

AE Order Number Banner

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.

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

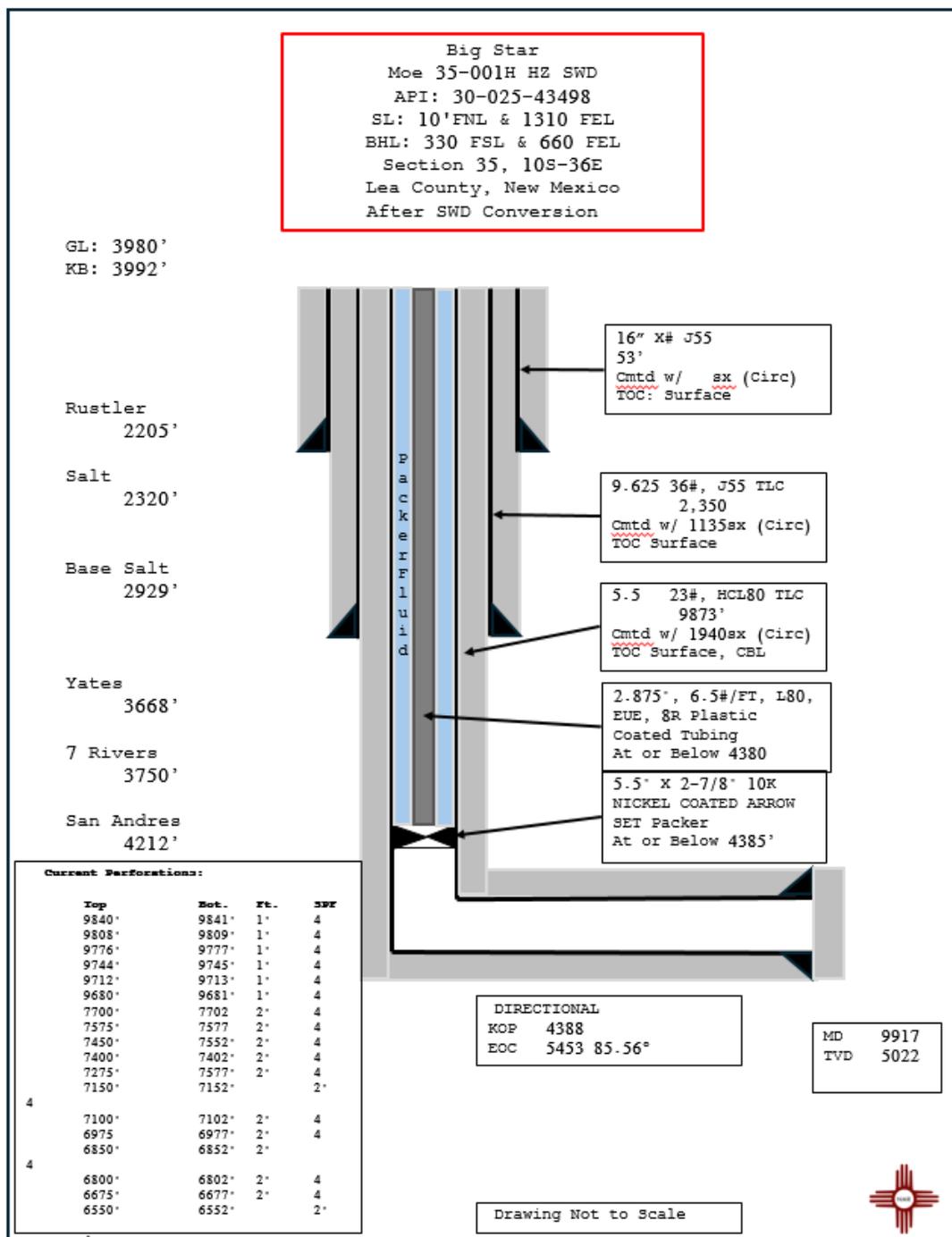
OPERATOR: Big Star Investments, LLC

WELL NAME & 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: 9.625

Cemented with: 1135 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: N/A Casing Size: N/A

Cemented with: N/A sx. *or* _____ ft³

Top of Cement: N/A Method Determined: N/A

Production Casing

Hole Size: 8.75 Casing Size: 5.5

Cemented with: 1940 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Total 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 7/8

Lining Material: Inner Plastic Coated

Type of Packer: Arrow Set

Packer Setting Depth: 4385'

Other Type of Tubing/Casing Seal (if applicable): N/A

Additional Data

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

If no, for what purpose was the well originally drilled? Oil Production from the San Andres Formation

2. Name of the Injection Formation: San Andres

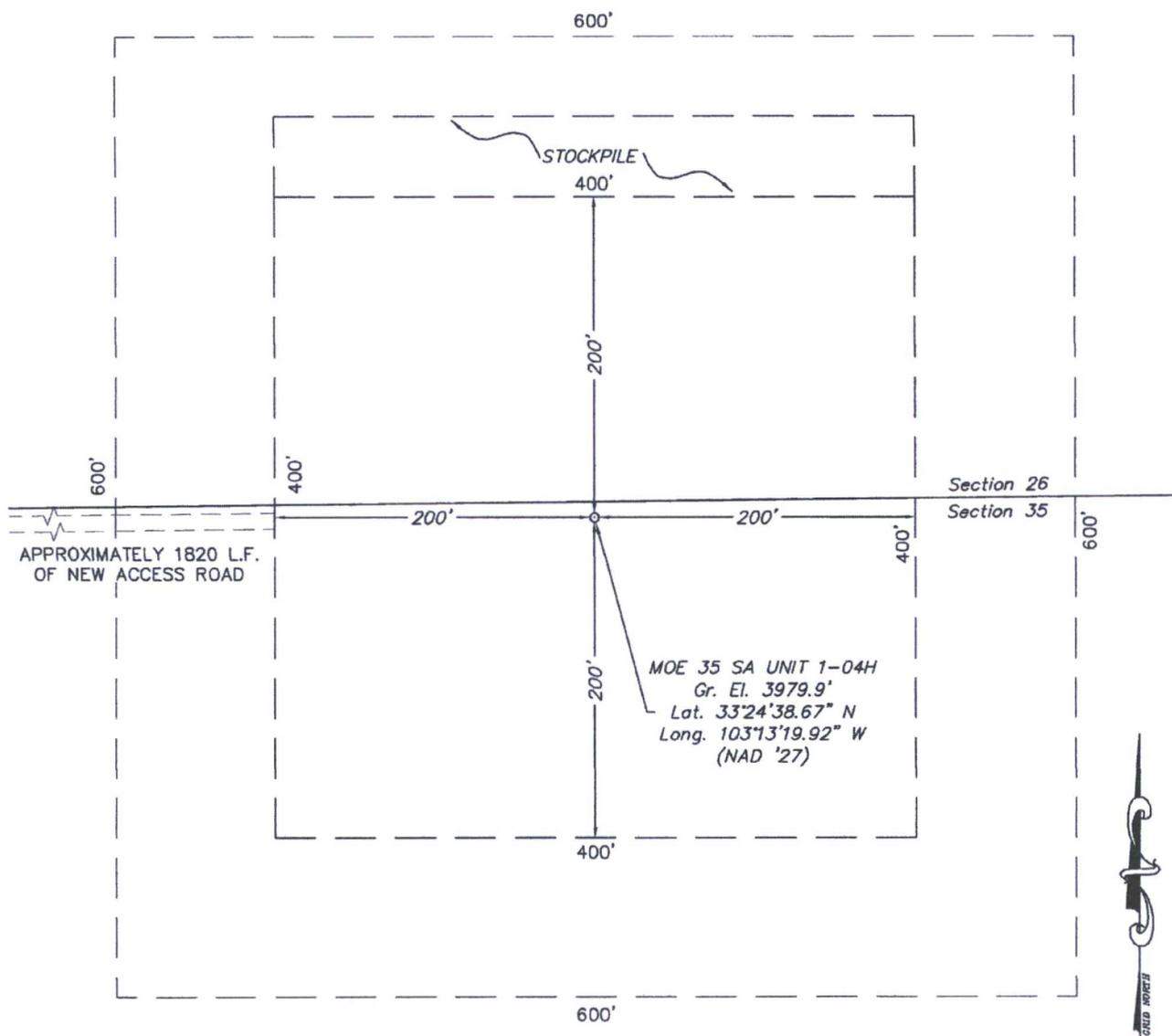
3. Name of Field or Pool (if applicable): Dickenson: San Andres

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. NO

5. 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')

SECTIONS 26 & 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.

NEMO Fund I, LLC

MOE 35 SA UNIT 1-04H

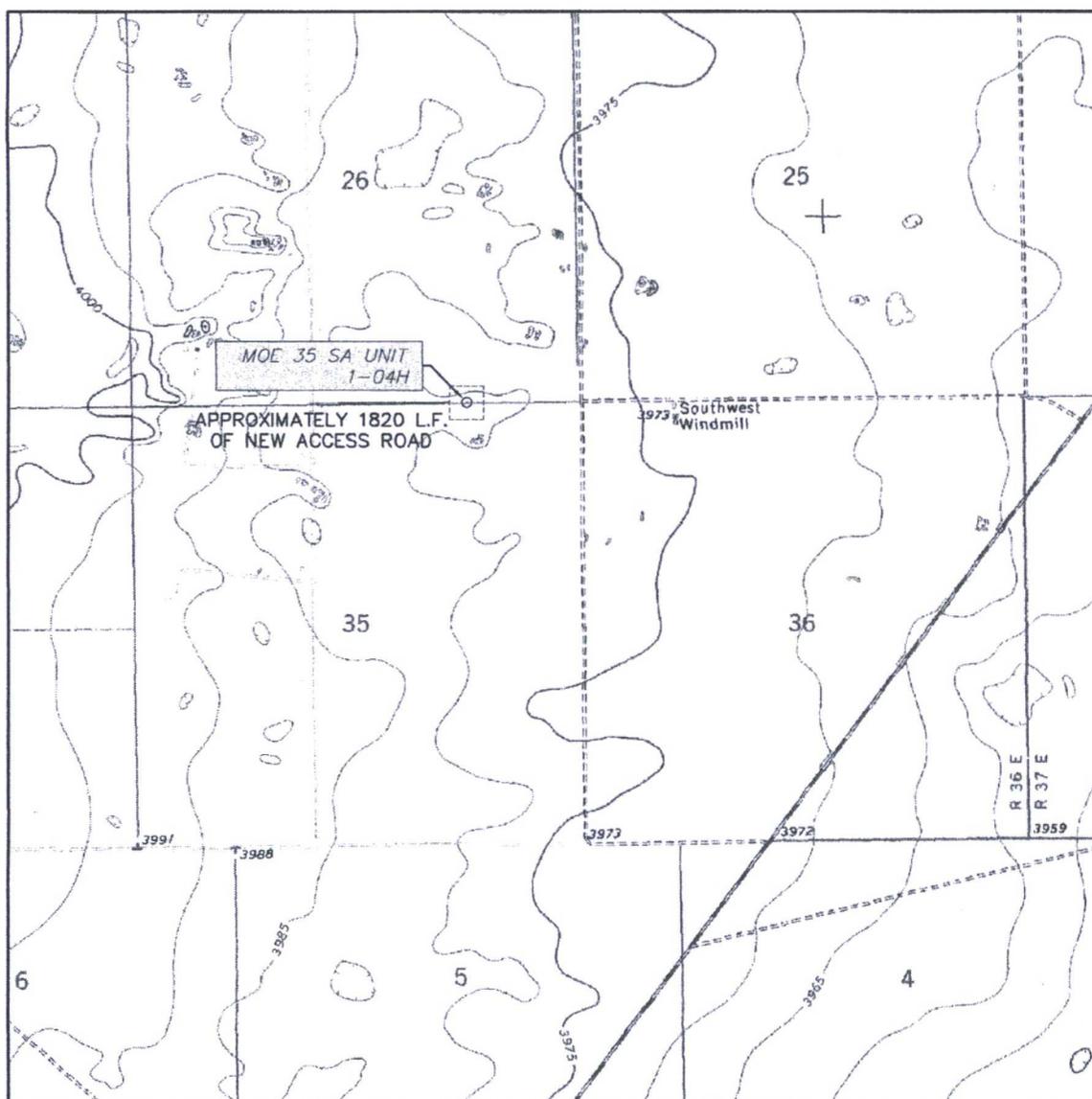
Located 10' FNL & 1310' FEL, Section 35
Township 10 South, Range 36 East, N.M.P.M.
Lea County, New Mexico



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

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-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 10' FNL & 1310' FEL

ELEVATION 3980'

OPERATOR NEMO FUND I, LLC

LEASE MOE 35 SA UNIT

U.S.G.S. TOPOGRAPHIC MAP

LEA

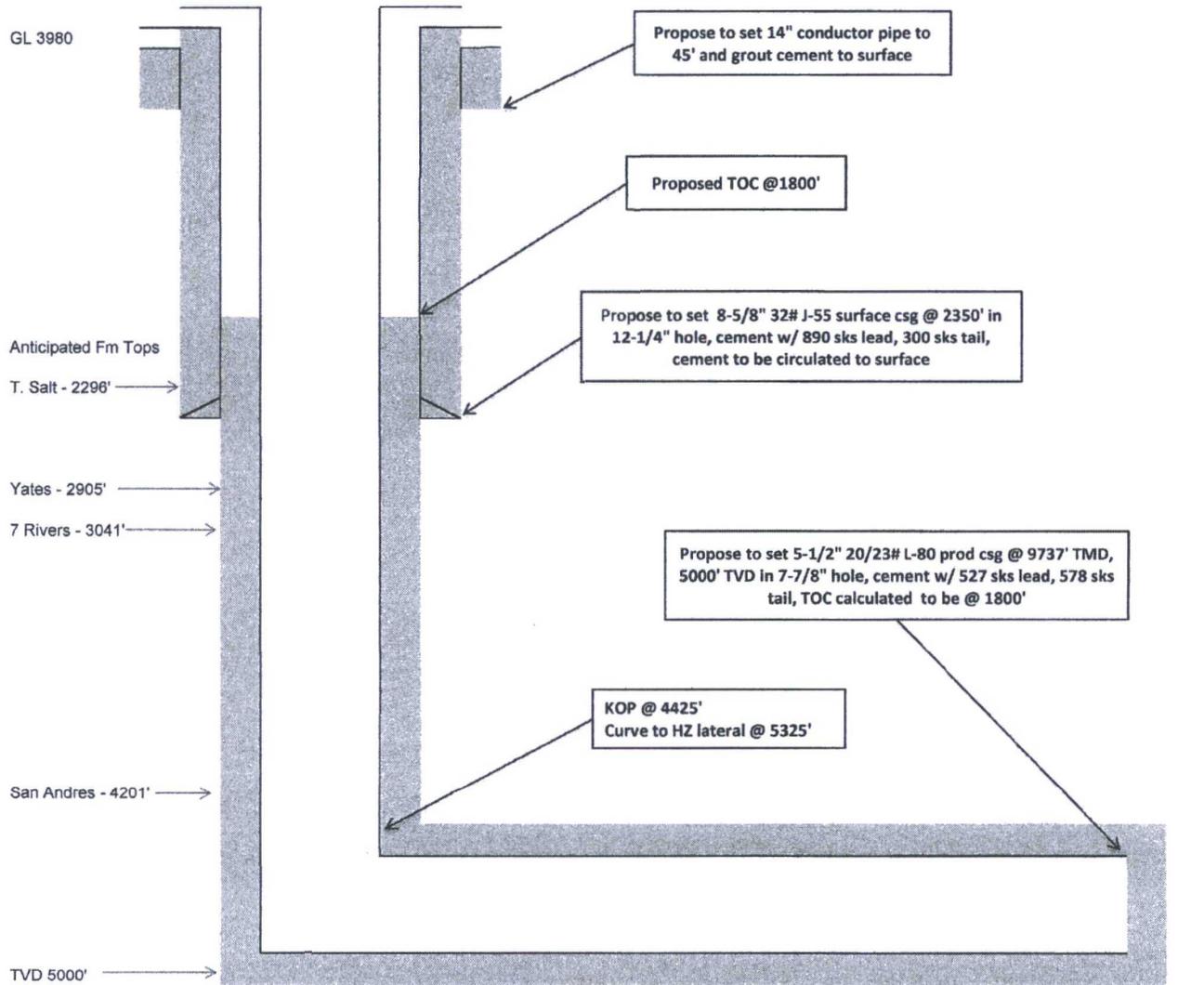


SURVEYORS - ENGINEERS - PLANNERS
 FIRM REGISTRATION NUMBER: 100682-00
 110 W. LOUISIANA AVE., SUITE 110
 MIDLAND, TEXAS 79701
 (409) 837-8885 FAX (409) 837-8888

PROPOSED WELLBORE DIAGRAM

Nemo Fund I, LLC
Moe San Andres Unit 35 #1-04H
API # 30-025-TBD

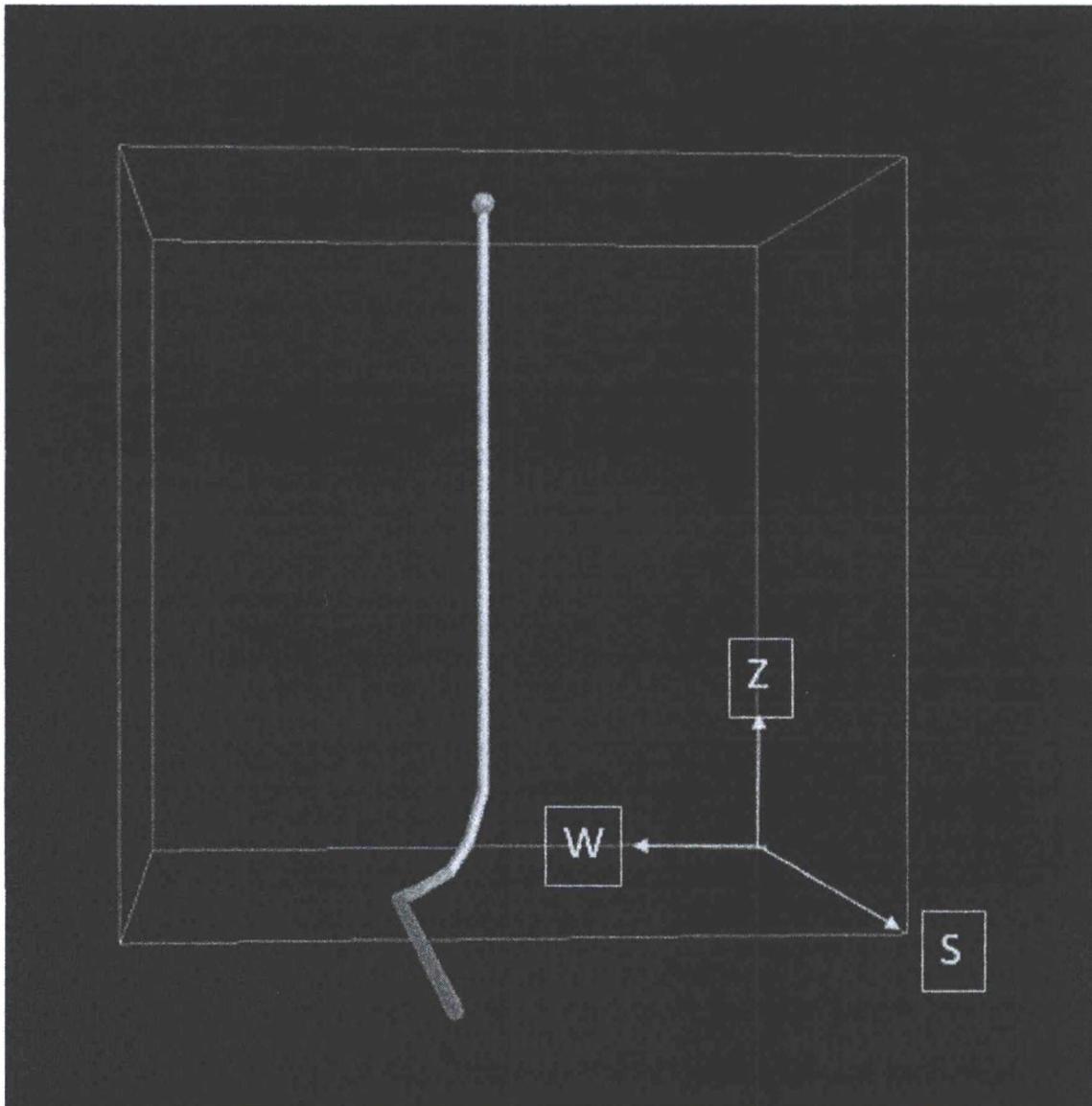
SL - 10' FNL x 1310' FWL, UL 'A' Sec 35, T10S, R36E, Lea County, NM
BHL - 330' FSL x 660' FEL, UL 'P' Sec 35, T10S, R36E, Lea County, NM



Drawing Not to Scale

TMD 9737'

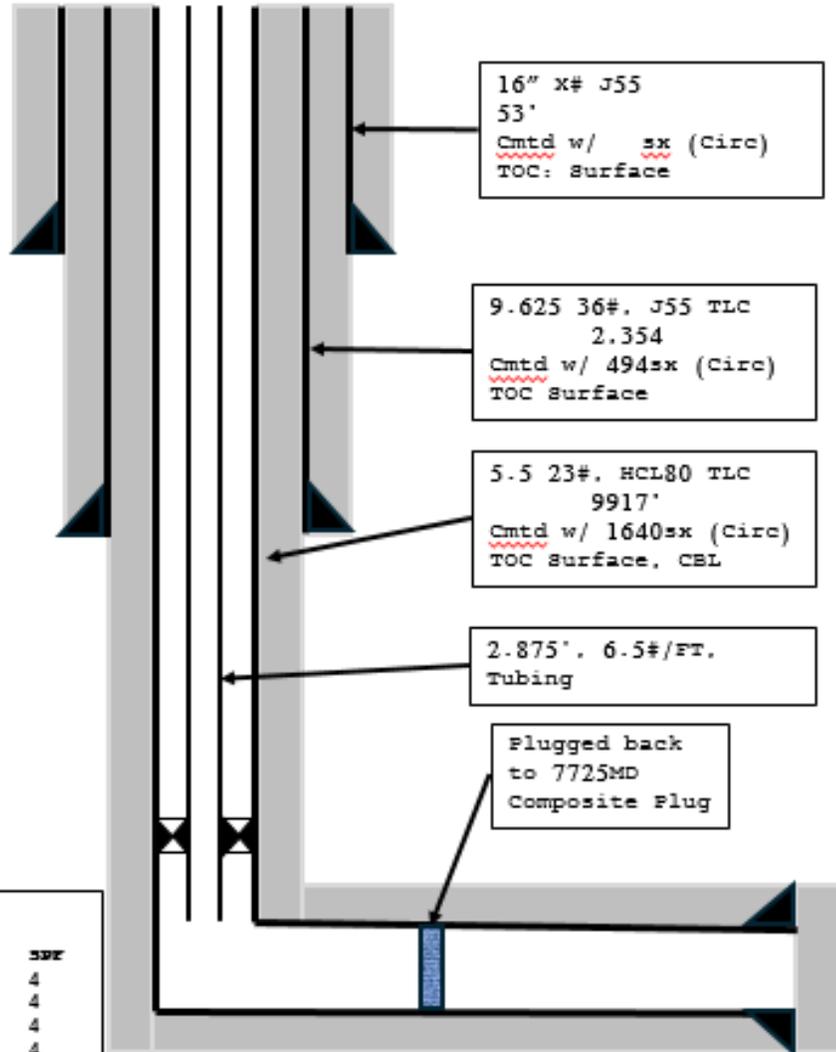
Moe San Andres Unit 35 #1-04H
A-35-10S-36E
Planned Directional Path



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
7700*	7702*	2*	4
7575*	7577*	2*	4
7450*	7552*	2*	4
7400*	7402*	2*	4
7275*	7577*	2*	4
7150*	7152*	2*	2*
4			
7100*	7102*	2*	4
6975*	6977*	2*	4
6850*	6852*	2*	4
4			
6800*	6802*	2*	4
6675*	6677*	2*	4
6550*	6552*	2*	2*

DIRECTIONAL
 KOP 4388
 EOC 5453 85.56°

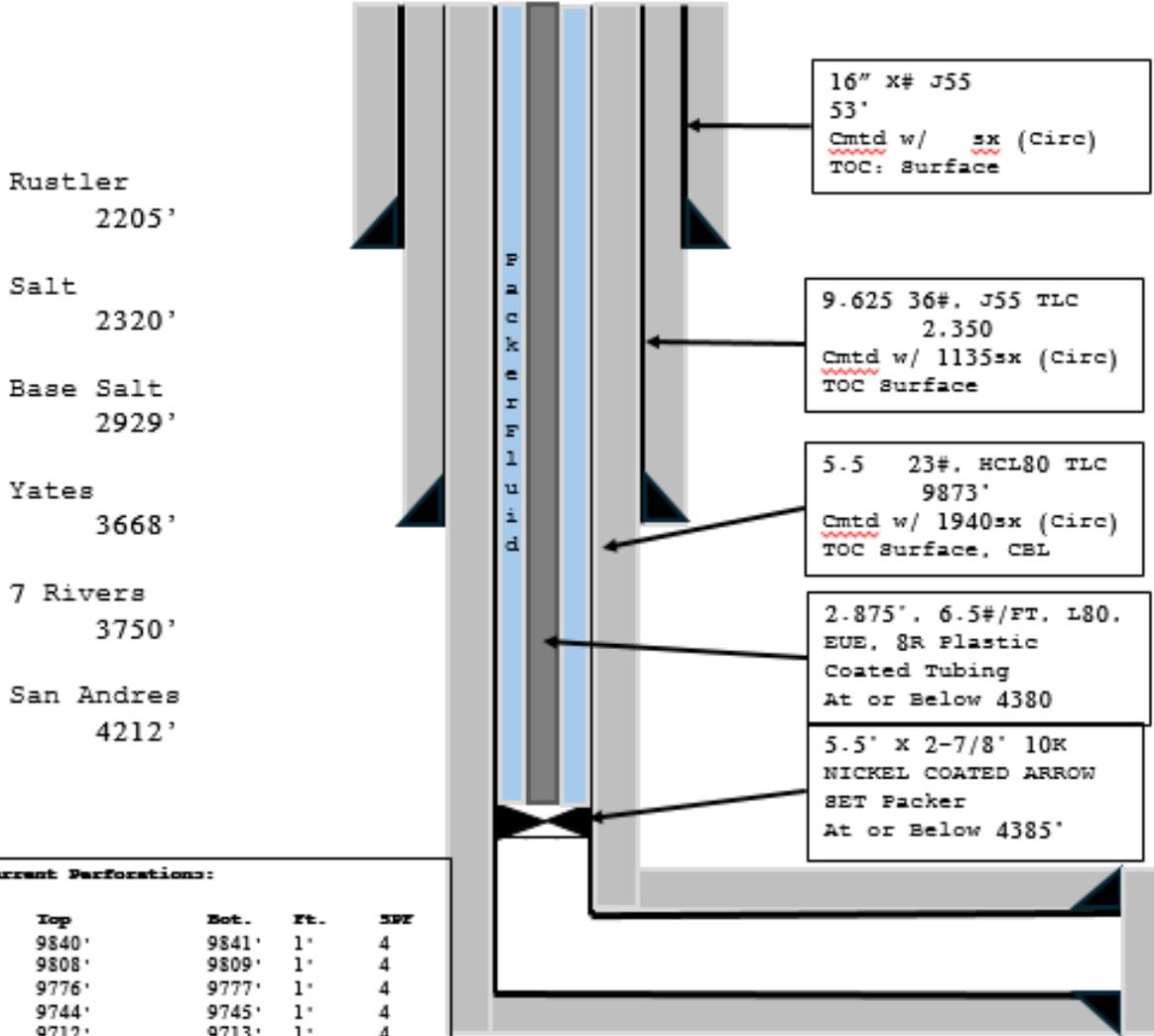
MD 9917
 TVD 5022

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'



Current Perforations:

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

DIRECTIONAL
 KOP 4388
 BOC 5453 85.56°

MD 9917
 TVD 5022

Drawing Not to Scale



BIG STAR INVESTMENTS, LLC
P. O. Box 122171
Fort Worth, Texas 76121

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

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

For delivery information, visit our website at www.usps.com®.

Tatum, NM 88267

OFFICIAL USE

Certified Mail Fee \$4.40

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

<input type="checkbox"/> Return Receipt (hardcopy)	\$7.45
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage \$1.63

Total Postage and Fees \$7.68

Postmark Here: 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

7018 1830 0001 3745 4989

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY																
<ul style="list-style-type: none"> 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. 	<p>A. Signature <input checked="" type="checkbox"/> <i>Ronald J. Glas</i> <input type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <i>Ronald J. Glas</i> C. Date of Delivery <i>3/29/24</i></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>																
<p>1. Article Addressed to: <i>Slash Z Land and Cattle</i> <i>Go Ron Glas</i> <i>P.O. Box 736</i> <i>Tatum, New Mexico 88267</i></p> <p>9590 9402 6101 0125 3407 82</p>	<p>3. Service Type</p> <table border="0"> <tr> <td><input type="checkbox"/> Adult Signature</td> <td><input type="checkbox"/> Priority Mail Express®</td> </tr> <tr> <td><input type="checkbox"/> Adult Signature Restricted Delivery</td> <td><input type="checkbox"/> Registered Mail™</td> </tr> <tr> <td><input type="checkbox"/> Certified Mail®</td> <td><input type="checkbox"/> Registered Mail Restricted Delivery</td> </tr> <tr> <td><input type="checkbox"/> Certified Mail Restricted Delivery</td> <td><input type="checkbox"/> Return Receipt for Merchandise</td> </tr> <tr> <td><input type="checkbox"/> Collect on Delivery</td> <td><input type="checkbox"/> Signature Confirmation™</td> </tr> <tr> <td><input type="checkbox"/> Collect on Delivery Restricted Delivery</td> <td><input type="checkbox"/> Signature Confirmation Restricted Delivery</td> </tr> <tr> <td><input type="checkbox"/> Insured Mail</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)</td> <td></td> </tr> </table>	<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"/> Return Receipt for Merchandise	<input type="checkbox"/> Collect on Delivery	<input type="checkbox"/> Signature Confirmation™	<input type="checkbox"/> Collect on Delivery Restricted Delivery	<input type="checkbox"/> Signature Confirmation Restricted Delivery	<input type="checkbox"/> Insured Mail		<input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)	
<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"/> Return Receipt for Merchandise																
<input type="checkbox"/> Collect on Delivery	<input type="checkbox"/> Signature Confirmation™																
<input type="checkbox"/> Collect on Delivery Restricted Delivery	<input type="checkbox"/> Signature Confirmation Restricted Delivery																
<input type="checkbox"/> Insured Mail																	
<input type="checkbox"/> Insured Mail Restricted Delivery (over \$500)																	
<p>2. Article Number (Transfer from service label) 7018 1830 0001 3745 4989</p>																	

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

Domestic Return Receipt

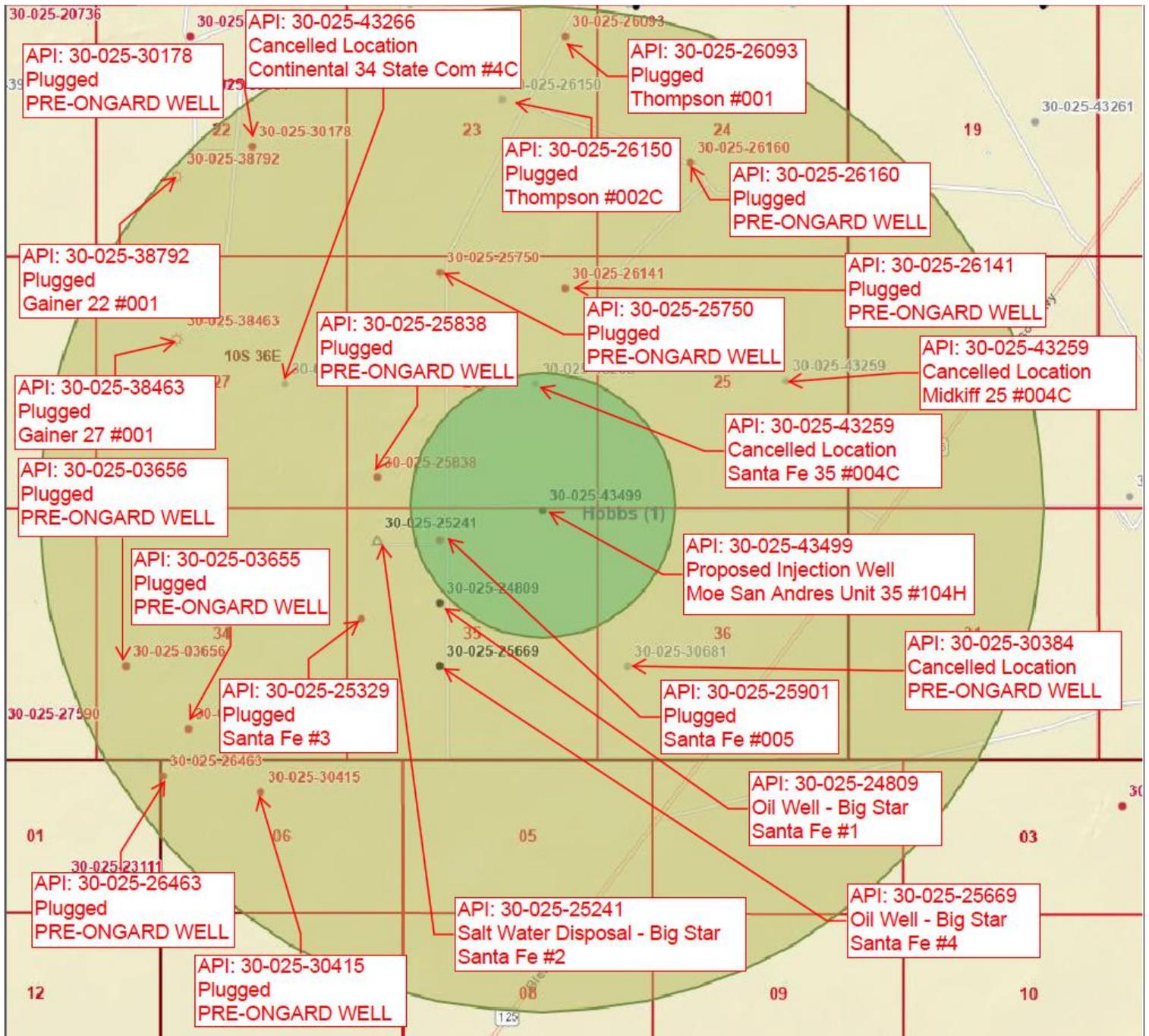
PROPOSED INJECTION WELL

MOE SAN ANDRES UNIT 35 #104H

Section 35, T10S-R36E

Lea County, New Mexico

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



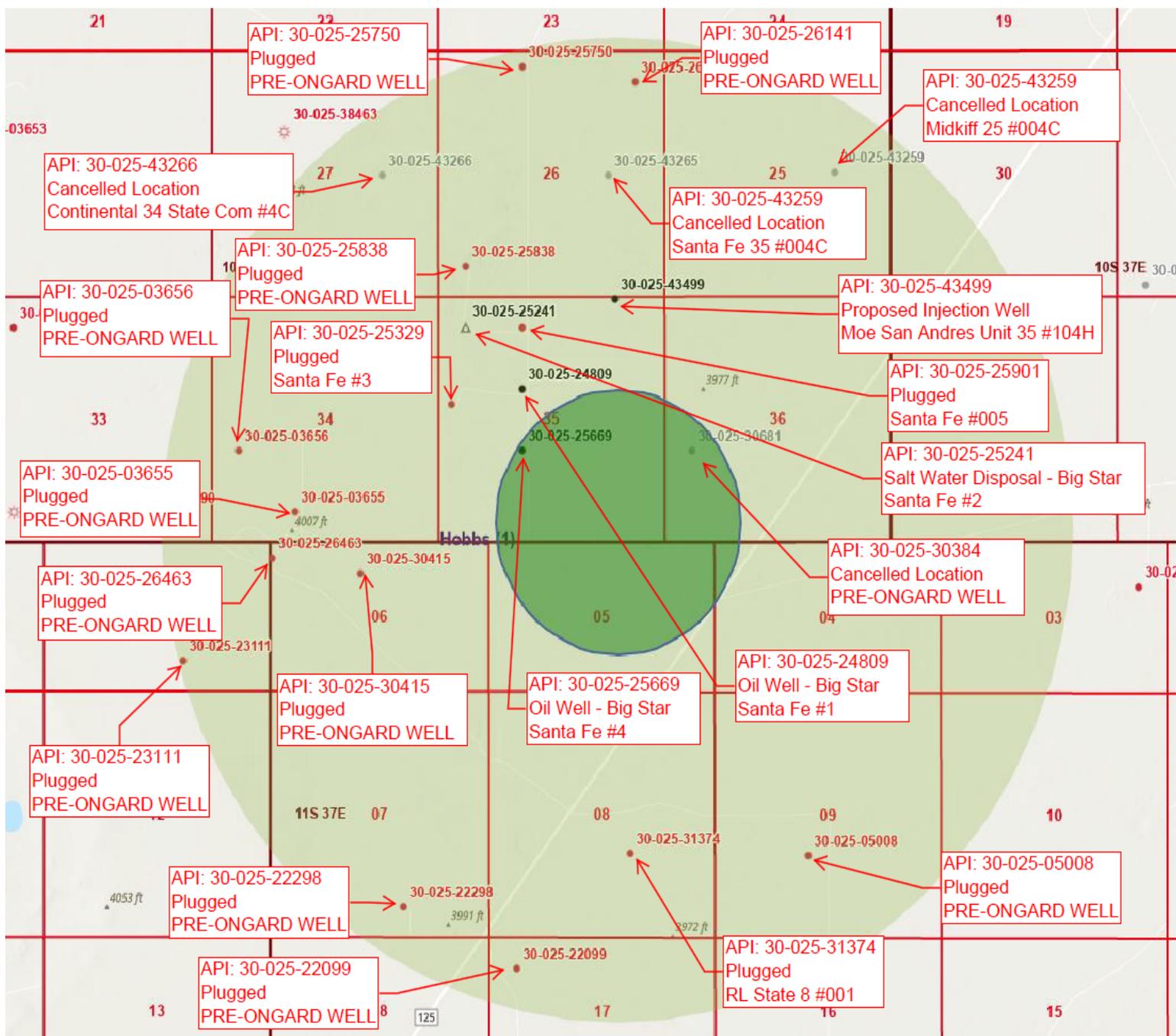
PROPOSED INJECTION WELL

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)



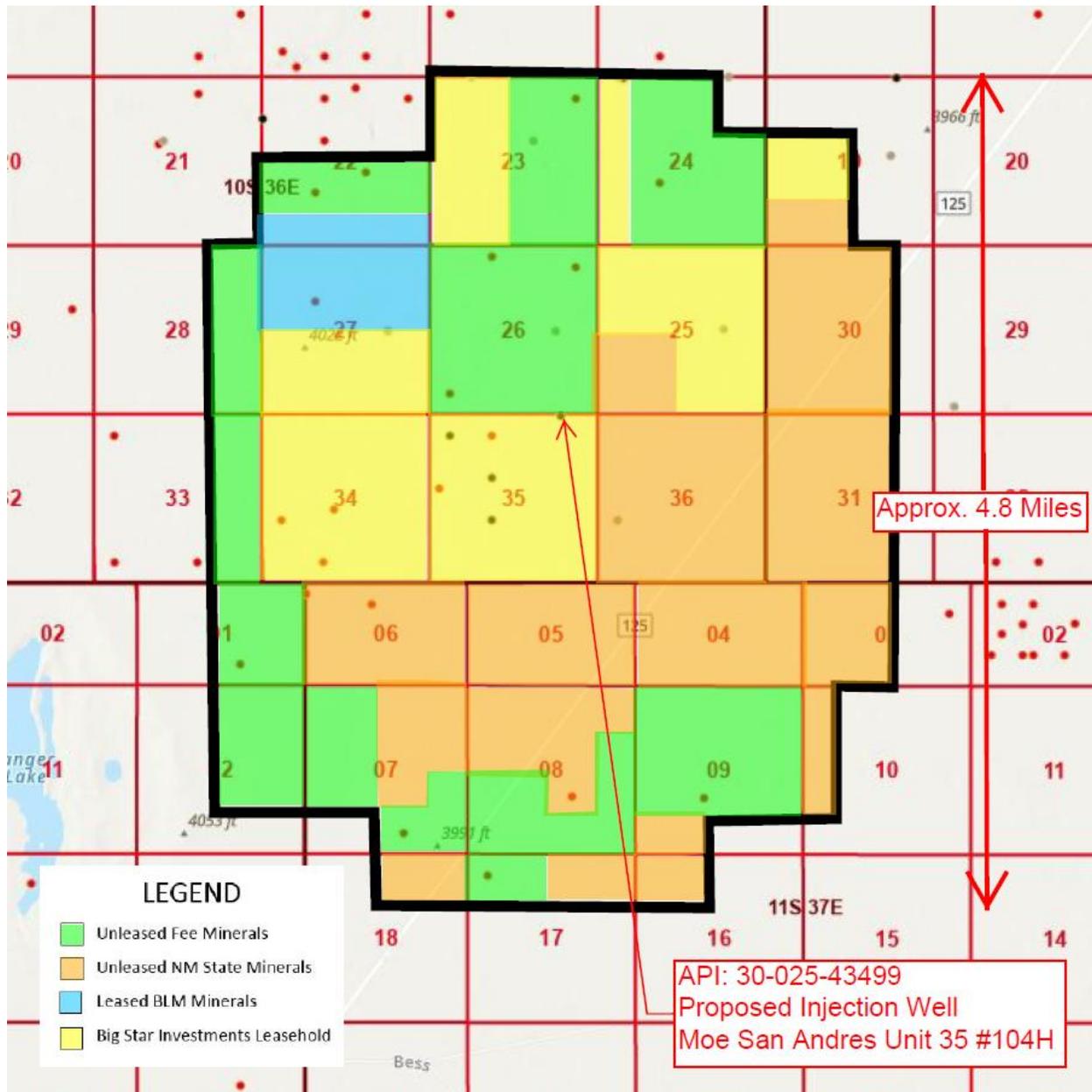
PROPOSED INJECTION WELL

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

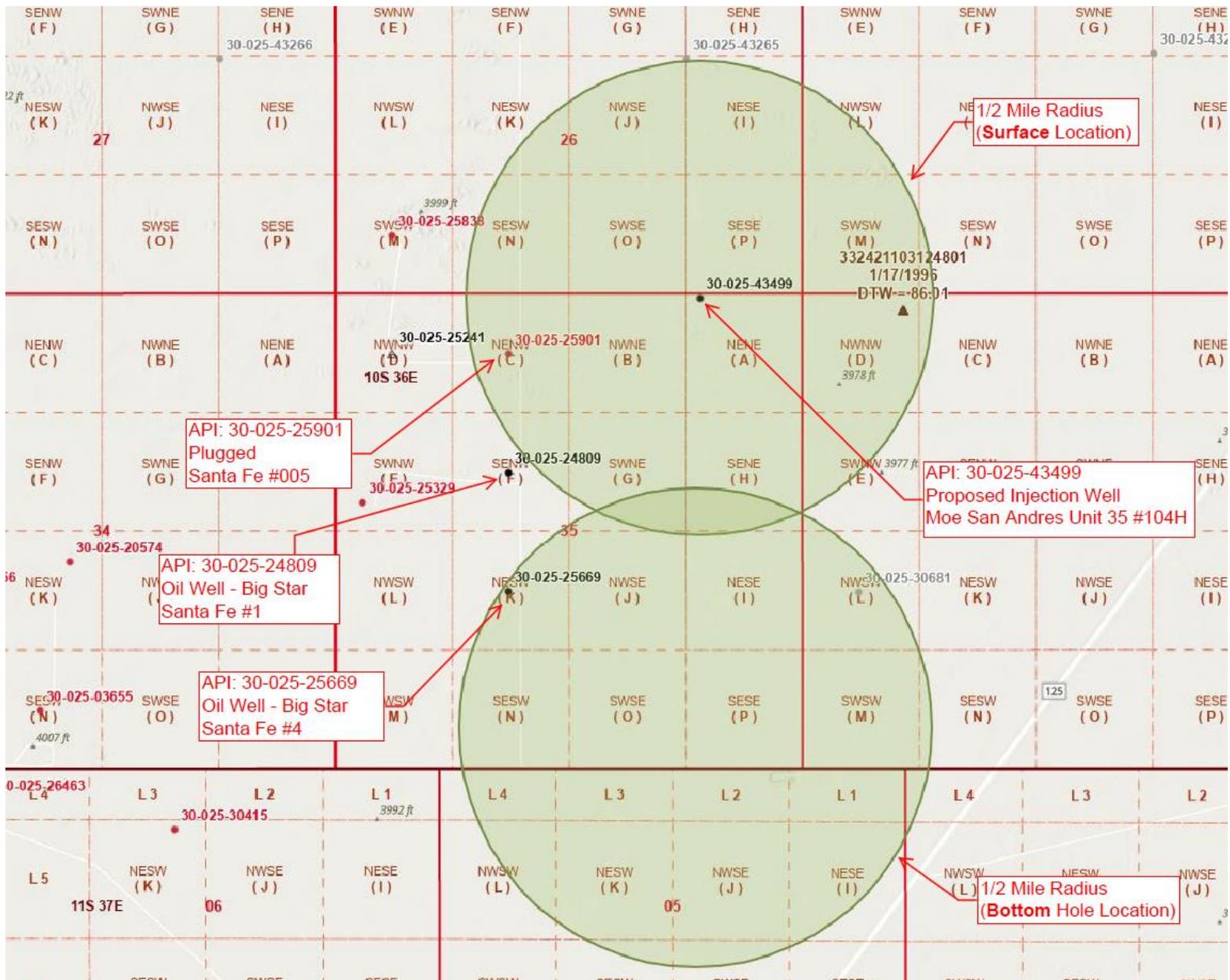
MOE SAN ANDRES UNIT 35 #104H

Section 35, T10S-R36E

Lea County, New Mexico

1/2 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

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

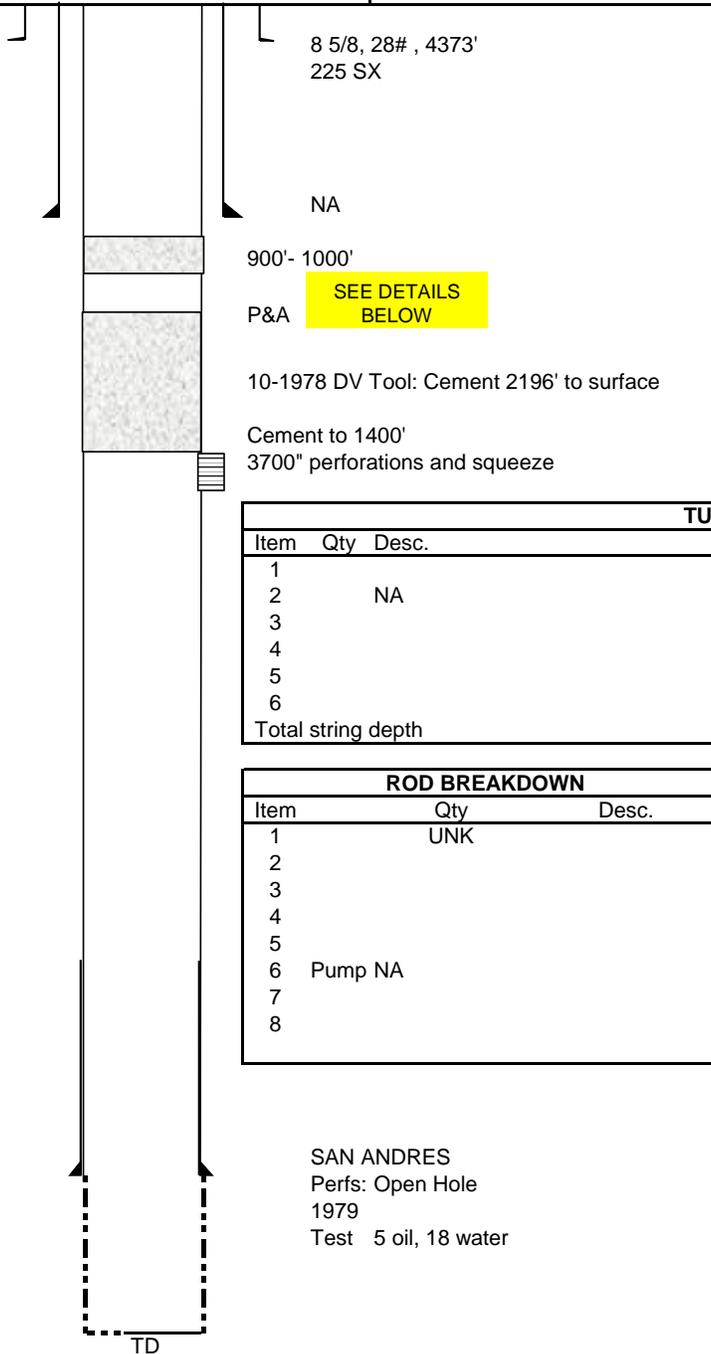
Well Type	Well Name	API	Operator	Construction	Date Drilled	Location	Depth	Current Status	Record of Completion
Oil	Santa Fe #5	30-025-25901	Reed & Stevens, Inc.	Rotary	4/28/1978	Unit C 660' North Line 1980' West Line Sec 35 T10S-R36E	4991'	Plugged	Completed 2/1/1979 Plugged 7/6/1984
Oil	Santa Fe #1	30-025-24809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

WELLBORE DIAGRAM

Well: Santa Fe #35-5

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

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



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'

SAN ANDRES
Perfs: Open Hole
1979
Test 5 oil, 18 water

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

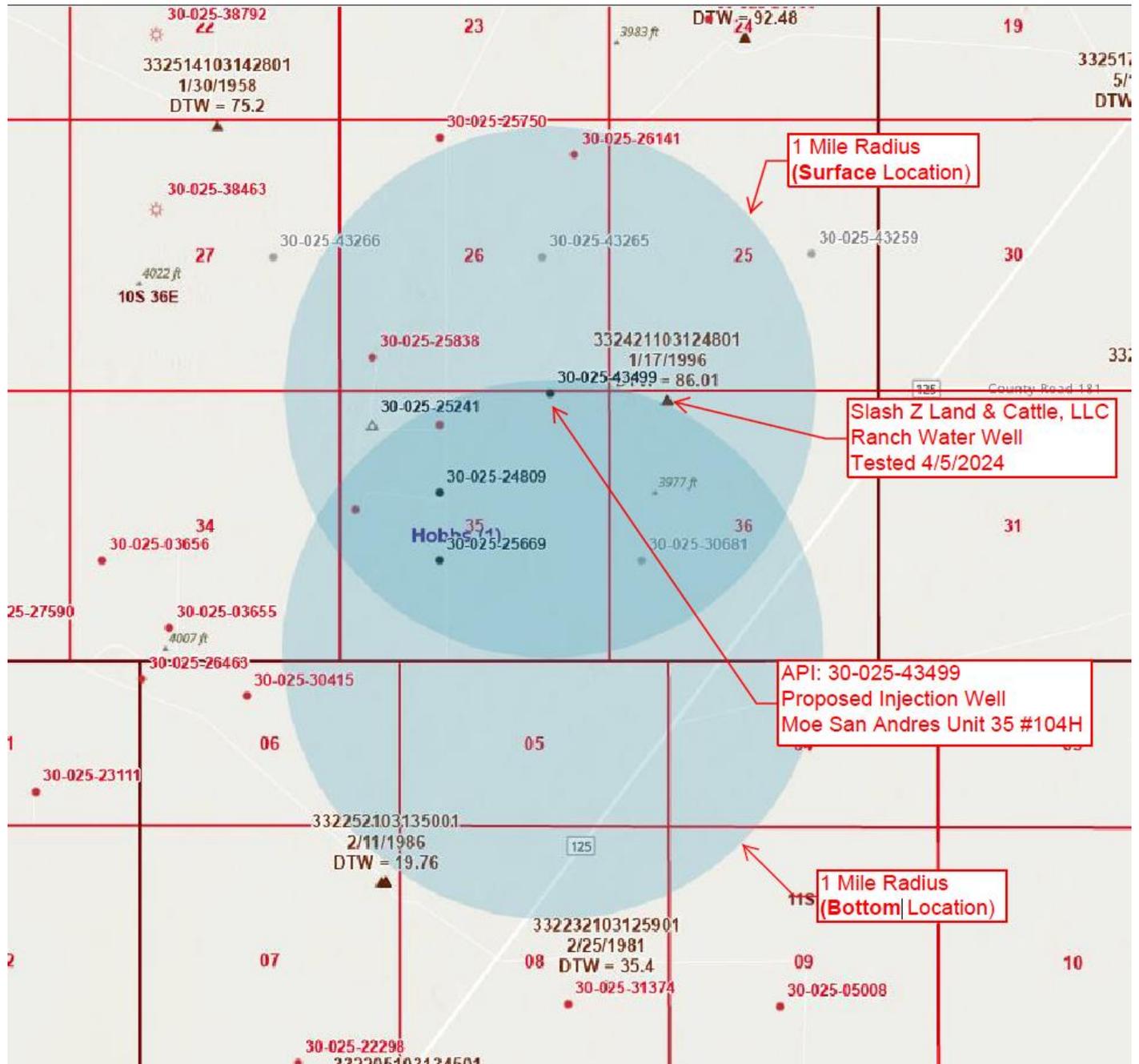
PROPOSED INJECTION WELL

MOE SAN ANDRES UNIT 35 #104H

Section 35, T10S-R36E

Lea County, New Mexico

1 Mile Area of Review – Water Wells (Surface and Bottom Hole Locations)



1 Mile Radius
(Surface Location)

Slash Z Land & Cattle, LLC
Ranch Water Well
Tested 4/5/2024

API: 30-025-43499
Proposed Injection Well
Moe San Andres Unit 35 #104H

1 Mile Radius
(Bottom Location)



MARTIN WATER LABS

AN INDEPENDENT ANALYTICAL LABORATORY

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

Water Analysis

Parameters:

pH:	5.78
Bicarbonate HCO ₃ (mg/l):	732
Carbonate (mg/l):	0
Hydroxide (mg/l):	0
Temperature (°F):	75
Pressure (PSI):	-
Dissolved CO ₂ (mg/l):	277
Dissolved H ₂ 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 ₃ :	18280
Total Dissolved Solids:	207774
Total Suspended Solids:	49.00
Turbidity NTU:	35.20
ORP, as mV	

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:



MARTIN WATER LABS

AN INDEPENDENT ANALYTICAL LABORATORY

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

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

Water Analysis

Parameters:

pH:	7.56	Cations mg/L (ICP)	
Bicarbonate HCO ₃ (mg/l):	146	Aluminum:	<.015
Carbonate (mg/l):	0	Arsenic:	<.015
Hydroxide (mg/l):	0	Barium:	0.067
Temperature (°F):	75	Boron:	0.111
Pressure (PSI):	-	Cadmium:	<.015
Dissolved CO ₂ (mg/l):	40	Calcium:	130.138
Dissolved H ₂ S (mg/l):	0	Chromium:	<.015
Ionic Strength:	0.0144	Cobalt:	<.015
Resistivity ohms/m @77°F:	8.700	Copper:	<.015
Specific Gravity @60°F:	1.0000	Iron:	<.015
Anions mg/L (IC)		Lead:	<.015
Bromide:	<1	Lithium:	0.037
Chloride:	91	Magnesium:	19.004
Fluoride:	<1	Manganese:	<.015
Nitrate, as N:	<1	Nickel:	<.015
Nitrite, as N:	<1	Potassium:	2.844
Sulfate:	174	Phosphorus:	<.050
Other mg/L		Selenium:	<.015
Conductivity, µmhos/cm @ 77°F:	709	Silica:	1.68
Oil and Grease:	<10	Sodium:	9.024
Total Hardness as CaCO ₃ :	404	Strontium:	0.792
Total Dissolved Solids:	573	Thallium:	<.015
Total Suspended Solids:	0.00	Zinc:	0.078
Turbidity NTU:	1.75		
ORP, as mV:			

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)683-451



MARTIN WATER LABS

AN INDEPENDENT ANALYTICAL LABORATORY

To	Lucas Knickerbocker	Project/Lease	Ranch Windmill
Company	Big Star Exploration	Location	
Address	PO Box 122171, Ft Worth, TX 76121	Sample Point	
Lab #	24-03-163.1	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	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



MARTIN WATER LABS

AN INDEPENDENT ANALYTICAL LABORATORY

To	Lucas Knickerbocker	Project/Lease	Listed
Company	Big Star Exploration	Location	
Address	PO Box 122171, Ft Worth, TX 76121	Sample Point	
Lab #	24-03-163	Date Sampled	4/5/2024
Date Reported	4/19/2024	Date Received	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.

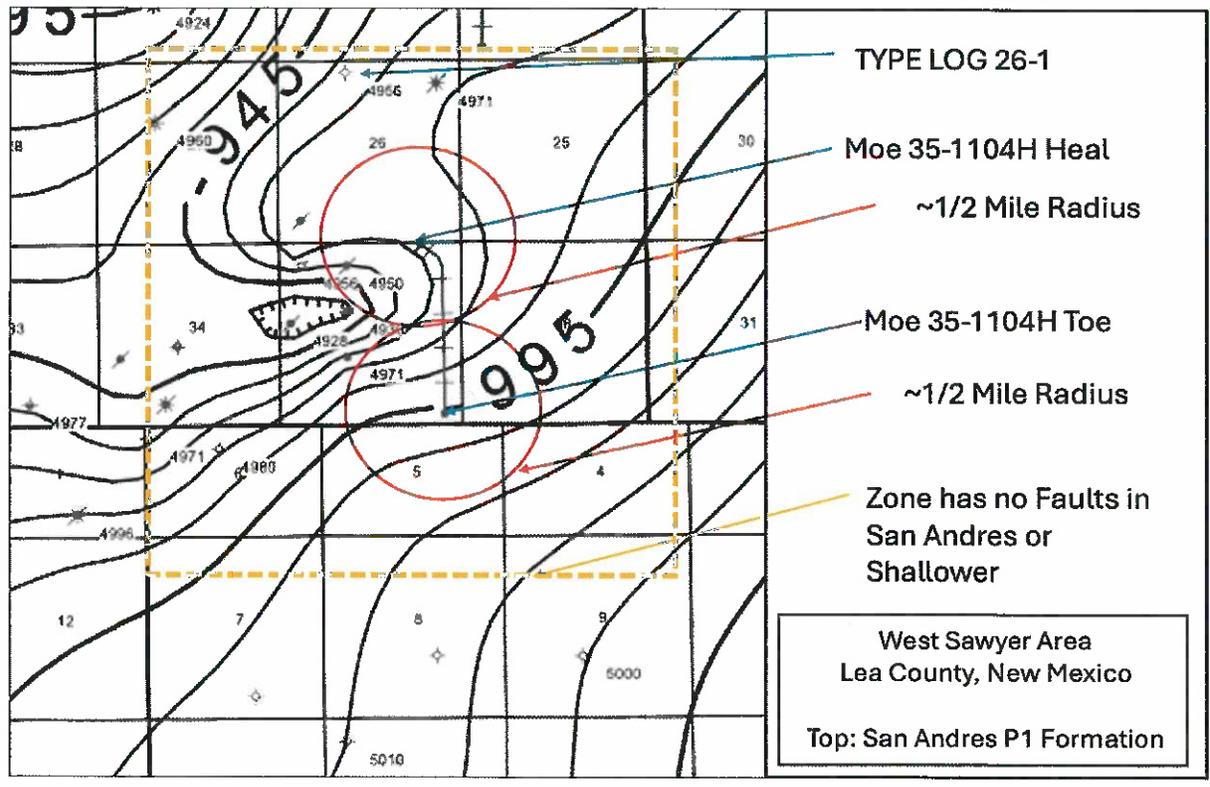
As displayed on the San Andres P1 structure map below, there are no faults in the San Andres interval or shallower within a one-half mile radius of the Head or the Toe of the Moe 35-104H horizontal well. Additionally, there are no faults in the San Andres or shallower within the Dashed Box (~7 square 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,

A handwritten signature in dark ink, appearing to read 'P Bornman', written over a circular scribble.

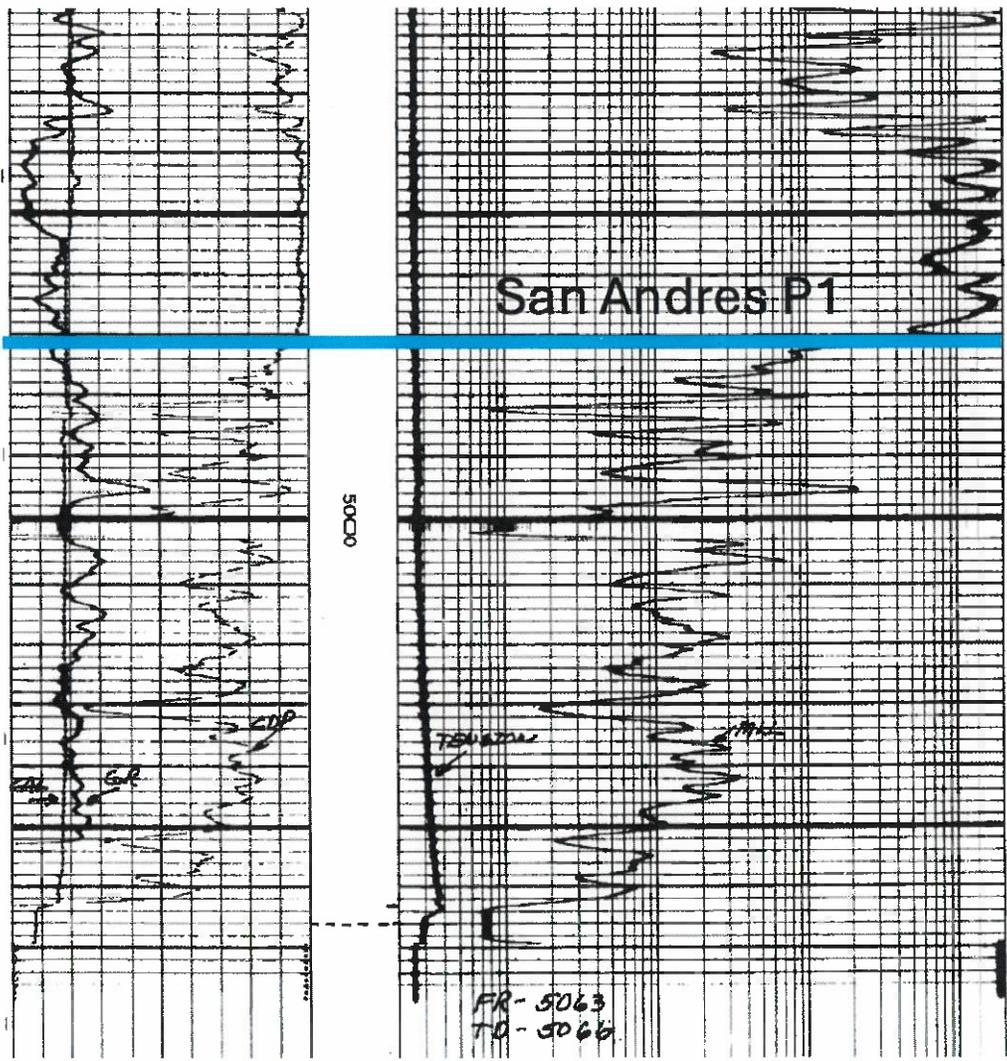
Preston Bornman

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

CONDITIONS

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