Initial Application Part I

Received: **07/30/2019**

This application is placed in file for record. It MAY or MAY NOT have been reviewed to be determined Administratively Complete

Revised March 23, 2017

RECEIVED: 07/30/2019	REVIEWER:	TYPE: SWD	APP NO: pMAM1921149386

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: Rebel 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] SWD-2216

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

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

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

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.

Gary E Fisher
Print or Type Name

Gary E Fisher
Signature

7/30/2019
Date

818-606-7630
Phone Number

gfisher@popmidstream.com
e-mail Address

PERMIAN OILFIELD
PARTNERS

Mr. Michael McMillan
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

Re: C-108 Application for Authorization to Inject
Permian Oilfield Partners, LLC
Rebel Federal SWD #1
927' FNL & 262' FWL
Sec 25, T25S, R31E
Eddy County, NM

Mr. McMillan,
Attached is a C-108 Application for administrative approval of Permian Oilfield Partners LLC's proposed Rebel Federal SWD #1 located in Sec 25, Twp 25S, Rge 31E, Eddy County, New Mexico. This well will be completed open hole in the Devonian-Silurian formation and will be operated as a commercial salt water disposal well.

Similar application exhibits were sent to all Affected Persons. The distribution list and proof of mailing, as well as affidavit of publication are enclosed. A copy of this application has also been sent to NM OCD District 2 in Artesia.

If you have any questions, please contact us at (817)606-7630.

Sincerely,

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

Date: 7-30-2019

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: 7-30-2019

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

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.

Additional Data

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 14,168'

   Underlying Potentially Productive Zones:
   None

WELL CONSTRUCTION DATA

Permian Oilfield Partners, LLC.
Rebel Federal SWD #1
927' FNL, 262' FWL
Sec. 25, T25S, R31E, Eddy Co. NM
Lat 32.1059789° N, Lon 103.7393382° W
GL 3352', RKB 3382'

Surface - (Conventional)

Hole Size: 26" **Casing:** 20" - 94# H-40 & 106.5# J-55 STC Casing
Depth Top: Surface
Depth Btm: 1225'
Cement: 824 sks - Class C + Additives
Cement Top: Surface - (Circulate)

Intermediate #1 - (Conventional)

Hole Size: 17.5" **Casing:** 13.375" - 54.5# J-55 & 61# J-55 STC Casing
Depth Top: Surface
Depth Btm: 4349'
Cement: 1487 sks - Lite Class C (50:50:10) + Additives
Cement Top: Surface - (Circulate)

Intermediate #2 - (Conventional)

Hole Size: 12.25" **Casing:** 9.625" - 40# L-80 & 40# HCL-80 BTC Casing
Depth Top: Surface
Depth Btm: 11729' **ECP/DV Tool:** 4449'
Cement: 1987 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)

Intermediate #3 - (Liner)

Hole Size: 8.5" **Casing:** 7.625" - 39# HCL-80 FJ Casing
Depth Top: 11529'
Depth Btm: 16712'
Cement: 252 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11529' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5" **Depth:** 18171'
Inj. Interval: 16712' - 18171' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 16667' **Tubing:** 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 11529'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 16677' **Packer:** 5.5" - Perma-Pak or Equivalent (Inconel)

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
Rebel Federal SWD #1
927' FNL, 262' FWL
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Cement: 1487 sks - Lite Class C (50:50:10) + Additives
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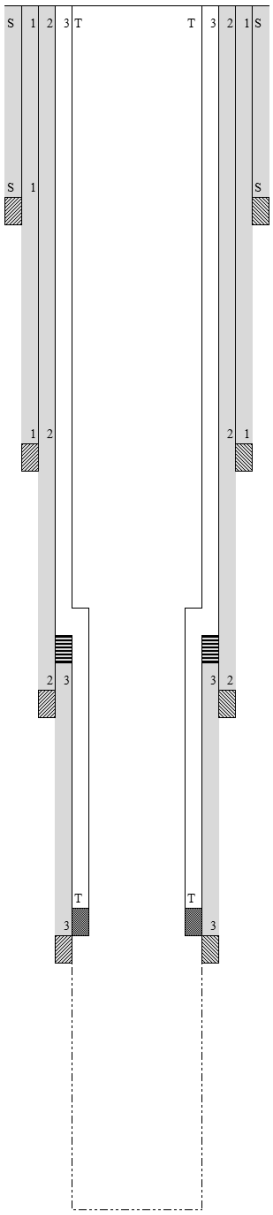
Cement: 1987 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)
ECP/DV Tool: 4449'

Intermediate #3 - (Liner)
Hole Size: 8.5"
Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 11529'
Depth Btm: 16712'
Cement: 252 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11529' - (Volumetric)

Intermediate #4 - (Open Hole)
Hole Size: 6.5"
Depth: 18171'
Inj. Interval: 16712' - 18171' (Open-Hole Completion)



Tubing - (Tapered)
Tubing Depth: 16667'
Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 11529'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 16677'
Packer: 5.5" - Perma-Pak or Equivalent (Inconel)

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 3,342 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 Go-Tech's website and are listed below.

WELL NAME	FIGHTING OKRA 18 FEDERAL COM #001H	SALADO DRAW 6 FEDERAL #001H	RATTLESNAKE 13 12 FEDERAL COM #001H	SNAPPING 2 STATE #014H
api	3002540382	3002541293	3002540912	3001542688
latitude	32.0435333	32.0657196	32.0369568	32.06555986
longitude	-103.5164566	-103.5146942	-103.416214	-103.7413815
section	18	6	13	2
township	26S	26S	26S	26S
range	34E	34E	34E	31E
unit	E	M	P	P
ftgns	2590N	200S	330S	250S
ftgew	330W	875W	330E	330E
county	Lea	Lea	Lea	EDDY
state	NM	NM	NM	NM
formation	AVALON UPPER	BONE SPRING 3RD SAND	DELAWARE-BRUSHY CANYON	WOLFCAMP
sampledate	42046	41850	41850	42284
ph	8	6.6	6.2	7.3
tds_mgL	201455.9	99401.9	243517.1	81366.4
resistivity_ohm_cm	0.032	0.064	0.026	0.1004
sodium_mgL	66908.6	34493.3	73409.8	26319.4
calcium_mgL	9313	3295	15800	2687.4
iron_mgL	10	0.4	18.8	26.1
magnesium_mgL	1603	396.8	2869	326.7
manganese_mgL	1.6	0.37	3.12	
chloride_mgL	121072.7	59986.5	149966.2	50281.2
bicarbonate_mgL	1024.8	109.8	48.8	
sulfate_mgL	940	710	560	399.7
co2_mgL	1950	70	200	100

5. Devonian water analysis from the area of review is unavailable. Representative area water analyses were sourced from Go-Tech's website and are listed below.

WELL NAME	ANTELOPE RIDGE UNIT #003	BELL LAKE UNIT #006
api	3002521082	3002508483
latitude	32.2593155	32.3282585
longitude	-103.4610748	-103.507103
sec	34	6
township	23S	23S
range	34E	34E
unit	K	O
ftgns	1980S	660S
ftgew	1650W	1980E
county	LEA	LEA
state	NM	NM
field	ANTELOPE RIDGE	BELL LAKE NORTH
formation	DEVONIAN	DEVONIAN
samplesource	UNKNOWN	HEATER TREATER
ph	6.9	7
tds_mgL	80187	71078
chloride_mgL	42200	47900
bicarbonate_mgL	500	476
sulfate_mgL	1000	900

VIII: Injection Zone Geology

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 carbonates & chert, followed by the Upper Silurian dolomites, and the Lower 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 8%, 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 migrations to USDW's, 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.

Permian Oilfield Partners, LLC.
Rebel Federal SWD #1
927' FNL, 262' FWL
Sec. 25, T25S, R31E, Eddy Co. NM
Lat 32.1059789° N, Lon 103.7393382° W
GL 3352', RKB 3382'

GEOLOGY PROGNOSIS			
FORMATION	TOP KB TVD (ft)	BOTTOM KB TVD (ft)	THICKNESS (ft)
Salt	1,240	4,213	2,973
Delaware	4,324	8,414	4,090
Bone Spring	8,414	11,679	3,265
Wolfcamp	11,679	12,377	698
Lwr. Mississippian	16,023	16,414	391
Woodford	16,414	16,677	263
Devonian	16,677	17,651	974
Fusselman (Silurian)	17,651	18,196	545
Montoya (U. Ordovician)	18,196	18,740	544
Simpson (M. Ordovician	18,740	19,206	466

2. According to the New Mexico Office of the State Engineer, there are NO fresh water wells within the proposed well's one-mile area of review. Regionally, shallow fresh water is known to exist at depths less than 1025'. There are no underground sources of fresh water 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 NO fresh water wells within the proposed well's one-mile area of review.

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	3 Pool Name
30-015-	97869	SWD; DEVONIAN-SILURIAN

4 Property Code	5 Property Name	6 Well Number
	REBEL FEDERAL SWD	1

7 OGRID NO.	8 Operator Name	9 Elevation
328259	PERMIAN OILFIELD PARTNERS LLC	3352'

10 Surface Location

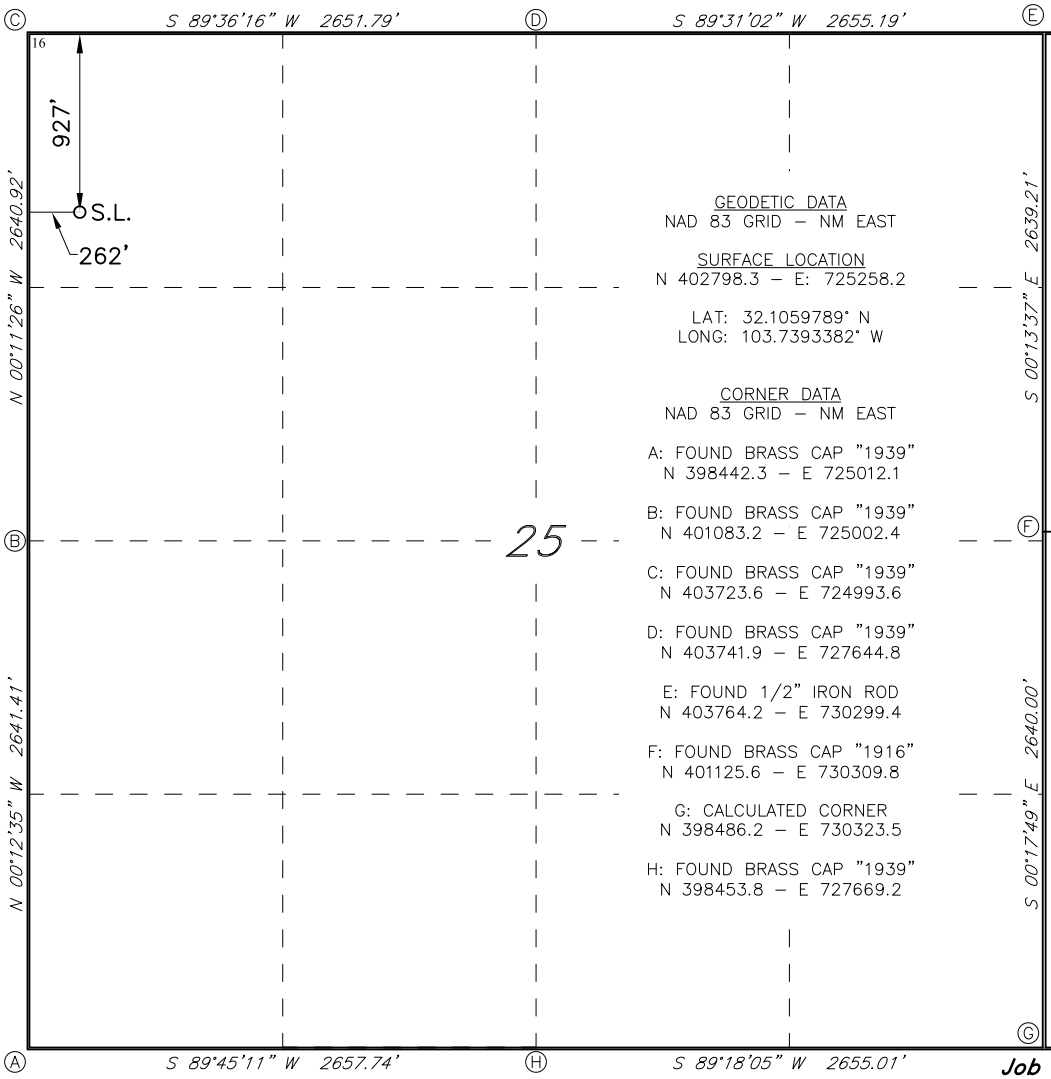
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
D	25	25S	31E		927	NORTH	262	WEST	EDDY

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.
			POP

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.



GEODETIC DATA
NAD 83 GRID – NM EAST

SURFACE LOCATION
N 402798.3 – E: 725258.2

LAT: 32.1059789° N
LONG: 103.7393382° W

CORNER DATA
NAD 83 GRID – NM EAST

A: FOUND BRASS CAP "1939"
N 398442.3 – E 725012.1

B: FOUND BRASS CAP "1939"
N 401083.2 – E 725002.4

C: FOUND BRASS CAP "1939"
N 403723.6 – E 724993.6

D: FOUND BRASS CAP "1939"
N 403741.9 – E 727644.8

E: FOUND 1/2" IRON ROD
N 403764.2 – E 730299.4

F: FOUND BRASS CAP "1916"
N 401125.6 – E 730309.8

G: CALCULATED CORNER
N 398486.2 – E 730323.5

H: FOUND BRASS CAP "1939"
N 398453.8 – E 727669.2

17 OPERATOR CERTIFICATION

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.

Signature 7/24/2019 Date

Gary E Fisher
Printed Name

gfisher@popmidstream.com
E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

07-09-2019
Date of Survey

Signature and Seal of Professional Surveyor:

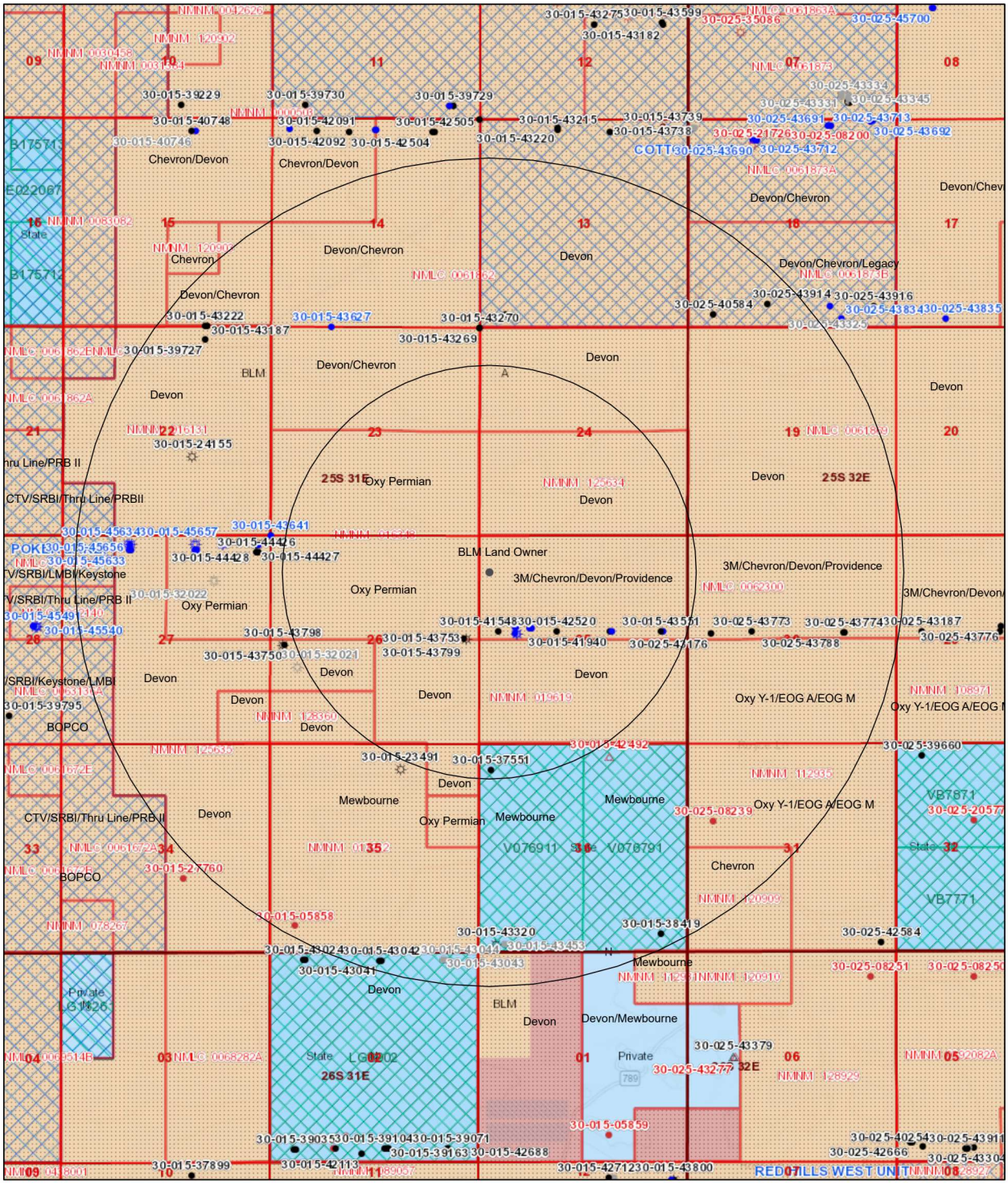
JEFFREY L. FANSLER
NEW MEXICO
10034
PROFESSIONAL SURVEYOR

10034
Certificate Number

CHANGE NAME – 07/18/19

Job No.: LS19030265R1

1 & 2 Mile AOR, Rebel Federal SWD #1



7/29/2019, 9:34:30 PM

1:36,112

0 0.35 0.7 1.4 mi

0 0.5 1 2 km

Override 1

Well Locations - Small Scale
- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned

Well Locations - Large Scale
- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2, Plugged
- CO2, Temporarily Abandoned

- Gas Active
- Gas, Cancelled, Never Drilled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New

- Oil, Plugged
- Oil, Temporarily Abondoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water InjectionTemporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged
- Water, Temporarily Abandoned
- PLSS First Division

U.S. BLM
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c)

New Mexico Oil Conservation Division

Rebel 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
30-015-37551	MEWBOURNE OIL CO	BEBOP BPE STATE	#001H	Oil	Horizontal	Active	36	T25S	R31E	D	D-36-25S-31E 660 FNL 330 FWL	M-36-25S-31E 391 FSL 650 FWL	BONE SPRING	12760	8796
30-015-41548	DEVON ENERGY PRODUCTION COMPANY, LP	BIG SINKS DRAW 25 FEDERAL COM	#001H	Oil	Horizontal	Active	25	T25S	R31E	E	E-25-25S-31E 2440 FNL 500 FWL	D-24-25S-31E 300 FNL 538 FWL	BONE SPRING	18027	10364
30-015-41940	DEVON ENERGY PRODUCTION COMPANY, LP	BIG SINKS DRAW 25 FEDERAL COM	#003H	Oil	Horizontal	Active	25	T25S	R31E	G	G-25-25S-31E 2440 FNL 1980 FEL	B-24-25S-31E 330 FNL 1980 FEL	BONE SPRING	17552	10452
30-015-42520	DEVON ENERGY PRODUCTION COMPANY, LP	BIG SINKS DRAW 25 FEDERAL COM	#002H	Oil	Horizontal	Active	25	T25S	R31E	F	F-25-25S-31E 2440 FNL 1980 FWL	C-24-25S-31E 330 FNL 1946 FWL	BONE SPRING	17546	10503
30-015-43551	DEVON ENERGY PRODUCTION COMPANY, LP	BIG SINKS DRAW 25 FEDERAL COM	#004H	Oil	Horizontal	Active	25	T25S	R31E	H	H-25-25S-31E 2440 FNL 660 FEL	H-24-25S-31E 330 FNL 660 FEL	BONE SPRING	17770	10476
30-015-43753	MEWBOURNE OIL CO	ARMSTRONG 26 35 W1IP FEDERAL COM	#001	Oil	Horizontal	Active	26	T25S	R31E	H	H-26-25S-31E 2625 FNL 380 FEL	P-35-25S-31E 334 FSL 978 FEL	WOLFCAMP	19465	12090
30-015-43799	MEWBOURNE OIL CO	ARMSTRONG 26 35 W0IP FEDERAL COM	#002H	Gas	Horizontal	Active	26	T25S	R31E	H	H-26-25S-31E 2625 FNL 330 FEL	P-35-25S-31E 337 FSL 353 FEL	WOLFCAMP	19280	11760
30-015-44020	DEVON ENERGY PRODUCTION COMPANY, LP	BIG SINKS DRAW 25 24 FEDERAL COM	#421H	Oil	Horizontal	New	25	T25S	R31E	E	E-25-25S-31E 2350 FNL 1295 FWL	D-24-25S-31E 330 FNL 660 FWL	DELAWARE	15319	8172
30-015-44123	DEVON ENERGY PRODUCTION COMPANY, LP	BIG SINKS DRAW 25 24 FEDERAL COM	#424H	Oil	Horizontal	New	25	T25S	R31E	H	H-25-25S-31E 2440 FNL 610 FEL	A-24-25S-31E 330 FNL 660 FEL	DELAWARE	15379	8223
30-015-44221	DEVON ENERGY PRODUCTION COMPANY, LP	BIG SINKS DRAW 25 24 FEDERAL COM	#423H	Oil	Horizontal	New	25	T25S	R31E	G	G-25-25S-31E 2440 FNL 1930 FEL	B-24-25S-31E 330 FNL 1980 FEL	DELAWARE	15370	8225
30-015-44223	DEVON ENERGY PRODUCTION COMPANY, LP	BIG SINKS DRAW 25 24 FEDERAL COM	#422H	Oil	Horizontal	New	25	T25S	R31E	F	F-25-25S-31E 2350 FNL 1345 FWL	C-24-25S-31E 330 FNL 1980 FWL	DELAWARE	15328	8160
30-015-44819	DEVON ENERGY PRODUCTION COMPANY, LP	BIG SINKS DRAW 25 24 FEDERAL COM	#521H	Oil	Horizontal	New	25	T25S	R31E	E	E-25-25S-31E 2334 FNL 925 FWL	D-24-25S-31E 330 FNL 330 FWL	BONE SPRING	15882	8818
30-015-44820	DEVON ENERGY PRODUCTION COMPANY, LP	BIG SINKS DRAW 25 24 FEDERAL COM	#531H	Oil	Horizontal	New	25	T25S	R31E	E	E-25-25S-31E 2334 FNL 955 FWL	D-24-25S-31E 330 FNL 770 FWL	BONE SPRING	16129	9088
30-015-45065	DEVON ENERGY PRODUCTION COMPANY, LP	BIG SINKS DRAW 25 24 FEDERAL COM	#711H	Gas	Horizontal	New	25	T25S	R31E	E	E-25-25S-31E 2484 FNL 985 FWL	D-24-25S-31E 330 FNL 330 FWL	WOLFCAMP	19239	11838
30-015-45097	DEVON ENERGY PRODUCTION COMPANY, LP	BIG SINKS DRAW 25 24 FEDERAL COM	#611H	Gas	Horizontal	New	25	T25S	R31E	E	E-25-25S-31E 2484 FNL 955 FWL	D-24-25S-31E 330 FNL 330 FWL	WOLFCAMP	18796	11588
30-015-45098	DEVON ENERGY PRODUCTION COMPANY, LP	BIG SINKS DRAW 25 24 FEDERAL COM	#331H	Oil	Horizontal	New	25	T25S	R31E	E	E-25-25S-31E 2484 FNL 925 FWL	D-24-25S-31E 330 FNL 330 FWL	BONE SPRING	18314	11268

PERMIAN OILFIELD PARTNERS

Statement of Notifications

Re: C-108 Application for Authorization to Inject
Permian Oilfield Partners, LLC
Rebel Federal SWD #1
927' FNL & 262' FWL
Sec 25, T25S, R31E
Eddy County, NM

Permian Oilfield Partners, LLC has mailed notifications to Affected Persons as per the following list:

Rebel Federal SWD #1 - Affected Persons within 1 Mile Area of Review					
Notified Name	**Notifed Address**	**Notified City, State, ZIP Code**	**Shipper**	**Tracking No.**	**Mailing Date**
Bureau Of Land Management	620 E Greene St.	Carlsbad, NM 88220	USPS	9414811899561411756592	7/30/2019
New Mexico State Land Office	310 Old Santa Fe Trail	Santa Fe, NM 87501	USPS	9414811899561411751917	7/30/2019
Devon Energy Production Company, LP	333 West Sheridan Ave.	Oklahoma City, OK 73102	USPS	9414811899561411751825	7/30/2019
Chevron USA Inc	6301 Deauville Blvd	Midland, TX 79706	USPS	9414811899561411751207	7/30/2019
Mewbourne Holdings Inc	P.O. Box 5270	Hobbs, NM 88241	USPS	9414811899561411751832	7/30/2019
Occidental Permian LP	5 Greenway Plaza #110	Houston, TX 77046	USPS	9414811899561411751948	7/30/2019
Mewbourne Oil Company	P.O. Box 5270	Hobbs, NM 88241	USPS	9414811899561411751702	7/30/2019
3-M Energy Co.	502 S. Koenigheim St., Ste. 2B	San Angelo, TX 76903	USPS	9414811899561411756400	7/30/2019
Providence Minerals LLC	16400 Dallas Pkwy., Suite 400	Dallas, TX 75248	USPS	9414811899561411751658	7/30/2019

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

Date: 7-30-2019

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

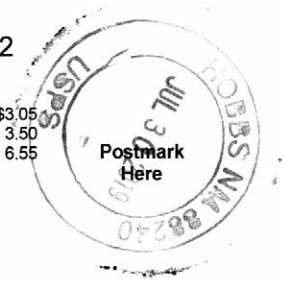
ARTICLE NUMBER: 9414 8118 9956 1411 7565 92

ARTICLE ADDRESSED TO:

Bureau of Land Management
620 E Greene St
Carlsbad NM 88220-6292

FEES

Postage Per Piece	$3.05
Certified Fee	3.50
Total Postage & Fees:	6.55



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

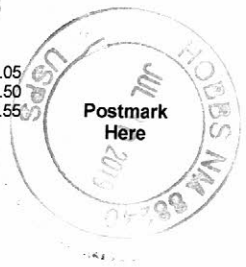
ARTICLE NUMBER: 9414 8118 9956 1411 7519 17

ARTICLE ADDRESSED TO:

New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe NM 87501-2708

FEES

Postage Per Piece	$3.05
Certified Fee	3.50
Total Postage & Fees:	6.55



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

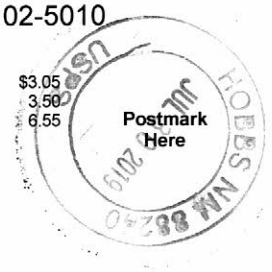
ARTICLE NUMBER: 9414 8118 9956 1411 7518 25

ARTICLE ADDRESSED TO:

Devon Energy Production Co., LP
333 West Sheridan Ave
Oklahoma City OK 73102-5010

FEES

Postage Per Piece	$3.05
Certified Fee	3.50
Total Postage & Fees:	6.55



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

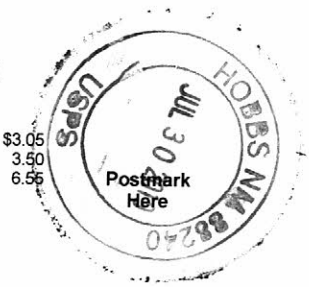
ARTICLE NUMBER: 9414 8118 9956 1411 7512 07

ARTICLE ADDRESSED TO:

Chevron USA
6301 Deauville
Midland TX 79706-2964

FEES

Postage Per Piece	$3.05
Certified Fee	3.50
Total Postage & Fees:	6.55



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

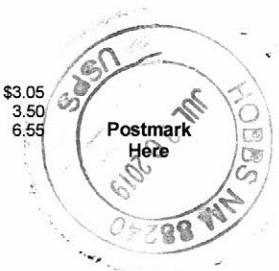
ARTICLE NUMBER: 9414 8118 9956 1411 7518 32

ARTICLE ADDRESSED TO:

Mewbourne Holdings, Inc.
PO Box 5270
Hobbs NM 88241-5270

FEES

Postage Per Piece	$3.05
Certified Fee	3.50
Total Postage & Fees:	6.55



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

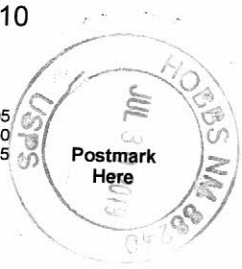
ARTICLE NUMBER: 9414 8118 9956 1411 7519 48

ARTICLE ADDRESSED TO:

Occidental Permian LP
5 Greenway Plaza, Suite 110
Houston TX 77046-0521

FEES

Postage Per Piece	$3.05
Certified Fee	3.50
Total Postage & Fees:	6.55



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

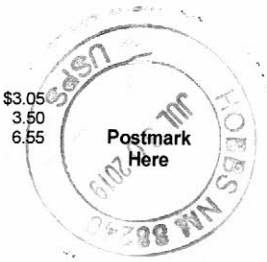
ARTICLE NUMBER: 9414 8118 9956 1411 7517 02

ARTICLE ADDRESSED TO:

Mewbourne Oil Co.
PO Box 5270
Hobbs NM 88241-5270

FEES

Postage Per Piece	$3.05
Certified Fee	3.50
Total Postage & Fees:	6.55



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

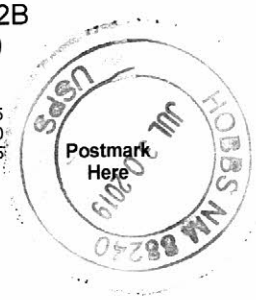
ARTICLE NUMBER: 9414 8118 9956 1411 7564 00

ARTICLE ADDRESSED TO:

3-M Energy Co
502 S. Koenigheim St. Ste 2B
San Angelo TX 76903-6769

FEES

Postage Per Piece	$3.05
Certified Fee	3.50
Total Postage & Fees:	6.55



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

ARTICLE NUMBER: 9414 8118 9956 1411 7516 58

ARTICLE ADDRESSED TO:

Providence Minerals LLC
16400 Dallas Pkwy, Suite 400
Dallas TX 75248-2643

FEES

Postage Per Piece	$3.05
Certified Fee	3.50
Total Postage & Fees:	6.55

CARLSBAD
CURRENT-ARGUS

AFFIDAVIT OF PUBLICATION

Ad No.
0001292487

PERMIAN OILFIELD PARTNERS, LLC
PO BOX 3329

HOBBS NM 88241

I, a legal clerk of the **Carlsbad Current-Argus**, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

07/27/19

Legal Clerk

Subscribed and sworn before me this
29th of July 2019.

State of WI, County of Brown
NOTARY PUBLIC

1-12-2021

My Commission Expires

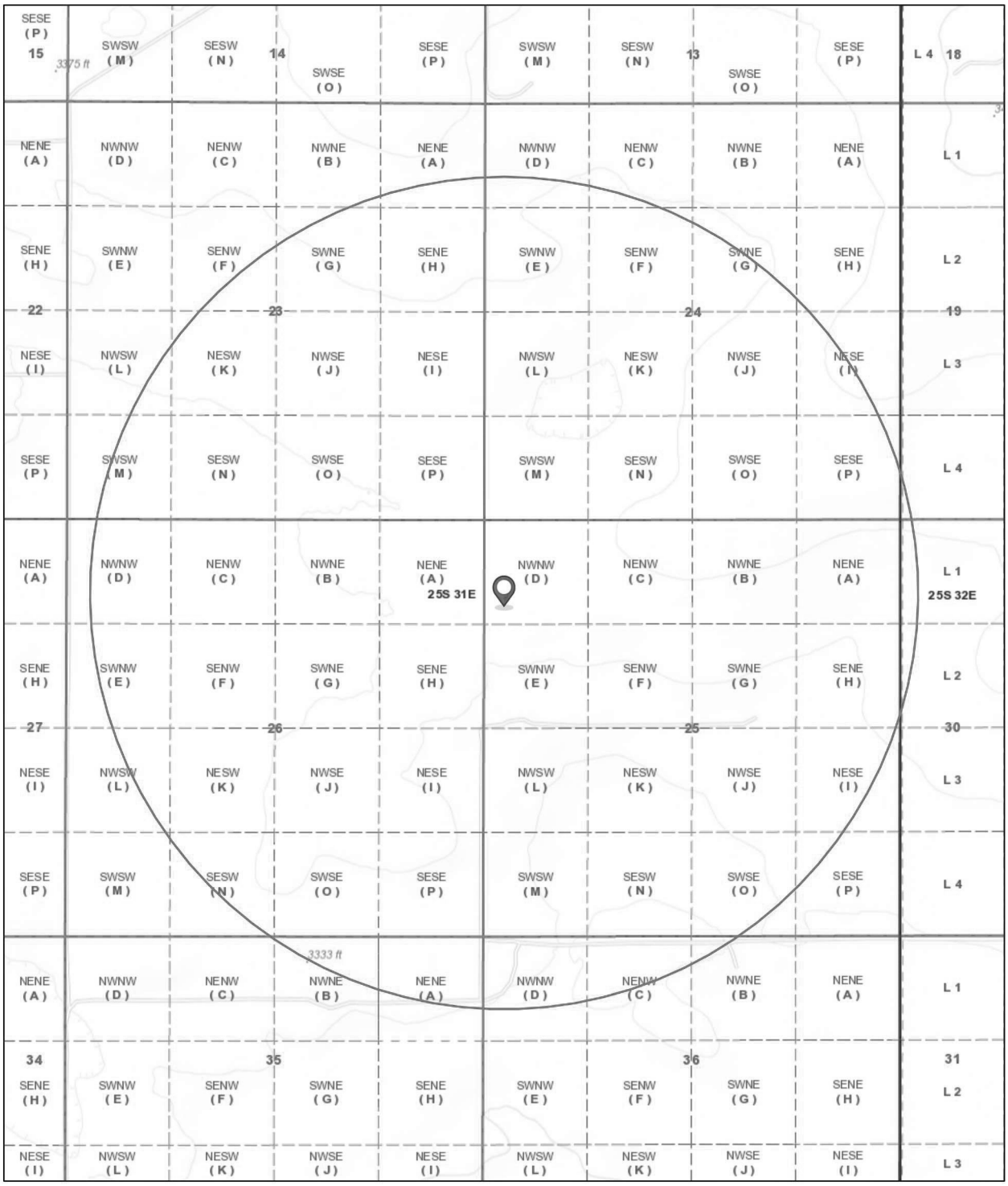
MELISSA ROME NOTARY PUBLIC STATE OF WISCONSIN

Newspaper Publication Notice

Permian Oilfield Partners, LLC, PO Box 3329, Hobbs, NM 88241, phone (817)606-7630, attention 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 name is the Rebel Federal SWD #1, and is located 927' FNL & 262' FWL, Unit Letter D, Section 25, Township 25 South, Range 31 East, NMPM, approximately 21.0 miles SE of Malaga, NM. The well will dispose of water produced from nearby oil and gas wells into the Devonian formation from a depth of 16,712 feet to 18,171 feet. The maximum expected injection rate is 50,000 BWPD at a maximum surface injection pressure of 3,342 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.
July 27, 2019

Ad#:0001292487
P O : Rebel Federal
# of Affidavits :0.00

Rebel Federal SWD #1 Water Wells in 1mi Radius



7/18/2019, 10:29:40 AM

- OCD Districts
- OCD District Offices
- PLSS First Division
- PLSS Second Division
- PLSS Townships

1:18,056

0 0.17 0.35 0.7 mi

0 0.28 0.55 1.1 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

New Mexico Oil Conservation Division

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	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 02250		CUB	ED	3	1	4	21	25S	31E	614912	3553620*	400	390	10
C 02568		CUB	ED	4	3	1	01	25S	31E	619103	3558892*	1025		
C 02569		CUB	ED	4	4	2	02	25S	31E	618699	3558891*	1016		
C 02570		CUB	ED	4	2	4	02	25S	31E	618704	3558489*	895		
C 02571		CUB	ED	4	1	2	02	25S	31E	618292	3559294*	860		
C 02572		CUB	ED	4	2	2	02	25S	31E	618695	3559294*	852		
C 02573		CUB	ED	1	4	2	02	25S	31E	618499	3559091*			
C 02574		CUB	ED	1	1	2	02	25S	31E	618092	3559494*			
C 03830 POD1		CUB	ED	4	2	4	02	25S	31E	618632	3558432	450		

Average Depth to Water: **390 feet**

Minimum Depth: **390 feet**

Maximum Depth: **390 feet**

Record Count: 9

PLSS Search:

Township: 25S **Range:** 31E

***UTM location was derived from PLSS - see Help**

7/18/19 10:50 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Item XII. Affirmative Statement

Re: C-108 Application for Authorization to Inject
Permian Oilfield Partners, LLC
Rebel Federal SWD #1
927' FNL & 262' FWL
Sec 25, T25S, R31E
Eddy County, NM

Permian Oilfield Partners, LLC. has 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.

Gary Fisher
Manager
Permian Oilfield Partners, LLC.

Date: 7/24/2019

Plugging Risk Assessment

Permian Oilfield Partners, LLC.
Rebel Federal SWD #1
SL: 927' FNL & 262' FWL
Sec 25, T25S, R31E
Eddy County, New Mexico

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
Rebel Federal SWD #1
927' FNL, 262' FWL
Sec. 25, T25S, R31E, Eddy Co. NM
Lat 32.1059789° N, Lon 103.7393382° W
GL 3352', RKB 3382'

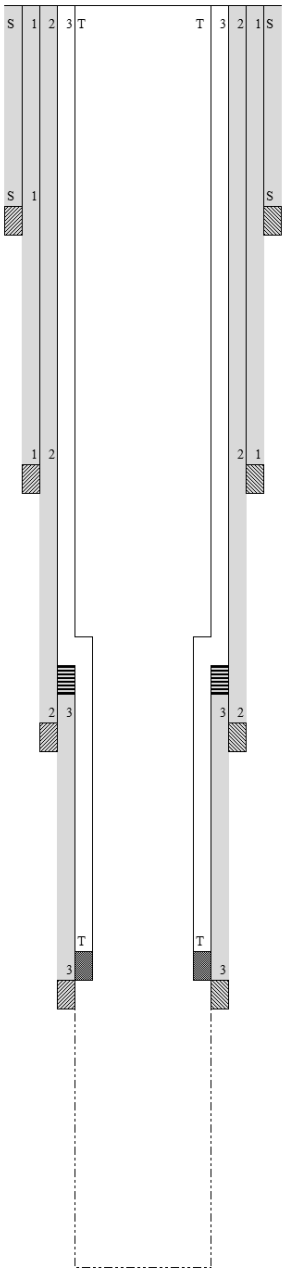
Surface - (Conventional)
Hole Size: 26"
Casing: 20" - 94# H-40 & 106.5# J-55 STC Casing
Depth Top: Surface
Depth Btm: 1225'
Cement: 824 sks - Class C + Additives
Cement Top: Surface - (Circulate)

Intermediate #1 - (Conventional)
Hole Size: 17.5"
Casing: 13.375" - 54.5# J-55 & 61# J-55 STC Casing
Depth Top: Surface
Depth Btm: 4349'
Cement: 1487 sks - Lite Class C (50:50:10) + Additives
Cement Top: Surface - (Circulate)

Intermediate #2 - (Conventional)
Hole Size: 12.25"
Casing: 9.625" - 40# L-80 & 40# HCL-80 BTC Casing
Depth Top: Surface
Depth Btm: 11729'
Cement: 1987 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)
ECP/DV Tool: 4449'

Intermediate #3 - (Liner)
Hole Size: 8.5"
Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 11529'
Depth Btm: 16712'
Cement: 252 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11529' - (Volumetric)

Intermediate #4 - (Open Hole)
Hole Size: 6.5"
Depth: 18171'
Inj. Interval: 16712' - 18171' (Open-Hole Completion)



Tubing - (Tapered)
Tubing Depth: 16667'
Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 11529'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 16677'
Packer: 5.5" - Perma-Pak or Equivalent (Inconel)

7" UFJ Tubing Inside of 9 ⅝" 40# Casing

Bowen Series 150 Releasing and Circulation Overshots

Maximum Catch Size 6⅝" to 7¼" Inclusive

Maximum Catch Size (Spiral)		6⅝	6¼	7	7¼
Maximum Catch Size (Basket)		5⅞	6⅛	6⅜	6⅝
Overshot O.D.		8¼	7⅞	8⅛	8⅜
Type		F.S.	S.H.	S.H.	S.H.
Complete Assembly	Part No.	C-3032	C-5222	9217	C-5354
(Dressed Spiral Parts)	Weight	280	243	251	260
Replacement Parts					
Top Sub	Part No.	A-3033	A-5223	9218	A-5355
Bowl	Part No.	B-3034	B-5224	9219	B-5356
Packer	Part No.	A-1814	B-5225	9224	B-5357
Spiral Grapple	Part No.	N-84	B-5227	9222	B-5359
Spiral Grapple Control	Part No.	M-89	A-5228	9223	B-5360
Standard Guide	Part No.	A-1818	A-5229	9226	A-5361
Basket Parts					
Basket Grapple	Part No.	N-84	B-5227	9222	B-5359
Basket Grapple Control	Part No.	M-89	A-5228	9223	B-5360
Mill Control Packer	Part No.	A-1814-R	B-5225-R	9224-R	B-5357-R

A 8.125" O.D. Bowen Series 150 Overshot will be used to perform this overshot operation. Details on the overshot are listed above. Casing to tubing clearance dimensions are listed below.

7" 26# FJ Casing Inside 9.625" 40# BTC Casing

Clearance (in)	Pipe Size (in)	Weight lb/ft	Grade	Conn.	Type	Body O.D. (in)	Coupling O.D. (in)	I.D. (in)	Drift (in)	Lined Wt. lb/ft	Lined I.D. (in)	Flare I.D. (in)	Lined Drift (in)
0.840	9 5/8	40.0	L-80	BTC	Casing	9.625	10.625	8.835	8.679	-	-	-	-
	7	26.0	HCP-110	FJ	Casing	7.000	7.000	6.276	6.151	28.500	6.080	5.940	5.815

*Red Indicates Tubing

Fishing Procedure

Overshot Fishing Procedure

In the Event of a Connection Break

- **If fishing neck is clean**

1. Trip in hole with overshot and engage fish.
2. Pick up 2 points over neutral weight.
3. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
4. Once released from packer, trip out of hole with fish.

   A skirted mill may be substituted for a standard mill to ensure pipe stabilization and the casing is not damaged while milling

- **If dressing fishing neck is required**

1. Trip in hole with mill and dress fishing neck to allow for overshot to engage tubing.
2. Trip out of hole with mill.
3. Trip in hole with overshot and engage fish.
4. Pick up 2 points over neutral weight.
5. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
6. Once released from packer, trip out of hole with fish.

   A skirted mill may be substituted for a standard mill to ensure pipe stabilization and the casing is not damaged while milling

In the Event of a Body Break

- **If fishing neck is clean**

1. Trip in hole with overshot and engage fish.
2. Pick up 2 points over neutral weight.
3. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
4. Once released from packer, trip out of hole with fish.

- **If dressing fishing neck is required**

1. Trip in hole with mill and dress fishing neck to allow for overshot to engage tubing.
2. Trip out of hole with mill.
3. Trip in hole with overshot and engage fish.
4. Pick up 2 points over neutral weight.

5. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
6. Once released from packer, trip out of hole with fish.

A skirted mill may be substituted for a standard mill to ensure pipe stabilization and the casing is not damaged while milling

Spear Fishing Procedure

If an overshot cannot be used to retrieve the fish, a spear may be used.

- Due to the use of insert lined tubing, the composite liner must be removed from the tubing before engaging the fish with a spear.

1. Trip in hole with spear sized to engage the I.D. of the insert liner.
2. Engage the insert liner inside the tubing with spear.
3. Pull the insert liner out of the tubing.
4. Trip out of hole with insert liner.
5. Trip in hole with spear sized to engage the I.D. of the tubing.
6. Engage the tubing with spear.
7. Pick up 2 points over neutral weight.
8. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
9. Once released from packer, trip out of hole with fish.

Inside Diameter Cutting Tool Fishing Procedure

If an overshot is required but a mill cannot be used to dress off a fishing neck, an inside diameter cutting tool may be used.

- Due to the use of insert lined tubing, the composite liner must be removed from the tubing before engaging the fish with a spear.

1. Trip in hole with spear sized to engage the I.D. of the insert liner.
2. Engage the insert liner inside the tubing with spear.
3. Pull the insert liner out of the tubing.
4. Trip out of hole with insert liner.
5. Trip in hole with inside diameter cutting tool and cut the tubing below the damaged fishing neck.
6. Trip out hole with cutting tool.
7. Trip in hole with spear sized to engage the I.D. of the tubing.
8. Engage the previously cut tubing segment with spear.
9. Trip out hole with cut tubing segment and spear.
10. Trip in hole with overshot and engage fish.
11. Pick up 2 points over neutral weight.
12. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
13. Once released from packer, trip out of hole with fish.

5 ½" UFJ Tubing Inside of 7 ⅝" 39# Casing

Series 150 Overshots

Tools are listed in order of maximum catch size.

The following table shows only a partial listing of available NOV Downhole Bowen® overshots.

NOTE: Nitralloy Grapples are available upon request.

Bowen Series 150 Releasing and Circulation Overshots

Maximum Catch Size 4¼" to 5½" Inclusive

Maximum Catch Size (Spiral)		4¼	4⅝	4¾	4¾	5	5	5½
Maximum Catch Size (Basket)		3⅛	4⅛	4¼	4¼	4¼	4¼	4⅞
Overshot O.D.		5⅜	5⅜	5⅜	5¾	5⅞	6⅜	6⅜
Type		F.S.	S.H.	S.H.	S.F.S.	S.H.	F.S.	S.H.
Complete Assembly	Part No.	5896	5698	C-5168	8975	C-5171	C-4825	8825
(Dressed Spiral Parts)	Weight	130	130	133	138	140	192	185
Replacement Parts								
Top Sub	Part No.	5897	5699	A-5169	8976	A-5172	B-4826	8826
Bowl	Part No.	5898	5700	B-5170	8977	B-5173	B-4827	8817
Packer	Part No.	169	1140	B-2199	6114	L-5950	L-4505	8818
Spiral Grapple	Part No.	165	1135	B-2201	6112	B-4369	M-1071	8819
Spiral Grapple Control	Part No.	186	1137	B-2202	6113	B-4370	M-1072	8820
Standard Guide	Part No.	187	1143	B-2203	6121	B-4371	L-1074	8821
Basket Parts								
Basket Grapple	Part No.	165	1135	B-2201	6112	B-4369	M-1071	8819
Basket Grapple Control	Part No.	186	1137	B-2202	6113	B-4370	M-1072	8820
Mill Control Packer	Part No.	169-R	1140-R	B-2199-R	6114-R	L-5950-R	M-4505	L-8818-R

A (6.625" turned down to **6.500"** O.D.) Bowen Series 150 Overshot will be used to perform this overshot operation. Details on the overshot are listed above. Casing to tubing clearance dimensions are listed below.

5.5" 17# FJ Casing Inside 7.625" 39# FJ Casing

Clearance (in)	Pipe Size (in)	Weight lb/ft	Grade	Conn.	Type	Body O.D. (in)	Coupling O.D. (in)	I.D. (in)	Drift (in)	Lined Wt. lb/ft	Lined I.D. (in)	Flare I.D. (in)	Lined Drift (in)
0.500	7 5/8	39.0	HCL-80	FJ	Casing	7.625	7.625	6.625	6.500	-	-	-	-
	5 1/2	17.0	HCL-80	FJ	Casing	5.500	5.500	4.892	4.767	18.500	4.520	4.400	4.275

*Red Indicates Tubing

Fishing Procedure

Overshot Fishing Procedure

In the Event of a Connection Break

- **If fishing neck is clean**

1. Trip in hole with overshot and engage fish.
2. Pick up 2 points over neutral weight.
3. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
4. Once released from packer, trip out of hole with fish.

   A skirted mill may be substituted for a standard mill to ensure pipe stabilization and the casing is not damaged while milling

- **If dressing fishing neck is required**

1. Trip in hole with mill and dress fishing neck to allow for overshot to engage tubing.
2. Trip out of hole with mill.
3. Trip in hole with overshot and engage fish.
4. Pick up 2 points over neutral weight.
5. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
6. Once released from packer, trip out of hole with fish.

   A skirted mill may be substituted for a standard mill to ensure pipe stabilization and the casing is not damaged while milling

In the Event of a Body Break

- **If fishing neck is clean**

1. Trip in hole with overshot and engage fish.
2. Pick up 2 points over neutral weight.
3. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
4. Once released from packer, trip out of hole with fish.

- **If dressing fishing neck is required**

1. Trip in hole with mill and dress fishing neck to allow for overshot to engage tubing.
2. Trip out of hole with mill.
3. Trip in hole with overshot and engage fish.
4. Pick up 2 points over neutral weight.

5. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
6. Once released from packer, trip out of hole with fish.

A skirted mill may be substituted for a standard mill to ensure pipe stabilization and the casing is not damaged while milling

Spear Fishing Procedure

If an overshot cannot be used to retrieve the fish, a spear may be used.

- Due to the use of insert lined tubing, the composite liner must be removed from the tubing before engaging the fish with a spear.

1. Trip in hole with spear sized to engage the I.D. of the insert liner.
2. Engage the insert liner inside the tubing with spear.
3. Pull the insert liner out of the tubing.
4. Trip out of hole with insert liner.
5. Trip in hole with spear sized to engage the I.D. of the tubing.
6. Engage the tubing with spear.
7. Pick up 2 points over neutral weight.
8. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
9. Once released from packer, trip out of hole with fish.

Inside Diameter Cutting Tool Fishing Procedure

If an overshot is required but a mill cannot be used to dress off a fishing neck, an inside diameter cutting tool may be used.

- Due to the use of insert lined tubing, the composite liner must be removed from the tubing before engaging the fish with a spear.

1. Trip in hole with spear sized to engage the I.D. of the insert liner.
2. Engage the insert liner inside the tubing with spear.
3. Pull the insert liner out of the tubing.
4. Trip out of hole with insert liner.
5. Trip in hole with inside diameter cutting tool and cut the tubing below the damaged fishing neck.
6. Trip out hole with cutting tool.
7. Trip in hole with spear sized to engage the I.D. of the tubing.
8. Engage the previously cut tubing segment with spear.
9. Trip out hole with cut tubing segment and spear.
10. Trip in hole with overshot and engage fish.
11. Pick up 2 points over neutral weight.
12. Turn pipe 10-15 turns to the right to release the seal assembly from the packer.
13. Once released from packer, trip out of hole with fish.

Abandonment Procedure

If the tubing cannot be recovered and the well is to be abandoned.

- The operator will ensure that all geologic formations are properly isolated.

1. Confirm the I.D. of the injection tubing is free from obstructions.
2. Run in hole with wireline set profile plug.
3. Set plug inside of packer assembly.
   (Plug will allow cement to fill the I.D. of the injection tubing and the tubing to casing annulus)
4. Run in hole with wireline conveyed perforating guns and perforate the tubing immediately above the packer.
5. Trip in hole with an overshot, spear, cement retainer or isolation tool that will provide a work string-to- injection tubing seal.
6. Engage the fish with sealing tool.
7. Confirm circulation down the tubing and up the tubing-to-casing annulus.
8. Cement the work string, injection tubing, injection tubing-to-casing annulus and work string-to-casing annulus to surface.
9. Confirm the entirety of the wellbore is cemented to surface and all zones are isolated.
10. ND wellhead and install permanent capping flange.

Attachment to C-108
Permian Oilfield Partners, LLC
Rebel Federal SWD #1
927' FNL & 262' FWL
Sec 25, T25S, R31E
Eddy County, NM

July 24, 2019

STATEMENT REGARDING SEISMICITY

Examination of the USGS and TexNet seismic activity databases has shown minimal historic seismic activity in the area (< 30 miles) of our proposed above referenced SWD well as follows:

1. M3.1, 2012-03-18, 15.02 miles away @ 323.58 deg heading
2. M2.9, 1984-12-09, 15.32 miles away @ 43.89 deg heading

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:

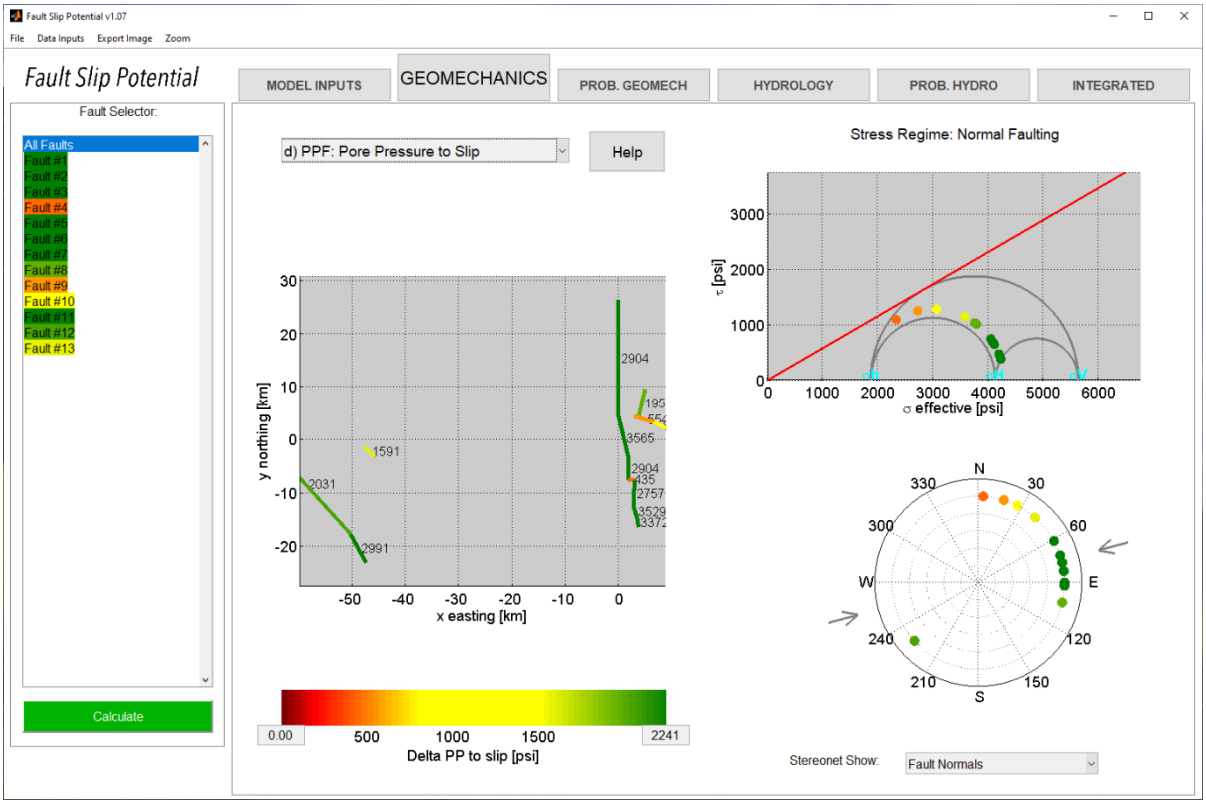
1. USGS Quaternary Fault & Fold database shows no quaternary faults in the nearby area.
2. Based on offset well log data, we have not interpreted any faults in the immediate area.
3. Basement PreCambrian faults are documented in the Snee & Zoback paper, “State of stress in the Permian Basin, Texas and 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.
4. Fault data was also correlated to the publicly available USGS GIS geologic units & structural features database, to Ewing’s 1990 Tectonic map of Texas (via Ruppel’s 2005 Preparation of Maps Depicting Geothermal Gradient and PreCambrian Structure in the Permian Basin), 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.
5. The distance from the proposed injection well to the nearest faults is approximately 27.53km to the west, and 21.97km to the east. The large distance to either fault means that there is effectively no impact on fault delta-pressures even after 30 years.

6. The analysis below assumes an improbable well failure through the Montoya & Simpson barrier zones, through the Ellenburger & Cambrian permeable zones, into the PreCambrian.

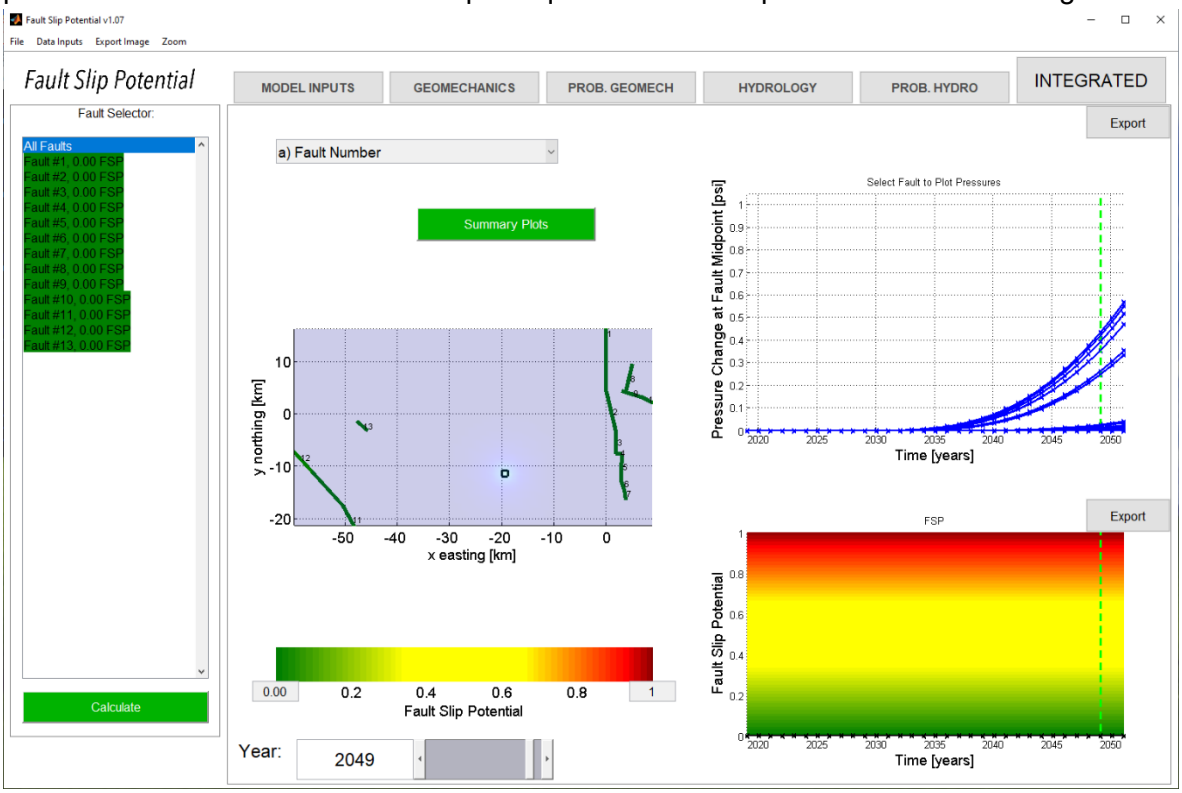
Input assumptions: using A-phi & Hor stress direction values for eastern faults

Rate (BBL/day)	50000
Interval height (ft)	1500
Average Porosity (%)	3
Vert stress gradient (psi/ft)	0.75
Hor stress direction (deg N)	75
Fault dip (deg)	75
Ref depth (ft)	20100
Initial res press gradient (psi/ft)	0.47
A phi	0.6
Friction coefficient	0.58
Weighted average perm	12.5
Fluid density (kg/m3)	1100
Dynamic viscosity	0.0003
Fluid compressibility (/Pa)	4 e-10
Rock compressibility (/Pa)	1.08 e-09

Geomechanics Pore Pressure to Slip



Year 30 Fault Slip Probability (0% for all fault segments after 30 years. 0.45 psi fault delta pressure is much less than the 435 psi required for fault slip in the closest fault segment #4)



As per NM OCD requirements (injection well to injection well spacing minimum of 1.5 miles), this proposed above referenced SWD well is located 3.28 miles away from the nearest active or permitted Devonian disposal well.

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