

# AE Order Number Banner

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**Application Number: pMSG2411459075**

**PMX-353**

**Big Star Investments, LLC [331180]**

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL  
RESOURCES DEPARTMENT

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

FORM C-108  
Revised June 10, 2003

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: \_\_\_\_\_ Secondary Recovery ☒ Pressure Maintenance \_\_\_\_\_ Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval? \_\_\_\_\_ Yes \_\_\_\_\_ No
- II. OPERATOR: Big Star Investments, LLC  
ADDRESS: P.O. Box 122171, Fort Worth, Texas 76121  
CONTACT PARTY: Lucas Knickerbocker PHONE: 817-266-4246
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.  
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? \_\_\_\_\_ Yes ☒ No  
If yes, give the Division order number authorizing the project: \_\_\_\_\_
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- \*XI. Attach a chemical analysis of 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.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Lucas Knickerbocker TITLE: President/Managing Member
- SIGNATURE: \_\_\_\_\_ DATE: 4/22/2024
- E-MAIL ADDRESS: Lucas@KnickLand.com
- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: \_\_\_\_\_

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

Side 2

### 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.
- (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.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

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.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (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.

### XIV. PROOF OF NOTICE

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.

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. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

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NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

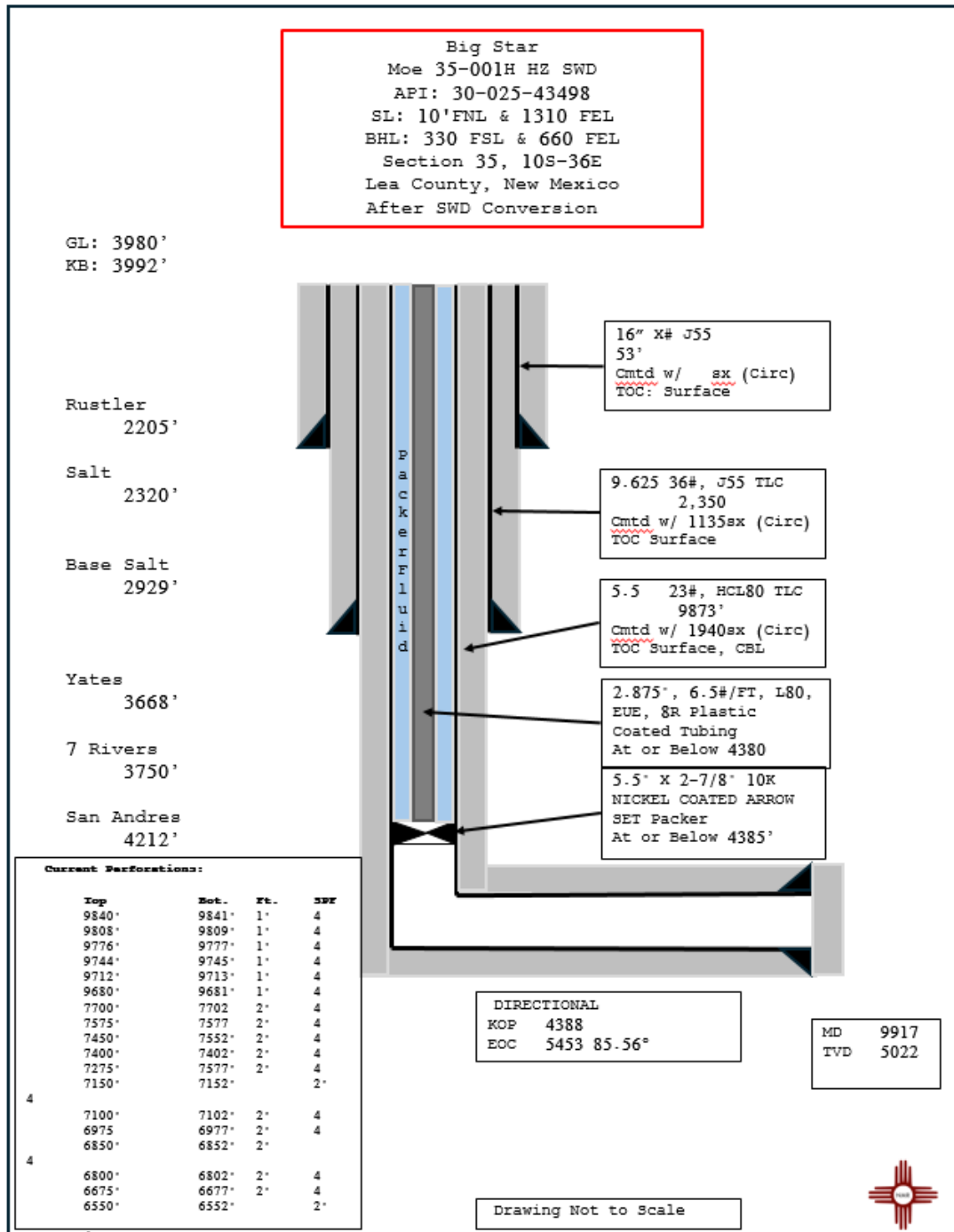
**INJECTION WELL DATA SHEET**

OPERATOR: Big Star Investments, LLC

WELL NAME &amp; NUMBER: MOE SAN ANDRES UNIT 35 #104H

WELL LOCATION:

| 10 FN & 1310FEL  | A,H,I,P     | 35      | T10S     | R36E  |
|------------------|-------------|---------|----------|-------|
| FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE |

**WELLBORE SCHEMATIC**

**WELL CONSTRUCTION DATA****Surface Casing**Hole Size: 12.25 Casing Size: 9.625Cemented with: 1135 sx. **or** \_\_\_\_\_ ft<sup>3</sup>Top of Cement: Surface Method Determined: Circulated**Intermediate Casing**Hole Size: N/A Casing Size: N/ACemented with: N/A sx. **or** \_\_\_\_\_ ft<sup>3</sup>Top of Cement: N/A Method Determined: N/A**Production Casing**Hole Size: 8.75 Casing Size: 5.5Cemented with: 1940 sx. **or** \_\_\_\_\_ ft<sup>3</sup>Top of Cement: Surface Method Determined: CirculatedTotal Depth: 4993 TVD/ 9917' MD**Injection Interval**4285' feet to 5022'

through perforations as show on wellbore diagram

Side 2

**INJECTION WELL DATA SHEET**Tubing Size: 2 7/8Lining Material: Inner Plastic CoatedType of Packer: Arrow SetPacker Setting Depth: 4385'Other Type of Tubing/Casing Seal (if applicable): N/AAdditional Data1. Is this a new well drilled for injection? NoIf no, for what purpose was the well originally drilled? Oil Production from the San Andres Formation2. Name of the Injection Formation: San Andres3. Name of Field or Pool (if applicable): Dickenson: San Andres4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. NO5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Overlying Zones – Rustler (2205'); Salt (2320'); Base Salt (2929'); Yates (3668'); Seven Rivers (3750')



Form C-102  
Revised October 12, 2005  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION  
1220 South St. Frances Dr.  
Santa Fe, NM 87505

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

|                             |                                   |                                    |
|-----------------------------|-----------------------------------|------------------------------------|
| API Number<br>30-025- 43499 | Pool Code<br>17650                | Pool Name<br>Dickenson; San Andres |
| Property Code<br>317159     | Property Name<br>MOE 35 SA UNIT   | Well Number<br>1-04H 1041          |
| OGRID No.<br>310809         | Operator Name<br>NEMO FUND I, LLC | Elevation<br>3980'                 |

### Surface Location

|               |         |          |       |         |               |                  |               |                |        |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
| A             | 35      | 10 S     | 36 E  |         | 10            | NORTH            | 1310          | EAST           | LEA    |

## 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 |
| P             | 35      | 10 S     | 36 E  |         | 330           | SOUTH            | 660           | EAST           | LEA    |

|                 |                 |                    |           |
|-----------------|-----------------|--------------------|-----------|
| Dedicated Acres | Joint or Infill | Consolidation Code | Order No. |
| 160             | N               |                    |           |

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

**GEODETIC COORDINATES**  
NAD 27 NME

**SURFACE LOCATION**  
X = 839076.10  
Y = 878762.14

LAT. = 33°24'38.67" N  
LONG. = 103°13'19.92" W

**BOTTOM HOLE LOCATION**  
X = 839781.73  
Y = 873831.47

**CORNER COORDINATES TABLE**

| Point | X         | Y         |
|-------|-----------|-----------|
| A:    | 839066.40 | 878772.03 |
| B:    | 840385.92 | 878786.08 |
| C:    | 840445.51 | 873508.76 |
| D:    | 839125.46 | 873494.22 |

**Scale**  
1" = 1000'

**NOTE:**  
1) Plane Coordinates and Bearings shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927. To obtain surface values multiply by a factor of 1.00004346.

**OPERATOR CERTIFICATION**  
I hereby certify 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 retained mineral interests in the land including the proposed bottom hole location or has a right to drill the 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.

DJ Holcomb 12/14/2016  
Signature Date  
Danny J. Holcomb - Agent  
Printed Name

**SURVEYOR CERTIFICATION**  
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.

December 2, 2016  
Date of Survey

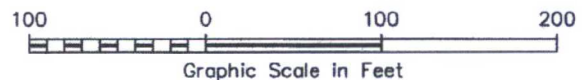
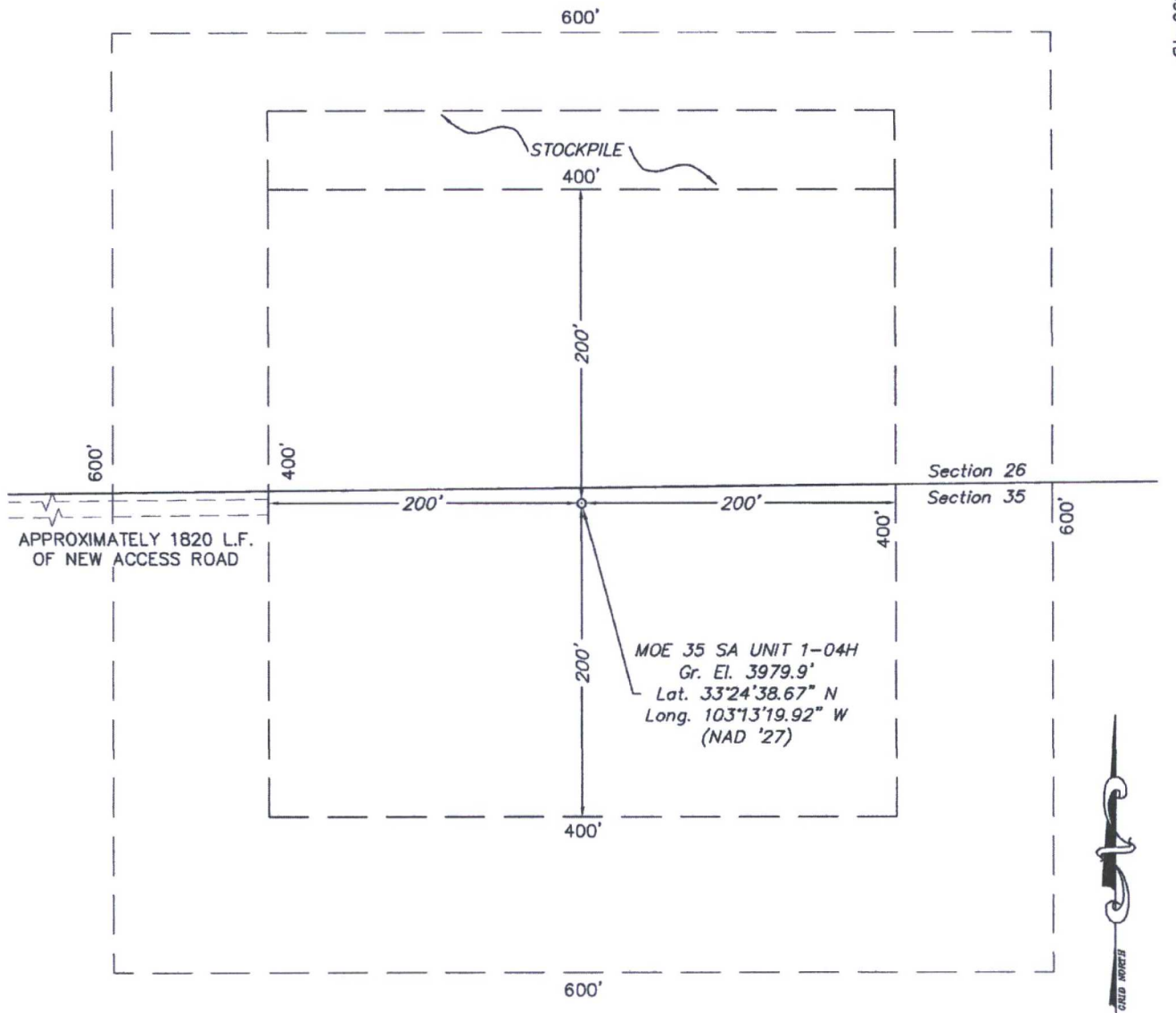
Signature & Seal  
Lindsay Gygax  
LINDSAY GYGAX, NEW MEXICO PROFESSIONAL SURVEYOR  
23263  
12-13-16  
W.O. Num. 0596  
Certificate No. Lindsay Gygax 23263

## SECTIONS 26 &amp; 35, TOWNSHIP 10 SOUTH, RANGE 36 EAST, N.M.P.M.

LEA COUNTY

NEW MEXICO

2016-0596-1B

DRIVING DIRECTIONS

FROM THE INTERSECTION OF STATE HIGHWAY 206 AND U.S. HIGHWAY 380 IN TATUM, NEW MEXICO, GO EAST ON U.S. HIGHWAY 380 4.0 MILES TO BLEDSOE HWY. / CO. RD. 125 ON NORTH (LEFT) SIDE OF THE HIGHWAY. THEN GO NORTH AND NORTHEAST 11.5 MILES TO A LEASE ROAD ON THE WEST (LEFT) SIDE OF THE ROAD, THEN GO WEST ON LEASE ROAD 1.0 MILE AND NORTH 1.0 MILE TO A POINT APPROXIMATELY 0.40 MILE EAST OF THE PROPOSED LOCATION.



**SURVEYORS - ENGINEERS - PLANNERS**  
 FIRM REGISTRATION NUMBER: 100682-00  
 110 W. LOUISIANA AVE., SUITE 110  
 MIDLAND, TEXAS 79701  
 (432) 687-0865 - FAX (432) 687-0868

NEMO Fund I, LLC

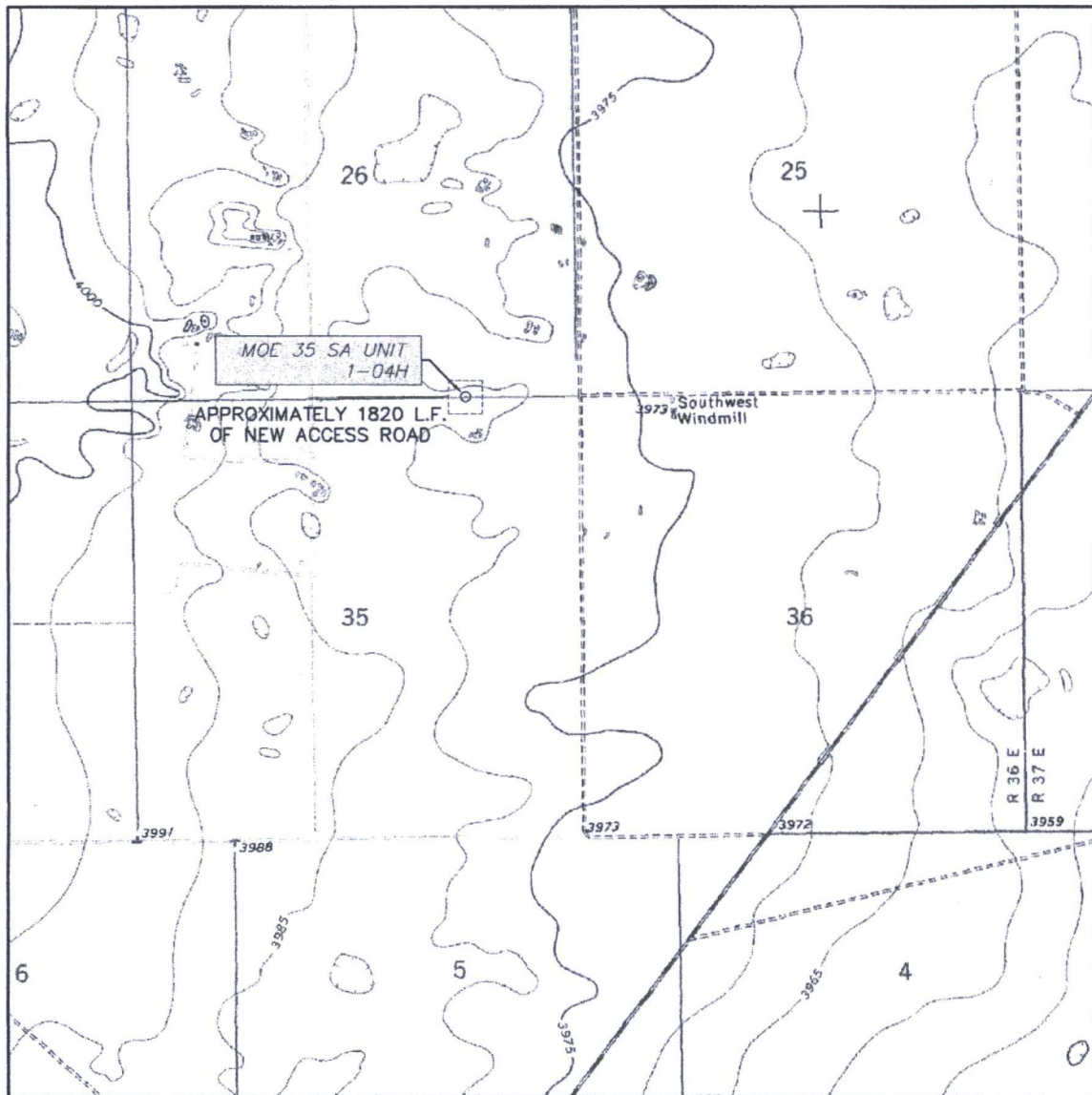
MOE 35 SA UNIT 1-04H

**Located 10' FNL & 1310' FEL, Section 35**  
**Township 10 South, Range 36 East, N.M.P.M.**  
**Lea County, New Mexico**

|                           |                        |
|---------------------------|------------------------|
| Drawn By: SC              | Date: December 7, 2016 |
| Scale: 1" = 100'          | Field Book: 1003/ 38   |
| Revision Date: 12-12-2016 | Quadrangle: Lea        |
| W.O. No: 2016-0596        | Dwg. No.: 2016-0596-1B |



## LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
LEA - 10'SEC. 35 TWP. 10-S RGE. 36-ESURVEY N.M.P.M.COUNTY LEADESCRIPTION 10' FNL & 1310' FELELEVATION 3980'OPERATOR NEMO FUND I, LLCLEASE MOE 35 SA UNIT

U.S.G.S. TOPOGRAPHIC MAP

LEA
  
**WEST COMPANY**  
 Land Surveyors Civil Engineers

**SURVEYORS - ENGINEERS - PLANNERS**  
**FIRM REGISTRATION NUMBER: 100682-00**  
 110 W. LOUISIANA AVE., SUITE 110  
 MIDLAND, TEXAS 79701  
 (409) 697-8825 FAX (409) 697-8828

## PROPOSED WELLBORE DIAGRAM

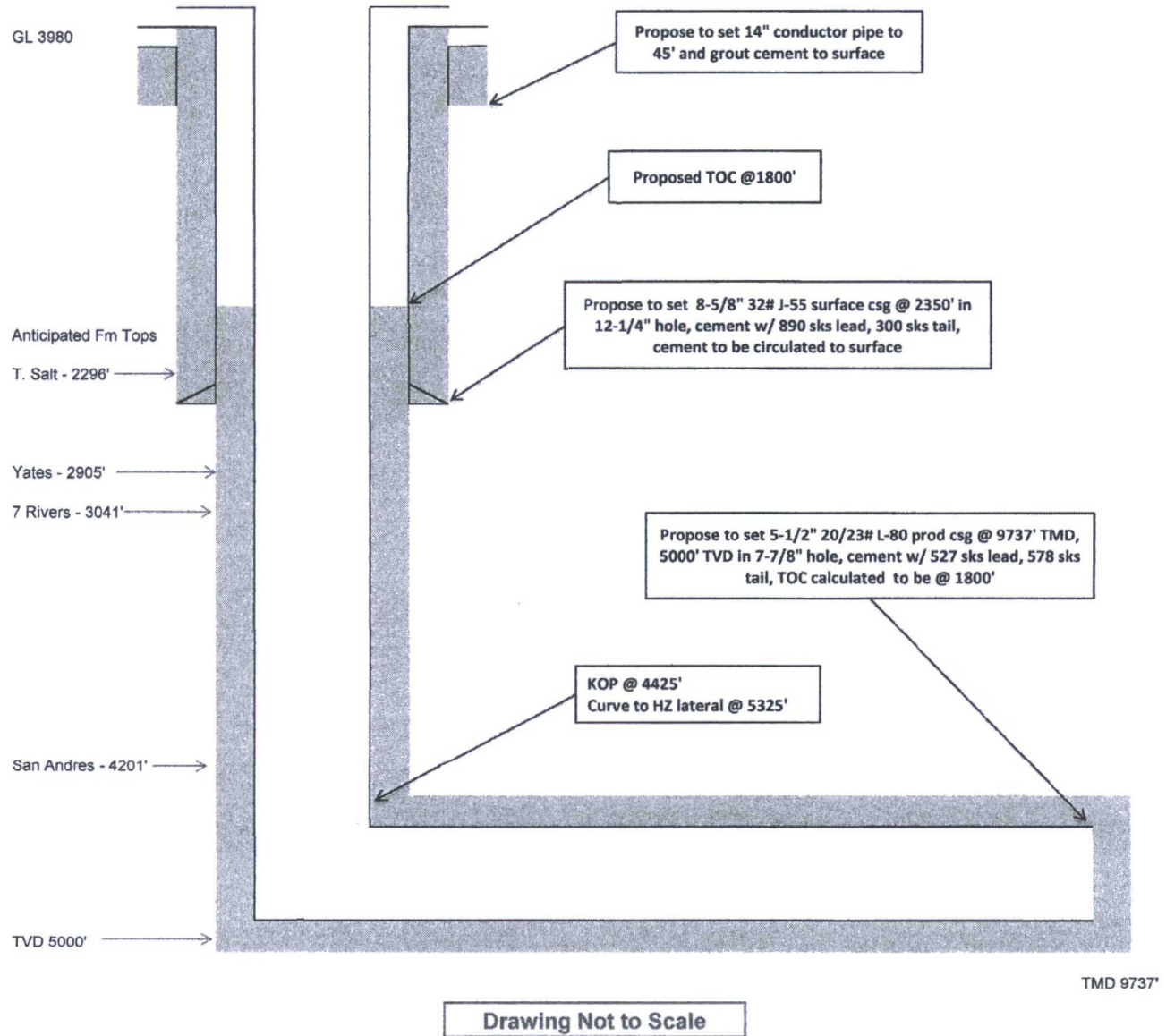
Nemo Fund I, LLC

Moe San Andres Unit 35 #1-04H

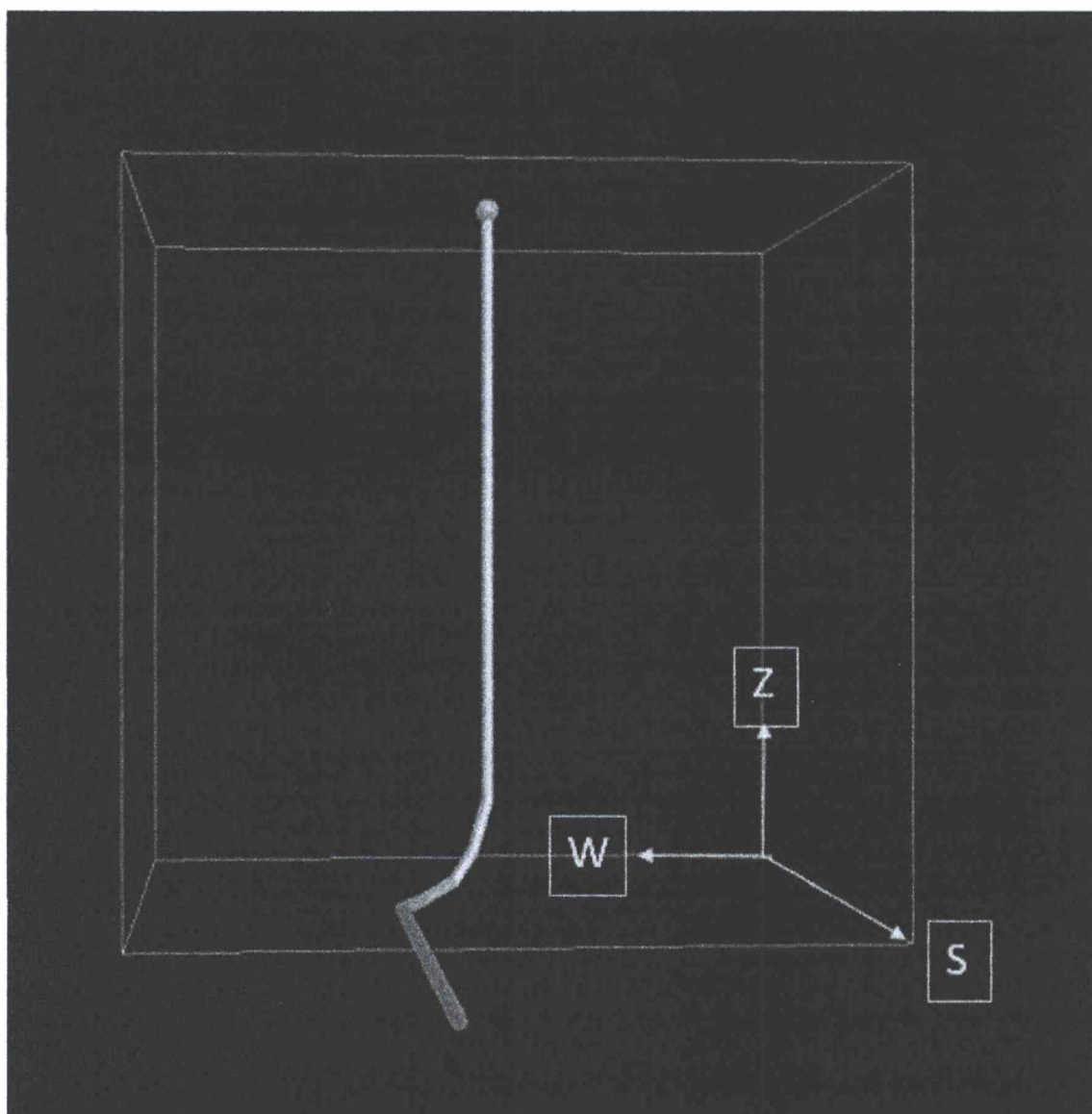
API # 30-025-TBD

SL - 10' FNL x 1310' FWL, UL 'A' Sec 35, T10S, R36E, Lea County, NM

BHL - 330' FSL x 660' FEL, UL 'P' Sec 35, T10S, R36E, Lea County, NM



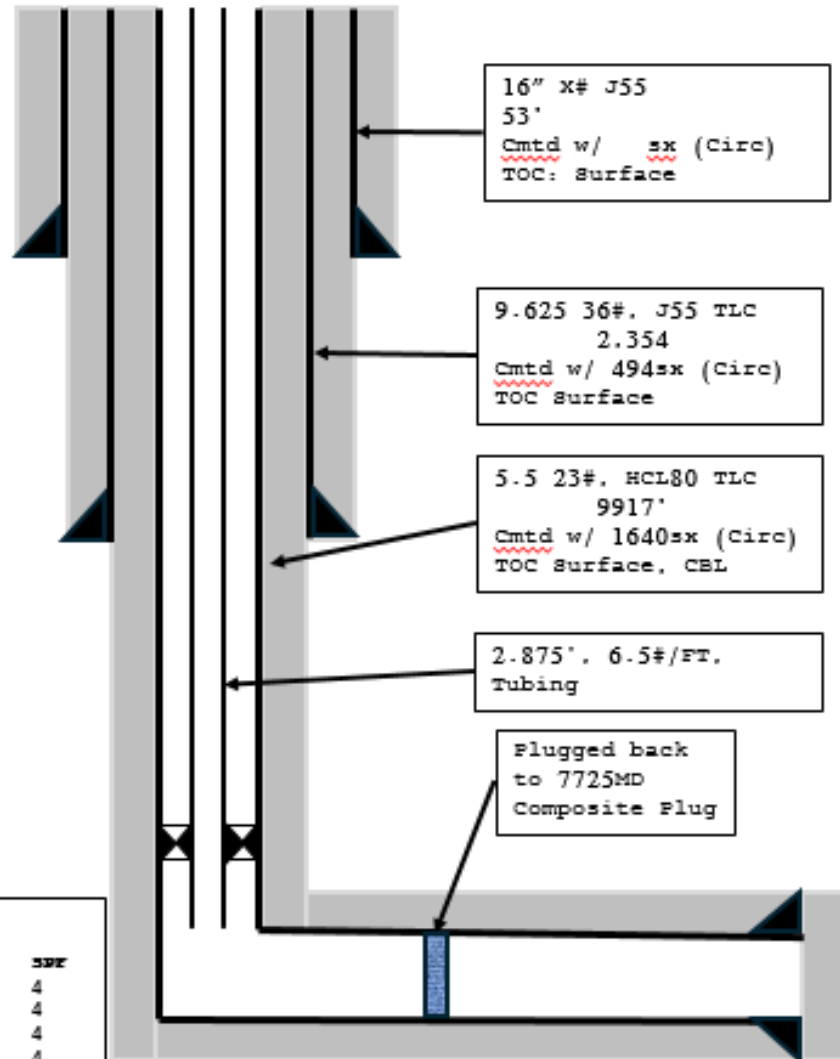
**Moe San Andres Unit 35 #1-04H**  
**A-35-10S-36E**  
**Planned Directional Path**



Big Star  
 Moe 35-001H HZ SWD  
 API: 30-025-43498  
 SL: 10'FNL & 1310 FEL  
 BHL: 330 FSL & 660 FEL  
 Section 35, 10S-36E  
 Lea County, New Mexico  
 Before SWD Conversion

GL: 3980'  
 KB: 3992'

Rustler  
 2205'  
 Salt  
 2320'  
 Base Salt  
 2929'  
 Yates  
 3668'  
 7 Rivers  
 3750'  
 San Andres  
 4212'



**Current Perforations in BOLD:**

| Top          | Bot.         | Ft.       | SWF       |
|--------------|--------------|-----------|-----------|
| 9840*        | 9841*        | 1*        | 4         |
| 9808*        | 9809*        | 1*        | 4         |
| 9776*        | 9777*        | 1*        | 4         |
| 9744*        | 9745*        | 1*        | 4         |
| 9712*        | 9713*        | 1*        | 4         |
| 9680*        | 9681*        | 1*        | 4         |
| <b>7700*</b> | <b>7702*</b> | <b>2*</b> | <b>4</b>  |
| <b>7575*</b> | <b>7577*</b> | <b>2*</b> | <b>4</b>  |
| <b>7450*</b> | <b>7552*</b> | <b>2*</b> | <b>4</b>  |
| <b>7400*</b> | <b>7402*</b> | <b>2*</b> | <b>4</b>  |
| <b>7275*</b> | <b>7577*</b> | <b>2*</b> | <b>4</b>  |
| <b>7150*</b> | <b>7152*</b> | <b>2*</b> | <b>2*</b> |
| 4            |              |           |           |
| <b>7100*</b> | <b>7102*</b> | <b>2*</b> | <b>4</b>  |
| <b>6975*</b> | <b>6977*</b> | <b>2*</b> | <b>4</b>  |
| <b>6850*</b> | <b>6852*</b> | <b>2*</b> |           |
| 4            |              |           |           |
| <b>6800*</b> | <b>6802*</b> | <b>2*</b> | <b>4</b>  |
| <b>6675*</b> | <b>6677*</b> | <b>2*</b> | <b>4</b>  |
| <b>6550*</b> | <b>6552*</b> | <b>2*</b> | <b>2*</b> |

DIRECTIONAL  
 KOP 4388  
 EOC 5453 85.56°

MD 9917  
 TVD 5022

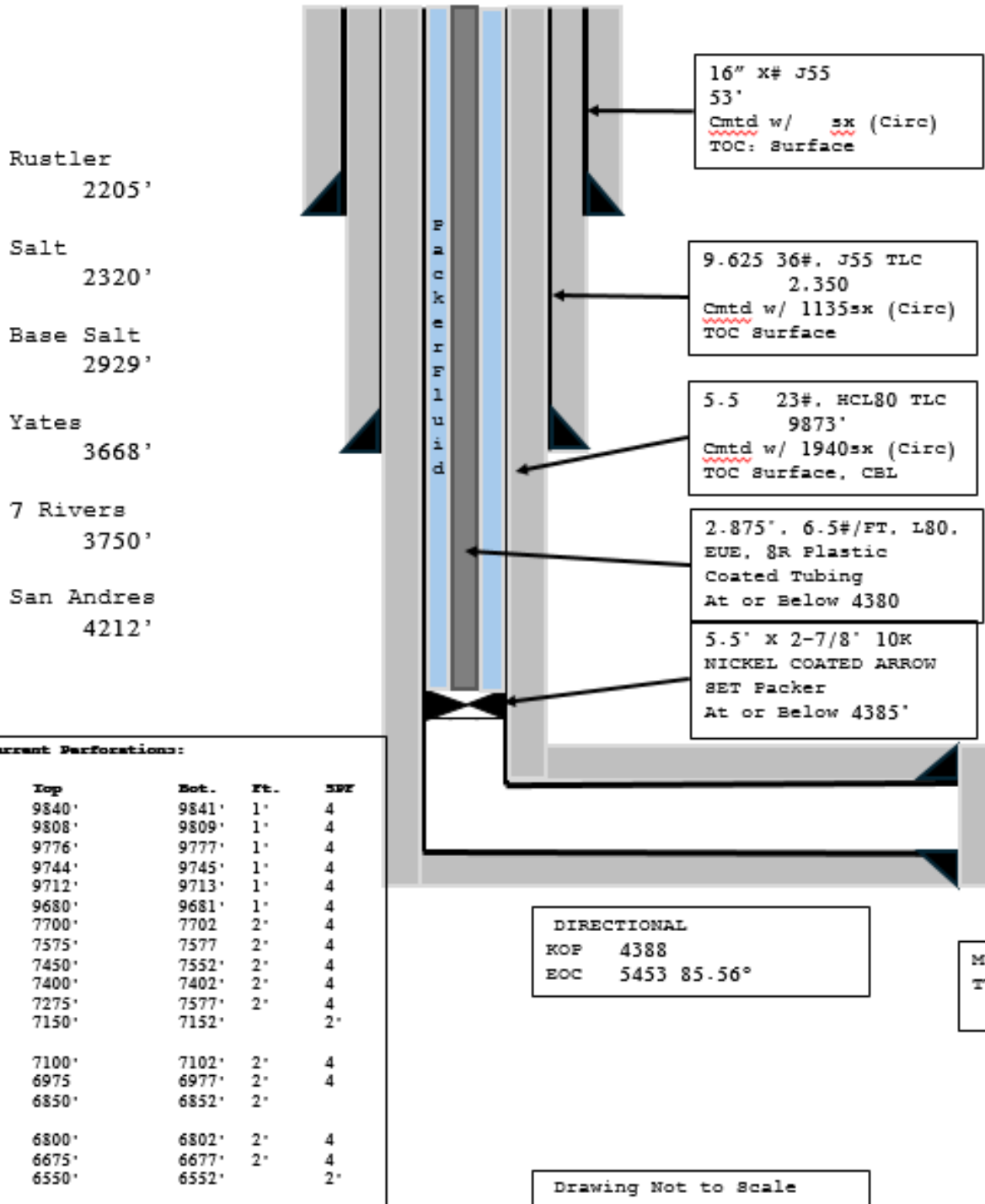
Drawing Not to Scale





Big Star  
 Moe 35-001H HZ SWD  
 API: 30-025-43498  
 SL: 10'FNL & 1310 FEL  
 BHL: 330 FSL & 660 FEL  
 Section 35, 10S-36E  
 Lea County, New Mexico  
 After SWD Conversion

GL: 3980'  
 KB: 3992'



**BIG STAR INVESTMENTS, LLC**

**P. O. Box 122171  
Fort Worth, Texas 76121**

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March 25, 2024

**Send Via Certified Mail #7018 183 001 3745 4989**

Slash Z Land and Cattle, LLC  
C/o Ron Glass  
P.O. Box 736  
Tatum, New Mexico 88267

**Re: Notices of Injection Well Application for the  
Moe San Andres Unit 35 #104H  
Lea County, New Mexico**

Mr. Glass:

Enclosed is an Application for Authorization to Inject for pressure maintenance into the Moe San Andres Unit 23 #105H well (API 30-025-43499) located in Section 35 T10S-R39E, Lea County, New Mexico (10' FNL and 1310' FEL).

The proposed injection would be into the San Andres formation which has an approximate depth of 5,000 feet below the surface of the earth.

We are requesting an injection interval of 4,285' to 5,022'.

The expected maximum injection rate would be 2,000 bbls per day with a maximum pressure of 2,500 psi.

If you have objections, please contact me at the number or email address listed below.

Sincerely,

Sincerely,

Lucas Knickerbocker  
Petroleum Landman  
P.O. Box 122171  
Fort Worth, TX 76121  
(817) 266-4246  
[Lucas@KnickLand.com](mailto:Lucas@KnickLand.com)

7018 1830 0001 3745 4989

# U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

Tatum, NM 88267

Certified Mail Fee \$4.40

Extra Services &amp; Fees (check box, add fee as appropriate)

☐ Return Receipt (hardcopy) \$0.00  
☐ Return Receipt (electronic) \$0.00  
☐ Certified Mail Restricted Delivery \$0.00  
☐ Adult Signature Required \$0.00  
☐ Adult Signature Restricted Delivery \$0.00

Postage \$1.63

Total Postage and Fees \$9.68

03/25/2024

Sent To Slash Z Land and Cattle

Street and Apt. No., or PO Box No. P.O. Box 736

City, State, ZIP+4® Tatum, NM 88267

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

## 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.

1. Article Addressed to:

Slash Z Land and Cattle  
 Yo Ron Glass  
 P.O. Box 736  
 Tatum, New Mexico 88267



9590 9402 6101 0125 3407 82

2. Article Number (Transfer from service label)

7018 1830 0001 3745 4989

PS Form 3811, July 2015 PSN 7530-02-000-9053

## COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Ronald S. Glass*☐ Agent☒ Addressee

B. Received by (Printed Name)

Ronald S. Glass

C. Date of Delivery

3/29/24

D. 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  
☐ Insured Mail Restricted Delivery (over \$500)

☐ Priority Mail Express®  
☐ Registered Mail™  
☐ Registered Mail Restricted Delivery

☐ Return Receipt for Merchandise  
☐ Signature Confirmation™  
☐ Signature Confirmation Restricted Delivery

Domestic Return Receipt

## PROPOSED INJECTION WELL

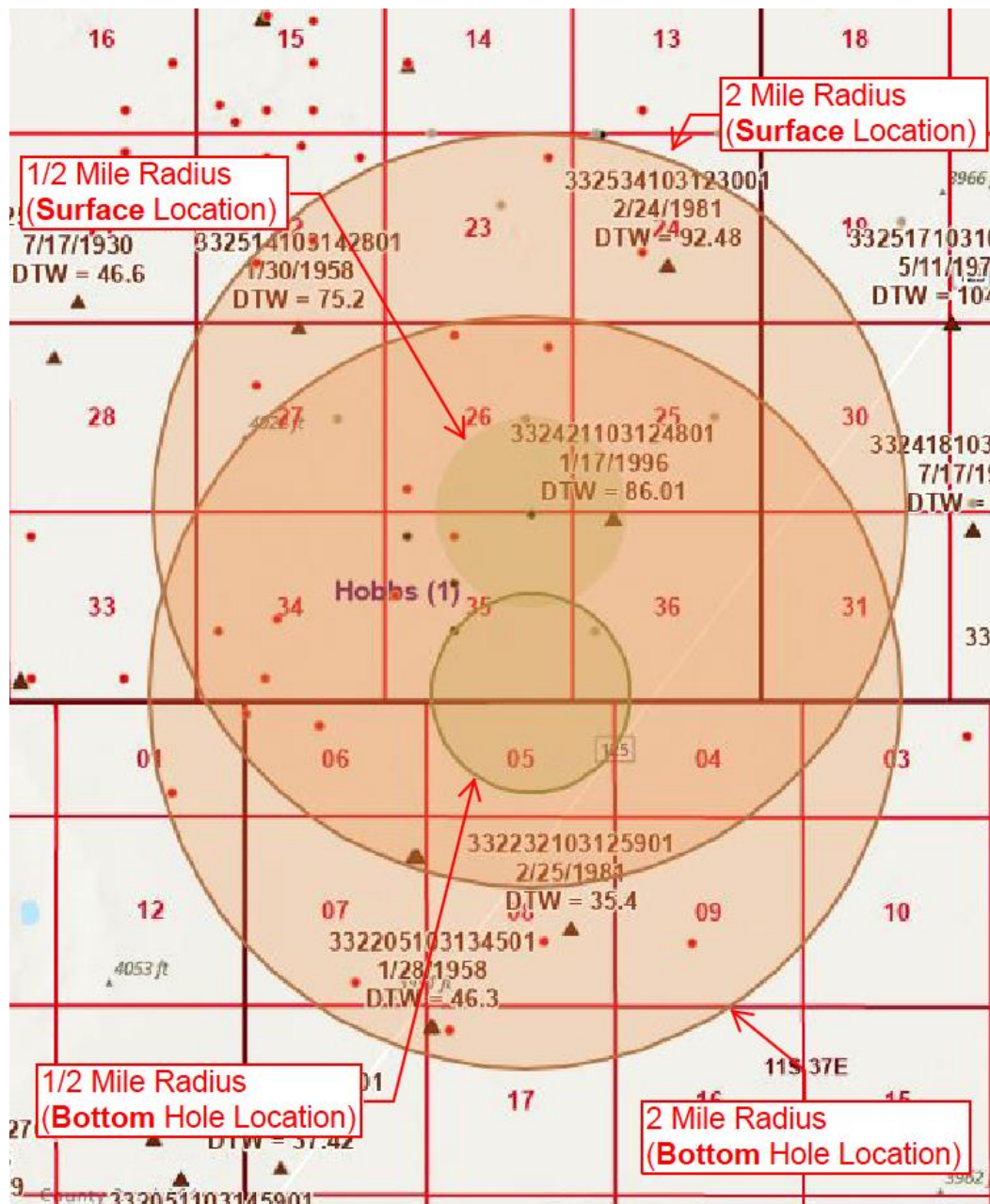
MOE SAN ANDRES UNIT 35 #104H

Section 35, T10S-R36E

Lea County, New Mexico

### ½ Mile & 2 Mile Area of Review

(Surface and Bottom Hole Locations)





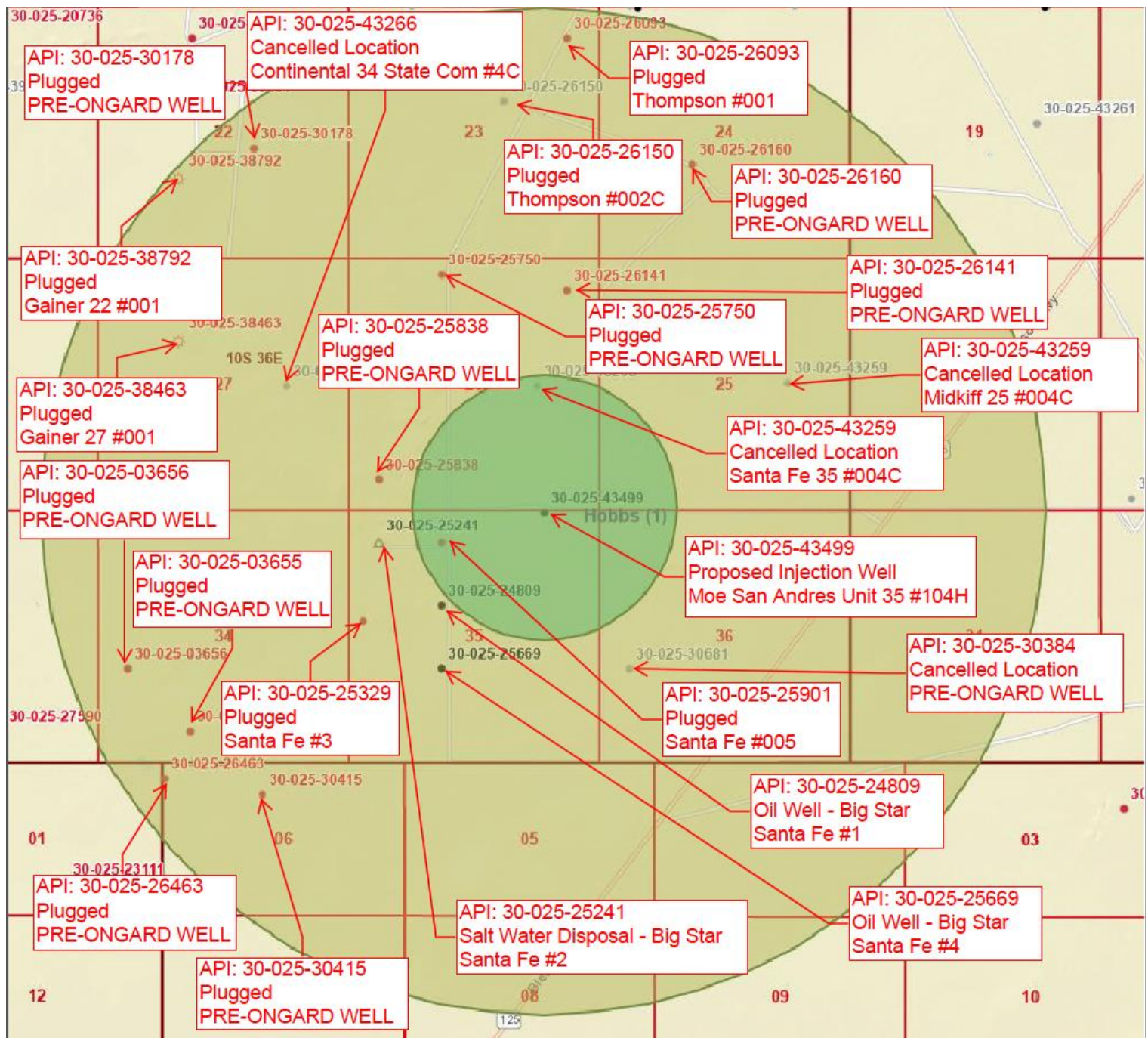
## PROPOSED INJECTION WELL

MOE SAN ANDRES UNIT 35 #104H

Section 35, T10S-R36E

Lea County, New Mexico

### ½ Mile & 2 Mile Area of Review – All Wells (Surface Location)



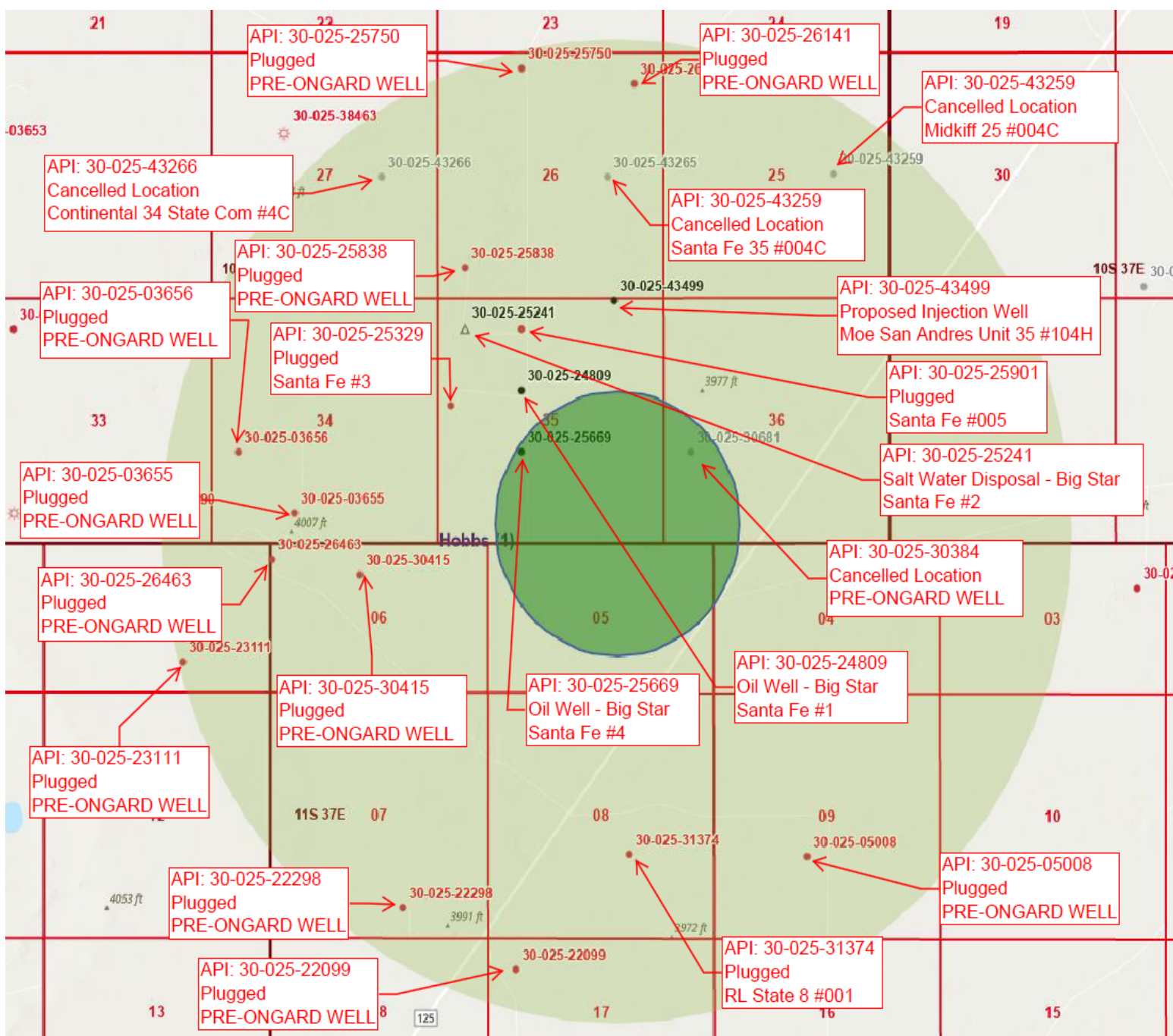
## PROPOSED INJECTION WELL

MOE SAN ANDRES UNIT 35 #104H

Section 35, T10S-R36E

Lea County, New Mexico

### ½ Mile & 2 Mile Area of Review – All Wells (Bottom Hole Location)



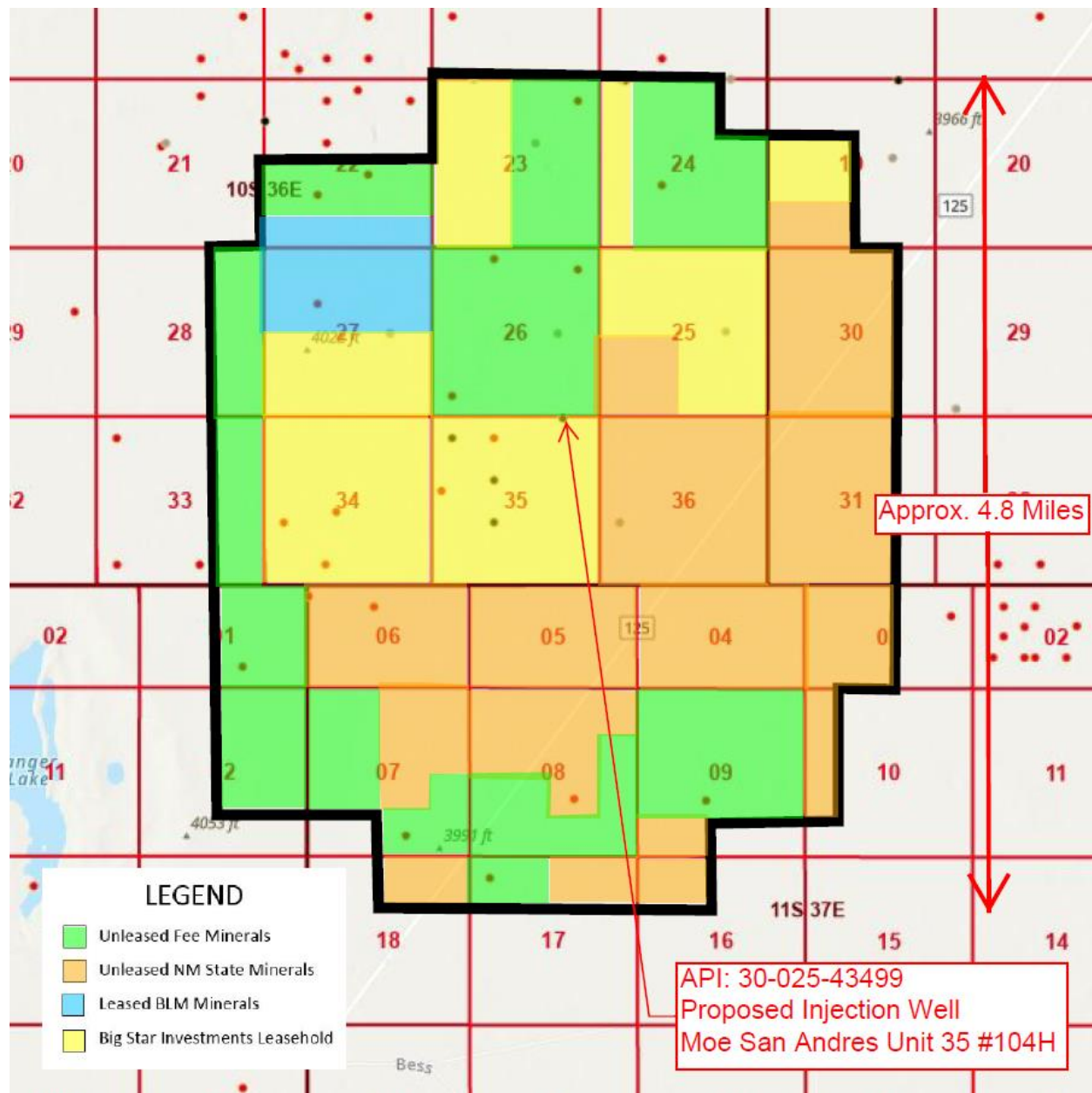
## PROPOSED INJECTION WELL

MOE SAN ANDRES UNIT 35 #104H

Section 35, T10S-R36E

Lea County, New Mexico

### 2 Mile Area of Review – Leasehold (Surface and Bottom Hole Locations)





**PROPOSED INJECTION WELL**

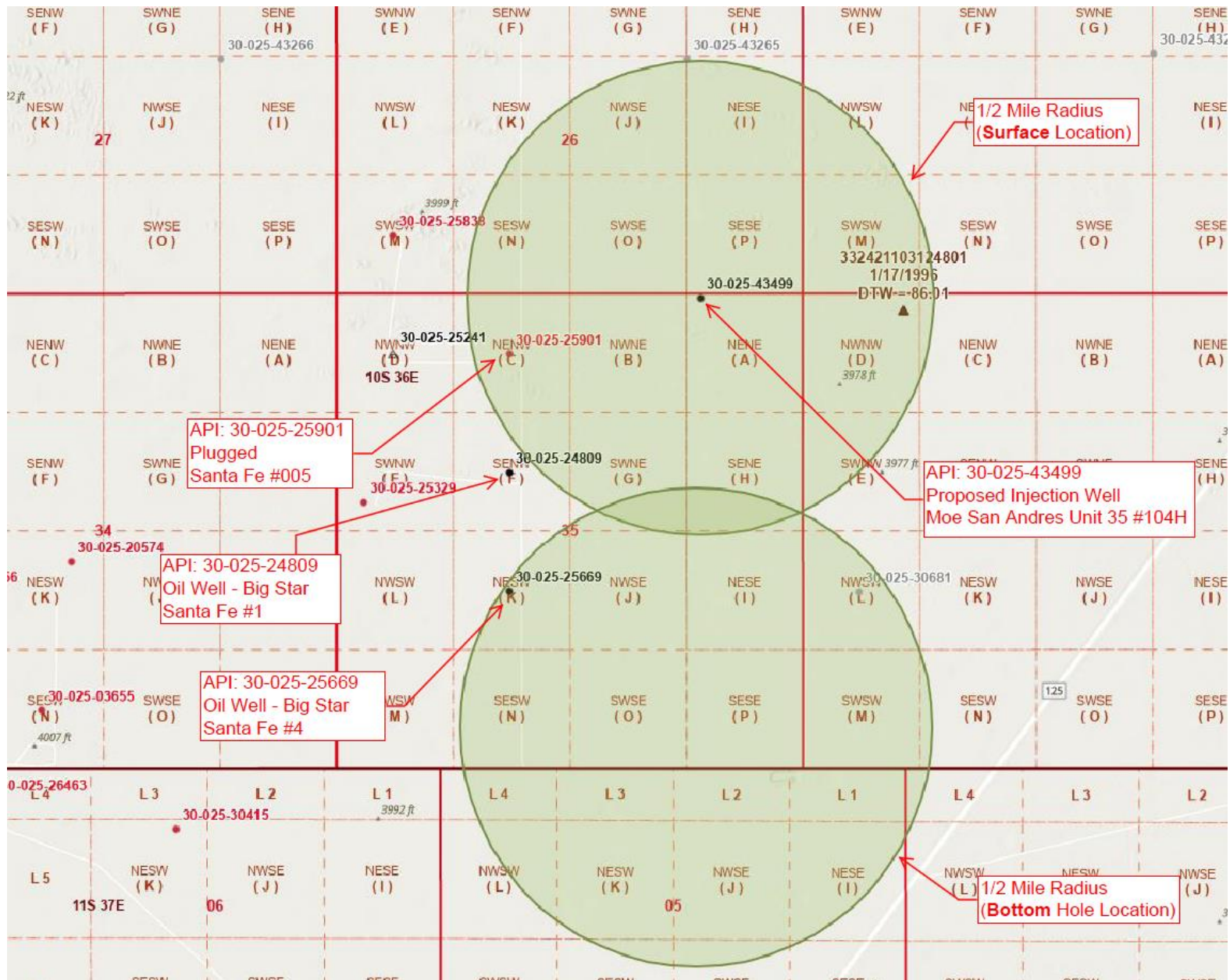
MOE SAN ANDRES UNIT 35 #104H

Section 35, T10S-R36E

Lea County, New Mexico

**½ Mile Area of Review**

(Surface and Bottom Hole Locations)





**PROPOSED INJECTION WELL**

MOE SAN ANDRES UNIT 35 #104H

Section 35, T10S-R36E

Lea County, New Mexico

Wells Within 1/2 Radius of Proposed Injection Well  
 MOE SAN ANDRES UNIT 35 #14H  
 API 30-025-43499

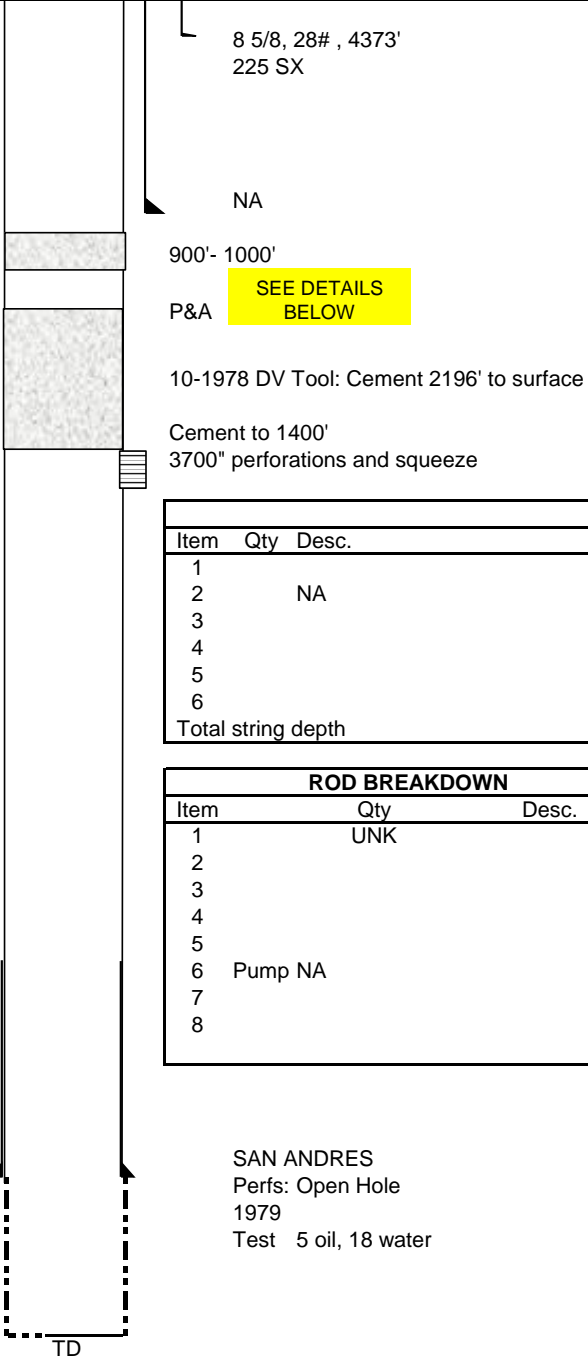
| Well Type | Well Name   | API          | Operator                  | Construction | Date Drilled | Location  | Depth  | Current Status | Record of Completion                                |
|-----------|-------------|--------------|---------------------------|--------------|--------------|---|--------|----------------|---|
| Oil       | Santa Fe #5 | 30-025-25901 | Reed & Stevens, Inc.      | Rotary       | 4/28/1978    | Unit C<br>660' North Line<br>1980' West Line<br>Sec 35 T10S-R36E  | 4991'  | Plugged        | Completed<br>2/1/1979<br>Plugged<br>7/6/1984        |
| Oil       | Santa Fe #1 | 30-025-24809 | Big Star Investmnets, LLC | Rotary       | 9/22/1974    | Unit F<br>1980' North Line<br>1980' West Line<br>Sec 35 T10S-R36E | 10800' | Producing      | Completed<br>11/3/1974<br>Re-Completed<br>1/26/1975 |
| Oil       | Santa Fe #4 | 30-025-25669 | Big Star Investmnets, LLC | Rotary       | 11/11/1977   | Unit K<br>1980' South Line<br>1980' West Line<br>Sec 35 T10S-R36E | 5000'  | Producing      | Completed<br>12/22/1977                             |

WELLBORE DIAGRAM

Well: Santa Fe #35-5

As Run: (P&A 7-9-1984)

|                                      |                                  |                         |
|--------------------------------------|----------------------------------|-------------------------|
| <b>Field:</b> West Sawyer            | <b>API#:</b> 30-025-25901        | <b>Pumping Unit:</b> NA |
| <b>Cnty/State:</b> Lea County, Texas | <b>NM Lse:</b>                   | <b>Srl#:</b>            |
| <b>Location:</b> 10S-36E-35          | <b>Spud:</b> 4/14/78             | <b>Gear Ratio:</b>      |
| <b>Calls:</b> 660 FNL & 1980 FWL     | <b>1st Compl:</b> 1979-Open Hole | <b>Motor:</b>           |
|                                      | <b>2nd Compl:</b>                | <b>Unit Shieve:</b>     |
| <b>Perfs:</b>                        | <b>3rd Compl:</b>                | <b>Srl#:</b>            |
|                                      |                                  | <b>Motor Shieve:</b>    |
| <b>Formation:</b> SAN ANDRES         | <b>GL:</b> KB 3991               | <b>HP / RPMS:</b>       |
|                                      |                                  | <b>Frame:</b>           |
|                                      |                                  | <b>SPM / Stroke:</b>    |
|                                      |                                  | <b>Belts:</b>           |



| Open Hole Logs |                      |      |
|----------------|----------------------|------|
| Run            | Type                 | Date |
| 1              | GR                   | 1978 |
| 2              | Comp Neutron/Desnity |      |
| 3              |                      |      |

| Cased Hole Logs |      |      |
|-----------------|------|------|
| Run             | Type | Date |
| 1               |      |      |
| 2               |      |      |
| 3               |      |      |
| 4               |      |      |

| TUBING BREAKDOWN   |     |       |    |    |        |       |
|--------------------|-----|-------|----|----|--------|-------|
| Item               | Qty | Desc. | OD | ID | Length | Depth |
| 1                  |     |       |    |    |        |       |
| 2                  |     | NA    |    |    |        |       |
| 3                  |     |       |    |    |        |       |
| 4                  |     |       |    |    |        |       |
| 5                  |     |       |    |    |        |       |
| 6                  |     |       |    |    |        |       |
| Total string depth |     |       |    |    | 0.00'  |       |

| ROD BREAKDOWN |     |         | CASING SPECIFICS |       |        |       |        |
|---------------|-----|---------|------------------|-------|--------|-------|--------|
| Item          | Qty | Desc.   | Jts              | Size  | Weight | Grade | Depth  |
| 1             |     | UNK     |                  |       |        |       |        |
| 2             |     |         |                  | 8 5/8 | 20#    |       | 373'   |
| 3             |     |         |                  | 5.5   | 15.5#  |       | 4950   |
| 4             |     |         |                  |       |        |       |        |
| 5             |     |         |                  |       |        |       |        |
| 6             |     | Pump NA |                  |       |        |       |        |
| 7             |     |         |                  |       |        |       |        |
| 8             |     |         |                  |       |        |       |        |
|               |     |         |                  |       |        |       | 4,950' |

| FORMATION TOPS |        |         |
|----------------|--------|---------|
| Formation      | MD     | SS      |
| Yates          | 2,902' | -1,089' |
| San Andres     | 4,190' | --199'  |
| Glorieta       |        |         |
| Tubb           |        |         |
| Abo            |        |         |
| Wofcamp        |        |         |
| Strawn         |        |         |

5.5, 4950 400 SX      Unknown BOPD when P&A

TD: 4991





# MARTIN WATER LABS

AN INDEPENDENT ANALYTICAL LABORATORY

|                      |                                   |                      |                              |
|----------------------|-----------------------------------|----------------------|------------------------------|
| <b>To</b>            | Lucas Knickerbocker               | <b>Project/Lease</b> | Moe San Andres Unit 35 #104H |
| <b>Company</b>       | Big Star Exploration              | <b>Location</b>      |                              |
| <b>Address</b>       | PO Box 122171, Ft Worth, TX 76121 | <b>Sample Point</b>  |                              |
| <b>Lab #</b>         | 24-03-163.2                       | <b>Date Sampled</b>  | 4/5/2024                     |
| <b>Date Reported</b> | 4/19/2024                         | <b>Date Received</b> | 4/5/2024                     |

## Water Analysis

### Parameters:

|                                      |        |
|--------------------------------------|--------|
| pH:                                  | 5.78   |
| Bicarbonate HCO <sub>3</sub> (mg/l): | 732    |
| Carbonate (mg/l):                    | 0      |
| Hydroxide (mg/l):                    | 0      |
| Temperature (°F):                    | 75     |
| Pressure (PSI):                      | -      |
| Dissolved CO <sub>2</sub> (mg/l):    | 277    |
| Dissolved H <sub>2</sub> S (mg/l):   | 70     |
| Ionic Strength:                      | 3.7563 |
| Resistivity ohms/m @77°F:            | 0.057  |
| Specific Gravity @60°F:              | 1.1400 |

### Anions mg/L (IC)

|               |        |
|---------------|--------|
| Bromide:      | <1     |
| Chloride:     | 124133 |
| Fluoride:     | <1     |
| Nitrate, as N | <1     |
| Nitrite, as N | <1     |
| Sulfate:      | 2522   |

### Other mg/L

|                                       |        |
|---------------------------------------|--------|
| Conductivity, µmhos/cm @ 77°          | 256921 |
| Oil and Grease                        | 189    |
| Total Hardness as CaCO <sub>3</sub> : | 18280  |
| Total Dissolved Solids:               | 207774 |
| Total Suspended Solids:               | 49.00  |
| Turbidity NTU:                        | 35.20  |

### Cations mg/L (ICP)

|             |           |
|-------------|-----------|
| Aluminum:   | <.015     |
| Arsenic:    | <.015     |
| Barium:     | 2.589     |
| Boron:      | 22.321    |
| Cadmium     | <.015     |
| Calcium:    | 5043.040  |
| Chromium:   | <.015     |
| Cobalt:     | <.015     |
| Copper:     | <.015     |
| Iron:       | <.015     |
| Lead:       | <.015     |
| Lithium     | 18.535    |
| Magnesium:  | 1376.758  |
| Manganese:  | 0.162     |
| Nickel:     | <.015     |
| Potassium:  | 1313.191  |
| Phosphorus: | 0.116     |
| Selenium    | <.015     |
| Silica      | 1.00      |
| Sodium:     | 72474.650 |
| Strontium:  | 117.704   |
| Thallium    | <.015     |
| Zinc:       | <.015     |

**Remarks:** The undersigned believes these results to be accurate to the best of his knowledge and belief.

*Bryan Ogden*

Bryan R. Ogden, B.S

709 W Indiana Ave Midland, Tx 79701

Office@martinwaterlabs.com

(432)683-452:





|               |                                   |               |                              |
|---------------|-----------------------------------|---------------|------------------------------|
| To            | Lucas Knickerbocker               | Project/Lease | Moe San Andres Unit 35 #104H |
| Company       | Big Star Exploration              | Location      |                              |
| Address       | PO Box 122171, Ft Worth, TX 76121 | Sample Point  |                              |
| Lab #         | 24-03-163.2                       | Date Sampled  | 4/5/2024                     |
| Date Reported | 4/19/2024                         | Date Received | 4/5/2024                     |

BTEX Analysis

|                          |                     |                              |
|--------------------------|---------------------|------------------------------|
| Analysis Requested: BTEX | <u>Results mg/L</u> | <u>Reporting Limits mg/L</u> |
| Benzene                  | 2.0400              | 0.00100                      |
| Toulene                  | 0.5710              | 0.00100                      |
| Ethyl Benzene            | 0.0961              | 0.00100                      |
| Xylene (p/m)             | 0.0387              | 0.00200                      |
| Xylene (o)               | 0.0236              | 0.00100                      |

Remarks: The undersigned believes these results to be accurate to the best of his knowledge and belief.

Bryan Ogden

Bryan R. Ogden, B.S.

709 W Indiana Ave Midland, Tx 79701    Office@martinwaterlabs.com    (432)683-4521



# MARTIN WATER LABS

AN INDEPENDENT ANALYTICAL LABORATORY

|                      |                                   |                      |                |
|----------------------|-----------------------------------|----------------------|----------------|
| <b>To</b>            | Lucas Knickerbocker               | <b>Project/Lease</b> | Ranch Windmill |
| <b>Company</b>       | Big Star Exploration              | <b>Location</b>      |                |
| <b>Address</b>       | PO Box 122171, Ft Worth, TX 76121 | <b>Sample Point</b>  |                |
| <b>Lab #</b>         | 24-03-163.1                       | <b>Date Sampled</b>  | 4/5/2024       |
| <b>Date Reported</b> | 4/19/2024                         | <b>Date Received</b> | 4/5/2024       |

## Water Analysis

### Parameters:

|                                      |        |
|--------------------------------------|--------|
| pH:                                  | 7.56   |
| Bicarbonate HCO <sub>3</sub> (mg/l): | 146    |
| Carbonate (mg/l):                    | 0      |
| Hydroxide (mg/l):                    | 0      |
| Temperature (°F):                    | 75     |
| Pressure (PSI):                      | -      |
| Dissolved CO <sub>2</sub> (mg/l):    | 40     |
| Dissolved H <sub>2</sub> S (mg/l):   | 0      |
| Ionic Strength:                      | 0.0144 |
| Resistivity ohms/m @77°F:            | 8.700  |
| Specific Gravity @60°F:              | 1.0000 |

### Anions mg/L (IC)

|               |     |
|---------------|-----|
| Bromide:      | <1  |
| Chloride:     | 91  |
| Fluoride:     | <1  |
| Nitrate, as N | <1  |
| Nitrite, as N | <1  |
| Sulfate:      | 174 |

### Other mg/L

|                                       |      |
|---------------------------------------|------|
| Conductivity, µmhos/cm @ 77°F         | 709  |
| Oil and Grease                        | <10  |
| Total Hardness as CaCO <sub>3</sub> : | 404  |
| Total Dissolved Solids:               | 573  |
| Total Suspended Solids:               | 0.00 |
| Turbidity NTU:                        | 1.75 |
| ORP, as mV                            |      |

### Cations mg/L (ICP)

|             |         |
|-------------|---------|
| Aluminum:   | <.015   |
| Arsenic:    | <.015   |
| Barium:     | 0.067   |
| Boron:      | 0.111   |
| Cadmium     | <.015   |
| Calcium:    | 130.138 |
| Chromium:   | <.015   |
| Cobalt:     | <.015   |
| Copper:     | <.015   |
| Iron:       | <.015   |
| Lead:       | <.015   |
| Lithium     | 0.037   |
| Magnesium:  | 19.004  |
| Manganese:  | <.015   |
| Nickel:     | <.015   |
| Potassium:  | 2.844   |
| Phosphorus: | <.050   |
| Selenium    | <.015   |
| Silica      | 1.68    |
| Sodium:     | 9.024   |
| Strontium:  | 0.792   |
| Thallium    | <.015   |
| Zinc:       | 0.078   |

**Remarks:** The undersigned believes these results to be accurate to the best of his knowledge and belief.

*Bryan Ogden*

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(432)683-451



# MARTIN WATER LABS

AN INDEPENDENT ANALYTICAL LABORATORY

|                      |                                   |                      |                |
|----------------------|-----------------------------------|----------------------|----------------|
| <b>To</b>            | Lucas Knickerbocker               | <b>Project/Lease</b> | Ranch Windmill |
| <b>Company</b>       | Big Star Exploration              | <b>Location</b>      |                |
| <b>Address</b>       | PO Box 122171, Ft Worth, TX 76121 | <b>Sample Point</b>  |                |
| <b>Lab #</b>         | 24-03-163.1                       | <b>Date Sampled</b>  | 4/5/2024       |
| <b>Date Reported</b> | 4/19/2024                         | <b>Date Received</b> | 4/5/2024       |

## BTEX Analysis

| Analysis Requested: BTEX | <u>Results mg/L</u> | <u>Reporting Limits mg/L</u> |
|--------------------------|---------------------|------------------------------|
| Benzene                  | Not Detected        | 0.00100                      |
| Toulene                  | Not Detected        | 0.00100                      |
| Ethyl Benzene            | Not Detected        | 0.00100                      |
| Xylene (p/m)             | Not Detected        | 0.00200                      |
| Xylene (o)               | Not Detected        | 0.00100                      |

**Remarks:** The undersigned believes these results to be accurate to the best of his knowledge and belief.

*Bryan Ogden*

Bryan R. Ogden, B.S.

709 W Indiana Ave Midland, Tx 79701 Office@martinwaterlabs.com (432)683-4521



To

Company

Address

Lab #

Date Reported

Lucas Knickerbocker

Big Star Exploration

PO Box 122171, Ft Worth, TX 76121

24-03-163

4/19/2024

Project/Lease

Location

Sample Point

Date Sampled

Date Received

Listed

4/5/2024

4/5/2024

| ATP Bacteria in Water        |          |            |        |                           |                                |  |
|------------------------------|----------|------------|--------|---------------------------|--------------------------------|--|
| Sample Name                  | Date     | Sample RLU | Volume | Picograms (pg) of ATP/ mL | Estimated Microbial Count / mL |  |
| Ranch Windmill               | 4/5/2024 | 133        | 10     | 5.65                      | 5,650                          |  |
| Moe San Andres Unit 35 #104H | 4/5/2024 | 108        | 10     | 4.55                      | 4,555                          |  |

| Low                                  | Moderate                   | High             |
|--------------------------------------|----------------------------|------------------|
| <100,000 ME/ml                       | 100,000-999,999 ME/ml      | >1,000,000 ME/ml |
| <100 pg/ml                           | 10-999pg/ml                | >1000pg/ml       |
| 709 W. Indiana Ave Midland, Tx 79705 | Office@Martinwaterlabs.com | (432)683-4521    |





April 17, 2024

Lucas Knickerbocker  
Big Star Investments, LLC  
P O Box 122171  
Fort Worth, Texas 76121

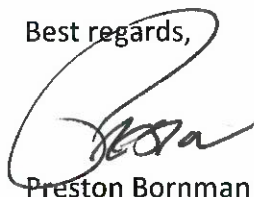
RE: Moe 35-104H Well Geology  
30-025-43498  
T10S-R36E Section 35  
Lea County, New Mexico

Dear Lucas,

A subsurface geologic study and 3D seismic review was conducted on the area around the Moe 35-104H horizontal well. Per this data review and evaluation, a structure map was created on the top of the P1 interval of the San Andres formation as delineated on the Type Log in Section 21 at ~4970' MD (see below). The Type Log is approximately one mile north of the Surface location for the Moe 35-004H well.

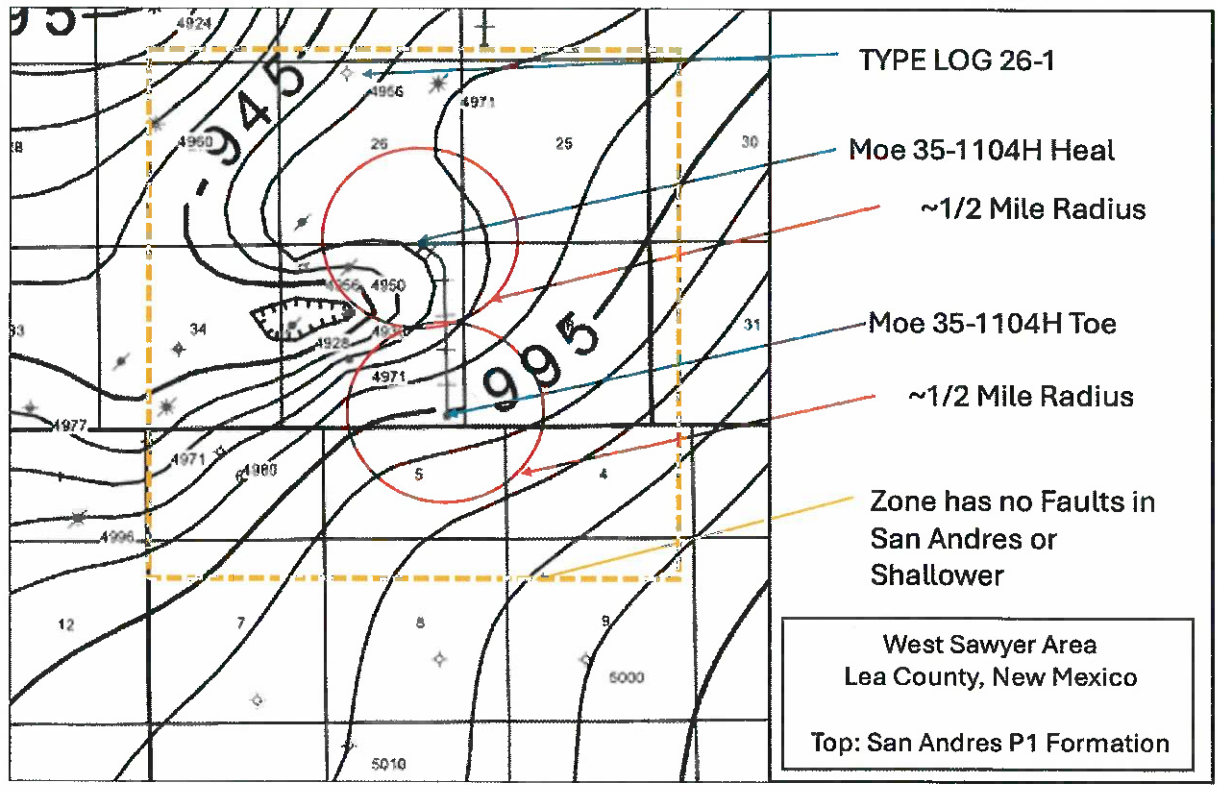
As displayed on the San Andres P1 structure map below, there are no faults in the San Andres interval or shallower within a one-half mile radius of the Head or the Toe of the Moe 35-104H horizontal well. Additionally, there are no faults in the San Andres or shallower within the Dashed Box (~7 square miles). Structural changes seen in the San Andres within this area in orange are stratigraphic, not faulting. As always, I appreciate your business.

Best regards,



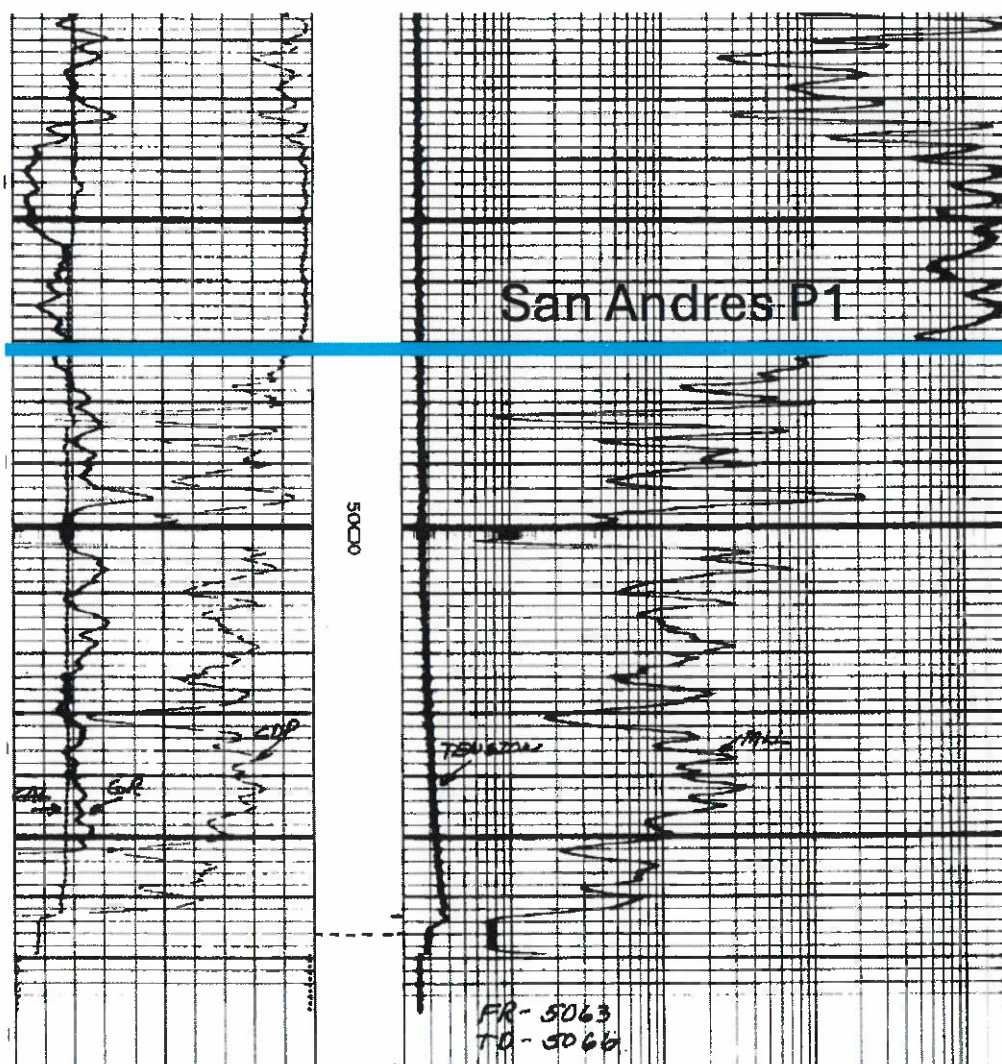
Preston Bornman

New Mexico Royalty LLC  
P.O. Box 19284  
Houston TX 77024





TYPE LOG  
Oil Development  
Thompson 26-1  
T10S-R36E, Section 26  
30-025-26141



## PROPOSED INJECTION WELL

MOE SAN ANDRES UNIT 35 #104H

Section 35, T10S-R36E

Lea County, New Mexico

### Proposed Operations

Estimated Average Daily Injection Volume: 500 bpd

Maximum Daily Injection Volume: 2000 bpd

System Type: Closed

Estimated Injection Pressure: 300 psi

Maximum Injection Pressure: 2400 psi

Fluid Type: Production Water (Salt Water)

### Lithology of Injection Zone

Lithology: Dolomite

Geologic Name: San Andres

Type of Trap: Stratigraphic/Structural

Average Thickness: 300'

Depth: 5000'

Current Bottom Hole Pressure: 470 psi

Average Horizontal Permeability: 1 md

Average Porosity: 6%

### Lithology of Overlying Aquifer

Geologic Name: Ogallala Aquifer

Depth: 175'

### Lithology of Underlying Aquifer

Geologic Name: NONE

Depth: NONE



**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 Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS  
  
Action 322772

CONDITIONS

|   |  |
|---|--|
| Operator:<br>Big Star Investments, LLC<br>P.O. Box 122171<br>Fort Worth, TX 76121 | OGRID:<br>331180                                     |
|   | Action Number:<br>322772                             |
|   | Action Type:<br>[C-108] Fluid Injection Well (C-108) |

CONDITIONS

| Created By    | Condition | Condition Date |
|---------------|-----------|----------------|
| mgebremichael | None      | 4/23/2024      |