

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**APPLICATION OF SPUR ENERGY
PARTNERS LLC FOR APPROVAL OF A
PRESSURE MAINTENANCE PROJECT,
EDDY COUNTY, NEW MEXICO.**

CASE NO. _____

APPLICATION

Spur Energy Partners LLC (“Spur”) (OGRID No. 328947), through its undersigned attorneys, hereby files this application with the Oil Conservation Division for an order approving a pressure maintenance project in the Yeso formation underlying a project area comprised of portions of Sections 21, 28, and 29, all in Township 17 South, Range 29 East, NMPM, Eddy County, New Mexico. In support of its application, Spur states:

1. Spur seeks approval to inject produced gas into the **GJ West Coop Unit #278** (API No. 30-015-36705) at a total vertical depth of approximately 3,989 feet to approximately 5,300 feet.

2. Spur anticipates injection through this well will provide pressure maintenance support for its offsetting wells identified in **Exhibit A**, which are operated by Spur and drilled and completed in the GJ; 7RVS-QN-GB-Glorieta-Yeso (Pool Code 97558).

3. The interval that will benefit from the proposed pressure maintenance constitutes the Paddock and Blinebry members of the Yeso formation, being the stratigraphic equivalent of 3,925 feet to the top of the Tubb at approximately 5,385 feet as identified in the GJ West Coop Unit #140 (API# 30-015-29180).

4. Spur seeks authority to inject produced gas into the GJ; 7RVS-QN-GB-Glorieta-Yeso (Pool Code 97558) at a maximum surface injection pressure of 1,040 psi with an average

surface injection pressure of approximately 676 psi. Spur proposes to inject produced gas at a maximum rate of 10 MMCF per day with an average daily injection rate of approximately 5 MMCF per day.

5. The source of produced gas will be from offsetting wells producing from the Glorieta-Yeso Pool.

6. The project area for this pressure maintenance injection project will comprise the following acreage in Eddy County:

Township 17 South, Range 29 East, NMPM

Section 20: SE/4 SE/4

Section 21: S/2

Section 28: N/2 S/2, N/2

Section 29: E/2 NE/4

7. A copy of the Form C-108 for this injection project is provided with this application as **Exhibit B**.


8. A copy of this Application has been provided to all affected parties as required by Division Rules and notice of the hearing on this application will be provided in a newspaper of general circulation in Eddy County.

9. Approval of this pressure maintenance project will result in the production of substantially more hydrocarbons from the project area than would otherwise be produced, will prevent waste, and will not impair correlative rights.

WHEREFORE, Spur Energy Partners LLC requests that this application be set for hearing before an Examiner of the Oil Conservation Division on November 2, 2023, and, after notice and hearing as required by law, the Division approve this application.

Respectfully submitted,

HOLLAND & HART LLP

By: 

Michael H. Feldewert
Adam G. Rankin
Paula M. Vance
Post Office Box 2208
Santa Fe, New Mexico 87504-2208
(505) 988-4421
(505) 983-6043 Facsimile
mfeldewert@hollandhart.com
agrarkin@hollandhart.com
pmvance@hollandhart.com

ATTORNEYS FOR SPUR ENERGY PARTNERS LLC

Case No.: _____ **Application of Spur Energy Partners LLC for Approval of a Pressure Maintenance Project, Eddy County, New Mexico.** Applicant in the above-styled cause seeks an order approving a pressure maintenance project in the Yeso formation underlying a project area comprised of portions of Sections 21, 28, and 29, all in Township 17 South, Range 29 East, NMPM, Eddy County, New Mexico. Produced gas will be injected into the **GJ West Coop Unit #278** (API No. 30-015-36705) at a total vertical depth of approximately 3,989 feet to approximately 5,300 feet. The interval that will benefit from the proposed pressure maintenance constitutes the Paddock and Blinbry members of the Yeso formation, being the stratigraphic equivalent of 3,925 feet to the top of the Tubb at approximately 5,385 feet as identified in the GJ West Coop Unit #140 (API# 30-015-29180). The project area for this pressure maintenance injection project will comprise the following acreage in Eddy County:

Township 17 South, Range 29 East, NMPM

Section 20: SE/4 SE/4

Section 21: S/2

Section 28: N/2 S/2, N/2

Section 29: E/2 NE/4

Spur seeks approval to inject at a maximum surface injection pressure of 1,040 psi with an average surface injection pressure of approximately 676 psi. Spur proposes to inject produced gas at a maximum rate of 10 MMCF per day with an average daily injection rate of approximately 5 MMCF per day. The source of the produced gas will be the Glorieta-Yeso Pool. The proposed project is located approximately 19 miles east of Artesia, New Mexico.

EXHIBIT A

Well Name	Well Number	API
GJ West Coop Unit	102	30-015-26839
GJ West Coop Unit	81	30-015-25691
GJ West Coop Unit	93	30-015-26640
GJ West Coop Unit	134	30-015-28515
GJ West Coop Unit	280	30-015-37576
GJ West Coop Unit	68	30-015-25382
GJ West Coop Unit	136	30-015-28516
GJ West Coop Unit	141	30-015-29298
GJ West Coop Unit	138	30-015-28518
GJ West Coop Unit	131	30-015-28513
GJ West Coop Unit	140	30-015-29180
GJ West Coop Unit	104	30-015-27257
GJ West Coop Unit	139	30-015-28494
White Star Federal	22	30-015-32250
GJ West Coop Unit	69	30-015-25383
GJ West Coop Unit	121	30-015-28210
GJ West Coop Unit	150	30-015-35483
GJ West Coop Unit	153	30-015-35485
GJ West Coop Unit	158	30-015-35580
GJ West Coop Unit	171	30-015-35722
GJ West Coop Unit	170	30-015-35777
GJ West Coop Unit	194	30-015-36285
GJ West Coop Unit	192	30-015-36238
GJ West Coop Unit	193	30-015-36241
GJ West Coop Unit	190	30-015-36227
GJ West Coop Unit	277	30-015-37295
GJ West Coop Unit	258	30-015-37438
GJ West Coop Unit	163	30-015-37670
GJ West Coop Unit	133	30-015-28514
GJ West Coop Unit	103	30-015-27256
GJ West Coop Unit	143	30-015-29300
GJ West Coop Unit	101	30-015-26838
GJ West Coop Unit	73	30-015-25466
GJ West Coop Unit	281	30-015-37583
GJ West Coop Unit	82	30-015-25610
State I	21	30-015-10808
GJ West Coop Unit	100	30-015-26840
GJ West Coop Unit	304	30-015-37577
GJ West Coop Unit	90	30-015-26581
GJ West Coop Unit	83	30-015-26493
GJ West Coop Unit	99	30-015-26769
GJ West Coop Unit	323	30-015-40362
GJ West Coop Unit	109	30-015-27260
GJ West Coop Unit	259	30-015-37532

EXHIBIT B

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
-----------	-----------	-------	---------

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

<u>FOR OCD ONLY</u>	
<input type="checkbox"/>	Notice Complete
<input type="checkbox"/>	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



 Signature

 Date

 Phone Number

 e-mail Address

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: Spur Energy Partners LLC

ADDRESS: 9655 Katy Freeway, Suite 500, Houston, TX 77024

CONTACT PARTY: Sarah Chapman PHONE: 832-930-8502

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: Oliver Seekins TITLE: Consultant / Project Manager

SIGNATURE:  DATE: 9.29.2023

E-MAIL ADDRESS: Oseekins@ALL-LLC.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.

Application for Authorization to Inject**Well Name:** GJ West Coop Unit #278**API:** 30-015-36705**III – Well Data** (*The Wellbore Diagram is included as Attachment 1*)**A.****(1) General Well Information:****Operator:** Spur Energy Partners LLC (OGRID No. 328947)**Lease Name & Well Number:** GJ West Coop Unit #278**Location Footage Calls:** 330 FNL & 2,310 FWL**Legal Location:** Unit Letter C, S28 T17S R29E**Ground Elevation:** 3,580'**Proposed Injection Interval:** 3,989' – 5,300'**County:** Eddy**(2) Casing Information:**

Type	Hole Size	Casing Size	Casing Weight	Setting Depth (MD)	Sacks of Cement	Estimated TOC	Method Determined
Surface Casing	17.5"	13-3/8"	48 lb/ft	308'	1,190	Surface	Circulation
Intermediate Casing	11"	8-5/8"	24 lb/ft	843'	400	Surface	Circulation
Production Casing	7-7/8"	5-1/2"	17 lb/ft	5,489'	900	Surface	Circulation
Tubing	N/A	2-7/8"	6.5 lb/ft	3,939'	N/A	N/A	N/A

Note:**(3) Tubing Information:**

2-7/8" (6.5 lb/ft) J-55 IPC tubing with a setting depth of 3,939'.

(4) Packer Information: D&L Oil Tools ASI-X Packer or equivalent packer set at 3,939'.**B.****(1) Injection Formation Name:** Yeso Group**Pool Name:** GJ; 7RVS-QN-GB-GLORIETA-YESO**Pool Code:** 97558**(2) Injection Interval:** Perforated injection between 3,989' – 5,300'.**(3) Drilling Purpose:** Recompletion for gas injection for pressure maintenance.**(4) Other Perforated Intervals:** No other perforated intervals exist.**(5) Overlying Oil and Gas Zones:** Below are the approximate formation tops for known oil and gas producing zones in the area.

- Yates (805')
- Queen (1,715')
- San Andres (2,390')

Underlying Oil and Gas Zones: Below are the approximate formation tops for known oil and gas producing zones in the area.

- Wolfcamp (7,295')
- Morrow (10,461')

Application for Authorization to Inject**Well Name:** GJ West Coop Unit #278**API:** 30-015-36705**V – Well and Lease Maps**

A ½-mile well details table with casing and plugging information for each of the plugged penetrating wells, as well as the following maps, are included in **Attachment 2**:

- 2-mile Oil & Gas Well Map
- 2-mile Lease Map
- 2-mile Mineral Ownership Map
- 2-mile Surface Ownership map
- Potash Lease Map

VI – AOR Well List

There are 68 wells within the 1/2-mile AOR, of which 53 penetrating the injection zone. Nine (9) of the 53 penetrating wells have been plugged. Each of the penetrating and plugged penetrating wells have been properly cased, cemented, and plugged if applicable to isolate the injection zone.

A list of the wells within the 1/2-mile AOR, construction details for each of the penetrating wells, and wellbore diagrams for each of the nine (9) plugged penetrating wells are included in **Attachment 2**.

VII – Proposed Operation

- (1) **Proposed Maximum Injection Rate:** 10 MMCF/day
Proposed Average Injection Rate: 5 MMCF/day
- (2) A **closed system** will be used.
- (3) **Proposed Maximum Injection Pressure:** 1,040 psi (surface)
Proposed Average Injection Pressure: approximately 676 psi (surface)
- (4) **Source Injectate Analysis:** It is expected that the injectate will consist of gas produced from the Glorieta-Yeso Pool and re-injected into the same formations for the purposes of pressure maintenance **Attachment 3**.

VIII – Geologic Description

The proposed injection interval includes Yeso Group from 3,989 – 5,300 feet. The Yeso Group consists predominantly of dolomites and anhydritic dolomites, with some siltstones. These units are capable of taking gas produced from the subject formation(s) in the area.

The freshwater aquifers are the Artesian & Valley fill with the base of the USDW being located at the base of the Rustler Formation at 321 feet. The one (1) active water well in the area has a depth of 131 feet below ground surface.

A structural cross-section and details of the proposed injection formation(s) within the project area are included in **Attachment 4**.

Application for Authorization to Inject

Well Name: GJ West Coop Unit #278

API: 30-015-36705

IX – Proposed & Previous Stimulation Program

This well was previously stimulated during its initial completion as a production well. Spur does not plan to restimulate the GJ West Coop Unit #278.

X – Logging and Test Data

Spur does not currently intend to run any additional logs.

XI – Fresh Groundwater Samples

Based on a review of data from the New Mexico Office of the State Engineer, 2 (two) groundwater wells are located within 1 mile of the proposed SWD location. However, we were not able to obtain permission to sample one of the groundwater wells, and the second water well is not an active freshwater well. As such, no water samples were collected in support of this application.

A water well map and details of water wells within one (1) mile are included in **Attachment 5**.

XII – No Hydrologic Connection Statement

No faulting is present in the area that would provide a hydrologic connection between the injection interval and overlying USDWs. Additionally, the casing program has been designed to ensure there will be no hydrologic connection between the injection interval and overlying USDWs.

A signed No Hydrologic Connection Statement has been included as **Attachment 6**.

XIII – List of Notice Recipients

A table listing the identified parties requiring notice of this Authorization to Inject application, including the land surface owner, any lease-held operators and any other affected persons are included as **Attachment 7**.

Attachments

Attachment 1: Well Details:

- C-102
- Current Wellbore Diagram
- Current Completion Report
- Proposed Wellbore Diagram

Attachment 2: Area of Review Information:

- 2-mile Oil & Gas Well Map
- 1/2-mile Well Detail List With Penetrating Well Casing and Plugging Information
- 2-mile Lease Map
- 2-mile Mineral Ownership Map
- 2-mile Surface Ownership Map
- Potash Lease Map

Attachment 3: Injectate Analyses

Attachment 4: Structural Cross Section & Injection Formation Details

Attachment 5: Water Well Map and Well Data

Attachment 6: Signed No Hydrologic Connection Statement

Attachment 7: List of Notice Recipients

Attachment 1

- C-102
- Current Wellbore Diagram
- Current Completion Report
- Proposed Wellbore Diagram

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

District II
 1301 W. Grand Ave., Artesia, NM 88210
 Phone:(505) 748-1283 Fax:(505) 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

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-015-36705	2. Pool Code 97558	3. Pool Name GJ,7RV3-QN-GB-GLORIETA-YESO
4. Property Code 302497	5. Property Name G J WEST COOP UNIT	6. Well No. 278
7. DGRID No. 229137	8. Operator Name COG OPERATING LLC	9. Elevation 3580

10. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
C	28	17S	29E		330	N	2310	W	EDDY

11. Bottom Hole Location If Different From Surface

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Acres 40.00		13. Joint or Infill		14. Consolidation Code			15. Order No.		

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<table border="1" style="width:100%; height: 200px; border-collapse: collapse;"> <tr> <td style="width:25%;"></td> <td style="width:25%; background-color: #cccccc; text-align: center;">■</td> <td style="width:25%;"></td> <td style="width:25%;"></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>		■															<p align="center">OPERATOR CERTIFICATION</p> <p><i>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(s) 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.</i></p> <p>E-Signed By: Diane Kuykendall Title: Regulatory Analyst Date: 10/9/2008</p> <hr/> <p align="center">SURVEYOR CERTIFICATION</p> <p><i>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.</i></p> <p>Surveyed By: Ronald Eidson Date of Survey: 3/13/2008 Certificate Number: 3239</p>
	■																

API #	30-015-36705	GJ West Coop Unit #278 Current Construction	County, ST	Eddy County, NM
Operator	Spur Energy Partners		Sec-Twn-Rng	28-17S-29E
Field	GJ; 7RVS-QN-GB-GLORIETA-YESO		Footage	330 FNL 2310 FWL
Spud Date	4/11/2009		Survey	32.8118935, -104.0808563

Formation (MD)	
Yates	805
Queen	1715
San Andres	2390
Glorieta	3870

RKB	
GL	3580

Hole Size	17-1/2"
TOC	Surface
Method	Circ 40 sx

Csg Depth	308'
Size	13-3/8"
Weight	48#
Grade	H40
Connections	
Cement	1190 sx

Hole Size	11"
TOC	Surface
Method	Circ 53 sx

Tubing Detail				
Jts	Size	Depth	Length	Detail
122		3799.8	3799.8	2-7/8" Tubing
1		3802	2.24	Marker Jt
2		3866.1	64.09	2-7/8" Tubing
1		3869	2.87	TAC
46		5299.7	1430.7	2-7/8" Tubing
1		5300.8	1.1	SN
1		5305	4.22	Slotted Sub
1		5337	32	BPMJ

Csg Depth	843'
Size	8-5/8"
Weight	24#
Grade	J55
Connections	
Cement	400 sx

Rod Detail					
Rods	Size	Depth	Length	Guides	Detail
1		26	26		1-1/4" SM Polish rod
1		52	26		1-1/4" FG Pony
69		2639.5	2587.5		1-1/4" FG Rods
99		5114.5	2475		7/8" N97 Rods
6		5264.5	150		1-5/8" K Bars
1		5288.5	24		250-150-RHBC-24-4 Pump

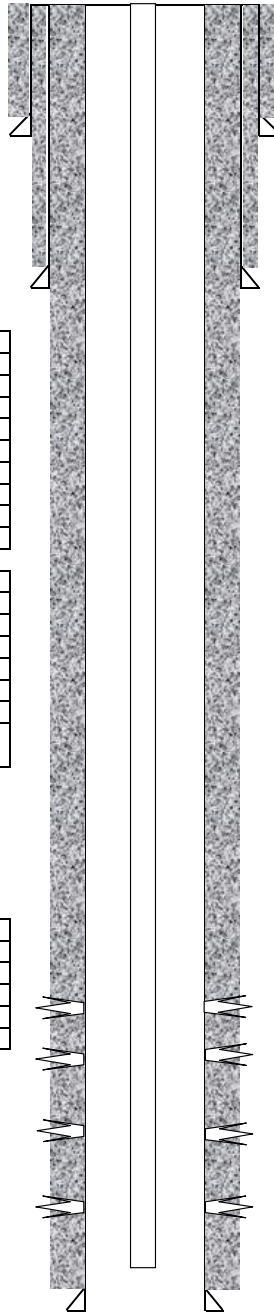
Hole Size	7-7/8"
TOC	Surface
Method	Calc

Csg Depth	5489'
Size	5-1/2"
Weight	17#
Grade	J55
Connections	
Cement	900 sx

Perforations
3989'-5300'

Last Update	1/31/2023
By	RCB

PBTD	5342'
TD MD	5500'
TD TVD	5500'



Submit To Appropriate District Office
State Lease - 6 copies
Fee Lease - 5 copies
District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S St Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

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

MAY 26 2009

Form C-105

Revised June 10, 2003

WELL API NO.

30-015-36705

5. Indicate Type of Lease

STATE FEE

State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a Type of Well
OIL WELL GAS WELL DRY OTHER _____
b Type of Completion
NEW WORK DEEPEN PLUG DIFF
WELL OVER BACK RESVR OTHER

7 Lease Name or Unit Agreement Name
G J WEST COOP UNIT

2 Name of Operator
COG Operating LLC

8 Well No
278

3 Address of Operator
550 W. Texas Ave., Suite 1300 Midland, TX 79701

9 Pool name or Wildcat
GJ; 7RVS-QN-GB-GLORIETA-YESO 97558

4 Well Location
Unit Letter **C** **330** Feet From The **North** Line and **2310** Feet From The **West** Line
Section **28** Township **17S** Range **29E** NMPM County **Eddy**

10 Date Spudded **4/11/09** 11 Date T D Reached **4/19/09** 12 Date Compl (Ready to Prod) **05/14/09** 13 Elevations (DF& RKB, RT, GR, etc) **3580 GR** 14 Elev Casinghead

15 Total Depth **5500** 16 Plug Back T D **5342** 17 If Multiple Compl How Many Zones? 18 Intervals Drilled By **X** Rotary Tools Cable Tools

19 Producing Interval(s), of this completion - Top, Bottom, Name **3989 - 5300 Yeso** 20 Was Directional Survey Made **No**

21 Type Electric and Other Logs Run **CN / HNGS, Micro CFL / HNGS** 22 Was Well Cored **No**

23. **CASING RECORD (Report all strings set in well)**

CASING SIZE	WEIGHT LB /FT	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
17-1/2	48	308	13-3/8	1190	
11	24	843	8-5/8	400	
7-7/8	17	5489	5-1/2	900	

24 LINER RECORD				25 TUBING RECORD			
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2-7/8	5043	

26 Perforation record (interval, size, and number)	27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC	
	DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
3989 - 4309 - 2 SPF, 36 holes	Open	
4560 - 4760 - 2 SPF, 36 holes	Open	See Attachment
4830 - 5030 - 2 SPF, 36 holes	Open	See Attachment
5100 - 5300 - 2 SPF, 48 holes	Open	See Attachment
		See Attachment

28 **PRODUCTION**

Date First Production **5/14/09** Production Method (*Flowing, gas lift, pumping - Size and type pump*) **Pumping using a 2-1/2" x 2" x 25' RHTC pump** Well Status (*Prod or Shut-in*) **Producing**

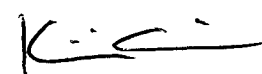
Date of Test **5/16/09** Hours Tested **24** Choke Size Prod'n For Test Period Oil - Bbl **39** Gas - MCF **86** Water - Bbl **708** Gas - Oil Ratio **2205**

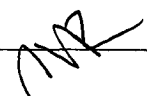
Flow Tubing Press Casing Pressure Calculated 24-Hour Rate Oil - Bbl Gas - MCF Water - Bbl Oil Gravity - API - (Corr) **37.1**

29 Disposition of Gas (*Sold, used for fuel, vented, etc*) **SOLD** Test Witnessed By **Kent Greenway**

30 List Attachments **Logs, C102, C103, Deviation Report, C104**

31 *I hereby certify that the information shown on both sides of this form as true and complete to the best of my knowledge and belief*

Signature  Printed Name **Kanicia Carrillo** Title **Regulatory Analyst** Date **05/19/09**
E-mail Address **kcarrillo@conchoresources.com** 432-685-4332



INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn. "B"
T. Salt	T. Strawn	T. Kirtland-Fruitland	T. Penn. "C"
B. Salt	T. Atoka	T. Pictured Cliffs	T. Penn. "D"
T. Yates 805	T. Miss	T. Cliff House	T. Leadville
T. 7 Rivers	T. Devonian	T. Menefee	T. Madison
T. Queen 1715	T. Silurian	T. Point Lookout	T. Elbert
T. Grayburg	T. Montoya	T. Mancos	T. McCracken
T. San Andres 2390	T. Simpson	T. Gallup	T. Ignacio Otzte
T. Glorieta 3870	T. McKee	Base Greenhorn	T. Granite
T. Paddock	T. Ellenburger	T. Dakota	T.
T. Blinebry	T. Gr. Wash	T. Morrison	T.
T. Tubb	T. Delaware Sand	T. Todilto	T.
T. Drinkard	T. Bone Spring	T. Entrada	T.
T. Abo	T. Yeso 3925	T. Wingate	T.
T. Wolfcamp	T. Mississippian	T. Chinle	T.
T. Penn	T.	T. Permian	T.
T. Cisco (Bough C)	T.	T. Penn "A"	T.

OIL OR GA SANDS OR ZONES

No. 1, from.....to..... No. 3, from.....to.....
 No. 2, from.....to..... No. 4, from.....to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to..... feet.....
 No. 2, from.....to..... feet.....
 No. 3, from.....to..... feet.....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology	From	To	Thickness In Feet	Lithology

G J WEST COOP UNIT #278
API#: 30-015-36705
EDDY, NM

C-105 (#27) ADDITIONAL INFORMATION

27 ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.	
DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
3989 - 4309	Acidize w/2,500 gals acid
	Frac w/99,482 gals gel, 102,614# 16/30
	Ottawa sand, 6,263# 16/30 SiberProp sand

27 ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.	
DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
4560 - 4760	Acidize w/3,500 gals acid
	Frac w/124,978 gel, 147,396# 16/30
	Ottawa sand, 31,670# 16/30 SiberProp sand.

27 ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.	
DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
4830 - 5030	Acidize w/3,500 gals acid
	Frac w/125,615 gals gel, 148,366# 16/30
	Ottawa sand, 32,507# 16/30 SiberProp sand

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.	
DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
5100 - 5300	Acidize w/3,500 gals acid
	Frac w/147,041 gals gel, 147,041# 16/30
	Ottawa sand, 35,165# 16/30 SiberProp sand

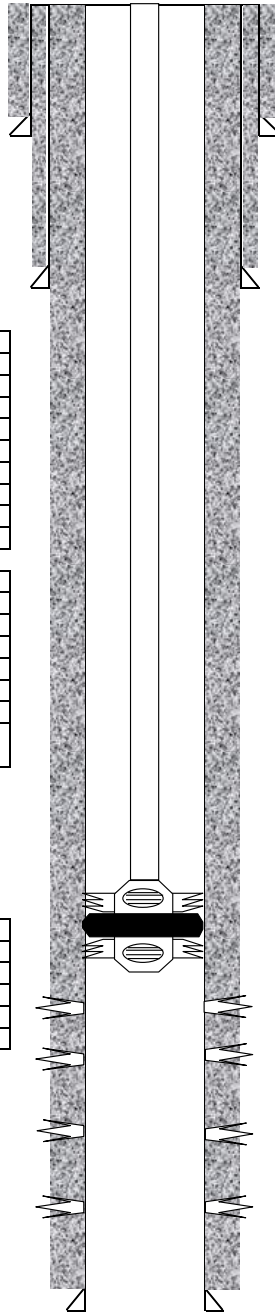
API #	30-015-36705	GJ West Coop Unit #278 Proposed Recompletion	County, ST	Eddy County, NM
Operator	Spur Energy Partners		Sec-Twn-Rng	28-175-29E
Field	GJ; 7RVS-QN-GB-GLORIETA-YESO		Footage	330 FNL 2310 FWL
Spud Date	4/11/2009		Survey	32.8118935, -104.0808563

Formation (MD)	
Yates	805
Queen	1715
San Andres	2390
Glorieta	3870

RKB	
GL	3580

Hole Size	17-1/2"
TOC	Surface
Method	Circ 40 sx

Csg Depth	308'
Size	13-3/8"
Weight	48#
Grade	H40
Connections	
Cement	1190 sx



Hole Size	11"
TOC	Surface
Method	Circ 53 sx

Csg Depth	843'
Size	8-5/8"
Weight	24#
Grade	J55
Connections	
Cement	400 sx

Tubing Detail					
Jts	Size	Depth	Length	Guides	Detail
121		3934	3934		2-7/8" IPC Tubing
1		3939	5		2-7/8" x 5-1/2" Packer

Rod Detail					
Rods	Size	Depth	Length	Guides	Detail

Hole Size	7-7/8"
TOC	Surface
Method	Calc

Csg Depth	5489'
Size	5-1/2"
Weight	17#
Grade	J55
Connections	
Cement	900 sx

Perforations
3989'-5300'

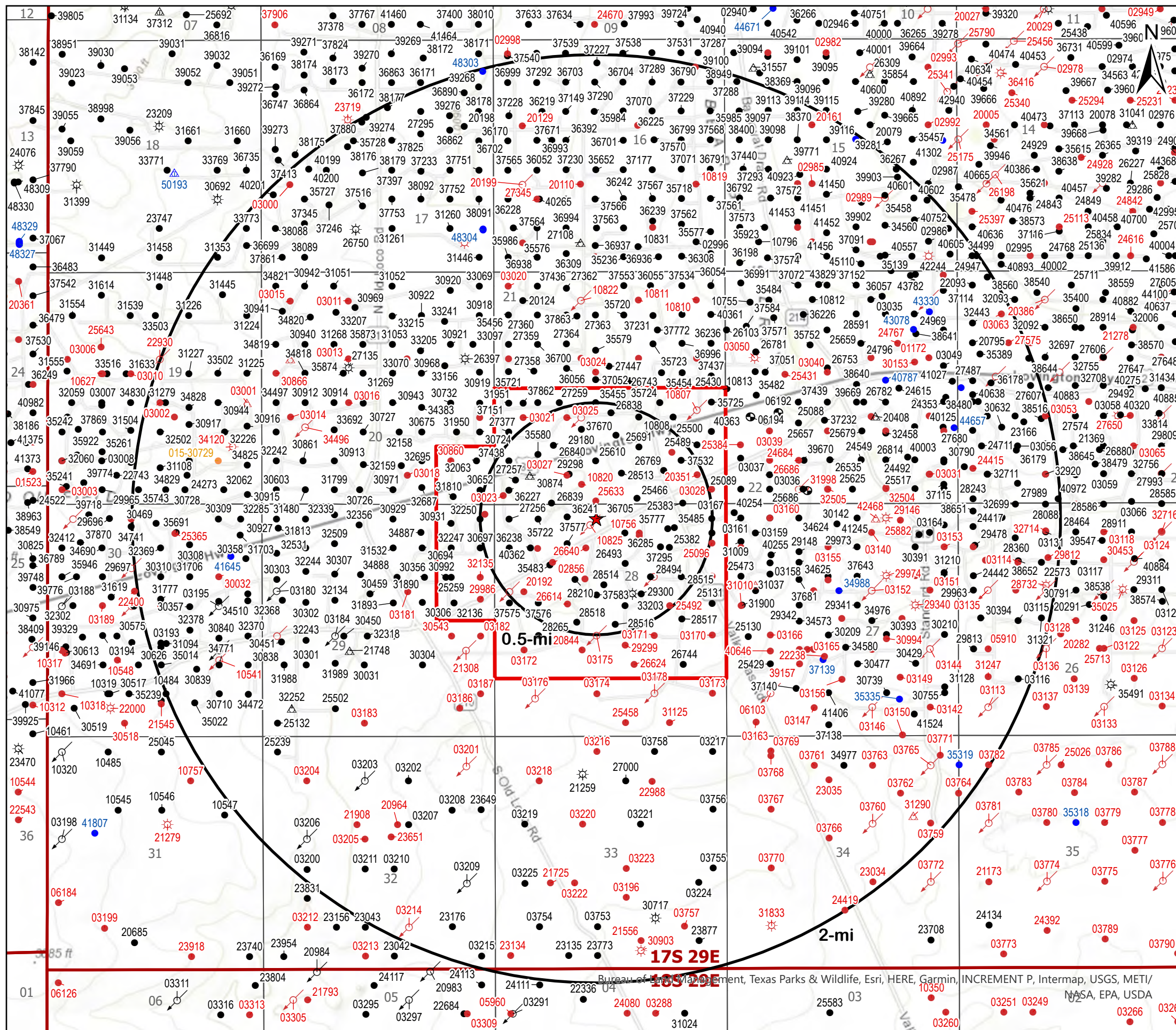
Last Update	1/31/2023
By	RCB

PBTD	5342'
TD MD	5500'
TD TVD	5500'

Attachment 2

Area of Review Information:

- 2-mile Oil & Gas Well Map
- 1/2-mile Well Detail List
- 2-mile Lease Map
- 2-mile Mineral Ownership Map
- 2-mile Surface Ownership Map
- Potash Lease Map



Legend

- ★ Well Location
- Project Area
- Miscellaneous (4)
- ☼ Gas, Active (16)
- ☼ Gas, Plugged (16)
- ↻ Injection, Active (15)
- ↻ Injection, Plugged (66)
- Oil, Active (930)
- Oil, New (24)
- Oil, Plugged (285)
- Oil, Temporary Abandonment (2)
- △ Salt Water Disposal, Active (10)
- △ Salt Water Disposal, New (1)
- △ Salt Water Disposal, Plugged (5)

Source Info: NMOCD O&G Wells updated 3/22/2023
<https://www.emnrd.nm.gov/ocd/ocd-data/ftp-server/>

<h2>O&G Wells AOR Map</h2>		
<h3>G J WEST COOP UNIT #278</h3>		
Eddy County, New Mexico		
Proj Mgr: Oliver Seekins	September 20, 2023	Mapped by: Ben Bockelmann
Prepared for: SPUR ENERGY PARTNERS	Prepared by: ALLCONSULTING	

AOR Tabulation for GJ West Coop Unit 278 (Top of Injection Interval: 3,989'-5,300')

Well Name	API#	Well Type	Operator	Spud Date	Location (Sec., Tn., Rng.)	Total Vertical Depth (feet)	Penetrate Inj. Zone?
G J WEST COOP UNIT #278	30-015-36705	Oil	Spur Energy Partners LLC	4/11/2009	C-28-17S-29E	5,500	Yes
G J WEST COOP UNIT #019	30-015-10825	Plugged	COG OPERATING LLC	5/29/1966	C-28-17S-29E	Plugged (2,900)	No
G J WEST COOP UNIT #080	30-015-25633	Plugged	COG OPERATING LLC	1/8/1991	N-21-17S-29E	Plugged (4,490)	Yes
G J WEST COOP UNIT #193	30-015-36241	Oil	Spur Energy Partners LLC	3/1/2010	C-28-17S-29E	5,520	Yes
G J WEST COOP UNIT #093	30-015-26640	Plugged	COG OPERATING LLC	2/15/1991	C-28-17S-29E	Plugged (4,500)	Yes
G J WEST COOP UNIT #194	30-015-36285	Oil	Spur Energy Partners LLC	9/28/2008	B-28-17S-29E	5,467	Yes
G J WEST COOP UNIT #022	30-015-10820	Plugged	MACK ENERGY CORP	5/24/1966	N-21-17S-29E	Plugged (2,900)	No
G J WEST COOP UNIT #304	30-015-37577	Oil	Spur Energy Partners LLC	2/9/2012	C-28-17S-29E	5,596	Yes
G J WEST COOP UNIT #018	30-015-10756	Plugged	COG OPERATING LLC	12/10/1965	B-28-17S-29E	Plugged (3,700)	No
G J WEST COOP UNIT #073	30-015-25466	Oil	Spur Energy Partners LLC	11/10/1985	O-21-17S-29E	4,460	Yes
G J WEST COOP UNIT #087	30-015-20742	Plugged	MACK ENERGY CORP	1/23/1978	B-28-17S-29E	Plugged (7,365)	Yes
G J WEST COOP UNIT #102	30-015-26839	Oil	Spur Energy Partners LLC	10/16/1991	M-21-17S-29E	4,450	Yes
G J WEST COOP UNIT #141	30-015-29298	Oil	Spur Energy Partners LLC	12/26/1996	N-21-17S-29E	5,530	Yes
G J WEST COOP UNIT #131	30-015-28513	Oil	Spur Energy Partners LLC	7/10/1995	O-21-17S-29E	5,562	Yes
STATE #004	30-015-03027	Plugged	LEONARD & LEVERS, INC.	1/5/1948	N-21-17S-29E	Plugged (2,751)	No
G J WEST COOP UNIT #083	30-015-26493	Oil	Spur Energy Partners LLC	11/4/1990	G-28-17S-29E	4,480	Yes
G J WEST COOP UNIT #082	30-015-25610	Oil	Spur Energy Partners LLC	5/9/1991	N-21-17S-29E	5,579	Yes
G J WEST COOP UNIT #171	30-015-35722	Oil	Spur Energy Partners LLC	12/21/2007	D-28-17S-29E	5,608	Yes
G J WEST COOP UNIT #023	30-015-10797	Plugged	COG OPERATING LLC	5/3/1966	O-21-17S-29E	Plugged (2,900)	No
G J WEST COOP UNIT #014	30-015-10826	Plugged	MACK ENERGY CORP	6/3/1966	F-28-17S-29E	Plugged (2,850)	No
G J WEST COOP UNIT #012	30-015-02856	Plugged	MACK ENERGY CORP	3/14/1947	D-28-17S-29E	Plugged (2,705)	No
G J WEST COOP UNIT #121	30-015-28210	Oil	Spur Energy Partners LLC	12/8/1994	F-28-17S-29E	5,570	Yes
G J WEST COOP UNIT #150	30-015-35483	Oil	Spur Energy Partners LLC	3/29/2007	E-28-17S-29E	5,510	Yes
G J WEST COOP UNIT #105	30-015-27258	Plugged	COG OPERATING LLC	2/5/1993	A-28-17S-29E	Plugged (5,050)	Yes
G J WEST COOP UNIT #133	30-015-28514	Oil	Spur Energy Partners LLC	5/18/1995	F-28-17S-29E	5,536	Yes
G J WEST COOP UNIT #277	30-015-37295	Oil	Spur Energy Partners LLC	2/13/2010	B-28-17S-29E	5,520	Yes
G J WEST COOP UNIT #323	30-015-40362	Oil	Spur Energy Partners LLC	7/23/2012	D-28-17S-29E	5,519	Yes
G J WEST COOP UNIT #170	30-015-35777	Oil	Spur Energy Partners LLC	10/4/2007	B-28-17S-29E	5,616	Yes
G J WEST COOP UNIT #281	30-015-37583	Oil	Spur Energy Partners LLC	5/25/2012	F-28-17S-29E	5,548	Yes
G J WEST COOP UNIT #068	30-015-25382	Oil	Spur Energy Partners LLC	9/11/1985	A-28-17S-29E	4,435	Yes
G J WEST COOP UNIT #153	30-015-35485	Oil	Spur Energy Partners LLC	5/10/2007	A-28-17S-29E	6,040	Yes
CHASE 21 STATE COM #001	30-015-30874	Salt Water Disposal	Spur Energy Partners LLC	1/23/2000	M-21-17S-29E	11,150	Yes
G J WEST COOP UNIT #139	30-015-28494	Oil	Spur Energy Partners LLC	5/1/1995	G-28-17S-29E	5,437	Yes
G J WEST COOP UNIT #015	30-015-10444	Plugged	Spur Energy Partners LLC	2/13/1965	G-28-17S-29E	Plugged (3,359)	No
G J WEST COOP UNIT #099	30-015-26769	Oil	Spur Energy Partners LLC	7/8/1991	O-21-17S-29E	5,478	Yes
G J WEST COOP UNIT #081	30-015-25691	Oil	Spur Energy Partners LLC	12/9/1986	O-21-17S-29E	5,511	Yes
DIAMONDBACKS STATE #001	30-015-33203	Gas	Spur Energy Partners LLC	2/16/2004	G-28-17S-29E	11,204	Yes
G J WEST COOP UNIT #100	30-015-26840	Oil	Spur Energy Partners LLC	10/11/1991	K-21-17S-29E	5,536	Yes
G J WEST COOP UNIT #163	30-015-37670	Oil	Spur Energy Partners LLC	7/1/2010	J-21-17S-29E	5,575	Yes
G J WEST COOP UNIT #158	30-015-35580	Oil	Spur Energy Partners LLC	8/9/2007	M-21-17S-29E	5,868	Yes
G J WEST COOP UNIT #103	30-015-27256	Oil	Spur Energy Partners LLC	1/24/1993	D-28-17S-29E	5,050	Yes
G J WEST COOP UNIT #143	30-015-29300	Oil	Spur Energy Partners LLC	1/7/1997	G-28-17S-29E	4,602	Yes

AOR Tabulation for GJ West Coop Unit 278 - Continued (Top of Injection Interval: 3,989'-5,300')

Well Name	API#	Well Type	Operator	Spud Date	Location	Total	Penetrate
G J WEST COOP UNIT #069	30-015-25383	Oil	Spur Energy Partners LLC	9/1/1985	P-21-17S-29E	4,335	Yes
G J WEST COOP UNIT #104	30-015-27257	Oil	Spur Energy Partners LLC	1/23/1993	M-21-17S-29E	5,050	Yes
G J WEST COOP UNIT #091	30-015-26614	Plugged	COG OPERATING LLC	1/21/1991	F-28-17S-29E	Plugged (4,639)	Yes
G J WEST COOP UNIT #140	30-015-29180	Oil	Spur Energy Partners LLC	9/30/1996	K-21-17S-29E	7,500	Yes
G J WEST COOP UNIT #090	30-015-26581	Oil	Spur Energy Partners LLC	12/21/1990	G-28-17S-29E	4,585	Yes
G J WEST COOP UNIT #192	30-015-36238	Oil	Spur Energy Partners LLC	7/30/2008	D-28-17S-29E	5,450	Yes
G J WEST COOP UNIT #190	30-015-36227	Oil	Spur Energy Partners LLC	4/4/2010	M-21-17S-29E	5,535	Yes
STATE B 1373 #001	30-015-03023	Plugged	LEONARD OIL COMPANY	12/13/1933	M-21-17S-29E	Plugged (3,004)	No
G J WEST COOP UNIT #030	30-015-03026	Plugged	MACK ENERGY CORP	8/4/1947	P-21-17S-29E	Plugged (4,196)	Yes
G J WEST COOP UNIT #280	30-015-37576	Oil	Spur Energy Partners LLC	1/15/2011	E-28-17S-29E	5,460	Yes
G J WEST COOP UNIT #033	30-015-10754	Plugged	Spur Energy Partners LLC	11/24/1965	K-21-17S-29E	Plugged (3,700)	No
G J WEST COOP UNIT #108	30-015-20192	Plugged	COG OPERATING LLC	12/7/1992	E-28-17S-29E	6,380	Yes
G J WEST COOP UNIT #134	30-015-28515	Oil	Spur Energy Partners LLC	6/29/1995	H-28-17S-29E	4,609	Yes
G J WEST COOP UNIT #259	30-015-37532	Oil	Spur Energy Partners LLC	3/22/2011	P-21-17S-29E	5,555	Yes
G J WEST COOP UNIT #258	30-015-37438	Oil	Spur Energy Partners LLC	2/6/2010	M-21-17S-29E	5,512	Yes
G J WEST COOP UNIT #138	30-015-28518	Oil	Spur Energy Partners LLC	5/29/1995	K-28-17S-29E	4,590	Yes
STATE #003	30-015-03025	Plugged	LEONARD OIL COMPANY	1930	K-21-17S-29E	Plugged (2,380)	No
G J WEST COOP UNIT #101	30-015-26838	Oil	Spur Energy Partners LLC	9/22/1991	J-21-17S-29E	4,450	Yes
G J WEST COOP UNIT #136	30-015-28516	Oil	Spur Energy Partners LLC	6/8/1995	J-28-17S-29E	4,594	Yes
G J WEST COOP UNIT #123	30-015-20351	Plugged	COG OPERATING LLC	3/10/1994	P-21-17S-29E	Plugged (7,005)	Yes
G J WEST COOP UNIT #032	30-015-10808	Oil	Spur Energy Partners LLC	5/14/1966	J-21-17S-29E	2,880	No
GREEN FED A #001	30-015-03179	Plugged	PHILLIPS PETROLEUM	1931	A-29-17S-29E	Plugged (2,263)	No
G J WEST COOP UNIT #011	30-015-10827	Plugged	COG OPERATING LLC	6/8/1966	E-28-17S-29E	Plugged (2,760)	No
G J WEST COOP UNIT #074	30-015-25492	Plugged	COG OPERATING LLC	11/23/1985	H-28-17S-29E	Plugged (4,480)	Yes
G J WEST COOP UNIT #017	30-015-03167	Oil	Spur Energy Partners LLC	10/27/1959	A-28-17S-29E	3,254	No
G J WEST COOP UNIT #149	30-015-35455	Oil	Spur Energy Partners LLC	3/29/2007	K-21-17S-29E	5,515	Yes

Casing/Plugging Information for Wells Penetrating the GJ West Coop Unit 278 Injection Zone

Well Name	Type	Set Depth	Casing Size	TOC	TOC Method Determined	Sks of Cement	Hole size
G J WEST COOP UNIT #278	Surface	308'	13.375"	Surface	Temp Survey	1190	17.5"
	Intermediate	843'	8.625"	Surface	Circulation	400	11"
	Production	5489'	5.5"	Surface	Unknown*	900	7.875"
G J WEST COOP UNIT #080	Surface	378'	8.625"	Surface	Circulation	250	12.25"
	Production	5481'	4"	Surface	Circulation	150	4.75"
	Plugging Details: CIBP @4,400' with 120 sx on top (TOC @4,316'). Plugs set @3,345' - 2,600' with 70 sx and 960' - 617' with 40 sx. Perf and squeeze in 4" casing @ 428'. Plug set @480' - surface with 80 sx.						
G J WEST COOP UNIT #193	Surface	328'	13.375"	Surface	T.S./Circulation	1096	17.5"
	Intermediate	867'	8.625"	Surface	Circulation	400	11"
	Production	5505'	5.5"	Surface	Circulation	1000	7.875"
G J WEST COOP UNIT #093	Surface	309'	8.625"	Surface	Circulation	250	12.25"
	Production	4472'	5.5"	Surface	Temp Survey	2650	7.875"
	Plugging Details: CIBP @2,768' with 25 sx on top (TOC @2,508'). Plugs set @2,050' - 1,683' with 45 sx and 855' - 580' with 30 sx. Perf @359'. Squeeze @500' - 300' with 500 sx. Perf @275'. Squeeze and circulated @275' - surface with 100 sx.						
G J WEST COOP UNIT #194	Surface	338'	13.375"	Surface	Circulation	400	17.5"
	Intermediate	840'	11"	Surface	Circulation	500	11"
	Production	5466'	5.5"	Surface	Circulation	1100	7.875"
G J WEST COOP UNIT #304	Surface	378'	13.375"	Surface	Circulation	400	17.5"
	Intermediate	859'	8.625"	Surface	Circulation	400	11"
	Production	5587'	5.5"	Surface	Circulation	900	7.875"
G J WEST COOP UNIT #073	Surface	294'	8.625"	Surface	Circulation	200	12.25"
	Production	4439'	5.5"	Surface	Circulation	4150	7.875"
G J WEST COOP UNIT #087	Surface	344'	11.75"	Unknown*	Unknown*	350	15"
	Intermediate	3500'	8.625"	Unknown*	Unknown*	400	11"
	Production	10869'	4.5"	Surface	Circulation	400	7.875"
Plugging Details: CIBP @10,752' cap with 10' cement. Retainer set @7,100' squeezed 100 sx. CIBP @4,614' with 35' cement on top CIBP @2,517' and cap with 35' cement. Plug set @694' - 184' with 40 sx and @60' - 2' with 10 sx.							
G J WEST COOP UNIT #102	Surface	144'	13.375"	Surface	Circulation	225	17.25"
	Intermediate	758'	8.625"	Surface	Circulation	425	12.25"
	Production	4421'	5.5"	Surface	Circulation	1050	7.875"
G J WEST COOP UNIT #141	Surface	137'	13.375"	Surface	Circulation	250	17.5"
	Intermediate	784'	8.625"	Surface	Circulation	425	12.25"
	Production	4474'	5.5"	Surface	Circulation	1050	7.875"
	Production II	4284'	4"	Surface	Circulation	120	4.75"
G J WEST COOP UNIT #131	Surface	149'	13.375"	Surface	Circulation	250	17.5"
	Intermediate	801'	8.625"	Surface	Circulation	425	12.25"
	Production	5291'	5.5"	Surface	Circulation	1200	7.875"

Notes: * Data not available from the NMOCD database (Well records or Well details).

Casing/Plugging Information for Wells Penetrating the GJ West Coop Unit 278 Injection Zone - Continued

Well Name	Type	Set Depth	Casing Size	TOC	TOC Method Determined	Sks of Cement	Hole size
G J WEST COOP UNIT #083	Surface	383'	8.625"	Unknown*	Unknown*	270	12.25"
	Production	4470'	5.5"	Surface	Circulation	1600	7.875"
G J WEST COOP UNIT #082	Surface	134'	13.375"	Surface	Circulation	150	17.25"
	Intermediate	754'	8.625"	Surface	Circulation	550	12.25"
	Production	4424'	5.5"	Surface	Circulation	1200	7.875"
G J WEST COOP UNIT #171	Surface	320'	8.625"	Surface	Circulation	300	12.2"
	Production	5607'	5.5"	Surface	Circulation	1300	7.875"
G J WEST COOP UNIT #121	Surface	130'	13.375"	Surface	Circulation	225	17.5"
	Intermediate	838'	8.625"	Surface	Circulation	425	12.25"
	Production	5568'	5.5"	Surface	Circulation	995	7.875"
G J WEST COOP UNIT #150	Surface	294'	13.375"	Surface	Circulation	400	17.5"
	Intermediate	886'	8.625"	Surface	Circulation	600	12.25"
	Production	5500'	5.5"	Surface	Circulation	15550	7.875"
G J WEST COOP UNIT #105	Surface	136'	13.375"	Surface	Circulation	200	17.5"
	Intermediate	797'	8.625"	Surface	Unknown*	650	12.25"
	Production	5028'	5.5"	Surface	Circulation	1500	7.875"
Plugging Details: CIBP's @3,900' with 55 sx on top (TOC @3,543') and @2,600 with 75 sx on top (TOC @2,058'). Plug set @960' - 694' with 40 sx. Mix and circulate with 45 sx @330' - 3'.							
G J WEST COOP UNIT #133	Surface	127'	13.385"	Surface	Circulation	250	17.5"
	Intermediate	795'	8.625"	Surface	Circulation	425	12.25"
	Production	4588'	5.5"	Surface	Circulation	870	7.875"
G J WEST COOP UNIT #277	Surface	320'	13.375"	Surface	T.S./Circulation	1050	17.5"
	Intermediate	858'	8.625"	Surface	Circulation	400	11"
	Production	5505'	5.5"	Surface	Circulation	900	7.875"
G J WEST COOP UNIT #323	Surface	305'	13.375"	Surface	Circulation	1000	17.5"
	Intermediate	885'	8.625"	Surface	Circulation	500	11"
	Production	5509'	5.5"	Surface	Circulation	900	7.875"
G J WEST COOP UNIT #170	Surface	321'	13.375"	Surface	Circulation	400	17.5"
	Intermediate	800'	8.625"	Surface	Circulation	600	12.25"
	Production	5601'	5.5"	Surface	Circulation	1200	7.875"
G J WEST COOP UNIT #281	Surface	349'	13.375"	Surface	T.S./Circulation	1000	17.5"
	Intermediate	845'	8.625"	Surface	Circulation	400	11"
	Production	5548'	5.5"	Surface	Circulation	900	7.875"
G J WEST COOP UNIT #068	Surface	210'	8.625"	Surface	Unknown*	250	12.25"
	Production	4398'	5.5"	500'	Temp Survey	2000	7.875"

Notes: * Data not available from the NMOCD database (Well records or Well details).

Casing/Plugging Information for Wells Penetrating the GJ West Coop Unit 278 Injection Zone - Continued

Well Name	Type	Set Depth	Casing Size	TOC	TOC Method Determined	Sks of Cement	Hole size
G J WEST COOP UNIT #153	Surface	315'	13.375"	Surface	Unknown*	880	17.5"
	Intermediate	907'	8.625"	Surface	Temp Survey	1105	12.25"
	Production	6033'	5.5"	Surface	Circulation	1925	7.875"
CHASE 21 STATE COM #001	Surface	481'	11.75"	Surface	Circulation	350	14.75"
	Intermediate	2688'	8.625"	Surface	Circulation	800	11"
	Production	11128'	5.5"	2635'	Temp Survey	950	7.875"
G J WEST COOP UNIT #139	Surface	142'	13.375"	Surface	Circulation	250	17.5"
	Intermediate	814'	8.625"	Surface	Circulation	450	12.25"
	Production	4942'	5.5"	Surface	Circulation	1144	7.875"
G J WEST COOP UNIT #099	Surface	185'	13.375"	Surface	Circulation	285	17.25"
	Intermediate	757'	8.625"	Surface	Circulation	350	12.25"
	Production	4450'	5.5"	Surface	Circulation	1100	7.875"
G J WEST COOP UNIT #081	Surface	212'	8.625"	Surface	Unknown*	275	12.25"
	Intermediate	4655'	5.5"	Surface	Circulation	2350	7.875"
	Production	5492'	4"	Surface	Circulation	150	4.75"
DIAMONDBACKS STATE #001	Surface	383'	13.375"	Surface	Circulation	580	17.5"
	Intermediate	4600'	9.625"	Surface	Circulation	1790	12.25"
	Production	11200'	5.5"	Surface	Circulation	3280	7.875"
G J WEST COOP UNIT #100	Surface	180'	13.375"	Surface	Circulation	225	17.5"
	Intermediate	759'	8.625"	Surface	Circulation	250	12.25"
	Production	4428'	5.5"	Surface	Circulation	1100	7.875"
	Production II	5518'	4"	Surface	Circulation	120	4.75"
G J WEST COOP UNIT #163	Surface	366'	13.375"	Surface	Circulation	400	17.5"
	Intermediate	860'	8.625"	Surface	Circulation	400	11"
	Production	5561'	5.5"	Surface	Circulation	90	7.875"
G J WEST COOP UNIT #158	Surface	317'	13.375"	Surface	Circulation	447	17.5"
	Intermediate	869'	8.625"	Surface	Circulation	600	12.25"
	Production	5868'	5.5"	Surface	Circulation	2650	7.875"
G J WEST COOP UNIT #103	Surface	147'	13.375"	Surface	Circulation	200	17.5"
	Intermediate	828'	8.625"	210'	Temp Survey	700	12.25"
	Production	5028'	5.5"	Surface	Circulation	1275	7.875"
G J WEST COOP UNIT #143	Surface	125'	13.375"	Surface	Circulation	250	17.5"
	Intermediate	787'	8.625"	Surface	Circulation	450	12.25"
	Production	4593'	5.5"	Surface	Circulation	1050	7.875"
G J WEST COOP UNIT #069	Surface	336'	8.625"	Surface	Unknown*	250	12.25"
	Production	4313'	5.5"	525'	Temp Survey	2000	7.875"
G J WEST COOP UNIT #104	Surface	157'	13.375"	Surface	Circulation	200	17.5"
	Intermediate	791'	8.625"	Surface	Circulation	700	12.25"
	Production	5029'	5.5"	Surface	Circulation	1375	7.875"

Notes: * Data not available from the NMOCD database (Well records or Well details).

Casing/Plugging Information for Wells Penetrating the GJ West Coop Unit 278 Injection Zone - Continued

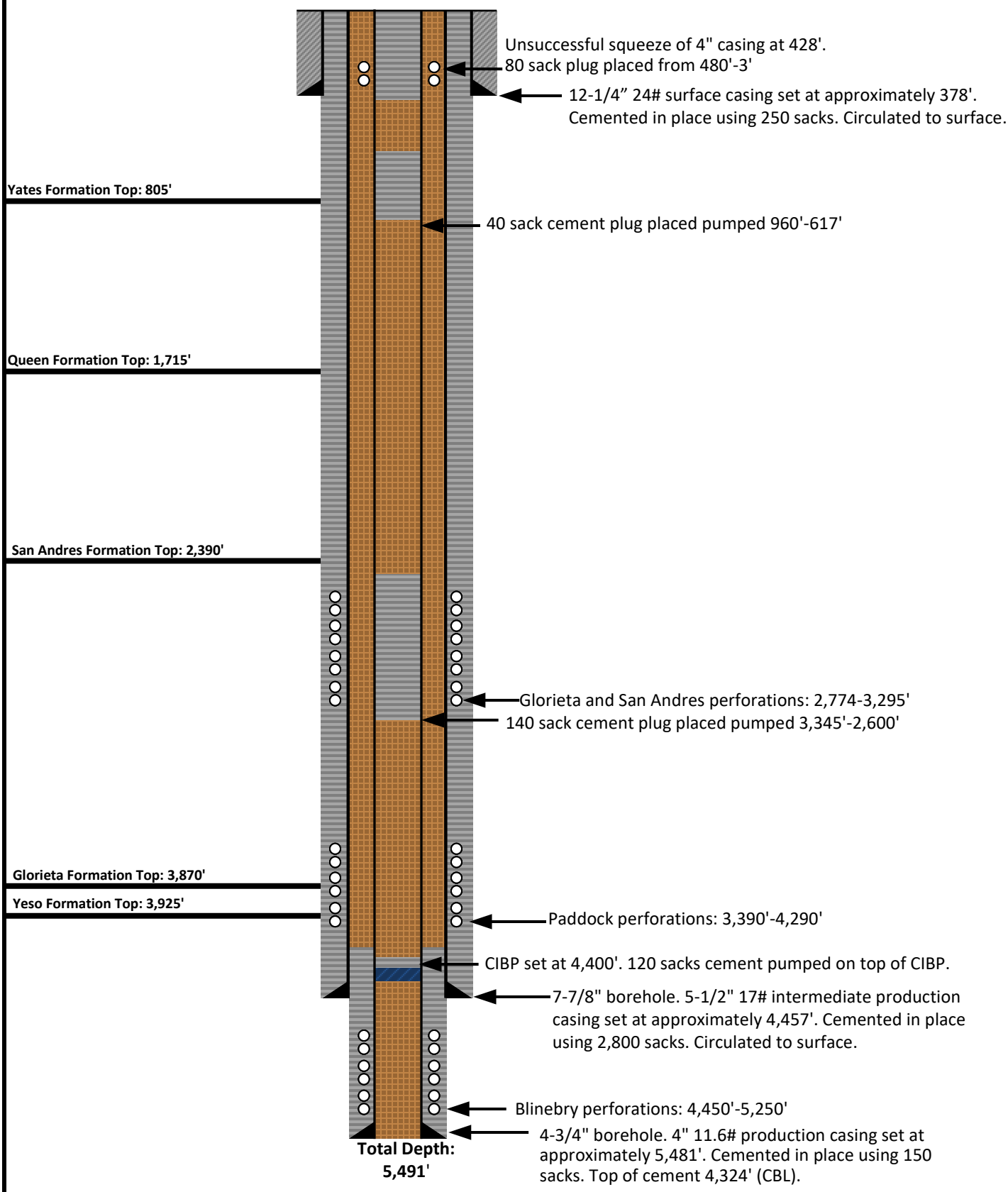
Well Name	Type	Set Depth	Casing Size	TOC	TOC Method Determined	Sks of Cement	Hole size
G J WEST COOP UNIT #091	Surface	377'	8.625"	Surface	Unknown*	325	12.25"
	Production	4602'	5.5"	380'	Temp Survey	1800	7.875"
	Plugging Details: CIBP @2,650' with 65 sx on top (TOC @1,996'). Plugs set @1,753' - 1,519' with 25 sx and @855' - 582' with 30 sx. Plug set @515' - 175' with 30 sx. Perf and squeeze @175' - 10' with 65 sx.						
G J WEST COOP UNIT #140	Surface	127'	13.375"	Surface	Circulation	250	17.5"
	Intermediate	785'	8.625"	Surface	Circulation	450	12.25"
	Production	7471'	5.5"	Surface	Circulation	1381	7.875"
G J WEST COOP UNIT #090	Surface	380'	8.625"	Surface	Circulation	250	12.25"
	Production	4563'	5.5"	Surface	Circulation	1800	7.875"
G J WEST COOP UNIT #192	Surface	315'	13.375"	Surface	Circulation	400	17.5"
	Intermediate	850'	8.625"	Surface	Circulation	500	11"
	Production	5450'	5.5"	Surface	Circulation	1100	7.875"
G J WEST COOP UNIT #190	Surface	332'	13.375"	Surface	Circulation	680	17.5"
	Intermediate	865'	8.625"	Surface	Circulation	500	11"
	Production	5521'	5.5"	Surface	Circulation	1100	7.875"
G J WEST COOP UNIT #030	Surface	240'	8.25"	Unknown*	Unknown*	Unknown*	Unknown*
	Production	2138'	6.625"	Unknown*	Unknown*	Unknown*	Unknown*
	Plugging Details: Plug set @ 4,196' - 3,328' with unknown sx and 2,158' - 1,850' with 100 sx. Perf and squeeze @750' - 652' with 50 sx. Perf @305' and pump 135 sx to surface.						
G J WEST COOP UNIT #280	Surface	302'	13.375"	Surface	Circulation	400	17.5"
	Intermediate	863'	8.625"	Surface	Circulation	450	11"
	Production	5450'	5.5"	Surface	Circulation	1000	7.875"
G J WEST COOP UNIT #108	Surface	335'	13.375"	Surface	Circulation	350	17.5"
	Intermediate	3000'	8.625"	Surface	Circulation	400	12.25"
	Production	5050'	5.5"	2900	CBL/Temp Survey	350	17.5"
	Plugging Details: Plug set from 4,600' to 4,460' with 25 sx. CIBP @3,950' with 25 sx (TOC @3,810'). Squeeze @2,800' - 2,511' with 55 sx. Retainers set @2,300' and squeezed 40 sx, and @2,100' and squeezed 40 sx. Plug set @2,100' - 798 with 230 sx. Perf @370' and squeezed 420 sx to 8' below surface.						
G J WEST COOP UNIT #134	Surface	125'	13.375"	Surface	Circulation	250	17.5"
	Intermediate	777'	8.625"	Surface	Circulation	450	12.25"
	Production	4586'	5.5"	Surface	Circulation	1000	7.875"
G J WEST COOP UNIT #259	Surface	355'	13.375"	Surface	Circulation	400	17.5"
	Intermediate	852'	8.625"	Surface	Circulation	650	11"
	Production	5545'	5.5"	Surface	Circulation	900	7.875"
G J WEST COOP UNIT #258	Surface	359'	13.375"	Surface	Circulation	400	17.5"
	Intermediate	870'	8.625"	Surface	Circulation	500	11"
	Production	5500'	5.5"	Surface	Circulation	900	7.875"
G J WEST COOP UNIT #138	Surface	141"	13.375"	Surface	Circulation	250	17.5"
	Intermediate	796'	8.625"	Surface	Circulation	425	12.25"
	Production	4583'	5.5"	Surface	Circulation	905	7.875"

Notes: * Data not available from the NMOCD database (Well records or Well details).

Casing/Plugging Information for Wells Penetrating the GJ West Coop Unit 278 Injection Zone - Continued

Well Name	Type	Set Depth	Casing Size	TOC	TOC Method Determined	Sks of Cement	Hole size
G J WEST COOP UNIT #101	Surface	184'	13.375"	Surface	Circulation	225	17.25"
	Intermediate	758'	8.625"	60'	Unknown*	450	12.25"
	Production	4418'	5.5"	Surface	Circulation	1000	7.875"
G J WEST COOP UNIT #136	Surface	136'	13.375"	Surface	Circulation	250	17.5"
	Intermediate	756'	8.625"	Surface	Circulation	450	12.25"
	Production	4583'	5.5"	Surface	Circulation	920	7.875"
G J WEST COOP UNIT #123	Surface	756'	11.75"	Surface	Circulation	750	15"
	Intermediate	3500'	8.625"	Unknown*	Unknown*	600	11"
	Production	10834'	4.5"	175'	Survey	1100	7.875"
	Plugging Details: CIBP's @10,500' with 35' cement on top (TOC @10,465), @10,326' with 35' cement on top (TOC @10,291). Cement plug @7,182' - 6,967'. CIBPs @5,220' with 35' cement on top (TOC @5,185'), @4,600' with 35' cement on top (TOC @4,565'), and @3,900' with 35' cement on top (TOC @3,401'). Plug set @856' - 529' with 35 sx. Perf @63'. Plug set @124' - 3' with 20 sx.						
G J WEST COOP UNIT #074	Surface	295'	8.625"	Surface	Unknown*	250	12.25"
	Production	4457'	5.5"	Surface	Circulation	2150	7.875"
	Plugging Details: CIBP's @4,000' with 25 sx on top (TOC @3,800') and @2,000' with 35 sx on top (TOC @1,720'). Plug set @730' - 525' with 50 sx and @345' - 3' with 45 sx.						
G J WEST COOP UNIT #149	Surface	300'	13.375"	Surface	Unknown*	625	17.5"
	Intermediate	742'	8.625"	Surface	Circulation	600	12.25"
	Production	5507'	5.5"	Surface	Circulation	1580	7.875"

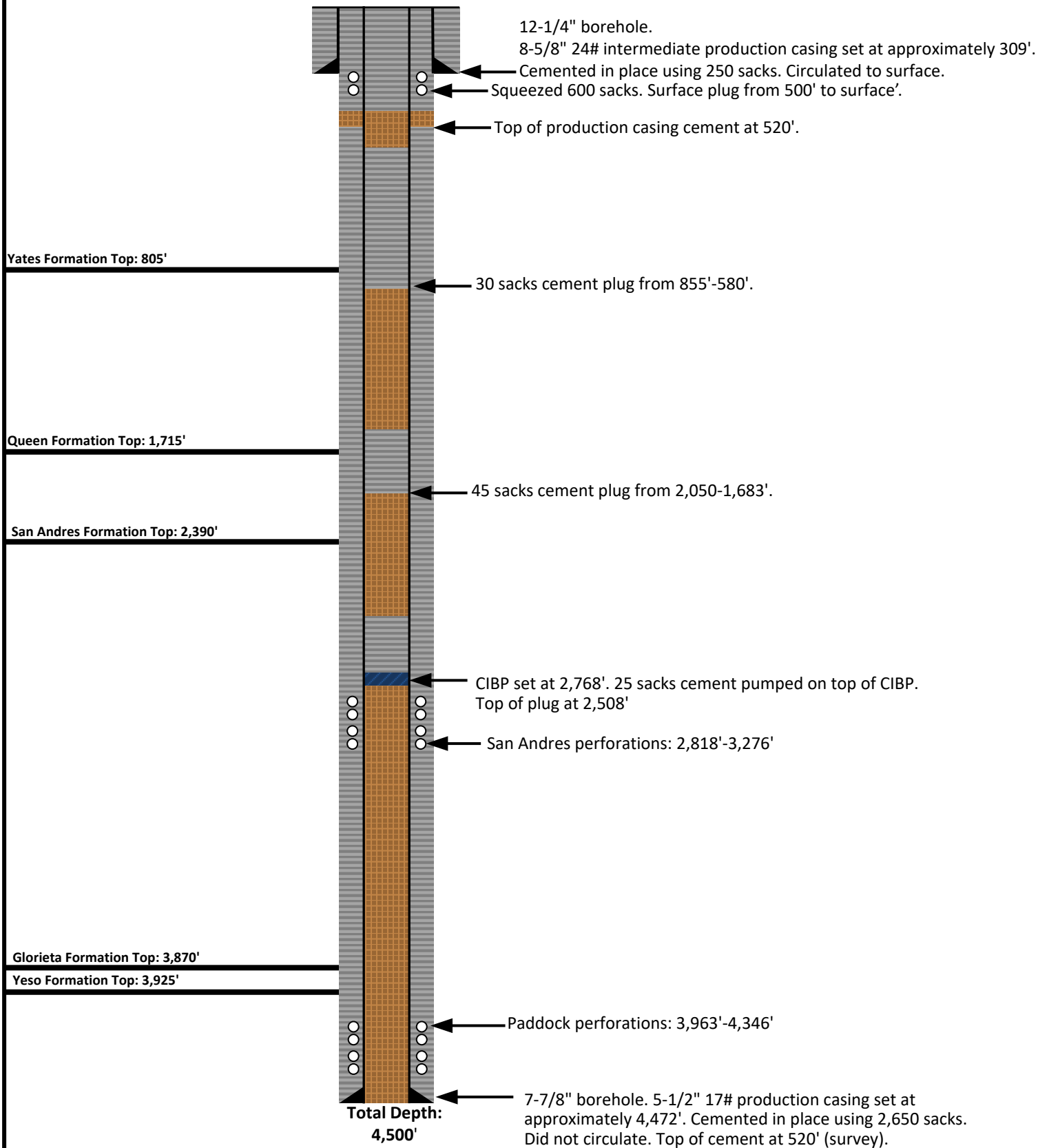
Notes: * Data not available from the NMOCD database (Well records or Well details).



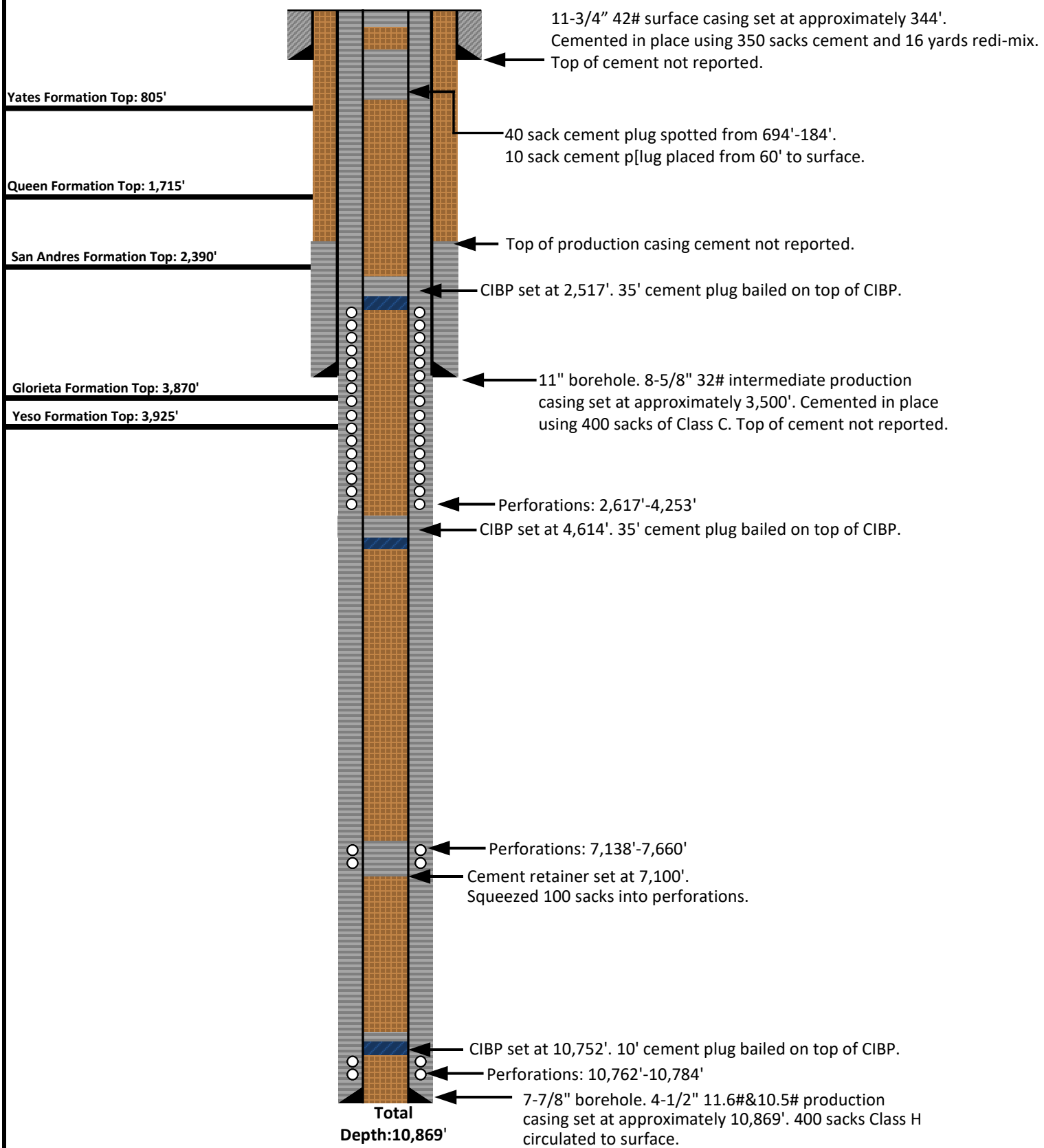
Prepared by:
ALL CONSULTING
 Prepared for:
SPUR ENERGY PARTNERS

Drawn by: Joshua Ticknor
 Project Manager: Oliver Seekins
 Date: 9/25/2023

Plugged and Abandoned Wellbore Diagram
 GJ West COOP Unit #80
 30-015-25633
 75' FSL & 2,303' FWL 21-17S-29E
 Eddy County, New Mexico
 Spud Date: 1/8/1981
 Plugged and Abandoned: 9/9/2014



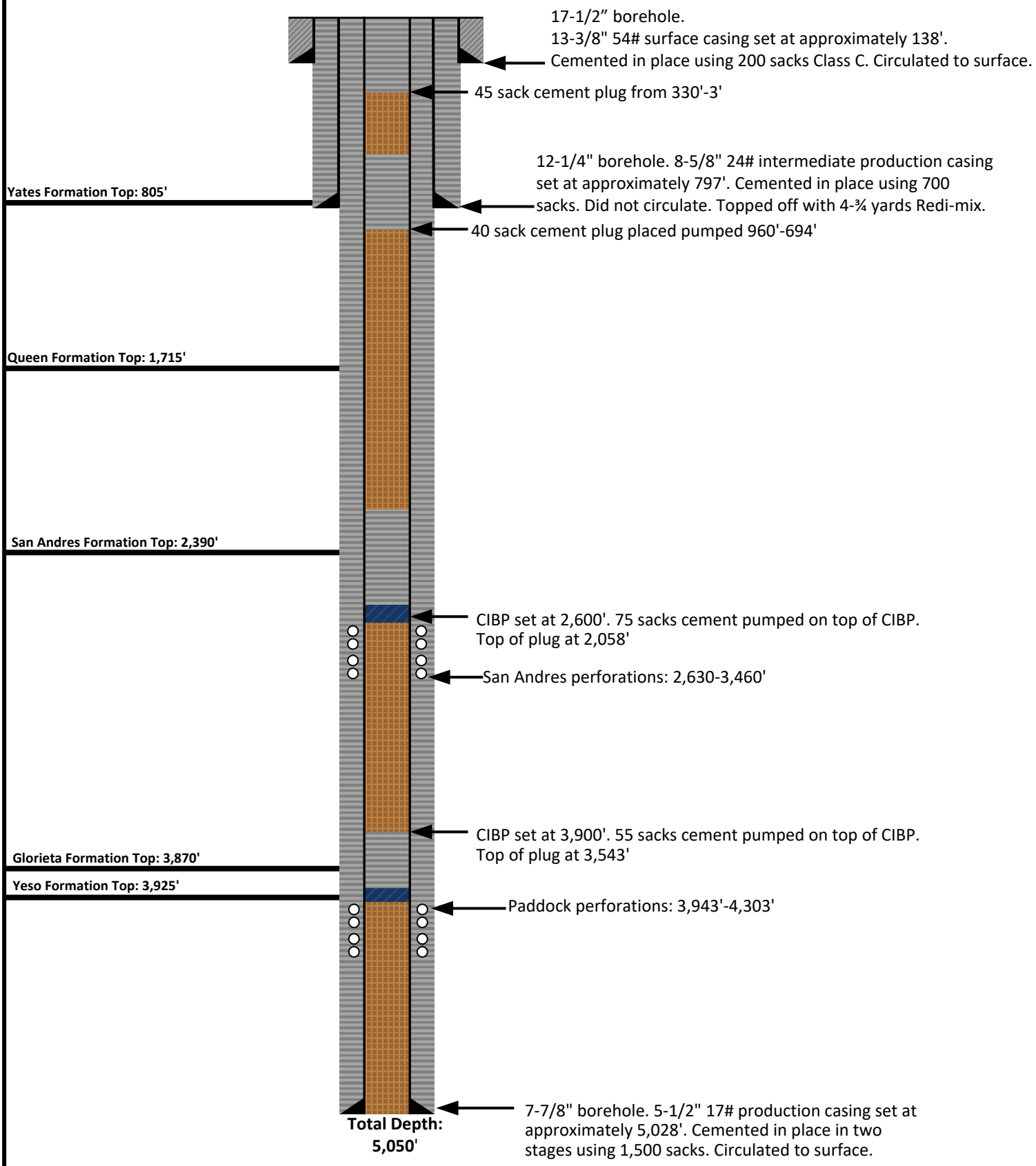
Prepared by: ALLCONSULTING Prepared for: SPUR ENERGY PARTNERS	Drawn by: Joshua Ticknor	Plugged and Abandoned Wellbore Diagram GJ West COOP Unit #93 30-015-26640 990'FNL & 2,070'FWL 28-17S-29E Eddy County, New Mexico Spud Date: 2/15/1991 Plugged and Abandoned: 4/11/2018
	Project Manager: Oliver Seekins	
	Date: 9/25/2023	



Prepared by:
ALL CONSULTING
 Prepared for:
SPUR ENERGY PARTNERS

Drawn by: Joshua Ticknor
 Project Manager: Oliver Seekins
 Date: 9/25/2023

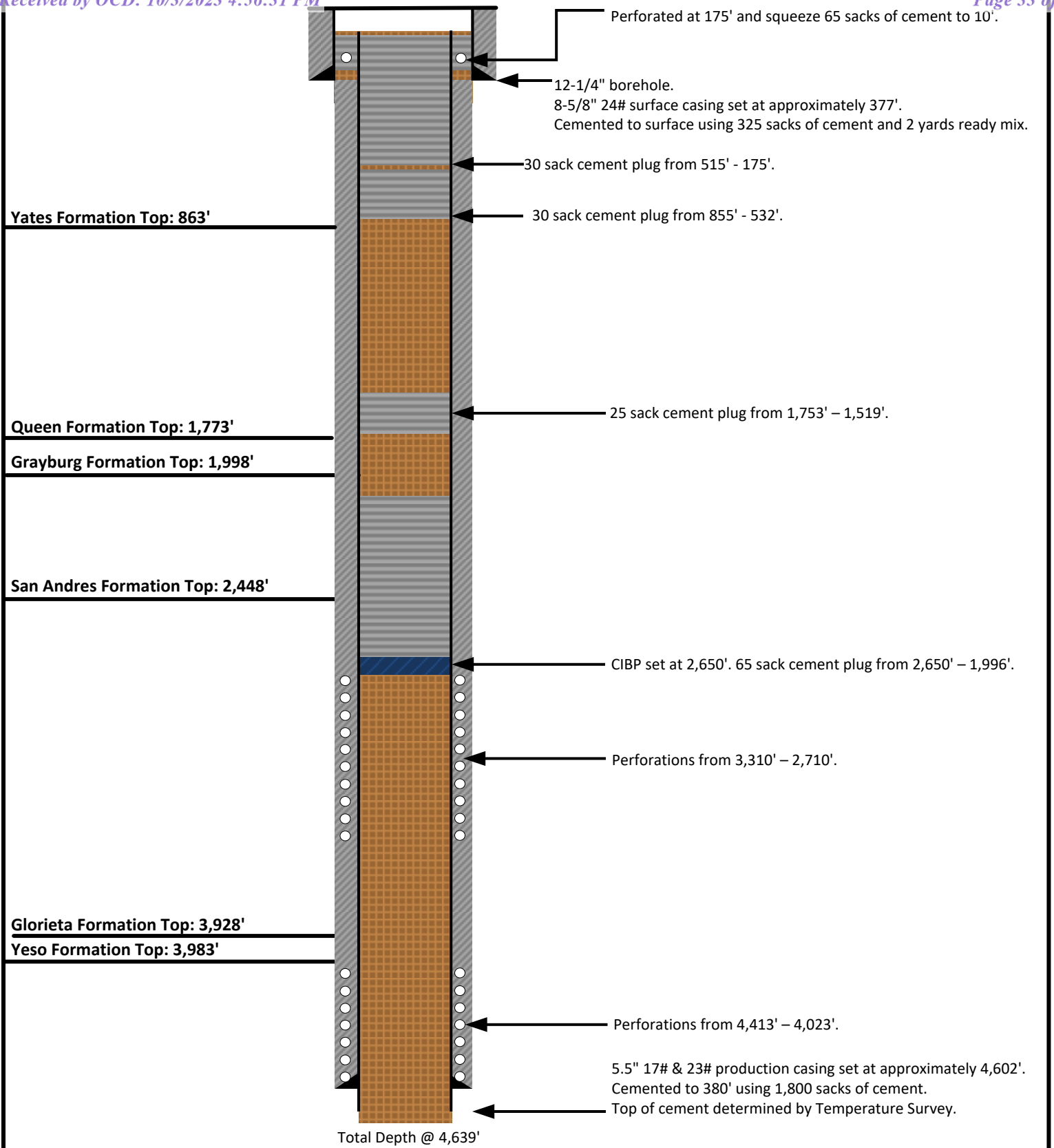
Plugged and Abandoned Wellbore Diagram
 GJ West COOP Unit #87
 30-015-20742
 710'FNL & 1,980'FWL 28-17S-29E
 Eddy County, New Mexico
 Spud Date: 9/11/1972
 Plugged and Abandoned: 4/13/04





Prepared by:
ALL CONSULTING
Prepared for:
SPUR ENERGY PARTNERS

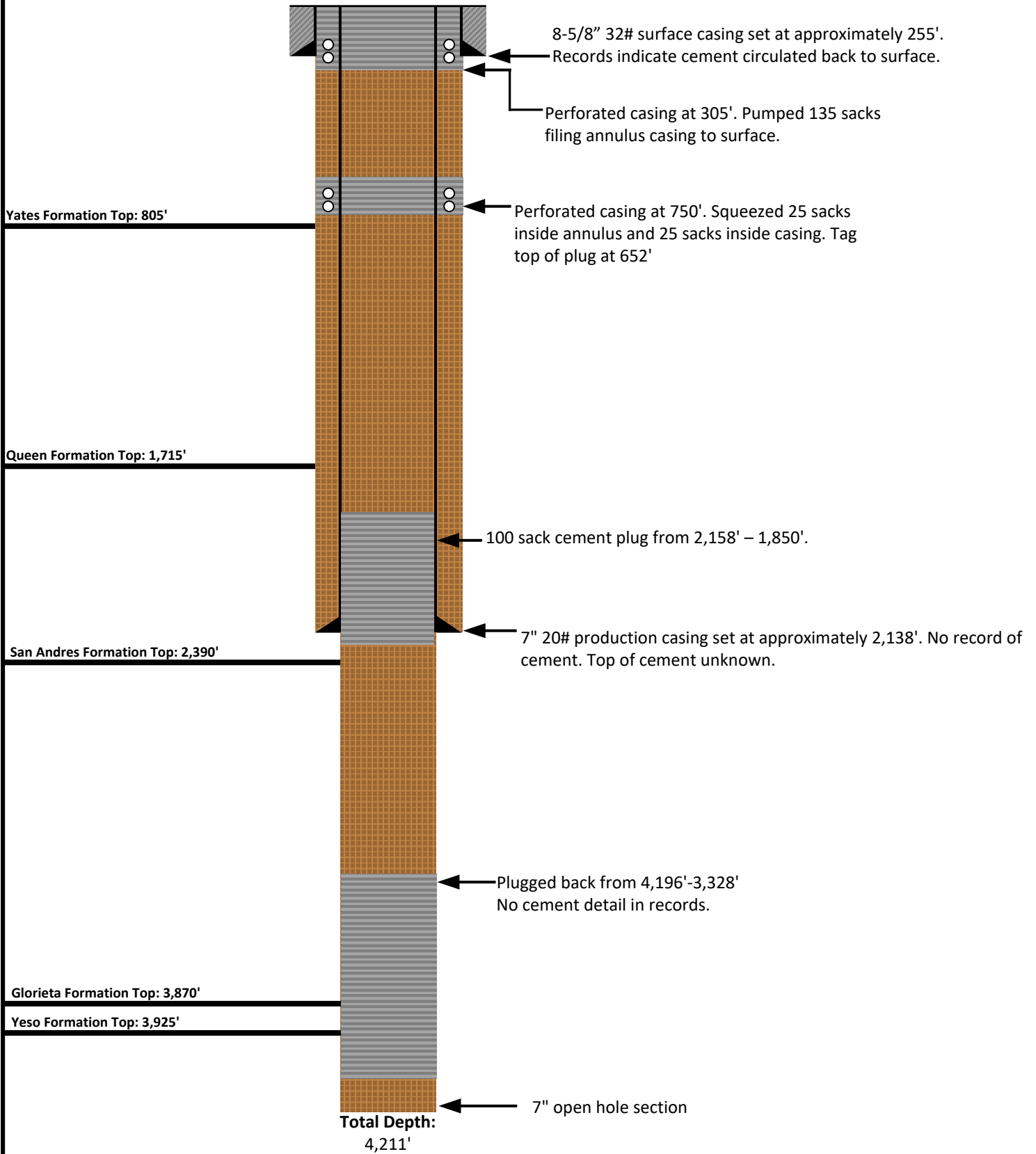
Drawn by: Joshua Ticknor
Project Manager: Oliver Seekins
Date: 9/25/2023



Plugged and Abandoned Wellbore Diagram
GJ West COOP Unit #105
30-015-27258
990'FNL & 990'FEL 28-17S-29E
Eddy County, New Mexico
Spud Date: 2/5/1993
Plugged and Abandoned: 10/1/2014

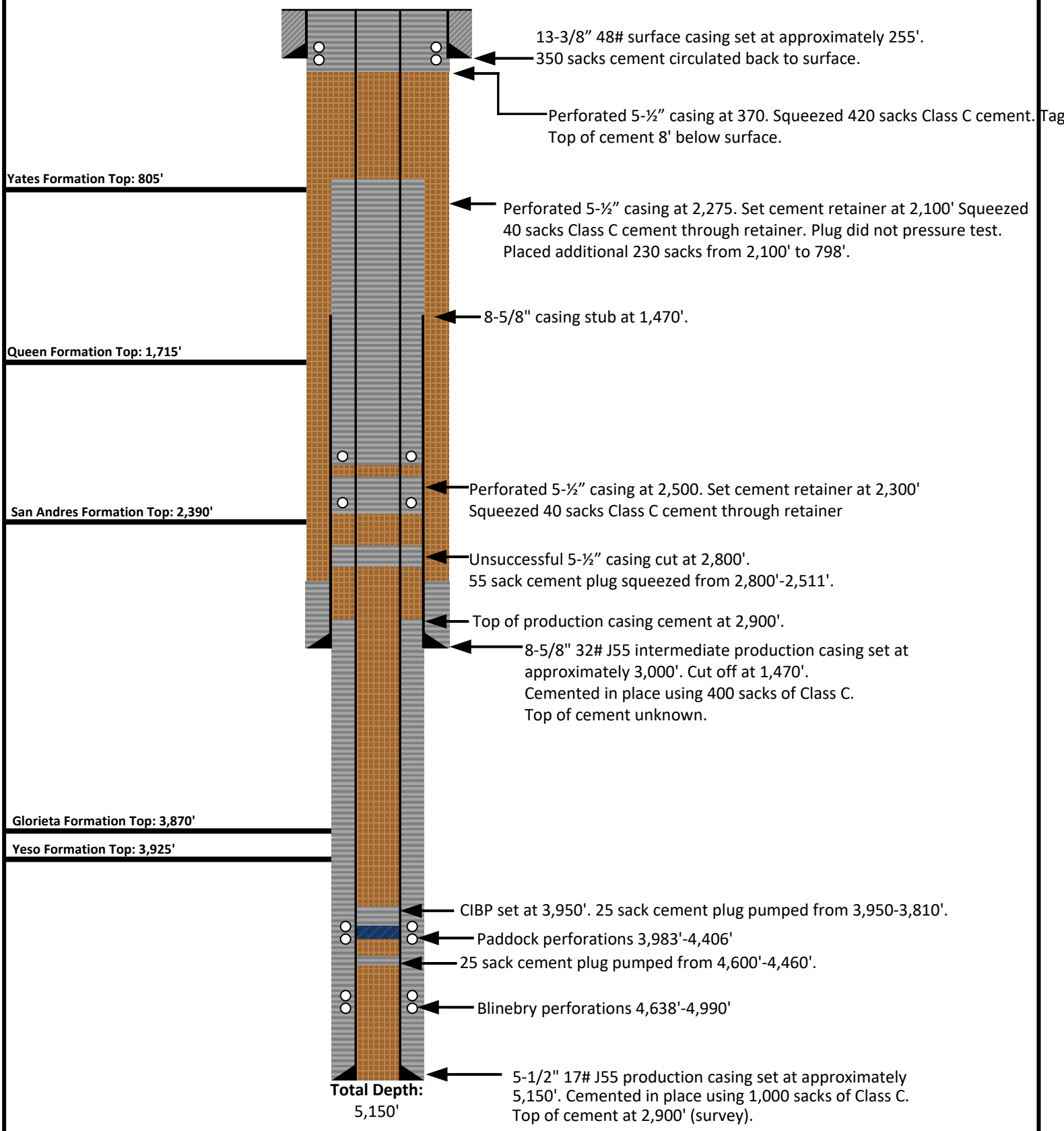


NOT TO SCALE

Prepared by:  Prepared for: 	Drawn by: Reed Davis	GJ WEST COOP UNIT #091 COG OPERATING LLC API#: 30-015-26614 Sec. 28 Town. 17S Rng. 29E Lat: 32.8066° Long: -104.0830° (NAD 83)
	Project Manager: Oliver Seekins	
	Date: 09/26/2023	



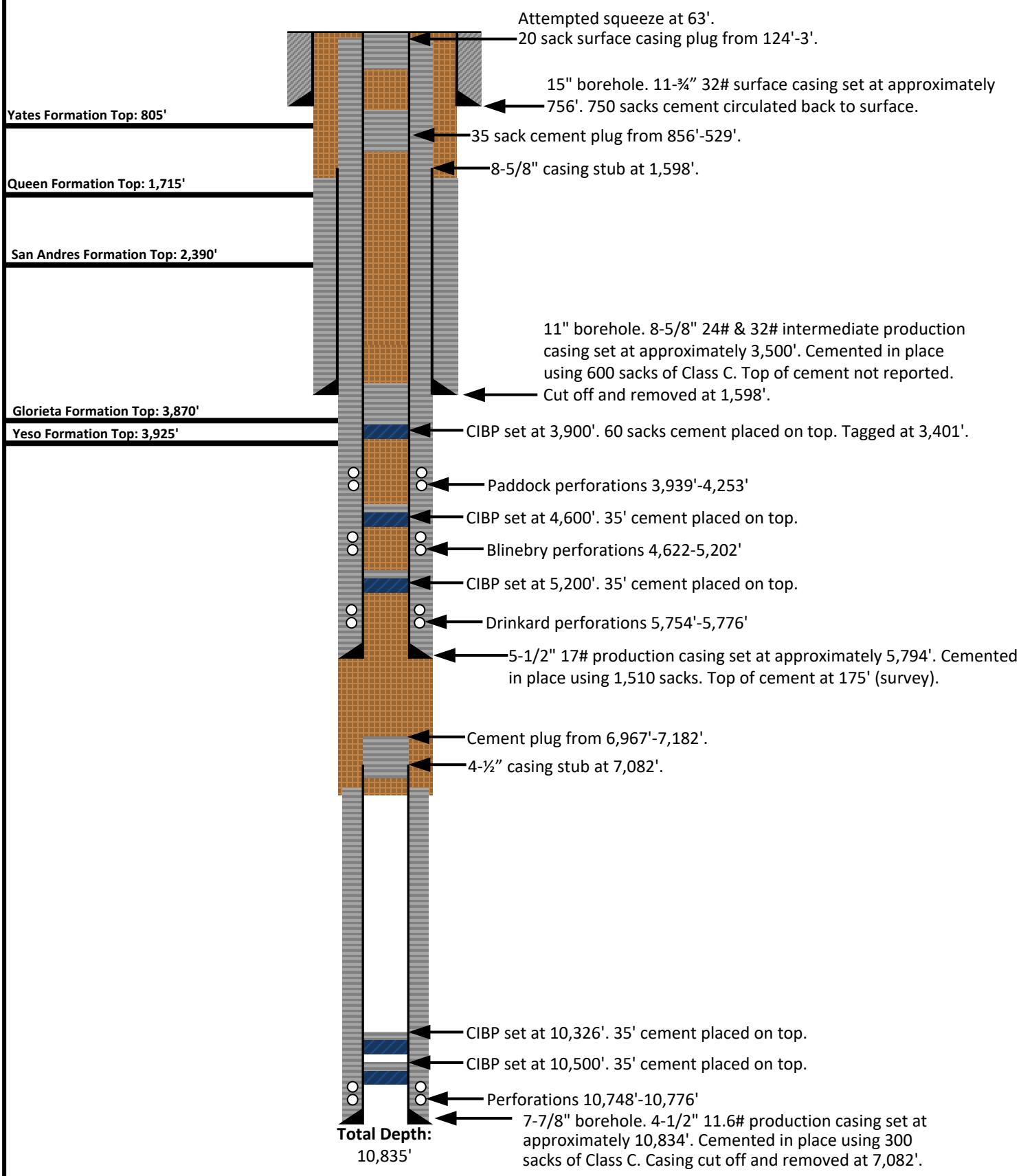
Prepared by:  Prepared for: 	Drawn by: Joshua Ticknor	Plugged and Abandoned Wellbore Diagram GJ West COOP Unit #30 30-015-03026 1,177'FSL & 1,230'FEL 21-17S-29E Eddy County, New Mexico Spud Date: 8/13/1932 Plugged and Abandoned: 6/15/2001
	Project Manager: Oliver Seekins	
	Date: 9/25/2023	



Prepared by:
ALLCONSULTING
Prepared for:
SPUR ENERGY PARTNERS

Drawn by: Joshua Ticknor
Project Manager: Oliver Seekins
Date: 9/25/2023

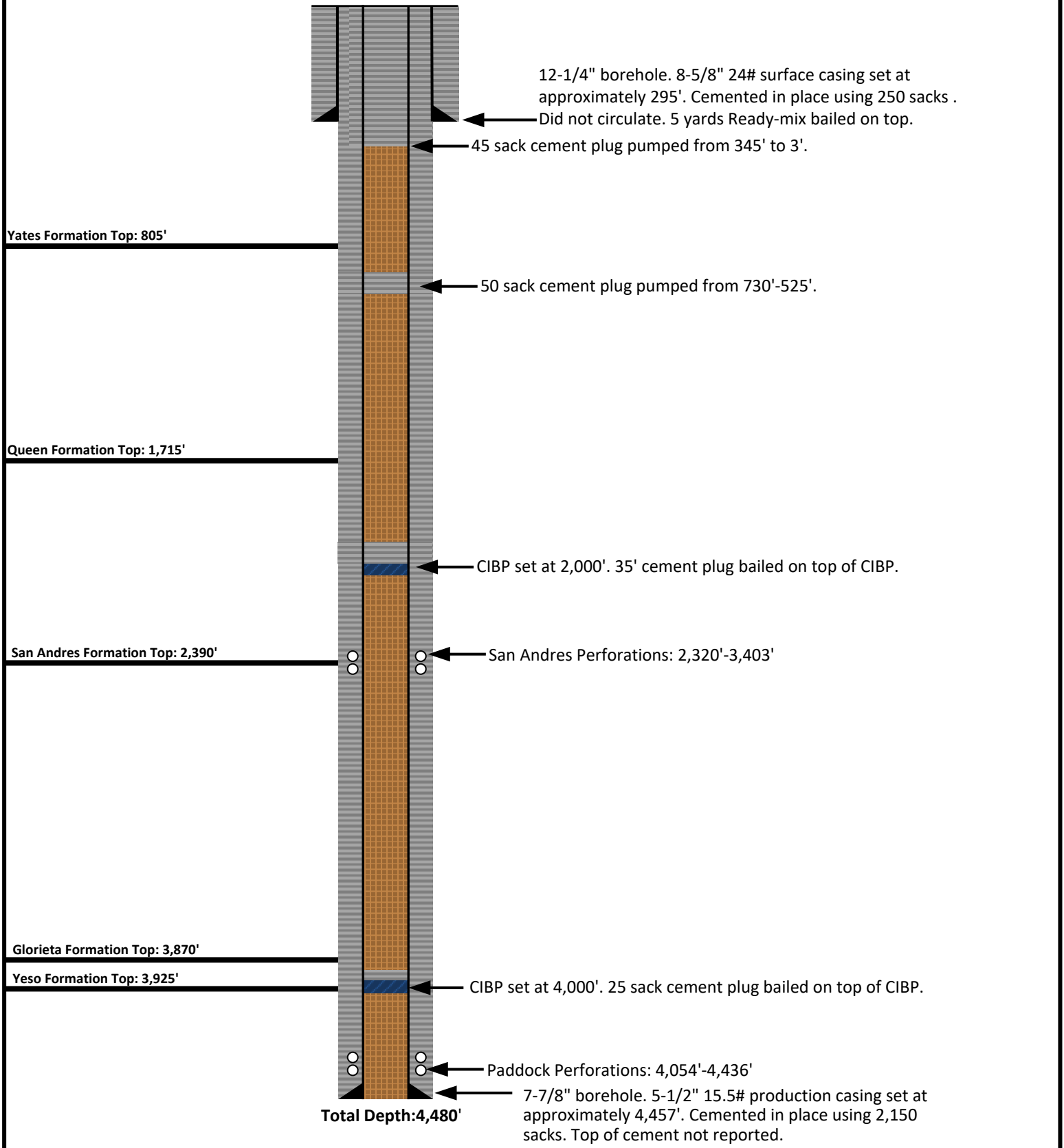
Plugged and Abandoned Wellbore Diagram
GJ West COOP Unit #108
30-015-20192
1,980' FNL & 660' FWL 28-17S-29E
Eddy County, New Mexico
Spud Date: 8/13/1932
Plugged and Abandoned: 6/15/2001



Prepared by:
ALLCONSULTING
 Prepared for:
SPUR ENERGY PARTNERS

Drawn by: Joshua Ticknor
 Project Manager: Oliver Seekins
 Date: 9/25/2023

Plugged and Abandoned Wellbore Diagram
 GJ West COOP Unit #123
 30-015-20351
 660'FSL & 660'FEL 21-17S-21.1259E
 Eddy County, New Mexico
 Spud Date: 8/13/1932
 Plugged and Abandoned: 11/14/2012



Prepared by:

ALLCONSULTING

Prepared for:

SPUR ENERGY PARTNERS

Drawn by: Joshua Ticknor

Project Manager: Oliver Seekins

Date: 9/25/2023

Plugged and Abandoned Wellbore Diagram

GJ West COOP Unit #74

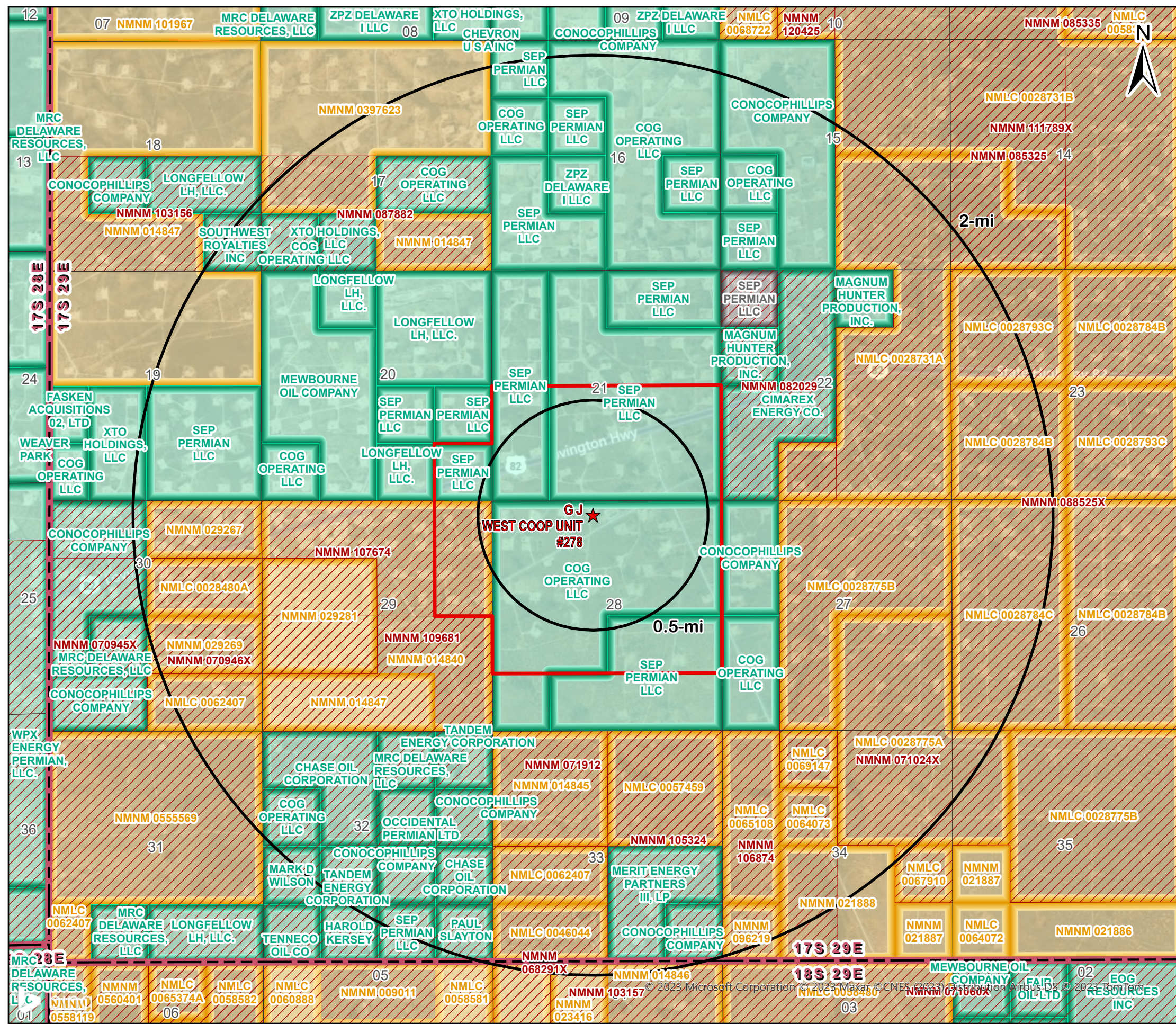
30-015-25492

2,310'FNL & 1,295'FEL 28-17S-29E

Eddy County, New Mexico

Spud Date: 11/10/1985

Plugged and Abandoned: 10/13/2012



Legend

- ★ Well Location
- Project Area
- BLM Communitization Units
- BLM Authorized O&G Leases
- Private Mineral Leases
- NMSLO Mineral Leases

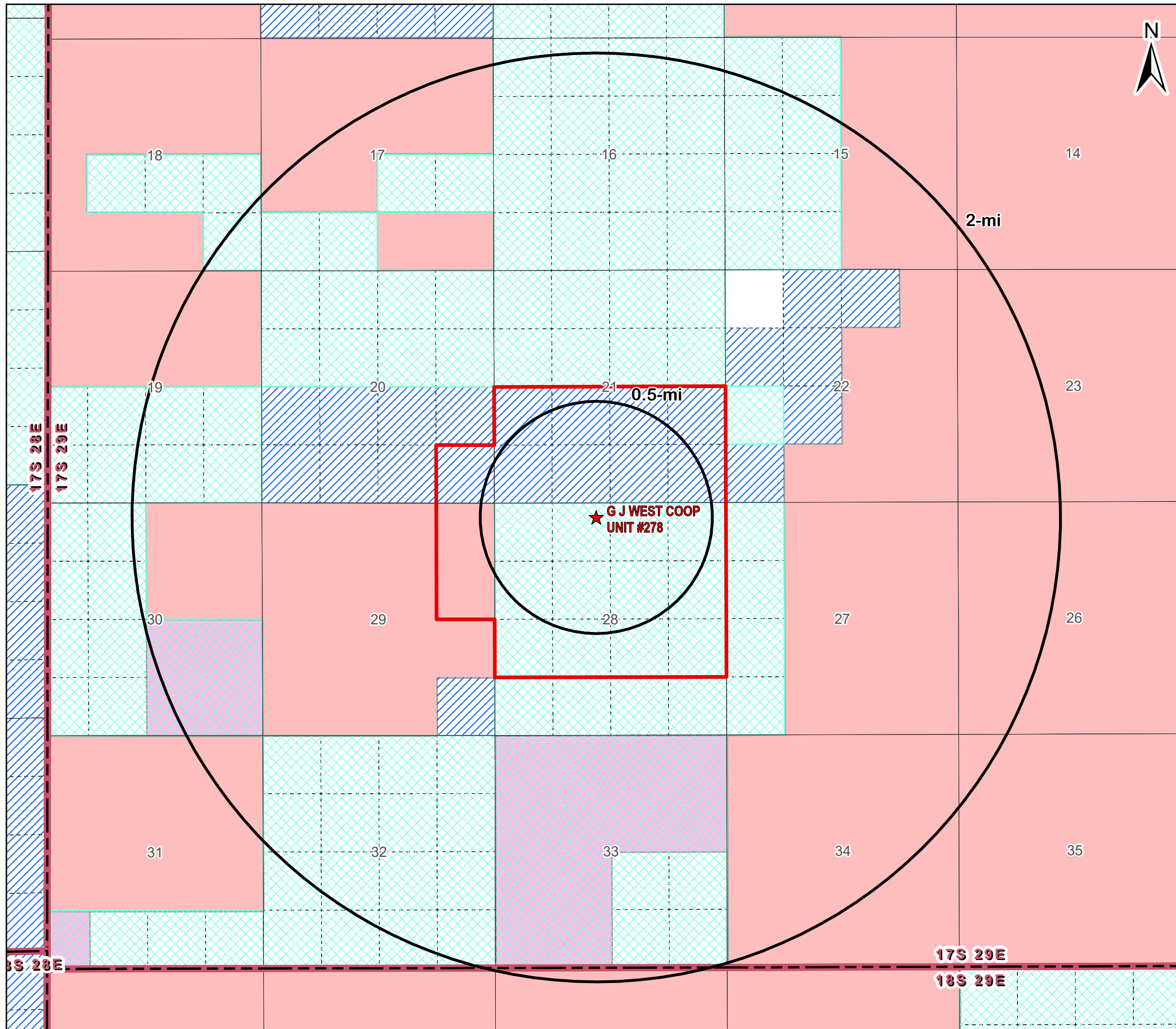
1/2-mile AOR Lessees/Unit Operators:

- Southwestern Energy Production Co (BLM Unit Operator)
- SEP Permian Holding Corp (BLM Lessee)
- SEP Permian LLC (NMSLO Lessee)
- COG Operating LLC (NMSLO Lessee)

Source Info: BLM Mineral Leases (<https://catalog.data.gov/dataset/blm-new-mexico-mineral-ownership>). NMSLO Mineral Leases (<http://www.nmstatelands.org/maps-gis/gis-data-download/>). Where applicable, Private Mineral Leases were identified utilizing Enverus, Midland Maps, or operator identified lease data.

<h2>Mineral Lease AOR Map</h2>		
<h1>G J WEST COOP UNIT #278</h1>		
Eddy County, New Mexico		
Proj Mgr: Oliver Seekins	September 26, 2023	Mapped by: Ben Bockelmann
Prepared for:		Prepared by: 





Legend

- ★ Well Location
- Project Area
- Private minerals
- Subsurface minerals (NMSLO)
- Surface and Subsurface minerals (NMSLO)
- All minerals are owned by U.S. (BLM)
- Other minerals are owned by the U.S. (BLM)

Mineral Ownership AOR

G J WEST COOP UNIT #278

Eddy County, New Mexico

Proj Mgr:
Oliver Seekins

September 20, 2023

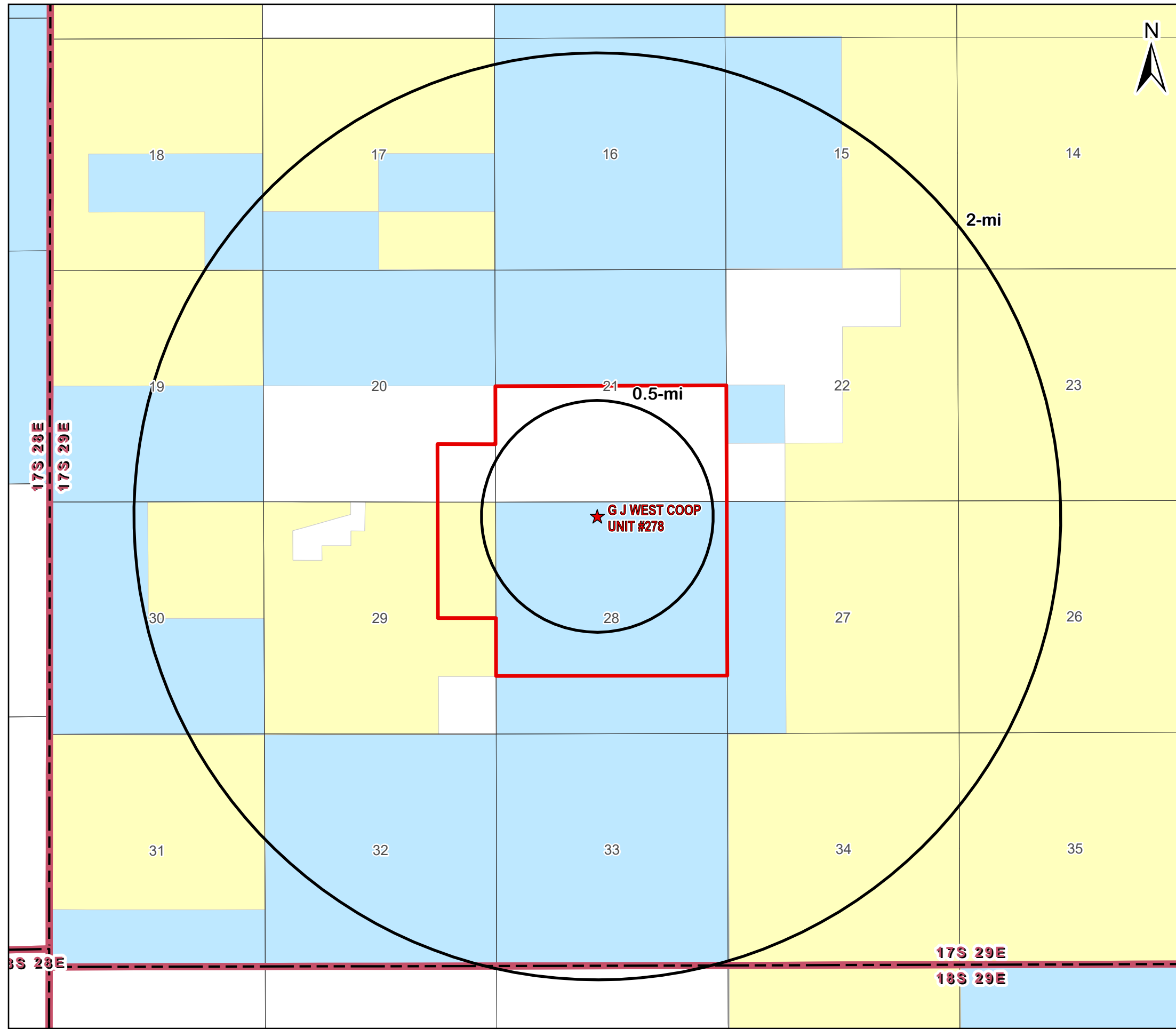
Mapped by:
Ben Bockelmann

Prepared for:



Prepared by:





Legend

- ★ Well Location
- ▭ Project Area

Surface Ownership

- ▭ BLM
- ▭ Private
- ▭ State

Surface Ownership AOR Map

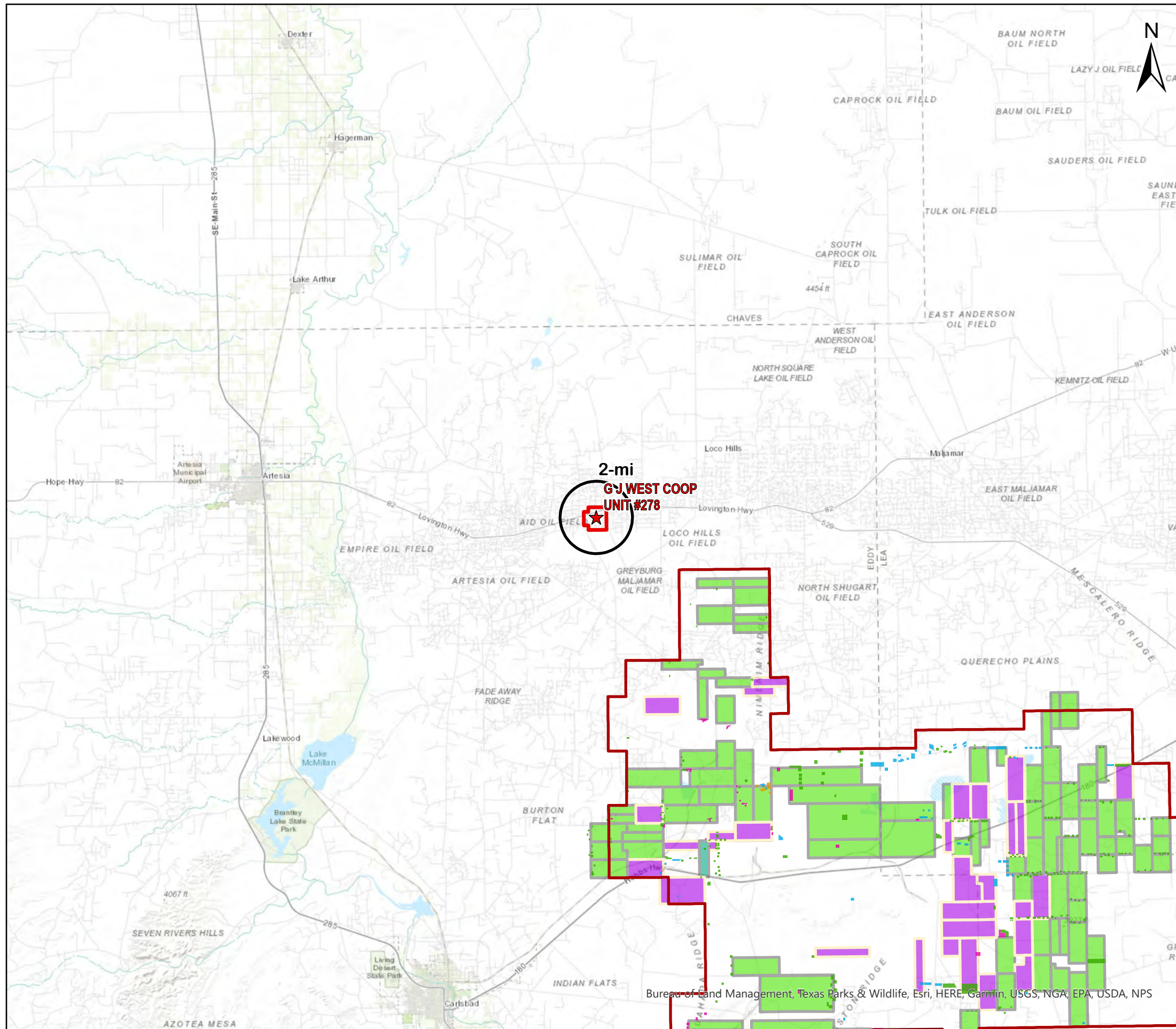
G J WEST COOP UNIT #278

Eddy County, New Mexico

Proj Mgr: Oliver Seekins	September 20, 2023	Mapped by: Ben Bockelmann
-----------------------------	--------------------	------------------------------

Prepared for:

Prepared by:



Legend

- ★ Well Location
- Project Area
- SOPA 1986
- WIPP Facility

Drill Islands

Status, Depth Buffer

- Approved, Half Mile
- Approved, Quarter Mile
- Nominated, Half Mile
- Nominated, Quarter Mile

Development Areas

Status

- Approved
- Pending
- Pending NMOCD Order

Potash AOR Map

G J WEST COOP UNIT #278

Eddy County, New Mexico

Proj Mgr:
Oliver Seekins

September 20, 2023

Mapped by:
Ben Bockelmann

Prepared for:



Prepared by:



Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

Attachment 3

Injectate Analyses

GAS VOLUME STATEMENT

Spur Energy

December 2022

Meter #: 67722028
 Name: GJ West Coop Unit North
 Closed Data
 Artesia-East

Pressure Base: 14.730 psia **Meter Status:** Active
Temperature Base: 60.00 °F **Contract Hr.:** Midnight
Atmos Pressure: 12.850 psi **Full Wellstream:**
Calc Method: AGA3-2013 **WV Technique:**
Z Method: AGA-8 Detail (1992) **WV Method:**
Tube I.D.: 3.0690 in **HV Cond:** Dry
Tap Location: Upstream **Meter Type:** EFM
Tap Type: Flange **Interval:** 1 Hour

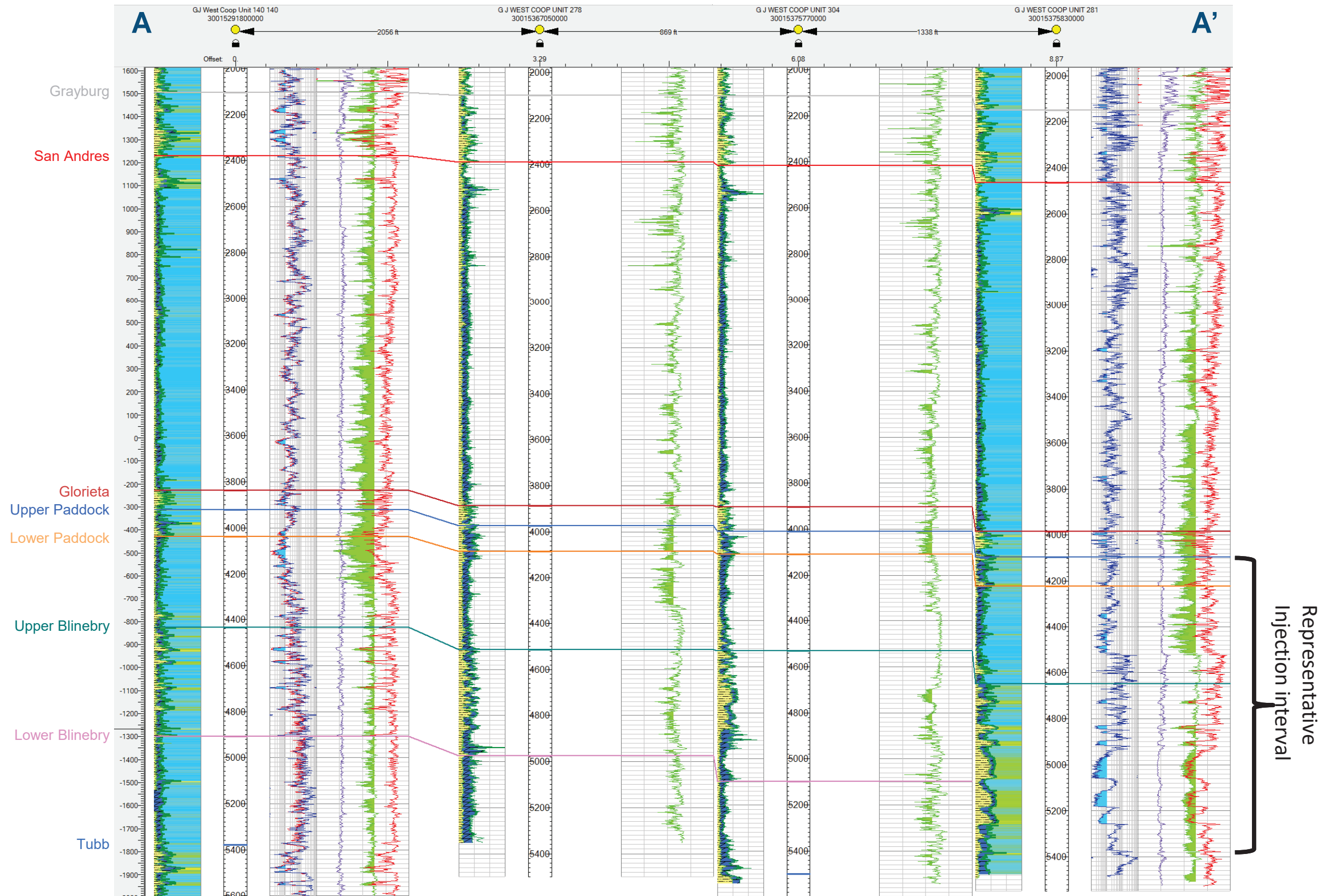
CO2	N2	C1	C2	C3	IC4	NC4	IC5
2.905	1.371	60.929	18.063	9.354	1.029	2.551	0.629
NC5	neo	C6	C7	C8	C9	C10	
0.708		1.761					
Ar	CO	H2	O2	He	H2O	H2S	H2S ppm
						0.700	

Day	Differential (In. H2O)	Pressure (psia)	Temp. (°F)	Flow Time (hrs)	Relative Density	Plate (inches)	Volume (Mcf)	Heating Value (Btu/scf)	Energy (MMBtu)	Edited
1	5.05	48.69	42.86	24.00	0.8995	1.7500	249.98	1447.00	361.72	Yes
2	6.32	48.57	52.46	24.00	0.8995	1.7500	281.77	1447.00	407.72	Yes
3	5.96	49.13	51.31	24.00	0.8995	1.7500	274.54	1447.00	397.26	Yes
4	4.74	51.44	50.58	24.00	0.8995	1.7500	251.10	1447.00	363.35	Yes
5	3.01	53.90	63.48	24.00	0.8995	1.7500	202.87	1447.00	293.55	Yes
6	4.56	51.27	63.06	24.00	0.8995	1.7500	244.74	1447.00	354.14	Yes
7	4.99	50.61	53.89	24.00	0.8995	1.7500	255.84	1447.00	370.20	Yes
8	5.28	49.72	56.81	24.00	0.8995	1.7500	257.94	1447.00	373.24	Yes
9	5.42	49.24	50.35	24.00	0.8995	1.7500	265.52	1447.00	384.21	Yes
10	4.09	50.66	56.22	24.00	0.8995	1.7500	230.50	1447.00	333.53	Yes
11	4.49	50.16	52.55	24.00	0.8995	1.7500	239.61	1447.00	346.72	Yes
12	6.02	50.73	59.07	24.00	0.8995	1.7500	277.03	1447.00	400.86	Yes
13	5.98	49.93	46.93	24.00	0.8995	1.7500	280.64	1447.00	406.09	Yes
14	4.81	50.83	43.08	24.00	0.8995	1.7500	252.40	1447.00	365.22	Yes
15	5.25	50.53	41.63	24.00	0.8995	1.7500	256.55	1447.00	371.23	Yes
16	6.03	48.61	39.36	24.00	0.8995	1.7500	280.15	1447.00	405.38	Yes
17	6.58	48.33	37.28	24.00	0.8995	1.7500	291.31	1447.00	421.52	Yes
18	7.14	49.40	37.99	24.00	0.8995	1.7500	307.62	1447.00	445.13	Yes
19	6.59	49.12	44.83	24.00	0.8995	1.7500	288.15	1447.00	416.96	Yes
20	6.76	48.34	41.11	24.00	0.8995	1.7500	293.70	1447.00	424.99	Yes
21	6.96	47.96	42.21	24.00	0.8995	1.7500	296.39	1447.00	428.88	Yes
22	3.99	51.11	28.51	24.00	0.8995	1.7500	188.82	1447.00	273.23	Yes
23	4.70	52.87	21.62	24.00	0.8995	1.7500	236.74	1447.00	342.56	Yes
24	5.78	50.60	20.58	24.00	0.8995	1.7500	285.60	1447.00	413.27	Yes
25	6.36	48.69	20.28	24.00	0.8995	1.7500	293.96	1447.00	425.36	Yes
26	1.36	54.00	47.57	24.00	0.8995	1.7500	140.33	1447.00	203.06	Yes
27	3.58	51.46	52.98	24.00	0.8995	1.7500	219.37	1447.00	317.42	Yes
28	3.85	51.12	46.65	24.00	0.8995	1.7500	229.40	1447.00	331.95	Yes
29	6.15	49.40	43.55	24.00	0.8995	1.7500	285.08	1447.00	412.52	Yes
30	5.34	50.07	41.31	24.00	0.8995	1.7500	267.73	1447.00	387.40	Yes
31	9.35	49.13	51.41	24.00	0.8995	1.7500	347.78	1447.00	503.24	Yes
Total	5.58	50.01	44.94	744.00	0.8995		8,073.18		11,681.90	

Attachment 4

Structural Cross Section & Injection Formation Details

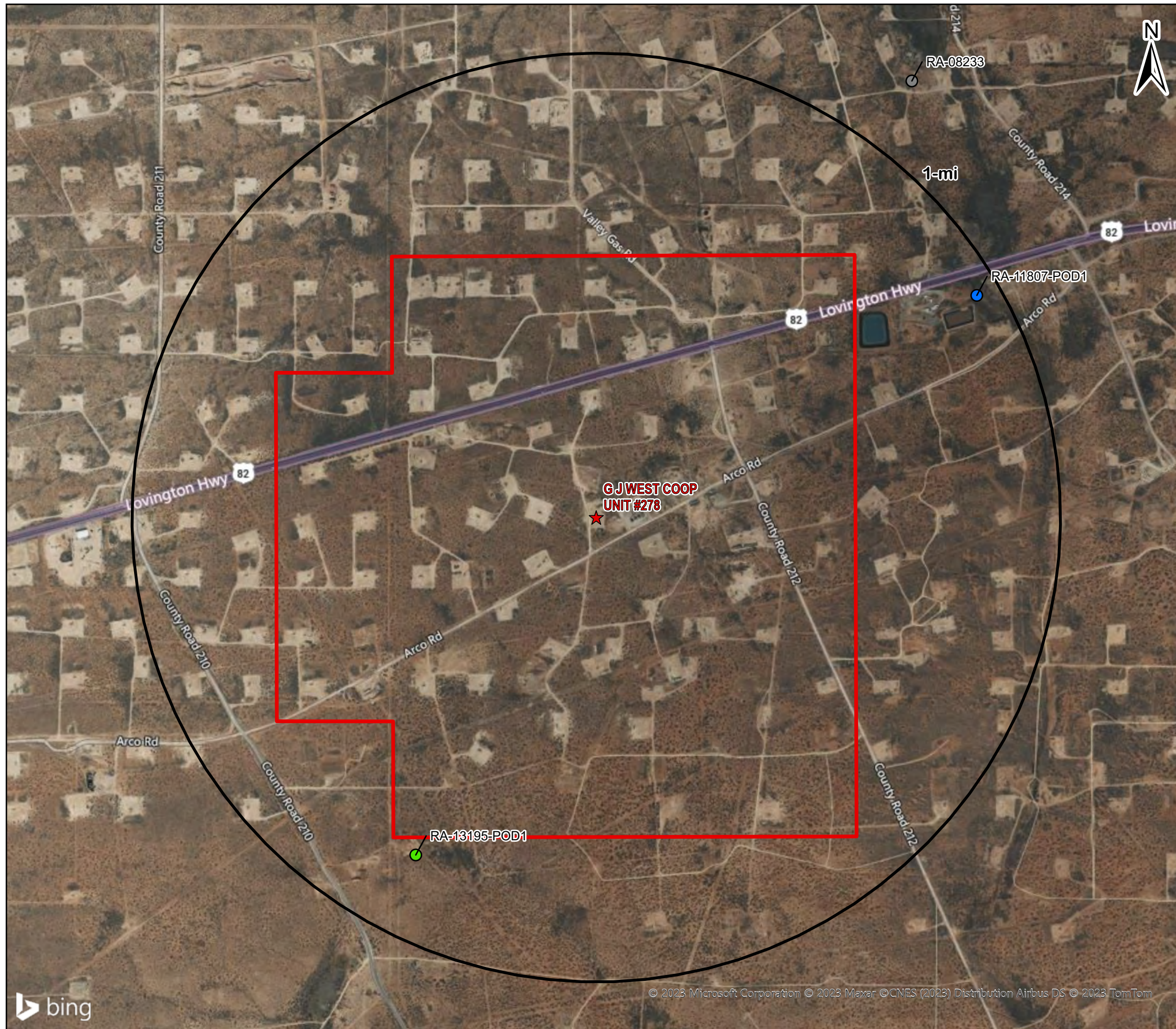
GJ 278: Structural Cross Section



At the GJ West Coop Unit #278, the top of the Yeso formation is at 3,925' and the perforated injection interval will be from 3,989' to 5,300'. The producing formation is well established as demonstrated by the above cross section, and nearby offset well GJ West Coop Unit #140 (API# 30-015-29180) shows the top of the Yeso at 3,925' and the top of the underlying Tubb member at 5,385'.

Attachment 5

Water Well Map and Well Data



Legend

★ Well Location

Project Area

OSE PODs

Status

● Active (1)

● Pending (1)

● Change Location of Well (0)

● Capped (0)

● Plugged (0)

● Incomplete (0)

● Unknown (1)

Water Wells AOR Map

G J WEST COOP UNIT #278

Eddy County, New Mexico

Proj Mgr:
Oliver Seekins

September 20, 2023

Mapped by:
Ben Bockelmann

Prepared for:



Prepared by:



© 2023 Microsoft Corporation © 2023 Maxar © CNES (2023) Distribution Airbus DS © 2023 TomTom

Water Well Sampling Rationale

Spur Energy Partners LLC - GJ West Coop Unit 278

Water Wells	Owner	Available Contact Information	Use	Sampling Required	Notes
RA 11807 POD1	Mitchel Johnson	Phone(work): 575-626-1719 Mailing Address: 1231 Old Annetta Rd Aledo, TX 76008	Drinking and sanitary uses	No	After leaving multiple Voicemails with the well owner, we were unable to obtain permission to sample this well. If permission to sample is obtained, Spur will sample the well and provide NMOCD with the results.
RA 13195 POD1	Joseph Guesnier	Phone(cell): 806-544-9276 Mailing Address: 5847 50th Street Lubbock, TX 79423	EXP Exploration	No	This well was installed to determine the depth of groundwater for an NMOCD closure report. This well is not an active freshwater well available for sampling.

Attachment 6

Signed - No Hydrologic Connection Statement



RE: Spur Energy Partners LLC – GJ West Coop Unit #278 – Gas Injection Pressure Maintenance application, Eddy County, New Mexico

ALL Consulting LLC (ALL) has performed a thorough hydrologic investigation related to the proposed conversion of the well listed above to gas injection into the Yeso Formation for pressure maintenance. The hydrologic investigation was conducted to determine if there were any existing or potential connections between the proposed injection intervals in the Yeso Formation and the deepest underground source of drinking water (USDW).

ALL performed an assessment and analysis of the subsurface geophysical log data along with published documents on the groundwater in this vicinity of Eddy County, New Mexico. Based on ALL's assessment and analysis there is containment through multiple confining zones above the Yeso Formation and the USDW and over 3,646 feet of vertical separation between the base of the USDW and the top of the injection interval. Additionally, there is no evidence of extensive faulting that would allow for communication between the USDW and the Yeso Formation.

A handwritten signature in blue ink, appearing to read "Tom Tomastik", is written over a horizontal line.

September 26, 2023

Tom Tomastik

Date

Chief Geologist and Regulatory Specialist

ALL Consulting LLC

Attachment 7

List of Notice Recipients

Spur - GJ West Coop Unit 278 - Affected Persons

Affected Party Classification	Entity - Proof of Notice	Entity - As Mapped/Exhibited	Address	City	State	Zip Code
Surface Owner / Mineral Owner	Commision of Public Lands - State Land Office	NMSLO	310 Old Santa Fe Trail	Santa Fe	NM	87501
Mineral Interest Owner	New Mexico Bureau of Land Management	BLM	620 E. Greene St.	Carlsbad	NM	88220
NMOCD District Office	New Mexico Oil Conservation District 2	N/A	506 W Texas	Artesia	NM	88210
Unit Operator	SOUTHWESTERN ENERGY PRODUCTION COMPANY	Southwestern Energy Production Co	10000 Energy Drive	Spring	TX	77389
Lessee	SEP Permian Holding Corporation	SEP Permian Holding Corp	9655 Katy Freeway Suit 500	Houston	TX	77024
Lessee	SEP Permian, LLC	SEP Permian LLC	9655 Katy Freeway Suit 500	Houston	TX	77024
Lessee	COG OPERATING LLC	COG Operating LLC	600 W Illinois Ave	Midland	TX	79701
Working Interest Owner	CHASE OIL CORP.	Chase Oil Corporation	P.O. Box 1767	Artesia	NM	88211-1767
Working Interest Owner	MACK ENERGY CORPORATION	Mack Energy Corporation	P.O. Box 960	Artesia	NM	88211-0960

Notes: The affected parties above received notification of this C-108 application.
 Spur own 100% of the working interest for each Spur Energy Partners well located within the 0.5-mile AOR, with the exception of the Chase 21 State COM #001 well. As such, the working interest owners associated with this well have been provided notice.