

AE Order Number Banner

Application Number: pMSG2323042210

SWD-2553

Permian Oilfield Partners, LLC [328259]

Revised March 23, 2017

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

NEW MEXICO OIL CONSERVATION DIVISION
 - Geological & Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Applicant: Permian Oilfield Partners, LLC. OGRID Number: 328259
 Well Name: Walther 8 Federal SWD #1 API: 30-015-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

7-14-2023

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: **7-14-2023**
E-MAIL ADDRESS: **spuryear@popmidstream.com**
- XV. 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.

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 13,463'

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 2,693 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.

GEOLOGY PROGNOSIS			
FORMATION	<u>TOP</u>	<u>BOTTOM</u>	<u>THICKNESS</u>
	KB TVD (ft)	KB TVD (ft)	(ft)
Rustler	291	508	217
Salt	508	2,564	2,056
Delaware	2,586	6,015	3,429
Bone Spring	6,015	9,430	3,415
Wolfcamp	9,430	10,255	825
Lwr. Mississippian	13,021	13,367	346
Woodford	13,367	13,463	96
Devonian	13,463	13,852	389
Fusselman (Silurian)	13,852	14,343	491
Montoya (U. Ordovician)	14,343	14,598	255
Simpson (M. Ordovician)	14,598	14,998	400

- Regional shallow fresh water in the Quaternary is known to exist at depths less than 220'. See attached OSE Water Column Depth table for the region. Depth from the bottom of this USDW to the injection zone is 13,243'. 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 is 1 fresh water POD within the proposed well's one-mile area of review. See table below for POD status, and attached 1 mile AOR water well map showing location of POD in the AOR.

Well Name	Formation Name	Top Depth	Bottom Depth	Thickness	Status
C 02006	Quaternary	Unknown	Unknown	Unknown	Capped, No Sample

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

¹ API Number		² Pool Code 97869		³ Pool Name SWD; DEVONIAN-SILURIAN	
⁴ Property Code		⁵ Property Name WALTHER 8 FEDERAL SWD			⁶ Well Number 1
⁷ OGRID NO. 328259		⁸ Operator Name PERMIAN OILFIELD PARTNERS, LLC			⁹ Elevation 3131'

¹⁰ Surface Location

UL or lot no. A	Section 8	Township 22S	Range 28E	Lot Idn	Feet from the 520	North/South line NORTH	Feet From the 300	East/West line EAST	County EDDY
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¹¹ 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
¹² Dedicated Acres		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ 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°29'00" W 2648.34'</p> <p>④ S 89°02'29" W 2650.51'</p> <p>⑤</p>		<p>⑥</p> <p>520'</p> <p>S.L.</p> <p>300'</p> <p>N 00°08'27" E 2674.52'</p>		<p>17 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>Signature <u>Sean Puryear</u> Date <u>05/24/23</u></p> <p>Printed Name <u>Sean Puryear</u></p> <p>E-mail Address <u>spuryear@popmidstream.com</u></p>
<p>①</p> <p>16</p> <p>GEODETIC DATA NAD 83 GRID - NM EAST</p> <p>SURFACE LOCATION</p> <p>N: 514175.7 - E: 612663.4</p> <p>LAT: 32.4133243° N LONG: 104.1021985° W</p> <p>CORNER DATA NAD 83 GRID - NM EAST</p> <p>A: FOUND BRASS CAP "1943" N: 509311.6 - E: 607636.8</p> <p>B: FOUND BRASS CAP "1943" N: 511977.0 - E: 607649.8</p> <p>②</p> <p>C: FOUND BRASS CAP "1943" N: 514632.4 - E: 607667.3</p> <p>D: FOUND BRASS CAP "1943" N: 514656.3 - E: 610315.0</p> <p>E: FOUND BRASS CAP "1943" N: 514700.7 - E: 612964.5</p> <p>F: FOUND BRASS CAP "1943" N: 512026.8 - E: 612957.9</p> <p>G: FOUND BRASS CAP "1943" N: 509353.8 - E: 612951.3</p> <p>H: FOUND BRASS CAP "1943" N: 509316.0 - E: 610289.4</p> <p>⑦</p>		<p>⑧</p> <p>18 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>03/15/22</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <p>19680</p> <p>Certificate Number</p>		
<p>⑨</p> <p>S 89°54'20" W 2653.15'</p> <p>⑩</p> <p>S 89°11'12" W 2662.83'</p> <p>⑪</p>		<p>⑫</p> <p>N 00°08'30" E 2673.59'</p> <p>⑬</p>		<p>Job No.: LS22020099</p>

III (A)

WELL CONSTRUCTION DATA

Permian Oilfield Partners, LLC.
Walther 8 Federal SWD #1
520' FNL, 300' FEL
Sec. 8, T22S, R28E, Eddy Co. NM
Lat 32.4133243° N, Lon -104.1021985° W
GL 3131', RKB 3161'

Surface - (Conventional)

Hole Size: 26" Casing: 20" - 94# J-55 BTC Casing
Depth Top: Surface
Depth Btm: 316'
Cement: 692 sks - Class C + Additives (100% Excess)
Cement Top: Surface - (Circulate)

Intermediate #1 - (Conventional)

Hole Size: 17.5" Casing: 13.375" - 54.5# J-55 BTC Casing
Depth Top: Surface
Depth Btm: 2596'
Cement: 1002 sks - Class C + Additives
Cement Top: Surface - (Circulate)

Intermediate #2 - (Conventional)

Hole Size: 12.25" Casing: 9.625" - 40# HCL-80 BTC Casing
Depth Top: Surface
Depth Btm: 9480' ECP/DV Tool: 2696'
Cement: 1510 sks - Class C + Additives
Cement Top: Surface - (Circulate)

Intermediate #3 - (Liner)

Hole Size: 8.75" Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 9280'
Depth Btm: 13498'
Cement: 259 sks - Class H + Additives
Cement Top: 9280' - (Circulate & Bond Log)

Intermediate #4 - (Open Hole)

Hole Size: 6.5" Depth: 14318'
Inj. Interval: 13498' - 14318' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 13453' Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ
X/O Depth: 9280' Casing (Fiberglass Lined)
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 13463' Packer: 5.5" - Perma-Pak or Equivalent (Inconel)
Packer Fluid: 8.4 ppg FW + Additives

III (A)

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
 Walther 8 Federal SWD #1
 520' FNL, 300' FEL
 Sec. 8, T22S, R28E, Eddy Co. NM
 Lat 32.4133243° N, Lon -104.1021985° W
 GL 3131', RKB 3161'

Surface - (Conventional)

Hole Size: 26"
 Casing: 20" - 94# J-55 BTC Casing
 Depth Top: Surface
 Depth Btm: 316'
 Cement: 692 sks - Class C + Additives (100% Excess)
 Cement Top: Surface - (Circulate)

Intermediate #1 - (Conventional)

Hole Size: 17.5"
 Casing: 13.375" - 54.5# J-55 BTC Casing
 Depth Top: Surface
 Depth Btm: 2596'
 Cement: 1002 sks - Class C + Additives
 Cement Top: Surface - (Circulate)

Intermediate #2 - (Conventional)

Hole Size: 12.25"
 Casing: 9.625" - 40# HCL-80 BTC Casing
 Depth Top: Surface
 Depth Btm: 9480'
 Cement: 1510 sks - Class C + Additives
 Cement Top: Surface - (Circulate)
 ECP/DV Tool: 2696'

Intermediate #3 - (Liner)

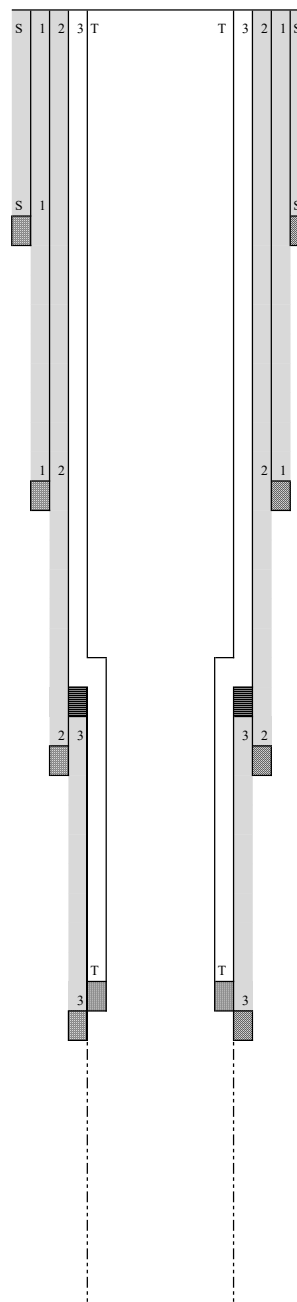
Hole Size: 8.75"
 Casing: 7.625" - 39# HCL-80 FJ Casing
 Depth Top: 9280'
 Depth Btm: 13498'
 Cement: 259 sks - Class H + Additives
 Cement Top: 9280' - (Circulate & Bond Log)

Intermediate #4 - (Open Hole)

Hole Size: 6.5"
 Depth: 14318'
 Inj. Interval: 13498' - 14318' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 13453'
 Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
 X/O Depth: 9280'
 X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
 Packer Depth: 13463'
 Packer: 5.5" - Perma-Pak or Equivalent (Inconel)
 Packer Fluid: 8.4 ppg FW + Additives



XIII.



Statement of Notifications

Re: C-108 Application for SWD Well
 Permian Oilfield Partners, LLC
 Walther 8 Federal SWD #1
 520' FNL & 300' FEL
 Sec 8, T22S, R28E
 Eddy County, NM

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

Walther 8 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	
BEPCO, L.P.	6401 Holiday Hill Road Building #5	Midland, TX 79707	USPS	9414 8118 9956 2029 0416 29	7/21/2023	
BOPCO, L.P.	6401 Holiday Hill Road Building #5	Midland, TX 79707	USPS	9414 8118 9956 2029 0416 98	7/21/2023	
Bureau Of Land Management	620 E Greene St.	Carlsbad, NM 88220	USPS	9414 8118 9956 2029 0411 17	7/21/2023	
Devon Energy Prod. Co.	333 West Sheridan Ave.	Oklahoma City, OK 73102	USPS	9414 8118 9956 2029 0411 48	7/21/2023	
New Mexico State Land Office	310 Old Santa Fe Trail	Santa Fe, NM 87501	USPS	9414 8118 9956 2029 0413 15	7/21/2023	
XTO DELAWARE BASIN LLC	6401 Holiday Hill Road Building #5	Midland, TX 79707	USPS	9414 8118 9956 2029 0413 60	7/21/2023	
XTO PERMIAN OPERATING LLC.	6401 Holiday Hill Road Building #5	Midland, TX 79707	USPS	9414 8118 9956 2029 0413 91	7/21/2023	

Sean Puryear
 Permian Oilfield Partners, LLC
spuryear@popmidstream.com

Date: 7/21/2023

U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0416 29

ARTICLE ADDRESSED TO:

BEPCO, LP
6401 HOLIDAY HILL RD BLDG 5
MIDLAND TX 79707-2157

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$4.990
4.350
9.340



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0416 98

ARTICLE ADDRESSED TO:

BOPCO, LP
6401 HOLIDAY HILL RD BLDG 5
MIDLAND TX 79707-2157

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$4.990
4.350
9.340



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0411 17

ARTICLE ADDRESSED TO:

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

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$4.990
4.350
9.340



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0411 48

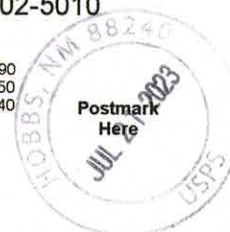
ARTICLE ADDRESSED TO:

Devon Energy Production Co., LP
333 W SHERIDAN AVE
OKLAHOMA CITY OK 73102-5010

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$4.990
4.350
9.340



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0413 15

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:

\$4.990
4.350
9.340



U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 2029 0413 60

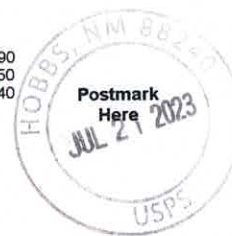
ARTICLE ADDRESSED TO:

XTO Delaware Basin LLC
6401 HOLIDAY HILL RD BLDG 5
MIDLAND TX 79707-2157

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$4.990
4.350
9.340



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

ARTICLE NUMBER: 9414 8118 9956 2029 0413 91

ARTICLE ADDRESSED TO:

XTO Permian Operating, LLC
6401 HOLIDAY HILL RD BLDG 5
MIDLAND TX 79707-2157

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$4.990
4.350
9.340



Affidavit of Publication

No. 26179

State of New Mexico	Publisher
County of Eddy:	
Danny Scott Wang	Publisher
I, Danny Scott Wang , being duly sworn, says that he is the publisher of the Artesia Daily Press, a daily newspaper of General circulation, published in English at Artesia, said county and date, and that the hereto attached	
Legal Ad	
was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for	
1	Consecutive weeks/day on the same
day as follows:	
First Publication	June 16, 2022
Second Publication	
Third Publication	
Fourth Publication	
Fifth Publication	
Sixth Publication	
Seventh Publication	

Subscribed and sworn before me this 16th day of June 2022

STATE OF NEW MEXICO
NOTARY PUBLIC
Latisha Romine
Commission Number 1076338
My Commission Expires May 12, 2023

Latisha Romine

Latisha Romine
Notary Public, Eddy County, New Mexico

Copy of Publication:

Legal Notice

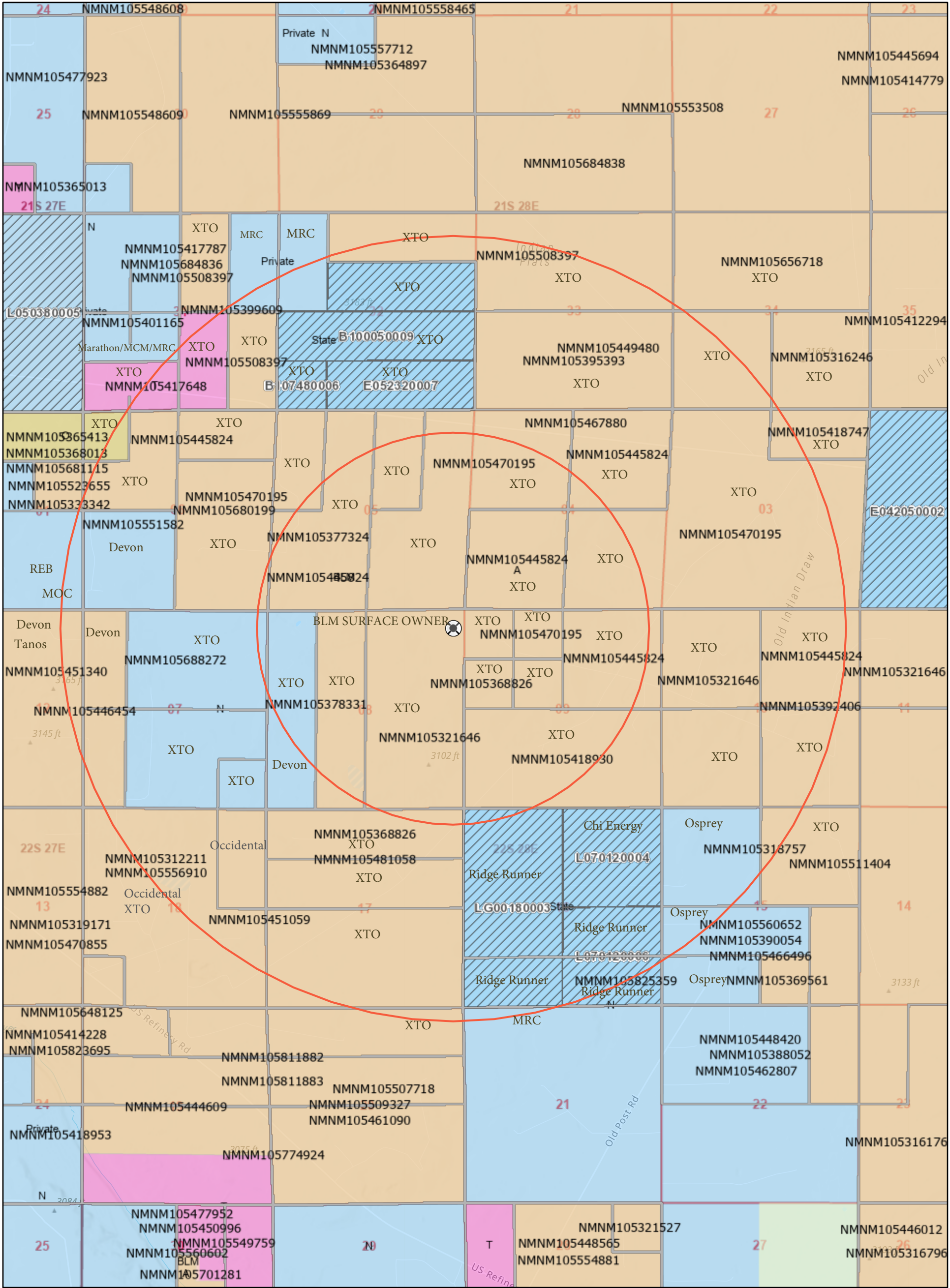
Permian Oilfield Partners, LLC, PO Box 3329, Hobbs, NM 88241, phone (817)606-7630, attn. Gary Fisher, has filed form C-108 (Application for Authorization for Injection) with the New Mexico Oil Conservation Division seeking approval to drill a commercial salt water disposal well in Eddy County, New Mexico. The well is the Walther 8 Federal SWD #1, and is located 520' FNL & 300' FEL, Unit A, Section 8, Township 22 South, Range 28 East, NMPM, approximately 9 mi SE of Carlsbad, NM. The well will dispose of water produced from nearby oil and gas wells into the Devonian formation from a depth of 13,463 feet to 14,343 feet. The maximum expected injection rate is 50,000 BWPD at a maximum surface injection pressure of 2,693 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.

Published in the Artesia Daily Press, Artesia, N.M., June 16, 2022 Legal No. 26179.

V (a)

Walther 8 Federal SWD #1, 1 & 2 Mile AOR, Leases



7/11/2023, 11:39:17 AM

Override 1

Override 1

Case

Oil and Gas Leasing Restrictions

Oil and Gas Leases

Mineral Ownership

A-All minerals are owned by U.S.

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

O-Only oil and gas are owned by the U.S.

T-Other minerals are owned by the U.S.

Land Ownership

BLM

P

S

PLSS First Division

PLSS Townships

1:36,112

0

0.33

0.65

1.3 mi

0

0.5

1

2 km

U.S. BLM

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

Esri, NASA, NGA, USGS, FEMA

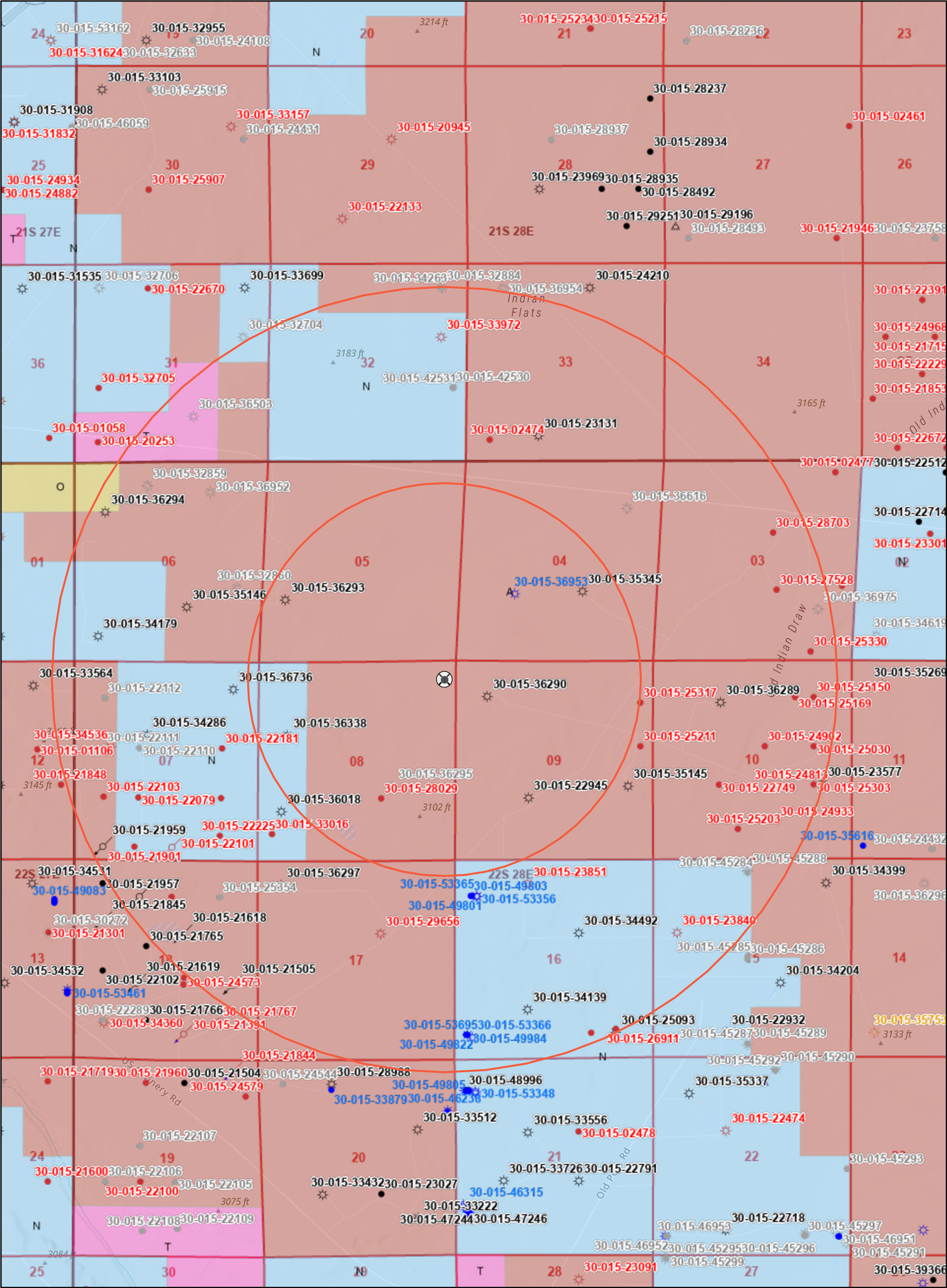
BLM

New Mexico Oil Conservation Division

Released to Imaging: 8/21/2023 4:06:57 PM

V (b)

Walther 8 Federal SWD #1, 1 & 2 Mi AOR, Wells



5/25/2023, 11:19:28 AM

Override 1

Wells - Large Scale

Gas, Active

Gas, Cancelled

Gas, New

Gas, Plugged

Gas, Temporarily Abandoned

Injection, Active

Injection, Plugged

Oil, Active

Oil, Cancelled

Oil, New

Oil, Plugged

Salt Water Injection, Active

Salt Water Injection, Cancelled

Salt Water Injection, New

Mineral Ownership

A-All minerals are owned by the U.S.

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

O-Only oil and gas are owned by the U.S.

T-Other minerals are owned by the U.S.

PLSS First Division

PLSS Townships

1:36,112

00.330.651.3 mi

00.512 km

U.S. BLM

Esri, NASA, NGA, USGS, FEMA

Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department.

New Mexico Oil Conservation Division

Released to Imaging: 8/21/2023 4:06:57 PM

V (c)

Walther 8 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
30-015-36293	XTO PERMIAN OPERATING LLC.	BIG EDDY UNIT	#213	Gas	Vertical	Active	5	T22S	R28E	L	L-05-22S-28E	1650 FSL	660 FWL	L-05-22S-28E	1650 FSL	660 FWL	Morrow	12,205	12,205
30-015-36338	DEVON ENERGY PRODUCTION COMPANY, LP	DUBLIN 8 FEE COM	#003	Gas	Vertical	Active	8	T22S	R28E	E	E-08-22S-28E	1980 FNL	800 FWL	E-08-22S-28E	1980 FNL	800 FWL	Morrow	12,470	12,470
30-015-28029	BEPCO, LP	DUBLIN 8 FEDERAL	#001	Oil	Vertical	Plugged (site released)	8	T22S	R28E	J	J-08-22S-28E	1650 FSL	1980 FEL	J-08-22S-28E	1650 FSL	1980 FEL	Delaware	3,750	3,750
30-015-36295	BOPCO, L.P.	BIG EDDY UNIT	#215	Gas	Vertical	Cancelled	8	T22S	R28E	J	J-08-22S-28E	1980 FSL	1650 FEL	J-08-22S-28E	1980 FSL	1650 FEL	Morrow	0	0
30-015-36290	XTO PERMIAN OPERATING LLC.	BIG EDDY UNIT	#190	Gas	Vertical	Active	9	T22S	R28E	D	D-09-22S-28E	990 FNL	860 FWL	D-09-22S-28E	990 FNL	860 FWL	Morrow	12,313	12,313
30-015-36953	XTO PERMIAN OPERATING LLC.	BIG EDDY UNIT	#243	Gas	Vertical	New	4	T22S	R28E	K	K-04-22S-28E	1750 FSL	1650 FEL	K-04-22S-28E	1750 FSL	1650 FEL	Morrow	0	0
30-015-22945	XTO PERMIAN OPERATING LLC.	BIG EDDY UNIT	#077	Gas	Vertical	Active	9	T22S	R28E	K	K-09-22S-28E	1650 FSL	1980 FWL	K-09-22S-28E	1650 FSL	1980 FWL	Morrow	12,500	12,500
30-015-35345	XTO PERMIAN OPERATING LLC.	BIG EDDY UNIT	#158	Gas	Vertical	Active	4	T22S	R28E	J	J-04-22S-28E	1830 FSL	1980 FEL	J-04-22S-28E	1830 FSL	1980 FEL	Morrow	12,650	12,650

VII (4)

Permian Oilfield Partners, LLC.
 Walther 8 Federal SWD #1
 520' FNL, 300' FEL
 Sec. 8, T22S, R28E, Eddy Co. NM
 Lat 32.4133243° N, Lon 104.1021985° W
 GL 3131', RKB 3161'

Regional Source Water Analysis				
Well Name	INDIAN FLATS BASS FEDERAL #002	COOTER 16 STATE COM #006H	DIAMOND PWU 22 #005H	ZINNIA BKC FEDERAL #001
API	3001521715	3001537876	3001540822	3001527939
Latitude	32.438549	32.123642	32.6514969	32.5462379
Longitude	-104.0594788	-103.9862061	-104.0702057	-104.0686035
Sec	35	16	22	27
Township	21S	25S	19S	20S
Range	28E	29E	29E	29E
Unit	F	O	D	E
Ftg NS	1980N	330S	725N	1980N
Ftg EW	1980W	1650E	330W	910W
County	EDDY	EDDY	EDDY	EDDY
State	NM	NM	NM	NM
Field				
Formation	DELAWARE	AVALON UPPER	BONE SPRING 1ST SAND	WOLFCAMP
pH	6.9	7	6.44	5.7
TDS_mgL	149252	193732	208209	189739
Sodium_mgL	48324.5	74027.8	75383.5	
Calcium_mgL	9906.47	513	3145.4	23920
Iron_mgL	3.285	104	35.2	0.3
Magnesium_mgL	2856.86	118	657.5	963.2
Manganese_mgL		1		
Chloride_mgL	99299	113441	127594	116724
Bicarbonate_mgL	267.18	1830		427
Sulfate_mgL	2081.59	2665	556.9	750
CO2_mgL	54.75	700	390	

VII (5)

Permian Oilfield Partners, LLC.
 Walther 8 Federal SWD #1
 520' FNL, 300' FEL
 Sec. 8, T22S, R28E, Eddy Co. NM
 Lat 32.4133243° N, Lon 104.1021985° W
 GL 3131', RKB 3161'

Devonian Injection Zone Water Analysis			
Well Name	LEONARD ST 1 (A) #001	BIG EDDY UT #001	FED UNION #001
API	3001503537	3001502475	3001502416
Latitude	32.6839676	32.4421539	32.5527229
Longitude	-104.0347595	-104.0423050	-104.1623917
Sec	1	36	22
Township	19S	21S	20S
Range	29E	28E	28E
Unit	M	C	O
Ftg NS	610S	660N	330S
Ftg EW	660W	1980W	1650E
County	EDDY	EDDY	EDDY
State	NM	NM	NM
Field	N/A	N/A	N/A
Formation	DEVONIAN	DEVONIAN	DEVONIAN
Sample Source	DRILL STEM TEST	DRILL STEM TEST	DRILL STEM TEST
pH	N/A	N/A	6.8
TDS mgL	29,011	19,941	39,605
Chloride mgL	16,000	10,700	22,620
Bicarbonate mgL	520	640	810
Sulfate mgL	1,500	1,130	1,618



**Attachment to C-108
Permian Oilfield Partners, LLC
Walther 8 Federal SWD #1
520' FNL & 300' FEL
Sec 8, T22S, R28E
Eddy County, NM**

July 11, 2023

STATEMENT REGARDING SEISMICITY

Examination of the USGS and NMTSO seismic activity databases shows minimal historic seismic activity >M2.0 in the area of interest (< 5.64 mile radius, 25 sq. mi.) of the proposed above referenced SWD well, with one M2.1 event recorded 0.75 mi NW of the proposed well in April 2020. This proposed well is not located within any current Seismic Response Area.

As per NM OCD requirements (injection well to injection well spacing minimum of 1.5 miles), this proposed above referenced SWD well is located 1.9 miles away from the nearest active or permitted Devonian disposal well, the Rev Midstream, AABCD #2, SWD-2400.

Permian Oilfield Partners does not own any 2D or 3D seismic data in the area of this proposed SWD well. Our 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.

The distance from the proposed injection well to the nearest known fault is approximately 2.1 mi (3.4 km).

1. 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.
2. Permitted and/or active offset Devonian wells as noted in the table below are included in the FSP analysis.

UIC Order	Well Name	PLSS	Lat	Lon	Rate (bbl/day)
SWD-2405	East Federal SWD #2	18-22S-29E	32.3911560	-104.0295700	30,000
SWD-2399	AABCD #1	35-21S-27E	32.4410972	-104.1548310	25,000
SWD-2400	AABCD #2	31-21S-28E	32.4315580	-104.1266167	30,000
SWD-2017	Pecos River 11 SWD #1	11-22S-27E	32.4044809	-104.1595252	17,697
SWD-2162	Buckner 9 SWD #1	9-22S-27E	32.4047017	-104.1890566	30,000

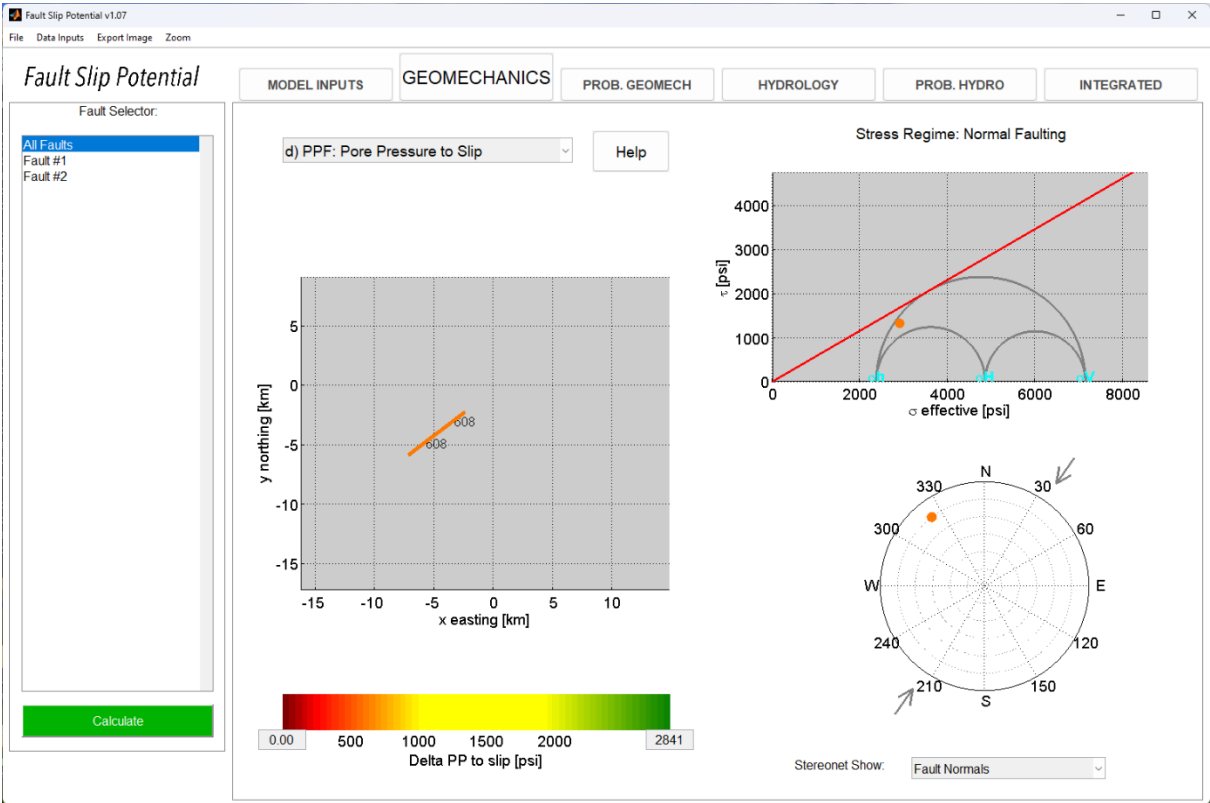
3. The probability of an induced seismic event is calculated to be 2% after 30 years as per the FSP results screenshots below.

Input assumptions:

Walther 8 Fed SWD rate (BBL/day)	50000
Interval height (ft)	880
Average Porosity (%)	5.4
Vert stress gradient (psi/ft)	1.00
Hor stress direction (deg N)	35
Fault dip (deg)	75
Ref depth (ft)	13463
Initial res press gradient (psi/ft)	0.47
A phi	0.52
Friction coefficient	0.58
Weighted Average perm (mD)	25
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: Proposed Walther 8 Federal SWD #1
Injection Well #2: East Federal SWD #2
Injection Well #3: AABCD #1
Injection Well #4: AABCD #2
Injection Well #5: Pecos River 11 SWD #1
Injection Well #6: Buckner 9 SWD #1

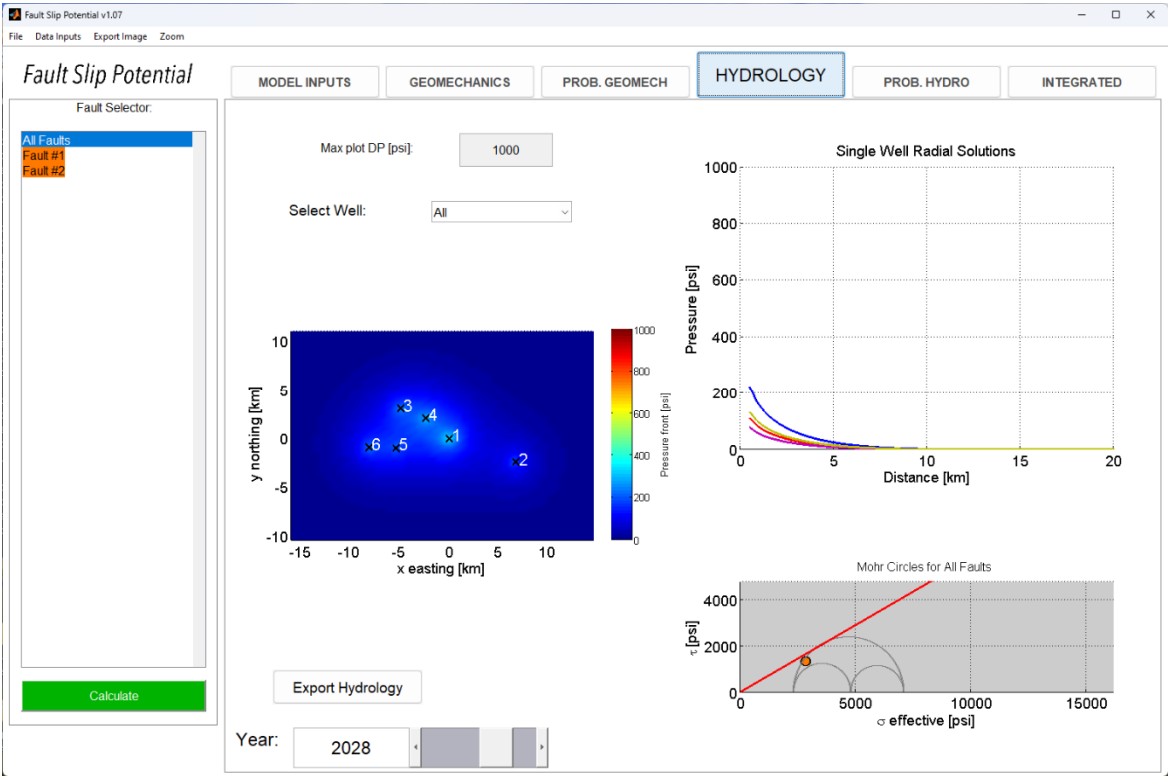
Geomechanics Pore Pressure to Slip



GeoMechanics Variability



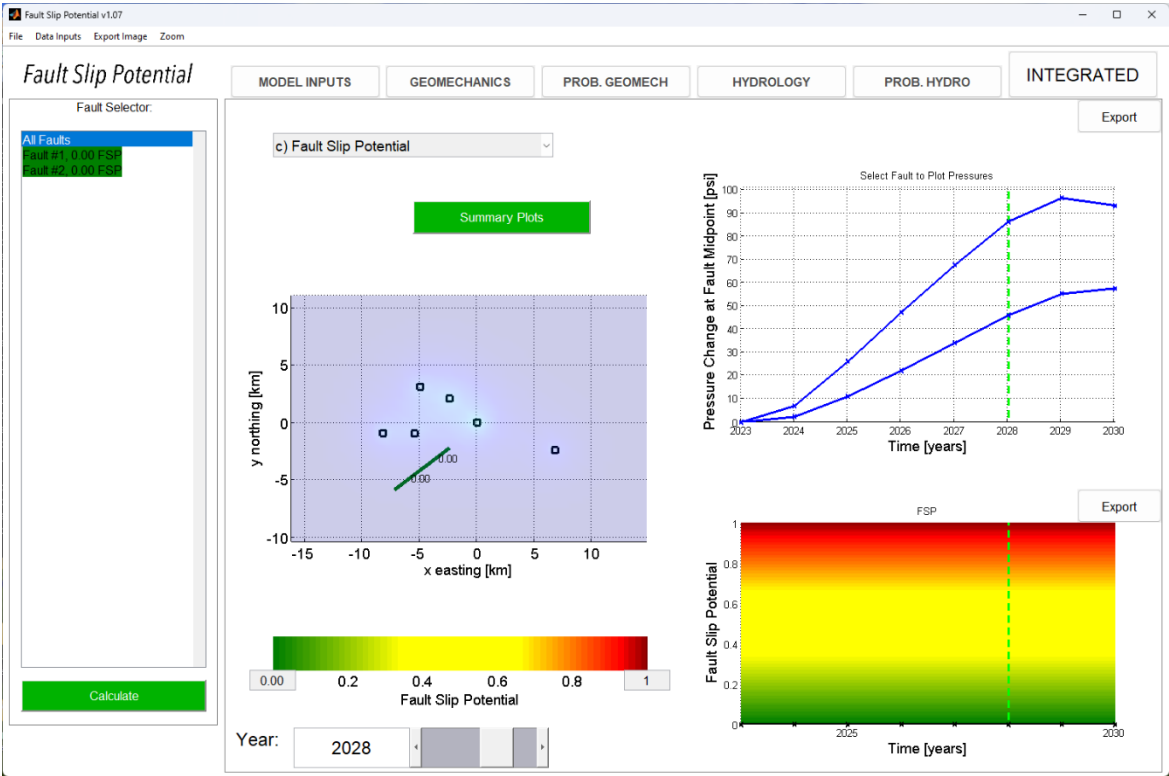
Year 5 Hydrology



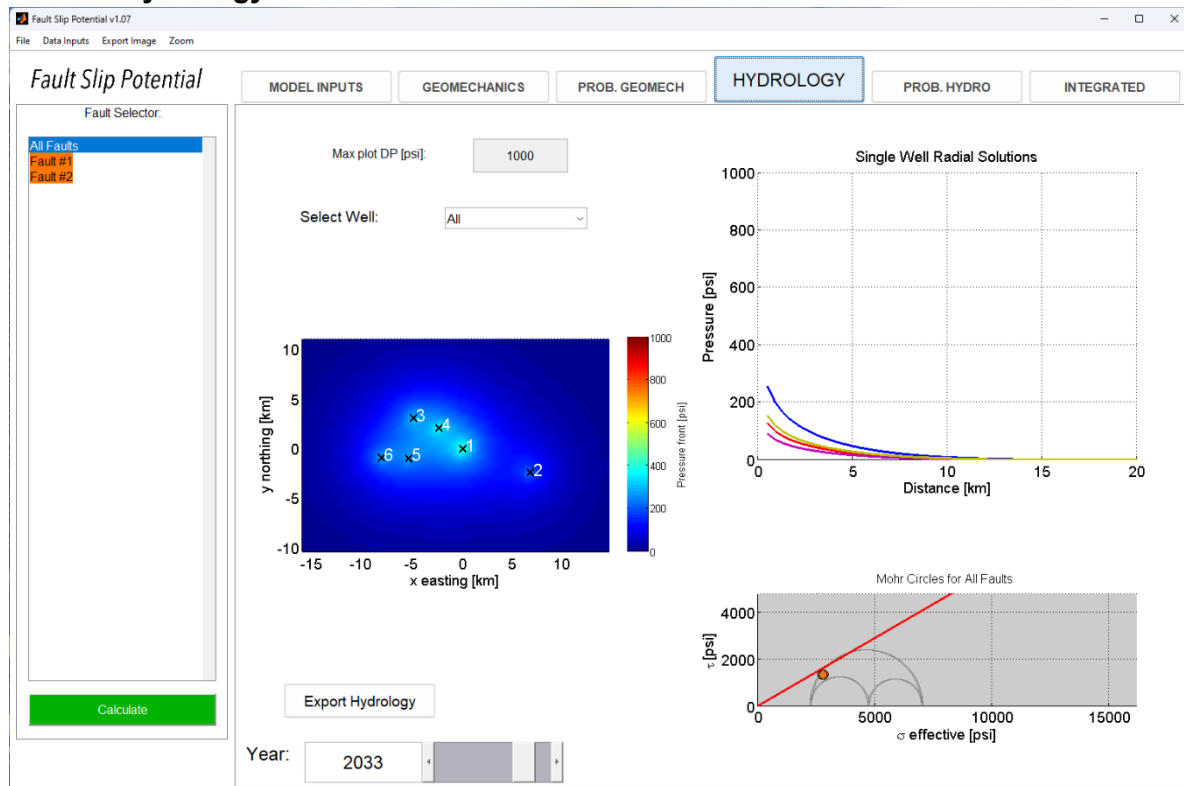
Year 5 Probabilistic Hydrology (note no crossover between blue delta-press. & green fault slip press.)



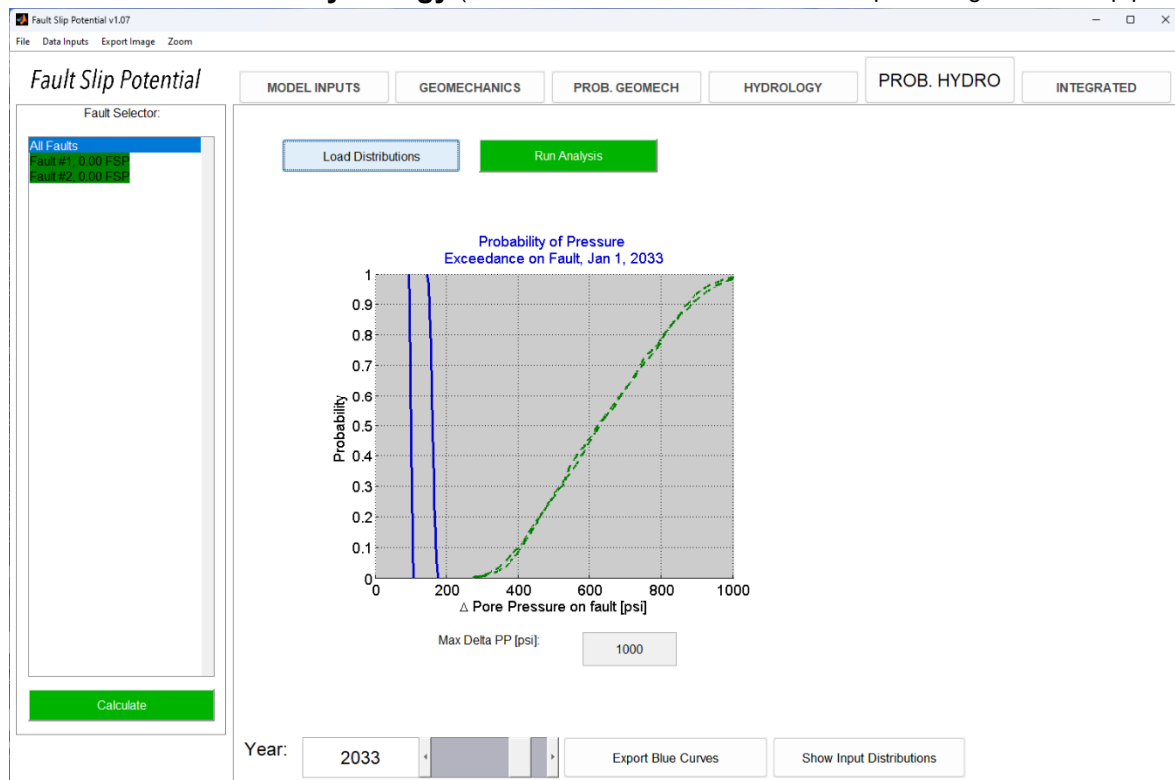
Year 5 Fault Slip Probability (0% after 5 years)



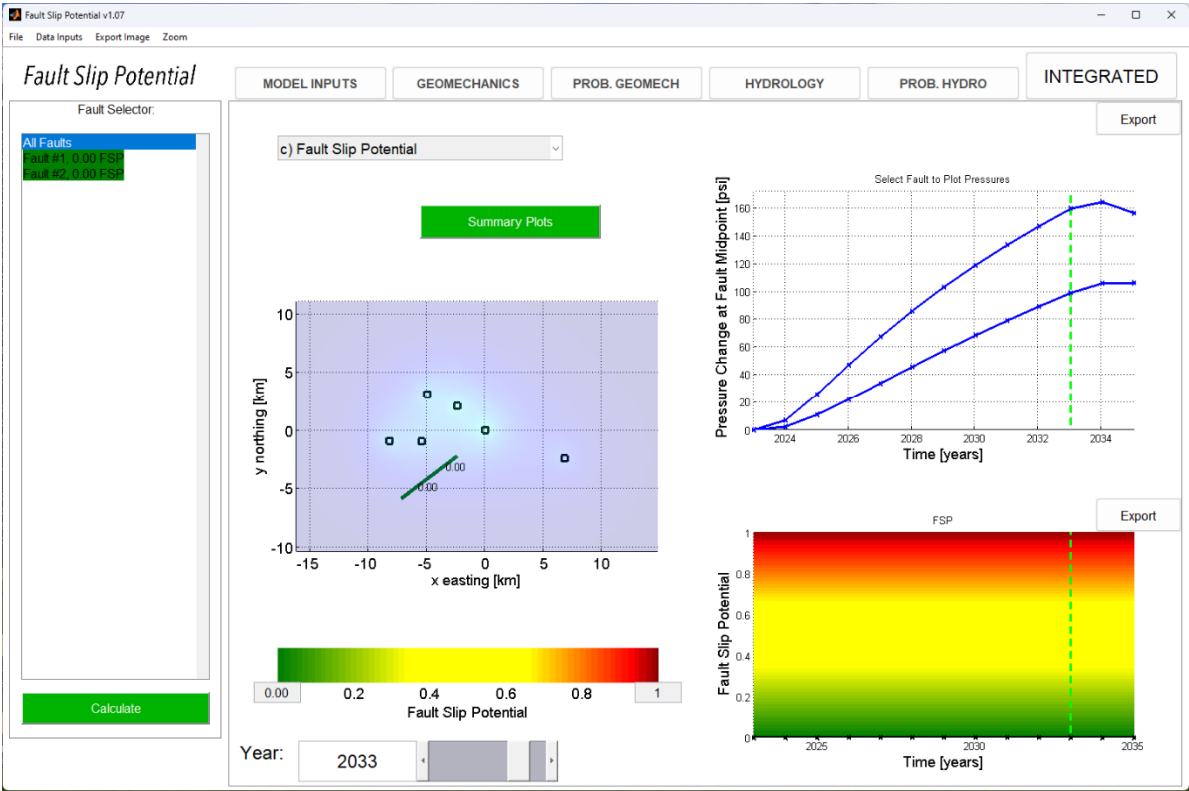
Year 10 Hydrology



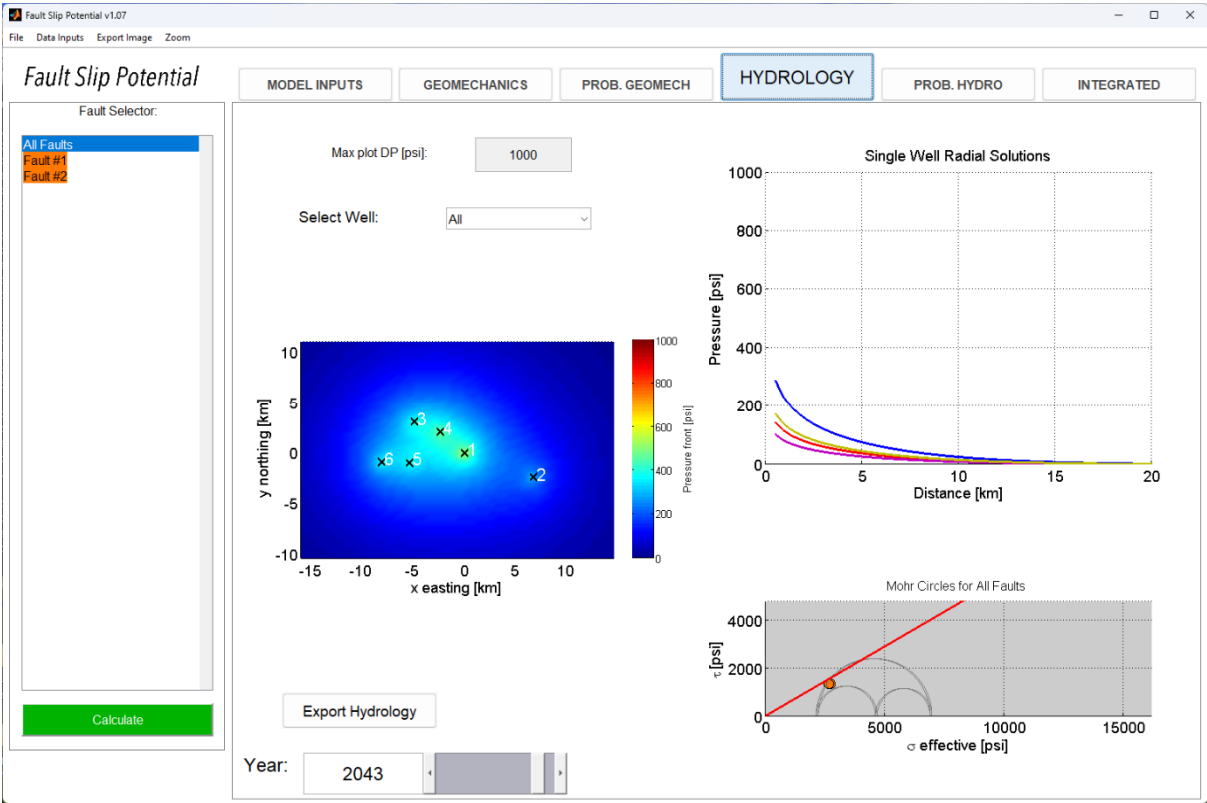
Year 10 Probabilistic Hydrology (note no crossover between blue delta-press. & green fault slip press.)



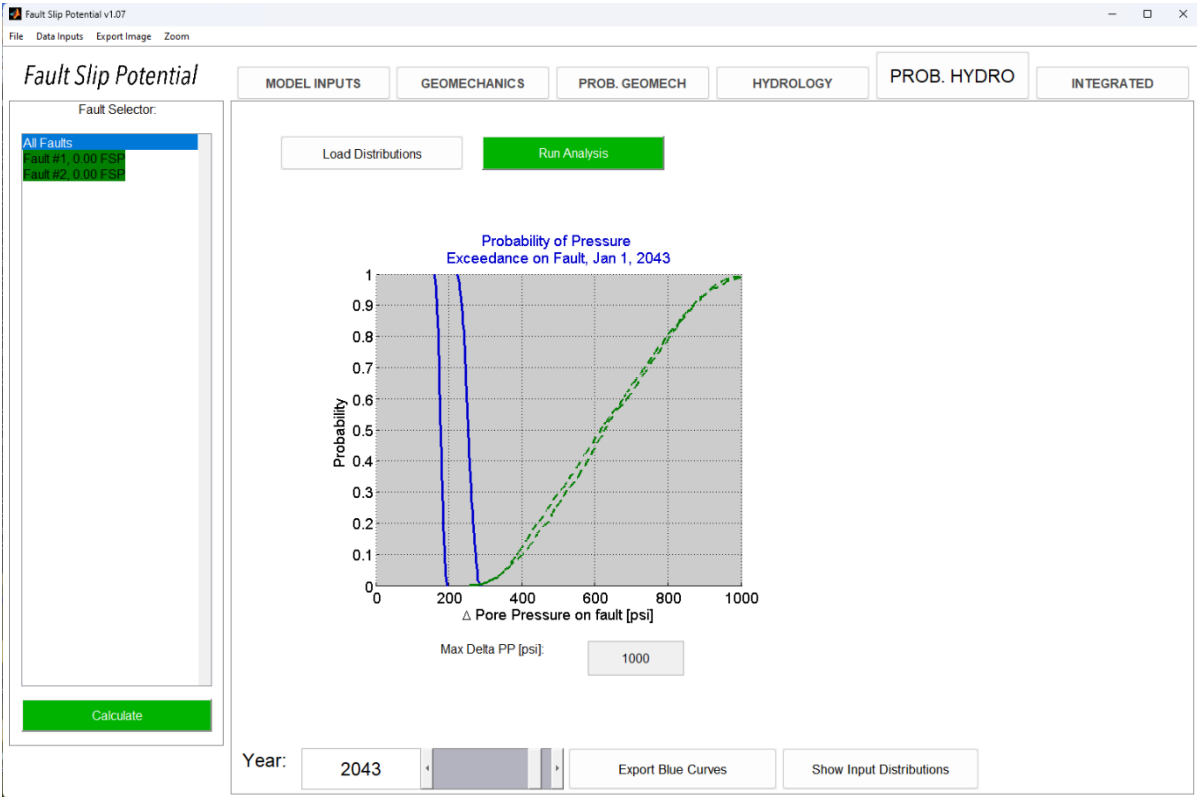
Year 10 Fault Slip Probability (0% after 10 years)



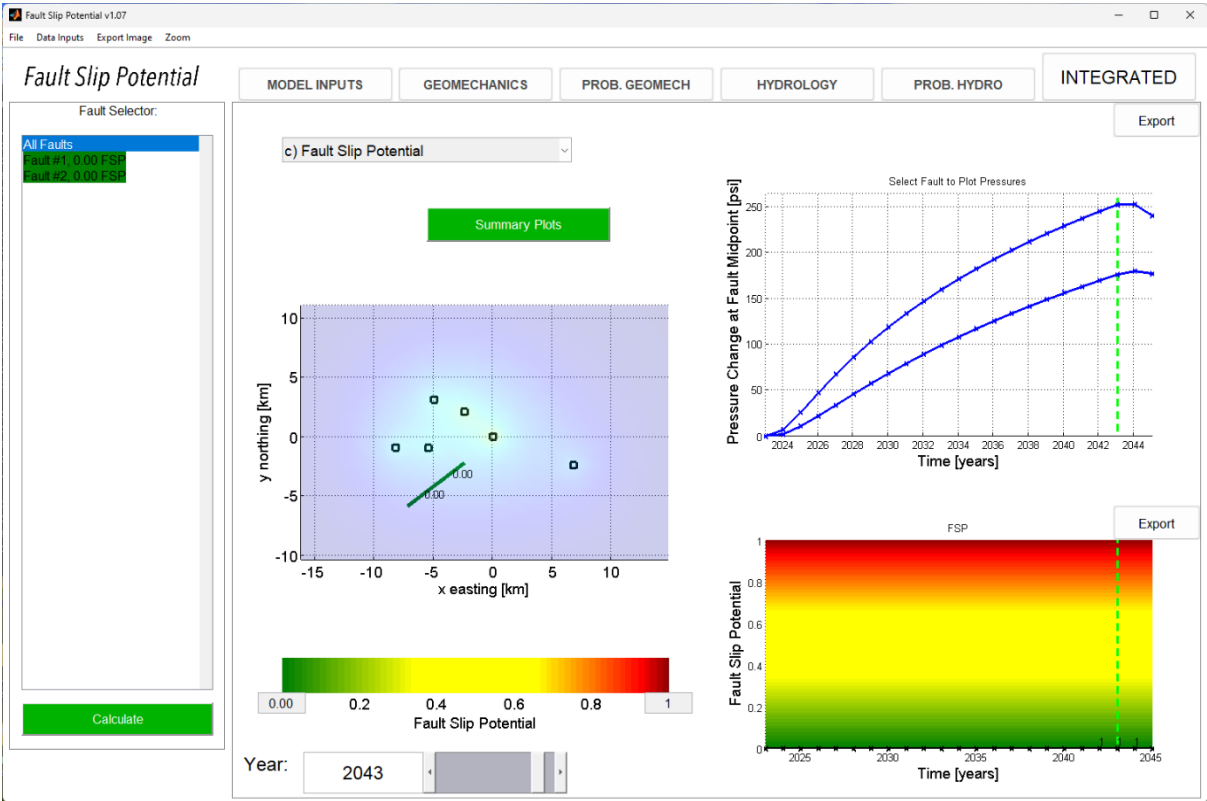
Year 20 Hydrology



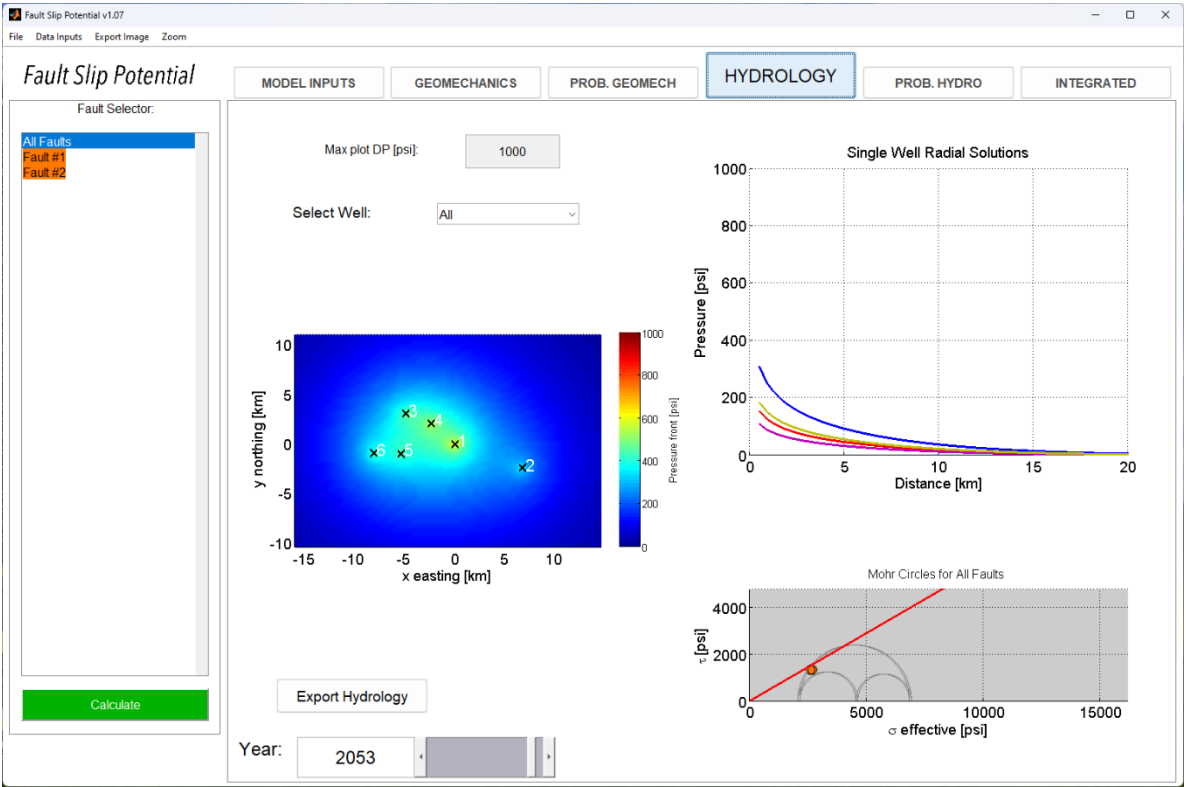
Year 20 Probabilistic Hydrology



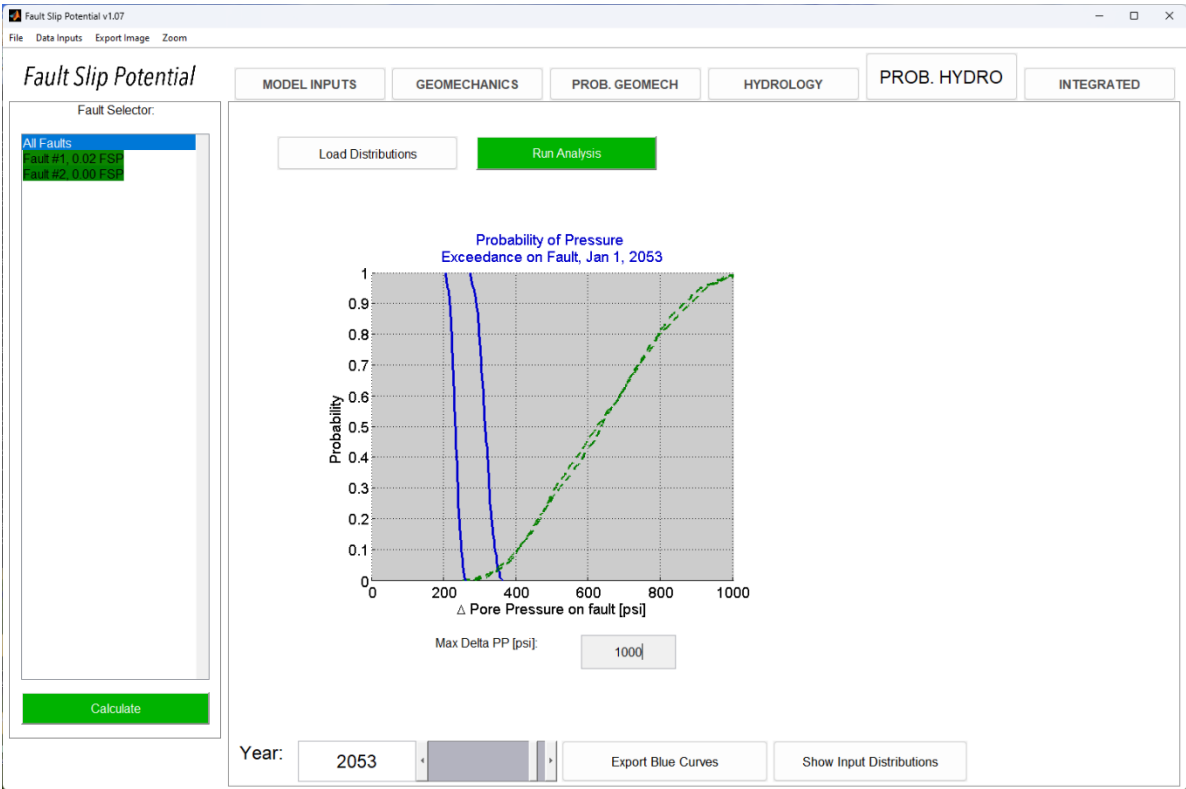
Year 20 Fault Slip Probability (1% after 20 years)



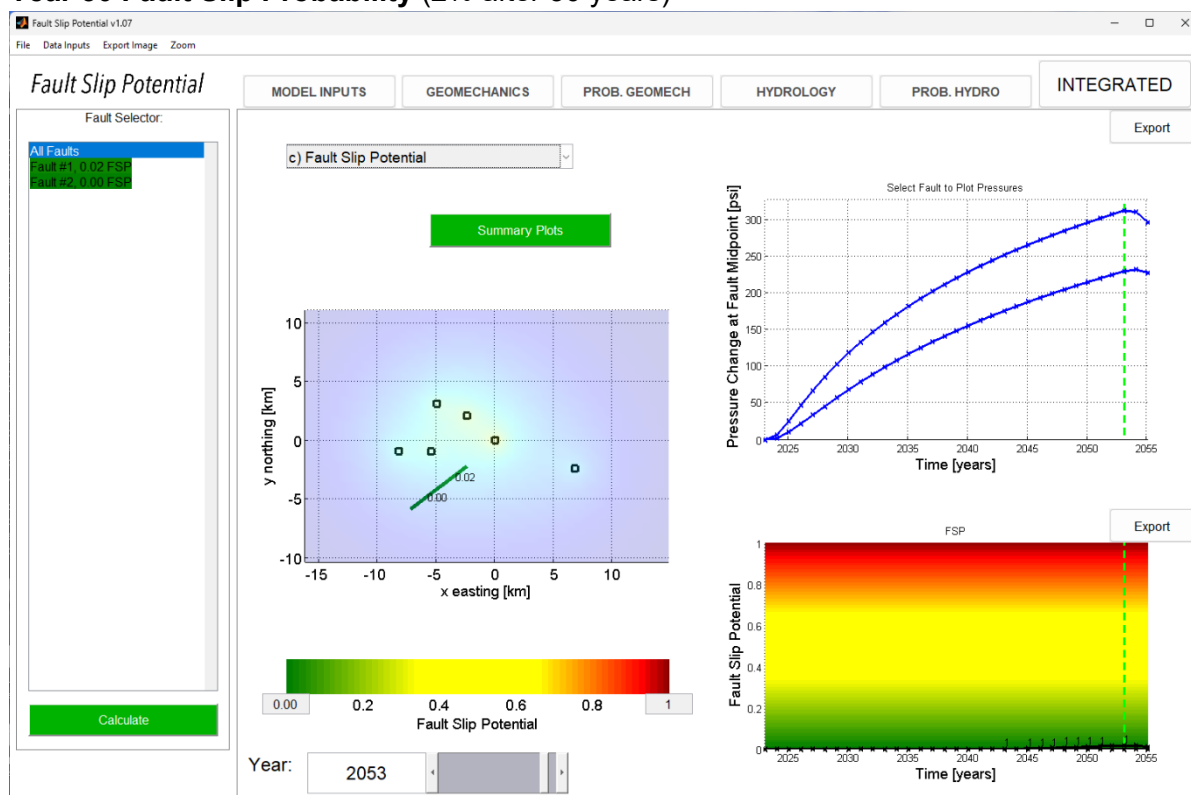
Year 30 Hydrology



Year 30 Probabilistic Hydrology



Year 30 Fault Slip Probability (2% after 30 years)

gfisher@popmidstream.com

(817) 606-7630



Item XII. Affirmative Statement

Re: C-108 Application for Authorization to Inject
Permian Oilfield Partners, LLC
Walther 8 Federal SWD #1
520' FNL & 300' FEL
Sec 8, T22S, R28E
Eddy 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".

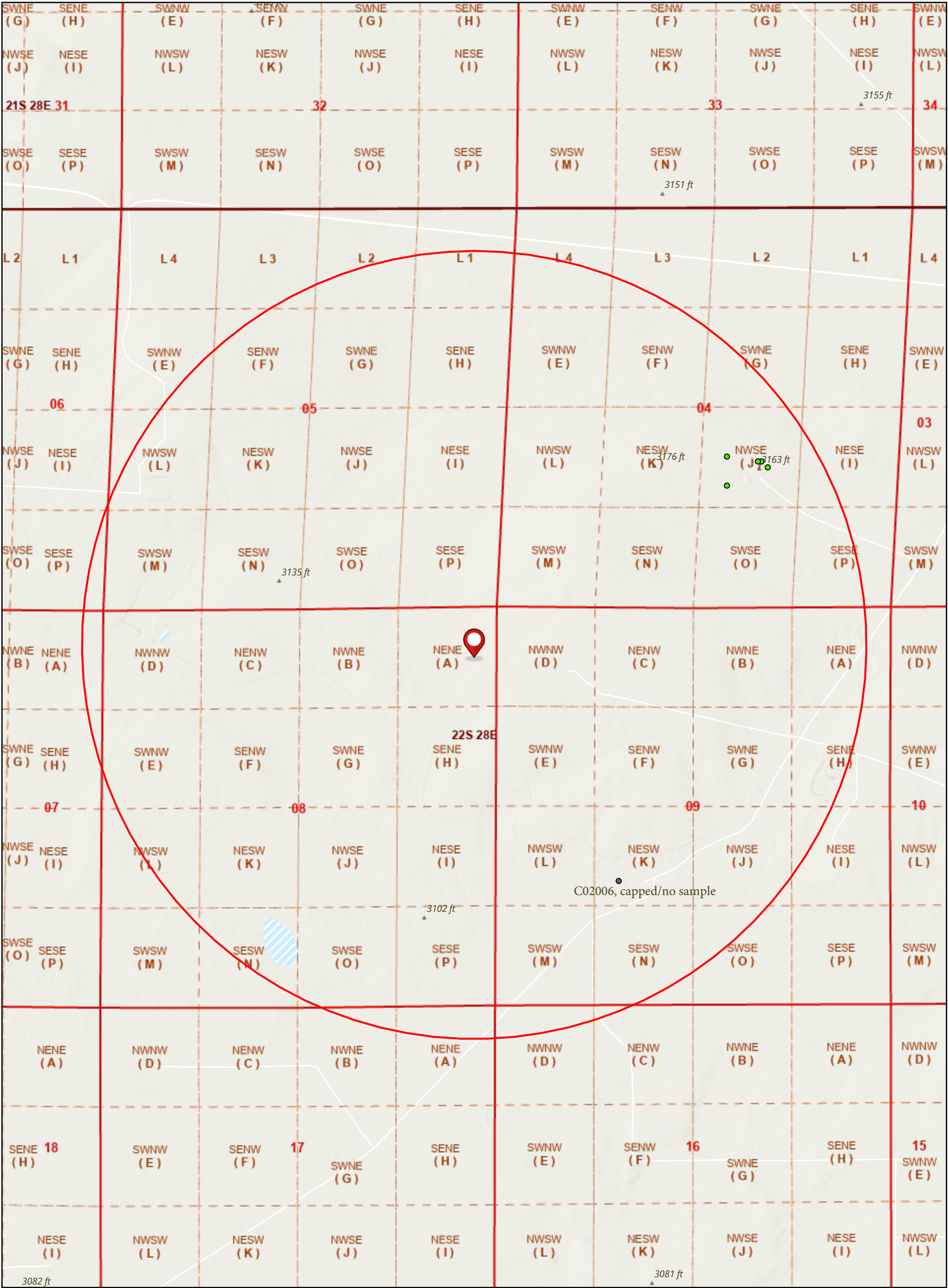
Gary Fisher
Manager
Permian Oilfield Partners, LLC.

Date: 7/11/2023

WATER COLUMN/ AVERAGE DEPTH TO WATER

XI.

Walther 8 Federal SWD #1 Water Wells in 1mi Radius



5/24/2023, 1:18:41 PM

OSE Water PODs

Pending

Unknown

PLSS Second Division

PLSS First Division

PLSS Townships

1:18,056

00.150.30.6

mi

00.250.51

km

Esri, NASA, NGA, USGS, FEMA

Esri Community Maps Contributors, New Mexico State University, Texas Parks & Wildlife, CONANP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census





New Mexico Office of the State Engineer

Water Right Summary



[get image list](#)

WR File Number: C 02006 **Subbasin:** C **Cross Reference:** -
Primary Purpose: STK 72-12-1 LIVESTOCK WATERING
Primary Status: PMT PERMIT
Total Acres: **Subfile:** - **Header:** -
Total Diversion: 3 **Cause/Case:** -
Owner: MIKE CARTER
Owner: PATRICIA GAYLE CARTER

Documents on File

	Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
				1	2					
 get images	599467	COWNF	2016-11-21	CHG	PRC	C 02006	T		0	
 get images	465144	72121	1982-05-20	PMT	APR	C 02006	T		3	

Current Points of Diversion

(NAD83 UTM in meters)											
POD Number	Well Tag	Source	Q				X	Y	Other Location Desc		
			64Q16Q4Sec	Tws	Rng						
C 02006			3	2	3	09	22S	28E	585023	3585647*	 SW 1/4

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

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

5/24/23 12:26 PM

WATER RIGHT SUMMARY

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 255128

CONDITIONS

Operator: Permian Oilfield Partners, LLC PO Box 3329 Hobbs, NM 88241	OGRID: 328259
	Action Number: 255128
	Action Type: [IM-SD] Admin Order Support Doc (ENG) (IM-AAO)

CONDITIONS

Created By	Condition	Condition Date
mgebremichael	None	8/21/2023