

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

APPLICATION OF PERMIAN OILFIELD PARTNERS, LLC
TO APPROVE SALT WATER DISPOSAL
WELL IN LEA COUNTY, NEW MEXICO.

CASE NO. 20574

APPLICATION

Permian Oilfield Partners, LLC ("Permian"), OGRID No. 328259, through its undersigned attorneys, hereby submits this application to the Oil Conservation Division pursuant to the provisions of NMSA 1978, § 70-2-12, Rule No. 19.15.26, and Rule 19.15.4.8 for an order approving drilling of a salt water disposal well in Lea County, New Mexico. In support of this application, Permian states as follows:

(1) Permian proposes to drill the Vortex Federal SWD Well #1 well at a surface location 1,151 feet from the North line and 337 feet from the East line of Section 1, Township 24 South, Range 32 East, NMPM, Lea County, New Mexico for the purpose of operating a produced water disposal well.

(2) Permian seeks authority to inject produced water into the Silurian-Devonian formation at a depth of approximately 16,619' to 18,427'.

(3) Permian further seeks approval of the use of 7 inch tubing inside the surface and intermediate casings and 5 ½ inch tubing inside the liner and requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day.

(4) Permian anticipates using an average injection pressure of 2,000 psi for this well and it requests approval of a maximum injection pressure of 3,324 psi for the well.

(5) On or about April 26, 2019, Permian filed an administrative application with the Division seeking administrative approval of the subject well for produced water disposal.

(6) Permian complied with the notice requirements for administrative applications, including mailing and publication in the Hobbs News Sun.

(7) The New Mexico State Land Office submitted a protest with respect to Permian's administrative application. Permian discussed the State Land Office's protest with the State Land Office. The State Land Office requested that Permian submit an application for hearing before a Division Examiner for this matter.

(8) To Permian's knowledge, no other protests were submitted.

(9) A proposed C-108 for the subject well is attached hereto in Attachment A.

(10) The granting of this application will avoid the drilling of unnecessary wells, will prevent waste, and will protect correlative rights.

WHEREFORE, Permian requests that this application be set for hearing before an Examiner of the Oil Conservation Division on June 13 2019; and that after notice and hearing, the Division enter its order approving this application.

Respectfully submitted,

MODRALL, SPERLING, ROEHL, HARRIS
& SISK, P.A.

By: Deana M Bennett

Deana M. Bennett
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Attorneys for Applicant

CASE NO. 20574: Application of Permian Oilfield Partners, LLC for approval of a salt water disposal well in Lea County, New Mexico. Applicant seeks an order approving disposal into the Silurian-Devonian formation through the Vortex Federal SWD Well #1 well at a surface location 1,151 feet from the North line and 337 feet from the East line of Section 1, Township 24 South, Range 32 East, NMPM, Lea County, New Mexico for the purpose of operating a produced water disposal well. Applicant seeks authority to inject produced water into the Silurian-Devonian formation at a depth of approximately 16,619' to 18,427'. Applicant further seeks approval of the use of 7 inch tubing inside the surface and intermediate casings and 5 ½ inch tubing inside the liner and requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day. Said area is located approximately 20.1 miles west northwest of Jal, New Mexico.

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: Vortex Federal SWD #1	API: 30-025-Pending
Pool: SWD, Devonian-Silurian	Pool Code: 97869

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

- 1) **TYPE OF APPLICATION:** Check those which apply for [A]
- A. Location – Spacing Unit – Simultaneous Dedication
 NSL NSP (PROJECT AREA) NSP (PRORATION UNIT) SD
- B. Check one only for [I] or [II]
- [I] Commingling – Storage – Measurement
 DHC CTB PLC PC OLS OLM
- [II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery
 WFX PMX SWD IPI EOR PPR

- 2) **NOTIFICATION REQUIRED TO:** Check those which apply.
- A. Offset operators or lease holders
 B. Royalty, overriding royalty owners, revenue owners
 C. Application requires published notice
 D. Notification and/or concurrent approval by SLO
 E. Notification and/or concurrent approval by BLM
 F. Surface owner
 G. For all of the above, proof of notification or publication is attached, and/or,
 H. No notice required

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

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

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

Sean Puryear _____

Print or Type Name

Date

18171600-8772 _____

Phone Number

Signature

spuryear@popmidstream.com _____
e-mail Address



APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: **Disposal**
Application qualifies for administrative approval? **Yes**
- II. OPERATOR: **Permian Oilfield Partners, LLC.**
ADDRESS: **P.O. Box 1220, Stephenville, TX. 76401**
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: **4-26-2019**
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: _____

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 14,806'

Underlying Potentially Productive Zones:

None

WELL CONSTRUCTION DATA

Permian Oilfield Partners, LLC.

Vortex Federal SWD #1

1151' FNL, 337' FEL

Sec. 1, T24S, R32E, Lea Co. NM

Lat 32.2508126° N, Lon 103.6208660° W

GL 3636', RKB 3666'

Surface - (Conventional)

Hole Size: 26" Casing: 20" - 94# H-40 & 106.5# J-55 STC Casing
Depth Top: Surface
Depth Btm: 1160'
Cement: 774 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: 5059'
Cement: 1680 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: 12198' ECP/DV Tool: 5159'
Cement: 2110 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: 11998'
Depth Btm: 16619'
Cement: 238 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11998' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5" Depth: 18427'
Inj. Interval: 16619' - 18427' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 16574' Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80
X/D Depth: 11998' FJ Casing (Fiberglass Lined)
X/D: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 16584' Packer: 5.5" - Perma-Pak or Equivalent (Inconel)

WELLBORE SCHEMATIC

Perman Oilfield Partners, LLC.
Vortex Federal SWD #1
1151' FNL 337' FEL
Sec. 1, T24S, R32E, Lea Co. NM
Lat 32.2508126° N, Lon 103.6208660° W
GL 3636', RKB 3666'

Surface - (Conventional)

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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: 12198'
Cement: 2110 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)
ECP/DV Tool: 5159'

Intermediate #3 - (Liner)

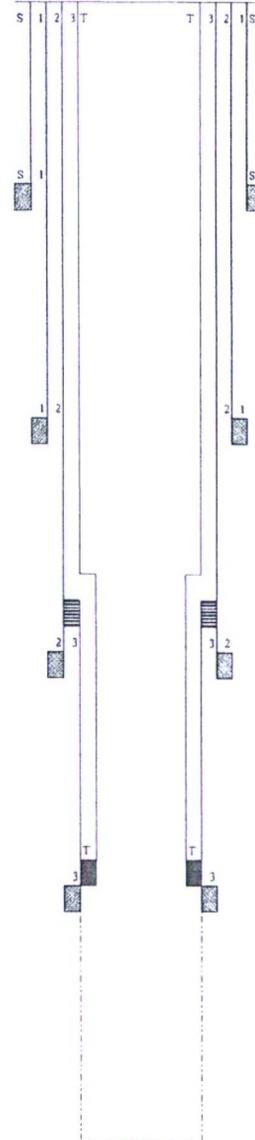
Hole Size: 8.5"
Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 11998'
Depth Btm: 16619'
Cement: 238 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11998' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5"
Depth: 18427'
Inj. Interval: 16619' - 18427' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 16574'
Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 11998'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 16584'
Packer: 5.5" - Perma-Pak or Equivalent (Inconel)



VI: There is one well within the proposed injection wells 1 mile area of review that penetrates the Devonian Formation. The well name is the Brinninstool Deep Unit #1, API # 30-025-21081. The previous well operator (Bettis, Boyle & Stovall) plugged the well and released it to the NMOCD in 1989. Please see attached well documentation at end of application.

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 3,324 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.
Vortex Federal SWD #1
1151' FNL, 337' FEL
Sec. 1, T24S, R32E, Lea Co. NM
Lat 32.2508126° N, Lon 103.6208660° W
GL 3636', RKB 3666'

GEOLOGY PROGNOSIS			
FORMATION	TOP	BOTTOM	THICKNESS
	KB TVD (ft)	KB TVD (ft)	(ft)
Salt	1.587	4.921	3.334
Delaware	5.034	8.994	3.960
Bone Spring	8.994	12.148	3.154
Wolfcamp	12.148	13.142	994
Lwr. Mississippian	16.037	16.370	333
Woodford	16.370	16.584	214
Devonian	16.584	17.617	1.033
Fusselman (Silurian)	17.617	18.452	835
Montoya (U. Ordovician)	18.452	18.918	466
Simpson (M. Ordovician)	18.918	19.768	850

2. According to the New Mexico Office of the State Engineer and field exploration, there are NO fresh water wells drilled within the proposed well's one-mile area of review. Regionally, shallow fresh water is known to exist at depths less than 600'. 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 and field exploration, there are NO fresh water wells drilled within the proposed well's one-mile area of review.
- XII:** Hydrologic affirmative statement attached.
- XIII:** Proof of notice and proof of publication attached.



Item XII. Affirmative Statement

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Vortex Federal SWD #1
Sec. 1, Twp. 24S, Rge. 32E
1151' FNL, 337' FEL
Lea 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.

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

Gary Fisher
Manager
Permian Oilfield Partners, LLC.

Date: 4/24/2019

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 30-025-		² Pool Code 97869		³ Pool Name SWD; DEVONIAN-SILURIAN	
⁴ Property Code		⁵ Property Name VORTEX FEDERAL SWD			⁶ Well Number 1
⁷ GRID NO. 328259		⁸ Operator Name PERMIAN OILFIELD PARTNERS LLC			⁹ Elevation 3636'

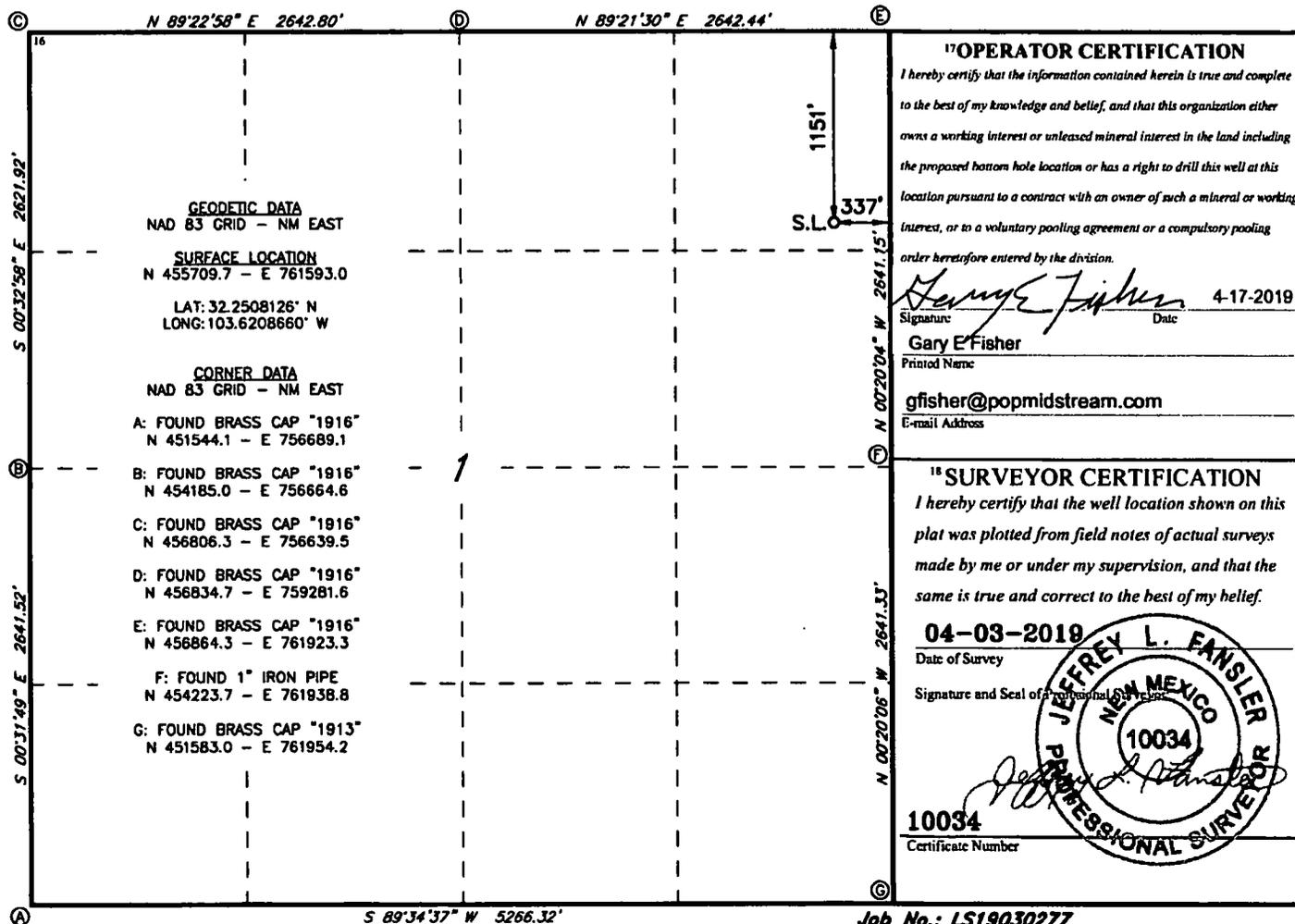
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	1	24S	32E		1151	NORTH	337	EAST	LEA

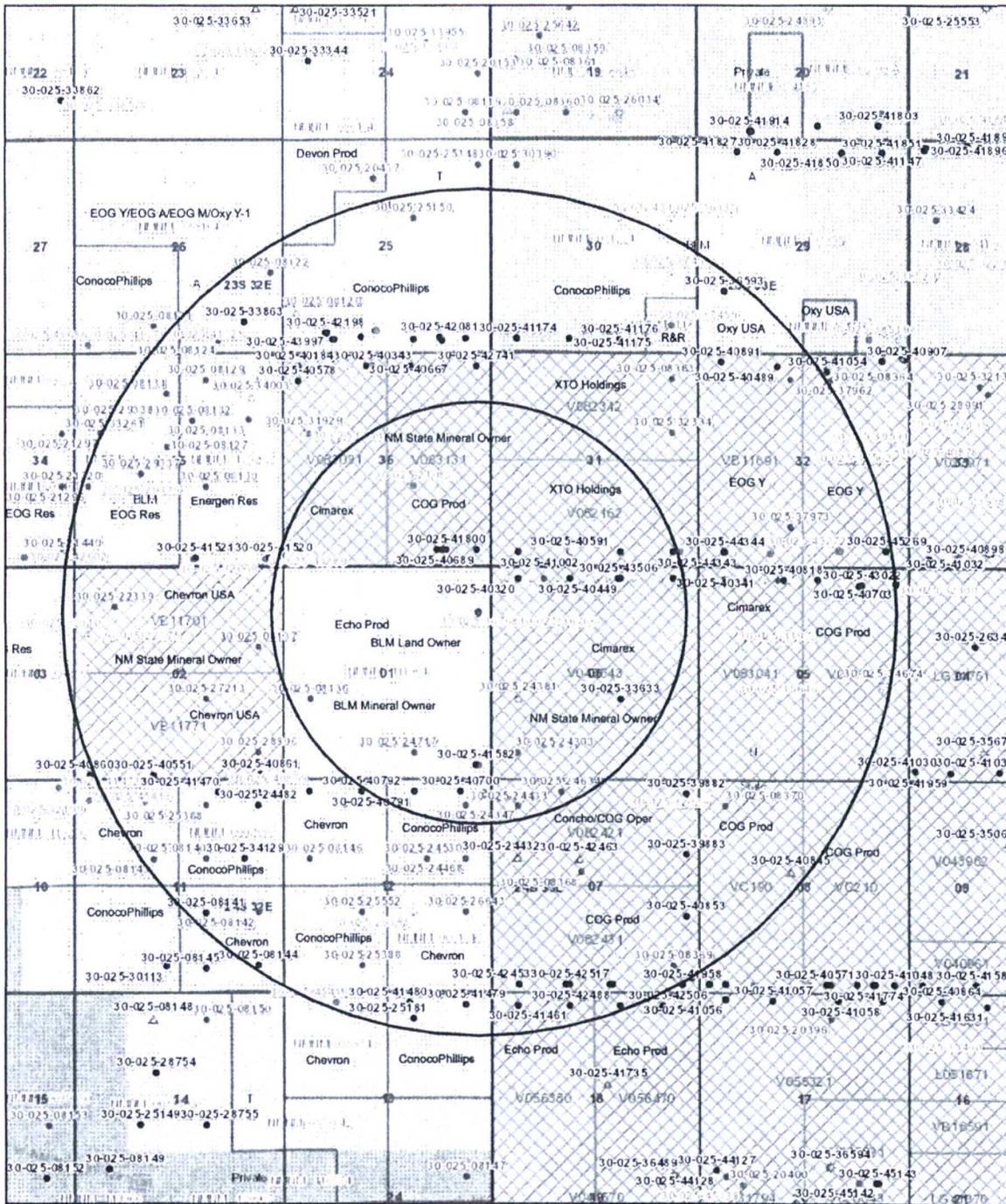
¹¹ Bottom Hole Location If Different From Surface

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.



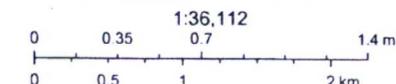
1 & 2 Mile AOR, Vortex Federal SWD #1



4/21/2019, 9:36:46 PM

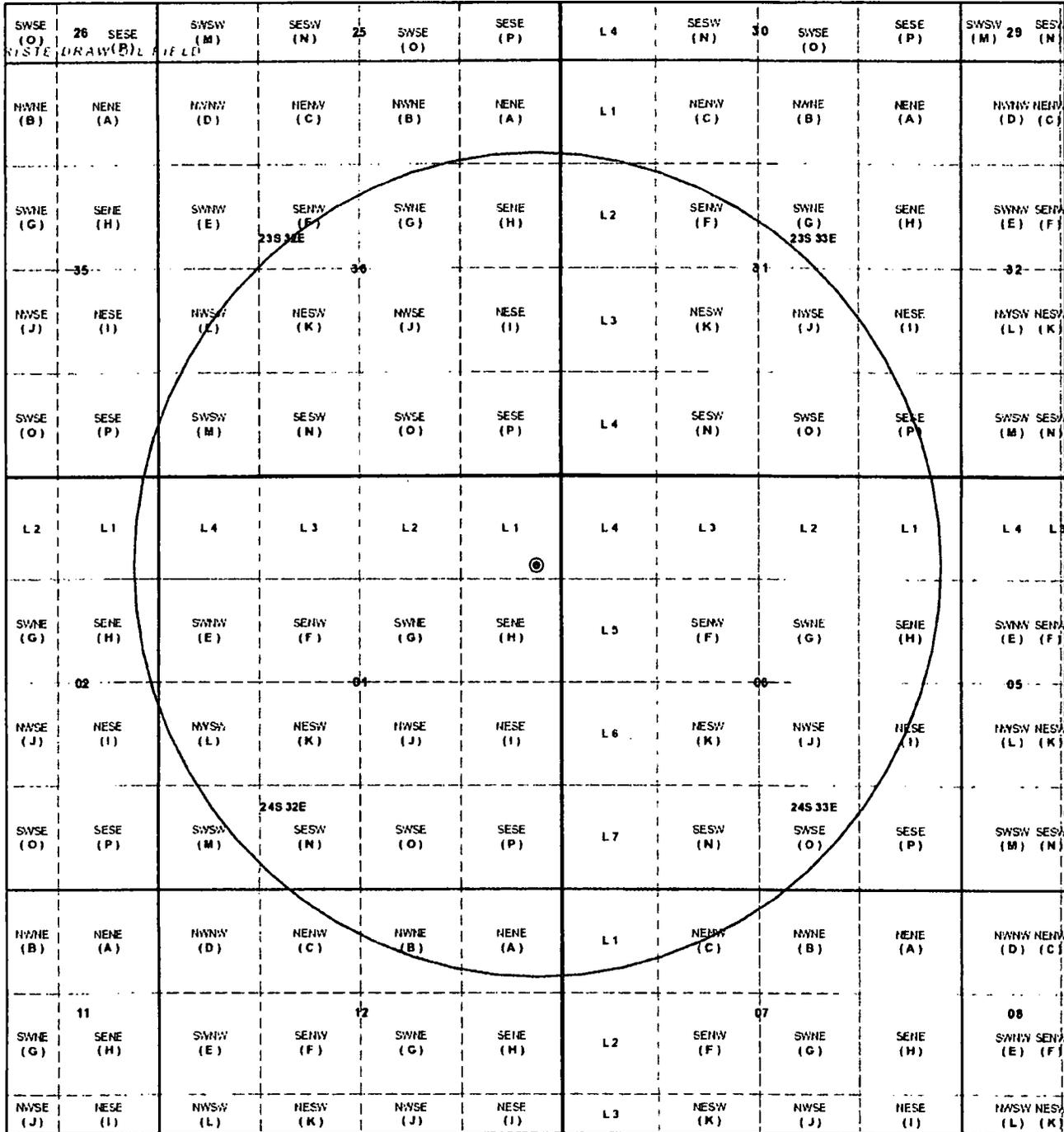
- Override 1
- Well Locations - Small Scale**
 - Active
 - New
 - Plugged
 - Cancelled
 - Temporarily Abandoned
- Well Locations - Large Scale**
 - Miscellaneous
 - CO2 Active
 - CO2 Cancelled
 - CO2 New
 - CO2 Plugged
 - CO2 Temporarily Abandoned

- 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 Abandoned
- Salt Water Injection Active
- Salt Water Injection Cancelled
- Salt Water Injection New
- Salt Water Injection Plugged
- Salt Water Injection Temporarily 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).

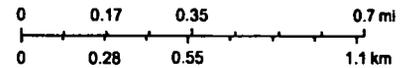
Vortex Federal SWD #1 - Water Wells within 1 Mile AOR



4/17/2019, 11:39:57 AM

1:18,056

- Override 1
- Override 1
- PLSS First Division
- PLSS Second Division
- PLSS Townships



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), swisstopo, © OpenStreetMap contributors, and the GIS User

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	DepthWell	DepthWater	Water Column
C_01932		C	ED	3	1	12	24S	32E		628633	3567188*	492		
C_02350		CUB	ED	4	3	10	24S	32E		625826	3566333*	60		
C_03552 [POD]		C	LE	1	2	3	03	24S	32E	625770	3568487	500		
C_03528 [POD]		C	LE	1	1	2	15	24S	32E	626040	3566129	541		
C_03530 [POD]		C	LE	3	4	3	07	24S	32E	620886	3566156	550		
C_03558 [POD]		C	LE	2	2	1	05	24S	32E	622709	3569231	600	380	220

Average Depth to Water: **380 feet**
 Minimum Depth: **380 feet**
 Maximum Depth: **380 feet**

Record Count: 6

PLSS Search:

Township: 24S Range: 32E

*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.

Plugging Risk Assessment
Permian Oilfield Partners, LLC.
Vortex Federal SWD #1
SL: 1151' FNL & 337' FEL
Sec 1, T24S, R32E
Lea County, New Mexico

WELLBORE SCHEMATIC

Perman Oilfield Partners, LLC.
Vortex Federal SWD #1
1151' FNL, 337' FEL
Sec. 1, T24S, R32E, Lea Co. NM
Lat 32.2508126° N, Lon 103.6208660° W
GL 3636', RKB 3666'

Surface - (Conventional)

Hole Size: 26"
Casing: 20" - 94# H-40 & 106.5# J-55 STC Casing
Depth Top: Surface
Depth Btm: 1160'
Cement: 774 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: 5059'
Cement: 1680 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: 12198'
Cement: 2110 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)
ECP/DV Tool: 5159'

Intermediate #3 - (Liner)

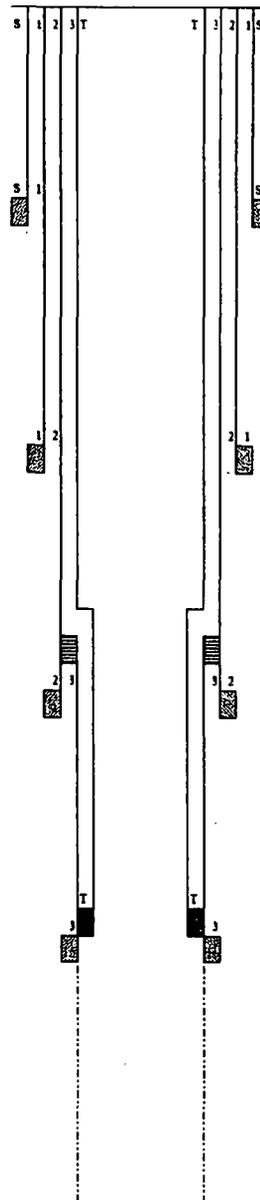
Hole Size: 8.5"
Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 11998'
Depth Btm: 16619'
Cement: 238 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11998' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5"
Depth: 18427'
Inj. Interval: 16619' - 18427' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 16574'
Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 11998'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 16584'
Packer: 5.5" - Perma-Pak or Equivalent (Inconel)



Plugging Risk Assessment

7" UFJ Tubing Inside of 9 5/8" 40# Casing

Bowen Series 150 Releasing and Circulation Overshots
 Maximum Catch Size 6 3/4" to 7 1/4" Inclusive

Maximum Catch Size (Spiral)		6 3/4"	6 1/2"	7"	7 1/4"
Maximum Catch Size (Basket)		5 7/8"	6 1/8"	6 3/4"	6 5/8"
Overshot O.D.		8 1/4"	7 7/8"	8 1/2"	8 3/4"
Type		E.S.	E.H.	E.H.	E.H.
Complete Assembly	Part No.	C-3032	C-5222	Q217	C-5354
(Dressed Spiral Parts)	Weight	260	243	251	260
Replacement Parts					
Top Sub	Part No.	A-3033	A-5223	Q218	A-5355
Bowl	Part No.	B-3034	B-5224	Q219	B-5356
Packer	Part No.	A-1814	B-5225	Q224	B-5357
Spiral Grapple	Part No.	N-84	B-5227	Q222	B-5359
Spiral Grapple Control	Part No.	M-89	A-5226	Q223	B-5360
Standard Guide	Part No.	A-1816	A-5229	Q226	A-5361
Basket Parts					
Basket Grapple	Part No.	N-84	B-5227	Q222	B-5359
Basket Grapple Control	Part No.	M-89	A-5226	Q223	B-5360
Mill Control Packer	Part No.	A-1814-R	B-5225-R	Q224-R	B-5357-R

A 6.375" 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 1/2" UFJ Tubing Inside of 7 5/8" 39# Casing

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 4x 10 5/8" holes

Maximum Catch Size (Spiral)		4x	4 1/4"	4 1/2"	4 3/4"	5"	5 1/4"	5 1/2"
Maximum Catch Size (Basket)		3 1/4"	4 1/4"	4 1/2"	4 3/4"	5"	5 1/4"	5 1/2"
Overshot O D		5 3/4"	5 3/4"	5 3/4"	5 3/4"	5 3/4"	6 3/4"	6 3/4"
Type		S-E	S-H	S-H	S-FS	S-H	FS	S-H
Complete Assembly	Part No.	5696	5698	C-5153	8975	C-5171	C-4825	8825
(Dressed Spiral Parts)	Weight	130	130	133	135	140	192	165
<i>Replacement Parts</i>								
Top Sub	Part No.	5697	5699	A-5159	8978	A-5172	B-4826	8826
Bowl	Part No.	5693	5700	B-5170	8977	B-5173	B-4827	8817
Packer	Part No.	189	1140	B-2199	8114	L-5050	L-4505	8818
Spiral Grapple	Part No.	185	1135	B-2201	8112	B-4369	M-1071	8816
Spiral Grapple Control	Part No.	186	1137	B-2202	8113	B-4370	M-1072	8820
Standard Guide	Part No.	187	1143	B-2203	8121	B-4371	L-1074	8821
<i>Basket Parts</i>								
Basket Grapple	Part No.	185	1135	B-2201	8112	B-4369	M-1071	8816
Basket Grapple Control	Part No.	186	1137	B-2202	8113	B-4370	M-1072	8820
Mill Control Packer	Part No.	188-R	1140-R	B-2199-R	8114-R	L-5050-R	M-4505	L-8618-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.



**PERMIAN OILFIELD
PARTNERS**

**Attachment to C-108
Permian Oilfield Partners, LLC
Vortex Federal SWD #1
Sec. 1, Twp. 24S, Rge. 32E
1151' FNL, 337' FEL
Lea County, NM**

April 17, 2019

STATEMENT REGARDING SEISMICITY

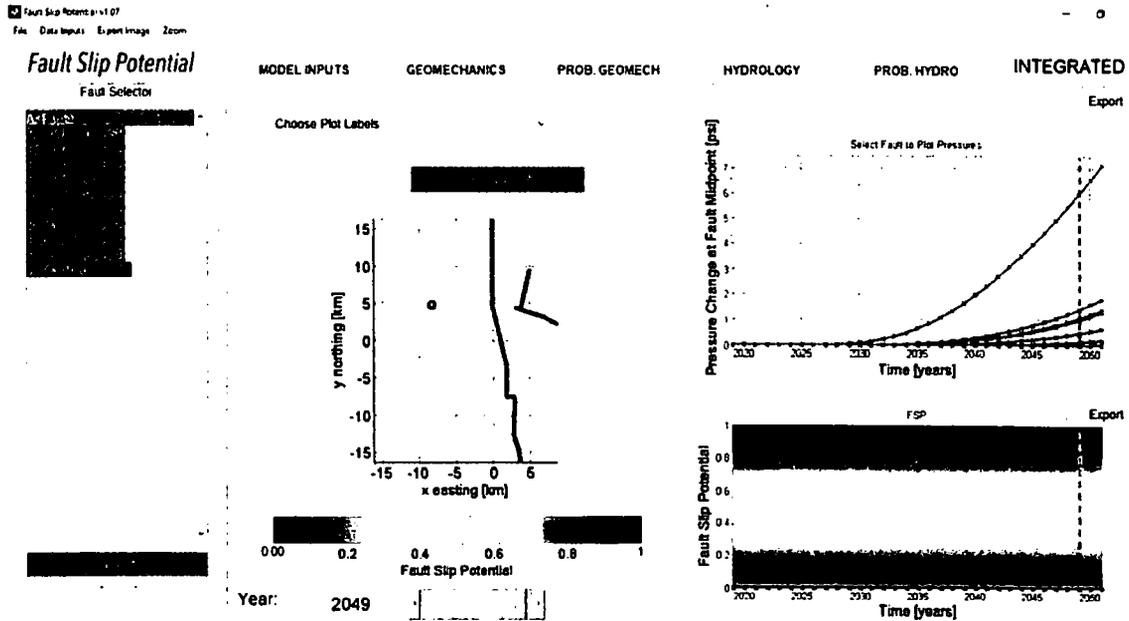
Examination of the USGS and TexNet seismic activity databases has shown minimal historic seismic activity in the area (< 30 miles) of our proposed above referenced SWD well as follows:

1. M2.9, 1984-12-09, 13.03 miles away @ 345.83 deg heading
2. M3.3, 2001-06-02, 27.29 miles away @ 50.43 deg heading
3. M4.6, 1992-01-02, 29.26 miles away @ 53.10 deg heading
4. M2.6, 2017-05-03, 28.06 miles away @ 89.96 deg heading
5. M3.1, 2012-03-18, 26.68 miles away @ 301.08 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. Even though we do not propose to inject into the PreCambrian, Permian Oilfield Partners ran modeling to check for fault slip assuming the improbable occurrence of a total downhole well failure that would allow 100% of injected fluids to enter the PreCambrian. 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 PreCambrian fault being stressed so as to create an induced seismic event, with the following assumptions:

- a. Full proposed capacity of 50,000 BBL/day for 30 years
 - b. 12.5 mD average permeability, 3% average porosity, .75 psi/ft frac gradient, .45 psi/ft hydrostatic gradient
 - c. $A\text{-}\phi=0.60$ & Max Horizontal Stress direction 75 deg NW, as per Snee, Zoback paper noted above.
5. The probability of an induced seismic event in the PreCambrian is calculated to be 0% after 30 years as per the FSP results screenshot below. At its closest point, the well is approximately 1km away from this fault, but due to the direction of maximum horizontal stress, the localized probability of an induced seismic event still remains about 10%, even in the unlikely case of a catastrophic well failure that could see high localized pressure on the fault.
 6. The analysis below assumes an improbable well failure through the Montoya and Simpson zones, into the PreCambrian. When the injected fluids stay in the Devonian-Silurian zone as per design, there will be very low probability of fault slip, since there are no known nearby faults within the Devonian-Silurian.



As per NM OCD requirements (injection well to injection well spacing minimum of 1.5 miles), this proposed above referenced SWD well is located 2.35 miles away from the nearest active or permitted Devonian disposal well.

Andy E. Fisher

afisher@popmidstream.com
 (817) 606-7630

Section VI. Plugged Devonian, Brinninstool #1

WELLBORE SCHEMATIC

API # 30-025-21081
 Brinninstool #1
 1980' FSL, 1980' FEL
 Sec. 16, T23S, R32E, Lea Co. NM
 Lat 32.259449° N, Lon 103.626187° W
 GL 3662', RKB 3689'

Updated: 4/25/2019 - Sean Puryear
 Permian Offheld Partners, LLC

Spud Date: 03/23/1964, Initial Plugging Date: 01/26/1965, Final Plugging Date: 07/10/1989

Surface - (Conventional)

Hole Size: 26"
 Casing: 20" - 94# H-40 STC Casing
 Depth Top: Surface
 Depth Btm: 725'
 Cement: 1100 sks
 Cement Top: Surface - (Circulate)

Intermediate #1 - (Conventional)

Hole Size: 17.5"
 Casing: 13.375" - 68# N-80 & 72# N-80 BTC Casing
 Depth Top: Surface
 Depth Btm: 5038'
 Cement: 4460 sks
 Cement Top: 105' - (Temp Survey Verified & Topped Out to Surface)
 ECP/DV Tool: 3577'

Intermediate #2 - (Conventional)

Hole Size: 12.5"
 Casing: 10.75" - 60.7# P-110 & 65.7# P-110 Hydril Casing
 Depth Top: Surface
 Depth Btm: 12712'
 Cement: 2400 sks
 Cement Top: 7895' - (Temp Survey Verified)

* 10 3/4" Casing Cut-Off & Pulled at 2600' (1965)

Intermediate #3 - (Liner)

Hole Size: 9.5"
 Casing: 7 5/8" 39# Liner
 Depth Top: 12,283'
 Depth Btm: 16,820'
 Cement: 1350 sks
 Cement Top: 16,820'

* Plugged Back to 15,700' with 250 sks Trinity Inferno Cement

* 7 5/8" Liner Top @ 12283'

* 7 5/8" Scab Liner Set @ 8106'

* 7 5/8" Casing Cut-Off & Pulled at 6025' (1989)

Open Hole

Hole Size: 6.5"
 Depth: 17649'

* Plugged Back to 16,810' with 250 sks Trinity Inferno Cement

Work History

SPUD: 03/23/1964 - Drilled by Pure Oil Co.

INITIAL PLUGGING: 03/01/1965 - Plugged by Pure Oil Co. - See Attached Plugging Report

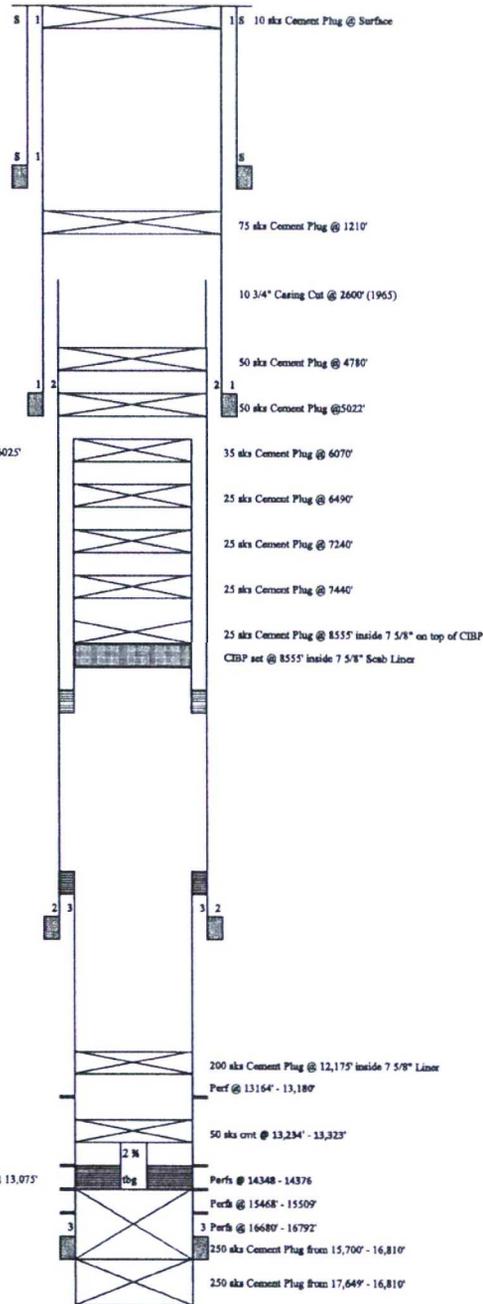
RE-ENTRY: 02/1987 - Bettis, Boyle & Stovall - Ran In, Drilled Out Plugs, Set 7 5/8" Scab Liner @ 8106'

RIH & Set 2 7/8" Packer @ 13,075' Perforated @ 14,348 - 14,376, Cut 2 7/8" tbg @ 13,296',

Set 50 sks cmt plug across top of cut tubing, Perforate 13,164' - 13,180', RIH & set Baker Lok-set packer @ 13,075'

FINAL PLUGGING: 07/10/1989 - Bettis, Boyle & Stovall - See Attached Plugging Report

Baker Lok Set Packer @ 13,075'



copies
date
office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT II
O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL API NO.

5. Indicate Type of Lease
STATE FEE

6. State Oil & Gas Lease No.
V-746

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"
(FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name

Brinninstool

1. Type of Well:
OIL WELL GAS WELL OTHER

8. Well No.

1

2. Name of Operator
Bettis, Boyle and Stovall

9. Pool name or Wildcat

Wildcat

3. Address of Operator
P. O. Box 1240, Graham, Texas 76046

4. Well Location
Unit Letter J : 1980 Feet From The South Line and 1980 Feet From The East Line
Section 16 Township 23-S Range 32-E NMPM Lea County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

3662.5' GR, 3689' RKB

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG AND ABANDONMENT <input checked="" type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: _____ <input type="checkbox"/>		OTHER: _____ <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Plugging operations began on May 24, 1989, and were completed on June 12, 1989.
 Set 25 sack plug at 13,180', WOC, tagged plug at 13,074'. Circulated hole with 9.5#/gallon mud. Set 50 sack plug at 8850', tagged plug at 8754'. SI overnight. On May 31, 1989 bled off gas for 2 minutes, both plugs leaking. Drilled out both plugs to 13,010', circulated hole with 10#/gallon brine. Spotted 200 sack plug from 13,010' to 12,175'. Set CIBP at 8555' with 25 sacks cement on top.
 Jet-cut 7-5/8" casing at 6025' and pulled 142 joints (5714') of casing.
 On June 9, 1989 continued to set cement plugs: 25 sacks at 7440', 25 sacks at 7240', 25 sacks at 6490', and 35 sacks at 6070'. Shut down for weekend.
 Continued on June 12, 1989 setting cement plugs: 50 sacks at 5022', 50 sacks at 4780', 75 sacks at 1210', and 10 sack plug at surface with dry hole marker.
 The anchors were cut-off and location cleaned up on June 12, 1989.

I hereby certify that the information above is true and complete to the best of my knowledge and belief

SIGNATURE

Kim Sigon

TITLE

Production Asst.

DATE

9/5/89

TYPE OR PRINT NAME

TELEPHONE NO.

(This space for State Use)

APPROVED BY _____

TITLE _____

DATE _____

CONDITIONS OF APPROVAL, IF ANY:

PURE OIL COMPANY
INITIAL PLUGGING: 03/01/1965

Dial Induction-Laterolog, and Microlog-Caliper surveys. Set HOKCO SVDC tool at 16,800', cemented through tool with 250 sacks cement, final pressure 3800'. Tested casing with 2500 psi, held OK. Tested casing with 14.3% mud in hole to 2000', held 30 minutes OK.

16,810' PBD. Perforated 7-5/8" OD Liner in Mississippian Lime, 16,800'-16,685', 16,691'-16,706', 16,716'-16,720', 16,717'-16,752', and 16,787'-16,792' with 2 shots per foot (total 33', 66 shots). Swabbed trace of gas, no formation fluid. Reset HOKCO RTTS tool at 16,802' (was 16,811'), squeezed Mississippian perforations, 16,680' to 16,792' with 250 sacks cement, maximum pressure 5000', minimum 3100'. After WOC, pressured up on plug to 7600 psi, held OK. Set HOKCO BC Bridge Plug at 15,700'.

15,700' PBD. Set HOKCO RTTS tool at 15,372'. Perforated 7-5/8" OD Liner, in Pennsylvanian formation, 15,468'-15,468', 15,491'-15,495', and 15,498'-15,509' with 2 shots per foot (total 39', 70 shots). Well open to air 8-1/2 hours, no flow. Swabbed load water, trace of gas. Swabbed down to 10,000', well started flowing. 9-1/2 hours flowed to pit, 3/4" and 5/8" chokes, mud and slightly salty water. Flowed 30 minutes on 1/4" choke, FTP 600 psi. rate of 850 MCF/D. Acidized Pennsylvanian perforations, 15,468' to 15,509' with 2000 gallons 7-1/2% mud acid. Swabbed to pit, flowing by heads, tubing pressure 130 psi to 0 psi. Flowed through separator, 3/4" choke, average rate of gas 725 MCF/D, average on

water 5.5 barrels per hour, water increased and gas decreased after acid job. squeezed perforations, 15,468' to 15,509' with 250 sacks cement. Reset packer at 11,920', tested packer and casing with 1500 psi, held OK. Tested perforations 15,468' to 15,509' with 7500 psi, held 30 minutes OK. Tagged top of cement inside 7-5/8" OD Liner at 15,224'. Pumped in 14.5% mud, spotted cement plug in 10-3/4" OD Casing at 9,027' with 125 sacks (15.2% slurry) salt water class "A" cement. Shot 10-3/4" OD Casing at 7,860', attempted to pull casing, unable to pull. Shot 10-3/4" OD Casing at 7,750', unable to pull casing. Placed cement plug 7,950' to 7,650' with 150 sacks cement, 14.5% mud placed between plugs. Shot 10-3/4" OD Casing at 6,770', unable to pull casing. Placed cement plug 6,850' to 6,650' with 100 sacks cement, 14.5% mud placed between plugs. Shot 10-3/4" OD Casing at 5,951', unable to pull casing. Placed cement plug 6,000' to 5,800' with 100 sacks cement, 14.5% mud placed between plugs. Shot 10-3/4" OD Casing at 4,899', unable to pull casing. Placed cement plug 4,950' to 4,750' with 100 sacks cement, 14.5% mud placed between plugs. Shot 10-3/4" OD Casing at 2,600', recovered approximately 2600' of casing. Placed cement plug in top of 10-3/4" OD Casing and inside 13-3/8" OD Casing from 2750' to 2350' with 200 sacks cement, 14.5% mud placed between plugs in 10-3/4" OD Casing and bottom of 13-3/8" OD Casing. Placed cement plug in 13-3/8" OD Casing from 180' to surface with 125 sacks cement, 14.5% mud placed between plugs. Welded 1/4" steel plate on top of casinghead with 4" diameter marker extending 4 feet above ground. Plugging witnessed by New Mexico Oil Conservation Commission representative.



Statement of Notifications

Re: C-108 Application for SWD Well
 Permian Oilfield Partners, LLC
 Vortex Federal SWD #1
 Sec. 1, Twp. 24S, Rge. 32E
 1151' FNL, 337' FEL
 Lea County, NM

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

Vortex 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
Oxy USA Inc	P.O. Box 4294	Houston, TX 77210-4294	USPS	9414811899561820014016	4/27/2019
Cimarex Energy Co.	600 N. Marienfeld Street Suite 600	Midland, TX 79701	USPS	9414811899561820014313	4/27/2019
POGO Producing Co	P.O. Box 10340	Midland, TX 79702	USPS	9414811899561820014061	4/27/2019
XTO Energy, Inc	6401 Holiday Hill Road Building #5	Midland, TX 79707	USPS	9414811899561820014023	4/27/2019
COG Production, LLC	P.O. Box 2064	Midland, TX 79702	USPS	9414811899561820014320	4/27/2019
Bureau Of Land Management	620 E Greene St	Carlsbad, NM 88220	USPS	9414811899561820014184	4/27/2019
New Mexico State Land Office	2827 N Dal Paso St Suite 117	Hobbs, NM 88240	USPS	9414811899561820014375	4/27/2019
New Mexico State Land Office	310 Old Santa Fe Trail	Santa Fe, NM 87501	USPS	9414811899561820014337	4/27/2019
Energen Resources Corporation	605 R Arrington Jr. Blvd North	Birmingham, AL 35203-2707	USPS	9414811899561820014382	4/27/2019
Chevron U S A Inc	6301 Deauville Blvd	Midland, TX 79706	USPS	9414811899561820014177	4/27/2019
Echo Production Inc	616 5th St	Graham, TX 76450	USPS	9414811899561820014344	4/27/2019
ConocoPhillips Company	P.O.Box 2197 Office EC3-10-W285	Houston, TX 77252	USPS	9414811899561820014399	4/27/2019
Concho Oil & Gas LLC	550 West Texas Avenue Suite 100	Midland, TX 79701	USPS	9414811899561820014306	4/27/2019
XTO Holdings, LLC	810 Houston St	Fort Worth, TX 76102	USPS	9414811899561820014009	4/27/2019
COG Operating LLC	600 W Illinois Ave	Midland, TX 79701	USPS	9414811899561820014351	4/27/2019

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

Date: 4-27-2019

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

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

Beginning with the issue dated
April 23, 2019
and ending with the issue dated
April 23, 2019.



Publisher

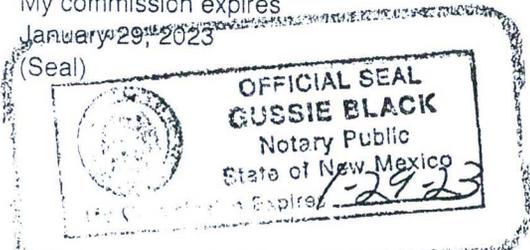
Sworn and subscribed to before me this
23rd day of April 2019.



Business Manager

My commission expires
January 29, 2023

(Seal)



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

LEGALS

LEGAL NOTICE
April 23, 2019

Permian Oilfield Partners, LLC, PO Box 1220, Stephenville, TX 76401, 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 Lea County, New Mexico. The well name is the Vortex Federal SWD #1, and is located 1151' FNL & 337' FEL, Unit Letter A, Section 1, Township 24 South, Range 32 East, NMPM. The well will dispose of water produced from nearby oil and gas wells into the Devonian formation from a depth of 16,619 feet to 18,427 feet. The maximum expected injection rate is 50,000 BWPD at a maximum surface injection pressure of 3,324 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.
#34061

67115647

00227339

GARY FISHER
PERMIAN OILFIELD PARTNERS, LLC
PO BOX 1220
STEPHENVILLE, TX 76401