

## **AE Order Number Banner**

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**Application Number: pMSG2319950030**

**SWD-2542**

**Permian Oilfield Partners, LLC [328259]**

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: Permian Oilfield Partners, LLC. OGRID Number: 328259  
 Well Name: Immediate Federal SWD #1 API: 30-025-Pending  
 Pool: SWD; Devonian-Silurian Pool Code: 97869

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

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

A. Location – Spacing Unit – Simultaneous Dedication

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

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

[ I ] Commingling – Storage – Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

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

☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

2) NOTIFICATION REQUIRED TO: Check those which apply.

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

#### FOR OCD ONLY

☐ Notice Complete  
☐ Application Content Complete

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

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

Sean Puryear

Print or Type Name

Signature

7-5-2023

Date

817-600-8772

Phone Number

spuryear@popmidstream.com


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: **Disposal**  
Application qualifies for administrative approval? **Yes**
- II. OPERATOR: **Permian Oilfield Partners, LLC.**  
ADDRESS: **P.O. Box 3329, Hobbs, NM 88241**  
CONTACT PARTY: **Sean Puryear** PHONE: **(817) 600-8772**
- 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? **No.**
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-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: **Sean Puryear** TITLE: **Manager**  
SIGNATURE:  DATE: **7-5-2023**  
E-MAIL ADDRESS: **spuryear@popmidstream.com**
- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: \_\_\_\_\_

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

Side 2

## III. WELL DATA

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

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

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

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

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

## XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

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

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

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

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

**III A:** See attached wellbore diagram.

**III B:**

1. Is this a new well drilled for injection?  
Yes
2. Name of the Injection Formation:  
Devonian: Open Hole Completion
3. Name of Field or Pool (if applicable):  
SWD; Devonian-Silurian
4. Has the well ever been perforated in any other zone(s)?  
No: New Drill for Injection of Produced Water
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

Overlying Potentially Productive Zones:

Delaware, Bone Spring, Wolfcamp, Strawn, Atoka & Morrow Tops all above 14,782'

Underlying Potentially Productive Zones:

None

**IV:** Is this an expansion of an existing project? No.

**V:** See attached Area of Review Analysis.

**VI:** There are no wells within the proposed wells area of review that penetrate the Devonian Formation.

**VII:**

1. The average injected volume anticipated is 40,000 BWPD. The maximum injected volume anticipated is 50,000 BWPD.
2. Injection will be through a closed system.
3. The average injection pressure anticipated is 2,000 psi. The proposed maximum injection pressure is 2,963 psi.
4. Disposal sources will be produced waters from surrounding wells in the Delaware, Avalon, Bone Spring and Wolfcamp formations. These formation waters are known to be compatible with Devonian formation water. Representative area produced water analyses were sourced from the NMT Go-Tech website. See attached Fluid Analyses.
5. Devonian water analyses from the area of review are unavailable. Representative water analyses were sourced from the NMT Go-Tech website. See attached Fluid Analyses.

**VIII:**

- Fluid injection will take place in the Devonian-Silurian formations. This sequence is bounded above by the Upper Devonian Woodford shale. Underlying the Woodford is the first injection formation, the Devonian, consisting of dolomitic and limestone carbonates & chert, followed by the Silurian Fusselman dolomite. The lower bound of the injection interval is the limestone of the Upper Ordovician Montoya. This proposed well will TD above the top of the Montoya, and will not inject fluids into the Montoya itself, in order to provide a sufficient barrier to preclude fluid injection into the Middle Ordovician Simpson, the Lower Ordovician Ellenburger, the Cambrian, and the PreCambrian below.

Injection zone porosities are expected to range from 0% to a high of 10%, with the higher ranges being secondary porosity in the form of vugs & fractures due to weathering effects, with occasional interbedded shaly intervals. Permeabilities in the 2-3% porosity grainstone intervals are estimated to be in the 10-15 mD range, with the higher porosity intervals conservatively estimated to be in the 40-50 mD range. It is these intervals of high secondary porosity and associated high permeability that are expected to take the majority of the injected water.

The Devonian-Silurian sequence is well suited for SWD purposes, with a low permeability shale barrier overlying the injection interval to prevent upward fluid migration to USDW's, a low permeability carbonate barrier underlying the injection interval to prevent downward fluid migration, sufficient permeabilities and porosities in zone, and multiple formations available over a large depth range. This large injection depth range means there is a large injection surface area available, allowing for low injection pressures at high injection rates.

| <b>GEOLOGY PROGNOSIS</b>       |             |               |                  |
|--------------------------------|-------------|---------------|------------------|
| <b>FORMATION</b>               | <b>TOP</b>  | <b>BOTTOM</b> | <b>THICKNESS</b> |
|                                | KB TVD (ft) | KB TVD (ft)   | (ft)             |
| <b>Rustler</b>                 | 1,379       | 1,589         | 210              |
| <b>Salado</b>                  | 1,589       | 3,287         | 1,698            |
| <b>Yates</b>                   | 3,287       | 3,572         | 285              |
| <b>Capitan Reef</b>            | 3,572       | 5,225         | 1,653            |
| <b>Delaware</b>                | 5,225       | 8,284         | 3,059            |
| <b>Bone Spring</b>             | 8,284       | 11,041        | 2,757            |
| <b>Wolfcamp</b>                | 11,041      | 12,075        | 1,034            |
| <b>Lwr. Mississippian</b>      | 14,197      | 14,632        | 435              |
| <b>Woodford</b>                | 14,632      | 14,782        | 150              |
| <b>Devonian</b>                | 14,782      | 15,601        | 819              |
| <b>Fusselman (Silurian)</b>    | 15,601      | 15,929        | 328              |
| <b>Montoya (U. Ordovician)</b> | 15,929      | 16,329        | 400              |
| <b>Simpson (M. Ordovician)</b> | 16,329      | 16,779        | 450              |

- Regional shallow fresh water in the Quaternary is known to exist at depths less than 850'. See attached OSE Water Column Depth table for the region. Depth from the bottom of this USDW to the injection zone is 13,932'. There is a deeper potential USDW in the Capitan Reef formation. Depth from the bottom of this potential USDW to the injection zone is 9,557'. There is no USDW present below the injection interval.

- IX:** Formation chemical stimulation with 40,000 gals of 15% Hydrochloric Acid is planned after well completion.
- X:** A compensated neutron/gamma ray log will be run from surface to TD upon well completion. All logs will be submitted to the NMOCD upon completion.
- XI:** According to the New Mexico Office of the State Engineer, there are 0 fresh water wells within the proposed well's one-mile area of review. See attached 1 mile AOR water well map showing no active PODs in the AOR.
- XII:** Hydrologic affirmative statement attached.
- XIII:** Proof of notice and proof of publication attached.

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

|   |  |   |  |   |  |
|---|--|---|--|---|--|
| <sup>1</sup> API Number                 |  | <sup>2</sup> Pool Code<br><b>97869</b>                              |  | <sup>3</sup> Pool Name<br><b>SWD; DEVONIAN-SILURIAN</b> |  |
| <sup>4</sup> Property Code              |  | <sup>5</sup> Property Name<br><b>IMMEDIATE FEDERAL SWD</b>          |  |   | <sup>6</sup> Well Number<br><b>1</b>   |
| <sup>7</sup> OGRID NO.<br><b>328259</b> |  | <sup>8</sup> Operator Name<br><b>PERMIAN OILFIELD PARTNERS, LLC</b> |  |   | <sup>9</sup> Elevation<br><b>3576'</b> |

<sup>10</sup> Surface Location

|                           |                      |                        |                     |         |                              |                                  |                             |                               |                      |
|---------------------------|----------------------|------------------------|---------------------|---------|------------------------------|----------------------------------|-----------------------------|-------------------------------|----------------------|
| UL or lot no.<br><b>L</b> | Section<br><b>11</b> | Township<br><b>20S</b> | Range<br><b>33E</b> | Lot Idn | Feet from the<br><b>1705</b> | North/South line<br><b>SOUTH</b> | Feet From the<br><b>268</b> | East/West line<br><b>WEST</b> | County<br><b>LEA</b> |
|---------------------------|----------------------|------------------------|---------------------|---------|------------------------------|----------------------------------|-----------------------------|-------------------------------|----------------------|

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

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

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

|  |  |  |  |
|--|--|--|--|
| <p>③ S 89°22'49" W 2661.77'</p> <p>④ S 89°41'35" W 2648.39'</p> <p>⑤</p>   |  | <p><sup>17</sup> OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Gary E. Fisher</i> 7-5-2023<br/>Signature Date<br/>Gary Fisher<br/>Printed Name<br/>gfisher@popmidstream.com<br/>E-mail Address</p> |  |
| <p>⑥</p> <p>⑦</p> <p>⑧</p> <p>⑨</p> <p>⑩</p> <p>⑪</p> <p>⑫</p> <p>⑬</p> <p>⑭</p> <p>⑮</p> <p>⑯</p> <p>⑰</p> <p>⑱</p> <p>⑲</p> <p>⑳</p> <p>㉑</p> <p>㉒</p> <p>㉓</p> <p>㉔</p> <p>㉕</p> <p>㉖</p> <p>㉗</p> <p>㉘</p> <p>㉙</p> <p>㉚</p> <p>㉛</p> <p>㉜</p> <p>㉝</p> <p>㉞</p> <p>㉟</p> <p>㊱</p> <p>㊲</p> <p>㊳</p> <p>㊴</p> <p>㊵</p> <p>㊶</p> <p>㊷</p> <p>㊸</p> <p>㊹</p> <p>㊺</p> <p>㊻</p> <p>㊼</p> <p>㊽</p> <p>㊾</p> <p>㊿</p>   |  | <p><sup>18</sup> SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p><b>05/30/2023</b><br/>Date of Survey<br/>Signature and Seal of Professional Surveyor<br/><b>14400</b><br/>Certificate Number</p>   |  |
| <p>① N 00°43'24" W 2629.78'</p> <p>②</p> <p>③</p> <p>④</p> <p>⑤</p> <p>⑥</p> <p>⑦</p> <p>⑧</p> <p>⑨</p> <p>⑩</p> <p>⑪</p> <p>⑫</p> <p>⑬</p> <p>⑭</p> <p>⑮</p> <p>⑯</p> <p>⑰</p> <p>⑱</p> <p>⑲</p> <p>⑳</p> <p>㉑</p> <p>㉒</p> <p>㉓</p> <p>㉔</p> <p>㉕</p> <p>㉖</p> <p>㉗</p> <p>㉘</p> <p>㉙</p> <p>㉚</p> <p>㉛</p> <p>㉜</p> <p>㉝</p> <p>㉞</p> <p>㉟</p> <p>㊱</p> <p>㊲</p> <p>㊳</p> <p>㊴</p> <p>㊵</p> <p>㊶</p> <p>㊷</p> <p>㊸</p> <p>㊹</p> <p>㊺</p> <p>㊻</p> <p>㊼</p> <p>㊽</p> <p>㊾</p> <p>㊿</p> |  | <p>①</p> <p>②</p> <p>③</p> <p>④</p> <p>⑤</p> <p>⑥</p> <p>⑦</p> <p>⑧</p> <p>⑨</p> <p>⑩</p> <p>⑪</p> <p>⑫</p> <p>⑬</p> <p>⑭</p> <p>⑮</p> <p>⑯</p> <p>⑰</p> <p>⑱</p> <p>⑲</p> <p>⑳</p> <p>㉑</p> <p>㉒</p> <p>㉓</p> <p>㉔</p> <p>㉕</p> <p>㉖</p> <p>㉗</p> <p>㉘</p> <p>㉙</p> <p>㉚</p> <p>㉛</p> <p>㉜</p> <p>㉝</p> <p>㉞</p> <p>㉟</p> <p>㊱</p> <p>㊲</p> <p>㊳</p> <p>㊴</p> <p>㊵</p> <p>㊶</p> <p>㊷</p> <p>㊸</p> <p>㊹</p> <p>㊺</p> <p>㊻</p> <p>㊼</p> <p>㊽</p> <p>㊾</p> <p>㊿</p>  |  |



## III (A)

**WELL CONSTRUCTION DATA**

Permian Oilfield Partners, LLC.  
 Immediate Federal SWD #1  
 1705' FSL, 268' FWL  
 Sec. 11, T20S, R33E, Lea Co. NM  
 Lat 32.585113° N, Lon -103.641657° W  
 GL 3576', RKB 3606'

**Surface - (Conventional)**

Hole Size: 26" Casing: 20" - 106.5# N-80 BTC Casing  
 Depth Top: Surface  
 Depth Btm: 1404'  
 Cement: 1300 sks - Class C + Additives  
 Cement Top: Surface - (Circulate)

**Intermediate #1 - (Conventional)**

Hole Size: 18.5" Casing: 16" - 75# J-55 BTC Casing  
 Depth Top: Surface  
 Depth Btm: 3522'  
 Cement: 1074 sks - Class C + Additives  
 Cement Top: Surface - (Circulate)

**Intermediate #2 - (Conventional)**

Hole Size: 14.75" Casing: 13.375" - 68# HCP-110 FJ Casing  
 Depth Top: Surface  
 Depth Btm: 5250' ECP/DV Tool: 3622'  
 Cement: 783 sks - Class C + Additives  
 Cement Top: Surface - (Circulate)

**Intermediate #3 - (Conventional)**

Hole Size: 12.25" Casing: 9.625" - 40# HCL-80 BTC Casing  
 Depth Top: Surface  
 Depth Btm: 11091' ECP/5350'  
 Cement: 1814 sks - Class C + Additives  
 Cement Top: Surface - (Circulate)

**Intermediate #4 - (Liner)**

Hole Size: 8.5" Casing: 7.625" - 39# HCL-80 FJ Casing"  
 Depth Top: 10891'  
 Depth Btm: 14817'  
 Cement: 253 sks - Class H + Additives  
 Cement Top: 10891' - Circulate, then Bond Log when well @ TD

**Intermediate #5 - (Open Hole)**

Hole Size: 6.5" Depth: 15904'  
 Inj. Interval: 14817' - 15904' (Open-Hole Completion)

**Tubing - (Tapered)**

Tubing Depth: 14772' Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ  
 X/O Depth: 10891' Casing (Fiberglass Lined)  
 X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)  
 Packer Depth: 14782' Packer: 5.5" - Perma-Pak or Equivalent (Inconel)  
 Packer Fluid: 8.4 ppg FW + Additives

## III (A)

**WELLBORE SCHEMATIC**

Permian Oilfield Partners, LLC.

Immediate Federal SWD #1

1705' FSL, 268' FWL

Sec. 11, T20S, R33E, Lea Co. NM

Lat 32.585113° N, Lon -103.641657° W

GL 3576', RKB 3606'

**Surface - (Conventional)**

Hole Size: 26"  
 Casing: 20" - 106.5# N-80 BTC Casing  
 Depth Top: Surface  
 Depth Btm: 1404'  
 Cement: 1300 sks - Class C + Additives  
 Cement Top: Surface - (Circulate)

**Intermediate #1 - (Conventional)**

Hole Size: 18.5"  
 Casing: 16" - 75# J-55 BTC Casing  
 Depth Top: Surface  
 Depth Btm: 3522'  
 Cement: 1074 sks - Class C + Additives  
 Cement Top: Surface - (Circulate)

**Intermediate #2 - (Conventional)**

Hole Size: 14.75"  
 Casing: 13.375" - 68# HCP-110 FJ Casing  
 Depth Top: Surface  
 Depth Btm: 5250'  
 Cement: 783 sks - Class C + Additives  
 Cement Top: Surface - (Circulate)  
 ECP/DV Tool: 3622'

**Intermediate #3 - (Conventional)**

Hole Size: 12.25"  
 Casing: 9.625" - 40# HCL-80 BTC Casing  
 Depth Top: Surface  
 Depth Btm: 11091'  
 Cement: 1814 sks - Class C + Additives  
 Cement Top: Surface - (Circulate)  
 ECP/DV Tool: 5350'

**Intermediate #4 - (Liner)**

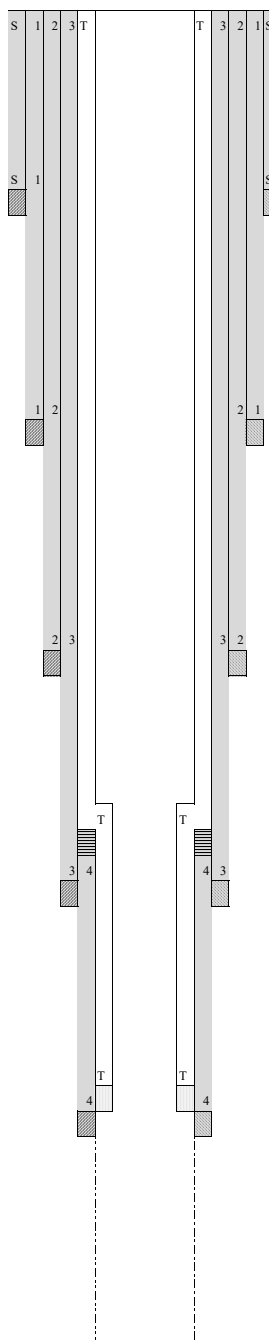
Hole Size: 8.5"  
 Casing: 7.625" - 39# HCL-80 FJ Casing  
 Depth Top: 10891'  
 Depth Btm: 14817'  
 Cement: 253 sks - Class H + Additives  
 Cement Top: 10891' - Circulate, then Bond Log when well @ TD

**Intermediate #5 - (Open Hole)**

Hole Size: 6.5"  
 Depth: 15904'  
 Inj. Interval: 14817' - 15904' (Open-Hole Completion)

**Tubing - (Tapered)**

Tubing Depth: 14772'  
 Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)  
 X/O Depth: 10891'  
 X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)  
 Packer Depth: 14782'  
 Packer: 5.5" - Perma-Pak or Equivalent (Inconel)  
 Packer Fluid: 8.4 ppg FW + Additives



XIII.



**PERMIAN OILFIELD**  
PARTNERS

## Statement of Notifications

Re: C-108 Application for SWD Well  
Permian Oilfield Partners, LLC  
Immediate Federal SWD #1  
1705' FSL & 268' FWL  
Sec 11, T20S, R33E  
Lea County, NM

Permian Oilfield Partners, LLC has mailed notifications to affected persons as per the following list:

| Immediate Federal SWD #1 - Affected Persons within 1 Mile Area of Review |                                 |                                |         |                        |              |
|--|---------------------------------|--------------------------------|---------|------------------------|--------------|
| Notified Name  | Notified Address                | Notified City, State, ZIP Code | Shipper | Tracking No.           | Mailing Date |
| Bureau Of Land Management  | 620 E Greene St.                | Carlsbad, NM 88220             | USPS    | 9414811899562213003389 | 7/7/2023     |
| New Mexico State Land Office   | 310 Old Santa Fe Trail          | Santa Fe, NM 87501             | USPS    | 9414811899562213004836 | 7/7/2023     |
| Anadarko Petroleum Corp.   | P.O. Box 2497                   | Midland, TX 79702              | USPS    | 9414811899562213003174 | 7/7/2023     |
| Apache Corporation   | 2000 Post Oak Blvd., Suite 100  | Houston, TX 77056              | USPS    | 9414811899562213003365 | 7/7/2023     |
| BTA Oil Producers  | 104 S Pecos                     | Midland, TX 79701              | USPS    | 9414811899562213003327 | 7/7/2023     |
| Burlington Resources Oil & Gas LP  | PO Box 2197                     | Houston, TX 77252              | USPS    | 9414811899562213003372 | 7/7/2023     |
| BXP Operating, LLC   | 11757 Katy Fwy, Suite 475       | Houston, TX 77079              | USPS    | 9414811899562213003068 | 7/7/2023     |
| Chesapeake Exploration LLC   | PO Box 18496                    | Oklahoma City, OK 73154        | USPS    | 9414811899562213003044 | 7/7/2023     |
| Chevron Midcontinent LP  | 6301 Deauville Blvd             | Midland, TX 79706              | USPS    | 9414811899562213003082 | 7/7/2023     |
| Chisos, Ltd.   | 1331 Lamar, Suite 1077          | Houston, TX 77010              | USPS    | 9414811899562213003457 | 7/7/2023     |
| Cimarex Energy Co. of Colorado   | 6001 Deauville Blvd, Ste 300N   | Midland, TX 79706              | USPS    | 9414811899562213003426 | 7/7/2023     |
| COG Operating LLC  | 600 W Illinois Ave              | Midland, TX 79701              | USPS    | 9414811899562213003440 | 7/7/2023     |
| ConocoPhillips   | PO Box 2197                     | Houston, TX 77252              | USPS    | 9414811899562213003433 | 7/7/2023     |
| Devon Energy Operating Company, LP                                       | 20 North Broadway, STE 1500     | Oklahoma City, OK 73102        | USPS    | 9414811899562213003563 | 7/7/2023     |
| Earthstone Operating, LLC  | 1400 Woodloch Forest; Ste 300   | The Woodlands, TX 77380        | USPS    | 9414811899562213003532 | 7/7/2023     |
| Kerr McGee Oil & Gas Onshore LLC   | 16666 Northchase Dr.            | Houston, TX 77060              | USPS    | 9414811899562213004218 | 7/7/2023     |
| Magnum Hunter Prod. Inc.   | 600 N. Marienfeld, Suite 600    | Midland, TX 79701              | USPS    | 9414811899562213004294 | 7/7/2023     |
| Merit Energy Company, LLC  | 13727 Noel Road, Suite 500      | Dallas, TX 75240               | USPS    | 9414811899562213004287 | 7/7/2023     |
| Momentum Operating Co, Inc.  | P. O. Box 2439                  | Albany, TX 76430               | USPS    | 9414811899562213004270 | 7/7/2023     |
| Murchison Oil and Gas, LLC   | 7250 Dallas Parkway, Suite 1400 | Plano, TX 75024                | USPS    | 9414811899562213004829 | 7/7/2023     |
| Nearburg Producing Co.   | PO Box 823085                   | Dallas, TX 75382               | USPS    | 9414811899562213004898 | 7/7/2023     |
| OBO Inc.   | 8300 NW 103rd St.               | Hialeah Gardens, FL 33016      | USPS    | 9414811899562213004751 | 7/7/2023     |
| Penroc Oil Corp.   | PO Box 2769                     | Hobbs, NM 88241                | USPS    | 9414811899562213004720 | 7/7/2023     |
| Prime Rock Resources   | 203 W Wall St., Suite 1000      | Midland, TX 79701              | USPS    | 9414811899562213004799 | 7/7/2023     |
| Samson Resources Co.   | 15 East 5th Street              | Tulsa, OK 74103                | USPS    | 9414811899562213830954 | 7/7/2023     |
| Shackelford Oil Co.  | 11417 W County Rd 33            | Midland, TX 79707              | USPS    | 9414811899562213004744 | 7/7/2023     |
| Tenneco Oil Co.  | PO Box 73408                    | Houston, TX 77273              | USPS    | 9414811899562213004928 | 7/7/2023     |
| Trilogy Operating Inc.   | P.O. Box 7606                   | Midland, TX 79708              | USPS    | 9414811899562213004980 | 7/7/2023     |

Date: 7/7/2023

Sean Puryear  
Permian Oilfield Partners, LLC  
[spuryear@popmidstream.com](mailto:spuryear@popmidstream.com)

ARTICLE NUMBER: 9414 8118 9956 2213 0031 74

## ARTICLE ADDRESSED TO:

Anadarko Petroleum Corp  
PO BOX 2497  
MIDLAND TX 79702-2497

## FEES

Postage Per Piece \$4.800  
Certified Fee 4.150  
Total Postage & Fees: 8.950

Postmark  
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USPS

ARTICLE NUMBER: 9414 8118 9956 2213 0033 65

## ARTICLE ADDRESSED TO:

Apache Corporation  
2000 POST OAK BLVD STE 100  
HOUSTON TX 77056-4400

## FEES

Postage Per Piece \$4.800  
Certified Fee 4.150  
Total Postage & Fees: 8.950

Postmark  
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USPS

## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2213 0033 27

## ARTICLE ADDRESSED TO:

BTA Oil Producers, LLC  
104 S PECOS ST  
MIDLAND TX 79701-5021

## FEES

Postage Per Piece \$4.800  
Certified Fee 4.150  
Total Postage & Fees: 8.950

Postmark  
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USPS

## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2213 0033 89

## ARTICLE ADDRESSED TO:

Bureau of Land Management  
620 E GREENE ST  
CARLSBAD NM 88220-6292

## FEES

Postage Per Piece \$4.800  
Certified Fee 4.150  
Total Postage & Fees: 8.950

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USPS

## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2213 0033 72

## ARTICLE ADDRESSED TO:

Burlington Resources Oil & Gas LP  
PO BOX 2197  
HOUSTON TX 77252-2197

## FEES

Postage Per Piece \$4.800  
Certified Fee 4.150  
Total Postage & Fees: 8.950

Postmark  
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USPS

## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2213 0030 68

## ARTICLE ADDRESSED TO:

BXP Operating, LLC  
11757 KATY FWY STE 475  
HOUSTON TX 77079-1761

## FEES

Postage Per Piece \$4.800  
Certified Fee 4.150  
Total Postage & Fees: 8.950

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USPS



U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 2213 0030 44

## ARTICLE ADDRESSED TO:

Chesapeake Exploration LLC  
PO BOX 18496  
OKLAHOMA CITY OK 73154-0496

**FEES**

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.800 |
| Certified Fee         | 4.150   |
| Total Postage & Fees: | 8.950   |



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U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 2213 0030 82

## ARTICLE ADDRESSED TO:

Chevron Midcontinent, LP  
6301 DEAUVILLE  
MIDLAND TX 79706-2964

**FEES**

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.800 |
| Certified Fee         | 4.150   |
| Total Postage & Fees: | 8.950   |



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U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 2213 0034 57

## ARTICLE ADDRESSED TO:

Chisos Ltd  
1331 LAMAR ST STE 1077  
HOUSTON TX 77010-3135

**FEES**

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.800 |
| Certified Fee         | 4.150   |
| Total Postage & Fees: | 8.950   |



Postmark  
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U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 2213 0034 26

## ARTICLE ADDRESSED TO:

Cimarex Energy Co. of Colorado  
6001 DEAUVILLE STE 300N  
MIDLAND TX 79706-2671

**FEES**

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.800 |
| Certified Fee         | 4.150   |
| Total Postage & Fees: | 8.950   |



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U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 2213 0034 40

## ARTICLE ADDRESSED TO:

COG Operating LLC  
600 W ILLINOIS AVE  
MIDLAND TX 79701-4882

**FEES**

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.800 |
| Certified Fee         | 4.150   |
| Total Postage & Fees: | 8.950   |



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U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 2213 0034 33

## ARTICLE ADDRESSED TO:

ConocoPhillips Company  
PO BOX 2197  
HOUSTON TX 77252-2197

**FEES**

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.800 |
| Certified Fee         | 4.150   |
| Total Postage & Fees: | 8.950   |



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U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 2213 0035 63

## ARTICLE ADDRESSED TO:

Devon Energy Operating Co, LP  
20 N BROADWAY STE 1500  
OKLAHOMA CITY OK 73102-9213

## FEES

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.800 |
| Certified Fee         | 4.150   |
| Total Postage & Fees: | 8.950   |

U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 2213 0035 32

## ARTICLE ADDRESSED TO:

Earthstone Operating, LLC  
1400 WOODLOCH FOREST DR STE 300  
THE WOODLANDS TX 77380-1197

## FEES

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.800 |
| Certified Fee         | 4.150   |
| Total Postage & Fees: | 8.950   |

U.S. Postal Service **Certified Mail Receipt**

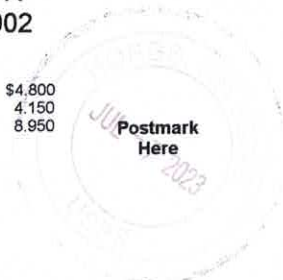
ARTICLE NUMBER: 9414 8118 9956 2213 0042 18

## ARTICLE ADDRESSED TO:

Kerr-McGee Oil & Gas Onshore LLC  
16666 NORTHCHASE DR  
HOUSTON TX 77060-6002

## FEES

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.800 |
| Certified Fee         | 4.150   |
| Total Postage & Fees: | 8.950   |

U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 2213 0042 94

## ARTICLE ADDRESSED TO:

Magnum Hunter Production Inc.  
600 N MARIENFELD ST STE 600  
MIDLAND TX 79701-4405

## FEES

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.800 |
| Certified Fee         | 4.150   |
| Total Postage & Fees: | 8.950   |

U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 2213 0042 87

## ARTICLE ADDRESSED TO:

Merit Energy Company, LLC  
13727 NOEL RD STE 500  
DALLAS TX 75240-7312

## FEES

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.800 |
| Certified Fee         | 4.150   |
| Total Postage & Fees: | 8.950   |

U.S. Postal Service **Certified Mail Receipt**

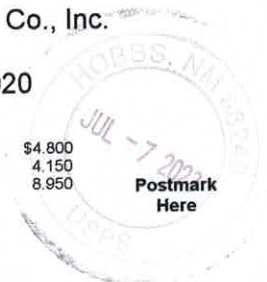
ARTICLE NUMBER: 9414 8118 9956 2213 0042 70

## ARTICLE ADDRESSED TO:

Momentum Operating Co., Inc.  
PO BOX 2439  
ALBANY TX 76430-8020

## FEES

|                       |         |
|-----------------------|---------|
| Postage Per Piece     | \$4.800 |
| Certified Fee         | 4.150   |
| Total Postage & Fees: | 8.950   |



U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 2213 0048 29

## ARTICLE ADDRESSED TO:

Murchison Oil & Gas, LLC  
7250 DALLAS PKWY STE 1400  
PLANO TX 75024-5002

## FEES

Postage Per Piece  
Certified Fee  
Total Postage & Fees:

\$4.800  
4.150  
8.950

U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 2213 0048 98

## ARTICLE ADDRESSED TO:

Nearburg Producing Co.  
PO BOX 823085  
DALLAS TX 75382-3085

## FEES

Postage Per Piece  
Certified Fee  
Total Postage & Fees:

\$4.800  
4.150  
8.950

U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 2213 0048 36

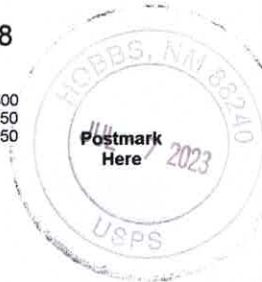
## ARTICLE ADDRESSED TO:

New Mexico State Land Office  
310 OLD SANTA FE TRL  
SANTA FE NM 87501-2708

## FEES

Postage Per Piece  
Certified Fee  
Total Postage & Fees:

\$4.800  
4.150  
8.950

U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 2213 0047 51

## ARTICLE ADDRESSED TO:

OBO Inc.  
8300 NW 103RD ST  
HIALEAH GARDENS FL 33016-2253

## FEES

Postage Per Piece  
Certified Fee  
Total Postage & Fees:

\$4.800  
4.150  
8.950

U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 2213 0047 20

## ARTICLE ADDRESSED TO:

Penroc Oil Corp.  
PO BOX 2769  
HOBBS NM 88241-2769

## FEES

Postage Per Piece  
Certified Fee  
Total Postage & Fees:

\$4.800  
4.150  
8.950

U.S. Postal Service **Certified Mail Receipt**

ARTICLE NUMBER: 9414 8118 9956 2213 0047 99

## ARTICLE ADDRESSED TO:

Prime Rock Resources  
203 W WALL ST STE 1000  
MIDLAND TX 79701-4525

## FEES

Postage Per Piece  
Certified Fee  
Total Postage & Fees:

\$4.800  
4.150  
8.950





## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2213 8309 54

## ARTICLE ADDRESSED TO:

Samson Resources Co.  
15 E 5TH ST STE 1000  
TULSA OK 74103-4311

## FEES

Postage Per Piece  
Certified Fee  
Total Postage & Fees:

\$4.800  
4.150  
8.950

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## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2213 0047 44

## ARTICLE ADDRESSED TO:

Shackelford Oil Co.  
11417 W COUNTY ROAD 33  
MIDLAND TX 79707-9027

## FEES

Postage Per Piece  
Certified Fee  
Total Postage & Fees:

\$4.800  
4.150  
8.950

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## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2213 0049 28

## ARTICLE ADDRESSED TO:

Tenneco Oil Co.  
PO BOX 73408  
HOUSTON TX 77273-3408

## FEES

Postage Per Piece  
Certified Fee  
Total Postage & Fees:

\$4.800  
4.150  
8.950

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## U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2213 0049 80

## ARTICLE ADDRESSED TO:

Trilogy Operating Inc.  
PO BOX 7606  
MIDLAND TX 79708-7606

## FEES

Postage Per Piece  
Certified Fee  
Total Postage & Fees:

\$4.800  
4.150  
8.950

Postmark  
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XIII.

**Affidavit of Publication**STATE OF NEW MEXICO  
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated  
May 26, 2023  
and ending with the issue dated  
May 26, 2023.



Publisher

Sworn and subscribed to before me this  
26th day of May 2023.



Business Manager

My commission expires  
January 29, 2027

(Seal)

STATE OF NEW MEXICO  
NOTARY PUBLIC  
GUSSIE RUTH BLACK  
COMMISSION # 1087528  
COMMISSION EXPIRES 01/29/2027

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

**LEGAL NOTICE  
May 26, 2023**

Permian Oilfield Partners, LLC, PO Box 3329, Hobbs, NM 88241, phone (817)606-7630, attn. Gary Fisher, has filed form C-108 (Application for Authorization for Injection) with the New Mexico Oil Conservation Division seeking approval to drill a commercial salt water disposal well in Lea County, New Mexico. The proposed well is the Immediate Federal SWD #1, and is located 1705' FSL & 268' FWL, Unit L, Section 11, Township 20 South, Range 33 East, NMPM, approximately 22 mi WSW of Monument, NM. The well will dispose of water produced from nearby oil and gas wells into the Devonian formation from a depth of 14,817 feet to 15,904 feet. The maximum expected injection rate is 50,000 BWPD at a maximum surface injection pressure of 2,963 psi.

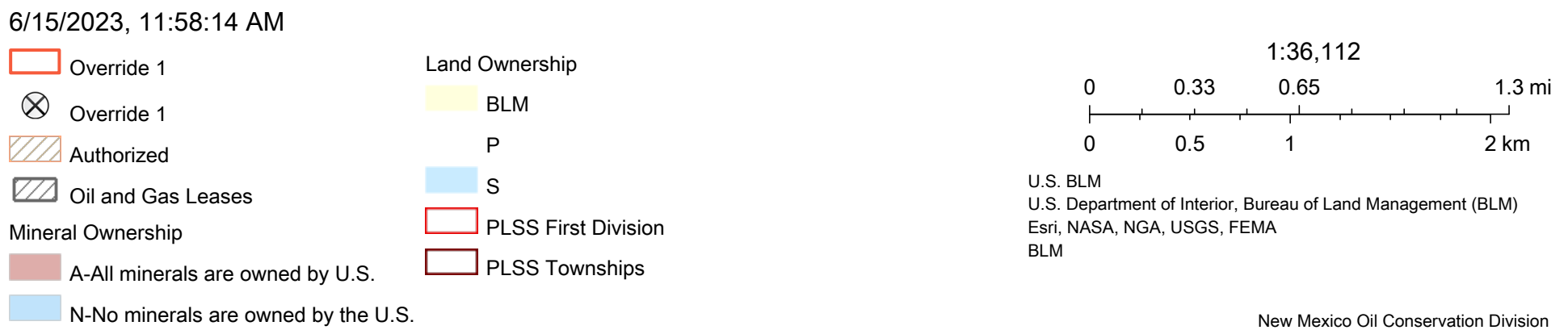
Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505 within 15 days.  
#00278994

67115647

00278994

GARY FISHER  
PERMIAN OILFIELD PARTNERS, LLC  
PO BOX 3329  
HOBBS, NM 88241

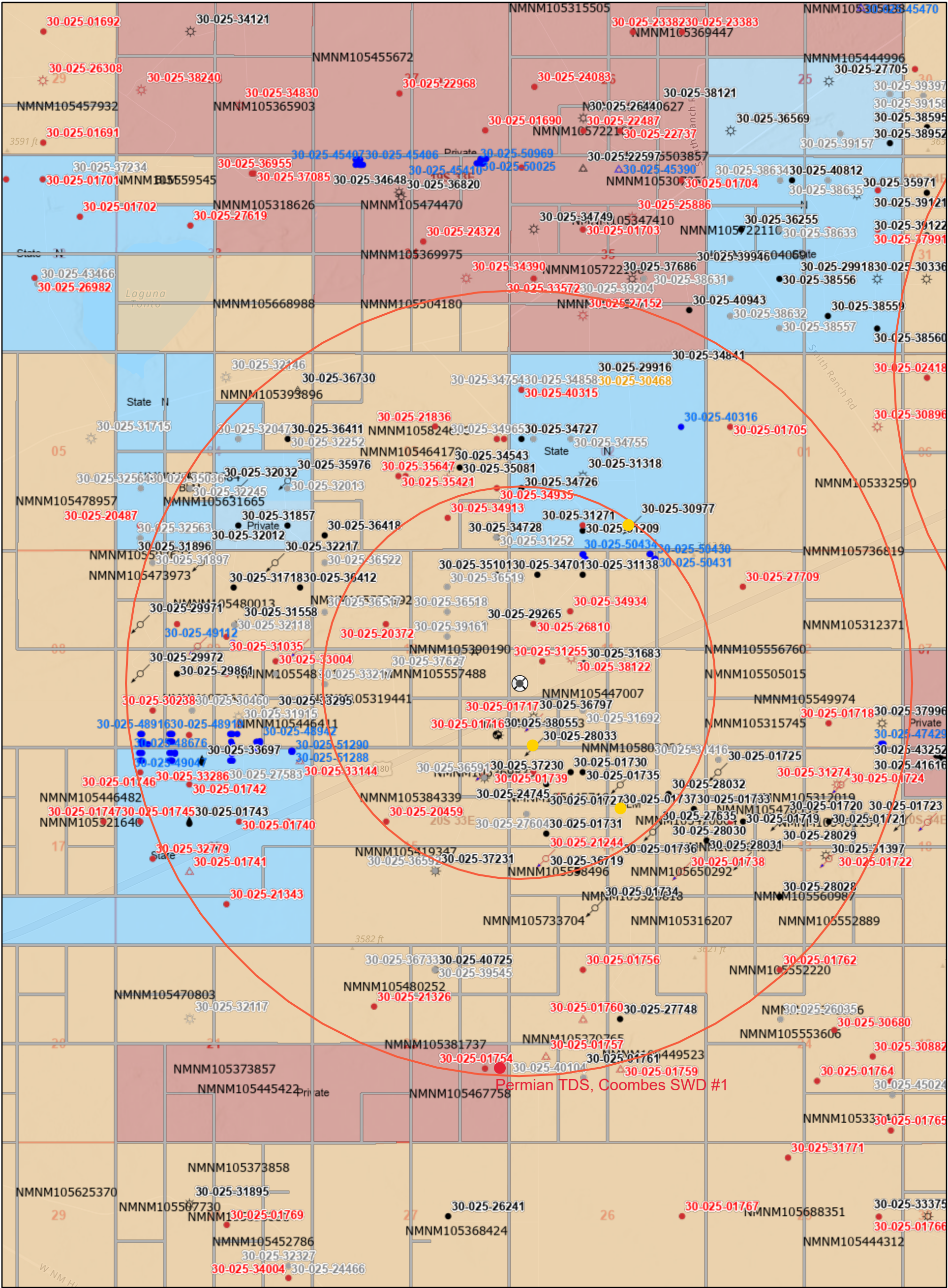
# Immediate Federal SWD #1, 1 & 2 Mi AOR, Leases





V (b)

Immediate Federal SWD #1, 1 & 2 Mi AOR, Wells



6/6/2023, 11:49:45 AM

Qty 3 active Yates injection wells in 1 mile AOR (designated by ● )

Qty 1 permitted Devonian injection well in 2 mile AOR (designated by ● )

1:36,112

00.330.651.3 mi

00.512 km

Override 1

Override 1

Wells - Large Scale

Miscellaneous

Gas, Active

Gas, Cancelled

Gas, Plugged

Injection, Active

Injection, Plugged

Oil, Active

Oil, Cancelled

Oil, New

Oil, Plugged

Oil, Temporarily Abandoned

Salt Water Injection, Active

Salt Water Injection, New

Salt Water Injection, Plugged

Water, Active

Water, Plugged

Case

Mineral Ownership

A-All minerals are owned by U.S.

N-No minerals are owned by the U.S.

U.S. BLM

U.S. Department of Interior, Bureau of Land Management (BLM)

Esri, NASA, NGA, USGS, FEMA

Oil Conservation Division of the New Mexico Energy, Minerals and

New Mexico Oil Conservation Division

Released to Imaging: 7/18/2023 2:09:12 PM

V (c)

| Immediate Federal SWD #1 - Wells Within 1 Mile Area of Review |                                   |                                |             |               |                |                        |         |          |       |                 |                                |                                |                    |       |       |  |
|---|-----------------------------------|--------------------------------|-------------|---------------|----------------|------------------------|---------|----------|-------|-----------------|--------------------------------|--------------------------------|--------------------|-------|-------|--|
| API Number  | Current Operator                  | Well Name                      | Well Number | Well Type     | Well Direction | Well Status            | Section | Township | Range | OCD Unit Letter | Surface Location               | Bottomhole Location            | Formation          | MD    | TVD   |  |
| 30-025-20372  | PRE-ONGARD WELL OPERATOR          | PRE-ONGARD WELL                | #001        | Oil           | Vertical       | Plugged, Site Released | 10      | T20S     | R33E  | F               | F-10-20S-33E 1980 FNL 1980 FWL | F-10-20S-33E 1980 FNL 1980 FWL | YATES-SEVEN RIVERS | 3554  | 3554  |  |
| 30-025-37627  | SAMSON RESOURCES CO               | MARSHALL 10 FEDERAL COM        | #001        | Gas           | Vertical       | Cancelled Apd          | 10      | T20S     | R33E  | K               | K-10-20S-33E 1980 FSL 1980 FWL | K-10-20S-33E 1980 FSL 1980 FWL | MORROW             | 14000 | 14000 |  |
| 30-025-20459  | PRE-ONGARD WELL OPERATOR          | PRE-ONGARD WELL                | #001        | Oil           | Vertical       | Plugged, Site Released | 15      | T20S     | R33E  | F               | F-15-20S-33E 1980 FNL 1980 FWL | F-15-20S-33E 1980 FNL 1980 FWL | YATES-SEVEN RIVERS | 3418  | 3418  |  |
| 30-025-34913  | NEARBURG PRODUCING CO             | PYTHON 3 FEDERAL               | #002        | Oil           | Vertical       | Plugged, Site Released | 03      | T20S     | R33E  | O               | O-03-20S-33E 855 FSL 1650 FEL  | O-03-20S-33E 855 FSL 1650 FEL  | BONE SPRING        | 9280  | 9280  |  |
| 30-025-36518  | SHACKELFORD OIL CO                | TONTO FEDERAL                  | #005        | Oil           | Vertical       | Cancelled Apd          | 10      | T20S     | R33E  | G               | G-10-20S-33E 1650 FNL 1650 FEL | G-10-20S-33E 1650 FNL 1650 FEL | DELAWARE           | 8300  | 8300  |  |
| 30-025-39161  | Murchison Oil and Gas, LLC        | TONTO FEDERAL                  | #008        | Oil           | Vertical       | Cancelled Apd          | 10      | T20S     | R33E  | G               | G-10-20S-33E 2310 FNL 1650 FEL | G-10-20S-33E 2310 FNL 1650 FEL | DELAWARE           | 8250  | 8250  |  |
| 30-025-36519  | SHACKELFORD OIL CO                | TONTO FEDERAL                  | #006        | Oil           | Vertical       | Cancelled Apd          | 10      | T20S     | R33E  | B               | B-10-20S-33E 990 FNL 1650 FEL  | B-10-20S-33E 990 FNL 1650 FEL  | DELAWARE           | 8300  | 8300  |  |
| 30-025-37230  | COG OPERATING LLC                 | BANDIT 15 FEDERAL COM          | #001        | Gas           | Vertical       | Active                 | 15      | T20S     | R33E  | A               | A-15-20S-33E 810 FNL 660 FEL   | A-15-20S-33E 810 FNL 660 FEL   | MORROW             | 14000 | 14000 |  |
| 30-025-29265  | SHACKELFORD OIL CO                | TONTO FEDERAL                  | #001        | Oil           | Vertical       | Active                 | 10      | T20S     | R33E  | H               | H-10-20S-33E 1980 FNL 660 FEL  | H-10-20S-33E 1980 FNL 660 FEL  | BONE SPRING        | 10706 | 10706 |  |
| 30-025-01739  | MOMENTUM OPERATING CO INC         | TEAS YATES UNIT                | #121        | Injection     | Vertical       | Plugged, Site Released | 15      | T20S     | R33E  | A               | A-15-20S-33E 660 FNL 660 FEL   | A-15-20S-33E 660 FNL 660 FEL   | YATES-SEVEN RIVERS | 3335  | 3335  |  |
| 30-025-36591  | SAMSON RESOURCES CO               | BANDIT 15 FEDERAL COM          | #001        | Oil           | Vertical       | Cancelled Apd          | 15      | T20S     | R33E  | A               | A-15-20S-33E 810 FNL 660 FEL   | A-15-20S-33E 810 FNL 660 FEL   | MORROW             | 14000 | 14000 |  |
| 30-025-35101  | SHACKELFORD OIL CO                | TONTO FEDERAL                  | #002        | Oil           | Vertical       | Active                 | 10      | T20S     | R33E  | A               | A-10-20S-33E 660 FNL 330 FEL   | A-10-20S-33E 660 FNL 330 FEL   | DELAWARE           | 8200  | 8200  |  |
| 30-025-34935  | SHACKELFORD OIL CO                | TONTO FEDERAL                  | #004        | Oil           | Vertical       | Plugged, Site Released | 03      | T20S     | R33E  | I               | I-03-20S-33E 1650 FSL 330 FEL  | I-03-20S-33E 1650 FSL 330 FEL  | DELAWARE           | 9700  | 9700  |  |
| 30-025-34728  | SHACKELFORD OIL CO                | TONTO FEDERAL                  | #003        | Oil           | Vertical       | Active                 | 03      | T20S     | R33E  | P               | P-03-20S-33E 330 FSL 330 FEL   | P-03-20S-33E 330 FSL 330 FEL   | DELAWARE           | 9570  | 9570  |  |
| 30-025-31252  | PRE-ONGARD WELL OPERATOR          | PRE-ONGARD WELL                | #001        | Oil           | Vertical       | Cancelled Apd          | 03      | T20S     | R33E  | P               | P-03-20S-33E 330 FSL 330 FEL   | P-03-20S-33E 330 FSL 330 FEL   | BONE SPRING        | 9750  | 9750  |  |
| 30-025-38055  | CIMAREX ENERGY CO. OF COLORADO    | NEW SHERIFF 10 FEDERAL COM     | #001        | Gas           | Directional    | Active                 | 10      | T20S     | R33E  | P               | P-10-20S-33E 330 FSL 280 FEL   | P-10-20S-33E 705 FSL 707 FEL   | MORROW             | 13940 | 13881 |  |
| 30-025-01716  | PRE-ONGARD WELL OPERATOR          | PRE-ONGARD WELL                | #001        | Miscellaneous | Vertical       | Plugged, Site Released | 10      | T20S     | R33E  | P               | P-10-20S-33E 330 FSL 330 FEL   | P-10-20S-33E 0 FSL 330 FEL     | YATES-SEVEN RIVERS | 3410  | 3410  |  |
| 30-025-27604  | PRE-ONGARD WELL OPERATOR          | PRE-ONGARD WELL                | #006        | Oil           | Vertical       | Cancelled Apd          | 14      | T20S     | R33E  | E               | E-14-20S-33E 1785 FNL 460 FWL  | E-14-20S-33E 1785 FNL 460 FWL  | YATES-SEVEN RIVERS | 3350  | 3350  |  |
| 30-025-01728  | ANADARKO PETROLEUM CORP           | TEAS YATES UNIT                | #001        | Oil           | Vertical       | Plugged, Site Released | 14      | T20S     | R33E  | D               | D-14-20S-33E 660 FNL 660 FWL   | D-14-20S-33E 0 FNL 660 FWL     | YATES-SEVEN RIVERS | 3388  | 3388  |  |
| 30-025-34726  | BTA OIL PRODUCERS, LLC            | GEM 870S JV-P                  | #007        | Oil           | Vertical       | Active                 | 02      | T20S     | R33E  | L               | L-02-20S-33E 1650 FSL 330 FWL  | L-02-20S-33E 1650 FSL 330 FWL  | DELAWARE           | 9700  | 9700  |  |
| 30-025-28033  | MOMENTUM OPERATING CO INC         | TEAS YATES UNIT                | #132        | Injection     | Vertical       | Active                 | 11      | T20S     | R33E  | M               | M-11-20S-33E 10 FSL 660 FWL    | M-11-20S-33E 10 FSL 660 FWL    | YATES-SEVEN RIVERS | 3380  | 3380  |  |
| 30-025-36797  | COG OPERATING LLC                 | GUNSLINGER 11 FEDERAL COM      | #001        | Gas           | Vertical       | Active                 | 11      | T20S     | R33E  | M               | M-11-20S-33E 810 FSL 660 FWL   | M-11-20S-33E 810 FSL 660 FWL   | MORROW             | 13850 | 13850 |  |
| 30-025-01717  | ANADARKO PETROLEUM CORP           | TEAS YATES UNIT                | #001        | Injection     | Vertical       | Plugged, Site Released | 11      | T20S     | R33E  | M               | M-11-20S-33E 660 FSL 660 FWL   | M-11-20S-33E 0 FSL 660 FWL     | YATES-SEVEN RIVERS | 3496  | 3496  |  |
| 30-025-26810  | COG OPERATING LLC                 | SMITH RANCH FEDERAL            | #001        | Oil           | Vertical       | Plugged, Site Released | 11      | T20S     | R33E  | E               | E-11-20S-33E 1980 FNL 660 FWL  | E-11-20S-33E 1980 FNL 660 FWL  | BONE SPRING        | 13650 | 13650 |  |
| 30-025-31351  | PRE-ONGARD WELL OPERATOR          | PRE-ONGARD WELL                | #004        | Oil           | Vertical       | Cancelled Apd          | 11      | T20S     | R33E  | D               | D-11-20S-33E 330 FNL 660 FWL   | D-11-20S-33E 330 FNL 660 FWL   | BONE SPRING        | 9750  | 9750  |  |
| 30-025-34701  | Earthstone Operating, LLC         | ANACONDA 11 FEDERAL            | #001        | Oil           | Vertical       | Active                 | 11      | T20S     | R33E  | D               | D-11-20S-33E 660 FNL 760 FWL   | D-11-20S-33E 660 FNL 760 FWL   | DELAWARE           | 9720  | 9720  |  |
| 30-025-31271  | BTA OIL PRODUCERS, LLC            | GEM 870S JV-P                  | #005        | Oil           | Vertical       | Active                 | 02      | T20S     | R33E  | M               | M-02-20S-33E 660 FSL 810 FWL   | M-02-20S-33E 660 FSL 810 FWL   | BONE SPRING        | 10340 | 10340 |  |
| 30-025-31255  | MERIT ENERGY COMPANY, LLC         | SMITH RANCH 11 FEDERAL         | #001        | Oil           | Vertical       | Plugged, Site Released | 11      | T20S     | R33E  | L               | L-11-20S-33E 2310 FSL 900 FWL  | L-11-20S-33E 2310 FSL 900 FWL  | BONE SPRING        | 9700  | 9700  |  |
| 30-025-21244  | MOMENTUM OPERATING CO INC         | TEAS YATES UNIT                | #061        | Injection     | Vertical       | Plugged, Site Released | 14      | T20S     | R33E  | L               | L-14-20S-33E 2310 FSL 990 FWL  | L-14-20S-33E 2310 FSL 990 FWL  | YATES-SEVEN RIVERS | 3428  | 3428  |  |
| 30-025-01731  | MOMENTUM OPERATING CO INC         | TEAS YATES UNIT                | #054        | Oil           | Vertical       | Active                 | 14      | T20S     | R33E  | E               | E-14-20S-33E 2310 FNL 990 FWL  | E-14-20S-33E 2310 FNL 990 FWL  | YATES-SEVEN RIVERS | 3460  | 3460  |  |
| 30-025-24745  | MOMENTUM OPERATING CO INC         | TEAS YATES UNIT                | #055        | Oil           | Vertical       | Active                 | 14      | T20S     | R33E  | D               | D-14-20S-33E 990 FNL 990 FWL   | D-14-20S-33E 990 FNL 990 FWL   | YATES-SEVEN RIVERS | 3375  | 3375  |  |
| 30-025-27313  | ANADARKO PETROLEUM CORP           | TEAS YATES UNIT                | #001        | Water         | Vertical       | Plugged, Site Released | 14      | T20S     | R33E  | F               | F-14-20S-33E 1330 FNL 1330 FWL | F-14-20S-33E 1330 FNL 1330 FWL | YATES-SEVEN RIVERS | 3830  | 3830  |  |
| 30-025-01729  | MOMENTUM OPERATING CO INC         | TEAS YATES UNIT                | #053        | Oil           | Vertical       | Active                 | 14      | T20S     | R33E  | F               | F-14-20S-33E 1980 FNL 1650 FWL | F-14-20S-33E 1980 FNL 1650 FWL | YATES-SEVEN RIVERS | 3392  | 3392  |  |
| 30-025-01730  | MOMENTUM OPERATING CO INC         | TEAS YATES UNIT                | #052        | Oil           | Vertical       | Active                 | 14      | T20S     | R33E  | C               | C-14-20S-33E 660 FNL 1650 FWL  | C-14-20S-33E 660 FNL 1650 FWL  | YATES-SEVEN RIVERS | 3392  | 3392  |  |
| 30-025-34934  | NEARBURG PRODUCING CO             | ANACONDA 11 FEDERAL            | #002        | Oil           | Vertical       | Plugged, Site Released | 11      | T20S     | R33E  | F               | F-11-20S-33E 1650 FNL 1650 FWL | F-11-20S-33E 1650 FNL 1650 FWL | BONE SPRING        | 10450 | 10450 |  |
| 30-025-31138  | COG OPERATING LLC                 | SMITH RANCH FEDERAL            | #002        | Oil           | Vertical       | Active                 | 11      | T20S     | R33E  | C               | C-11-20S-33E 660 FNL 1980 FWL  | C-11-20S-33E 660 FNL 1980 FWL  | BONE SPRING        | 9746  | 9746  |  |
| 30-025-01735  | BXP Operating, LLC                | MAHAFFEY ARC FEDERAL           | #001        | Oil           | Vertical       | Active                 | 14      | T20S     | R33E  | C               | C-14-20S-33E 660 FNL 1980 FWL  | C-14-20S-33E 660 FNL 1980 FWL  | BONE SPRING        | 14115 | 14115 |  |
| 30-025-31692  | DEVON ENERGY OPERATING COMPANY LP | SMITH RANCH 11 FEDERAL         | #003        | Oil           | Vertical       | Cancelled Apd          | 11      | T20S     | R33E  | N               | N-11-20S-33E 990 FSL 1980 FWL  | N-11-20S-33E 990 FSL 1980 FWL  | BONE SPRING        | 10350 | 10350 |  |
| 30-025-01732  | MOMENTUM OPERATING CO INC         | TEAS YATES UNIT                | #071        | Oil           | Vertical       | Active                 | 14      | T20S     | R33E  | K               | K-14-20S-33E 2310 FSL 1960 FWL | K-14-20S-33E 2310 FSL 1960 FWL | YATES-SEVEN RIVERS | 3324  | 3324  |  |
| 30-025-23897  | PRE-ONGARD WELL OPERATOR          | PRE-ONGARD WELL                | #001        | Oil           | Vertical       | Plugged, Site Released | 02      | T20S     | R33E  | N               | N-02-20S-33E 660 FSL 1980 FWL  | K-14-20S-33E 2310 FSL 1960 FWL | YATES-SEVEN RIVERS | 3562  | 3562  |  |
| 30-025-36719  | COG OPERATING LLC                 | MAVERICK 14 FEDERAL COM        | #001        | Oil           | Vertical       | Active                 | 14      | T20S     | R33E  | K               | K-14-20S-33E 1980 FSL 1830 FWL | K-14-20S-33E 1980 FSL 1830 FWL | MORROW             | 13927 | 13927 |  |
| 30-025-31209  | BTA OIL PRODUCERS, LLC            | GEM 870S JV-P                  | #004        | Oil           | Vertical       | Active                 | 02      | T20S     | R33E  | N               | N-02-20S-33E 510 FSL 1980 FWL  | N-02-20S-33E 510 FSL 1980 FWL  | DELAWARE           | 10297 | 10297 |  |
| 30-025-31683  | BXP Operating, LLC                | SMITH RANCH 11 FEDERAL         | #002        | Oil           | Vertical       | Active                 | 11      | T20S     | R33E  | K               | K-11-20S-33E 2250 FSL 2014 FWL | K-11-20S-33E 2250 FSL 2014 FWL | DELAWARE           | 9520  | 9520  |  |
| 30-025-38122  | COG OPERATING LLC                 | GUNSLINGER 11 FEDERAL COM      | #002        | Gas           | Directional    | Plugged, Site Released | 11      | T20S     | R33E  | K               | K-11-20S-33E 2380 FSL 1675 FWL | J-11-20S-33E 2010 FSL 3322 FWL | MORROW             | 14080 | 13913 |  |
| 30-025-01727  | MOMENTUM OPERATING CO INC         | TEAS YATES UNIT                | #111        | Injection     | Vertical       | Active                 | 14      | T20S     | R33E  | B               | B-14-20S-33E 990 FNL 2310 FEL  | B-14-20S-33E 990 FNL 2310 FEL  | YATES-SEVEN RIVERS | 3319  | 3319  |  |
| 30-025-01737  | MOMENTUM OPERATING CO INC         | TEAS YATES UNIT                | #102        | Oil           | Vertical       | Active                 | 14      | T20S     | R33E  | G               | G-14-20S-33E 1650 FNL 2310 FEL | G-14-20S-33E 1650 FNL 2310 FEL | YATES-SEVEN RIVERS | 3394  | 3394  |  |
| 30-025-30977  | BTA OIL PRODUCERS, LLC            | GEM 870S JV-P                  | #003        | Injection     | Vertical       | Active                 | 02      | T20S     | R33E  | O               | O-02-20S-33E 660 FSL 1980 FEL  | O-02-20S-33E 660 FSL 1980 FEL  | DELAWARE           | 13700 | 13700 |  |
| 30-025-28032  | MOMENTUM OPERATING CO INC         | TEAS YATES UNIT                | #112        | Oil           | Vertical       | Active                 | 14      | T20S     | R33E  | A               | A-14-20S-33E 1250 FNL 1000 FEL | A-14-20S-33E 1250 FNL 1000 FEL | YATES-SEVEN RIVERS | 3373  | 3373  |  |
| 30-025-48540  | Earthstone Operating, LLC         | ANACONDA 11 14 3BS FEDERAL COM | #007H       | Oil           | Horizontal     | New                    | 11      | T20S     | R33E  | B               | B-11-20S-33E 120 FNL 1500 FEL  | P-14-20S-33E 100 FSL 400 FEL   | BONE SPRING        | 21140 | 11054 |  |
| 30-025-48539  | Earthstone Operating, LLC         | ANACONDA 11 14 3BS FEDERAL COM | #013H       | Oil           | Horizontal     | New                    | 11      | T20S     | R33E  | B               | B-11-20S-33E 120 FNL 1530 FEL  | O-14-20S-33E 100 FSL 1775 FEL  | BONE SPRING        | 21183 | 11136 |  |
| 30-025-33217  | TRILOGY OPERATING INC             | FEDERAL 10                     | #001        | Oil           | Vertical       | Cancelled Apd          | 10      | T20S     | R33E  | L               | L-10-20S-33E 1700 FSL 330 FWL  | L-10-20S-33E 1700 FSL 330 FWL  | YATES-SEVEN RIVERS | 3500  | 3500  |  |
| 30-025-50430  | Earthstone Operating, LLC         | ANACONDA 11 14 1BS FEDERAL COM | #005H       | Oil           | Horizontal     | New                    | 11      | T20S     | R33E  | B               | B-11-20S-33E 250 FNL 1400 FEL  | O-14-20S-33E 101 FSL 1775 FEL  | BONE SPRING        | 19484 | 9463  |  |
| 30-025-50431  | Earthstone Operating, LLC         | ANACONDA 11 14 1BS FEDERAL COM | #006H       | Oil           | Horizontal     | New                    | 11      | T20S     | R33E  | B               | B-11-20S-33E 100 FSL 400 FEL   | P-14-20S-33E 101 FSL 400 FEL   | BONE SPRING        | 19638 | 9453  |  |
| 30-025-50432  | Earthstone Operating, LLC         | ANACONDA 11 14 2BS FEDERAL COM | #003H       | Oil           | Horizontal     | New                    | 11      | T20S     | R33E  | C               | C-11-20S-33E 250 FNL 2030 FWL  | M-14-20S-33E 100 FSL 400 FWL   | BONE SPRING        | 20383 | 10340 |  |
| 30-025-50433  | Earthstone Operating, LLC         | ANACONDA 11 14 2BS FEDERAL COM | #004H       | Oil           | Horizontal     | New                    | 11      | T20S     | R33E  | C               | C-11-20S-33E 250 FNL 2060 FWL  | C-11-20S-33E 250 FNL 2060 FWL  | BONE SPRING        | 20237 | 10350 |  |
| 30-025-50434  | Earthstone Operating, LLC         | ANACONDA 11 14 3BS FEDERAL COM | #001H       | Oil           | Horizontal     | New                    | 11      | T20S     | R33E  | C               | C-11-20S-33E 120 FNL 1970 FWL  | M-14-20S-33E 101 FSL 400 FWL   | BONE SPRING        | 21224 | 11115 |  |
| 30-025-50435  | Earthstone Operating, LLC         | ANACONDA 11 14 3BS FEDERAL COM | #002H       | Oil           | Horizontal     | New                    | 11      | T20S     | R33E  | C               | C-11-20S-33E 120 FNL 2000 FWL  | N-14-20S-33E 100 FSL 2130 FWL  | BONE SPRING        | 21053 | 11065 |  |



## VII (4)

Permian Oilfield Partners, LLC.  
 Immediate Federal SWD #1  
 1705' FSL, 268' FWL  
 Sec. 11, T20S, R33E, Lea Co. NM  
 Lat 32.585113° N, Lon -103.641657° W  
 GL 3576', RKB 3606'

| Regional Source Water Analysis |                         |                              |                        |                            |
|--------------------------------|-------------------------|------------------------------|------------------------|----------------------------|
| Well Name                      | MOBIL LEA STATE<br>#003 | COOTER 16 STATE<br>COM #006H | PLAYA 2 STATE<br>#002H | ZINNIA BKC<br>FEDERAL #001 |
| API                            | 3002532105              | 3001537876                   | 3002540549             | 3001527939                 |
| Latitude                       | 32.5976906              | 32.123642                    | 32.6830215             | 32.5462379                 |
| Longitude                      | -103.5367584            | -103.9862061                 | -103.5371552           | -104.0686035               |
| Sec                            | 2                       | 16                           | 2                      | 27                         |
| Township                       | 20S                     | 25S                          | 19S                    | 20S                        |
| Range                          | 34E                     | 29E                          | 34E                    | 29E                        |
| Unit                           | M                       | O                            | M                      | E                          |
| Ftg NS                         | 990S                    | 330S                         | 330S                   | 1980N                      |
| Ftg EW                         | 870W                    | 1650E                        | 760W                   | 910W                       |
| County                         | Lea                     | Eddy                         | Lea                    | Eddy                       |
| State                          | NM                      | NM                           | NM                     | NM                         |
| Field                          |                         |                              |                        |                            |
| Formation                      | Delaware                | Avalon Upper                 | 3rd Bone Spring Sand   | Wolfcamp                   |
| pH                             | 5.5                     | 7                            | 6.48                   | 5.7                        |
| TDS_mgL                        | 296822                  | 193732                       | 182368                 | 189739                     |
| Sodium_mgL                     | 87727.9                 | 74027.8                      | 41450                  |                            |
| Calcium_mgL                    | 45355                   | 513                          | 8421                   | 23920                      |
| Iron_mgL                       | 8.8125                  | 104                          | 28.1                   | 0.3                        |
| Magnesium_mgL                  |                         | 118                          | 1264                   | 963.2                      |
| Manganese_mgL                  |                         | 1                            | 0.8                    |                            |
| Chloride_mgL                   | 215237                  | 113441                       | 85041                  | 116724                     |
| Bicarbonate_mgL                | 143                     | 1830                         | 362                    | 427                        |
| Sulfate_mgL                    | 293                     | 2665                         | 956                    | 750                        |
| CO2_mgL                        |                         | 700                          | 180                    |                            |

VII (5)

Permian Oilfield Partners, LLC.  
 Immediate Federal SWD #1  
 1705' FSL, 268' FWL  
 Sec. 11, T20S, R33E, Lea Co. NM  
 Lat 32.585113° N, Lon -103.641657° W  
 GL 3576', RKB 3606'

| Devonian Injection Zone Water Analysis |                       |                 |               |
|--|-----------------------|-----------------|---------------|
| Well Name                              | Leonard ST 1 (A) #001 | LEA UNIT #008   | LEA UNIT #009 |
| API                                    | 3001503537            | 3002502431      | 3002502432    |
| Latitude                               | 32.6839676            | 32.5927162      | 32.578598     |
| Longitude                              | -104.0347595          | -103.511673     | -103.5121155  |
| Sec                                    | 1                     | 12              | 13            |
| Township                               | 19S                   | 20S             | 20S           |
| Range                                  | 29E                   | 34E             | 34E           |
| Unit                                   | M                     | B               | B             |
| Ftg NS                                 | 610S                  | 810N            | 660N          |
| Ftg EW                                 | 660W                  | 1980E           | 2130E         |
| County                                 | Eddy                  | Lea             | Lea           |
| State                                  | NM                    | NM              | NM            |
| Field                                  |                       |                 |               |
| Formation                              | Devonian              | Devonian        | Devonian      |
| Sample Source                          | Drill Stem Test       | Drill Stem Test | Unknown       |
| pH                                     |                       |                 |               |
| TDS mgL                                | 29011                 | 33414           | 45778         |
| Chloride mgL                           | 16000                 | 18570           | 26440         |
| Bicarbonate mgL                        | 520                   | 227             | 1145          |
| Sulfate mgL                            | 1500                  | 1961            | 729           |



**Attachment to C-108**  
**Permian Oilfield Partners, LLC**  
**Immediate Federal SWD #1**  
**1705' FSL & 268' FWL**  
**Sec 11, T20S, R33E**  
**Lea County, NM**

June 10, 2023

**STATEMENT REGARDING SEISMICITY**

Examination of the USGS and NMT seismic activity databases shows minimal historic seismic activity > M2.0 in the area (< 5.64 mile radius, 25 sq. mi.) of the proposed above referenced SWD well, with one M2.1 event recorded 4.3 mi SSE of the proposed well in November 2020. This proposed well is not located within any current Seismic Response Area.

Permian Oilfield Partners does not own any 2D or 3D seismic data in the area of this proposed SWD well. Fault interpretations are based on well to well correlations and publicly available data and software as follows:

1. USGS Quaternary Fault & Fold database shows no quaternary faults in the nearby area.
2. Basement faults are documented in the Snee & Zoback paper, "State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity", published in the February 2018 issue of the SEG journal, The Leading Edge, along with a method for determining the probability of fault slip in the area.
3. Fault data was also correlated to the publicly available USGS GIS geologic units & structural features database, the NMOCD SWD Applications & Fault Map dated 02/14/2022, to the B3 Insights proprietary faults database, and to fault maps as published in the New Mexico Geological Society Special Publication 13A, "Energy and Mineral Resources of New Mexico: Petroleum Geology," by R. F. Broadhead, 2017.
4. The distance from the proposed injection well to the nearest known fault is approximately 5.9 mi (9.5 km). This fault depth is believed to be in the PreCambrian, well below the Devonian-Silurian injection interval, and separated vertically by the presence of the Montoya, Simpson and Ellenburger formations.
5. Permian Oilfield Partners ran modeling to check for fault slip assuming that any known faults penetrate the Devonian-Silurian injection zone. Software as discussed in #3 from

the Stanford Center for Induced and Triggered Seismicity, "FSP 1.0: A program for probabilistic estimation of fault slip potential resulting from fluid injection", was used to calculate the probability of the fault being stressed so as to create an induced seismic event.

6. As per NM OCD requirements (injection well to injection well spacing minimum of 1.5 miles), this proposed above referenced SWD well is located 2.0 miles away from the nearest active or permitted Devonian disposal well (Permian TDS, Coombes SWD #1, SWD-1996). There is another active Devonian disposal well 4.7 miles to the ESE, the Fasken Quail 16 State SWD #9, SWD-1537. Both of these wells are included in the below FSP analysis.
7. The probability of an induced seismic event is calculated to be 0% after 5, 10, 20, & 30 years as per the FSP results screenshots below.

**Input assumptions:**

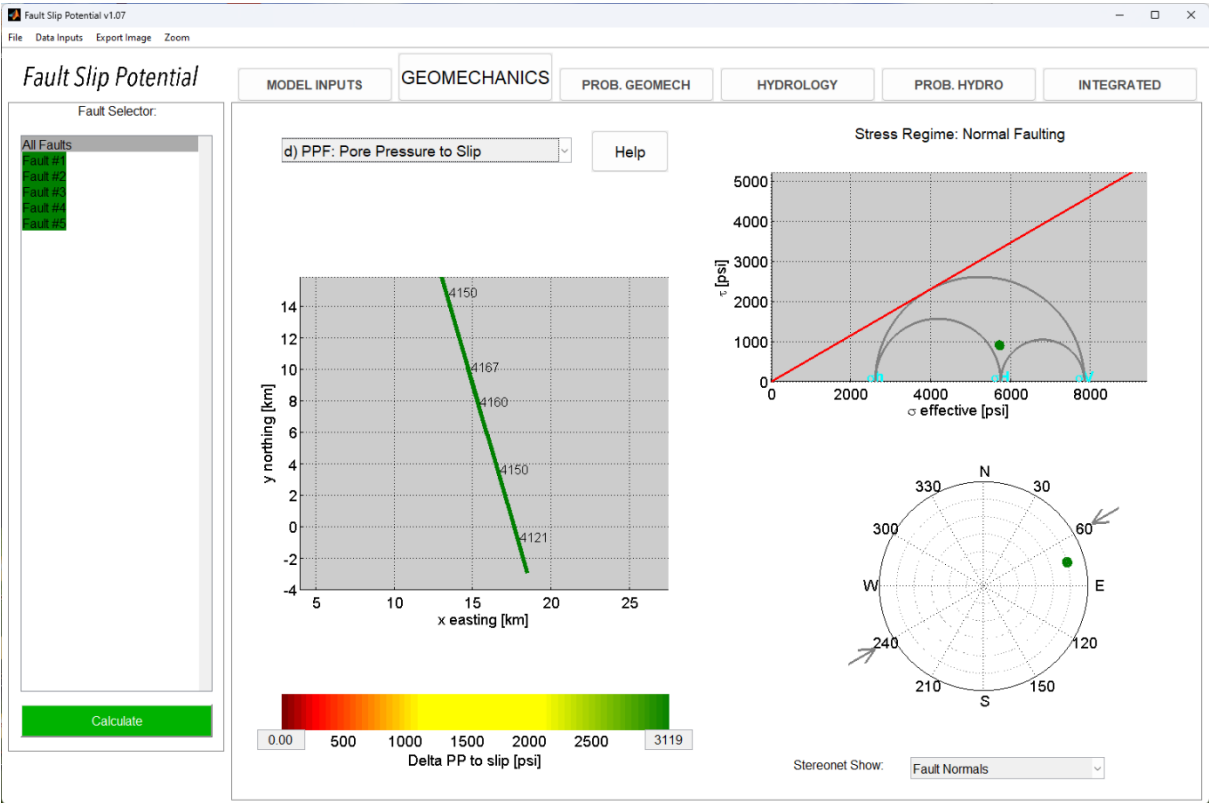
|  |           |
|--|-----------|
| Immediate Fed SWD rate (BBL/day)       | 50000     |
| Fasken Quail 16 SWD #9 rate (BBL/day)  | 1800      |
| Permian TDS Coombes SWD rate (BBL/day) | 30000     |
| Interval height (ft)                   | 1147      |
| Average Porosity (%)                   | 5.4       |
| Vert stress gradient (psi/ft)          | 1.00      |
| Hor stress direction (deg N)           | 60        |
| Fault dip (deg)                        | 75        |
| Ref depth (ft)                         | 14782     |
| Initial res press gradient (psi/ft)    | 0.47      |
| A phi                                  | 0.65      |
| Friction coefficient                   | 0.58      |
| Weighted Average perm (mD)             | 19.3      |
| Fluid density (kg/m3)                  | 1100      |
| Dynamic viscosity (Pa-s)               | 0.0003    |
| Fluid compressibility (/Pa)            | 4 e-10    |
| Rock compressibility (/Pa)             | 1.08 e-09 |

**Note:**

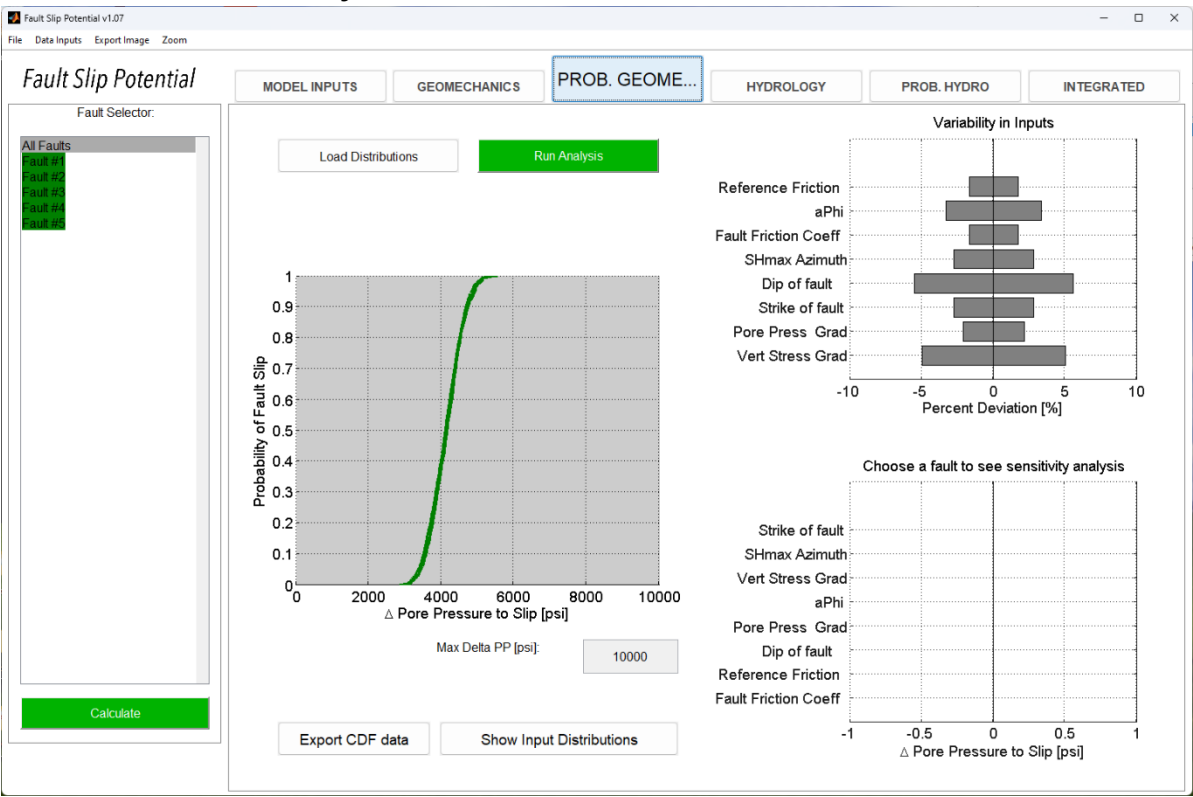
In screenshots below, injection well #1 is the proposed Immediate Federal SWD #1. Injection well #2 is the active Fasken Quail 16 State SWD #9. Injection well #3 is the permitted Permian TDS Coombes SWD #1.



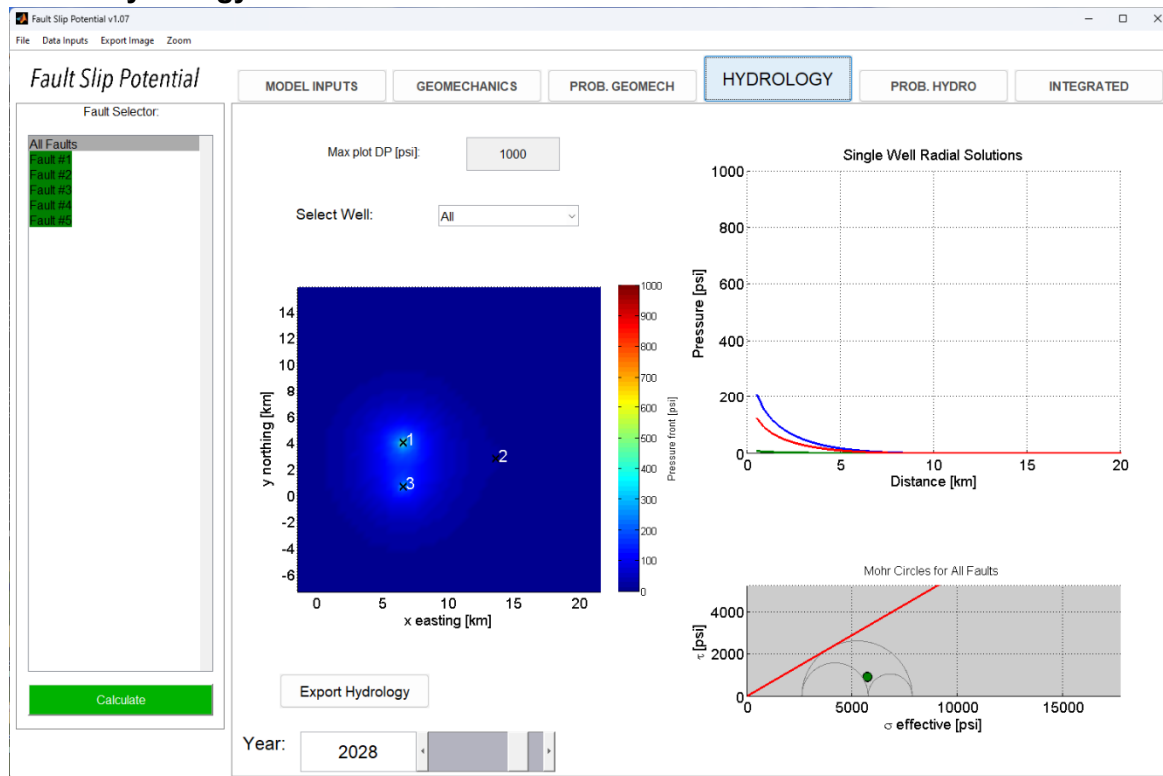
Geomechanics Pore Pressure to Slip



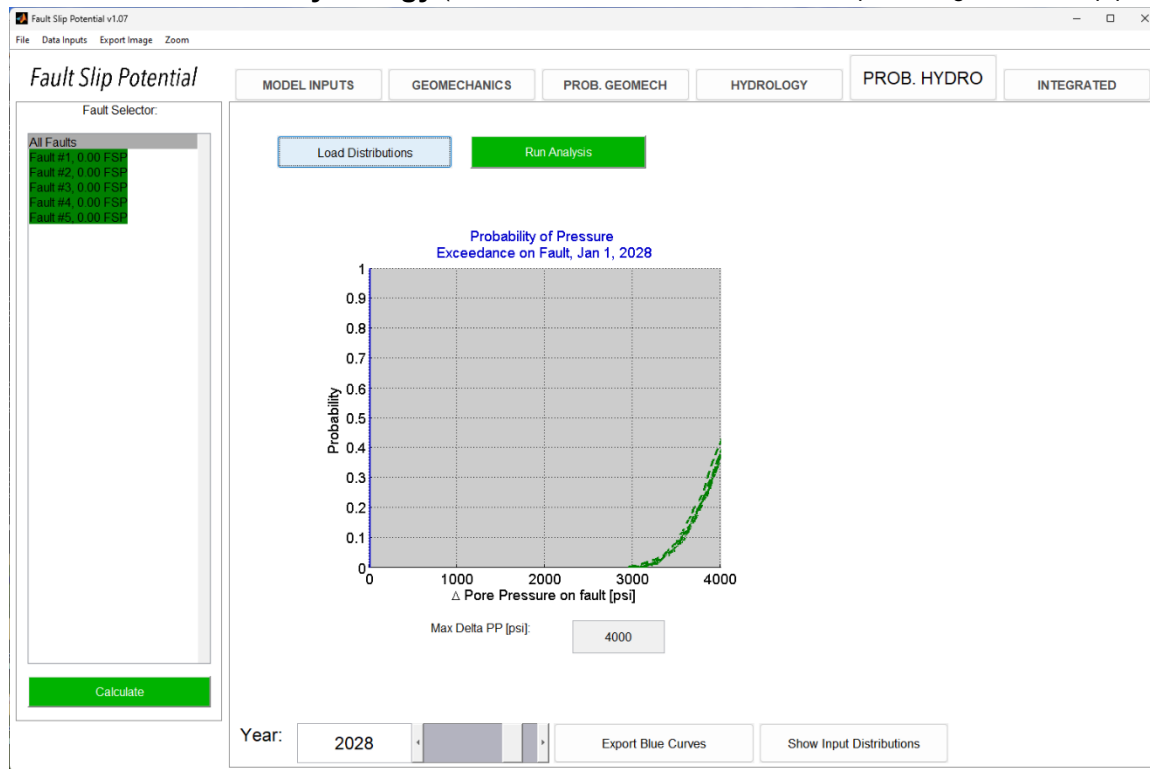
GeoMechanics Variability



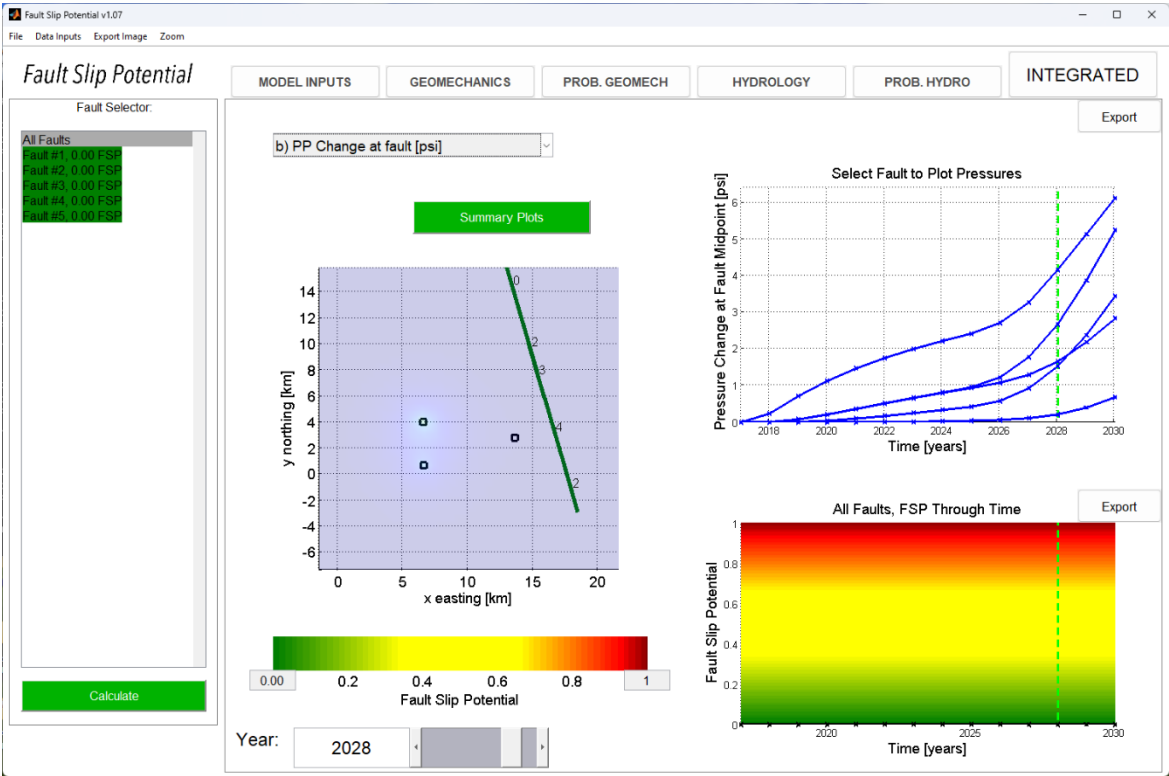
## Year 5 Hydrology



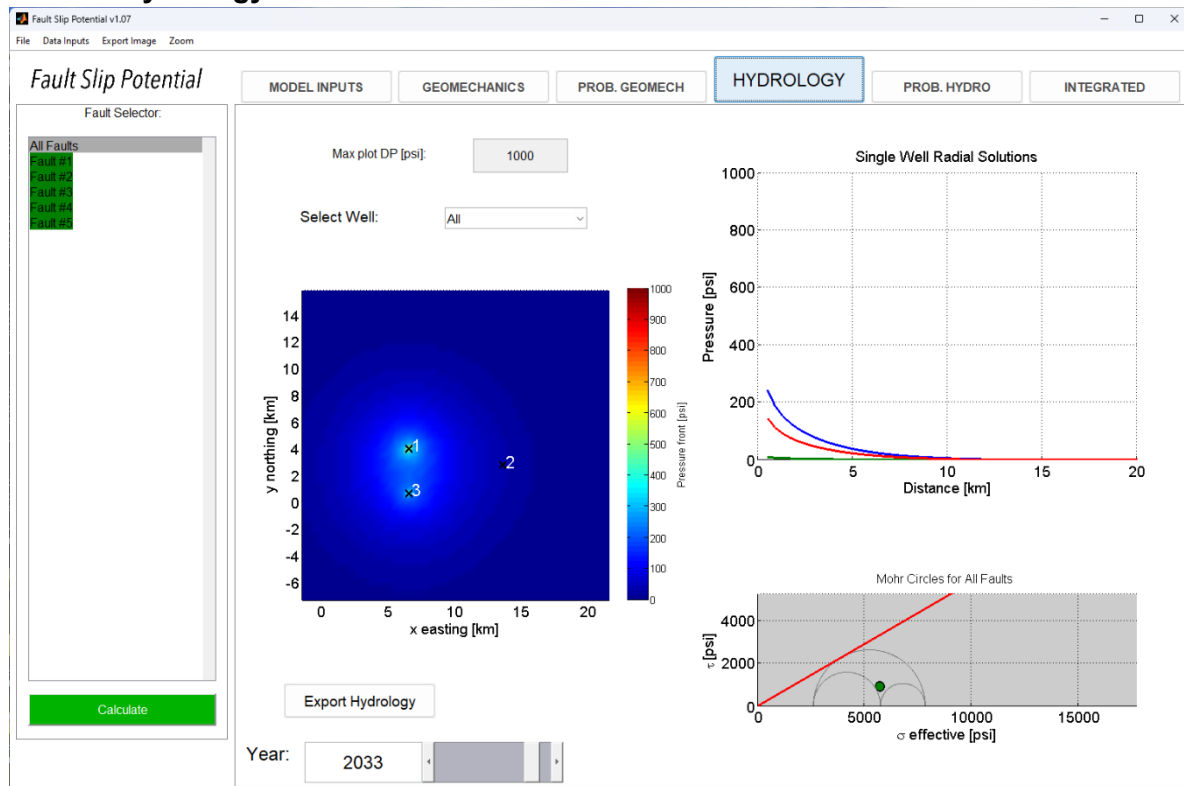
## Year 5 Probabilistic Hydrology (note no crossover between blue delta-press. & green fault slip press.)



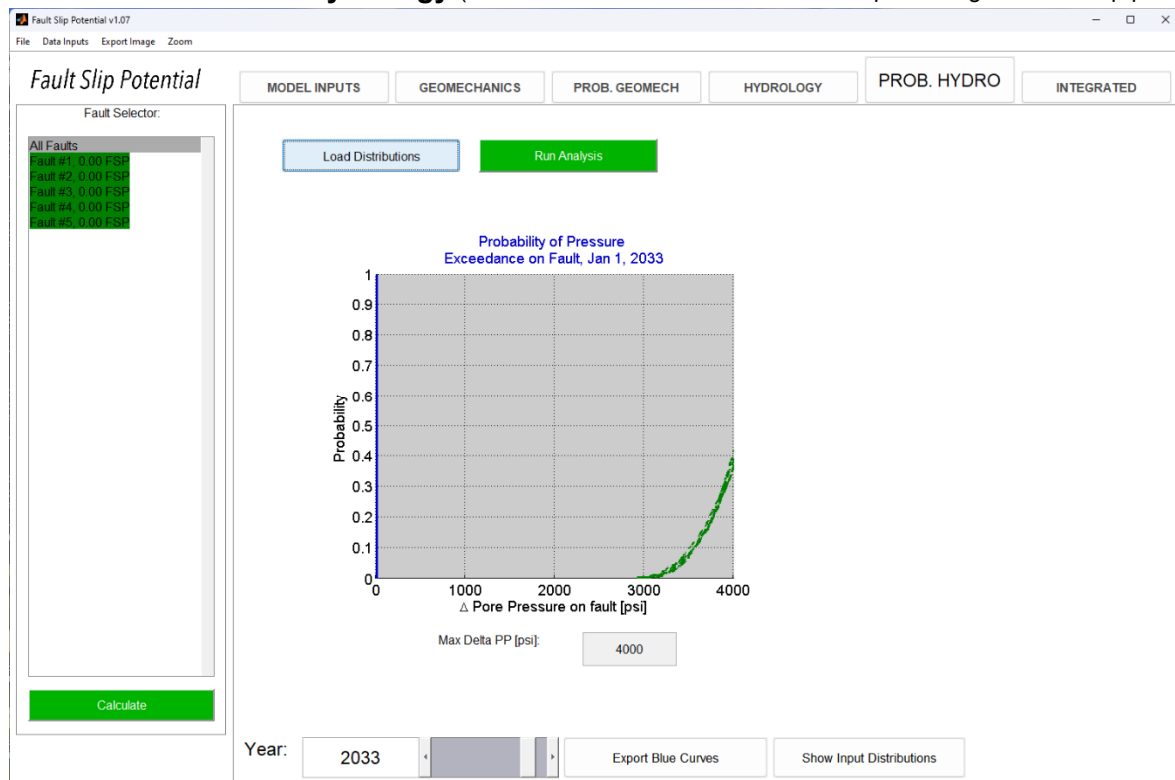
Year 5 Fault Slip Probability (0% after 5 years)



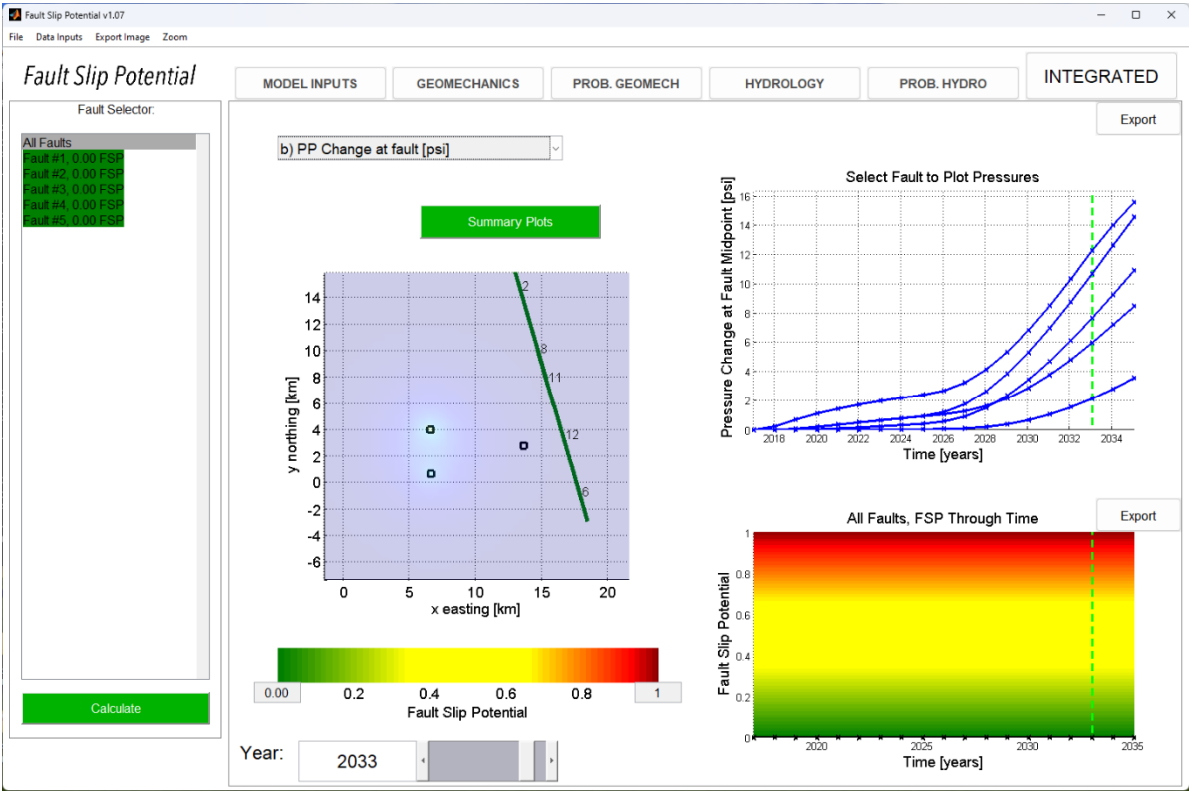
## Year 10 Hydrology



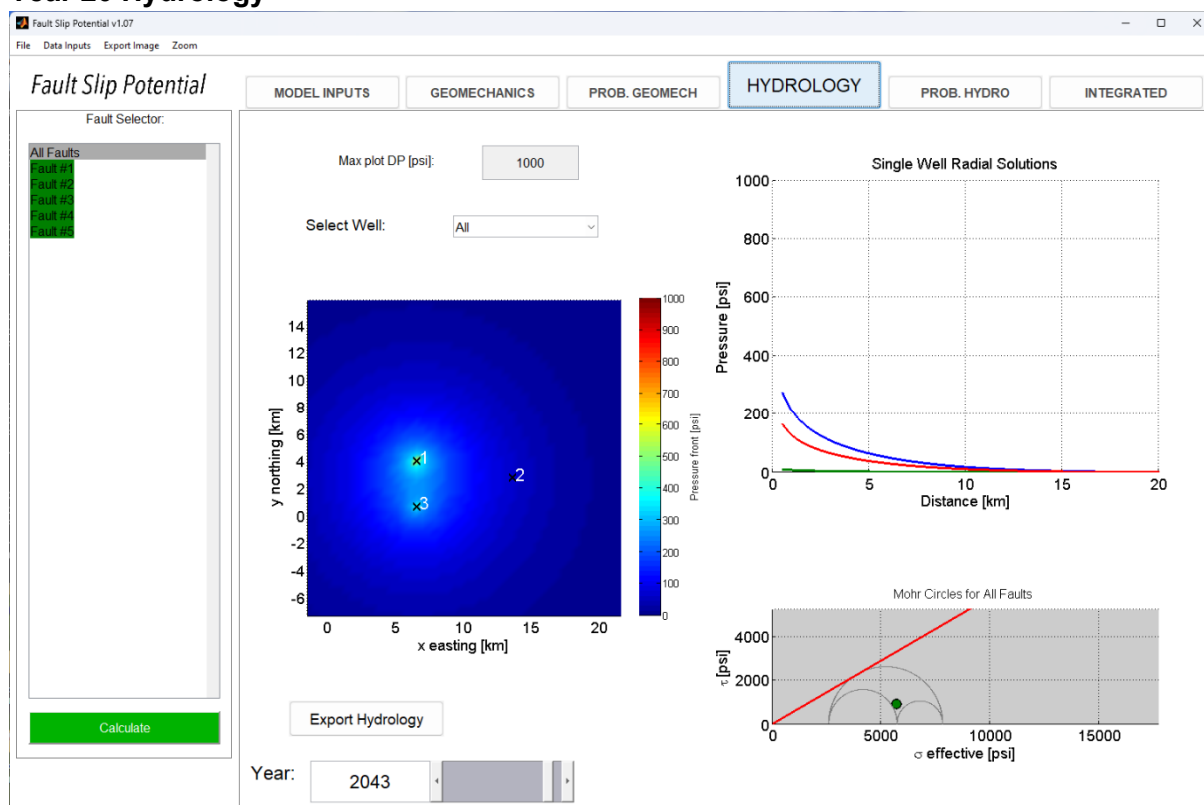
## Year 10 Probabilistic Hydrology (note no crossover between blue delta-press. &amp; green fault slip press.)



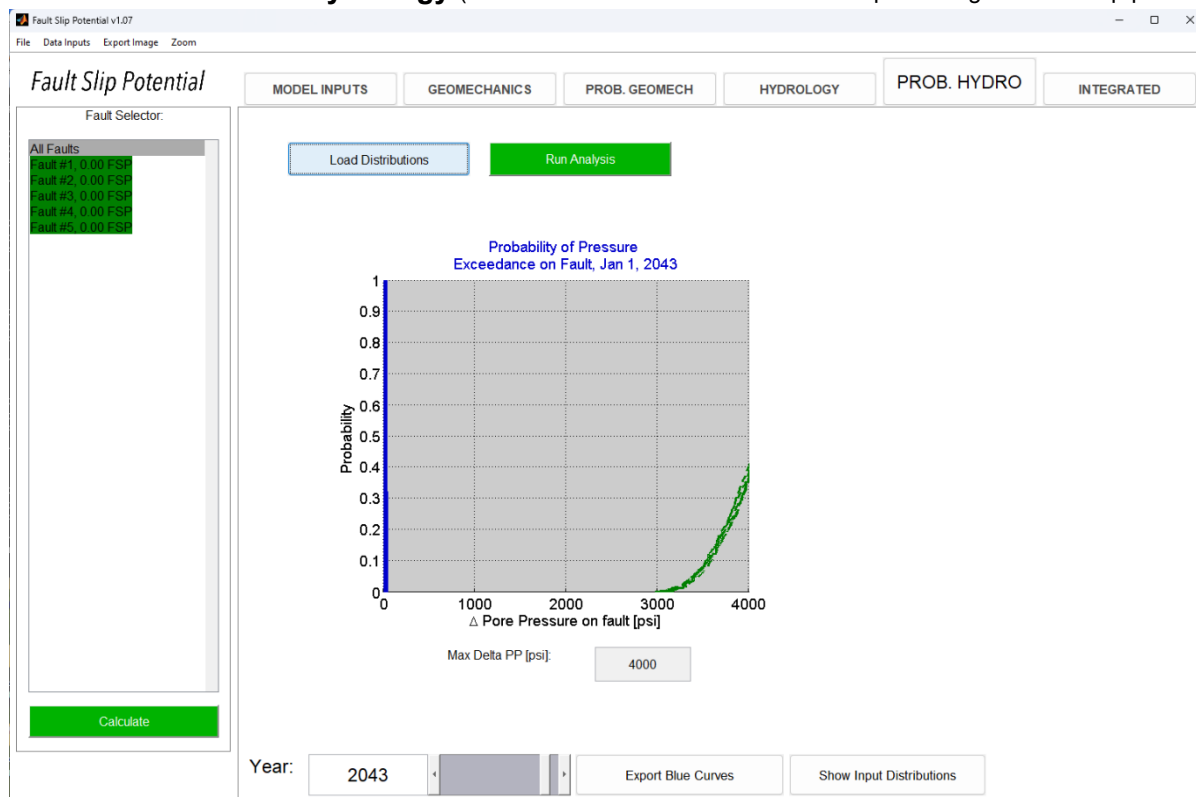
Year 10 Fault Slip Probability (0% after 10 years)



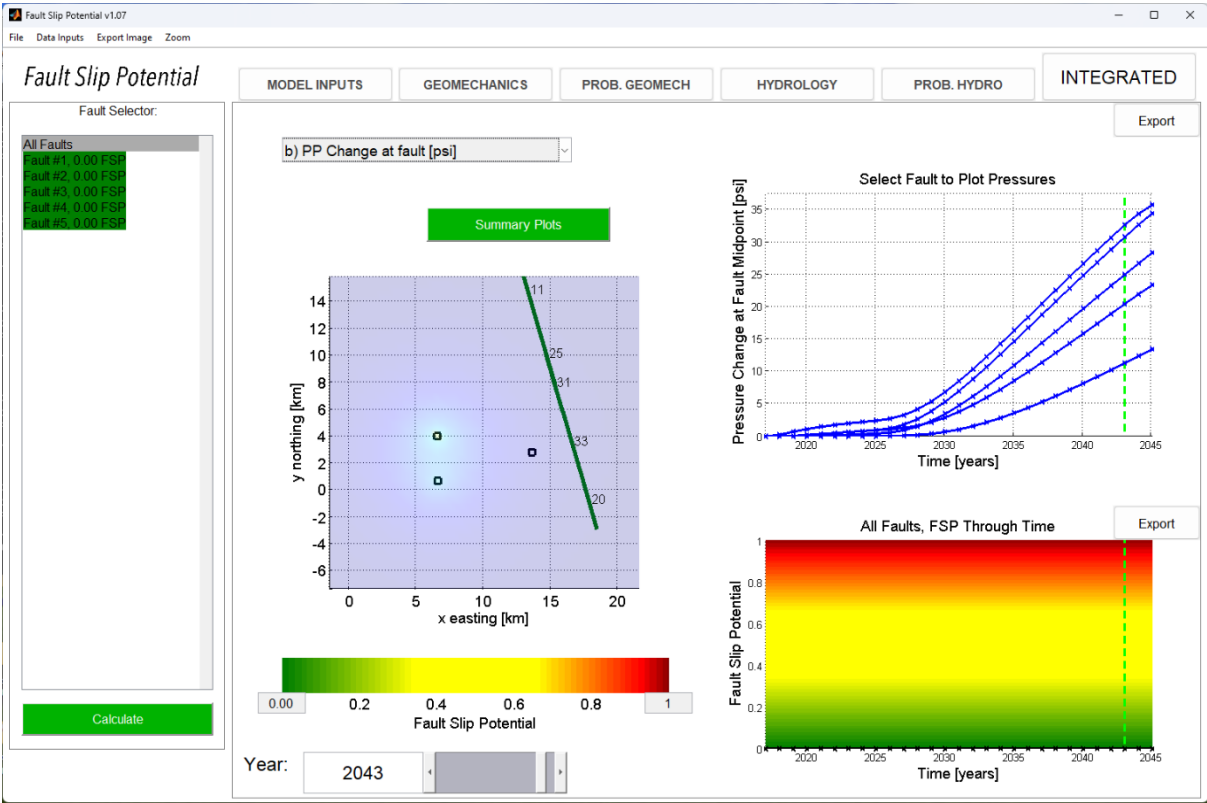
## Year 20 Hydrology



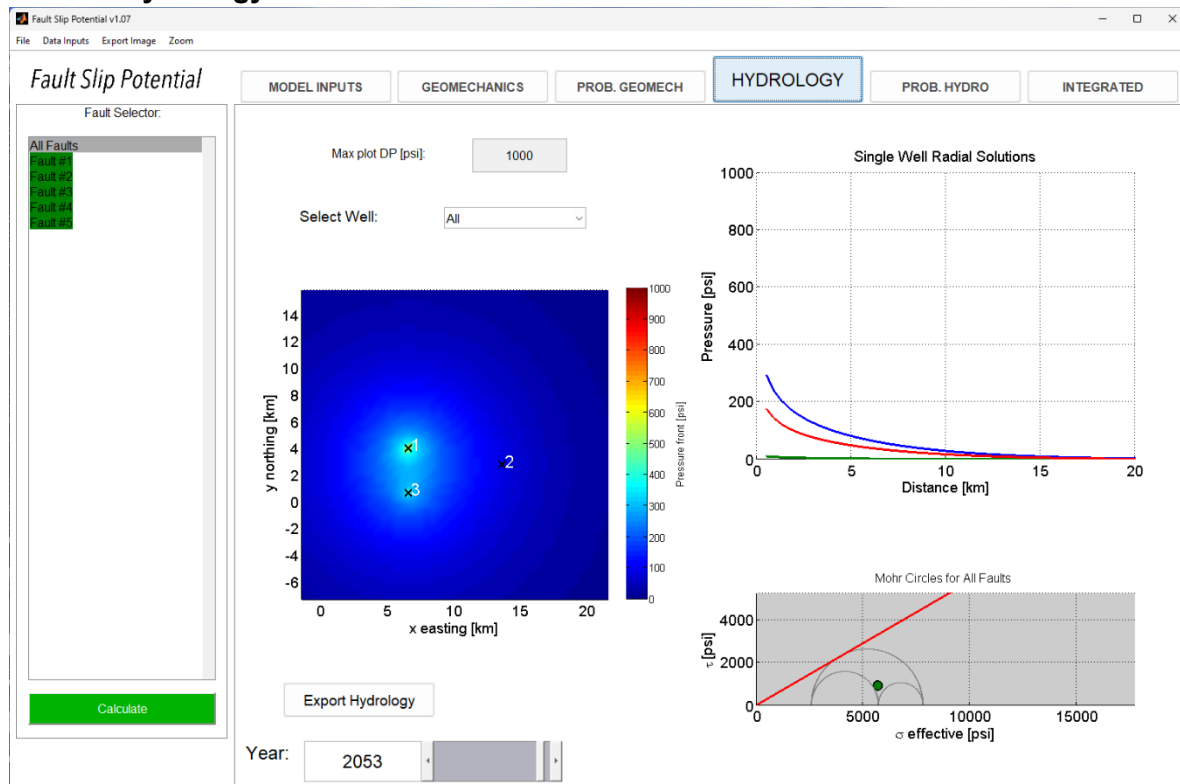
## Year 20 Probabilistic Hydrology (note no crossover between blue delta-press. &amp; green fault slip press.)



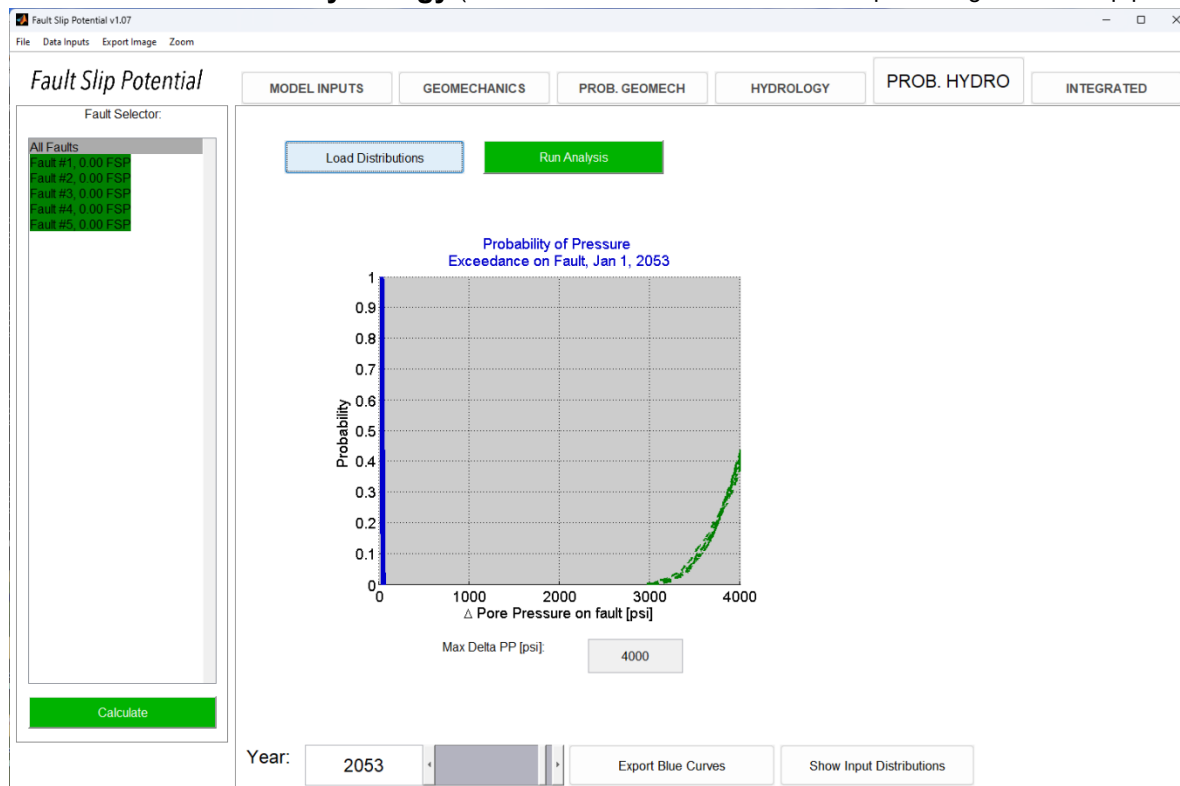
Year 20 Fault Slip Probability (0% after 20 years)



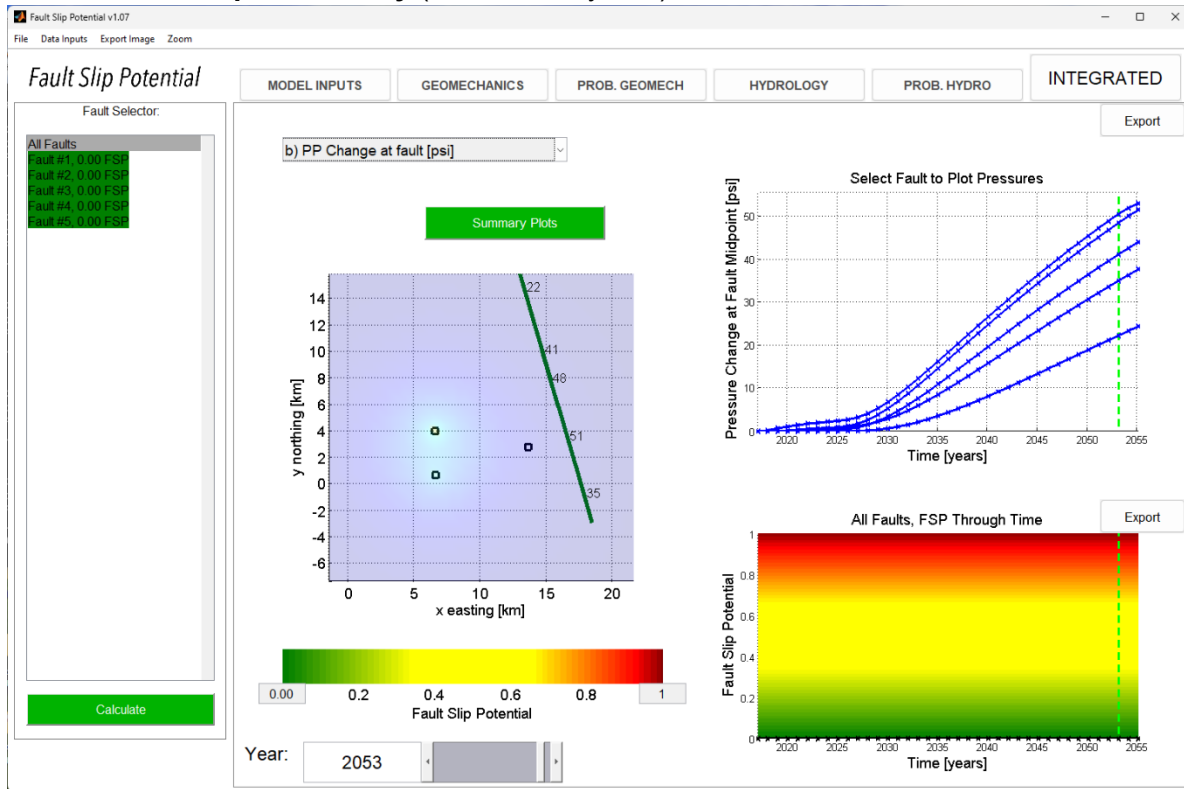
## Year 30 Hydrology



## Year 30 Probabilistic Hydrology (note no crossover between blue delta-press. &amp; green fault slip press.)





**Year 30 Fault Slip Probability (0% after 30 years)**[gfisher@popmidstream.com](mailto:gfisher@popmidstream.com)

(817) 606-7630



**Item XII. Affirmative Statement**

Re: C-108 Application for Authorization to Inject  
Permian Oilfield Partners, LLC  
Immediate Federal SWD #1  
1705' FSL & 268' FWL  
Sec 11, T20S, R33E  
Lea County, NM

Permian Oilfield Partners, LLC. has examined available geologic and engineering data and finds no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

A handwritten signature in black ink, appearing to read "Gary Fisher".

Gary Fisher  
Manager  
Permian Oilfield Partners, LLC.

Date: 7/5/2023



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

| POD Number                    | POD Sub-Code | basin | County | Q 64 | Q 16 | Q 4 | Sec | Tws    | Rng      | X        | Y        | Depth Well | Depth Water | Water Column |
|-------------------------------|--------------|-------|--------|------|------|-----|-----|--------|----------|----------|----------|------------|-------------|--------------|
| <a href="#">CP 00317</a>      | CP           | LE    |        | 3    | 4    | 3   | 05  | 20S    | 33E      | 623054   | 3607235* | 680        | 325         | 355          |
| <a href="#">CP 00653 POD1</a> | CP           | LE    |        | 4    | 4    | 04  | 20S | 33E    | 625573   | 3607367* |          | 60         |             |              |
| <a href="#">CP 00748 POD1</a> | CP           | LE    |        | 2    | 01   | 20S | 33E | 630197 | 3608428* |          |          |            |             |              |
| <a href="#">CP 00798 POD1</a> | CP           | LE    | 2      | 1    | 1    | 24  | 20S | 33E    | 629348   | 3603892* |          | 850        |             |              |
| <a href="#">CP 01090 POD1</a> | CP           | LE    | 1      | 2    | 31   | 20S | 33E | 586045 | 3608526  |          |          |            |             |              |
| <a href="#">CP 01865 POD1</a> | CP           | LE    | 4      | 3    | 2    | 02  | 20S | 33E    | 628390   | 3608155  |          | 105        | 0           | 105          |
| <a href="#">CP 01865 POD2</a> | CP           | LE    | 3      | 1    | 3    | 02  | 20S | 33E    | 627454   | 3607733  |          | 105        | 0           | 105          |

Average Depth to Water: **108 feet**

Minimum Depth: **0 feet**

Maximum Depth: **325 feet**

Record Count: 7

PLSS Search:

Township: 20S

Range: 33E

\*UTM location was derived from PLSS - see Help

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

5/23/23 5:30 PM

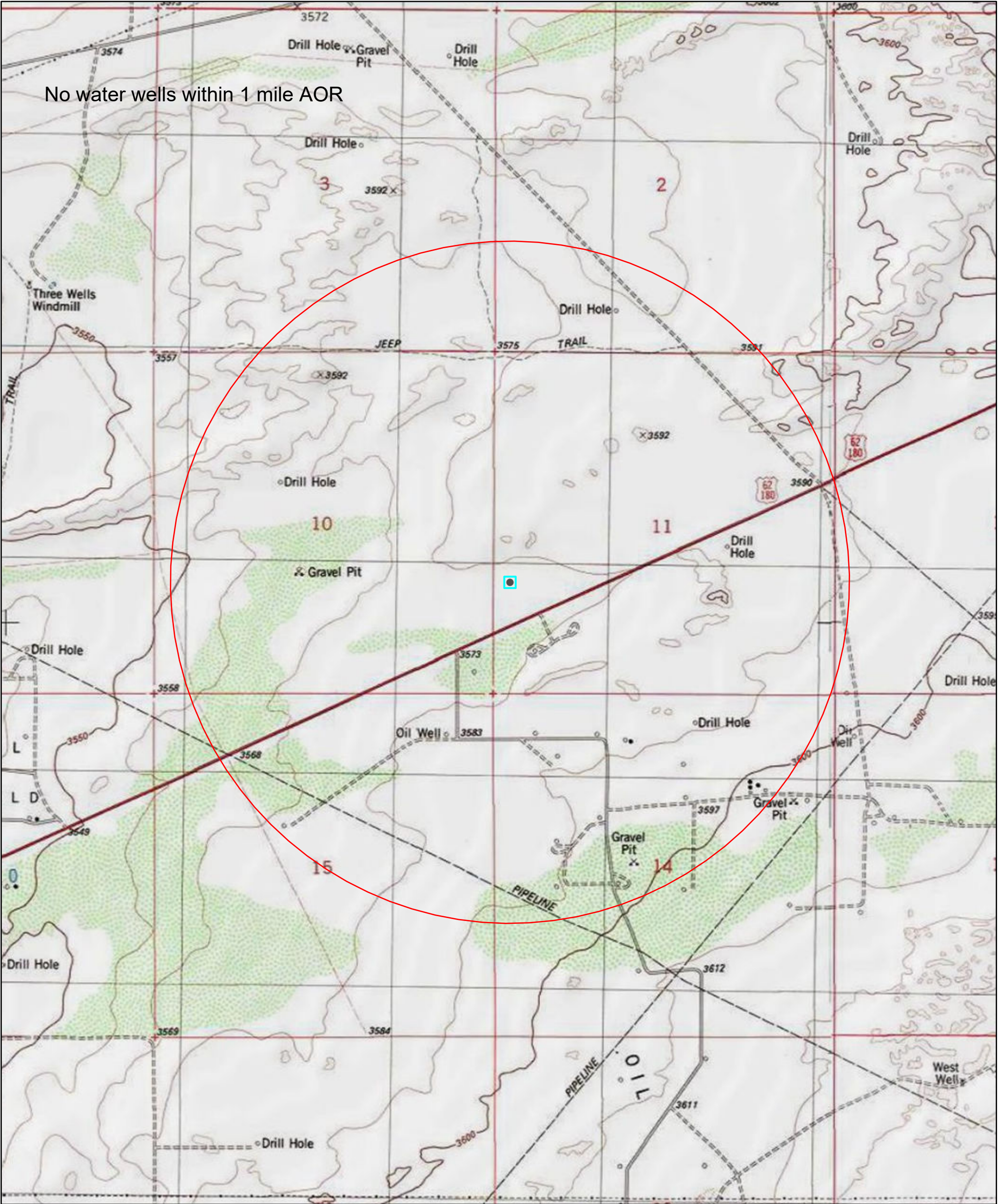
Page 1 of 1

WATER COLUMN/ AVERAGE  
DEPTH TO WATER



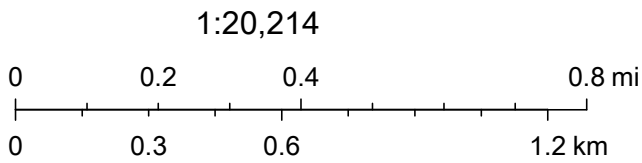
XI.

Water Wells Within 1 Mile - Immediate Federal SWD #1



5/23/2023, 6:47:38 PM

 SiteBoundaries



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U.S. Department of Energy Office of Legacy Management



**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 241610

CONDITIONS

|   |  |
|---|--|
| Operator:<br>Permian Oilfield Partners, LLC<br>PO Box 3329<br>Hobbs, NM 88241 | OGRID:<br>328259   |
|   | Action Number:<br>241610                                       |
|   | Action Type:<br>[IM-SD] Admin Order Support Doc (ENG) (IM-AAO) |

CONDITIONS

| Created By    | Condition | Condition Date |
|---------------|-----------|----------------|
| mgebremichael | None      | 7/18/2023      |