Initial Application Part I

Received: **04/30/2019**

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

APR 30 2019 AM10:00

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
04/30/2019		SWD	pMAM1912858436

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: Deep Hole 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

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.

04/26/2019
Date

Sean Puryear
Print or Type Name

(817) 600-8772
Phone Number

Signature

spuryear@popmidstream.com
e-mail Address

PERMIAN OILFIELD
PARTNERS

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

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Deep Hole Federal SWD #1
Sec. 19, Twp. 26S, Rge. 32E
1339' FSL, 250' FEL
Lea County, NM

Mr. Goetze,
Attached is a C-108 Application for administrative approval of Permian Oilfield Partners LLC's proposed Deep Hole Federal SWD #1 located in Sec 19, Twp 26S, Rge 32E, Lea 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 offset operators, mineral owners, lessees and the surface owner. 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 1 in Hobbs.

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

Sincerely,

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

Date:
04/26/2019

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 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: 4-25-2019

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.

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 14,750'

   Underlying Potentially Productive Zones:
   None

WELL CONSTRUCTION DATA

Permian Oilfield Partners, LLC.
Deep Hole Federal SWD #1
1339' FSL, 250' FEL
Sec. 19, T26S, R32E, Lea Co. NM
Lat 32.0245011° N, Lon 103.7065713° W
GL 3175', RKB 3205'

Surface - (Conventional)

Hole Size: 26" **Casing:** 20" - 94# H-40 STC Casing
Depth Top: Surface
Depth Btm: 963'
Cement: 624 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: 4391'
Cement: 1466 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: 11770' **ECP/DV Tool:** 4491'
Cement: 1996 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: 11570'
Depth Btm: 17021'
Cement: 259 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11570' - (Volumetric)

Intermediate #4 - (Open Hole)

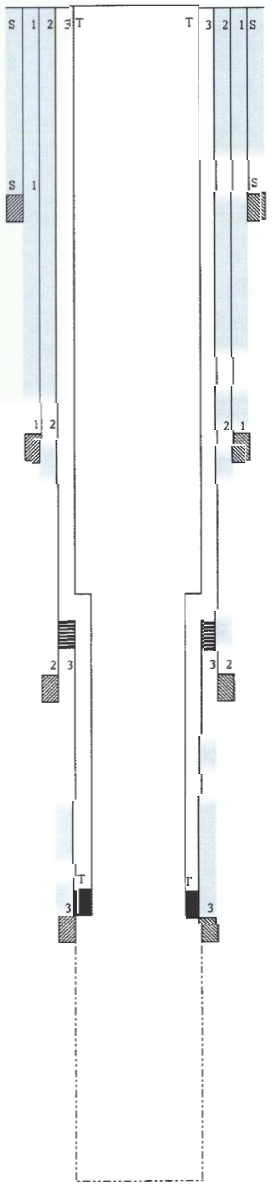
Hole Size: 6.5" **Depth:** 18352'
Inj. Interval: 17021' - 18352' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 16976' **Tubing:** 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 11570'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 16986' **Packer:** 5.5" - Perma-Pak or Equivalent (Inconel)

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
Deep Hole Federal SWD #1
1339' FSL, 250' FEL
Sec. 19, T26S, R32E, Lea Co. NM
Lat 32.0245011° N, Lon 103.7065713° W
GL 3175', RKB 3205'



Surface - (Conventional)

Hole Size:	26"
Casing:	20" - 94# H-40 STC Casing
Depth Top:	Surface
Depth Btm:	963'
Cement:	624 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:	4391'
Cement:	1466 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:	11770'
Cement:	1996 sks - Lite Class C (60:40:0) + Additives
Cement Top:	Surface - (Circulate)
ECP/DV Tool:	4491'

Intermediate #3 - (Liner)

Hole Size:	8.5"
Casing:	7.625" - 39# HCL-80 FJ Casing
Depth Top:	11570'
Depth Btm:	17021'
Cement:	259 sks - Lite Class C (60:40:0) + Additives
Cement Top:	11570' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size:	6.5"
Depth:	18352'
Inj. Interval:	17021' - 18352' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth:	16976'
Tubing:	7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth:	11570'
X/O:	7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth:	16986'
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 3,404 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.
Deep Hole Federal SWD #1
1339' FSL, 250' FEL
Sec. 19, T26S, R32E, Lea Co. NM
Lat 32.0245011° N, Lon 103.7065713° W
GL 3175', RKB 3205'

GEOLOGY PROGNOSIS			
FORMATION	**TOP** KB TVD (ft)	**BOTTOM** KB TVD (ft)	**THICKNESS** (ft)
Salt	1,345	4,288	2,943
Delaware	4,366	8,470	4,104
Bone Spring	8,470	11,720	3,250
Wolfcamp	11,720	12,645	925
Lwr. Mississippian	16,477	16,842	365
Woodford	16,842	16,986	144
Devonian	16,986	17,970	984
Fusselman (Silurian)	17,970	18,377	407
Montoya (U. Ordovician)	18,377	19,047	670
Simpson (M. Ordovician	19,047	19,725	678

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 610'. 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. No samples were obtained.

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
30-025-	97869	SWD; DEVONIAN-SILURIAN

4 Property Code	5 Property Name	6 Well Number
	DEEP HOLE FEDERAL SWD	1

7 OGRID NO.	8 Operator Name	9 Elevation
328259	PERMIAN OILFIELD PARTNERS, LLC	3175'

10 Surface Location

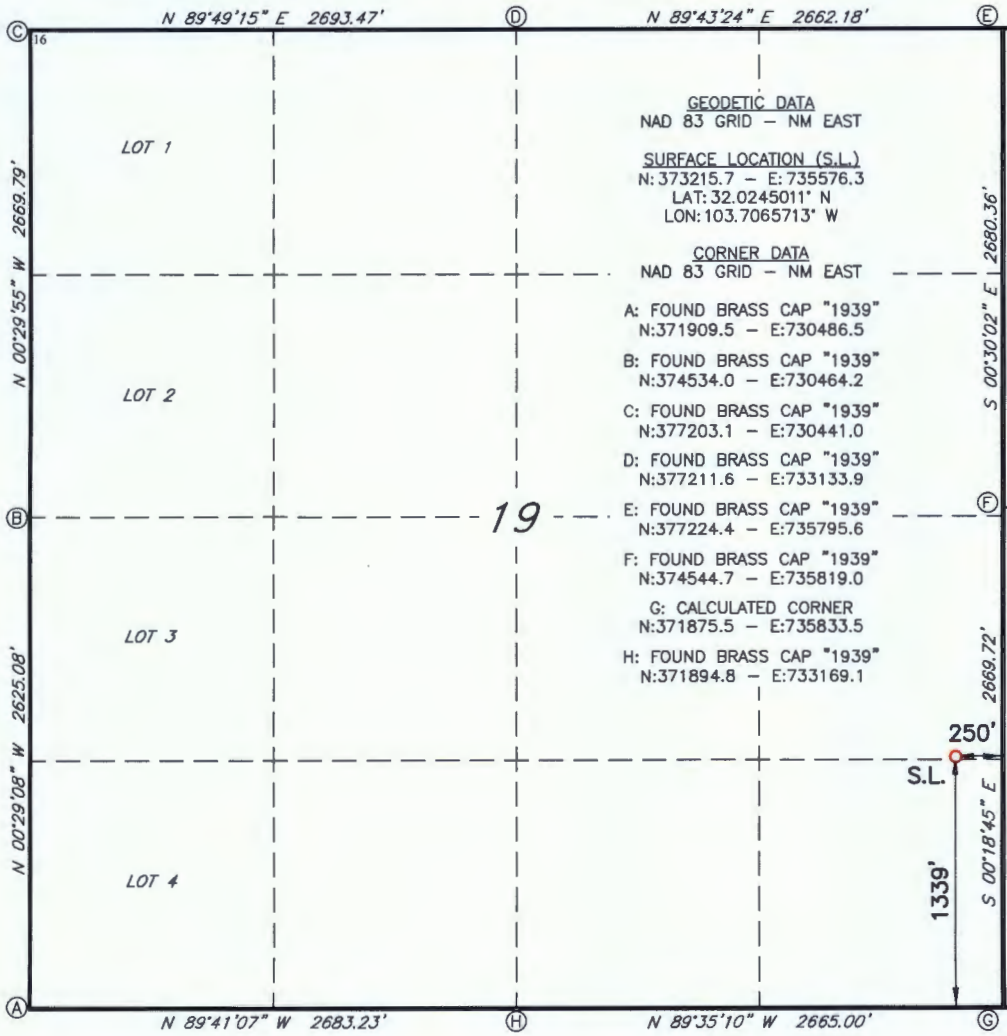
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
I	19	26S	32E		1339	SOUTH	250	EAST	LEA

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.



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 4-17-2019 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.

3-30-19
Date of Survey

Signature and Seal of Professional Surveyor

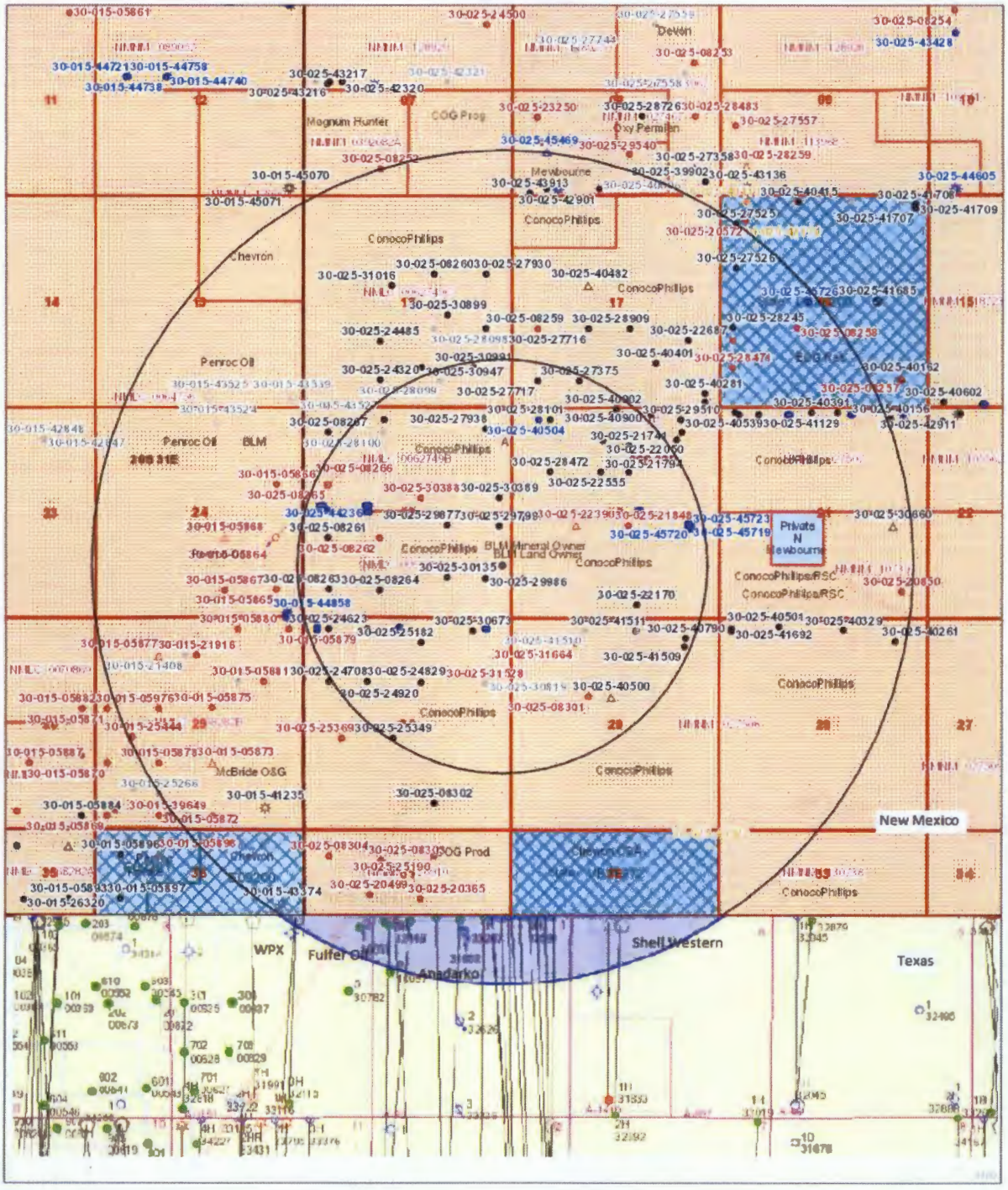
JEFFREY L. FANSLER
NEW MEXICO
10034
PROFESSIONAL SURVEYOR

10034
Certificate Number

REVISED: 4/01/2019

Job No.: LS19030273R

1 & 2 Mile AOR, Deep Hole Federal SWD #1



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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, Temporaly 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 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),

New Mexico Oil Conservation Division

Deep Hole Federal SWD #1 - Wells within 1 Mile Area of Review (page 1 of 2)

API Number	Current Operator	Well Name	Well Number	Well Type	Well Direction	Well Status	Section	Township	Range	OCD Unit Letter	Surface Location	Bottomhole Location	Formation	MD	TVD
30-025-08261	SAHARA OPERATING CO	RUSSELL 19 FEDERAL	#001	Oil	Vertical	Active	19	T26S	R32E	L	L-19-26S-32E Lot: 3 1980 FSL 660 FWL	L-19-26S-32E Lot: 3 1980 FSL 660 FWL	DELAWARE	4282	4282
30-025-08262	QUAY VALLEY INC.	RUSSELL 19 FEDERAL	#002	Oil	Vertical	Plugged, Site Released	19	T26S	R32E	K	K-19-26S-32E 1980 FSL 1980 FWL	K-19-26S-32E 1980 FSL 1980 FWL	DELAWARE	4321	4321
30-025-08263	SAHARA OPERATING CO	RUSSELL 19 FEDERAL	#003	Oil	Vertical	Active	19	T26S	R32E	M	M-19-26S-32E Lot: 4 660 FSL 660 FWL	M-19-26S-32E Lot: 4 660 FSL 660 FWL	DELAWARE	4252	4252
30-025-08264	SAHARA OPERATING CO	RUSSELL 19 FEDERAL	#004	Oil	Vertical	Active	19	T26S	R32E	N	N-19-26S-32E 660 FSL 1980 FWL	N-19-26S-32E 660 FSL 1980 FWL	DELAWARE	4294	4294
30-025-08265	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	19	T26S	R32E	E	E-19-26S-32E Lot: 2 1980 FNL 660 FWL	E-19-26S-32E Lot: 2 0 FNL 660 FWL	DELAWARE	4303	4303
30-025-08266	QUAY VALLEY INC.	THOMPSON 19 FEDERAL	#002	Injection	Vertical	Plugged, Site Released	19	T26S	R32E	F	F-19-26S-32E 1980 FNL 660 FWL	F-19-26S-32E 1980 FNL 1980 FWL	DELAWARE	4321	4321
30-025-08301	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	29	T26S	R32E	F	F-29-26S-32E 1980 FNL 1980 FWL	F-29-26S-32E 1980 FNL 1980 FWL	DELAWARE	4621	4621
30-025-21741	SAHARA OPERATING CO	RUSSELL FEDERAL	#001	Oil	Vertical	Active	20	T26S	R32E	B	B-20-26S-32E 995 FNL 2332 FEL	B-20-26S-32E 995 FNL 2332 FEL	DELAWARE	4344	4344
30-025-21794	SAHARA OPERATING CO	RUSSELL FEDERAL	#002	Oil	Vertical	Active	20	T26S	R32E	F	F-20-26S-32E 1655 FNL 2295 FWL	F-20-26S-32E 1655 FNL 2295 FWL	DELAWARE	4351	4351
30-025-21848	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#003	Oil	Vertical	Plugged, Site Released	20	T26S	R32E	J	J-20-26S-32E 2341 FSL 2318 FEL	J-20-26S-32E 2341 FSL 2318 FEL	DELAWARE	4353	4353
30-025-22050	SAHARA OPERATING CO	RUSSELL FEDERAL	#004	Oil	Vertical	Active	20	T26S	R32E	C	C-20-26S-32E 865 FNL 2333 FWL	C-20-26S-32E 865 FNL 2333 FWL	DELAWARE	4376	4376
30-025-22170	SAHARA OPERATING CO	RUSSELL FEDERAL	#005	Oil	Vertical	Active	20	T26S	R32E	O	O-20-26S-32E 330 FSL 2112 FEL	O-20-26S-32E 330 FSL 2112 FEL	DELAWARE	4365	4365
30-025-22390	QUAY VALLEY INC.	RUSSELL FEDERAL	#006	Salt Water Disposal	Vertical	Plugged, Site Released	20	T26S	R32E	K	K-20-26S-32E 2341 FSL 1659 FWL	K-20-26S-32E 2341 FSL 1659 FWL	DELAWARE	4378	4378
30-025-22555	SAHARA OPERATING CO	RUSSELL FEDERAL	#007	Oil	Vertical	Active	20	T26S	R32E	G	G-20-26S-32E 1666 FNL 2330 FEL	G-20-26S-32E 1666 FNL 2330 FEL	DELAWARE	4342	4342
30-025-24623	SAHARA OPERATING CO	RUSSELL 30 FEDERAL	#002	Oil	Vertical	Active	30	T26S	R32E	D	D-30-26S-32E Lot: 1 330 FNL 660 FWL	D-30-26S-32E Lot: 1 330 FNL 660 FWL	DELAWARE	4350	4350
30-025-24723	SAHARA OPERATING CO	RUSSELL 30 FEDERAL	#004	Oil	Vertical	Active	30	T26S	R32E	C	C-30-26S-32E 330 FNL 1650 FWL	C-30-26S-32E 330 FNL 1650 FWL	DELAWARE	4296	4296
30-025-24829	SAHARA OPERATING CO	RUSSELL 30 FEDERAL	#005	Oil	Vertical	Active	30	T26S	R32E	F	F-30-26S-32E 1650 FNL 1650 FWL	F-30-26S-32E 1650 FNL 1650 FWL	DELAWARE	4312	4312
30-025-24920	SAHARA OPERATING CO	RUSSELL 30 FEDERAL	#006	Oil	Vertical	Active	30	T26S	R32E	G	G-30-26S-32E 1650 FNL 2310 FEL	G-30-26S-32E 1650 FNL 2310 FEL	DELAWARE	4307	4307
30-025-25182	SAHARA OPERATING CO	RUSSELL 30 FEDERAL	#007	Oil	Vertical	Active	30	T26S	R32E	B	B-30-26S-32E 660 FNL 2310 FEL	B-30-26S-32E 660 FNL 2310 FEL	DELAWARE	4345	4345
30-025-25349	SAHARA OPERATING CO	RUSSELL 30 FEDERAL	#008	Oil	Vertical	Active	30	T26S	R32E	K	K-30-26S-32E 2310 FSL 2310 FWL	K-30-26S-32E 2310 FSL 2310 FWL	DELAWARE	5820	5820
30-025-27375	SAHARA OPERATING CO	RUSSELL 17 FEDERAL	#010	Oil	Vertical	Active	17	T26S	R32E	N	N-17-26S-32E 660 FSL 1720 FWL	N-17-26S-32E 660 FSL 1720 FWL	DELAWARE	4500	4500
30-025-27717	SAHARA OPERATING CO	RUSSELL 17 FEDERAL	#011	Oil	Vertical	Active	17	T26S	R32E	M	M-17-26S-32E 660 FSL 660 FWL	M-17-26S-32E 660 FSL 660 FWL	DELAWARE	4500	4500
30-025-27938	SAHARA OPERATING CO	THOMPSON 19 FEDERAL	#004	Oil	Vertical	Active	19	T26S	R32E	A	A-19-26S-32E 560 FNL 660 FEL	A-19-26S-32E 560 FNL 660 FEL	DELAWARE	4476	4476
30-025-28099	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#007	Oil	Vertical	Cancelled Apd	18	T26S	R32E	O	O-18-26S-32E 660 FSL 1830 FEL	O-18-26S-32E 660 FSL 1830 FEL	DELAWARE	4530	4530
30-025-28100	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#005	Oil	Vertical	Cancelled Apd	19	T26S	R32E	C	C-19-26S-32E 660 FNL 2080 FWL	C-19-26S-32E 660 FNL 2080 FWL	DELAWARE	4450	4450
30-025-28101	SAHARA OPERATING CO	RUSSELL FEDERAL	#009	Oil	Vertical	Active	20	T26S	R32E	D	D-20-26S-32E 330 FNL 990 FWL	D-20-26S-32E 330 FNL 990 FWL	DELAWARE	4356	4356
30-025-28472	SAHARA OPERATING CO	RUSSELL FEDERAL	#010	Oil	Vertical	Active	20	T26S	R32E	E	E-20-26S-32E 1650 FNL 990 FWL	E-20-26S-32E 1650 FNL 990 FWL	DELAWARE	4349	4349
30-025-29231	SAHARA OPERATING CO	RUSSELL FEDERAL	#012	Oil	Vertical	Active	20	T26S	R32E	L	L-20-26S-32E 2540 FSL 330 FWL	L-20-26S-32E 2540 FSL 330 FWL	DELAWARE	4335	4335
30-025-29799	SAHARA OPERATING CO	CONOCO FEDERAL	#001	Oil	Vertical	Active	19	T26S	R32E	I	I-19-26S-32E 2310 FSL 330 FEL	I-19-26S-32E 2310 FSL 330 FEL	DELAWARE	4327	4327
30-025-29877	SAHARA OPERATING CO	CONOCO FEDERAL	#002	Oil	Vertical	Active	19	T26S	R32E	J	J-19-26S-32E 2310 FSL 1662 FEL	J-19-26S-32E 2310 FSL 1662 FEL	DELAWARE	4306	4368
30-025-29986	SAHARA OPERATING CO	CONOCO FEDERAL	#003	Oil	Vertical	Active	19	T26S	R32E	P	P-19-26S-32E 990 FSL 660 FEL	P-19-26S-32E 990 FSL 660 FEL	DELAWARE	4308	4308
30-025-30135	SAHARA OPERATING CO	CONOCO FEDERAL	#004	Oil	Vertical	Active	19	T26S	R32E	O	O-19-26S-32E 990 FSL 1662 FEL	O-19-26S-32E 990 FSL 1662 FEL	DELAWARE	4293	4293
30-025-30388	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#001	Oil	Vertical	Plugged, Site Released	19	T26S	R32E	G	G-19-26S-32E 2310 FNL 2310 FEL	G-19-26S-32E 2310 FNL 2310 FEL	DELAWARE	6903	6903
30-025-30389	SAHARA OPERATING CO	CONOCO A FEDERAL	#002	Oil	Vertical	Active	19	T26S	R32E	H	H-19-26S-32E 2310 FNL 330 FEL	H-19-26S-32E 2310 FNL 330 FEL	DELAWARE	4317	4317
30-025-30457	SAHARA OPERATING CO	CONOCO B FEDERAL	#001	Oil	Vertical	Active	20	T26S	R32E	M	M-20-26S-32E 990 FSL 330 FWL	M-20-26S-32E 990 FSL 330 FWL	DELAWARE	4330	4330
30-025-30563	SAHARA OPERATING CO	CONOCO A FEDERAL	#003	Oil	Vertical	Active	19	T26S	R32E	C	C-19-26S-32E 330 FNL 2080 FWL	C-19-26S-32E 330 FNL 2080 FWL	DELAWARE	4330	4330
30-025-30673	SAHARA OPERATING CO	CONOCO C FEDERAL	#001	Oil	Vertical	Active	30	T26S	R32E	A	A-30-26S-32E 330 FNL 990 FEL	A-30-26S-32E 330 FNL 990 FEL	DELAWARE	4277	4277
30-025-30819	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL	#002	Oil	Vertical	Cancelled Apd	30	T26S	R32E	H	H-30-26S-32E 1650 FNL 660 FEL	H-30-26S-32E 1650 FNL 660 FEL	DELAWARE	4400	4400
30-025-30991	SAHARA OPERATING CO	CONOCO D FEDERAL	#003	Oil	Vertical	Active	18	T26S	R32E	P	P-18-26S-32E 990 FSL 990 FEL	P-18-26S-32E 990 FSL 990 FEL	DELAWARE	4365	4365
30-025-31528	SAHARA OPERATING CO	CONOCO E FEDERAL	#001	Oil	Vertical	Plugged, Site Released	30	T26S	R32E	H	H-30-26S-32E 1650 FNL 660 FEL	H-30-26S-32E 1650 FNL 660 FEL	DELAWARE	4300	4300
30-025-31664	DESERT STATES ENERGY INC	CONOCO FEDERAL 29	#001	Oil	Vertical	Plugged, Site Released	29	T26S	R32E	C	C-29-26S-32E 660 FNL 1650 FWL	C-29-26S-32E 660 FNL 1650 FWL	DELAWARE	4406	4406
30-025-40500	CONOCOPHILLIPS COMPANY	WILDER 29 FEDERAL SWD	#001	Salt Water Disposal	Vertical	Active	29	T26S	R32E	F	F-29-26S-32E 2010 FNL 2560 FWL	F-29-26S-32E 2010 FNL 2560 FWL	DELAWARE	6275	6205
30-025-40503	CONOCOPHILLIPS COMPANY	BUCK 20 FEDERAL	#003H	Oil	Horizontal	Active	20	T26S	R32E	C	C-20-26S-32E 190 FNL 2575 FWL	N-20-26S-32E 330 FSL 2310 FWL	BONE SPRING	13729	9155
30-025-40504	CONOCOPHILLIPS COMPANY	BUCK 20 FEDERAL	#004H	Oil	Horizontal	New	20	T26S	R32E	D	D-20-26S-32E 330 FNL 690 FWL	M-20-26S-32E 330 FSL 690 FWL	BONE SPRING	13615	9800
30-025-40790	CONOCOPHILLIPS COMPANY	WILDER 29 FEDERAL	#001H	Oil	Horizontal	Active	29	T26S	R32E	A	A-29-26S-32E 524 FNL 849 FEL	P-29-26S-32E 338 FSL 772 FEL	BONE SPRING	13322	9227
30-025-40900	CONOCOPHILLIPS COMPANY	BUCK 17 FEDERAL COM	#003H	Oil	Horizontal	Active	20	T26S	R32E	B	B-20-26S-32E 10 FNL 2625 FEL	C-17-26S-32E 4977 FSL 3076 FEL	BONE SPRING	14080	9233
30-025-40901	CONOCOPHILLIPS COMPANY	BUCK 17 FEDERAL	#006H	Oil	Horizontal	Expired Temporary Abandonment	17	T26S	R32E	O	O-17-26S-32E 28 FSL 2604 FEL	B-17-26S-32E 291 FNL 2367 FEL	BONE SPRING	13592	8825
30-025-40902	CONOCOPHILLIPS COMPANY	BUCK 20 FEDERAL	#006H	Oil	Horizontal	Active	20	T26S	R32E	C	C-20-26S-32E 55 FNL 2659 FEL	O-20-26S-32E 343 FSL 2285 FEL	BONE SPRING	13470	8835
30-025-41509	CONOCOPHILLIPS COMPANY	WILDER 29 FEDERAL	#005H	Oil	Horizontal	Active	29	T26S	R32E	A	A-29-26S-32E 724 FNL 877 FEL	P-29-26S-32E 281 FSL 331 FEL	BONE SPRING	13820	9227
30-025-41510	CONOCOPHILLIPS COMPANY	WILDER 29 FEDERAL	#003H	Oil	Horizontal	Cancelled Apd	29	T26S	R32E	C	C-29-26S-32E 330 FNL 1875 FWL	N-29-26S-32E 330 FSL 1875 FWL	BONE SPRING	13957	9205
30-025-41511	CONOCOPHILLIPS COMPANY	WILDER 29 FEDERAL	#002H	Oil	Horizontal	Active	29	T26S	R32E	B	B-29-26S-32E 330 FNL 2116 FEL	O-29-26S-32E 274 FSL 1694 FEL	BONE SPRING	13890	9245
30-025-41512	CONOCOPHILLIPS COMPANY	WILDER 29 FEDERAL	#006H	Oil	Horizontal	Cancelled Apd	29	T26S	R32E	B	B-29-26S-32E 330 FNL 2066 FEL	O-29-26S-32E 330 FSL 2066 FEL	BONE SPRING	13638	8841
30-025-42674	CONOCOPHILLIPS COMPANY	BUCK 30 FEDERAL COM W1	#005H	Oil	Horizontal	New	30	T26S	R32E	C	C-30-26S-32E 250 FNL 2464 FWL	C-31-26S-32E 50 FSL 1700 FWL	WOLFCAMP	19357	11835
30-025-42675	CONOCOPHILLIPS COMPANY	BUCK 30 FEDERAL COM W1	#006H	Oil	Horizontal	New	30	T26S	R32E	C	C-30-26S-32E 283 FNL 2464 FWL	F-31-26S-32E Lot: 3 50 FSL 2360 FWL	WOLFCAMP	19333	11845
30-025-42676	CONOCOPHILLIPS COMPANY	BUCK 30 FEDERAL COM W1	#009H	Oil	Horizontal	New	30	T26S	R32E	A	A-30-26S-32E 260 FNL 665 FEL	H-31-26S-32E Lot: 5 50 FSL 1058 FEL	WOLFCAMP	19333	11905
30-025-42677	CONOCOPHILLIPS COMPANY	BUCK 30 FEDERAL COM W1	#010H	Oil	Horizontal	New	30	T26S	R32E	A	A-30-26S-32E 260 FNL 632 FEL	H-31-26S-32E Lot: 5 50 FSL 448 FEL	WOLFCAMP	19365	11915
30-025-42745	CONOCOPHILLIPS COMPANY	BUCK 30 FEDERAL COM W1	#003H	Oil	Horizontal	New	30	T26S	R32E	D	D-30-26S-32E Lot: 1 316 FNL 365 FWL	E-31-26S-32E Lot: 2 330 FSL 380 FWL	WOLFCAMP	18433	11701
30-025-42746	CONOCOPHILLIPS COMPANY	BUCK 30 FEDERAL COM W1	#004H	Oil	Horizontal	New	30	T26S	R32E	D	D-30-26S-32E Lot: 1 349 FNL 365 FWL	E-31-26S-32E Lot: 2 330 FSL 1040 FWL	WOLFCAMP	18695	11701
30-025-42747	CONOCOPHILLIPS COMPANY	BUCK 30 FEDERAL COM W2	#002H	Oil	Horizontal	New	30	T26S	R32E	D	D-30-26S-32E Lot: 1 283 FNL 365 FWL	E-31-26S-32E Lot: 2 331 FSL 380 FWL	WOLFCAMP	18928	12093
30-025-42748	CONOCOPHILLIPS COMPANY	BUCK 30FEDERAL COM W3	#001H	Oil	Horizontal	New	30	T26S	R32E	D	D-30-26S-32E Lot: 1 250 FNL 365 FWL	E-31-26S-32E Lot: 2 332 FSL 380 FWL	WOLFCAMP	19494	12550
30-025-44215	CONOCOPHILLIPS COMPANY	ZIA HILLS 19 FEDERAL COM	#101H	Oil	Horizontal	New	19	T26S	R32E	E	E-19-26S-32E Lot: 2 2487 FNL 430 FWL	D-18-26S-32E Lot: 1 50 FNL 1 FWL	WOLFCAMP	22100	11842
30-025-44216	CONOCOPHILLIPS COMPANY	ZIA HILLS 19 FEDERAL COM	#102H	Oil	Horizontal	New	19	T26S	R32E	E	E-19-26S-32E Lot: 2 2487 FNL 463 FWL	L-07-26S-32E Lot: 3 2617 FSL 330 FWL	WOLFCAMP	22269	11994
30-025-44217	CONOCOPHILLIPS COMPANY	ZIA HILLS 19 FEDERAL COM	#103H	Oil	Horizontal	New	19	T26S	R32E	E	E-19-26S-32E Lot: 2 2487 FNL 496 FWL	L-07-26S-32E Lot: 3 2617 FSL 660 FWL	WOLFCAMP	22100	11820
30-025-44218	CONOCOPHILLIPS COMPANY	ZIA HILLS 19 FEDERAL COM	#104H	Oil	Horizontal	New	19	T26S	R32E	E	E-19-26S-32E Lot: 2 2487 FNL 529 FWL	L-07-26S-32E Lot: 3 2618 FSL 990 FWL	WOLFCAMP	22311	12012
30-025-44219	CONOCOPHILLIPS COMPANY	ZIA HILLS 19 FEDERAL COM	#105H	Oil	Horizontal	New	19	T26S	R32E	E	E-19-26S-32E Lot: 2 2627 FNL 430 FWL	E-31-26S-32E Lot: 2 50 FSL 1 FWL	WOLFCAMP	21433	11601
30-025-44233	CONOCOPHILLIPS COMPANY	ZIA HILLS 19 FEDERAL COM	#106H	Oil	Horizontal	New	19	T26S	R32E	E	E-19-26S-32E Lot: 2 2627 FNL 463 FWL	E-31-26S-32E Lot: 2 50 FSL 330 FWL	WOLFCAMP	21644	11824
30-025-44234	CONOCOPHILLIPS COMPANY	ZIA HILLS 19 FEDERAL COM	#107H	Oil	Horizontal	New	19	T26S	R32E	E	E-19-26S-32E Lot: 2 2627 FNL 496 FWL	E-31-26S-32E Lot: 2 50 FSL 660 FWL	WOLFCAMP	21349	11579

Deep Hole Federal SWD #1 - Wells within 1 Mile Area of Review (page 2 of 2)

30-025-44235	CONOCOPHILLIPS COMPANY	ZIA HILLS 19 FEDERAL COM	#108H	Oil	Horizontal	New	19	T26S	R32E	E	E-19-26S-32E Lot: 2 2627 FNL 529 FWL	E-31-26S-32E Lot: 2 50 FSL 990 FWL	WOLFCAMP	21701	11864
30-025-44236	CONOCOPHILLIPS COMPANY	ZIA HILLS 19 FEDERAL COM	#109H	Oil	Horizontal	New	19	T26S	R32E	F	F-19-26S-32E 2498 FNL 1600 FWL	L-07-26S-32E Lot: 3 2618 FSL 132[illegible] FWL	WOLFCAMP	[illegible]	[illegible]
30-025-44237	CONOCOPHILLIPS COMPANY	ZIA HILLS 19 FEDERAL COM	#110H	Oil	Horizontal	New	19	T26S	R32E	F	F-19-26S-32E 2498 FNL 1633 FWL	K-07-26S-32E 2618 FSL 1650 FWL	WOLFCAMP	22123	11619
30-025-44238	CONOCOPHILLIPS COMPANY	ZIA HILLS 19 FEDERAL COM	#111H	Oil	Horizontal	New	19	T26S	R32E	F	F-19-26S-32E 2498 FNL 1666 FWL	K-07-26S-32E 2618 FSL 1980 FWL	WOLFCAMP	22137	11619
30-025-44239	CONOCOPHILLIPS COMPANY	ZIA HILLS 19 FEDERAL COM	#112H	Oil	Horizontal	New	19	T26S	R32E	F	F-19-26S-32E 2498 FNL 1699 FWL	K-07-26S-32E 2618 FSL 2310 FWL	WOLFCAMP	22167	11619
30-025-44240	CONOCOPHILLIPS COMPANY	ZIA HILLS 19 FEDERAL COM	#113H	Oil	Horizontal	New	19	T26S	R32E	F	F-19-26S-32E 2638 FNL 1600 FWL	F-31-26S-32E Lot: 3 50 FSL 1320 FWL	WOLFCAMP	22157	11619
30-025-44241	CONOCOPHILLIPS COMPANY	ZIA HILLS 19 FEDERAL COM	#115H	Oil	Horizontal	New	19	T26S	R32E	F	F-19-26S-32E 2638 FNL 1666 FWL	F-31-26S-32E Lot: 3 50 FSL 1980 FWL	WOLFCAMP	22151	11619
30-025-44242	CONOCOPHILLIPS COMPANY	ZIA HILLS 19 FEDERAL COM	#116H	Oil	Horizontal	New	19	T26S	R32E	F	F-19-26S-32E 2638 FNL 1699 FWL	F-31-26S-32E Lot: 3 50 FSL 2310 FWL	WOLFCAMP	22170	11619
30-025-44247	CONOCOPHILLIPS COMPANY	ZIA HILLS 19 FEDERAL COM	#114H	Oil	Horizontal	New	19	T26S	R32E	F	F-19-26S-32E 2638 FNL 1633 FWL	F-31-26S-32E Lot: 3 50 FSL 1650 FWL	WOLFCAMP	22146	11619
30-025-45711	CONOCOPHILLIPS COMPANY	ZIA HILLS 20 FEDERAL COM	#101H	Oil	Horizontal	New	20	T26S	R32E	G	G-20-26S-32E 2637 FNL 2100 FEL	B-17-26S-32E 50 FNL 2640 FEL	WOLFCAMP	19375	11715
30-025-45712	CONOCOPHILLIPS COMPANY	ZIA HILLS 20 FEDERAL COM	#102H	Oil	Horizontal	New	20	T26S	R32E	G	G-20-26S-32E 2637 FNL 2067 FEL	B-17-26S-32E 50 FNL 2310 FEL	WOLFCAMP	19513	11865
30-025-45713	CONOCOPHILLIPS COMPANY	ZIA HILLS 20 FEDERAL COM	#103H	Oil	Horizontal	New	20	T26S	R32E	G	G-20-26S-32E 2636 FNL 2034 FEL	B-17-26S-32E 50 FNL 1980 FEL	WOLFCAMP	19513	11865
30-025-45714	CONOCOPHILLIPS COMPANY	ZIA HILLS 20 FEDERAL COM	#104H	Oil	Horizontal	New	20	T26S	R32E	G	G-20-26S-32E 2637 FNL 2001 FEL	B-17-26S-32E 50 FNL 1650 FEL	WOLFCAMP	19517	11865
30-025-45715	CONOCOPHILLIPS COMPANY	ZIA HILLS 20 FEDERAL COM	#105H	Oil	Horizontal	New	20	T26S	R32E	J	J-20-26S-32E 2570 FSL 2100 FEL	G-32-26S-32E Lot: 2 50 FSL 2310 FEL	WOLFCAMP	21649	11827
30-025-45716	CONOCOPHILLIPS COMPANY	ZIA HILLS 20 FEDERAL COM	#107H	Oil	Horizontal	New	20	T26S	R32E	J	J-20-26S-32E 2570 FSL 2034 FEL	G-32-26S-32E Lot: 2 50 FSL 1980 FEL	WOLFCAMP	21720	11865
30-025-45717	CONOCOPHILLIPS COMPANY	ZIA HILLS 20 FEDERAL COM	#108H	Oil	Horizontal	New	20	T26S	R32E	J	J-20-26S-32E 2570 FSL 2001 FEL	G-32-26S-32E Lot: 2 50 FSL 1650 FEL	WOLFCAMP	21668	11827
30-025-45718	CONOCOPHILLIPS COMPANY	ZIA HILLS 20 FEDERAL COM	#109H	Oil	Horizontal	New	20	T26S	R32E	I	I-20-26S-32E 2410 FSL 800 FEL	A-17-26S-32E 50 FNL 1320 FEL	WOLFCAMP	19393	11730
30-025-45719	CONOCOPHILLIPS COMPANY	ZIA HILLS 20 FEDERAL COM	#110H	Oil	Horizontal	New	20	T26S	R32E	I	I-20-26S-32E 2410 FSL 767 FEL	A-17-26S-32E 50 FNL 990 FEL	WOLFCAMP	19590	11880
30-025-45720	CONOCOPHILLIPS COMPANY	ZIA HILLS 20 FEDERAL COM	#111H	Oil	Horizontal	New	20	T26S	R32E	I	I-20-26S-32E 2410 FSL 734 FEL	A-17-26S-32E 50 FNL 660 FEL	WOLFCAMP	19382	11730
30-025-45721	CONOCOPHILLIPS COMPANY	ZIA HILLS 20 FEDERAL COM	#112H	Oil	Horizontal	New	20	T26S	R32E	I	I-20-26S-32E 2410 FSL 701 FEL	A-17-26S-32E 50 FNL 330 FEL	WOLFCAMP	19546	11880
30-025-45722	CONOCOPHILLIPS COMPANY	ZIA HILLS 20 FEDERAL COM	#113H	Oil	Horizontal	New	20	T26S	R32E	I	I-20-26S-32E 2270 FSL 800 FEL	H-32-26S-32E Lot: 1 50 FSL 1320 FEL	WOLFCAMP	21668	11800
30-025-45723	CONOCOPHILLIPS COMPANY	ZIA HILLS 20 FEDERAL COM	#114H	Oil	Horizontal	New	20	T26S	R32E	I	I-20-26S-32E 2270 FSL 767 FEL	H-32-26S-32E Lot: 1 50 FSL 990 FEL	WOLFCAMP	21501	11730
30-025-45724	CONOCOPHILLIPS COMPANY	ZIA HILLS 20 FEDERAL COM	#115H	Oil	Horizontal	New	20	T26S	R32E	I	I-20-26S-32E 2270 FSL 734 FEL	H-32-26S-32E Lot: 1 50 FSL 660 FEL	WOLFCAMP	21643	11880
30-025-45725	CONOCOPHILLIPS COMPANY	ZIA HILLS 20 FEDERAL COM	#116H	Oil	Horizontal	New	20	T26S	R32E	I	I-20-26S-32E 2270 FSL 701 FEL	H-32-26S-32E Lot: 1 50 FSL 330 FEL	WOLFCAMP	21515	11730

PERMIAN OILFIELD PARTNERS

Statement of Notifications

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Deep Hole Federal SWD #1
Sec. 19, Twp. 26S, Rge. 32E
1339' FSL, 250' FEL
Lea County, NM

Permian Oilfield Partners, LLC has mailed notifications to offset operators, mineral owners, lessees and the surface owner as per the following list:

Deep Hole 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
Sahara Operating Co	P.O. Box 4130	Midland, TX 79704	USPS	9414811899561824254654	4/26/2019
Quay Valley Inc.	P.O. Box 10280	Midland, TX 79702	USPS	9414811899561824254937	4/26/2019
Desert States Energy Inc	125 E Baja	Hobbs, NM 88240	USPS	9414811899561824254784	4/26/2019
ConocoPhillips Company	P.O.Box 2197 Office EC3-10-W285	Houston, TX 77252	USPS	9414811899561824254746	4/26/2019
Bureau Of Land Management	620 E Greene St	Carlsbad, NM 88220	USPS	9414811899561824254722	4/26/2019
New Mexico State Land Office	2827 N Dal Paso St Suite 117	Hobbs, NM 88240	USPS	9414811899561824254968	4/26/2019
New Mexico State Land Office	310 Old Santa Fe Trail	Santa Fe, NM 87501	USPS	9414811899561824254777	4/26/2019
Penroc Oil Corp	1515 W Calle Sur St	Hobbs, NM 88240	USPS	9414811899561824254906	4/26/2019
McBride Oil & Gas Corp	400 N Pennsylvania Ave # 1200	Roswell, NM 88201	USPS	9414811899561824254739	4/26/2019

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

Date: 4-26-2019

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

ARTICLE NUMBER: 9414 8118 9956 1824 2546 54

ARTICLE ADDRESSED TO:

Sahara Operating Co.
PO Box 4130
Midland TX 79704-4130

FEES	
Postage Per Piece	$3.20
Certified Fee	3.50
Total Postage & Fees:	6.70

Postmark Here

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

ARTICLE NUMBER: 9414 8118 9956 1824 2549 37

ARTICLE ADDRESSED TO:

Quay Valley Inc.
PO Box 10280
Midland TX 79702-7280

FEES	
Postage Per Piece	$3.20
Certified Fee	3.50
Total Postage & Fees:	6.70

Postmark Here

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

ARTICLE NUMBER: 9414 8118 9956 1824 2547 84

ARTICLE ADDRESSED TO:

Desert States Energy Inc.
125 E. Baja Dr
Hobbs NM 88240-3408

FEES	
Postage Per Piece	$3.20
Certified Fee	3.50
Total Postage & Fees:	6.70

Postmark Here

APR 26 2019

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

ARTICLE NUMBER: 9414 8118 9956 1824 2547 46

ARTICLE ADDRESSED TO:

ConocoPhillips Company
PO Box 2197
Houston TX 77252-2197

FEES	
Postage Per Piece	$3.20
Certified Fee	3.50
Total Postage & Fees:	6.70

Postmark Here

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

ARTICLE NUMBER: 9414 8118 9956 1824 2547 22

ARTICLE ADDRESSED TO:

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

FEES	
Postage Per Piece	$3.20
Certified Fee	3.50
Total Postage & Fees:	6.70

Postmark Here

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

ARTICLE NUMBER: 9414 8118 9956 1824 2549 68

ARTICLE ADDRESSED TO:

New Mexico State Land Office
2827 N Dal Paso St. Suite 117
Hobbs NM 88240-2062

FEES	
Postage Per Piece	$3.20
Certified Fee	3.50
Total Postage & Fees:	6.70

Postmark Here

APR 26 2019

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

ARTICLE NUMBER: 9414 8118 9956 1824 2547 77

ARTICLE ADDRESSED TO:

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

FEES	
Postage Per Piece	$3.20
Certified Fee	3.50
Total Postage & Fees:	6.70

Postmark Here

APR 26 2019

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

ARTICLE NUMBER: 9414 8118 9956 1824 2549 06

ARTICLE ADDRESSED TO:

Penroc Oil Corp
1515 W. Calle Sur Street Ste 101
Hobbs NM 88240-1318

FEES	
Postage Per Piece	$3.20
Certified Fee	3.50
Total Postage & Fees:	6.70

Postmark Here

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

ARTICLE NUMBER: 9414 8118 9956 1824 2547 39

ARTICLE ADDRESSED TO:

McBride Oil & Gas Corp.
400 N. Penn Ave Suite 1200
Roswell NM 88201-4782

FEES	
Postage Per Piece	$3.20
Certified Fee	3.50
Total Postage & Fees:	6.70

Postmark Here

APR 26 2019

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Todd Bailey, Editor 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 25, 2019
and ending with the issue dated
April 25, 2019.

Editor

Sworn and subscribed to before me this
25th day of April 2019.

Business Manager

My commission expires
January 29, 2023
(Seal)

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires 1-29-23

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 25, 2019

Newspaper Publication Notice

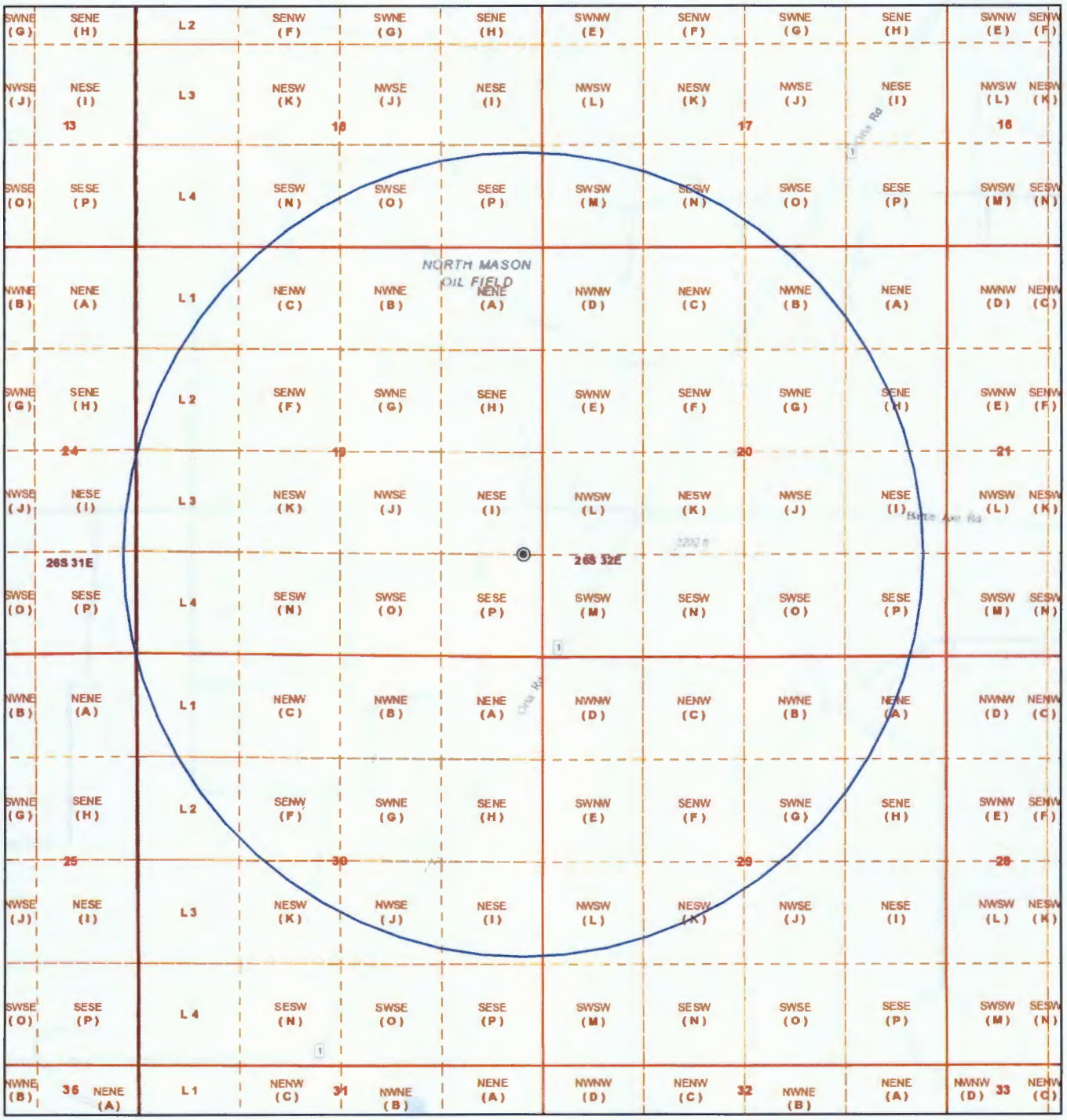
Permian Oilfield Partners, LLC, PO Box 1220, Stephenville, TX 76401, phone (817)606-7630, attention Gary Fisher, has filed form C-108 (Application for Authorization for Injection) with the New Mexico Oil Conservation Division seeking approval to drill a commercial salt water disposal well in Lea County, New Mexico. The well name is the Deep Hole Federal SWD #1, and is located 1339' FSL & 250' FEL, Unit Letter I, Section 19, Township 26 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 17,021 feet to 18,352 feet. The maximum expected injection rate is 50,000 BWPD at a maximum surface injection pressure of 3,404 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.
#34077

67115647 00227386

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

Deep Hole Federal SWD #1 - Water Wells within 1 Mile AOR



4/17/2019, 10:46:31 AM

Override 1

Override 1

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

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/: 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 02373		CUB	LE		4	1	32	24S	34E	641979	3560916*	600		
C 02386		CUB	LE	4	1	2	04	24S	34E	643962	3569290*	575	475	100
C 02387		CUB	LE			1	11	24S	34E	646513	3567613*	62	40	22
C 02397		CUB	LE	4	1	2	04	24S	34E	643962	3569290*	575	475	100
C 03932 POD13		CUB	LE	4	2	3	15	24S	34E	645314	3565203	90		
C 03932 POD3		CUB	LE	4	3	2	05	24S	34E	642442	3568787	100		
C 03932 POD8		CUB	LE	4	2	4	07	24S	34E	641120	3566769	72		
C 03943 POD1		CUB	LE	2	4	2	21	24S	34E	644523	3564266	610	431	179
C 04014 POD1		CUB	LE	1	1	3	06	24S	34E	639811	3568638	91	81	10

Average Depth to Water: **300 feet**

Minimum Depth: **40 feet**

Maximum Depth: **475 feet**

Record Count: 9

PLSS Search:

Township: 24S **Range:** 34E

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

4/22/19 2:04 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

PERMIAN OILFIELD
PARTNERS

Item XII. Affirmative Statement

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Deep Hole Federal SWD #1
Sec. 19, Twp. 26S, Rge. 32E
1339' FSL, 250' 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.

Gary Fisher
Manager
Permian Oilfield Partners, LLC.

Date: 4/25/2019

Plugging Risk Assessment

Permian Oilfield Partners, LLC.
Deep Hole Federal SWD #1
SL: 1339' FSL & 250' FEL
Sec 19, T26S, R32E
Lea County, New Mexico

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
Deep Hole Federal SWD #1
1339' FSL, 250' FEL
Sec. 19, T26S, R32E, Lea Co. NM
Lat 32.0245011° N, Lon 103.7065713° W
GL 3175', RKB 3205'

Surface - (Conventional)

Hole Size:	26"
Casing:	20" - 94# H-40 STC Casing
Depth Top:	Surface
Depth Btm:	963'
Cement:	624 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:	4391'
Cement:	1466 sks - Lite Class C (50:50:10) + Additives
Cement Top:	Surface - (Circulate)

Intermediate #2 - (Conventional)

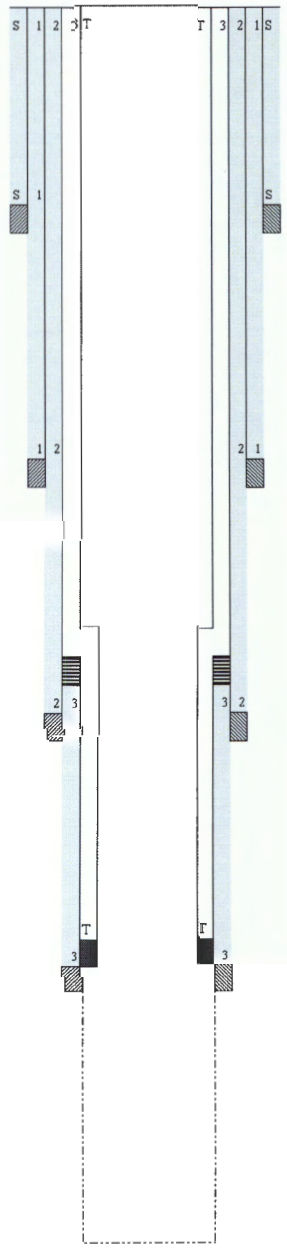
Hole Size:	12.25"
Casing:	9.625" - 40# L-80 & 40# HCL-80 BTC Casing
Depth Top:	Surface
Depth Btm:	11770'
Cement:	1996 sks - Lite Class C (60:40:0) + Additives
Cement Top:	Surface - (Circulate)
ECP/DV Tool:	4491'

Intermediate #3 - (Liner)

Hole Size:	8.5"
Casing:	7.625" - 39# HCL-80 FJ Casing
Depth Top:	11570'
Depth Btm:	17021'
Cement:	259 sks - Lite Class C (60:40:0) + Additives
Cement Top:	11570' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size:	6.5"
Depth:	18352'
Inj. Interval:	17021' - 18352' (Open-Hole Completion)



Tubing - (Tapered)

Tubing Depth:	16976'
Tubing:	7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth:	11570'
X/O:	7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth:	16986'
Packer:	5.5" - Perma-Pak or Equivalent (Inconel)

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

Bowen Series 150 Releasing and Circulation Overshots

Maximum Catch Size 6⅝" to 7¼" Inclusive

Maximum Catch Size (Spiral)		6⅝	6¾	7	7¼
Maximum Catch Size (Basket)		5¾	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 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 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 4⅛" to 5⅝" Inclusive

Maximum Catch Size (Spiral)		4⅛	4⅝	4¾	4¾	5	5	5⅛
Maximum Catch Size (Basket)		3⅞	4⅛	4⅛	4⅛	4⅛	4⅛	4⅞
Overshot O.D.		5¾	5¾	5¾	5¾	5¾	6¼	6¼
Type		F.S.	S.H.	S.H.	S.F.S.	S.H.	F.S.	S.H.
Complete Assembly	Part No.	5696	5698	C-5168	8975	C-5171	C-4825	8625
(Dressed Spiral Parts)	Weight	130	130	133	138	140	192	185
Replacement Parts								
Top Sub	Part No.	5697	5699	A-5169	8976	A-5172	B-4826	8626
Bowl	Part No.	5698	5700	B-5170	8977	B-5173	B-4827	8617
Packer	Part No.	169	1140	B-2199	8114	L-5950	L-4505	8618
Spiral Grapple	Part No.	165	1135	B-2201	8112	B-4369	M-1071	8619
Spiral Grapple Control	Part No.	166	1137	B-2202	8113	B-4370	M-1072	8620
Standard Guide	Part No.	167	1143	B-2203	8121	B-4371	L-1074	8621
Basket Parts								
Basket Grapple	Part No.	165	1135	B-2201	8112	B-4369	M-1071	8619
Basket Grapple Control	Part No.	166	1137	B-2202	8113	B-4370	M-1072	8620
Mill Control Packer	Part No.	169-R	1140-R	B-2199-R	8114-R	L-5950-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
Deep Hole Federal SWD #1
Sec. 19, Twp. 26S, Rge. 32E
1339' FSL, 250' 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:

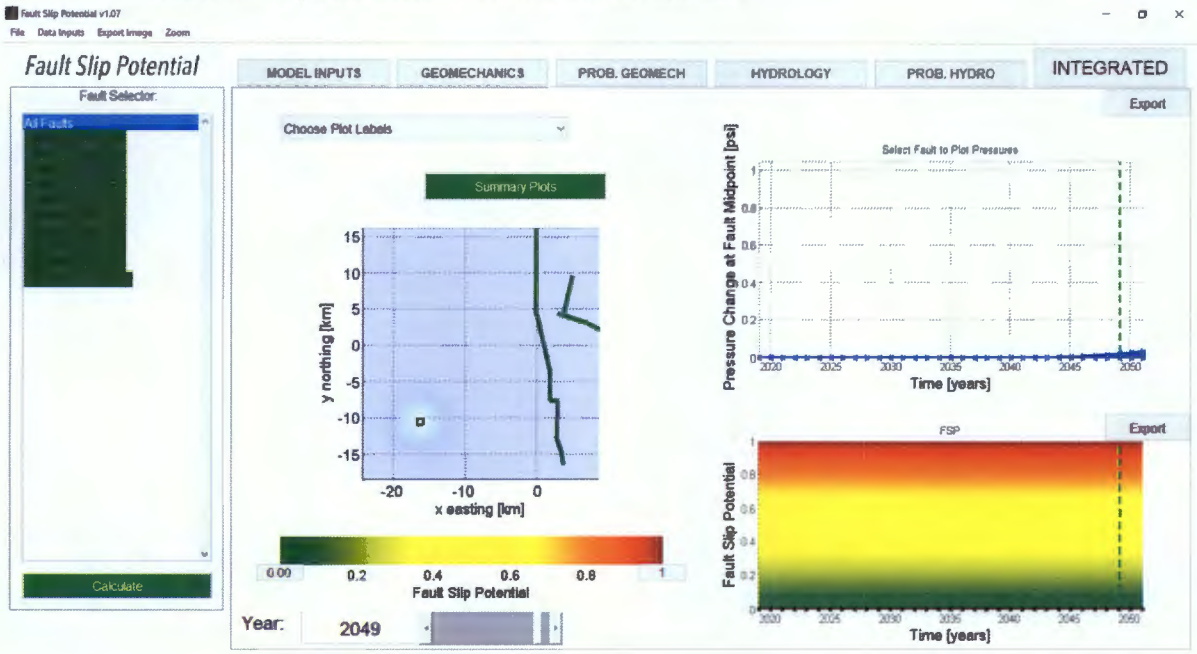
1. M2.9, 1984-12-09, 18.88 miles away @ 27.70 deg heading
2. M3.1, 2012-03-18, 20.81 miles away @ 328.65 deg heading

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-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.
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 3.00 miles away from the nearest active or permitted Devonian disposal well.

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