:** Check those which apply for [A]

A. Location – Spacing Unit – Simultaneous Dedication

☐ NSL      ☐ NSP (PROJECT AREA)      ☐ NSP (PRORATION UNIT)      ☐ SD

B. Check one only for [ I ] or [ II ]

[ I ] Commingling – Storage – Measurement

☐ DHC    ☐ CTB    ☐ PLC    ☐ PC    ☐ OLS    ☐ OLM

[ II ] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery

☐ WFX    ☐ PMX    ☐ SWD    ☐ IPI    ☐ EOR    ☐ PPR

2) **NOTIFICATION REQUIRED TO:** Check those which apply.

- A. ☐ Offset operators or lease holders  
 B. ☐ Royalty, overriding royalty owners, revenue owners  
 C. ☐ Application requires published notice  
 D. ☐ Notification and/or concurrent approval by SLO  
 E. ☐ Notification and/or concurrent approval by BLM  
 F. ☐ Surface owner  
 G. ☐ For all of the above, proof of notification or publication is attached, and/or,  
 H. ☐ No notice required

**FOR OCD ONLY**

- ☐ Notice Complete  
☐ Application  
 Content  
 Complete

- 3) **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.**

\_\_\_\_\_  
 Print or Type Name

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Phone Number

\_\_\_\_\_  
 Signature

\_\_\_\_\_  
 e-mail Address

*Deana Weaver*

Mack Energy Corporation  
Rooster SWD #1- C-108

### III. Well Data

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:**

- (1) Lease name: Well No.; Location by Section, Township and Range; and footage location within the section.**

Operator: Mack Energy Corporation (OGRID # 013837)

Lease/Well Name & Number: Rooster SWD #1

Legal Location: 1650 FNL & 1650 FWL – Unit F – Section 34 T14S R31E – Chaves County

Coordinates: 33.0622508, -103.8128126 (NAD 83)

- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.**

Casing String	Hole Size (in)	Casing Size (in)	Casing Depth (ft)	Sacks Cmt (sx)	Top of Cmt (ft)	Method Determined
Surface	17 1/2	13 3/8	1,400'	925	0	Circulation
Intermediate	12 1/4	9 5/8	3,900'	1,125	0	Circulation
Production	8 3/4	7	13,700'	1,415	0	Circulation

**3 Stage DV Tools @ 3800' & 12,700' on Production Casing string.** Stage 1- Lead 50bbls Pro M Spacer, tail 135sx Class C. Stage 2-Lead 755sx Light Weight 2% P202, tail 200sx Pro-Eco. Stage 3-Lead 205sx Class C, tail 120sx Class C cement.

A wellbore diagram is included in **Attachment 1**.

- (3) A description of the tubing to be used including its size, lining material and setting depth.**

3 1/2" EUE IPC @ 11,855'

- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.**

Arrow Set 10K Nickel Plated Packer w/ 2.31 R Profile Nipple @ 11,855'

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.**

- (1) The name of the injection formation and, if applicable, the field or pool name.**

Injection Formation Name- Devonian

Pool Name- SWD; Devonian

Pool Code- 96101

- (2) The injection interval and whether it is perforated or open-hole.**

Perforated between 12,900-13,600'

- (3) State if the well was drilled for injection or, if not, the original purpose of the well.**

New Drill for Injection

Mack Energy Corporation  
Rooster SWD #1- C-108

- (4) Give the depths of any other perforated intervals and details on the sacks of cement or bridge plugs used to seal off such perforations.

None

- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

- **Overlying**

Yates (2330')	Cisco (9590')
Seven Rivers (2545')	Atoka (11,150')
Queen (3080')	Miss (11,840')
Grayburg (3455')	Woodford (12,835')
San Andres (3775')	Devonian (12,900')
Glorieta (5300')	
Tubb (6615')	
Abo (7390')	
Wolfcamp (8710')	

- **Underlying**

Montoya (13,600')

#### V. AOR Maps

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.

The following figures are included in **Attachment 2**:

- 2-Mile Well Map
- 1-Mile Well Map
- 1-Mile AOR Well List
- 2-Mile Lease Map
- 1-Mile Surface Ownership Map
- 1-Mile Mineral Ownership Map

#### VI. AOR List

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 type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

Details of the wells within the 1-mile AOR are included in **Attachment 2**.

#### VII. Operational Information

Attach data on the proposed operation, including:

- (1) Proposed average and maximum daily rate and volume of fluids to be injected;

Maximum: 20,000 bwpd

Average: 15,000 bwpd

Mack Energy Corporation  
Rooster SWD #1- C-108

**(2) Whether the system is open or closed;**

The system is closed.

**(3) Proposed average and maximum injection pressure;**

Maximum: 2,580 psi

Average: 1,000 psi

**(4) Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water;**

It is anticipated that produced water from San Andres production wells in the area will be injected into the proposed SWD. Therefore, water analyses from these formations was obtained and are included in **Attachment 3**.

**(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.)**

N/A- There is not a Devonian well in the area to get a sample. We can provide the sample during completion. We can perf and swab the well to provide a sample.

**VIII. Geologic Description**

**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.**

The Rooster SWD #1 injected fluid will be contained within the Devonian Formation. Immediately above the Devonian, the Woodford Shale is low permeability and the Mississippian Lime Formation is low porosity and low permeability carbonate. The Woodford and Mississippian Lime Formations, which are combined 1060' thick, will be the upper seal and contain the Devonian injected fluid. Below the Devonian Formation is 100' of low porosity and low permeability carbonate in the Montoya Formation. The top 100' of the Montoya will be the bottom seal and contain the Devonian injected fluid.

- Lithologic Detail- Dolomite
- Geological Name- Devonian
- Thickness- 700'
- TD- 13,700'
- Injection Depth- 12,900-13,600' Perforated completion

The base of the lowermost Underground Source of Drinking Water (USDW), identified as the top of the first anhydrite, was determined to occur at the top of the Rustler formation at a depth of 1360'. Water wells in the area for domestic/livestock use are drilled to the depth of approximately 350' Southern High Plains Aquifer. Wells on POD are Shut-In and were unable to test fresh water.

Mack Energy Corporation  
Rooster SWD #1- C-108

A Seismic Risk Assessment is included in **Attachment 4**.

**IX. Proposed Stimulation Program**

**Describe the proposed stimulation program, if any.**

Treated with 10,000 gallons 15% acid.

**X. Logging and Test Data**

**Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).**

Logs will be run and submitted to the Division once the well is completed.

**XI. Groundwater Wells**

**Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.**

**Attachment 5** includes a 1-mile Water Well Map. Wells on POD are Shut-In and were unable to test fresh water.

**XII. No Hydrologic Connection Statement**

**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.**

A signed affirmative statement is included in **Attachment 6**.

**XIII. Proof of Notice**

**Applicants must complete the "Proof of Notice" section on the reverse side of this form. All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.**

A copy of the application was mailed to the Affected Persons, including the OCD District Office, surface owner, leasehold operators within the AOR and BLM/SLO if they own minerals within the AOR.

**Attachment 8** includes a list and letters of the Affected Persons receiving notice of the application and the associated certified mailing receipts.

**Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located.**

A Public Notice was published in the Roswell Daily Record, a newspaper of general circulation in the area, and the associated affidavit is included in **Attachment 7**.

## Attachment 1

Rooster SWD #1									
Operator: Mack Energy Corporation Location: Sec. 34 T14S R31E 1650 FNL 1650 FWL Objective: SWD; Devonian GL Elevation: 4491.1									
Depth	Hole Size & Cement							Casing Detail	
1400'	17 1/2" hole  925sx CMT Circ to Surface							13 3/8" J-55 54.5# 1400'	
3900'	12 1/4" hole  1125sx CMT Circ to Surface							9 5/8" L-80 40# 3900'	
								DV Tool @ 12,700' & 3,850'	
13,700'	8 3/4" Hole  1415sx CMT Circ to Surface							7" HCL-80 29# 13,700'	
								3 1/2" 9.3 L-80 Tubing 0-11,855'	
								IPC 10K Nickle Plated Arrow Set 2.31 profile Nipple 11,855'	
	Perfs 12,900-13,600'								
TD- 13,700'									

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

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 96101	<sup>3</sup> Pool Name SWD; Devonian
<sup>4</sup> Property Code	<sup>5</sup> Property Name ROOSTER SWD	<sup>6</sup> Well Number 1
<sup>7</sup> OGRID No. 13837	<sup>8</sup> Operator Name MACK ENERGY CORPORATION	<sup>9</sup> Elevation 4491.1

<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
F	34	14 S	31 E		1650	NORTH	1650	WEST	CHAVES

<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
F	34	14 S	31 E		1650	NORTH	1650	WEST	CHAVES

<sup>12</sup> Dedicated Acres 40	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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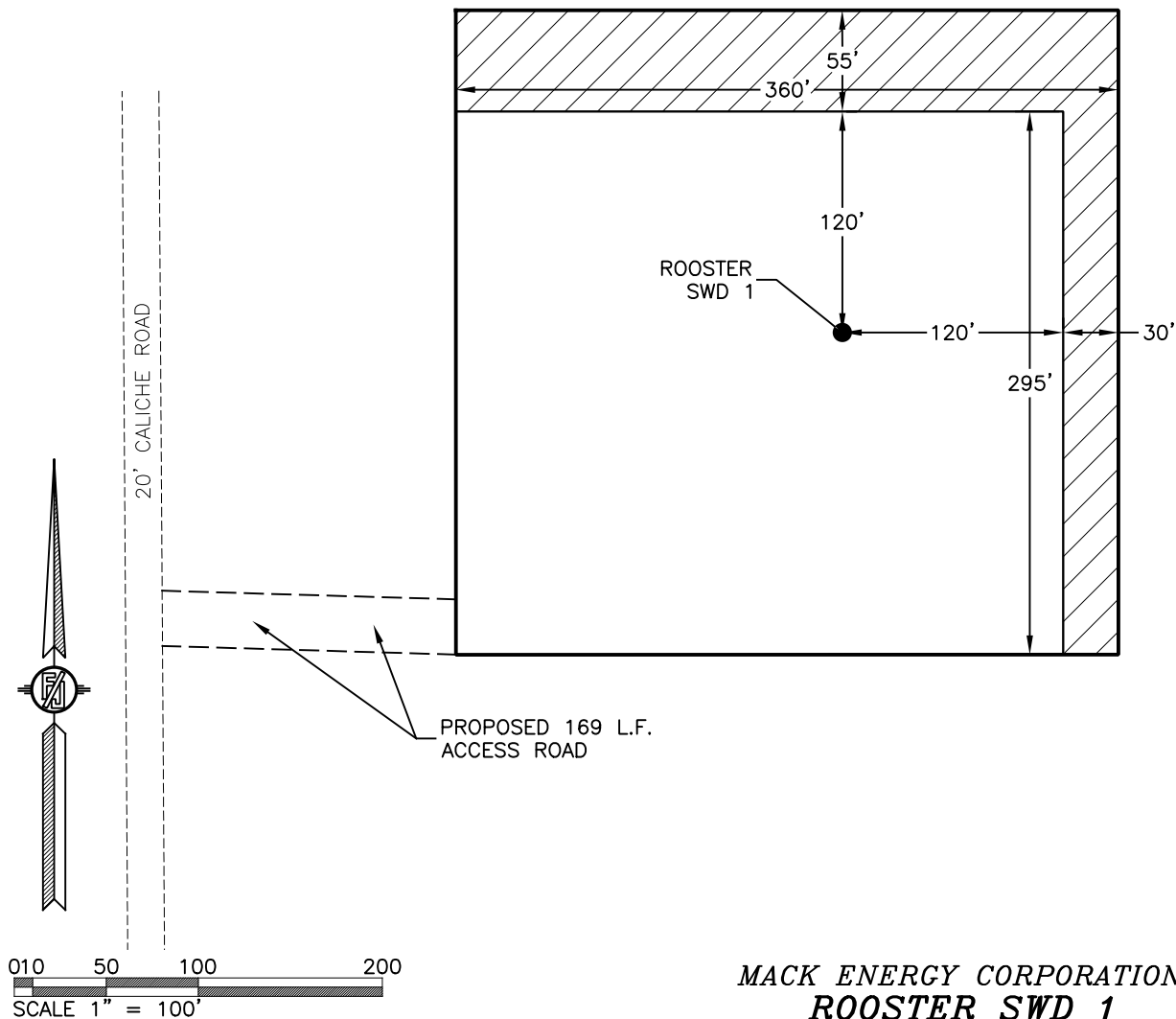
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	<p>ROOSTER SWD 1 EL. = 4491.1</p> <p>GEODETIC COORDINATES NAD 83 NMSP EAST SURFACE LOCATION N. = 750580.21 E. = 700805.70 LAT. = 33.0622508°N LONG. = 103.8128126°W</p> <p>BOTTOM OF HOLE 1650' FNL, 1650' FWL N. = 750580.21 E. = 700805.70 LAT. = 33.0622508°N LONG. = 103.8128126°W</p> <p>CORNER COORDINATES TABLE NAD 83 NMSP EAST</p> <table border="1"> <tr> <td>A - N. = 752217.18</td> <td>E. = 699147.23</td> </tr> <tr> <td>B - N. = 752237.34</td> <td>E. = 701788.14</td> </tr> <tr> <td>C - N. = 752256.90</td> <td>E. = 704429.74</td> </tr> <tr> <td>D - N. = 749616.77</td> <td>E. = 704443.99</td> </tr> <tr> <td>E - N. = 746977.04</td> <td>E. = 704457.75</td> </tr> <tr> <td>F - N. = 746957.23</td> <td>E. = 701817.41</td> </tr> <tr> <td>G - N. = 746938.86</td> <td>E. = 699175.13</td> </tr> <tr> <td>H - N. = 749578.90</td> <td>E. = 699161.54</td> </tr> </table>	A - N. = 752217.18	E. = 699147.23	B - N. = 752237.34	E. = 701788.14	C - N. = 752256.90	E. = 704429.74	D - N. = 749616.77	E. = 704443.99	E - N. = 746977.04	E. = 704457.75	F - N. = 746957.23	E. = 701817.41	G - N. = 746938.86	E. = 699175.13	H - N. = 749578.90	E. = 699161.54	<p><b><sup>17</sup> OPERATOR CERTIFICATION</b></p> <p>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 unleased 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.</p> <p><i>Deana Weaver</i> 8/9/2024</p> <p>Signature _____ Date _____</p> <p>Deana Weaver</p> <p>Printed Name _____</p> <p>dweaver@mec.com</p> <p>E-mail Address _____</p> <p><b><sup>18</sup> SURVEYOR CERTIFICATION</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>APRIL 15, 2024</p> <p>Date of Survey _____</p> <p>Signature and Seal of Professional Surveyor: </p> <p>Certificate Number: 12797</p> <p>Survey No. 10108</p>
A - N. = 752217.18	E. = 699147.23																	
B - N. = 752237.34	E. = 701788.14																	
C - N. = 752256.90	E. = 704429.74																	
D - N. = 749616.77	E. = 704443.99																	
E - N. = 746977.04	E. = 704457.75																	
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SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M.  
CHAVES COUNTY, STATE OF NEW MEXICO  
INTERIM SITE RECLAMATION

 DENOTES  
RECLAMATION AREA  
0.658± ACRES RECLAMATION AREA



MACK ENERGY CORPORATION  
**ROOSTER SWD 1**  
LOCATED 1650 FT. FROM THE NORTH LINE  
AND 1650 FT. FROM THE WEST LINE OF  
SECTION 34, TOWNSHIP 14 SOUTH,  
RANGE 31 EAST, N.M.P.M.  
CHAVES COUNTY, STATE OF NEW MEXICO

APRIL 15, 2024

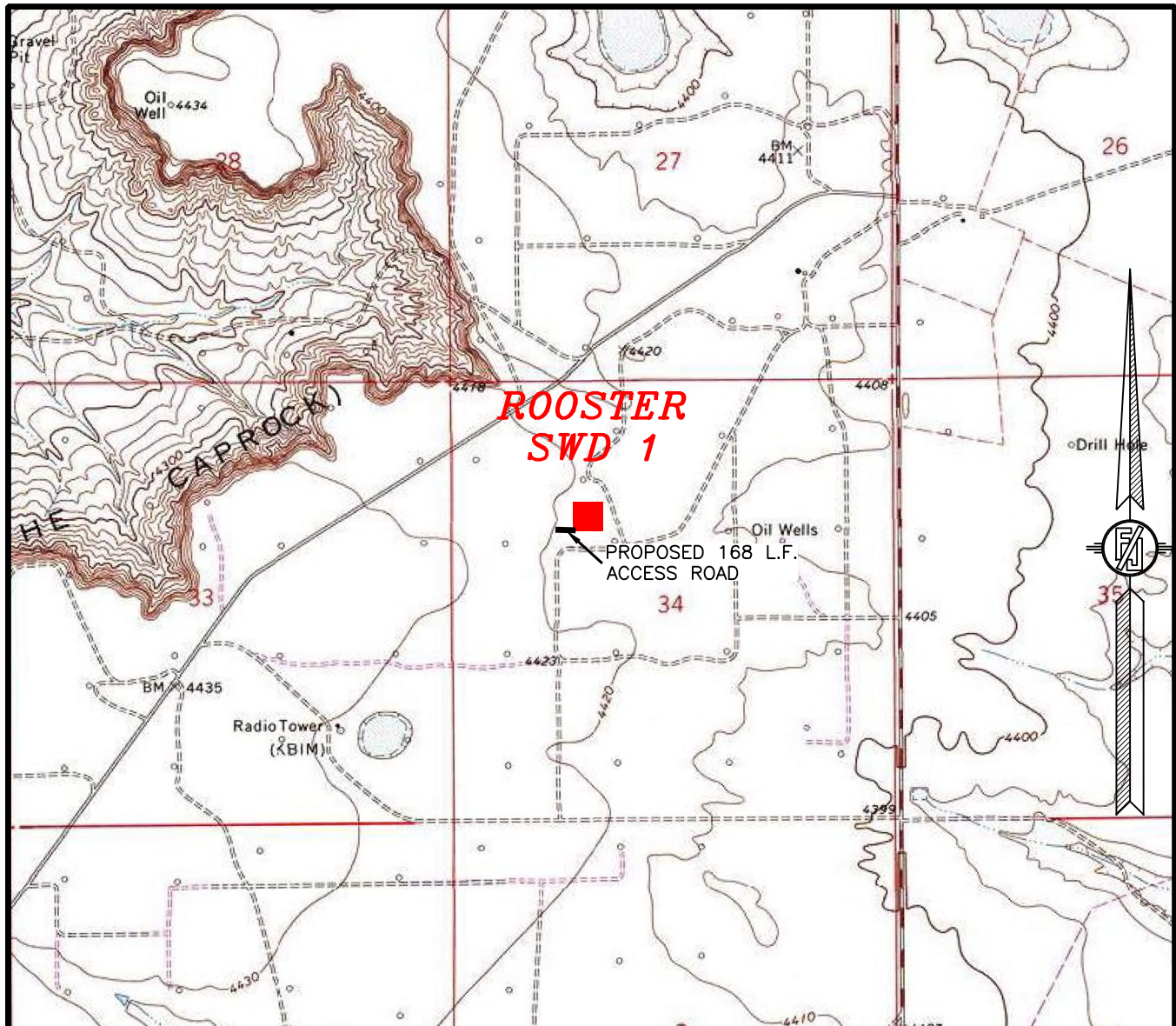
MADRON SURVEYING, INC.

301 SOUTH CANAL  
(575) 234-3327

CARLSBAD, NEW MEXICO

SURVEY NO. 10108

SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M.  
CHAVES COUNTY, STATE OF NEW MEXICO  
LOCATION VERIFICATION MAP



USGS QUAD MAP:  
CEDAR POINT

NOT TO SCALE

**MACK ENERGY CORPORATION**  
**ROOSTER SWD 1**  
LOCATED 1650 FT. FROM THE NORTH LINE  
AND 1650 FT. FROM THE WEST LINE OF  
SECTION 34, TOWNSHIP 14 SOUTH,  
RANGE 31 EAST, N.M.P.M.  
CHAVES COUNTY, STATE OF NEW MEXICO

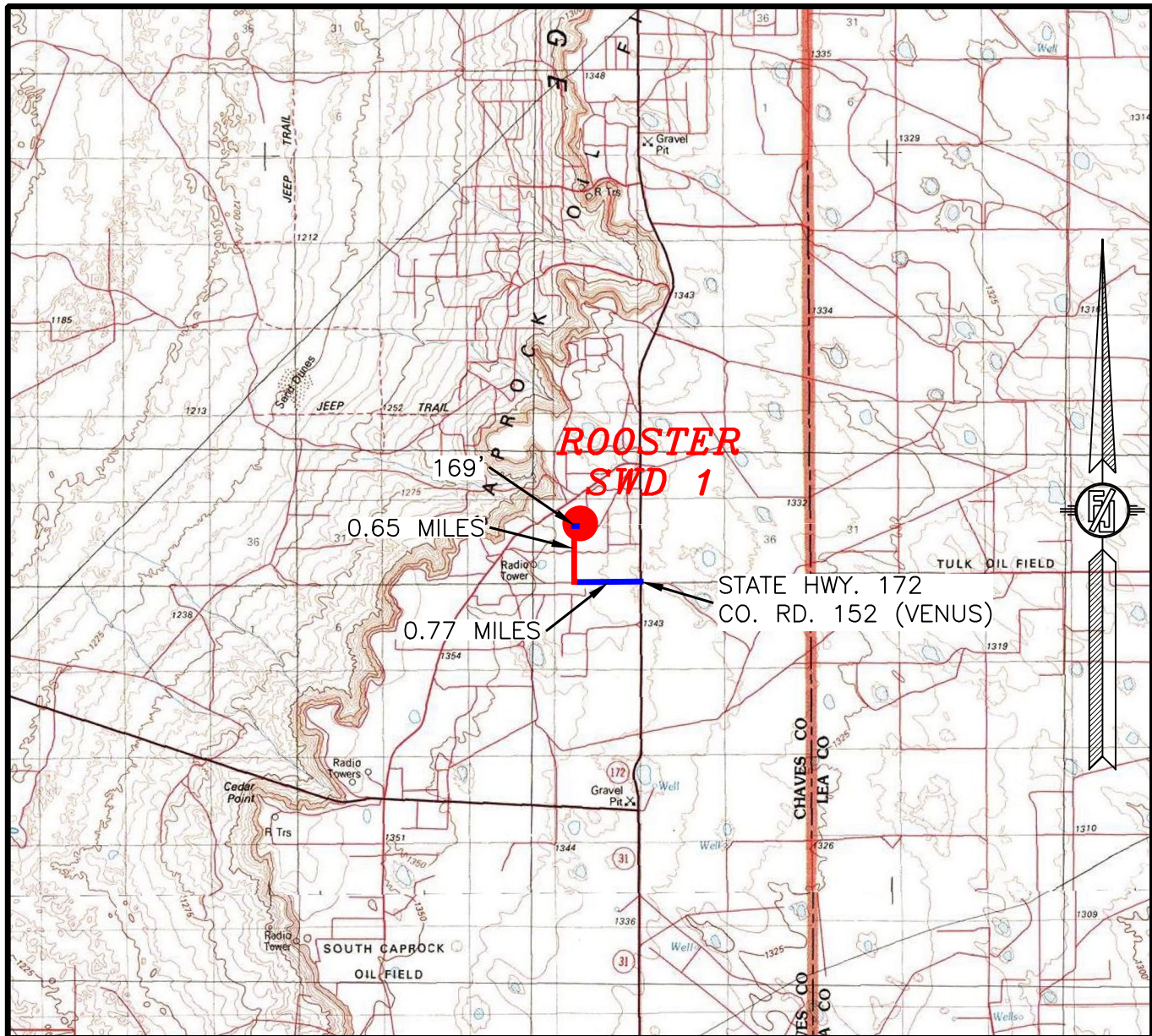
APRIL 15, 2024

MADRON SURVEYING, INC.

301 SOUTH CANAL  
(575) 234-3327

SURVEY NO. 10108  
CARLSBAD, NEW MEXICO

SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M.  
CHAVES COUNTY, STATE OF NEW MEXICO  
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF STATE HWY. 172 & CO. RD. 153 (VENUS), GO EAST ON CO. RD. 153 APPROX. 0.77 MILES, TURN RIGHT (NORTH) ON 20' CALICHE ROAD AND GO APPROX. 0.65 MILES TO A ROAD SURVEY ON RIGHT (EAST), FOLLOW ROAD SURVEY EAST APPROX. 169' TO THE SOUTHWEST PAD CORNER FOR THIS LOCATION.

**MACK ENERGY CORPORATION**  
**ROOSTER SWD 1**  
LOCATED 1650 FT. FROM THE NORTH LINE  
AND 1650 FT. FROM THE WEST LINE OF  
SECTION 34, TOWNSHIP 14 SOUTH,  
RANGE 31 EAST, N.M.P.M.  
CHAVES COUNTY, STATE OF NEW MEXICO

APRIL 15, 2024

MADRON SURVEYING, INC.

301 SOUTH CANAL  
(575) 234-3327SURVEY NO. 10108  
CARLSBAD, NEW MEXICO

SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M.  
CHAVES COUNTY, STATE OF NEW MEXICO  
AERIAL PHOTO



NOT TO SCALE  
AERIAL PHOTO:  
GOOGLE EARTH  
JAN. 2023

**MACK ENERGY CORPORATION**  
**ROOSTER SWD 1**  
LOCATED 1650 FT. FROM THE NORTH LINE  
AND 1650 FT. FROM THE WEST LINE OF  
SECTION 34, TOWNSHIP 14 SOUTH,  
RANGE 31 EAST, N.M.P.M.  
CHAVES COUNTY, STATE OF NEW MEXICO

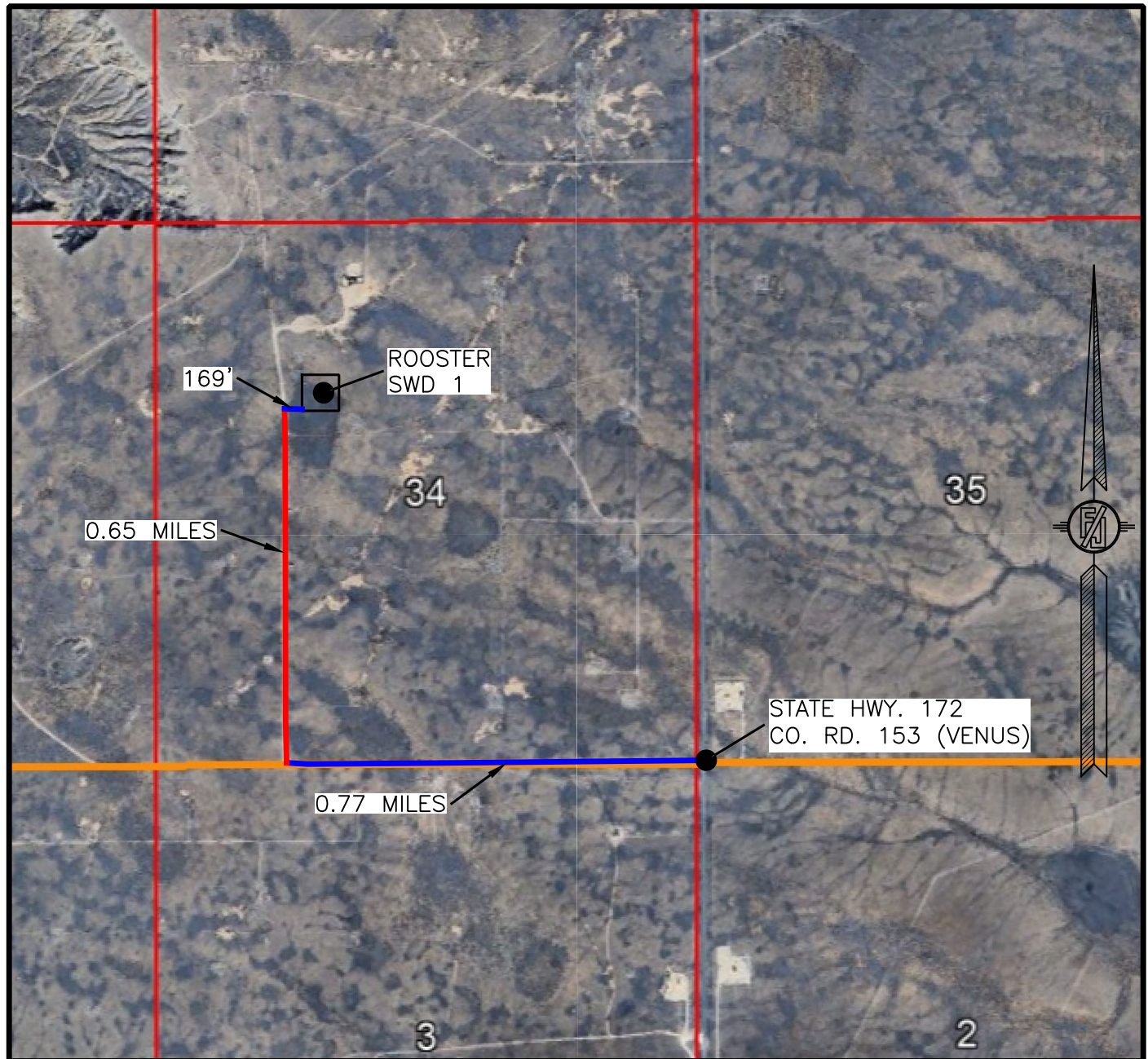
APRIL 15, 2024

MADRON SURVEYING, INC.

301 SOUTH CANAL  
(575) 234-3327

SURVEY NO. 10108  
CARLSBAD, NEW MEXICO

SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M.  
CHAVES COUNTY, STATE OF NEW MEXICO  
AERIAL ACCESS ROUTE MAP



NOT TO SCALE  
AERIAL PHOTO:  
GOOGLE EARTH  
JAN. 2023

**MACK ENERGY CORPORATION**  
**ROOSTER SWD 1**  
LOCATED 1650 FT. FROM THE NORTH LINE  
AND 1650 FT. FROM THE WEST LINE OF  
SECTION 34, TOWNSHIP 14 SOUTH,  
RANGE 31 EAST, N.M.P.M.  
CHAVES COUNTY, STATE OF NEW MEXICO

APRIL 15, 2024

SURVEY NO. 10108

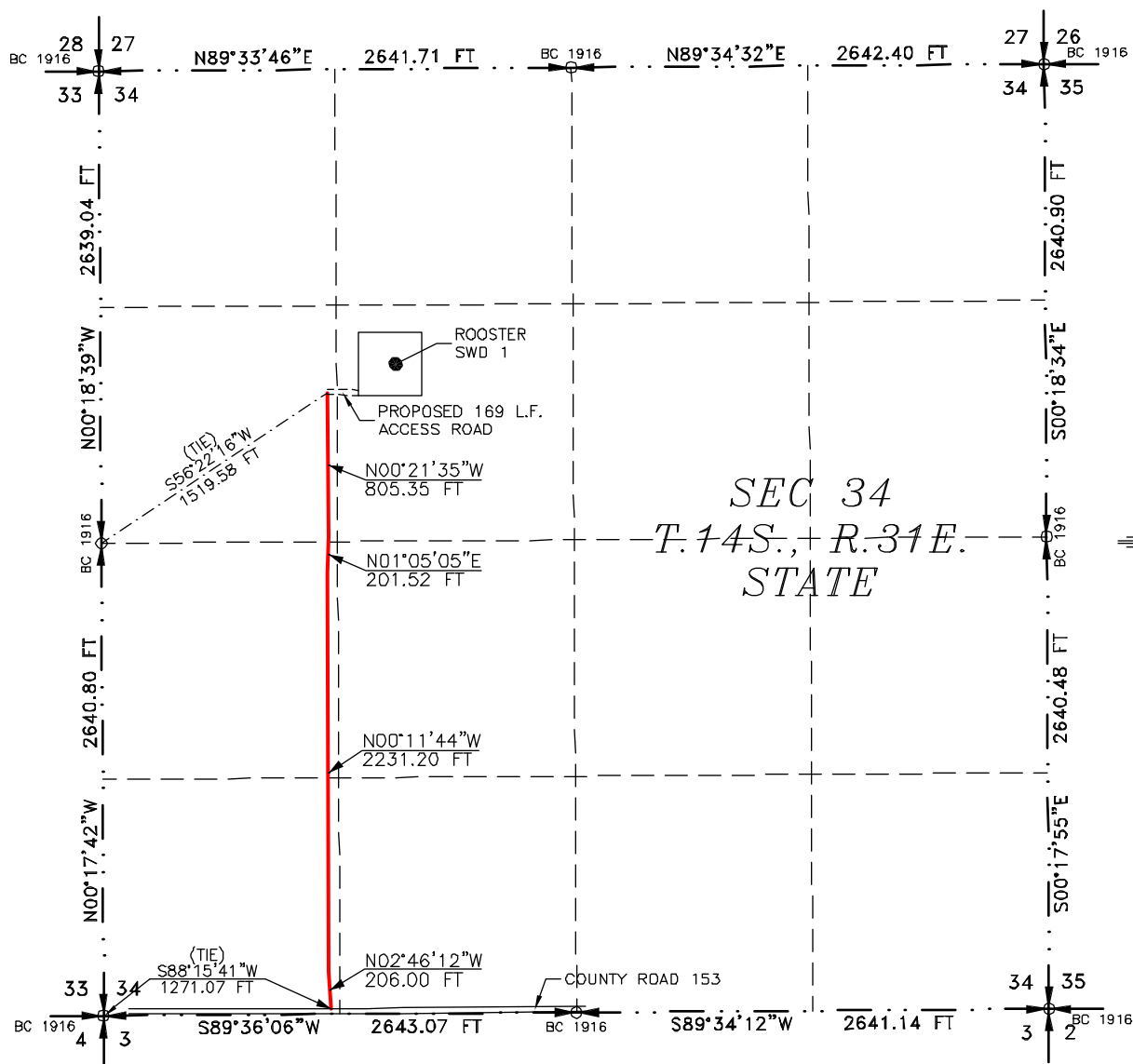
MADRON SURVEYING, INC. 301 SOUTH CANAL  
(575) 234-3327

CARLSBAD, NEW MEXICO

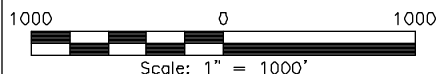
**ACCESS ROAD PLAT**

EXISTING CALICHE ROAD FOR ACCESS TO ROOSTER SWD 1

**MACK ENERGY CORPORATION**  
**CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING**  
**SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M.**  
**CHAVES COUNTY, STATE OF NEW MEXICO**  
**APRIL 15, 2024**



SEE NEXT SHEET (2-2) FOR DESCRIPTION

**GENERAL NOTES**

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 1-2

**MADRON SURVEYING, INC.**  
 301 SOUTH CANAL  
 CARLSBAD, NEW MEXICO 88220  
 (575) 234-3327

**SURVEYOR CERTIFICATE**

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 15th DAY OF JULY 2024.

*FILMON F. JARAMILLO*  
 FILMON F. JARAMILLO, PLS  
 12797  
 NEW MEXICO PROFESSIONAL SURVEYOR

MADRON SURVEYING, INC.  
 301 SOUTH CANAL  
 CARLSBAD, NEW MEXICO 88220  
 Phone (575) 234-3327

SURVEY NO. 10108

**ACCESS ROAD PLAT**

EXISTING CALICHE ROAD FOR ACCESS TO ROOSTER SWD 1

**MACK ENERGY CORPORATION**

**CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING  
SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M.  
CHAVES COUNTY, STATE OF NEW MEXICO  
APRIL 15, 2024**

**DESCRIPTION**

A STRIP OF LAND 30 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M., CHAVES COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE SW/4 SW/4 OF SAID SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE SOUTHWEST CORNER OF SAID SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S88°15'41"W, A DISTANCE OF 1271.07 FEET;  
THENCE N02°46'12"W A DISTANCE OF 206.00 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;  
THENCE N00°11'44"W A DISTANCE OF 2231.20 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;  
THENCE N01°05'05"E A DISTANCE OF 201.52 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;  
THENCE N00°21'35"W A DISTANCE OF 805.35 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE EAST QUARTER CORNER OF SAID SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S56°22'16"W, A DISTANCE OF 1519.58 FEET;

SAID STRIP OF LAND BEING 3444.07 FEET OR 208.73 RODS IN LENGTH, CONTAINING 2.372 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SW/4 SW/4	1291.16 L.F.	78.25 RODS	0.889 ACRES
NW/4 SW/4	1320.43 L.F.	80.03 RODS	0.909 ACRES
SW/4 NW/4	832.48 L.F.	50.45 RODS	0.574 ACRES

**SURVEYOR CERTIFICATE**

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 14<sup>TH</sup> DAY OF JULY 2024

FILIMON F. JARAMILLO  
NEW MEXICO PROFESSIONAL SURVEYOR  
NO. 12797  
301 SOUTH CANAL  
CARLSBAD, NEW MEXICO 88220  
(575) 234-3327

MADRON SURVEYING, INC.  
301 SOUTH CANAL  
CARLSBAD, NEW MEXICO 88220  
Phone (575) 234-3327

**SURVEY NO. 10108**

**GENERAL NOTES**

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

**SHEET: 2-2**

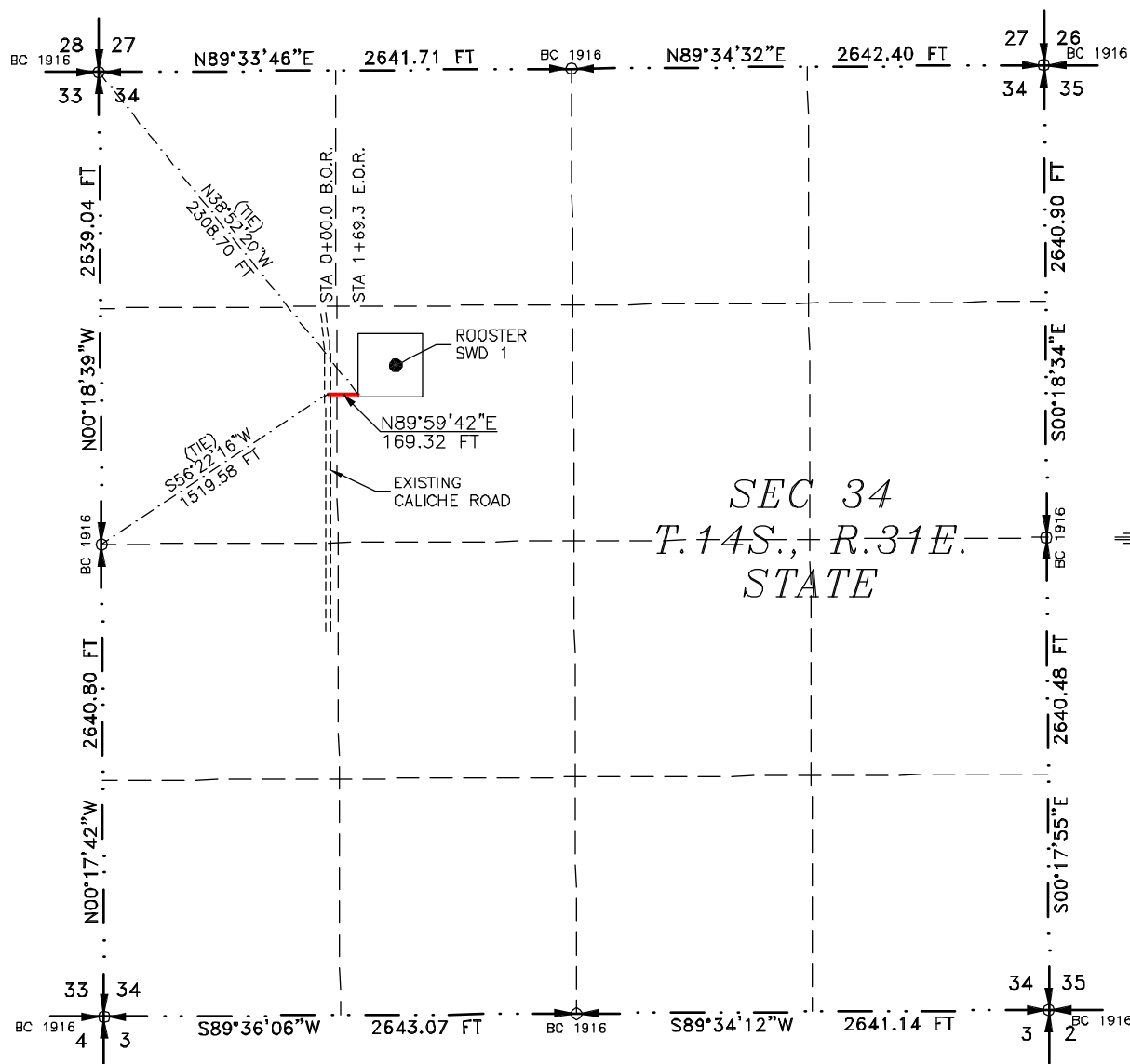
**MADRON SURVEYING, INC.** 301 SOUTH CANAL CARLSBAD, NEW MEXICO

**ACCESS ROAD PLAT**

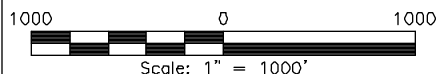
PROPOSED ACCESS ROAD FOR ROOSTER SWD 1

**MACK ENERGY CORPORATION**

**CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING  
SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M.  
CHAVES COUNTY, STATE OF NEW MEXICO  
APRIL 15, 2024**



SEE NEXT SHEET (2-2) FOR DESCRIPTION

**GENERAL NOTES**

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 1-2

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO (575) 234-3327

**SURVEYOR CERTIFICATE**

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 8<sup>TH</sup> DAY OF JULY 2024.

FILMON F. JARAMILLO  
12797  
NEW MEXICO PROFESSIONAL SURVEYOR  
301 SOUTH CANAL  
CARLSBAD, NEW MEXICO 88220  
(575) 234-3327

MADRON SURVEYING, INC.  
301 SOUTH CANAL  
CARLSBAD, NEW MEXICO 88220  
Phone (575) 234-3327

SURVEY NO. 10108

**ACCESS ROAD PLAT**

PROPOSED ACCESS ROAD FOR ROOSTER SWD 1

**MACK ENERGY CORPORATION**

**CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING  
SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M.  
CHAVES COUNTY, STATE OF NEW MEXICO  
APRIL 15, 2024**

**DESCRIPTION**

A STRIP OF LAND 30 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M., CHAVES COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE SW/4 NW/4 OF SAID SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE WEST QUARTER CORNER OF SAID SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S56°22'16"W, A DISTANCE OF 1519.58 FEET;  
THENCE N89°59'42"E A DISTANCE OF 169.32 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTHWEST CORNER OF SAID SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS N38°52'20"W, A DISTANCE OF 2308.70 FEET;

SAID STRIP OF LAND BEING 169.32 FEET OR 10.26 RODS IN LENGTH, CONTAINING 0.117 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SW/4 NW/4	51.02 L.F.	3.09 RODS	0.036 ACRES
SE/4 NW/4	118.30 L.F.	7.17 RODS	0.081 ACRES

**GENERAL NOTES**

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 2-2

**MADRON SURVEYING, INC.** 301 SOUTH CANAL CARLSBAD, NEW MEXICO 88220  
(575) 234-3327

**SURVEYOR CERTIFICATE**

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 14<sup>TH</sup> DAY OF JULY 2024



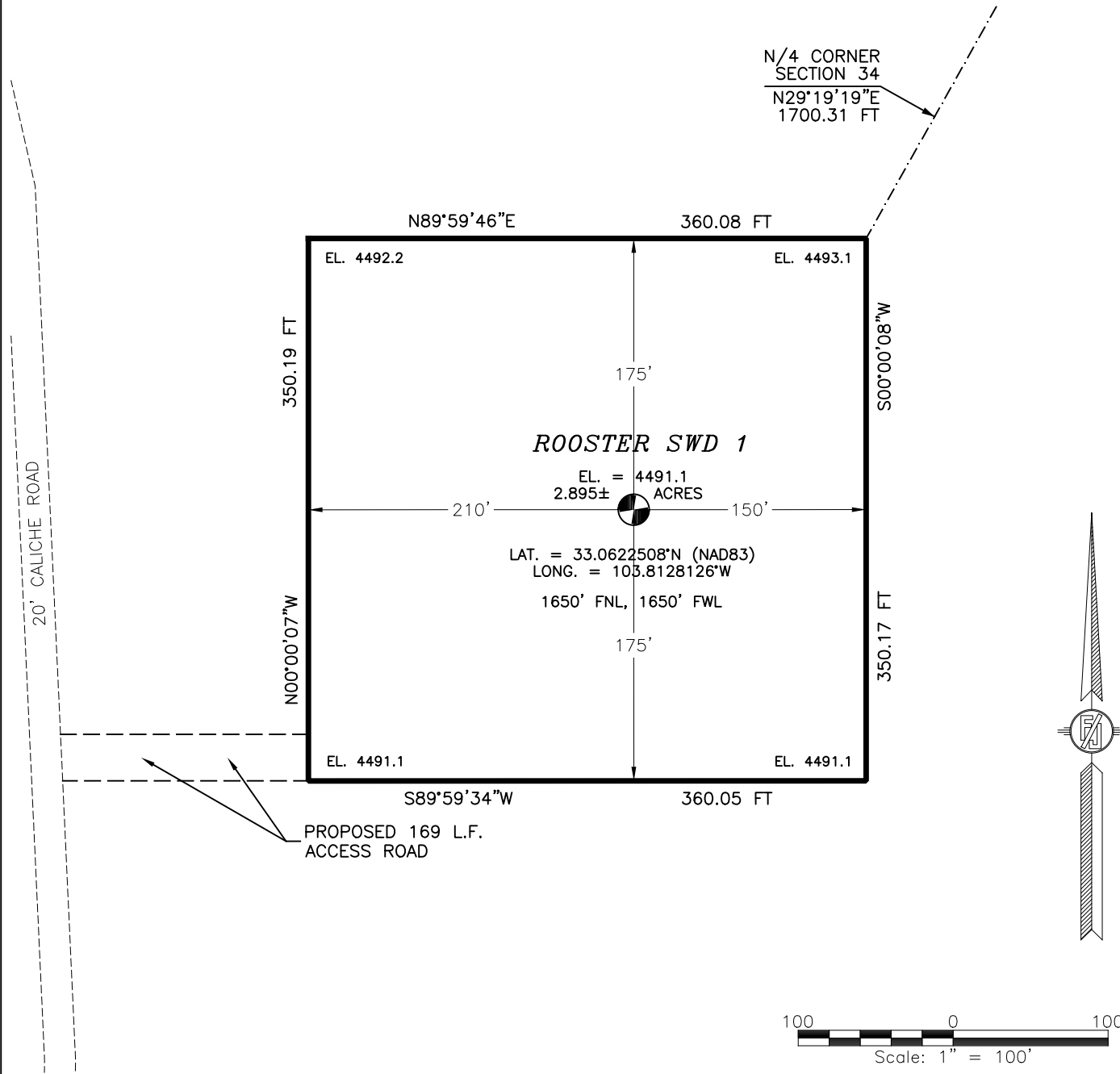
MADRON SURVEYING, INC.  
301 SOUTH CANAL  
CARLSBAD, NEW MEXICO 88220  
Phone (575) 234-3327

SURVEY NO. 10108

ROOSTER SWD 1

MACK ENERGY CORPORATION  
IN THE NW/4 SE/4 NW4 OF  
SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M.  
CHAVES COUNTY, STATE OF NEW MEXICO

APRIL 15, 2024



DESCRIPTION

A CERTAIN PIECE OR PARCEL OF LAND AND REAL ESTATE LYING IN STATE OF NEW MEXICO LAND IN THE NW/4 SE/4 NW4 OF SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M., CHAVES COUNTY, NEW MEXICO.

BEGINNING AT THE NORTHEAST CORNER OF THE PARCEL, WHENCE THE NORTH QUARTER CORNER OF SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS N29°19'19"E, A DISTANCE OF 1700.31 FEET;  
THENCE S00°00'08"W A DISTANCE OF 350.17 FEET TO THE SOUTHEAST CORNER OF THE PARCEL;  
THENCE S89°59'34"W A DISTANCE OF 360.05 FEET TO THE SOUTHWEST CORNER OF THE PARCEL;  
THENCE N00°00'07"W A DISTANCE OF 350.19 FEET TO THE NORTHWEST CORNER OF THE PARCEL;  
THENCE N89°59'46"E A DISTANCE OF 360.08 FEET TO THE NORTHEAST CORNER OF THE PARCEL, THE POINT OF BEGINNING;  
CONTAINING 2.895 ACRES MORE OR LESS.

GENERAL NOTES

- 1.) THE INTENT OF THIS SURVEY IS TO ACQUIRE A BUSINESS LEASE FOR THE PURPOSE OF BUILDING A WELL PAD
- 2.) BASIS OF BEARING IS NEW MEXICO STATE PLANE EAST ZONE MODIFIED TO THE SURFACE (NAD83), COORDINATES ARE NAD 83, ELEVATIONS ARE NAVD 88

DRIVING DIRECTIONS: FROM THE INTERSECTION OF STATE HWY. 172 & CO. RD. 153 (VENUS), GO EAST ON CO. RD. 153 APPROX. 0.77 MILES, TURN RIGHT (NORTH) ON 20' CALICHE ROAD AND GO APPROX. 0.65 MILES TO A ROAD SURVEY ON RIGHT (EAST), FOLLOW ROAD SURVEY EAST APPROX. 169' TO THE SOUTHWEST PAD CORNER FOR THIS LOCATION.

SHEET: 1-3

MADRON SURVEYING, INC.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 18th DAY OF JULY 2024

FILIMON F. JARAMILLO, SURVEYOR  
MADRON SURVEYING, INC.  
301 SOUTH CANAL  
CARLSBAD, NEW MEXICO 88220  
Phone (575) 234-3327

FILIMON F. JARAMILLO, PLS 12797  
301 SOUTH CANAL  
(575) 234-3327

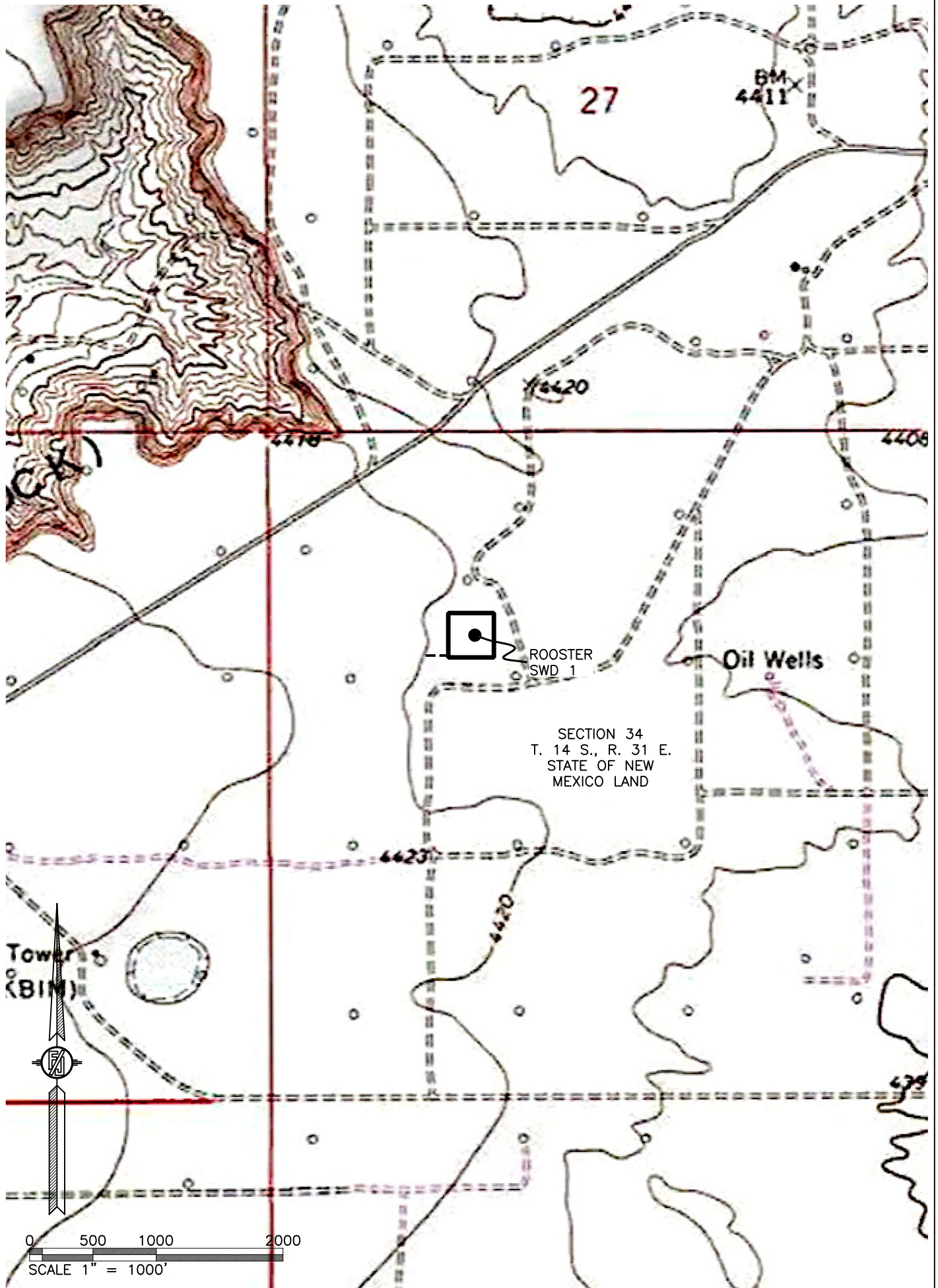
SURVEY NO. 10108  
CARLSBAD, NEW MEXICO

ROOSTER SWD 1

MACK ENERGY CORPORATION  
IN THE NW/4 SE/4 NW4 OF  
SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M.  
CHAVES COUNTY, STATE OF NEW MEXICO

APRIL 15, 2024

QUAD MAP



SHEET: 2-3

MADRON SURVEYING, INC.

301 SOUTH CANAL  
(575) 234-3327

SURVEY NO. 10108  
CARLSBAD, NEW MEXICO

ROOSTER SWD 1

MACK ENERGY CORPORATION  
IN THE NW/4 SE/4 NW4 OF  
SECTION 34, TOWNSHIP 14 SOUTH, RANGE 31 EAST, N.M.P.M.  
CHAVES COUNTY, STATE OF NEW MEXICO

APRIL 15, 2024

AERIAL PHOTO



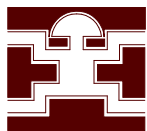
SHEET: 3-3

SURVEY NO. 10108

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO  
(575) 234-3327

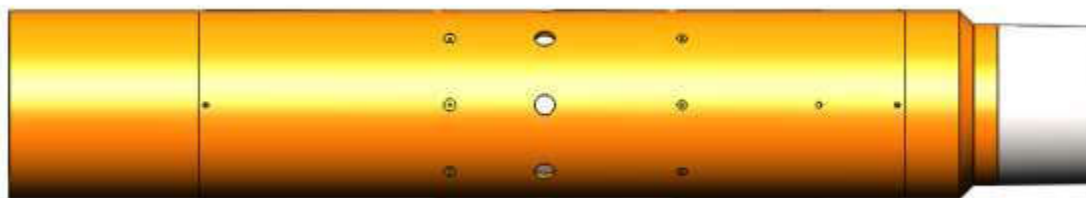
**Rooster SWD #1**  
**1650 FNL 1650 FWL**  
**Sec. 34 T14S R31E**  
**Formation Tops**

Quaternary	Surface
Rustler	1360'
Top Salt	1450'
Base Salt	2020'
Yates	2330'
Seven Rivers	2545'
Queen	3080'
Grayburg	3455'
San Andres	3775'
Glorieta	5300'
Tubb	6615'
Abo	7390'
Wolfcamp	8710'
Cisco	9590'
Atoka	11,150'
Miss	11,840'
Woodford	12,835
Devonian	12,900'
Montoya	13,600'



## TAM INTERNATIONAL

The Stage Mechanical DV tool is a device that provides a selective communication path inside the casing to the annulus. It contains an inner sleeve with a shifting profile operated by dropping a free fall device to seat. Once on seat pressure is applied, the sleeve shifts into the open position exposing ports to allow for stage cementing. A closing plug following the stage cement lands in the DV tool and closes the ports permanently. All components are PDC drillable. The Stage Mechanical DV Tool simple operation and reliability, combined with TAM's inflatable Casing Annulus Packer, make it the ideal choice stage cement jobs.



General Description	5 ½" DV Tool L80	5 ½" DV Tool P110	7" DV Tool L80	7" DV Tool P110
Casing Size	5.5 in	5.5 in	7.0 in	7.0 in
Casing Weight	17-23 ppf	17-23 ppf	26-32 ppf	26-32 ppf
Body OD	6.625 in	6.625 in	8.2 in	8.2 in
Material Grade	L80	P110	L80	P110
Burst Rating	9,240 psi	12,000 psi	8,300 psi	11,410psi
Collapse Rating	8,090 psi	9,540 psi	7,410 psi	9,140 psi
Drillout Diameter	4.777 in	4.777	6.161 in	6.161 in

TAM International, Inc. • 6505 FM 1788, Midland, Texas 79706 • Phone: 432.250.6024  
 E-Mail: [info@tamintl.com](mailto:info@tamintl.com) • Web: [www.tamintl.com](http://www.tamintl.com)  
 ISO 9001:2008 Certified Company

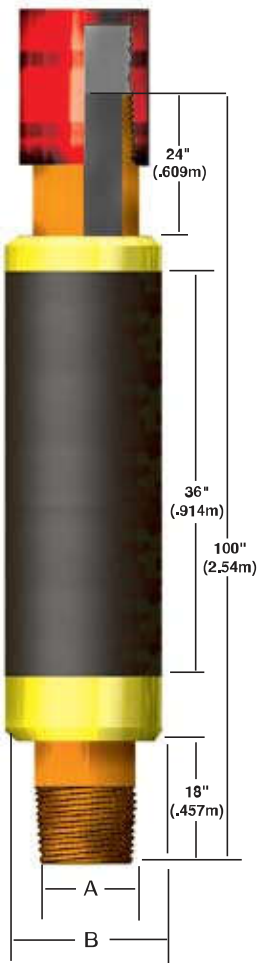
Casing Size

Casing OD A		Product OD B	
in.	mm	in.	mm
1.90	48	3.06	78
2.38	60	3.50	89
2.88	73	4.00	102
3.50 <sup>(1)</sup>	89	4.38	111
3.50	89	4.63	118
4.00	102	5.13	130
4.50	114	5.56	141
5.00	127	6.06	154
5.50	140	6.56	167
5.50 <sup>(2)</sup>	140	7.50	191
6.63	168	7.69	195
6.63 <sup>(2)</sup>	168	8.06	205
7.00	178	8.06	205
7.63	194	8.75	222
8.63	219	10.25	260
9.63	244	10.88	276
10.75	273	12.75	324
11.75	298	13.75	349
13.38	340	15.25	387
16.00	406	18.50	470
18.63	473	20.63	524
20.00	508	23.00	584

<sup>(1)</sup> Ultra Slim  
<sup>(2)</sup> Dual Layer

Partially Reinforced XTRACAP		
5' Seal	10' Seal	20' Seal
C=5' (1.5m)	C=10' (3.1m)	C=20' (6.1m)
F=15' (4.6m)	F=18' 6" (5.7m)	F=30' (9.2m)

TAMCAP



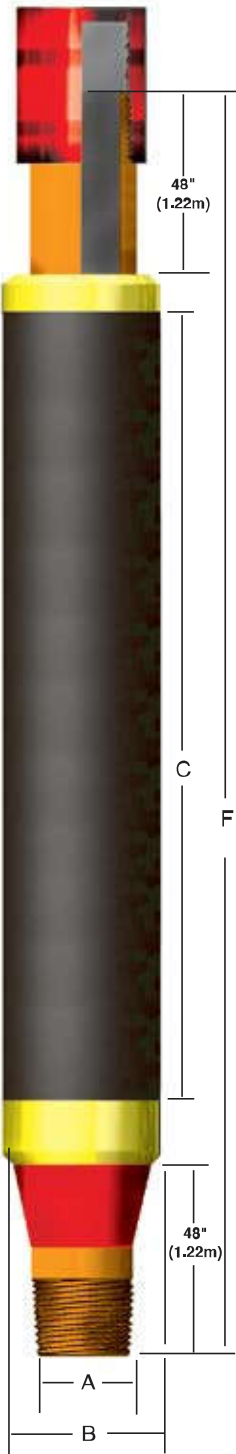
**TAMCAP** = TC  
full steel reinforced  
3 ft. inflation element

LONGCAP



**LONGCAP** = LC  
full steel reinforced  
10 ft. inflation element

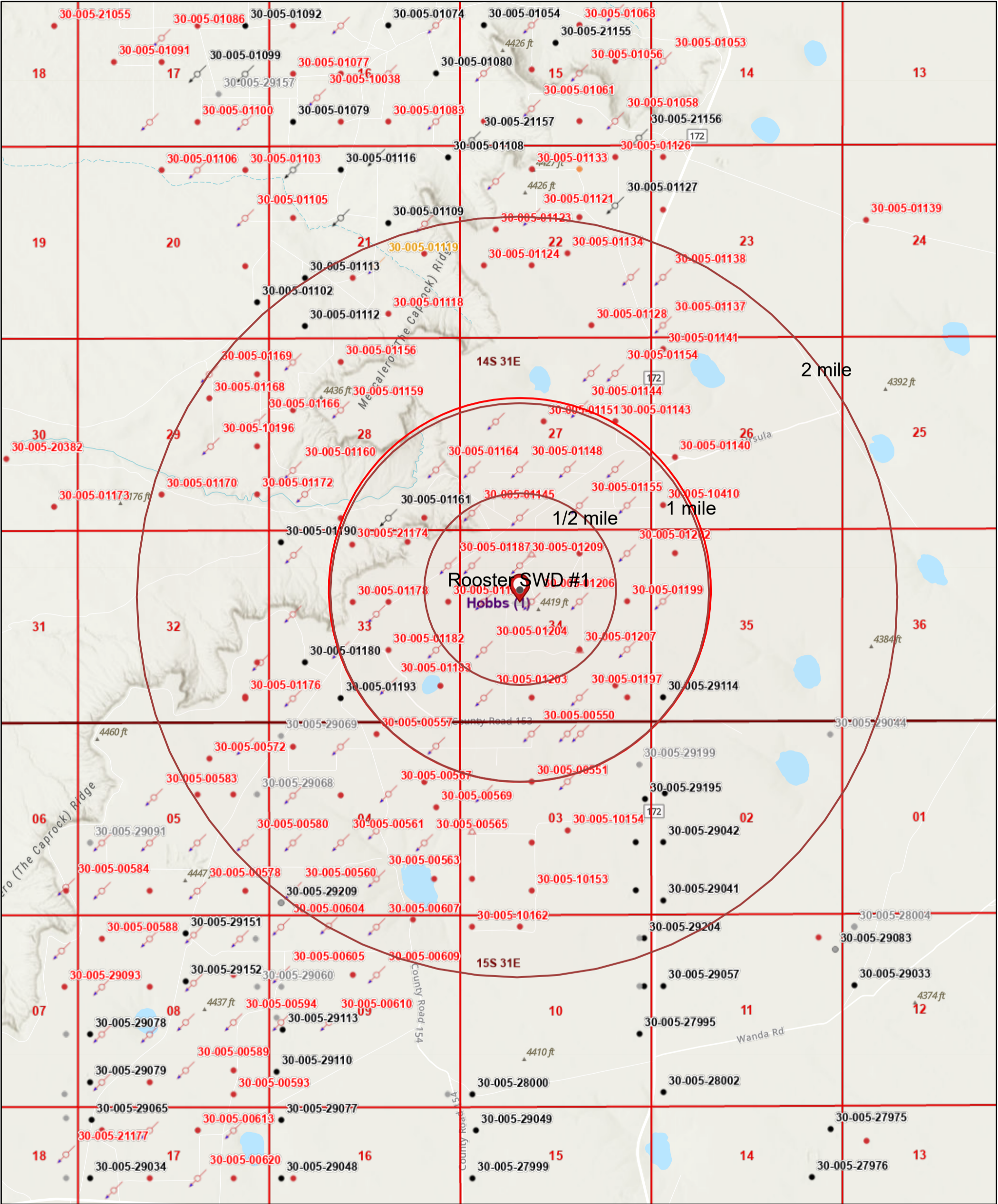
XTRACAP



**XTRACAP** = XC partially  
reinforced 5, 10, or 20 ft.  
inflation element

## Attachment 2

# OCD Well Locations



7/9/2024, 9:19:55 AM

- Override 1

Wells - Large Scale

Injection, Active

Injection, Plugged
- Injection, Temporarily Abandoned

Oil, Active

Oil, Cancelled

Oil, Plugged
- Oil, Temporarily Abandoned

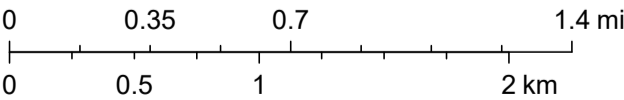
Salt Water Injection, Plugged

OCD Districts

PLSS First Division

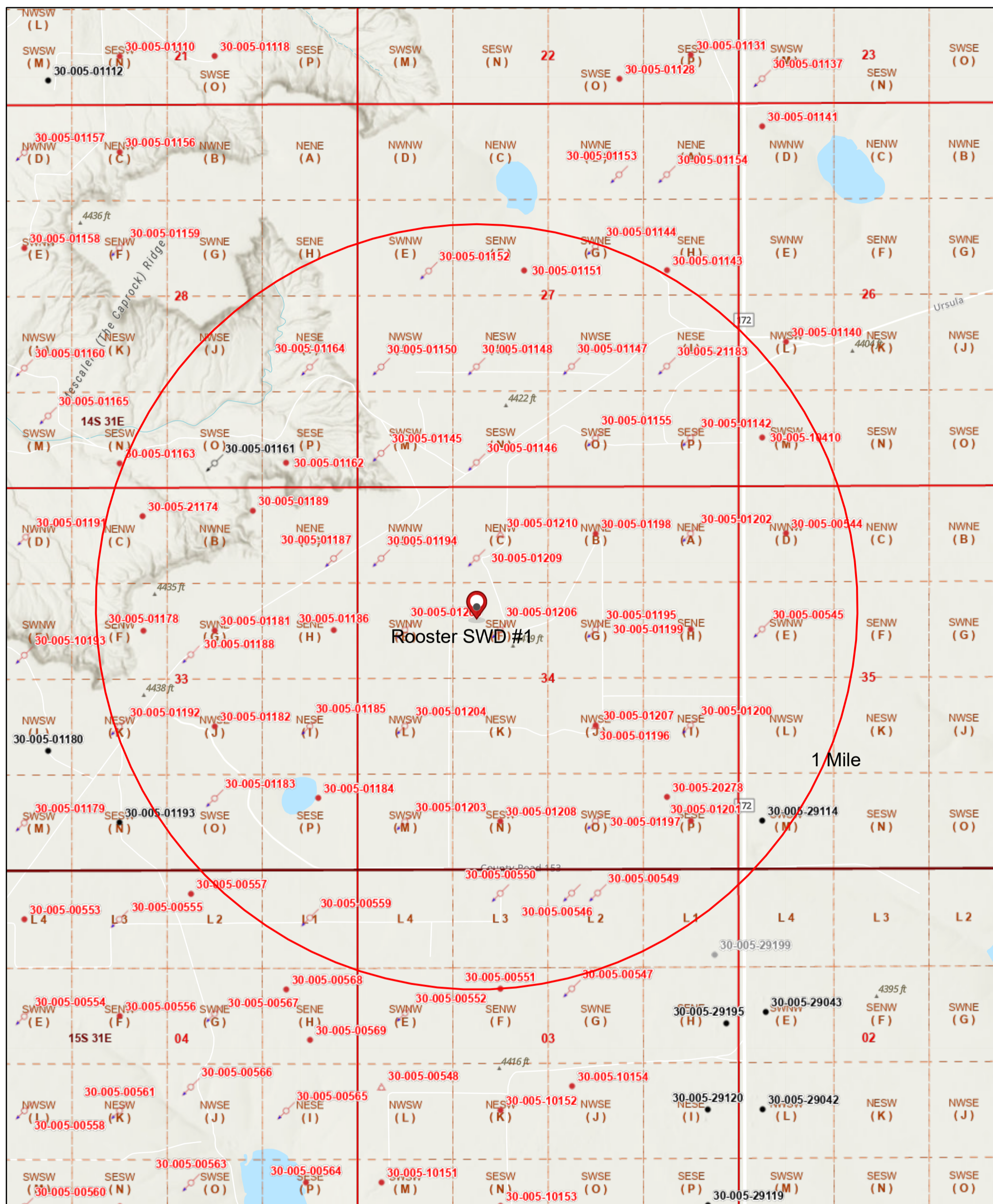
PLSS Townships

1:36,112



Esri, NASA, NGA, USGS, FEMA, Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., OCD, BLM, Texas Parks & Wildlife, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/ NASA, USGS, EPA, NPS, US Census Bureau, USDA,

# 1 Mile Well Map



2/25/2025, 8:58:50 AM

## Wells - Large Scale

- Oil, Plugged

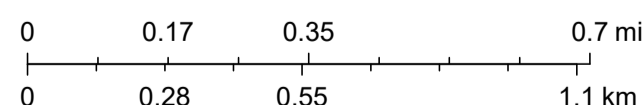
△ Salt Water Injection, Plugged

PLSS Second Division

PLSS First Division

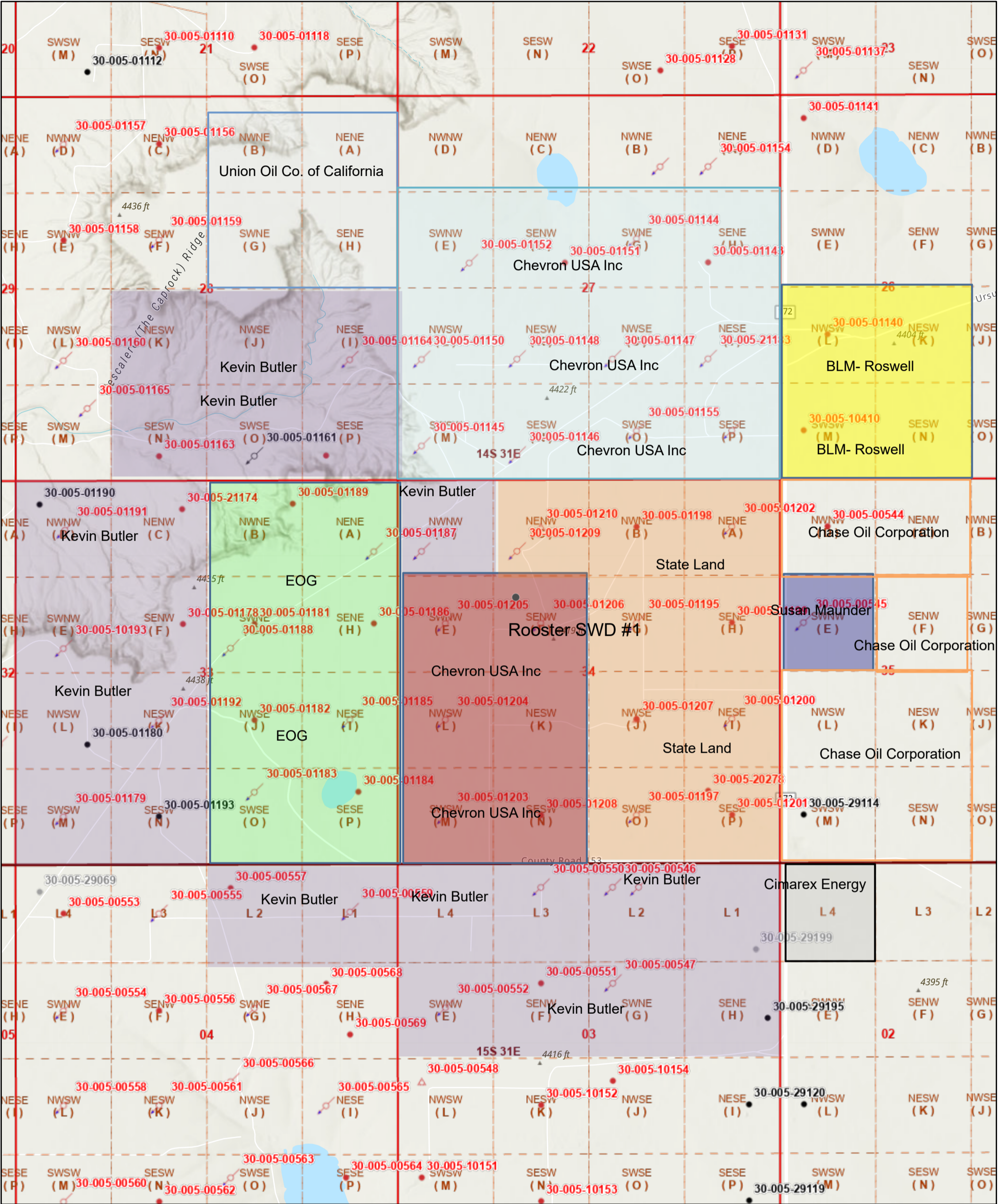
☐ PLSS Townships

1:18,056



Esri, NASA, NGA, USGS, FEMA, OCD, Esri Community  
Maps Contributors, New Mexico State University, Texas  
Parks & Wildlife, Esri, TomTom, Garmin, SafeGraph,  
GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US  
Census Bureau, USDA, USFWS, BLM

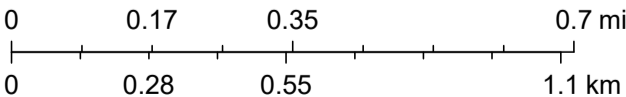
# Leaseholder Map



4/23/2024, 2:26:32 PM

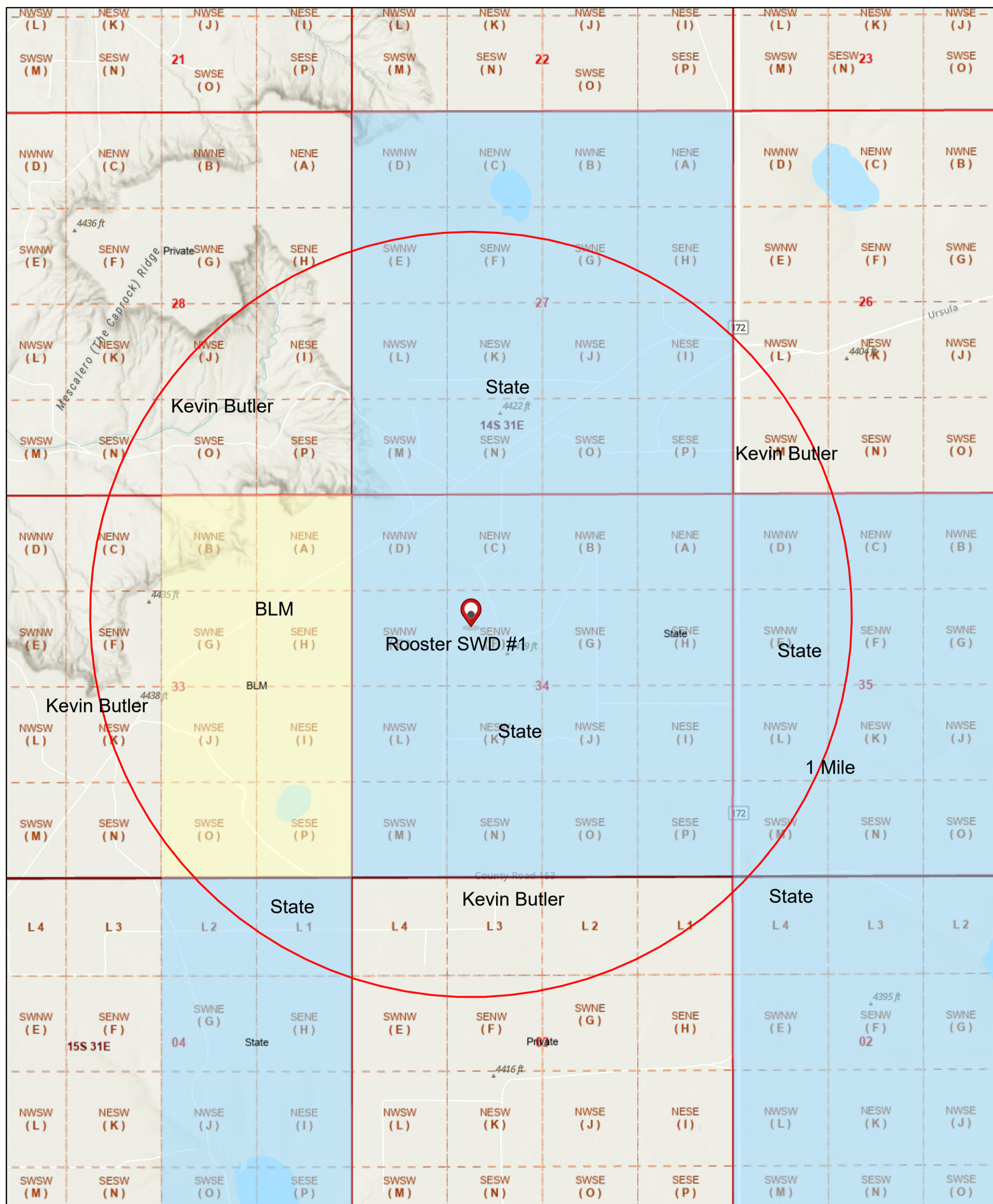
- Areas
- Override 1
  - Override 2
  - Override 3
  - Override 4 Wells - Large Scale
  - Override 5
  - Override 6
  - Override 7
  - Override 8
  - Override 9
  - Override 10
  - Override 11
- Oil, Active
- Oil, Cancelled
- Oil, Plugged
- Salt Water Injection, Plugged
- PLSS Second Division
- PLSS First Division
- PLSS Townships
- Injection, Active
- Injection, Plugged

1:18,056



Esri, NASA, NGA, USGS, FEMA, Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., Esri Community Maps Contributors, New Mexico State University, Texas Parks & Wildlife, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/

# 1 Mile Surface Ownership Map




2/25/2025, 9:09:11 AM

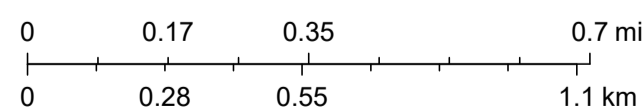
Land Ownership  PLSS Second Division

BLM  PLSS First Division

P  PLSS Townships

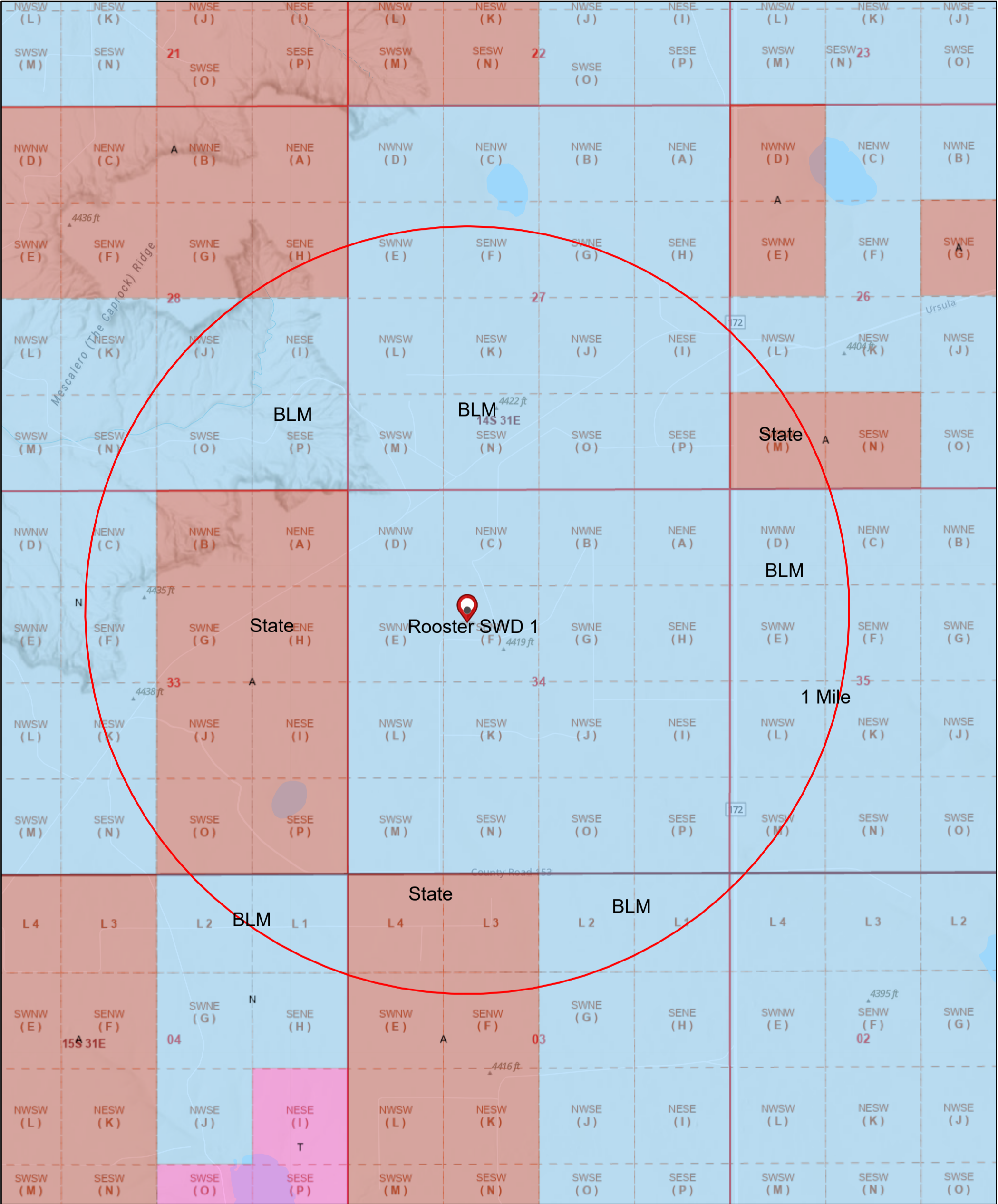
 S

1:18,056



U.S. BLM, Esri, NASA, NGA, USGS, FEMA, OCD, Esri  
Community Maps Contributors, New Mexico State  
University, Texas Parks & Wildlife, Esri, TomTom, Garmin,  
SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS,  
EPA, NPS, US Census Bureau, USDA, USFWS, BLM

1 Mile Mineral Ownership Map

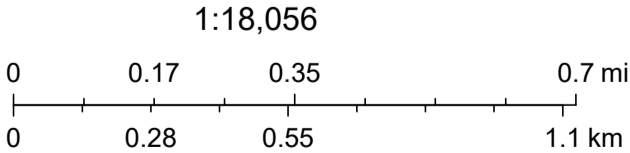


2/25/2025, 9:14:32 AM

Mineral Ownership

- A-All minerals are owned by U.S.
- N-No minerals are owned by the U.S.
- T-Other minerals are owned by the U.S.

- PLSS Second Division
- PLSS First Division
- PLSS Townships



U.S. BLM, Esri, NASA, NGA, USGS, FEMA, OCD, Esri Community Maps Contributors, New Mexico State University, Texas Parks & Wildlife, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, BLM

Operator	Well Name	API #	County	Footage	Sec	TWN	RNG	Type	Status	Spud Date	Comp Date	TD	PBTD	Comp Zone	Comp Interval	Hole Size	Casing Prog	Cement	Cmt Plug	
Mack Energy Corporation	Rooster SWD #1		Chaves	1650 FNL 1650 FWL	34	14S	31W	SWD	New			13600	13600	SWD; Devonian	12,900-13600' Open Hole	17 1/2" 12 1/4" 8 3/4"	13 3/8" @ 1,400' 9 5/8" @ 3,900' 7" @ 12,905'	925sx 1125sx 1750sx		
Pre-Ongard Well Operator	Pre-Ongard Well #3	30-005-01152	Chaves	2310 FNL 990 FWL	27	14S	31E	Oil	P&A	5/31/1957	6/11/1957	3125	3125	Caprock Queen	3114-3125' Open Hole	11"	8 5/8" @ 268'	175sx	CIBP @ 3010' w/ 35' cmt cap	
Lewis Burleson Inc	State D #3								5/15/1986							7 7/8"	4 1/2" @ 3114'	75sx	CIBP @ 280'	
																			Perf @ 268' w/ 55sx 95sx @ 0-268'	
Pre-Ongard Well Operator	Pre-Ongard Well #2	30-005-01151	Chaves	2310 FNL 2310 FWL	27	14S	31E	Oil	P&A	5/15/1957	5/24/1957	3100'	3093'	Caprock Queen	3093-3112' Open Hole	11"	8 5/8" @ 258'	175sx	CIBP @ 2985' w/ 35' cmt cap	
Lewis Burleson Inc	State D #2								9/9/1987							7 7/8"	4 1/2" @ 3093'	75sx	CIBP @ 260'	
																			Perf Sqz @ 252' Circ Cmt w/ 128sx in & out of pipe	
Pre-Ongard Well Operator	Pre-Ongard Well #8	30-005-01144	Chaves	1980 FNL 1980 FEL	27	14S	31E	Oil	P&A	1/21/1957	1/29/1957	3111'		Caprock Queen	3094-3096'	10 3/4"	8 5/8" @ 328'	175sx	CIBP @ 3094' w/ 35' cmt cap	
Miller & Miller Auctioneers Inc	Eastcap Queen #8								2/4/1975							7 7/8"	5 1/2" @ 3111'	100sx	Perf @ 245'	
																			100' Cmt Plug w/ 10sx	
Pre-Ongard Well Operator	Pre-Ongard Well #7	30-005-01143	Chaves	2310 FNL 990 FEL	27	14S	31E	Oil	P&A	8/21/1957	8/28/1957	3124'		Caprock Queen	3097-3100'	11"	8 5/8" @ 313'	175sx	CIBP @ 3097' w/ 35' cmt cap	
Miller & Miller Auctioneers Inc	Eastcap Queen #7								2/4/1975							7 7/8"	5 1/2" @ 3124'	100sx	Perf @ 1134' w/ 100' cmt plug	
																			100' cmt @ 313'	
																			Cap w/ 10sx Cmt	
Union Oil Company of Califom	South Caprock Queen Unit #9	30-005-01164	Chaves	1650 FSL 660 FEL	28	14S	31E	Oil	P&A	6/3/1957	6/8/1957	3037'		Caprock Queen	3013-3016'	11"	8 5/8" @ 199'	125sx	50sx cmt ply @ 2832-3016'	
									2/28/1969							7 7/8"	5 1/2" @ 3037'	175sx	150sx cmt plug @0-1300'	
																			5sx cmt plug @ 0-20'	
Pre-Ongard Well Operator	Pre-Ongard Well #11	30-005-01150	Chaves	1650 FSL 330 FWL	27	14S	31E	Oil	P&A	2/6/1957	2/14/1957	3125'		Caprock Queen	3106-3125'	11"	8 5/8" @ 242'	150sx	CIBP @ 3008' w/ 5sx cmt cap	
Miller & Miller Auctioneers Inc	Eastcap Queen Pool Unit #11								1/24/1974							7 7/8"	4 1/2" @ 3113'	75sx	40sx cmt plug @ 792'	
																			40sx cmt plug @ 280'	
																			10sx cmt plug @ surface	
Pre-Ongard Well Operator	Pre-Ongard Well #4	30-005-01148	Chaves	1650 FSL 1650 FWL	27	14S	31E	Oil	P&A	12/7/1956	12/14/1956	3120'		East Caprock Queen	3106-3113'	11"	8 5/8" @ 253'	150sx	CIBP @ 3010' w/ 35' cmt cap	
Lewis Burleson Inc	State D #4								5/15/1986							7 7/8"	4 1/2" @ 3120'	75sx	CIBP @ 268'	
																			Perf @ 258' Cmt 25sx 100sx cmt to surface	
Pre-Ongard Well Operator	Pre-Ongard Well #13	30-005-01147	Chaves	165																

																			100' cmt plug @ 305'	
																			20' cmt plug @ surface	
Crain Hot Oil Service, LLC	Gulf Deep #1	30-005-01210	Chaves	660 FNL 1980 FWL	34	14S	31E	Oil	P&A	11/7/1958	4/3/1959	13,258'		SWD; San Andres	13,221-13,246'	17 1/2"	13 3/8" @ 428'	550sx	CIBP @ 12,150' w/ 25sx 12,150-11,952'	
									3/11/2024					SWD; Devonian		12 1/4"	9 5/8" @ 3817'	1950sx	25sx cmt plug @ 9700-9502'	
																7 7/8"	5 1/2" @ 13,258'	1900sx	50sx cmt plug @ 8660-8263'	
																			25sx cmt plug @ 7450-7203'	
																			25sx cmt plug @ 5400-5153'	
																			Perf @ 4210' Sqz 25sx @ 4210-4090'	
																			Tag 4075'	
																			Perf @ 3870' Sqz 125sx @ 3870-3400'	
																			Tag 3350'	
																			Perf @ 3130' Sqz 25sx @ 3130-2980'	
																			Tag @ 2940'	
																			Perf @ 2380' Sqz 25sx @ 2380-2230'	
																			Tag @ 2190'	
																			Perf @ 500' Sqz 180sx @ 500', Circ to Surface	
Pre-Ongard Well Operator	Pre-Ongard Well #19	30-005-01209	Chaves	990 FNL 1650 FWL	34	14S	31E	Water Injectio	P&A	5/17/1956	6/7/1956	3089'		Eastcap Queen	3077-3089' open hole	17"	13 3/8" @ 300'	300sx	CIBP @ 3077 w/ 35' cmt cap	
Miller & Miller Auctioneers Inc	Eastcap Queen #19								2/4/1975							11"	8 5/8" @ 1370'		100' cmt plug @ 335'	
																7"	5 1/2" @ 3077'	100sx	Cap w/ 10sx cmt	
Pre-Ongard Well Operator	Pre-Ongard Well #1	30-005-01198	Chaves	660 FNL 1980 FEL	34	14S	31E	Oil	P&A	6/21/1956	6/28/1956	3110'		Caprock; Queen	3090-3105'	12 1/4"	7 5/8" @ 305'	175sx	CIBP @ 2950' w/ 35' cmt cap	
Rapid Company Inc	State C #1								7/17/1975							7 7/8"	4 1/2" @ 3084'	800sx	Cut 4 1/2" csg from 700'	
																			35sx cmt plug @ 750'-650'	
																			40sx cmt plug @ 375-275'	
																			10sx cmt plug @ 20-0'	
Pre-Ongard Well Operator	Pre-Ongard Well #21	30-005-01202	Chaves	660 FNL 660 FEL	34	14S	31E	Water Injectio	P&A	7/20/1956	7/27/1956	3115		Caprock; Queen	3102-3115'	12 1/4"	7 5/8" @ 323'	150sx	CIBP @ 3102' w/ 35' cmt cap	
Miller & Miller Auctioneers Inc	Eastcap Queen #21								2/4/1975							7 7/8"	4 1/2" @ 3097'	800sx	100' cmt plug @ 221'	
																			Cap w/ 10sx cmt	
Pre-Ongard Well Operator	Pre-Ongard Well #1	30-005-00544	Chaves	660 FNL 660 FWL	35	14S	31E	Oil	P&A	9/26/1956	10/6/1956	3142'	3124'	Caprock; Queen	3105-3115'	12 1/4"	8 5/8" @ 311'	175sx	CIBP @ 2950' w/ 35' cmt cap	
Rapid Company Inc	State B#1								7/1/1974							7 7/8"	5 1/2" @ 3137'	200sx	Pulled 5 1/2" csg from 370'	
																			100' cmt plug 320-420'	
																			100' cmt plug 220-320'	
																			10sx cmt plug to Surface	
Union Oil Co Of California	South Caprock Queen Unit #6	30-005-01178	Chaves	1980 FNL 2310 FWL	33	14S	31E	Oil	P&A	1/8/1955	1/25/1955	3100'		Caprock; Queen	3086-3100'	15"	10 3/4" @ 315'	200sx	30sx cmt plug @ 3100'	
									5/8/1972							8 3/4"	7" @ 3087'	100sx	5sx cmt plug @ surface	
Union of Co of California	South Caprock Queen Unit #7	30-005-01188	Chaves	2310 FNL 2310 FEL	33	14S	31E	Water Injectio	P&A	9/1/1955	9/8/1955	3113'	3106'	Caprock; Queen	3093-3098'	12 1/4"	8 5/8" @ 340'	140sx	125sx cmt plug @ 0-800'	
									2/26/1969							7 7/8"	5 1/2" @ 3112'	100sx	75sx cmt plug @ 2750-3098'	
																			5sx cmt plug @ 0-30'	
Pre-Ongard Well Operator	Pre-Ongard Well #1	30-005-01181	Chaves	1980 FNL 1980 FEL	33	14S	31E		P&A					Caprock; Queen	3063.5-3079'		9 5/8" @ 318'	175sx	25sx cmt plug @ 3084'	
Morris R Antwell	Yates Bros #1								9/10/1955								6" @ 3084"	100sx	20sx cmt plug @ 2284	
																	4 1/2" @ 3097'	20sx	15sx cmt plug @ 2145'	
																			10sx cmt plug @ 318'	
																			10sx cmt plug @ surface	
Union of Co of California	South Caprock Queen Unit #8	30-005-01186	Chaves	1980 FNL 330 FEL	33	14S	31E	Oil	P&A	6/10/1955	7/1/1955	3114'		Caprock; Queen	3094-3100'	12 1/4"	9 & 9 5/8" @ 304'	140sx	150sx cmt @ 0-1300'	
									2/28/1969							7 7/8"	5 1/2" @ 3114'	100sx	50sx cmt plug @ 2816-3094'	
																			5sx cmt plug @ 0-30'	
Pre-Ongard Well Operator	PreOngard Well #27	30-005-01205	Chaves	1980 FNL 660 FWL	34	14S	31E	Water Injectio	P&A	11/8/1955	11/17/1955	3113'		Caprock; Queen	3092-3113'	11"	8 5/8" @ 295'	175sx	CIBP @ 547' w/ 35' cmt cap	
Miller & Miller Auctioneers Inc	Eastcap Queen #27								2/4/1975							7 7/8"	5 1/2" @ 3092'	75sx	100' cmt plug @ 295'	
																			Cap with 10sx Cmt	
Pre-Ongard Well Operator	PreOngard Well #26	30-005-01206	Chaves	1980 FNL 1980 FWL	34	14S	31E	Water Injectio	P&A	2/28/1956	3/10/1956	3103'		Caprock; Queen	3082-3103'	11"	8 5/8" @ 263'	150sx	CIBP @ 3082' w/ 35' cmt cap	
Miller & Miller Auctioneers Inc	Eastcap Queen #26								2/4/4975							7 7/8"	4 1/2" @ 3082'	75sx	100' cmt plug @ 221'	
																			Cap w/ 10sx cmt	
Pre-Ongard Well Operator	PreOngard Well #25	30-005-01195	Chaves	1980 FNL 1980 FEL	33	14S	31E	Water Injectio	P&A	5/18/1659	5/27/1956	3108'		Caprock; Queen	3094-3108'	12 1/4"	7 5/8" @ 307'	200sx	CIBP @ 3094' w/ 35' cmt cap	
Miller & Miller Auctioneers Inc	Eastcap Queen #25								2/4/1975							7 7/8"	4 1/2" @ 3090'	710 sx	100' cmt plug @ 934'	
																			100' cmt plug @ 307'	
																			Cap w/ 10sx cmt	
Pre-Ongard Well Operator	PreOngard Well #24	30-005-01199	Chaves	1980 FNL 660 FEL	34	14S	31E	Oil	P&A	6/29/1956	7/6/1956	3113'		Caprock; Queen	3090-3113'	12 1/4"	7 5/8" @ 300'	150sx	CIBP @ 3090' w/ 35' cmt cap	
Miller & Miller Auctioneers Inc	Eastcap Queen #24								2/4/1975							7 7/8"	4 1/2" @ 3090'	800sx	100' cmt plug @ 623'	
																			100' cmt plug @ 300'	
																			Cap w/ 10sx cmt	
Pre-Ongard Well Operator	PreOngard Well #23	30-005-00545	Chaves	1980 FNL 330 FWL	35	14S	31E	Oil	P&A	8/15/1957	8/23/1957	3128'	3120'	Caprock; Queen	3106-3109'	11"	8 5/8" @ 322'	150sx	CIBP @ 3000' w/ 35" cmt cap	
Rapid Company, Inc	East Cap Queen Unit #23								2/20/1975							7 7/8"	5 1/2" @ 3128'	125sx	100' cmt plug @ 1276'	
																			100' cmt plug @ 322'	
																			Cap w/ 10sx cmt	
Union Oil Co of California	South Caprock Queen Unit #11	30-005-01192	Chaves	1980 FSL 1980 FWL	33	14S	31E	Oil	P&A	3/25/1955	4/2/1955	3120'		Caprock; Queen	3104-3116'	11"	8 5/8" @ 313'	275sx	25sx cmt plug @ 3100'	
									5/8/1972							7 7/8"	5 1/2" @ 3130'	175sx	5sx cmt plug @ surface	
Union Oil Co of California	South Caprock Queen Unit #10	30-005-01182	Chaves	1980 FSL 1980 Fel	33	14S	31E	Oil	P&A	4/7/1955	4/24/1955	3122'	3120'	Caprock; Queen	3104-3109'	12 1/4"	9 1/2" @ 314'	150sx	50sx cmt plug @ 2607-3027'	
									2/27/1969							7 7/8"	5 1/2" @ 3122'	100sx	150sx cmt plug @ 1000' to surface	
																			5sx cmt plug @ 0-30'	
Union Oil Co of California	South Caprock Queen Unit #9	30-005-01185	Chaves	1980 FSL 660 FEL	33	14S	31E	Water Injectio	P&A	5/21/1955	6/4/1955	3125'		Caprock; Queen	3099-3104'	11"	8 5/8" @ 317	140sx	25sx cmt plug @ 3100'	
									8/12/1971							7 7/8"	5 1/2" @ 3125'	150sx	5sx cmt plug @ surface	
Burleson Petroleum, Inc	State A #1	30-005-01204	Chaves	1980 FSL 660 FWL	34	14S	31E	Water Injectio	P&A	10/28/1955	11/6/1955	3103'		Caprock; Queen	3092-3103'	11"	8 5/8" @ 280'	150sx	CIBP @ 2994' w/ 35sx cmt cap	
									9/9/1987							7 7/8"	5 1/2" @ 3092"	75sx	CIBP @ 285'	
																			Perf Sqz @ 280', 25sx cmt plug	
																			Circ 115sx in and out	

Burleson Petroleum, Inc	State A #3	30-005-01207	Chaves	1980 FSL 1980 FEL	34	14S	31E	Water Injectio	P&A	3/24/1956	4/1/1956	3101'		SWD; San Andres	3075-3101	11"	8 5/8" @ 269'	150sx	CIBP @ 2975' w/ 35' cmt cap	
									9/9/1987							7 7/8"	5 1/2" @ 3084"	75sx	CIBP @ 260'	
																			Perf 267' w/ 72sx cmp plug	
																			Circ 64sx in and out	
Pre-Ongard Well Operator	Pre-Ongard Well #31	30-005-01200	Chaves	1980 FSL 660 FEL	34	14S	31E	Water Injectio	P&A	7/8/1956	7/22/1956	3122'		Caprock Queen	3108-3122'	12 1/4"	7 5/8" @ 310'	200sx	CIBP @ 3092' w/ 35' cmt cap	
Miller & Miller Auctioneers Inc	Eastcap Queen #31								2/4/1975							7 7/8"	4 1/2" @ 3107'	800sx	100' cmt plug @ 354'	
																			Cap w/ 10sx cmt	
Union Oil Co of California	South Caprock Queen Unit #15	30-005-01183	Chaves	990 FSL 1980 FEL	33	14S	31E	Oil	P&A	5/11/1955	5/22/1955	3128'		Caprock Queen	3110-3116'	11"	8 5/8" @ 330'	145sx	25sx cmt plug @ 3100'	
									8/12/1971							7 7/8"	5 1/2" @ 3128'	100sx	6sx cmt plug @ surface	
Union Oil Co of California	South Caprock Queen Unit #16	30-005-01184	Chaves	990 FSL 545 FEL	33	14S	31E	Oil	P&A	5/28/1955	6/4/1955	3124'		Caprock Queen	3100-3106'	12 1/4"	9 5/8" @ 338'	145sx	100' cmt plug @ 3100'	
									7/8/1971							7 7/8"	5 1/2" @ 3124'	100sx	100' cmt plug @ 3124'	
																			100' cmt plug in and out surface	
																			20' cmt plug @ surface	
Pre-Ongard Well Operator	Pre-Ongard Well #35	30-005-01203	Chaves	660 FSL 660 FWL	34	14S	31E	Water Injectio	P&A	10/20/1955	10/27/1955	3119'		Caprock Queen	3097-3119' Open hole	11"	8 5/8" @ 281'	150sx	CIBP @ 3097' w/ 35' Cmt Cap	
Miller & Miller Auctioneers Inc	Eastcap Queen #35								2/4/1975							7 7/8"	5 1/2" @ 3097'	75sx	100' cmt plug @ 500'	
																			100' cmt plug @ 281'	
																			Cap w/ 10sx cmt	
Burleson Petroleum Inc	State A #2	30-005-01208	Chaves	660 FSL 1980 FWL	34	14S	31E	Oil	P&A	4/5/1956	4/14/1956	3114'		Caprock Queen	3097-3114'	11"	8 5/8" @ 265'	150sx	25sx cmt plug @ 3077'	
									9/9/1987							7 7/8"	4 1/2" @ 3097'	75sx	CIBP @ 270'	
																			Sqz Perfs @ 265'	
																			131sx cmt plug in and out	
Pre-Ongard Well Operator	Pre-Ongard Well #33	30-005-01197	Chaves	660 FSL 1980 FEL	34	14S	31E	Water Injectio	P&A	6/9/1956	6/18/1956	3122'		Caprock Queen	3091-3122' Open Hole	11"	7 5/8" @ 325'	150sx	CIBP @ 3091' w/ 35' Cmt cap	
Miller & Miller Auctioneers Inc	Eastcap Queen #33								2/4/1975							7 7/8"	4 1/2" @ 3090'	800sx	100' cmt plug @ 225'	
																			10sx cmt cap @ surface	
Pre-Ongard Well Operator	Pre-Ongard Well #2	30-005-20278	Chaves	990 FSL 990 FEL	34	14S	31E	Oil	P&A	1/24/1969	1/27/1969	3160'		Caprock Queen	3114.5-3118.5'	12 1/4"	8 5/8" @ 325'	150sx	CIBP @ 3000' w/ 35' cmt cap	
Rapid Company Inc	State C #2								7/14/1975							7 7/8"	5 1/2" @ 3160'	610sx	30sx cmt plug 1330-1230'	
																			40sx cmt plug 375-275'	
																			10sx cmt plug 10'-0	
Pre-Ongard Well Operator	Pre-Ongard Well #32	30-005-01201	Chaves	660 FSL 660 FEL	34	14S	31E	Dry Hole	P&A	7/28/1956	8/5/1956	3133'		Caprock Queen	3107-3193" Open Hole	11"	7 5/8" @ 313'	150sx	12sx cmt plug @ 3012-3133'	
Continental Oil Company	Eastcap Queen #32								4/21/1957							7 7/8"	4 1/2" @ 3107'	800sx	20sx cmt plug @ 800-900'	
																			30sx Cmt Plug 263-363'	
																			15sx cmt plug 0-50'	
Mack Energy Corp	Caprock 35 State #1H	30-005-29114	Chaves	660 FSL 330 FWL	35	14S	31E	Oil	Producing	12/18/2011	2/14/2012	14301	13950	ABO Wolfcamp	9015-13940'	17 1/2"	13 3/8" @ 358'	500sx		
																12 1/4"	9 5/8" @ 3878'	1095sx		
																8 3/4"	7" @ 9105'	1050sx		
																	4 1/2" Liner @ 7751-14054'	975sx		
Union Oil Co of California	South Caprock Queen Unit #1	30-005-00559	Chaves	660 FNL 660 FEL	4	15S	31E	Oil	P&A	6/27/1955	7/6/1955	3153'		Caprock Queen	3132-3153'	12 1/4"	8 5/8" @ 339'	275sx	100' cmt plug @ 3132'	
									6/22/1971							7 7/8"	5 1/2" @ 3132'	300sx	100' cmt plug stub of 5 1/2"	
																			100' cmt plug in and out of surface	
																			20' cmt plug @ surface	
Union Oil Co of California	South Caprock Queen Unit #3	30-005-00550	Chaves	330 FNL 1980 FWL	3	15S	31E	Oil	P&A	6/27/1956	7/1/1956	3140'	3138'	Caprock Queen	3102-3127'	12 1/4"	8 5/8" @ 306'	175sx	Cant Read P&A Paperwork on OCD	
									6/14/1971							7 7/8"	5 1/2" @ 3139'	200sx		
Pre-Ongard Well Operator	Pre-Ongard Well #2	30-005-00546	Chaves	330 FNL 2310 FEL	3	15S	31E	Water Injectio	P&A	8/3/1956	8/8/1956	3233'	3131'	Caprock Queen	3114-3133'	12 1/4"	9 5/8" @ 306'	300sx	CIBP @ 3114' w/ 35' cmt cap	
Miller & Miller Auctioneers Inc	Eastcap Queen #2								2/4/1975							7 7/8"	7" @ 3131'	175sx	100' cmt plug @ 940'	
																			100' cmt plug 306'	
																			10sx cmt cap	
Kevin O Butler & Assoc Inc	South Caprock Queen Unit #14X	30-005-01193	Chaves	660 FSL 1980 FWL	3	14S	31E	Oil	Producing	4/4/1955	4/10/1955	3145'		Caprock Queen	3108-3118'	11"	8 5/8" @ 320'	250sx		
																7 7/8"	5 1/2" @ 3144'	175sx		
Union Oil Co of California	South Caprock Queen Unit #2	30-005-00557	Chaves	330 FNL 2310 FEL	4	15S	31E	Oil	P&A	4/13/1955	4/21/1955	3180'		Caprock Queen	3126-3133'	11"	8 5/8" @ 320'	225sx	100' cmt plug @ 3126'	
									6/7/1971							7 7/8"	5 1/2" @ 3180'	175sx	20' cmt plug @ Surface	
Union Oil Co of California	South Caprock Queen Unit #6	30-005-00551	Chaves	1650 FNL 1980 FEL	3	15S	31E	Oil	P&A	11/1/1956	11/18/1956	3162'	3161'	Caprock Queen	3140-3143'	11"	8 5/8" @ 286'	175sx	Cant Read P&A Paperwork on OCD	
									6/17/1971							7 7/8"	5 1/2" @ 3149'	400sx		
Union Oil Co of California	South Caprock Queen Unit #7	30-005-00547	Chaves	1650 FNL 2310 FEL	3	15S	31E	Oil	P&A	8/27/1956	9/2/1956	3158'		Caprock Queen	3140-3148'	12 1/4"	9 5/8" @ 294'	200sx	100' cmt plug @ 3140'	
									6/22/1971							7 7/8"	7" @ 3155'	175sx	20' cmt plug @ Surface	

30-005-00547		South Caprock Queen Unit #7			
P&A 6/22/1971		Operator: Union Oil Co of California			
		Location: Sec. 3 T15S R31E			
		1650 FNL 2310 FEL			
		Objective: Caprock Queen			
Depth	Hole Size & Cement	Casing Detail			
	12 1/4"				9 5/8" @ 294'
200sx					
294'					
175sx	7 7/8"				7" @ 3155'
					100' cmt plug @ 3140'
					20' cmt plug @ Surface
3155'					
Perfs 3140-3148'		TD-3180'			

30-005-01207		State A #3				
P&A 9/9/1987		Operator: Burleson Petroleum Inc				
		Location: Sec. 34 T14S R31E				
		1980 FSL 1980 FEL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	11"		~~~~~	XXXX	~~~~~	8 5/8" @ 269'
150sx						
269'						
75sx	7 7/8"		~~~~~	XXX	~~~~~	5 1/2" @ 3084'
						CIBP @ 2975' w/ 35' cmt cap
						CIBP @ 260'
						Perf 267' w/ 72sx cmp plug
						Circ 64sx in and out
3084'						
Perfs 3075-3101'		TD-3101'				

30-005-01185		South Caprock Queen Unit #9				
P&A 8/12/1971		Operator: Union Oil CO of California				
		Location: Sec. 33 T14S R31E				
		1980 FSL 660 FEL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	11"					8 5/8" @ 317'
140sx						
317'						
150sx	7 7/8"					5 1/2" @ 3125'
						25sx cmt plug @ 3100'
						5sx cmt plug @ surface
3125'						
Perfs 3099-3104'		TD-3125'				

30-005-01182		South Caprock Queen Unit #10					
P&A 2/27/1969		Operator: Union Oil CO of California					
		Location: Sec. 33 T14S R31E					
		1980 FSL 1980 FEL					
		Objective: Caprock Queen					
Depth	Hole Size & Cement					Casing Detail	
	12 1/4"					9 1/2" @ 314'	
150sx							
314'							
100sx	7 7/8"					5 1/2" @ 3122'	
						50sx cmt plug @ 2607-3027'	
						150sx cmt plug @ 1000' to surface	
						5sx cmt pluh @ 0-30'	
3122'							
Perfs 3104-3109'		TD-3122'					

30-005-01192		South Caprock Queen Unit #11				
P&A 5/8/1972		Operator: Union Oil CO of California				
		Location: Sec. 33 T14S R31E				
		1980 FSL 1980 FWL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	11"					8 5/8" @ 313'
275sx						
313'						
175sx	7 7/8"					5 1/2" @ 3130'
						25sx cmt plug @ 3100'
						5sx cmt plug @ surface
3130'						
Perfs 3104-3116'		TD-3130'				

30-005-01183		South Caprock Queen Unit #15				
P&A 8/12/1971		Operator: Union Oil CO of California				
		Location: Sec. 33 T14S R31E				
		900 FSL 1980 FEL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	11"					8 5/8" @ 330'
145sx						
330'						
100sx	7 7/8"					5 1/2" @ 3128'
						25sx cmt plug @ 3100'
						6sx cmt plug @ surface
3128'						
Perfs 3110-3116'		TD-3128'				

30-005-01184		South Caprock Queen Unit #16					
P&A 7/8/1971		Operator: Union Oil CO of California					
		Location: Sec. 33 T14S R31E					
		900 FSL 545 FEL					
		Objective: Caprock Queen					
Depth	Hole Size & Cement					Casing Detail	
	12 1/4"					8 5/8" @ 338'	
145sx							
338'							
100sx	7 7/8"					5 1/2" @ 3124'	
						100' cmt plug @ 3100'	
						100' cmt plug @ 3124'	
						100' cmt plug in and out surface	
						20' cmt plug @ surface	
3124'							
Perfs 3100-3106'		TD-3124'					

30-005-00545		Pre-Ongard Well #1 (Eastcap Queen #23)				
P&A 2/20/1975		Operator: Pre-Ongard Well Operator (Rapid Company Inc)				
		Location: Sec. 35 T14S R31E				
		1980 FNL 330 FWL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	11"					8 5/8" @ 322'
150sx						
322'						
125sx	7 7/8"					5 1/2" @ 3128'
						CIBP @ 3000' w/ 35' cmt cap
						100' cmt plug @ 1276'
						100' cmt plug @ 322'
						Cap w/ 10sx cmt
3128'						
Perfs 3106-3109'						
		TD-3128'				

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30-005-01205		Pre-Ongard Well #1 (Eastcap Queen #27)				
P&A 2/4/1975		Operator: Pre-Ongard Well Operator (Miller Miller Auctioneers)				
		Location: Sec. 34 T14S R31E				
		1980 FNL 660 FWL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	11"					8 5/8" @ 295'
175sx						
295'						
75sx	7 7/8"		XXXX			5 1/2" @ 3092'
3092'						CIBP @ 547' w/ 35' cmt cap
						100' cmt plug @ 295'
						Cap w/ 10sx cmt
Perfs 3092-3113'		TD- 3115'				

30-005-01200		Pre-Ongard Well #31 (Eastcap Queen #31)				
P&A 2/4/1975		Operator: Pre-Ongard Well Operator (Miller Miller Auctioneer)				
		Location: Sec. 34 T14S R31E				
		1980 FSL 660 FEL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	12 1/4"					7 5/8" @ 310
200sx						
310'						
800sx	7 7/8"					4 1/2" @ 3107'
						CIBP @ 3092' w/ 35' cmt cap
						100' cmt plug @ 354'
						Cap w/ 10sx cmt
3107'						
Perfs 3108-3122'		TD-3122'				

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30-005-01204		State A #1				
P&A 9/9/1987		Operator: Burleson Petroleum Inc				
		Location: Sec. 34 T14S R31E				
		1980 FSL 660 FWL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	11"			XXXX		8 5/8" @ 280'
150sx						
280'						
75sx	7 7/8"					5 1/2" @ 3092'
						CIBP @ 2994' w/ 35sx cmt cap
						CIBP @ 285'
						Perf Sqz @ 280', 25sx cmt plug
3092'				XXX		Circ 115sx in and out
Perfs 3092-3103'		TD-3103'				

30-005-20278		Pre-Ongard Well #2 (State C #2)				
P&A 7/14/1975		Operator: Pre-Ongard Well Operator (Rapid Company Inc)				
		Location: Sec. 34 T14S R31E				
		9900 FSL 990 FEL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	12 1/4"					8 5/8" @ 325'
150sx						
325'						
610sx	7 7/8"					5 1/2" @ 3160'
						CIBP @ 3000' w/ 35' cmt cap
						30sx cmt plug 1330-1230'
						40sx cmt plug 375-275'
						10sx cmt plug 10'-0
3160'		XXXX				
Perfs 3114.5-3118.5		TD-3160'				

30-005-29114		Caprock 35 State #1H									
		Operator: Mack Energy Corporation									
		Location: Sec. 35 T14S R31E									
		660 FSL 330 FWL									
		Objective: ABO Wolfcamp									
Depth	Hole Size & Cement									Casing Detail	
358'	17 1/2" 500sx									13 3/8" @ 358'	
3878'	12 1/4" 1095sx									9 5/8" @ 3878'	
9105'	8 3/4" 1050sx									7" @ 9105'	
										4 1/2" Liner @ 7751-14054' w/ 975sx	
Perfs- 9,015-13,940'		TD- 14,301'									

30-005-00546		Pre-Ongard Well #2 (Eastcap Queen #2)				
P&A 2/4/1975		Operator: Pre-Ongard Well Operator (Miller Miller Auctioneers)				
		Location: Sec. 3 T15S R31E				
		330 FNL 2310 FEL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	12 1/4"					9 5/8" @ 306'
300sx						
306'						
	7 7/8"					7" @ 3131'
175sx						CIBP @ 3114' w/ 35' cmt cap
						100' cmt plug @ 940'
						100' cmt plug 306'
						10sx cmt cap
3131'						
Perfs 3114-3133'		TD-3233'				

30-005-01201		Pre-Ongard Well #32 (Eastcap Queen #32)				
P&A 4/21/1957		Operator: Pre-Ongard Well Operator (Continental Oil Company)				
		Location: Sec. 34 T14S R31E				
		660 FSL 660 FEL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	11"					7 5/8" @ 313'
150sx						
313'						
800sx	7 7/8"					4 1/2" @ 3107'
						12sx cmt plug @ 3012-3133'
						20sx cmt plug @ 800-900'
						30sx Cmt Plug 263-363'
						15sx cmt plug 0-50'
3107'						
Open Hole 3107-3193'		TD-3133'				

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30-005-00559		South Caprock Queen Unit #1					
P&A 6/27/1971		Operator: Union Oil Co of California					
		Location: Sec. 4 T15S R31E					
		660 FNL 660 FEL					
		Objective: Caprock Queen					
Depth	Hole Size & Cement					Casing Detail	
	12 1/4"					8 5/8" @ 339'	
275sx							
339'							
300sx	7 7/8"					5 1/2" @ 3132'	
						100' cmt plug @ 3132'	
						100' cmt plug stub of 5 1/2"	
						100' cmt plug in and out of surface	
						20' cmt plug @ surface	
3132'							
Perfs 3132-3153'							
		TD-3153'					

30-005-00557		South Caprock Queen Unit #2				
P&A 6/7/1971		Operator: Union Oil Co of California				
		Location: Sec. 4 T15S R31E				
		330 FNL 2310 FEL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	11"					8 5/8" @ 320'
225sx						
320'						
175sx	7 7/8"					5 1/2" @ 3180'
						100' cmt plug @ 3126'
						20' cmt plug @ Surface
3180'						
Perfs 3126-3133'		TD-3180'				

30-005-01193		South Caprock Queen Unit #14X				
Operator: Kevin O Butler & Assoc Inc						
Location: Sec. 3 T15S R31E						
660 FSL 1980 FWL						
Objective: Caprock Queen						
Depth	Hole Size & Cement					Casing Detail
	11"					8 5/8" @ 320'
250sx						
320'						
175sx	7 7/8"					5 1/2" @ 3144'
3144'						
Perfs 3108-3118'		TD-3145'				

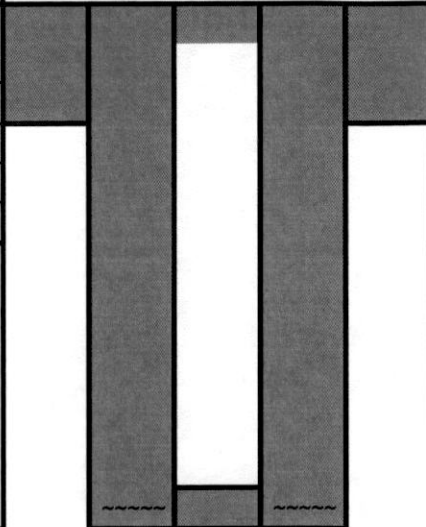
30-005-01208		State A #2				
P&A 9/9/1987		Operator: Burleson Petroleum Inc				
		Location: Sec. 34 T14S R31E				
		660 FSL 1980 FWL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	11"		~~~~~	XXXX	~~~~~	8 5/8" @ 265'
150sx						
265'						
75sx	7 7/8"		~~~~~		~~~~~	5 1/2" @ 3097'
3097'						25sx cmt plug @ 3077'
Perfs 3097-3114'						CIBP @ 270'
						Sqz Perfs @ 265'
						131sx cmt plug in and out
		TD-3114'				

30-005-01206		Pre-Ongard Well #1 (Eastcap Queen #26)	
P&A 2/4/1975		Operator: Pre-Ongard Well Operator (Miller Miller Auctioneers) Location: Sec. 34 T14S R31E 1980 FNL 1980 FWL Objective: Caprock Queen	
Depth	Hole Size & Cement	Casing Detail	
	11"	8 5/8" @ 263'	
150sx			
263'			
75sx	7 7/8"	4 1/2" @ 3082'	
		CIBP @ 3082' w/ 35' cmt cap	
		100' cmt plug @ 221'	
		Cap w/ 10sx cmt	
3082'			
Perfs 3082-3103'		TD- 3103'	

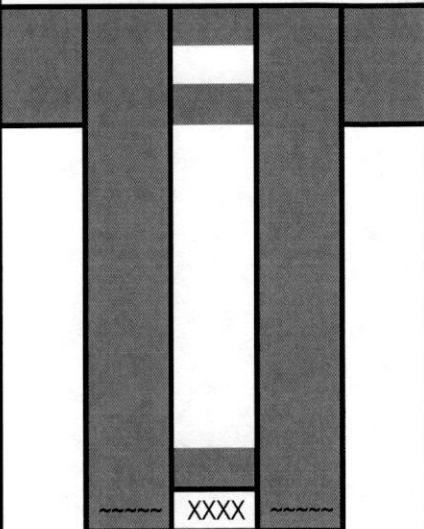
30-005-01181		Pre-Ongard Well #1 (Yates Bros #1)					
P&A 9/10/1955		Operator: Pre-Ongard Well Operator (Morris R Antwell)					
		Location: Sec. 33 T14S R31E					
		1980 FNL 1980 FEL					
		Objective: Caprock Queen					
Depth	Hole Size & Cement	Casing Detail					
	175sx	9 5/8" @ 318'					
	100sx	6" @ 3084'					
	20sx	4 1/2" @ 3097'					
		25sx cmt plug @ 3084'					
		20sx cmt plug @ 2284'					
		15sx cmt plug @ 2145'					
		10sx cmt plug @ 318'					
		10sx cmt plug @ surface					
Perfs 3063.5-3079'		TD- 3089'					

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30-005-01188		South Caprock Queen Unit #7	
P&A 2/26/1969		Operator: Union Oil Co of California	
		Location: Sec. 33 T14S R31E	
		2310 FNL 2310 FeL	
		Objective: Caprock Queen	
Depth	Hole Size & Cement	Casing Detail	
	12 1/4"	8 5/8" @ 340'	
140sx			
340'			
	7 7/8"	5 1/2" @ 3112'	
100sx		125sx cmt plug @ 0-800'	
		75sx cmt plug @ 2750-3098'	
		5sx cmt plug @ 0-30'	
3112'			
Perfs 3093-3098'		TD- 3113'	

30-005-01178		South Caprock Queen Unit #6	
P&A 5/8/1972		Operator: Union Oil Co of California	
		Location: Sec. 33 T14S R31E	
		1980 FNL 2310 FWL	
		Objective: Caprock Queen	
Depth	Hole Size & Cement		
	15'		
200sx			
315'			
	8 3/4"		
100sx			
3087'			
Perfs 3086-3100'		TD- 3100'	
		Casing Detail	
		10 3/4" @ 315'	
		7" @ 3087	
		30sx cmt plug @ 3100'	
		5sx cmt plug @ surface	

30-005-00544		Pre-Ongard Well #1 (State B #1)				
P&A 7/1/1974		Operator: Pre-Ongard Well Operator (Rapid Company Inc)				
		Location: Sec. 35 T14S R31E				
		660 FNL 660 FWL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	12 1/4"					8 5/8" @ 311'
175sx						
311'						
	7 7/8"					5 1/2" @ 3137'
200sx						CIBP @ 2950' w/ 35' cmt cap
						Pulled 5 1/2" csg from 370'
						100' cmt plug 320-420'
						100' cmt plug 220-320'
3137'						10sx cmt plug to Surface
Perfs 3105-3115"		TD- 3142'				

30-005-01202		Pre-Ongard Well #1 (Eastcap Queen #21)			
P&A 2/4/1975		Operator: Pre-Ongard Well Operator (Miller Miller Auctioneers)			
		Location: Sec. 34 T14S R31E			
		660 FNL 1980 FEL			
		Objective: Caprock Queen			
Depth	Hole Size & Cement	Casing Detail			
	12 1/4"				
150sx					
323'					
	7 7/8"				
800sx					
3097'					
Perfs 3102-3115'		7 5/8" @ 323'  4 1/2" @ 3097' CIBP @ 3102' w/ 35' cmt cap 100' cmt plug @ 221' Cap w/ 10sx cmt TD- 3115'			

30-005-01198		Pre-Ongard Well #1 (State C #1)			
P&A 7/17/1975		Operator: Pre-Ongard Well Operator (Rapid Company Inc)			
		Location: Sec. 34 T14S R31E			
		660 FNL 1980 FEL			
		Objective: Caprock Queen			
Depth	Hole Size & Cement	Casing Detail			
	12 1/4"	7 5/8" @ 305'			
150sx					
305'					
800sx	7 7/8"	4 1/2" @ 3084'			
		CIBP @ 2950' w/ 35' cmt cap			
		Cut 4 1/2"csg from 700'			
		35sx cmt plug @ 750'-650'			
		40sx cmt plug @ 375-275'			
3084'		10sx cmt plug @ 20-0'			
Perfs 3090-3105'		TD- 3110'			

30-005-01209		Pre-Ongard Well #19 (Eastcap Queen #19)	
P&A 2/4/1975		Operator: Pre-Ongard Well Operator (Miller Miller Auctioneers) Location: Sec. 34 T14S R31E 990 FNL 1650 FWL Objective: Eastcap Queen	
Depth	Hole Size & Cement	Casing Detail	
300'	17" 300sx	13 3/8" @ 300'	
1370'	11"	8 5/8" @ 1370'	
3077'	7" 100sx	5 1/2" @ 3077'	
		CIBP @ 3077 w/ 35' cmt cap	
		100' cmt plug @ 335'	
		Cap w/ 10sx cmt	
Open Hole 3077-3089'		TD- 3089'	

30-005-01210		Gulf Deep #1		
P&A 3/11/2004		Operator: Crain Hot Oil Service LLC		
		Location: Sec. 34 T14S R31E		
		660 FNL 1980 FWL		
		Objective: SWD; San Andres & Devonian		
Depth	Hole Size & Cement			Casing Detail
428'	17 1/2" 550sx			13 3/8" @ 428'
3817'	12 1/4" 1950sx			9 5/8" @ 3817'
13,258'	7 7/8" 1900sx			5 1/2" @ 13,258'
Perfs 13,221-13,246'		TD- 13,258"		

CIBP @ 12,150' w/ 25sx 12,150-11,952'  
 25sx cmt plug @ 9700-9502'  
 50sx cmt plug @ 8660-8263'  
 25sx cmt plug @ 7450-7203'  
 25sx cmt plug @ 5400-5153'  
 Perf @ 4210' Sqz 25sx @ 4210-4090'  
 Tag 4075'  
 Perf @ 3870' Sqz 125sx @ 3870-3400'  
 Tag 3350'  
 Perf @ 3130' Sqz 25sx @ 3130-2980'  
 Tag @ 2940'  
 Perf @ 2380' Sqz 25sx @ 2380-2230'  
 Tag @ 2190'  
 Perf @ 500' Sqz 180sx @ 500', Circ to Surface

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30-005-01145		Pre-Ongard Well #5 (State D #5)				
P&A 5/20/1986		Operator: Pre-Ongard Well Operator (Lewis Burleson Inc)				
		Location: Sec. 27 T14S R31E				
		460 FSL 330 FWL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	11"					8 5/8" @ 262'
175sx						
262'						
	7 7/8"					4 1/2" @ 3110'
75sx						
						30sx cmt plug @ 300-550'
3100'						102sx cmt plug @ 0-320'
Perfs 3085-3092'		TD- 3108'				

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30-005-01155		Pre-Ongard Well #16 (Eastcap Queen Pool Unit #16)				
P&A 2/4/1975		Operator: Pre-Ongard Well Operator (Miller Miller Auctioneers)				
		Location: Sec. 27 T14S R31E				
		660 FSL 1980 FEL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	11"					8 5/8" @ 203'
150sx						
203'						
100sx	7 7/8"					5 1/2" @ 3120'
						CIBP @ 3096 w/ 35' Cmt
						100' cmt plug @ 465'
						100' cmt plug @ 203'
3120'						10sx cmt cap to surface
Perfs 3096-3101'		TD- 3120'				

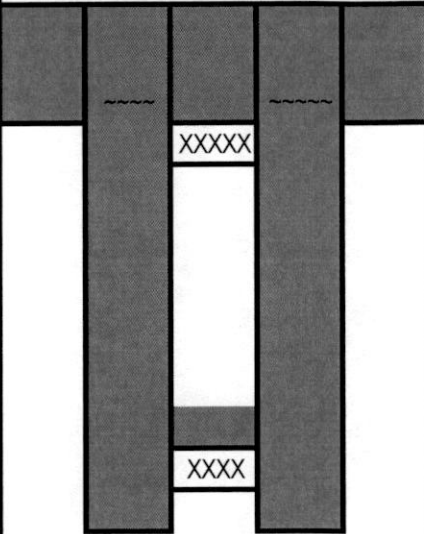
30-005-10410		Pre-Ongard Well #1 (Federal C #1)				
P&A 6/17/1966		Operator: Pre-Ongard Well Operator (Kersey Grandberry)				
		Location: Sec. 26 T14S R31E				
		660 FSL 330 FWL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	11"					8 5/8" @ 307'
100sx						
307'						
	7 7/8"					5 1/2" @ 3120'
100sx						
						15sx Cmt plug @ 3136'
						100' cmt plug @ 1400' (below)
						100' cmt plug @ 1400' (above)
3136'						100' cmt plug @ 307'
Perfs 3102-3110'		TD- 3150'				

30-005-21174		Williams #1	
P&A 3/10/2004		Operator: CW Trainer Location: Sec. 33 T14S R31E 400 FNL 2300 FWL Objective: Wildcat; Paddock	
Depth	Hole Size & Cement	Casing Detail	
170'	11" 175sx	9 5/8" @ 170'	
		7 5/8" @ 2970'	
2970'	8 3/4" 500sx	4 1/2" @ 5200"	
5200'	6" 1000sx		
		15sx Cmt plug @ 3346' tag @ 3150'	
		35sx Cmt plug @ 3110'	
		25sx Cmt plug @ 2988'. Tag @ 2938'	
		30sx Cmt plug @ 2300, tag @ 2087'	
		30sx Cmt plug @ 229', tag TOC @ 7	
		10sx Surface Plug	

TD- 5200'

30-005-01189		South Caprock Queen Unit #2	
P&A 8/11/1971		Operator: Union Oil Co of California Location: Sec. 33 T14S R31E 330 FNL 1450 FEL Objective: Caprock Queen	
Depth	Hole Size & Cement	Casing Detail	
	12 1/4"	8 5/8" @ 316'	
150sx			
316'			
100sx	8 3/4"	6" @ 3123'	
		25sx Cmt Plug @ 3000'	
		5sx Cmt Plug @ 0'	
3123'			
Perfs 3099-3112'		TD- 3123'	

30-005-01152		Pre-Ongard Well #3 (State D #3)				
P&A 5/15/1986		Operator: Pre-Ongard Well Operator (Lewis Burleson Inc)				
		Location: Sec. 27 T14S R31E				
		2310 FNL 990 FWL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement					Casing Detail
	11"					8 5/8" @ 268'
175sx						
				XXXXX		
268'						
	7 7/8"					4 1/2" @ 3114'
75sx						CIBP @ 3010' w/ 35' cmt cap
						CIBP @ 280'
						Perf @ 268' w/ 55sx
				XXXX		95sx @ 0-268'
3114'						
Open Hole 3114-3125'		TD- 3125'				

30-005-01151		Pre-Ongard Well #2 (State D #2)				
P&A 9/9/1987		Operator: Pre-Ongard Well Operator (Lewis Burleson Inc)				
		Location: Sec. 27 T14S R31E				
		2310 FNL 2310 FWL				
		Objective: Caprock Queen				
Depth	Hole Size & Cement	Casing Detail				
	11"					
175sx						
258'						
	7 7/8"	8 5/8" @ 258'				
75sx		4 1/2" @ 3093'				
		CIBP @ 2985' w/ 35' cmt cap				
		CIBP @ 260'				
		Perf Sqz @ 252'				
		Circ Cmt w/ 128sx in & out of pipe				
3093'						
Open Hole 3093-3112'		TD- 3100'				

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30-005-01143		Pre-Ongard Well #7 (Eastcap Queen #7)	
P&A 2/4/1975		Operator: Pre-Ongard Well Operator (Miller Miller Auctioneers Inc) Location: Sec. 27 T14S R31E 2310 FNL 990 FEL Objective: Caprock Queen	
Depth	Hole Size & Cement		Casing Detail
	11"		
175sx			8 5/8" @ 313'
313'			
100sx	7 7/8"		5 1/2" @ 3124'
			CIBP @ 3097' w/ 35' cmt cap
			Perf @ 1134' w/ 100' cmt plug
			100' cmt @ 313'
3124'			Cap w/ 10sx Cmt
Perfs 3097-3100'		TD- 3124'	

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30-005-01150	Pre-Ongard Well #11 (Eastcap Queen Pool Unit #11)
P&A 1/24/1974	Operator: Pre-Ongard Well Operator (Miller Miller Auctioneers Inc) Location: Sec. 27 T14S R31E 1650 FSL 330 FWL Objective: Caprock Queen

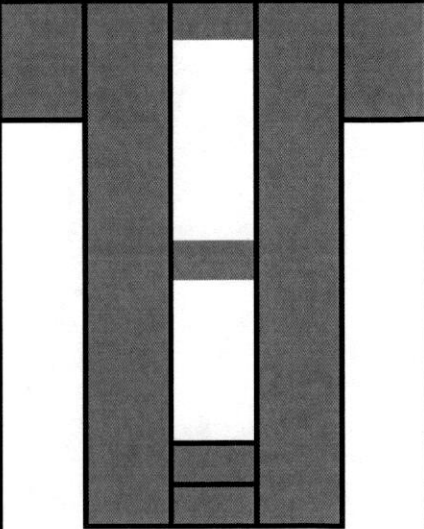
  

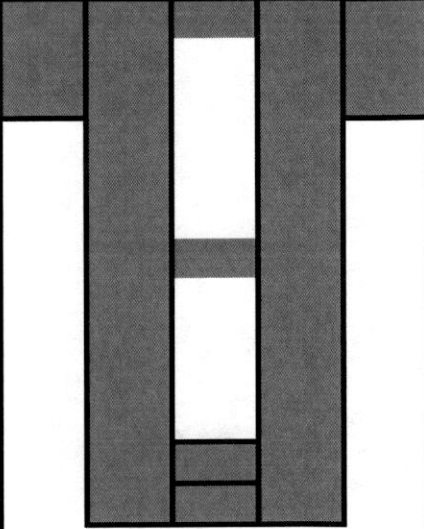
Depth	Hole Size & Cement		Casing Detail
	11"		8 5/8" @ 242'
150sx			
242'			
75sx	7 7/8"		5 1/2" @ 3113'
			CIBP @ 3008' w/ 5sx cmt cap
			40sx cmt plug @ 792'
			40sx cmt plug @ 280'
			10sx cmt plug @ surface
3113'		XXXXXX	
Perfs 3106-3125'		TD- 3125'	

30-005-01148		Pre-Ongard Well #4 (State D #4)			
P&A 5/15/1986		Operator: Pre-Ongard Well Operator (Lewis Burleson Inc)			
		Location: Sec. 27 T14S R31E			
		1650 FSL 1650 FWL			
		Objective: Caprock Queen			
Depth	Hole Size & Cement				Casing Detail
	11"				8 5/8" @ 242'
150sx					
		XXXXX			
253'					
75sx	7 7/8"				4 1/2" @ 3113'
					CIBP @ 3010' w/ 35' cmt cap
					CIBP @ 268'
					Perf @ 258' Cmt 25sx
3120'					100sx cmt to surface
Perf 3106-3113'		TD- 3120'			

30-005-01147		Pre-Ongard Well #13 (Eastcap Queen Pool Unit #13)			
P&A 1/17/1974		Operator: Pre-Ongard Well Operator (Miller Miller Auctioneers)			
		Location: Sec. 27 T14S R31E			
		1650 FSL 2310 FEL			
		Objective: Caprock Queen			
Depth	Hole Size & Cement				Casing Detail
	11"				8 5/8" @ 271'
150sx					
256'					
75sx	7 7/8"				4 1/2" @ 3094'
					CIBP @ 3006' w/5sx cmt cap
					50sx cmt plug @ 1514'
					40sx cmt plug @ 290'
3094'					10sx cmt plug @ surface
Perf 3086-3110'		XXXX			
		TD- 3110'			

30-005-21183		Pre-Ongard Well #14 (Eastcap Queen Pool Unit #14)			
P&A 10/16/1968		Operator: Pre-Ongard Well Operator (Gulf Oil Corporation)			
		Location: Sec. 27 T14S R31E			
		1650 FSL 990 FEL			
		Objective: Caprock Queen			
Depth	Hole Size & Cement				Casing Detail
	11"				8 5/8" @ 256'
150sx					
256'					
	7 7/8"				4 1/2" @ 3088'
75sx					25sx cmt plug @ 3106-2858'
					75sx cmt plug @ 0-400'
3088'					
		TD- 3106'			

30-005-01140		Pre-Ongard Well #1 (Medlin #1)		
P&A 11/4/1956		Operator: Pre-Ongard Well Operator (Donnelly Drilling Company Inc)		
		Location: Sec. 26 T14S R31E		
		1980 FSL 660 FWL		
		Objective: Undesignated		
Depth	Hole Size & Cement	Casing Detail		
	11"			
175sx				
323'				
	7 7/8"	8 5/8" @ 323"		
100sx		4 1/2" @ 3123'		
		Cmt plug @ 3126-2700'		
		20sx Cmt plug @ 2260'		
		20sx Cmt plug @ 1600'		
		10sx Cmt plug @ Surface		
3123'				
Perfs 3107-3112'		TD- 3123'		

30-005-01163		South Caprock Queen Unit #14			
P&A 3/1/2006		Operator: Kevin O Butler & Assoc, Inc			
		Location: Sec. 28 T14S R31E			
		330 FSL 1980 FWL			
		Objective: Caprock Queen			
Depth	Hole Size & Cement	Casing Detail			
	11"				
100sx					
323'					
	7 7/8"	8 5/8" @ 323"			
200sx		5 1/2" @ 3123'			
		No Plugging Information			
		on OCD			
3123'					
Perfs 2930-2936'		TD- 3123'			

## Attachment 3



Catalyst Oilfield Services  
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Fax: (432) 224-1038

## Water Analysis Report

Customer: Mack Energy Corporation Sample #: 81463  
Area: Artesia Analysis ID #: 80383  
Lease: Prince Rupert  
Location: Fed #4H 0  
Sample Point: Wellhead San Andres

Sampling Date:	1/10/2019	Anions	mg/l	meq/l	Cations	mg/l	meq/l			
Analysis Date:	1/22/2019	Chloride:	89383.7	2521.19	Sodium:	53970.0	2347.56			
Analyst:	Catalyst	Bicarbonate:	175.7	2.88	Magnesium:	1013.0	83.33			
		Carbonate:			Calcium:	2725.0	135.98			
TDS (mg/l or g/m3):	150968.6	Sulfate:	2800.0	58.3	Potassium:	644.4	16.48			
Density (g/cm3):	1.102	Borate*:	190.4	1.2	Strontium:	55.6	1.27			
		Phosphate*			Barium:	0.9	0.01			
Hydrogen Sulfide:	5	*Calculated based on measured elemental boron and phosphorus.			Iron:	9.0	0.32			
Carbon Dioxide:	97				Manganese:	0.857	0.03			
Comments:					Conductivity (micro-ohms/cm):		200079			
					Resistivity (ohm meter):		.0500			
		pH at time of sampling:			6.65					
		pH at time of analysis:								
		pH used in Calculation:			6.65					
		Temperature @ lab conditions (F):			75					

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	0.05	0.91	-0.13	0.00	-0.13	0.00	-0.11	0.00	1.22	0.60
100	0.13	2.72	-0.20	0.00	-0.13	0.00	-0.13	0.00	1.02	0.30
120	0.22	4.84	-0.26	0.00	-0.11	0.00	-0.15	0.00	0.84	0.30
140	0.30	7.26	-0.30	0.00	-0.06	0.00	-0.15	0.00	0.69	0.30
160	0.37	9.68	-0.34	0.00	0.00	6.96	-0.15	0.00	0.56	0.30
180	0.45	12.70	-0.37	0.00	0.08	166.07	-0.14	0.00	0.45	0.30
200	0.52	15.73	-0.40	0.00	0.18	328.81	-0.13	0.00	0.36	0.30
220	0.60	18.75	-0.42	0.00	0.28	485.19	-0.11	0.00	0.28	0.30



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## Water Analysis Report

Customer: Mack Energy Corporation Sample #: 78595  
Area: Artesia Analysis ID #: 76096  
Lease: Chilliwick  
Location: Fed Com 1H 0  
Sample Point: Wellhead San Andres

		Anions		Cations	
		mg/l	meq/l	mg/l	meq/l
Sampling Date:	11/28/2018	Chloride:	104292.8	Sodium:	63550.0
Analysis Date:	12/3/2018	Bicarbonate:	131.8	Magnesium:	1027.0
Analyst:	Catalyst	Carbonate:		Calcium:	2882.0
TDS (mg/l or g/m3):	175963.5	Sulfate:	3200.0	Potassium:	707.0
Density (g/cm3):	1.118	Borate*:	108.1	Strontium:	63.7
		Phosphate*		Barium:	0.8
Hydrogen Sulfide:	4	*Calculated based on measured elemental boron and phosphorus.		Iron:	0.1
Carbon Dioxide:	108			Manganese:	0.189
Comments:				Conductivity (micro-ohms/cm):	200381
				Resistivity (ohm meter):	.0499
		pH at time of sampling:	6.95		
		pH at time of analysis:			
		pH used in Calculation:	6.95		
		Temperature @ lab conditions (F):	75		

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	0.28	2.95	-0.07	0.00	-0.05	0.00	-0.04	0.00	1.17	0.30
100	0.32	3.84	-0.14	0.00	-0.06	0.00	-0.07	0.00	0.97	0.30
120	0.36	5.02	-0.21	0.00	-0.05	0.00	-0.09	0.00	0.79	0.30
140	0.39	6.20	-0.26	0.00	-0.01	0.00	-0.10	0.00	0.63	0.30
160	0.43	7.38	-0.31	0.00	0.05	111.64	-0.10	0.00	0.50	0.30
180	0.46	9.16	-0.34	0.00	0.12	261.08	-0.09	0.00	0.38	0.30
200	0.50	10.93	-0.38	0.00	0.21	418.50	-0.08	0.00	0.29	0.30
220	0.55	12.99	-0.41	0.00	0.31	573.26	-0.07	0.00	0.21	0.30

## Water Analysis- San Andres



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## Water Analysis Report

Customer:	Mack Energy Corporation	Sample #:	81533
Area:	Artesia	Analysis ID #:	80615
Lease:	Saskatoon		
Location:	Fed Com 1H		0
Sample Point:	Wellhead	San Andres	

Sampling Date:	1/10/2019	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	1/23/2019	Chloride:	91681.1	2585.99	Sodium:	54050.0	2351.04
Analyst:	Catalyst	Bicarbonate:	153.7	2.52	Magnesium:	1173.0	96.5
		Carbonate:			Calcium:	2767.0	138.07
TDS (mg/l or g/m3):	151377.2	Sulfate:	700.0	14.57	Potassium:	647.0	16.55
Density (g/cm3):	1.105	Borate*:	144.3	0.91	Strontium:	60.1	1.37
		Phosphate*			Barium:	0.6	0.01
Hydrogen Sulfide:	4	*Calculated based on measured elemental boron and phosphorus.			Iron:	0.0	0.
Carbon Dioxide:	90				Manganese:	0.416	0.02
Comments:		pH at time of sampling:		7.23			
		pH at time of analysis:					
		pH used in Calculation:		7.23			
		Temperature @ lab conditions (F):		75	Conductivity (micro-ohms/cm):		197210
					Resistivity (ohm meter):		.0507

## 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>	
	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
°F										
80	0.57	6.35	-0.72	0.00	-0.71	0.00	-0.66	0.00	0.45	0.30
100	0.57	7.26	-0.79	0.00	-0.72	0.00	-0.69	0.00	0.25	0.00
120	0.58	8.77	-0.84	0.00	-0.69	0.00	-0.70	0.00	0.07	0.00
140	0.59	10.28	-0.89	0.00	-0.65	0.00	-0.71	0.00	-0.08	0.00
160	0.60	12.10	-0.93	0.00	-0.59	0.00	-0.70	0.00	-0.21	0.00
180	0.63	13.91	-0.96	0.00	-0.51	0.00	-0.70	0.00	-0.32	0.00
200	0.66	16.03	-0.99	0.00	-0.41	0.00	-0.69	0.00	-0.42	0.00
220	0.71	18.45	-1.01	0.00	-0.31	0.00	-0.67	0.00	-0.49	0.00



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## Water Analysis Report

Customer: Mack Energy Corporation Sample #: 118208  
Area: Artesia Analysis ID #: 107555  
Lease: Montreal  
Location: 1H 0  
Sample Point: Wellhead San Andres

		Anions		Cations	
		mg/l	meq/l	mg/l	meq/l
Sampling Date:	2/13/2020	Chloride:	101615.8	Sodium:	62440.0
Analysis Date:	3/4/2020	Bicarbonate:	197.6	Magnesium:	965.3
Analyst:	Catalyst	Carbonate:		Calcium:	2569.0
TDS (mg/l or g/m3):	172020.9	Sulfate:	3400.0	Potassium:	660.8
Density (g/cm3):	1.116	Borate*:	110.4	Strontium:	57.8
		Phosphate*		Barium:	3.4
Hydrogen Sulfide:	7.4	*Calculated based on measured elemental boron and phosphorus.		Iron:	0.2
Carbon Dioxide:	102			Manganese:	0.550
Comments:		pH at time of sampling:	7.14		
		pH at time of analysis:			
		pH used in Calculation:	7.14		
		Temperature @ lab conditions (F):	75	Conductivity (micro-mhos/cm):	199270
				Resistivity (ohm meter):	.0502

### 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>	
	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
°F										
80	0.58	8.60	-0.09	0.00	-0.08	0.00	-0.05	0.00	1.83	1.78
100	0.59	10.08	-0.16	0.00	-0.08	0.00	-0.08	0.00	1.63	1.78
120	0.60	11.86	-0.23	0.00	-0.07	0.00	-0.10	0.00	1.45	1.78
140	0.61	13.93	-0.28	0.00	-0.03	0.00	-0.10	0.00	1.30	1.78
160	0.63	16.01	-0.32	0.00	0.03	69.97	-0.10	0.00	1.16	1.78
180	0.65	18.38	-0.36	0.00	0.11	226.51	-0.10	0.00	1.05	1.78
200	0.68	21.05	-0.39	0.00	0.19	391.65	-0.09	0.00	0.95	1.48
220	0.73	24.01	-0.42	0.00	0.29	555.31	-0.08	0.00	0.87	1.48



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## Water Analysis Report

Customer:	Mack Energy Corporation	Sample #:	100487
Area:	Drilling	Analysis ID #:	94751
Lease:	Maple Ridge		
Location:	Fed #1		0
Sample Point:	Wellhead	San Andres	

		Anions		Cations	
		mg/l	meq/l	mg/l	meq/l
Sampling Date:	7/29/2019	Chloride:	84902.3	Sodium:	51250.0
Analysis Date:	8/8/2019	Bicarbonate:	241.6	Magnesium:	1177.0
Analyst:	Catalyst	Carbonate:		Calcium:	2566.0
TDS (mg/l or g/m3):	144232	Sulfate:	3300.0	Potassium:	564.2
Density (g/cm3):	1.097	Borate*:	173.9	Strontium:	53.5
		Phosphate*		Barium:	1.5
Hydrogen Sulfide:	14	*Calculated based on measured elemental boron and phosphorus.		Iron:	1.5
Carbon Dioxide:	162.8			Manganese:	0.460
Comments:		pH at time of sampling:	6.41		
		pH at time of analysis:			
		pH used in Calculation:	6.41		
		Temperature @ lab conditions (F):	75	Conductivity (micro-mhos/cm):	194536
				Resistivity (ohm meter):	.0514

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	-0.09	0.00	-0.09	0.00	-0.09	0.00	-0.04	0.00	1.52	0.91
100	0.01	0.30	-0.15	0.00	-0.08	0.00	-0.06	0.00	1.33	0.91
120	0.10	3.96	-0.20	0.00	-0.06	0.00	-0.08	0.00	1.15	0.61
140	0.21	8.22	-0.25	0.00	-0.01	0.00	-0.08	0.00	1.00	0.61
160	0.31	12.48	-0.28	0.00	0.06	131.82	-0.08	0.00	0.87	0.61
180	0.41	17.35	-0.31	0.00	0.14	299.86	-0.07	0.00	0.76	0.61
200	0.51	21.92	-0.33	0.00	0.24	471.86	-0.06	0.00	0.67	0.61
220	0.61	26.79	-0.35	0.00	0.35	637.46	-0.04	0.00	0.60	0.61



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## Water Analysis Report

Customer: Mack Energy Corporation      Sample #: 55880  
Area: Artesia      Analysis ID #: 53988  
Lease: White Rock  
Location: Federal #1H      0  
Sample Point: Wellhead      San Andres

		Anions		mg/l	meq/l	Cations		mg/l	meq/l
Sampling Date:	12/21/2017	Chloride:		93901.4	2648.62	Sodium:		58100.0	2527.21
Analysis Date:	1/6/2018	Bicarbonate:		241.6	3.96	Magnesium:		969.6	79.76
Analyst:	Catalyst	Carbonate:				Calcium:		2737.0	136.58
TDS (mg/l or g/m3):	161820.5	Sulfate:		5000.0	104.1	Potassium:		571.6	14.62
Density (g/cm3):	1.107	Borate*:		229.5	1.45	Strontium:		66.0	1.51
		Phosphate*				Barium:		0.0	0.
Hydrogen Sulfide:	11	*Calculated based on measured elemental boron and phosphorus.				Iron:		3.8	0.14
Carbon Dioxide:	242					Manganese:		0.000	0.
Comments:					pH at time of sampling:				
					pH at time of analysis:				
					pH used in Calculation:				
					Temperature @ lab conditions (F):			Conductivity (micro-ohms/cm):	176042
								Resistivity (ohm meter):	.0568

### 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>	
	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	0.43	9.88	0.10	359.72	0.11	305.55	0.18	14.96	0.00	0.00
100	0.49	12.27	0.03	111.03	0.10	296.88	0.16	13.17	0.00	0.00
120	0.55	14.96	-0.03	0.00	0.13	355.53	0.14	11.97	0.00	0.00
140	0.60	17.96	-0.08	0.00	0.17	467.16	0.13	11.67	0.00	0.00
160	0.64	20.95	-0.12	0.00	0.23	615.30	0.14	11.67	0.00	0.00
180	0.69	24.54	-0.15	0.00	0.31	784.69	0.14	12.27	0.00	0.00
200	0.75	28.13	-0.18	0.00	0.40	962.15	0.15	12.87	0.00	0.00
220	0.80	31.72	-0.20	0.00	0.51	1137.23	0.17	13.77	0.00	0.00

## Attachment 4



July 19, 2024

PN 1904.SEIS.00

Mr. Phillip Goetze, P.G.  
NM EMNRD – Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Subject: **Mack Energy Corporation**  
**Rooster SWD #1 - Seismic Potential Letter**

Dear Mr. Goetze,

At the request of Mack Energy Corporation (Mack Energy), ALL Consulting, LLC (ALL) has assessed the potential injection-induced seismicity risks in the vicinity of Mack Energy's Rooster SWD #1, a proposed saltwater disposal (SWD) facility in Chaves County, New Mexico, and summarized the findings in this letter. This assessment used publicly available data to identify the proximity and characteristics of seismic events and known faults to evaluate the potential for the operation of the Rooster SWD #1 to contribute to seismic activity in the area.

## Geologic Evaluation

The Rooster SWD #1 is requesting a permit to inject into the Devonian Formation at a depth of 12,900-13,600 feet below ground surface (bgs). The Devonian Formation consists of cherty limestone and dolomites and is overlain by approximately 28 feet of low porosity and permeability Mississippian Lime, which would prevent the upward migration of injection fluid and serve as the upper confining layer (see **Attachment 1**). Additionally, the Devonian Formation is underlain by various low porosity and permeability zones within the Silurian and Montoya Groups, both of which consist of limestones, dolomites, and interbedded shale zones. No geophysical logs penetrating the Silurian and Montoya Groups were available within 10 miles of the Rooster SWD #1. A stratigraphic chart depicting the geologic setting is included as **Figure 1**.<sup>1</sup>

## Seismic Events and Fault Data

A review of United States Geological Survey (USGS) and New Mexico Tech Seismological Observatory (NMTSO) earthquake catalogues determined that four (4) seismic events have been recorded within a 100 square mile area [9.08-kilometer (km) radius] around the Rooster SWD

<sup>1</sup> Yang, K.-M., & Dorobek, S. L. (1995). The Permian Basin of west Texas and New Mexico: Tectonic history of a "composite" Foreland Basin and its effects on stratigraphic development. *Stratigraphic Evolution of Foreland Basins*, 149–174.  
<https://doi.org/10.2110/pec.95.52.0149>

Mack Energy Corporation  
Rooster SWD #1 Seismic Information  
July 19, 2024

#1. The closest recorded seismic event was a M1.44 that occurred on May 16, 2021, and was located approximately 3.52 miles southeast of the Rooster SWD #1 (see **Attachment 2**).

Fault data from United States Geological Survey (USGS) and the Texas Bureau of Economic Geology (BEG)<sup>2</sup> indicates that the closest known fault is located approximately 7.13 miles southeast of the Rooster SWD #1 (see **Attachment 2**). This identified fault is within the Precambrian basement, which is approximately 2,400 feet below the proposed injection interval.<sup>3</sup> A map of the seismic events and faults within 9.08 km of the Rooster SWD #1 is included as **Attachment 2**.

## Seismic Potential Evaluation

Experience in evaluating induced seismic events indicates that most injection-induced seismicity throughout the U.S. (e.g., Oklahoma, Ohio, Texas, New Mexico, and Colorado) occurs as a result of injection into Precambrian basement rock, into overlying formations that are in hydraulic communication with the Precambrian basement rock, or as a result of injection near critically stressed and optimally oriented faults. Seismicity at basement depths occurs because critically stressed faults generally originate in crystalline basement rock and may also extend into overlying sedimentary formations.<sup>4</sup>

Injection into either the Precambrian basement rock or its overlying formations that are hydraulically connected to the basement rock through faulting or fracture networks can increase the pore pressure and may lead to the fault slipping, resulting in a seismic event.<sup>4</sup> As such, the vertical distance between the injection formation and Precambrian basement rock and the presence or lack of faulting within the injection interval are major considerations when determining the risk of injection-induced seismicity.

**Figure 1 – Delaware Basin Stratigraphic Chart  
(Adapted from Yang and Dorobek 1995)**

SYSTEM	SERIES/ STAGE	CENTRAL BASIN PLATFORM	DELAWARE BASIN
PERMIAN	OCHOAN	DEWEY LAKE RUSTLER SALADO	DEWEY LAKE RUSTLER SALADO CASTILE
	GUADALUPIAN	TANSILL YATES SEVEN RIVERS QUEEN GRAYBURG SAN ANDRES GLORIETA CLEAR FORK WICHITA	DELAWARE MT GROUP BELL CANYON CHERRY CANYON BRUSHY CANYON
	LEONARDIAN		BONE SPRING
	WOLFCAMPIAN	WOLFCAMP	WOLFCAMP
PENNSYLVANIAN	VIRGILIAN	CISCO	CISCO
	MISSOURIAN	CANYON	CANYON
	DESMOINESIAN	STRAWN	STRAWN
	ATOKAN	ATOKA	ATOKA
	MORROWAN	(ABSENT)	MORROW
MISSISSIPPIAN	CHESTERIAN MERAMECIAN OSAGEAN KINDERHOOKIAN	CHESTER MERAMEC OSAGE "BARNETT"	CHESTER MERAMEC OSAGE "BARNETT"
		KINDERHOOK WOODFORD DEVONIAN	KINDERHOOK WOODFORD DEVONIAN
DEVONIAN			
SILURIAN		SILURIAN SHALE FUSSELMAN	MIDDLE SILURIAN FUSSELMAN
ORDOVICIAN	UPPER	MONTOYA	SYLVAN MONTOYA
	MIDDLE	SIMPSON	SIMPSON
	LOWER	ELLENBURGER	ELLENBURGER
CAMBRIAN	UPPER	CAMBRIAN	CAMBRIAN
PRECAMBRIAN			

<sup>2</sup> Horne E. A. Hennings P. H., and Zahm C. K. 2021. Basement structure of the Delaware Basin, in The Geologic Basement of Texas: A Volume in Honor of Peter Flawn, Callahan O. A., and Eichubl P., The University of Texas at Austin, Bureau of Economic Geology.

<sup>3</sup> G. Randy Keller, J. M. Hills & Rabah Djeddi, A regional geological and geophysical study of the Delaware Basin, New Mexico and West Texas, Trans Pecos Region (West Texas) (1980).

<sup>4</sup> Ground Water Protection Council and Interstate Oil and Gas Compact Commission. *Potential Injection-Induced Seismicity Associated with Oil & Gas Development: A Primer on Technical and Regulatory Considerations Informing Risk Management and Mitigation*. 2015. 141 pages.

Mack Energy Corporation  
Rooster SWD #1 Seismic Information  
July 19, 2024

Geophysical data from nearby well records, aeromagnetic surveys, and gravity surveys indicates the top of the Precambrian basement to be approximately 16,000 feet bgs at the Rooster SWD #1, or approximately 2,400 feet below the proposed injection interval.<sup>3</sup> In addition, publicly available fault data does not indicate any transmissive faulting is present above the Precambrian basement around the Rooster SWD #1.

Class II SWDs in New Mexico are permitted with a maximum pressure gradient of 0.2 psi/ft. Review of New Mexico Oil Conservation Division (OCD) Order IP-537 from the Mack Energy Round Tank SWD #1, which is located approximately 15.5 miles southwest of the Rooster SWD #1, determined the maximum allowable surface pressure for a Devonian SWD in the region is 0.41 psi/ft from an approved step-rate test. Typical SWD permitting standards in New Mexico would indicate that formation parting pressure would not be exceeded by the Rooster SWD #1.

## Conclusion

As an expert on the issue of induced seismicity, seismic monitoring, and mitigation, it is my opinion that the potential for the Rooster SWD #1 to cause injection-induced seismicity is expected to be minimal, at best. This conclusion assumes the Rooster SWD #1 will be operated at or under the maximum allowable surface injection pressure based on the regulatory requirement of 0.2 psi/ft and is based on (1) the presence of numerous confining layers above and below the injection interval, (2) the significant vertical distance between the injection zone and Precambrian basement rock in which the nearest fault has been identified, and (3) the lack of mapped faults in the vicinity of the Rooster SWD #1.

Sincerely,  
ALL Consulting



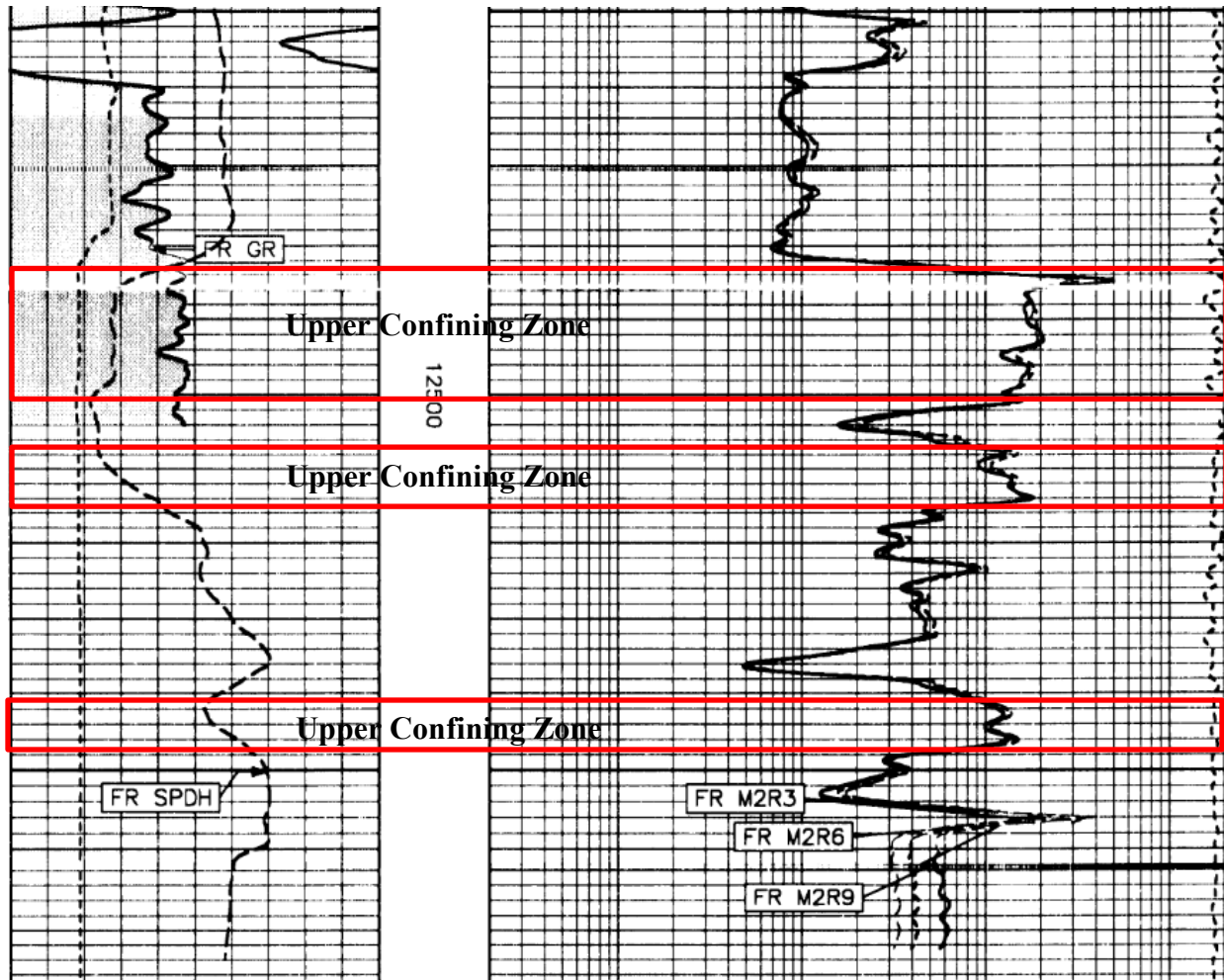
Reed Davis  
Geophysicist

Mack Energy Corporation  
Rooster SWD #1 Seismic Information  
July 19, 2024

**Attachment 1**  
**Mississippian Lime Upper Confining Zone**

Mack Energy Corporation  
Rooster SWD #1 Seismic Information  
July 19, 2024

Mississippian Lime Upper Confining Zone from API No. 025-36220

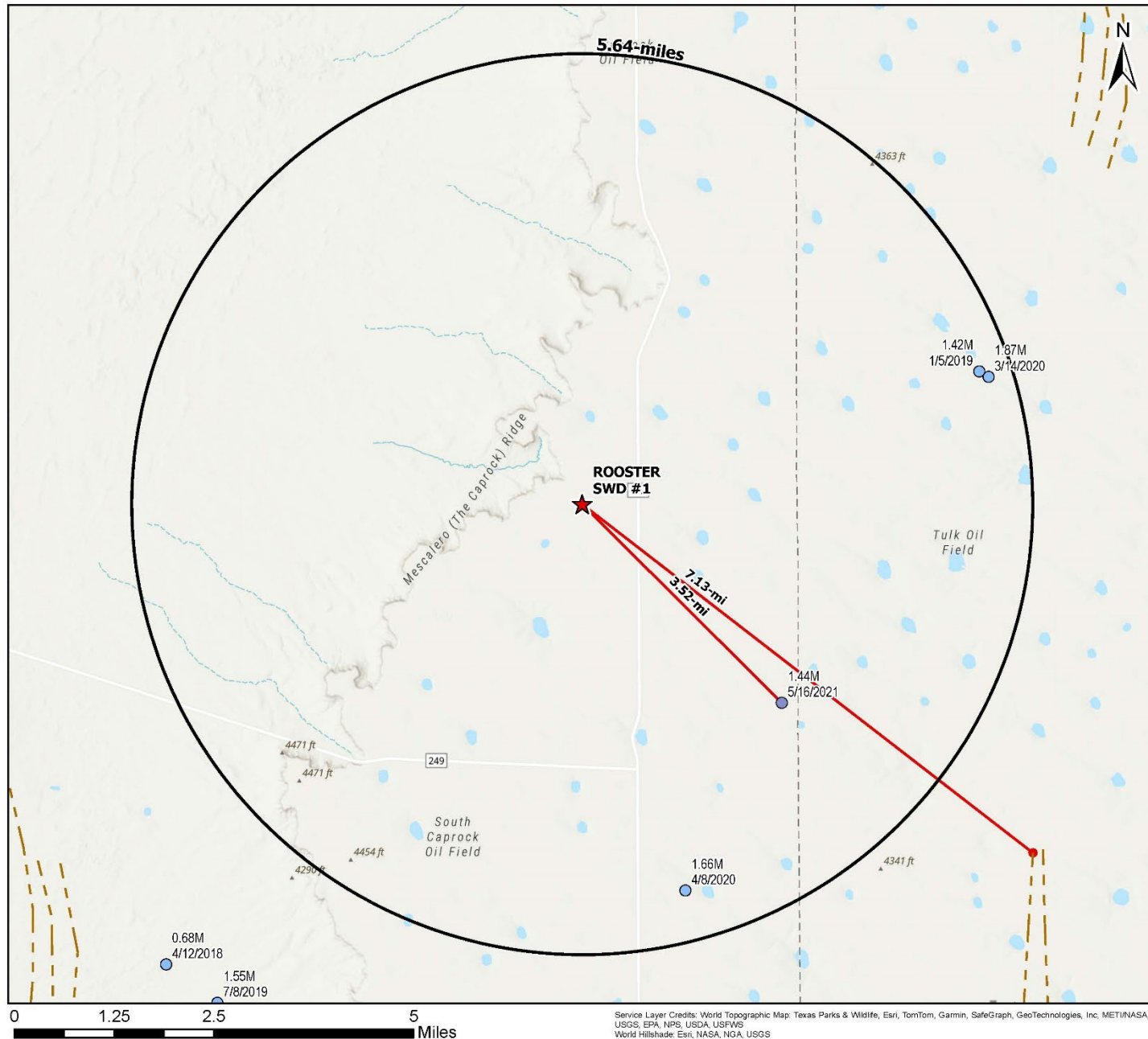


Mack Energy Corporation  
Rooster SWD #1 Seismic Information  
July 19, 2024

**Attachment 2**  
**Seismic Event Map**

Mack Energy Corporation  
Rooster SWD #1 Seismic Information  
July 19, 2024

### Rooster SWD #1 Nearby Seismic Events and Faults



#### Legend

- ★ Proposed SWD
- NMTSO Seismic Events - 7/9/24 (6)
- Deep Faults

#### Induced Seismicity Buffers

distance

- 0 - 3 mi
- 3 - 6 mi
- 6 - 10 mi

#### Seismic Analysis Map

#### ROOSTER SWD #1

CHAVES COUNTY, NEW MEXICO

Proj Mgr:  
Oliver Seekins

July 09, 2024

Mapped by:  
Ben Bockelmann

Prepared for:

**MACK**  
Energy Corporation

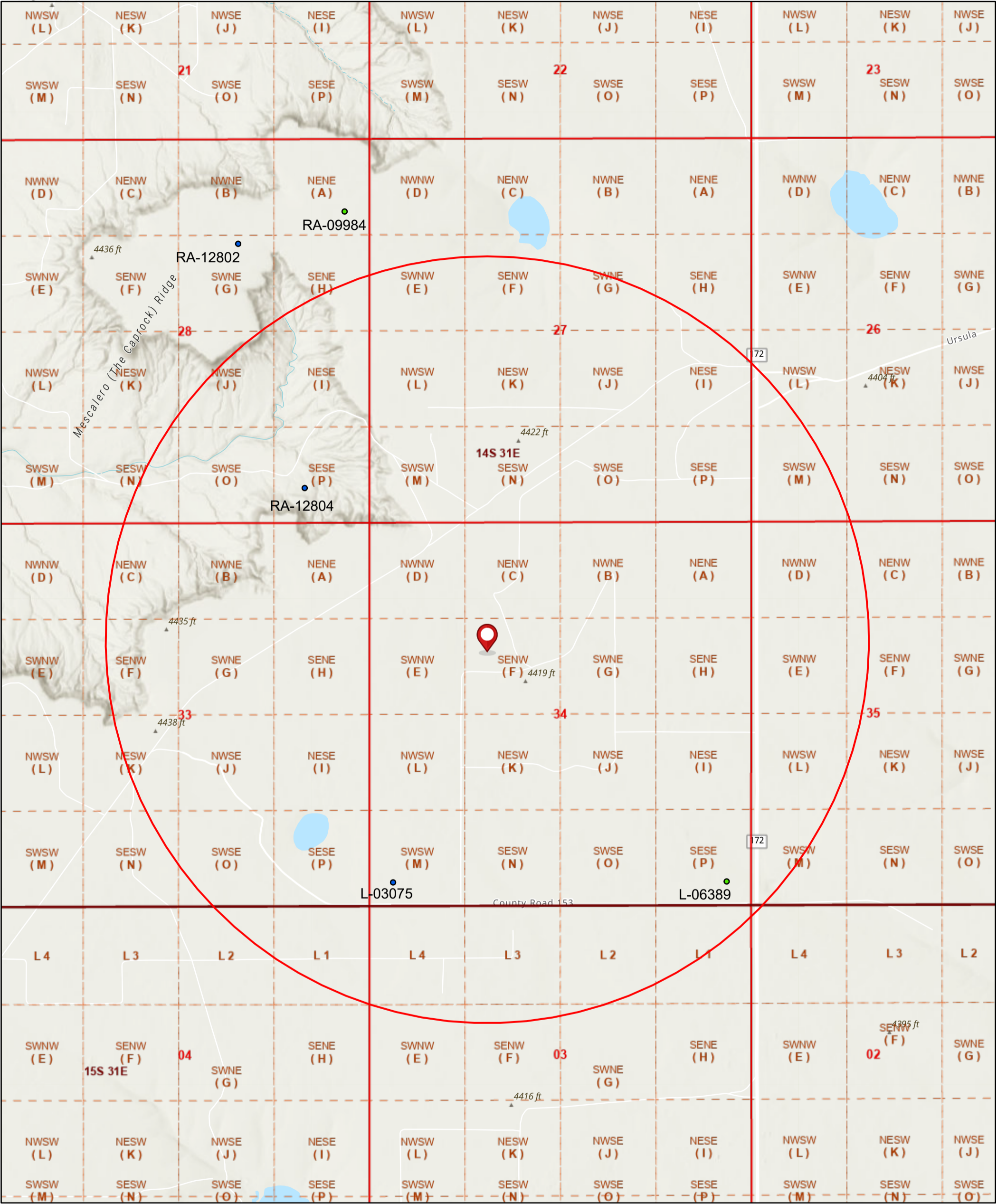
Prepared by:

**ALL** CONSULTING

## Attachment 5

Sec. 34 T14S R31E  
1650 FNL 1650 FWL  
POD MAP

# POD Map

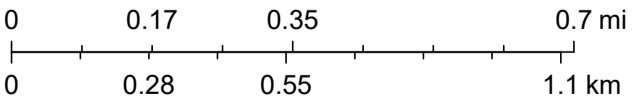


4/24/2024, 10:06:09 AM

OSE Water PODs

- Active
- Pending
- PLSS Second Division
- PLSS First Division
- PLSS Townships

1:18,056



Esri, NASA, NGA, USGS, FEMA, Esri Community Maps Contributors, New Mexico State University, Texas Parks & Wildlife, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS, BLM

### ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Transaction Summary

### UWL Update Well Location

Transaction Number: 685933

Transaction Desc: L 03075


File Date: 12/11/2020

Primary Status: UWL Update Well Location

Secondary Status: ACC Accepted

Person Assigned: \*\*\*\*\*

### Events

Date	Type	Description	Comment	Processed By
 12/11/2020	APP	Application Received	*	*****
12/11/2020	UWL	Update Well Location	WELL NOT FOUND	*****
02/02/2021	QAT	Quality Assurance Completed	DATA	*****
03/04/2021	QAT	Quality Assurance Completed	IMAGE	*****
03/09/2021	ARW	WRAB Main File Rm Arch Sect	L 03075 Archived	*****

### Change To:

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
L 03075		0		DOM 72-12-1 DOMESTIC ONE HOUSEHOLD

### \*\*Point of Diversion

L 03075 610436 3657805\* 

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

### Remarks

ABSTRACTOR NOTE: PER LORI GREEN & ANDY MORLEY ON 12/11/20 NO WELL WAS FOUND. FIELD INVESTIGATION COMPLETED ON SAID WELL. WELL NOT FOUND IN SECTION

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.

4/24/24 9:17 AM

TRANSACTION SUMMARY



# New Mexico Office of the State Engineer

## Water Right Summary


[get image list](#)

**WR File Number:** L 03204      **Subbasin:** L      **Cross Reference:** -  
**Primary Purpose:** PRO 72-12-1 PROSPECTING OR DEVELOPMENT OF NATURAL RESOURCE  
**Primary Status:** PMT PERMIT  
**Total Acres:**      **Subfile:** -      **Header:** -  
**Total Diversion:** 0      **Cause/Case:** -  
**Owner:** CYNTHIA E MEDLIN

### Documents on File

	Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
				1	2					
<a href="#">get images</a>	487566	CLW	2009-11-09	APP	WDR	L-7157 INTO L-3204	T	0	0	
<a href="#">get images</a>	487502	COWNF	1960-06-13	CHG	PRC	L 03204	T		3	
<a href="#">get images</a>	487501	72121	1956-06-01	PMT	LOG	L-3204	T		3	

### Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q	64Q16Q4Sec	Tws	Rng	X	Y	Other Location Desc
<a href="#">L 03204</a>		Shallow		3	2	34 14S 31E	611333	3652772	

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.

4/24/24 9:20 AM

WATER RIGHT SUMMARY



# New Mexico Office of the State Engineer

## Water Right Summary



**WR File Number:** L 06389      **Subbasin:** L      **Cross Reference:** -  
**Primary Purpose:** DOL 72-12-1 DOMESTIC AND LIVESTOCK WATERING  
**Primary Status:** PMT PERMIT  
**Total Acres:**      **Subfile:** -      **Header:** -  
**Total Diversion:** 3      **Cause/Case:** -  
**Owner:** MEDLIN-TAYLOR

### Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/	Acres	Diversion	Consumptive
			1	2		To			
<a href="#">get images</a>	<a href="#">507865</a>	<a href="#">72121</a>	<a href="#">1968-10-17</a>	PMT	APR L 06389	T		3	

### Current Points of Diversion

POD Number	Well Tag	Source	Q		X	Y	Other Location Desc
			64Q16Q4Sec	Tws Rng			
<a href="#">L 06389</a>			4 4 4 34	14S 31E	611843	3657822*	

\*An (\*) after northing value indicates 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.

4/24/24 9:23 AM

WATER RIGHT SUMMARY




# New Mexico Office of the State Engineer

## Water Right Summary




**WR File Number:** L 12445      **Subbasin:** L      **Cross Reference:** -  
**Primary Purpose:** PRO 72-12-1 PROSPECTING OR DEVELOPMENT OF NATURAL RESOURCE  
**Primary Status:** PMT PERMIT  
**Total Acres:**      **Subfile:** -      **Header:** -  
**Total Diversion:** 0      **Cause/Case:** -  
**Owner:** M & W INC  
**Contact:** MIKE STAPLETON

### Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/		Acres	Diversion	Consumptive
			1	2		To				
 <a href="#">get images</a>	<a href="#">487792</a>	<a href="#">72121</a>	<a href="#">2009-07-13</a>	PMT	APR L 12445	T			3	

### Current Points of Diversion

Point Points of Diversion										
(NAD83 UTM in meters)										
POD Number	Well Tag	Source	Q					X	Y	Other Location Desc
			64	Q16	Q4	Sec	Tws			
<a href="#">L 03204</a>		Shallow	3	2	34	14S	31E	611333	3652772	

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.

4/24/24 9:24 AM

WATER RIGHT SUMMARY



# 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	Use	Diversion	Owner	County	POD Number	Well	Tag	Code	Grant	Source	q	q	q	X	Y
<a href="#">RA 09984</a>	RA	STK	0	BOGLE LTD.	CH	<a href="#">RA 09984</a>						4	2	2	28	14S 31E 610201 3660615*
<a href="#">RA 12802</a>	RA	STK	3	BOGLE LTD CO	CH	<a href="#">RA 12802 POD1</a>	2249B				Shallow	2	3	2	28	14S 31E 609751 3660474
<a href="#">RA 12804</a>	RA	STK	3	BOGLE LTD CO	CH	<a href="#">RA 12804 POD1</a>	2249C				Shallow	3	4	4	28	14S 31E 610042 3659452

Record Count: 3

PLSS Search:

Section(s): 28 Township: 14S Range: 31E

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.

4/24/24 9:31 AM

ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Transaction Summary

72121 All Applications Under Statute 72-12-1

Transaction Number: 194781

Transaction Desc: RA 09984

File Date: 10/25/2000

Primary Status: EXP Expired Permit

Secondary Status: EXP Expired

Person Assigned: \*\*\*\*\*

Applicant: BOGLE LTD.

Contact: STUART BOGLE

### Events

Date	Type	Description	Comment	Processed By
10/25/2000	APP	Application Received		*****
10/26/2000	FIN	Final Action on application		*****
10/26/2000	WAP	General Approval Letter		*****
10/26/2001	EXP	Expired Permit (well log late)		*****

### Change To:

WR File Nbr	Acres	Diversion	Consumptive	Purpose of Use
RA 09984		3		STK 72-12-1 LIVESTOCK WATERING

### \*\*Point of Diversion

RA 09984	610201	3660615*	
----------	--------	----------	--

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

### Conditions

- 1A Depth of the well shall not exceed the thickness of the valley fill.
- 4 Use shall be limited to household, non-commercial trees, lawn and garden not to exceed one acre and/or stock use.

### Action of the State Engineer

**\*\* See Image For Any Additional Conditions of Approval \*\***

Approval Code: A - Approved

Action Date: 10/26/2000

Log Due Date: 10/26/2001

State Engineer: Thomas C. Turney

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.


4/24/24 9:31 AM

TRANSACTION  
SUMMARY



# New Mexico Office of the State Engineer

## Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)					(NAD83 UTM in meters)	
		(quarters are smallest to largest)					X	Y
<b>Well Tag</b>	<b>POD Number</b>	<b>Q64</b>	<b>Q16</b>	<b>Q4</b>	<b>Sec</b>	<b>Tws</b>	<b>Rng</b>	
RA 09984		4	2	2	28	14S	31E	610201 3660615* 

**Driller License:** 1400 **Driller Company:** SOUTHEAST DRILLING COMPANY

**Driller Name:**

**Drill Start Date:**

**Drill Finish Date:**

**Plug Date:**

**Log File Date:**

**PCW Rcv Date:**

**Source:**

**Pump Type:**

**Pipe Discharge Size:**

**Estimated Yield:**

**Casing Size:** 7.00

**Depth Well:** 350 feet

**Depth Water:**

\*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.

4/24/24 9:31 AM

POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Water Right Summary


[get image list](#)

**WR File Number:** RA 12802      **Subbasin:** RA      **Cross Reference:** -  
**Primary Purpose:** STK    72-12-1 LIVESTOCK WATERING  
**Primary Status:** PMT    PERMIT  
**Total Acres:**      **Subfile:** -      **Header:** -  
**Total Diversion:** 3      **Cause/Case:** -  
**Owner:** BOGLE LTD CO  
**Contact:** CHRIS CORTEZ

### Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
			1	2					
<a href="#">get images</a>	661034	72121	2019-10-18	PMT	LOG	RA 12802 POD1	T	3	

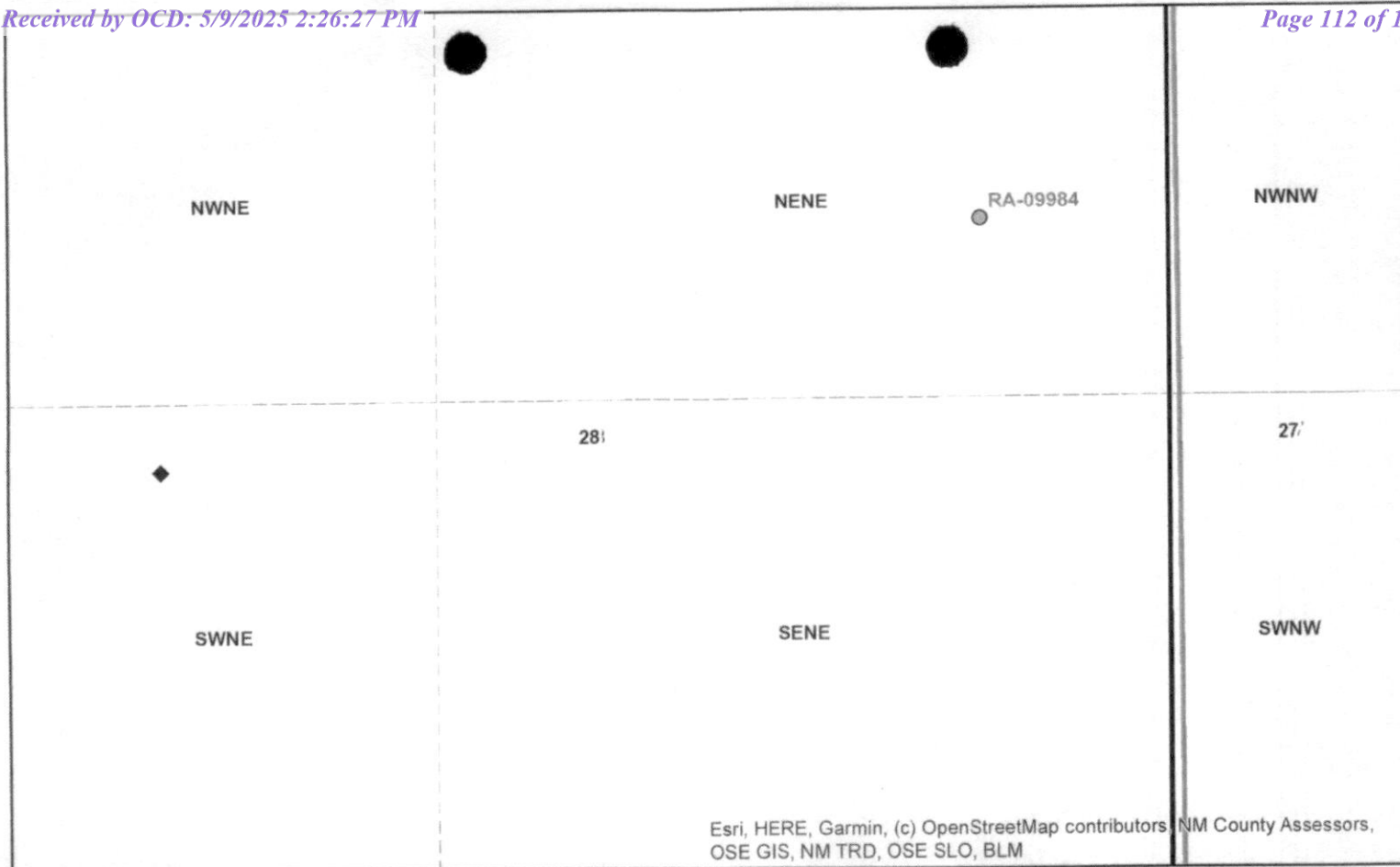
### Current Points of Diversion

POD Number	Well Tag	Source	Q					X	Y	Other Location Desc
			64	Q16	Q4	Sec	Tws	Rng		
<a href="#">RA 12802 POD1</a>	2249B	Shallow	2	3	2	28	14S	31E	609751	3660474

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.

4/24/24 9:32 AM

WATER RIGHT SUMMARY



#### Coordinates UTM - NAD 83 (m) - Zone 13

Easting 609752.129

Northing 3660474.276

#### State Plane - NAD 83 (f) - Zone E

Easting 697311.925

Northing 756048.801

#### Degrees Minutes Seconds

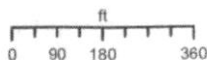
Latitude 33 : 4 : 38.400000

Longitude -103 : 49 : 26.900000

Location pulled from Coordinate Search

### NEW MEXICO OFFICE OF THE STATE ENGINEER

1:4,514



N



MA

10/18/2019



Responsible efforts have been made by the New Mexico Office of the State Engineer (OSE) to verify that these maps accurately represent the source data used in their preparation. However, a degree of error is inherent in all maps, and these maps may contain inaccuracies and errors in scale, definition, notification, production, and/or other development, maintenance, and/or other data, and other circumstances.

These maps are distributed "as is" without warranty of any kind.

#### Spatial Information

County: Chaves

Groundwater Basin: Roswell

Abstract Area: Roswell Artesian

Land Grant:

Not in Land Grant

Restrictions:

Lea County Critical Management Area

PLSS Description

NWNESWNE Qtr of Sec 28 of 014S 031E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

#### Parcel Information

UPC/DocNum: 4176084326253000000

Parcel Owner: Bogle Ltd. Co.

Address:

Legal: ALL LESS N2NW4

#### POD Information

Owner: BOGLE LTD

File Number:

POD Status: NoData

Permit Status: NoData

Permit Use: NoData

Purpose: LIVESTOCK

◆ Coord Search  
Location

☐ Chaves County  
Parcels 2018

☐ Sections

GIS WATERS  
PODs

☐ BLM Land  
Grant

● PEN

☐ PLSSTownship

OSE District  
Boundary

☐ PLSSFirstDiv...

☐ PLSSSecond...



# New Mexico Office of the State Engineer

## Water Right Summary



**WR File Number:** RA 12804      **Subbasin:** RA      **Cross Reference:** -  
**Primary Purpose:** STK 72-12-1 LIVESTOCK WATERING  
**Primary Status:** PMT PERMIT  
**Total Acres:**      **Subfile:** -      **Header:** -  
**Total Diversion:** 3      **Cause/Case:** -  
**Owner:** BOGLE LTD CO  
**Contact:** CHRIS CORTEZ

### Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/	Acres	Diversion	Consumptive
			1	2		To			
<a href="#">get images</a>	661041	72121 2019-10-18	PMT	LOG	RA 12804 POD1	T		3	

### Current Points of Diversion

POD Number	Well Tag	Source	Q					X	Y	Other Location Desc
			64	Q16	Q4	Sec	Tws	Rng		
<a href="#">RA 12804 POD1</a>	2249C	Shallow	3	4	4	28	14S	31E	610043	3659452

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4/24/24 9:34 AM

WATER RIGHT SUMMARY



## New Mexico Office of the State Engineer

# Active & Inactive Points of Diversion

(with Ownership Information)

No PODs found.

**PLSS Search:**

**Section(s):** 27      **Township:** 14S      **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.

4/24/24 9:35 AM

ACTIVE & INACTIVE POINTS OF DIVERSION

**(with Ownership Information)**

No PODs found.

**PLSS Search:**

Section(s): 26

**Township:** 14S

**Range:** 31E

The data is furnished by the IC for the particular purpose of the data.

4/24/24 9:36 AM

### ACTIVE & INACTIVE POINTS OF DIVERSION

*New Mexico Office of the State Engineer*

(with Ownership Information)

No PODs found.

**PLSS Search:**

Section(s): 03

**Township:** 14S

**Range:** 31E

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

4/24/24 9:36 AM

### ACTIVE & INACTIVE POINTS OF DIVERSION



**PLSS Search:**

**Section(s):** 33      **Township:** 14S      **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.

4/24/24 9:30 AM

### ACTIVE & INACTIVE POINTS OF DIVERSION



*New Mexico Office of the State Engineer*

### ACTIVE & INACTIVE POINTS OF DIVERSION

## Attachment 6


## **XII. AFFIRMATIVE STATEMENT**

RE: Rooster 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: 4/9/2024

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

## Attachment 7

AFFIDAVIT OF PUBLICATION  
STATE OF NEW MEXICOI, Merle Alexander  
Legals Clerk

Of the Roswell Daily Record, a daily newspaper published at Roswell, New Mexico do solemnly swear that the clipping hereto attached was published in the regular and entire issue of said paper and not in a supplement thereof for a period of:

One time with the issue dated

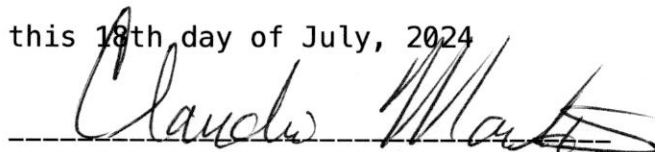
July 14th, 2023



Clerk

Sworn and subscribed to before me

this 18th day of July, 2024



Notary Public



## Public Notice...

Publish July 14, 2024

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 Rooster SWD #1 1650 FNL 1650 FWL of Section 34, T14S, R31E, NMPM, Chaves County, New Mexico. The water will be injected into the Devonian at a disposal depth of 12,900-13,600'. Water will be injected at a maximum surface pressure of 2,580# and a maximum injection rate of 15,000-20,000 BWPD. Any interest party with questions or comments may contact Deana Weaver at Mack Energy Corporation, Post Office Box 960, Artesia, NM 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 publication of this notice.

**Publish July 14, 2024**

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 Rooster SWD #1 1650 FNL 1650 FWL of Section 34, T14S, R31E, NMPM, Chaves County, New Mexico. The water will be injected into the Devonian at a disposal depth of 12,900-13,600'. Water will be injected at a maximum surface pressure of 2,580# and a maximum injection rate of 15,000-20,000 BWPD. Any interested party with questions or comments may contact Deana Weaver at Mack Energy Corporation, Post Office Box 960, Artesia, NM 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 publication of this notice.



Rooster SWD #1  
 Sec. 34 T14S R31E  
 1650 FNL 1650 FWL  
 Chaves, NM

**Proof of Notice****Mineral / Surface Owner List**

Name		Address	City	State	Zip	Certified Mail Id
New Mexico State Land Office	Mineral / Surface Owner	310 Old Santa Fe Trail	Santa Fe	NM	87501	<u>9589 0710 5270 0175 5638 95</u>
Bureau Of Land Management	Mineral / Surface Owner	2909 W. Second Street	Roswell	NM	88201	9589 0710 5270 0175 5639 01
Union of California	Surface Owner	6301 Deauville Blvd	Midland	TX	79706-2964	9589 0710 5270 0175 5639 18
Chevron USA Inc	Surface Owner	6301 Deauville Blvd	Midland	TX	79706-2964	9589 0710 5270 0175 5639 25
Kevin Butler & Asso. Inc	Surface Owner	P.O. Box 1171	Midland	TX	79702	9589 0710 5270 0175 5639 32
Susan Maunder	Surface Owner	600 W. Illinois Ave	Midland	TX	79701	9589 0710 5270 0175 5638 33
Cimarex Energy Co.	Surface Owner	6001 Deauville Suite 300	Midland	TX	79701	9589 0710 5270 0175 5638 40
EOG Resouces Inc	Surface Owner	1111 Bagby St. Sky Lobby 2	Houston	TX	77002	9589 0710 5270 0175 5638 57



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

---

August 9, 2024

Via Certified Mail 9589 0710 5270 0175 5639 01

Return Receipt Requested

Bureau of Land Management  
2909 W. Second Street  
Roswell, NM 88201

To all Interest Owners:

Enclosed for your review is a copy of Mack Energy Corporation's application for a Devonian SWD well. Produced water will be injected at a proposed depth of 12,900-13,600'. The Rooster SWD #1 located 1650 FNL & 1650 FWL, Sec. 34 T14S R31E, Chaves County.

The letter will serve as a notice that Mack Energy Corporation has requested administrative approval from the NMOCD to drill this well as a water disposal. 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

A handwritten signature in blue ink that reads "Deana Weaver".

Deana Weaver  
Regulatory Technician II

DW/

Attachments



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

---

August 9, 2024

Via Certified Mail 9589 0710 5270 0175 5638 95

Return Receipt Requested

Commissioner of Public Lands  
New Mexico State Land Office  
P.O. Box 1148  
Santa Fe, NM 87504-1148

To all Interest Owners:

Enclosed for your review is a copy of Mack Energy Corporation's application for a Devonian SWD well. Produced water will be injected at a proposed depth of 12,900-13,600'. The Rooster SWD #1 located 1650 FNL & 1650 FWL, Sec. 34 T14S R31E, Chaves County.

The letter will serve as a notice that Mack Energy Corporation has requested administrative approval from the NMOCD to drill this well as a water disposal. 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

A handwritten signature in blue ink that reads "Deana Weaver".

Deana Weaver  
Regulatory Technician II

DW/

Attachments



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

---

August 9, 2024

Via Certified Mail 9589 0710 5270 0175 5639 18

Return Receipt Requested

Union of California  
6301 Deauville Blvd  
Midland, TX 79706-2964

To all Interest Owners:

Enclosed for your review is a copy of Mack Energy Corporation's application for a Devonian SWD well. Produced water will be injected at a proposed depth of 12,900-13,600'. The Rooster SWD #1 located 1650 FNL & 1650 FWL, Sec. 34 T14S R31E, Chaves County.

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Office (575) 748-1288  
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August 9, 2024

Via Certified Mail 9589 0710 5270 0175 5639 25

Return Receipt Requested

Chevron USA INC  
6301 Deauville Blvd  
Midland, TX 79706-2964

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Sincerely,

Mack Energy Corporation

A handwritten signature in blue ink that reads "Deana Weaver". The signature is written in a cursive style with a checkmark at the end.

Deana Weaver  
Regulatory Technician II

DW/

Attachments



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

---

August 9, 2024

Via Certified Mail 9589 0710 5270 0175 5639 32

Return Receipt Requested

Kevin Butler & Associates Inc.  
P.O. Box 1171  
Midland, TX 79702

To all Interest Owners:

Enclosed for your review is a copy of Mack Energy Corporation's application for a Devonian SWD well. Produced water will be injected at a proposed depth of 12,900-13,600'. The Rooster SWD #1 located 1650 FNL & 1650 FWL, Sec. 34 T14S R31E, Chaves County.

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Sincerely,

Mack Energy Corporation

A handwritten signature in blue ink that reads "Deana Weaver". The signature is written in a cursive style with a large, sweeping "D" and a long, horizontal stroke at the end.

Deana Weaver  
Regulatory Technician II

DW/

Attachments



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

---

August 9, 2024

Via Certified Mail 9589 0710 5270 0175 5638 33

Return Receipt Requested

Susan Maunder  
600 W. Illinois Ave  
Midland, TX 79701

To all Interest Owners:

Enclosed for your review is a copy of Mack Energy Corporation's application for a Devonian SWD well. Produced water will be injected at a proposed depth of 12,900-13,600'. The Rooster SWD #1 located 1650 FNL & 1650 FWL, Sec. 34 T14S R31E, Chaves County.

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Sincerely,

Mack Energy Corporation

A handwritten signature in blue ink that reads "Deana Weaver".

Deana Weaver  
Regulatory Technician II

DW/

Attachments



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

---

August 9, 2024

Via Certified Mail 9589 0710 5270 0175 5638 40

Return Receipt Requested

Cimarex Energy Co.  
6001 Deauville Suite 300  
Midland, TX 79701

To all Interest Owners:

Enclosed for your review is a copy of Mack Energy Corporation's application for a Devonian SWD well. Produced water will be injected at a proposed depth of 12,900-13,600'. The Rooster SWD #1 located 1650 FNL & 1650 FWL, Sec. 34 T14S R31E, Chaves County.

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Sincerely,

Mack Energy Corporation

A handwritten signature in blue ink that reads "Deana Weaver". The signature is written in a cursive, flowing style.

Deana Weaver  
Regulatory Technician II

DW/

Attachments



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

---

August 9, 2024

Via Certified Mail 9589 0710 5270 0175 5638 57

Return Receipt Requested

EGO Resources INC  
1111 Bagby St. Sky Lobby 2  
Houston, TX 77002

To all Interest Owners:

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The letter will serve as a notice that Mack Energy Corporation has requested administrative approval from the NMOCD to drill this well as a water disposal. 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

A handwritten signature in blue ink that reads "Deana Weaver". The signature is fluid and cursive, with the first name "Deana" being more prominent than the last name "Weaver".

Deana Weaver  
Regulatory Technician II

DW/

Attachments

## SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

Susan Maunder  
600 W. Illinois Ave  
Midland, TX 79701



9590 9402 8605 3244 1554 09

2. Article Number (Transfer from service label)

9589 0710 5270 0175 5638 33

PS Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt

## COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

B. Received by (Printed Name)

L. Brac Milabanco

C. Date of Delivery

8-13

Is delivery address different from item 1? ☐ Yes  
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Is delivery address different from item 1? ☐ Yes  
If YES, enter delivery address below: ☐ No

(over \$500)

## SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

EOG Resouces Inc  
1111 Bagby St. Sky Lobby 2  
Houston, TX 77002



9590 9402 8605 3244 1553 86

2. Article Number (Transfer from service label)

9589 0710 5270 0175 5638 57

PS Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt

## COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

B. Received by (Printed Name)

M Crites

C. Date of Delivery

8-13

Is delivery address different from item 1? ☐ Yes  
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Is delivery address different from item 1? ☐ Yes  
If YES, enter delivery address below: ☐ No

(over \$500)

## SENDER: COMPLETE THIS SECTION

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- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

Kevin Butler & Asso. Inc  
P.O. Box 1171  
Midland, TX 79702



9590 9402 7322 2028 8099 06

2. Article Number (Transfer from service label)

9589 0710 5270 0175 5639 32

PS Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt

## COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

B. Received by (Printed Name)

Crystal Flores

C. Date of Delivery

8-12

Is delivery address different from item 1? ☐ Yes  
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Is delivery address different from item 1? ☐ Yes  
If YES, enter delivery address below: ☐ No

(over \$500)

## SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

Cimarex Energy Co.  
6001 Deauville Suite 300  
Midland, TX 79701



9590 9402 8605 3244 1553 93

2. Article Number (Transfer from service label)

9589 0710 5270 0175 5638 40

PS Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt

## COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

B. Received by (Printed Name)

mailroom

C. Date of Delivery

8-12

Is delivery address different from item 1? ☐ Yes  
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail

- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

Is delivery address different from item 1? ☐ Yes  
If YES, enter delivery address below: ☐ No

(over \$500)

**COMPLETE THIS SECTION ON DELIVERY**

- |  |                                     |  |
|--|-------------------------------------|--|
| A. Signature<br><b>X</b>  |                                     | <input type="checkbox"/> Agent<br><input type="checkbox"/> Addressee |
| B. Received by (Printed Name)<br><u>Ashlee L. Mason</u>  | C. Date of Delivery<br><u>10/17</u> |  |
| Is delivery address different from item 1?<br>YES, enter delivery address below:                             |                                     | <input type="checkbox"/> Yes<br><input type="checkbox"/> No          |

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

2. The second step is to gather relevant information and data. This may involve research, consultation with experts, or collecting data from various sources.

3. The third step is to analyze the information and data collected. This involves identifying patterns, trends, and relationships that can help in understanding the problem.

4. The fourth step is to develop a solution or answer. This involves applying the knowledge and skills gained from the previous steps to create a plan or strategy that addresses the problem.

5. The fifth step is to implement the solution. This involves putting the plan into action and monitoring the progress to ensure that the solution is effective.

6. The sixth step is to evaluate the results. This involves assessing the outcomes of the solution and determining whether they meet the requirements of the task.

7. The seventh step is to communicate the results. This involves sharing the findings and conclusions with the relevant stakeholders and providing feedback on the process.

8. The eighth step is to reflect on the process. This involves thinking about what worked well and what could be improved for future tasks.

9. The ninth step is to document the process. This involves creating a record of the steps taken and the results achieved, which can be used as a reference for future tasks.

10. The tenth step is to review the process. This involves looking back at the entire process and making any necessary adjustments to improve efficiency and effectiveness.

9590 9402 7322 2028 8099 44

3. Service Type

<input type="checkbox"/> Adult Signature	<input type="checkbox"/> Priority Mail Express®
<input type="checkbox"/> Adult Signature Restricted Delivery	<input type="checkbox"/> Registered Mail™
<input type="checkbox"/> Certified Mail®	<input type="checkbox"/> Registered Mail Restricted Delivery
<input type="checkbox"/> Certified Mail Restricted Delivery	<input type="checkbox"/> Signature Confirmation™
<input type="checkbox"/> Collect on Delivery	<input type="checkbox"/> Signature Confirmation Restricted Delivery
<input type="checkbox"/> Collect on Delivery Restricted Delivery	
<input type="checkbox"/> Insured Mail	
<input type="checkbox"/> Insured Mail Restricted Delivery	

9589 0710 5270 0175 5638 95

Domestic Return Receipt

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

2. Once the problem is identified, the next step is to define the objectives and goals of the project. This helps to clarify what needs to be achieved and provides a clear direction for the team.

3. The third step is to develop a plan or strategy to address the problem. This involves breaking down the problem into smaller, manageable tasks and determining the resources needed to complete each task.

4. The fourth step is to implement the plan. This involves putting the strategy into action and monitoring progress regularly to ensure that the project is on track.

5. The final step is to evaluate the results of the project. This involves comparing the actual outcomes with the original objectives and goals to determine the effectiveness of the project.

9590 9402 7322 2028 8099 20

<b>3. Service Type</b>	<input type="checkbox"/> Priority Mail Express®
<input type="checkbox"/> Adult Signature	<input type="checkbox"/> Registered Mail™
<input type="checkbox"/> Adult Signature Restricted Delivery	<input type="checkbox"/> Registered Mail Restricted Delivery
<input type="checkbox"/> Certified Mail®	<input type="checkbox"/> Signature Confirmation™
<input type="checkbox"/> Certified Mail Restricted Delivery	<input type="checkbox"/> Signature Confirmation Restricted Delivery
<input type="checkbox"/> Collect on Delivery	
<input type="checkbox"/> Collect on Delivery Restricted Delivery	

9589 0710 5270 0175 5639 18

PS Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt

**COMPLETE THIS SECTION ON DELIVERY**

- |  |                                     |  |
|--|-------------------------------------|--|
| A. Signature<br><b>X</b>                                  |                                     | <input type="checkbox"/> Agent<br><input type="checkbox"/> Addressee |
| B. Received by (Printed Name)<br><u>Adrian L. Mason</u>  | C. Date of Delivery<br><u>10/17</u> |  |
| Is delivery address different from item 1? <input type="checkbox"/> Yes<br>If YES, enter delivery address below: <input type="checkbox"/> No |                                     |  |

Bureau of Land Management  
2909 W. Second Street  
Roswell, NM 88201

1. The first step is to identify the problem or question that needs to be addressed. This involves understanding the context and the specific requirements of the task.

2. Next, it is important to gather relevant information and resources. This may include researching existing solutions, consulting with experts, or collecting data.

3. Once the information is gathered, the next step is to analyze it and identify the key factors that influence the outcome. This often involves breaking down the problem into smaller, more manageable parts.

4. After analysis, a plan or strategy should be developed. This plan should outline the steps that need to be taken to solve the problem, taking into account the resources available and the potential challenges.

5. The final step is to implement the plan and monitor the progress. This involves putting the plan into action and regularly checking in to see how things are going. If necessary, adjustments should be made along the way.

9590 9402 7322 2028 8099 37

3. Service Type

<input type="checkbox"/> Adult Signature	<input type="checkbox"/> Priority Mail Express®
<input type="checkbox"/> Adult Signature Restricted Delivery	<input type="checkbox"/> Registered Mail™
<input type="checkbox"/> Certified Mail®	<input type="checkbox"/> Registered Mail Restricted Delivery
<input type="checkbox"/> Certified Mail Restricted Delivery	<input type="checkbox"/> Signature Confirmation™
<input type="checkbox"/> Collect on Delivery	<input type="checkbox"/> Signature Confirmation Restricted Delivery
<input type="checkbox"/> Collect on Delivery Restricted Delivery	

1 01 Restricted Delivery

9589 0710 5270 0175 5639 01

PS Form 3811, July 2020 PSN 7530-02-000-9053

### Domestic Return Receipt

**Chevron USA Inc**  
**6301 Deauville Blvd**  
**Midland, TX 79706-2964**

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

2. Once the problem is identified, the next step is to define the objectives and goals of the project. This helps to clarify what needs to be achieved and provides a clear direction for the team.

3. The third step is to develop a plan or strategy to address the problem. This involves breaking down the problem into smaller, manageable tasks and determining the resources needed to complete them.

4. The fourth step is to implement the plan. This involves putting the strategy into action and monitoring progress regularly to ensure that the project is on track.

5. Finally, the fifth step is to evaluate the results of the project. This involves assessing the outcomes against the objectives and goals and identifying any areas for improvement.

9590 9402 7322 2028 8099 13

3. Service Type

☐ Adult Signature

☐ Adult Signature Restricted Delivery

☐ Certified Mail®

☐ Certified Mail Restricted Delivery

☐ Collect on Delivery

☐ Collect on Delivery Restricted Delivery

☐ Priority Mail Express®

☐ Registered Mail™

☐ Registered Mail Restricted Delivery

☐ Signature Confirmation™

☐ Signature Confirmation Restricted Delivery

9589 0710 5270 0175 5639

PS Form 3811, July 2020 PSN 7530-02-000-9053

Domestic Return Receipt

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/oed/contact-us>

State of New Mexico  
Energy, Minerals and Natural Resources  
Oil Conservation Division  
1220 S. St Francis Dr.  
Santa Fe, NM 87505

CONDITIONS

Action 460632

CONDITIONS

Operator: MACK ENERGY CORP P.O. Box 960 Artesia, NM 882110960	OGRID: 13837
	Action Number: 460632
	Action Type: [IM-SD] Admin Order Support Doc (ENG) (IM-AAO)

CONDITIONS

Created By	Condition	Condition Date
mgebremichael	None	5/9/2025