

Initial Application Part I

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

RECEIVED: <u>4/30/19</u>	REVIEWER:	TYPE: <u>SWD</u>	APP NO: <u>PKEL 1912859561</u>
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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



2101

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:** Mind The Gap 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 holdersB. ☐ Royalty, overriding royalty owners, revenue ownersC. ☒ Application requires published noticeD. ☐ Notification and/or concurrent approval by SLOE. ☒ Notification and/or concurrent approval by BLMF. ☒ Surface ownerG. ☒ For all of the above, proof of notification or publication is attached, and/or,H. ☐ No notice required**FOR OCD ONLY**☐

Notice Complete

☐Application
Content
Complete

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

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

Sean Puryear

Print or Type Name

Signature

04/26/2019

Date

(817) 600-8772

Phone Number

spuryear@popmidstream.com

e-mail Address



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
Mind the Gap Federal SWD #1
Sec. 10, Twp. 25S, Rge. 33E
1326' FNL, 250' FWL
Lea County, NM

Mr. Goetze,
Attached is a C-108 Application for administrative approval of Permian Oilfield Partners LLC's proposed Mind the Gap Federal SWD #1 located in Sec 10, Twp 25S, Rge 33E, 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:

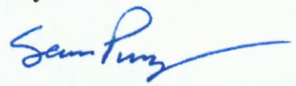
04/26/2019

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: **4-24-2019**

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 15,076'

Underlying Potentially Productive Zones:
None

WELL CONSTRUCTION DATA

Permian Oilfield Partners, LLC.
Mind The Gap Federal SWD #1
1326' FNL, 250' FWL
Sec. 10, T25S, R33E, Lea Co. NM
Lat 32.1486917° N, Lon 103.5679617° W
GL 3408', RKB 3438'

Surface - (Conventional)

Hole Size: 26" Casing: 20" - 94# H-40 & 106.5# J-55 STC Casing
Depth Top: Surface
Depth Btm: 1053'
Cement: 693 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: 4985'
Cement: 1646 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: 12184' ECP/DV Tool: 5085'
Cement: 2101 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: 11984'
Depth Btm: 17427'
Cement: 259 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11984' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5" Depth: 18895'
Inj. Interval: 17427' - 18895' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 17382' Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80
X/O Depth: 11984' FJ Casing (Fiberglass Lined)
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 17392' Packer: 5.5" - Perma-Pak or Equivalent (Inconel)

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
Mind The Gap Federal SWD #1
1326' FNL, 250' FWL
Sec. 10, T25S, R33E, Lea Co. NM
Lat 32.1486917° N, Lon 103.5679617° W
GL 3408', RKB 3438'

Surface - (Conventional)

Hole Size: 26"
Casing: 20" - 94# H-40 & 106.5# J-55 STC Casing
Depth Top: Surface
Depth Btm: 1053'
Cement: 693 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: 4985'
Cement: 1646 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: 12184'
Cement: 2101 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)
ECP/DV Tool: 5085'

Intermediate #3 - (Liner)

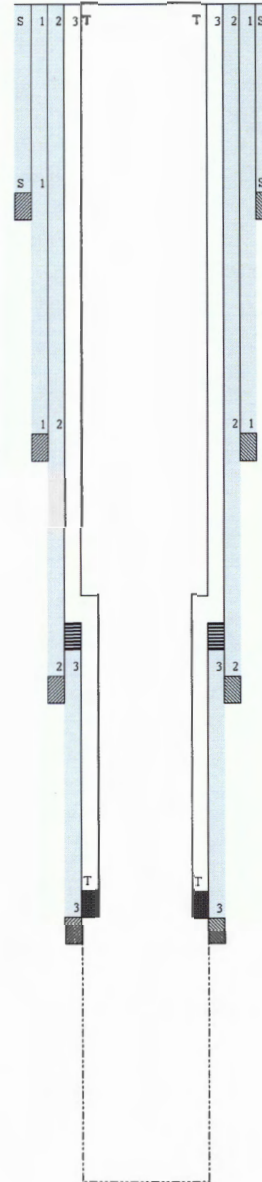
Hole Size: 8.5"
Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 11984'
Depth Btm: 17427'
Cement: 259 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11984' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5"
Depth: 18895'
Inj. Interval: 17427' - 18895' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 17382'
Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 11984'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 17392'
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 3,485 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.
Mind The Gap Federal SWD #1
1326' FNL, 250' FWL
Sec. 10, T25S, R33E, Lea Co. NM
Lat 32.1486917° N, Lon 103.5679617° W
GL 3408', RKB 3438'

GEOLOGY PROGNOSIS			
FORMATION	TOP KB TVD (ft)	BOTTOM KB TVD (ft)	THICKNESS (ft)
Salt	1,417	4,759	3,342
Delaware	4,960	9,091	4,131
Bone Spring	9,091	12,134	3,043
Wolfcamp	12,134	13,173	1,039
Lwr. Mississippian	16,729	17,230	501
Woodford	17,230	17,392	162
Devonian	17,392	18,344	952
Fusselman (Silurian)	18,344	18,920	576
Montoya (U. Ordovician)	18,920	19,521	601
Simpson (M. Ordovician)	19,521	20,072	551

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 625'. 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.

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 MIND THE GAP FEDERAL SWD	⁶ Well Number 1
⁷ GRID NO. 328259	⁸ Operator Name PERMIAN OILFIELD PARTNERS LLC	⁹ Elevation 3408'

¹⁰ Surface Location

UL or lot no. E	Section 10	Township 25S	Range 33E	Lot Idn	Feet from the 1326	North/South line NORTH	Feet From the 250	East/West line WEST	County LEA
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¹¹ Bottom Hole Location If Different From Surface

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

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

16 N 00°18'26" W 2640.92' 1326' S.L. 250' 10 N 00°32'06" W 2641.24' N 00°27'46" W 2641.38' N 00°24'48" W 2641.61' S 89°37'02" W 5293.67' S 89°43'37" W 2643.59' S 89°31'35" W 2651.65'	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. <i>Gary E Fisher</i> 4-17-2019 Signature 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. 04-11-2019 Date of Survey Signature and Seal of Professional Surveyor <i>Jeffrey L. Fansler</i> 10034 Certificate Number

Job No.: LS19030283

[illegible]☐ Override 1

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New Mexico Oil Conservation Division

NM OGD Oil and Gas Map, <http://nm-emrhd.maps.arcgis.com/apps/webappviewer/>; New Mexico Oil Conservation Division

Mind The Gap Federal SWD #1 - Wells within 1 Mile Area of Review															
API Number	Current Operator	Well Name	Well Number	Well Type	Well Direction	Well Status	Section	Township	Range	OCD Unit Letter	Surface Location	Bottomhole Location	Formation	MD	TVD
30-025-30872	COG OPERATING, LLC	GILA 4 DEEP	#001	Gas	Vertical	Active	04	T25S	R33E	G	G-04-25S-33E 1975 FSL	1980 FSL	MORROW	15700	15700
30-025-33639	BITA OIL PRODUCERS, LLC	VACA DRAW 9418 JV-P	#001	Salt Water Disposal	Vertical	Active	10	T25S	R33E	K	K-10-25S-33E 1980 FSL	1980 FSL	DELAWARE	6950	6950
30-025-34585	EOG RESOURCES INC	TRISTE DRAW 3 FEDERAL	#002	Gas	Vertical	Plugged, Site Released	03	T25S	R33E	F	F-03-25S-33E 2310 FSL	1980 FSL	WOLFCAMP	13915	13915
30-025-34639	BITA OIL PRODUCERS, LLC	VACA DRAW 9418 JV-P	#003	Gas	Vertical	Cancelled Apd	03	T25S	R33E	B	B-10-25S-33E 660 FSL	1980 FSL	WOLFCAMP	14200	14200
30-025-35072	COG OPERATING, LLC	TRISTE DRAW 3 FEDERAL	#003	Gas	Vertical	Active	03	T25S	R33E	P	P-03-25S-33E 660 FSL	1980 FSL	WOLFCAMP	13920	13920
30-025-35468	BITA OIL PRODUCERS, LLC	VACA DRAW 9418 JV-P	#002	Gas	Vertical	Cancelled Apd	15	T25S	R33E	D	D-15-25S-33E 660 FSL	1980 FSL	WOLFCAMP	14200	14200
30-025-35445	EOG RESOURCES INC	VACA DRAW 15 FEDERAL	#001	Gas	Vertical	Active	15	T25S	R33E	D	D-15-25S-33E 660 FSL	660 FSL	WOLFCAMP	14200	14200
30-025-41621	BITA OIL PRODUCERS, LLC	VACA DRAW 9418 JV-P	#002H	Oil	Horizontal	Active	10	T25S	R33E	A	A-10-25S-33E 190 FSL	330 FSL	BONE SPRING	14018	14018
30-025-41622	BITA OIL PRODUCERS, LLC	VACA DRAW 9418 JV-P	#003H	Oil	Horizontal	Active	10	T25S	R33E	B	B-10-25S-33E 190 FSL	2160 FSL	BONE SPRING	15626	15626
30-025-41623	BITA OIL PRODUCERS, LLC	VACA DRAW 9418 JV-P	#004H	Oil	Horizontal	Active	10	T25S	R33E	C	C-10-25S-33E 190 FSL	1650 FSL	BONE SPRING	13918	13918
30-025-41624	BITA OIL PRODUCERS, LLC	VACA DRAW 9418 JV-P	#005H	Oil	Horizontal	Active	10	T25S	R33E	D	D-10-25S-33E 190 FSL	330 FSL	BONE SPRING	13911	13911
30-025-42915	EOG RESOURCES INC	ANTIETAM 9 FEDERAL	#001H	Oil	Horizontal	New	09	T25S	R33E	P	P-09-25S-33E 220 FSL	685 FSL	WOLFCAMP	17240	17240
30-025-42916	EOG RESOURCES INC	ANTIETAM 9 FEDERAL	#002H	Oil	Horizontal	New	09	T25S	R33E	P	P-09-25S-33E 220 FSL	780 FSL	WOLFCAMP	17233	17233
30-025-43479	EOG RESOURCES INC	ANTIETAM 9 FEDERAL	#703H	Oil	Horizontal	Active	09	T25S	R33E	C	C-09-25S-33E 164 FSL	2003 FSL	WOLFCAMP	15824	15824
30-025-43611	BITA OIL PRODUCERS, LLC	VACA DRAW 9418 10 FEDERAL	#006H	Oil	Horizontal	Active	10	T25S	R33E	B	B-10-25S-33E 190 FSL	2281 FSL	WOLFCAMP	14478	14478
30-025-43612	BITA OIL PRODUCERS, LLC	VACA DRAW 9418 10 FEDERAL	#007H	Oil	Horizontal	Active	10	T25S	R33E	B	B-10-25S-33E 190 FSL	2281 FSL	WOLFCAMP	14478	14478
30-025-44250	BITA OIL PRODUCERS, LLC	VACA DRAW 9418 10 FEDERAL	#008H	Oil	Horizontal	New	10	T25S	R33E	D	D-10-25S-33E 200 FSL	130 FSL	WOLFCAMP	17450	17450
30-025-44251	BITA OIL PRODUCERS, LLC	VACA DRAW 9418 10 FEDERAL	#009H	Oil	Horizontal	New	10	T25S	R33E	D	D-10-25S-33E 200 FSL	130 FSL	WOLFCAMP	17450	17450
30-025-44347	EOG RESOURCES INC	ANTIETAM 9 FEDERAL	#705H	Oil	Horizontal	Active	09	T25S	R33E	C	C-09-25S-33E 41 FSL	1587 FSL	WOLFCAMP	15741	15741
30-025-44348	EOG RESOURCES INC	ANTIETAM 9 FEDERAL	#706H	Oil	Horizontal	Active	09	T25S	R33E	C	C-09-25S-33E 41 FSL	1587 FSL	WOLFCAMP	15741	15741
30-025-44349	EOG RESOURCES INC	ANTIETAM 9 FEDERAL	#707H	Oil	Horizontal	Active	09	T25S	R33E	C	C-09-25S-33E 41 FSL	1622 FSL	WOLFCAMP	15809	15809
30-025-44351	EOG RESOURCES INC	ANTIETAM 9 FEDERAL	#708H	Oil	Horizontal	Active	09	T25S	R33E	B	B-09-25S-33E 220 FSL	1965 FSL	WOLFCAMP	15972	15972
30-025-44352	EOG RESOURCES INC	ANTIETAM 9 FEDERAL	#709H	Oil	Horizontal	Active	09	T25S	R33E	B	B-09-25S-33E 220 FSL	1930 FSL	WOLFCAMP	15810	15810
30-025-45388	BITA OIL PRODUCERS, LLC	VACA DRAW 9418 10 FEDERAL	#014H	Oil	Horizontal	New	10	T25S	R33E	N	N-10-25S-33E 220 FSL	1335 FSL	WOLFCAMP	17501	17501
30-025-45476	EOG RESOURCES INC	ANTIETAM 9 FEDERAL	#713H	Oil	Horizontal	New	09	T25S	R33E	A	A-09-25S-33E 1052 FSL	657 FSL	WOLFCAMP	20017	20017
30-025-45477	EOG RESOURCES INC	ANTIETAM 9 FEDERAL	#714H	Oil	Horizontal	New	09	T25S	R33E	A	A-09-25S-33E 1052 FSL	657 FSL	WOLFCAMP	20017	20017
30-025-45478	EOG RESOURCES INC	ANTIETAM 9 FEDERAL	#715H	Oil	Horizontal	New	09	T25S	R33E	A	A-09-25S-33E 1052 FSL	624 FSL	WOLFCAMP	20026	20026
30-025-45495	BITA OIL PRODUCERS, LLC	VACA DRAW 9418 10 FEDERAL	#012H	Oil	Horizontal	New	10	T25S	R33E	M	M-10-25S-33E 220 FSL	1275 FSL	WOLFCAMP	17499	17499
30-025-45496	BITA OIL PRODUCERS, LLC	VACA DRAW 9418 10 FEDERAL	#016H	Oil	Horizontal	New	10	T25S	R33E	O	O-10-25S-33E 220 FSL	1365 FSL	WOLFCAMP	17516	17516
30-025-45498	BITA OIL PRODUCERS, LLC	VACA DRAW 9418 10 FEDERAL	#017H	Oil	Horizontal	New	10	T25S	R33E	O	O-10-25S-33E 220 FSL	1365 FSL	WOLFCAMP	17516	17516
30-025-45507	EOG RESOURCES INC	ANTIETAM 9 FEDERAL	#711H	Oil	Horizontal	New	09	T25S	R33E	B	B-09-25S-33E 150 FSL	1446 FSL	WOLFCAMP	15947	15947
30-025-45508	EOG RESOURCES INC	ANTIETAM 9 FEDERAL	#712H	Oil	Horizontal	New	09	T25S	R33E	B	B-09-25S-33E 150 FSL	1413 FSL	WOLFCAMP	15954	15954
30-025-43480	EOG RESOURCES INC	ANTIETAM 9 FEDERAL	#704H	Oil	Horizontal	Active	09	T25S	R33E	C	C-09-25S-33E 164 FSL	2033 FSL	WOLFCAMP	15861	15861



Statement of Notifications

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Mind the Gap Federal SWD #1
Sec. 10, Twp. 25S, Rge. 33E
1326' FNL, 250' FWL
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:

Mind The Gap Federal SWD #1 - Affected Parties within 1 Mile Area of Review					
Notified Name	Notified Address	Notified City, State, ZIP Code	Shipper	Tracking No.	Mailing Date
COG Operating LLC	600 W Illinois Ave	Midland, TX 79701	USPS	9414811899561824298702	4/26/2019
BTA Oil Producers, LLC	104 S Pecos	Midland, TX 79701	USPS	9414811899561824298870	4/26/2019
EOG Resources Inc	P.O. Box 2267	Midland, TX 79702	USPS	9414811899561824298955	4/26/2019
Bureau Of Land Management	620 E Greene St	Carlsbad, NM 88220	USPS	9414811899561824298764	4/26/2019
New Mexico State Land Office	2827 N Dal Paso St Suite 117	Hobbs, NM 88240	USPS	9414811899561824298979	4/26/2019
New Mexico State Land Office	310 Old Santa Fe Trail	Santa Fe, NM 87501	USPS	9414811899561824298931	4/26/2019
ConocoPhillips Company	P.O.Box 2197 Office EC3-10-W285	Houston, TX 77252	USPS	9414811899561824298740	4/26/2019
R&R Royalty Ltd.	500 N. Shoreline Boulevard, Suite 322	Corpus Christi, TX 78401-0313	USPS	9414811899561824298665	4/26/2019
Energen Resources Corporation	605 Richard Arrington Jr. Blvd N.	Birmingham, AL 35203-2707	USPS	9414811899561824298771	4/26/2019
Mobil Prod TX & NM	9 Greenway Plaza 2700	Houston, TX 77046	USPS	9414811899561824298948	4/26/2019
Mobil Prod TX & NM	PO Box 64106	Spring, TX 77387	USPS	9414811899561824298900	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 2987 02

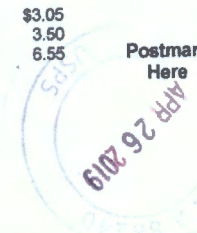
ARTICLE ADDRESSED TO:

COG Operating LLC
600 W Illinois Ave
Midland TX 79701-4882

FEES

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

Postmark
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U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1824 2988 70

ARTICLE ADDRESSED TO:

BTA Oil Producers, LLC
104 S. Pecos St
Midland TX 79701-5021

FEES

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

Postmark
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U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1824 2989 55

ARTICLE ADDRESSED TO:

EOG Resources, Inc.
PO Box 2267
Midland TX 79702-2267

FEES

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

Postmark
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ARTICLE NUMBER: 9414 8118 9956 1824 2987 64

ARTICLE ADDRESSED TO:

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

FEES

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

Postmark
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ARTICLE NUMBER: 9414 8118 9956 1824 2989 79

ARTICLE ADDRESSED TO:

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

FEES

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

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U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1824 2989 31

ARTICLE ADDRESSED TO:

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

FEES

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

Postmark
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U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1824 2987 40

ARTICLE ADDRESSED TO:

ConocoPhillips Company
PO Box 2197
Houston TX 77252-2197

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

Postmark
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U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1824 2986 65

ARTICLE ADDRESSED TO:

R&R Royalty Ltd.
500 N. Shoreline Boulevard Suite 322
Corpus Christi TX 78401-0313

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

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U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1824 2987 71

ARTICLE ADDRESSED TO:

Energen Resources Corporation
605 Arrington Blvd N.
Birmingham AL 35203-2707

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

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U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1824 2989 48

ARTICLE ADDRESSED TO:

Mobil Prod TX & NM
9 Greenway Plaza 2700
Houston TX 77046-0905

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

\$3.05
3.50
6.55

Postmark
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U.S. Postal Service Certified Mail Receipt

ARTICLE NUMBER: 9414 8118 9956 1824 2989 00

ARTICLE ADDRESSED TO:

Mobil Prod TX & NM
PO Box 64106
Spring TX 77387-4106

FEES

Postage Per Piece
Certified Fee
Total Postage & Fees:

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6.55

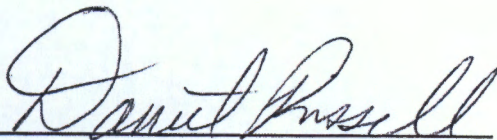
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Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

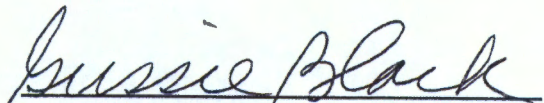
I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

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



Publisher

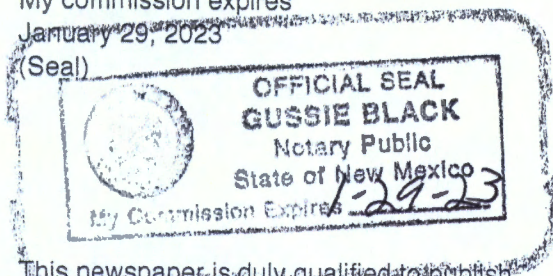
Sworn and subscribed to before me this
23rd day of April 2019.



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 Mind The Gap Federal SWD #1, and is located 1326 FNL & 250 FWL, Unit Letter E, Section 10, Township 25 South, Range 33 East, NMPM. The well will dispose of water produced from nearby oil and gas wells into the Devonian formation from a depth of 17,427 feet to 16,895 feet. The maximum expected injection rate is 50,000 BWP/D at a maximum surface injection pressure of 3,485 psi.

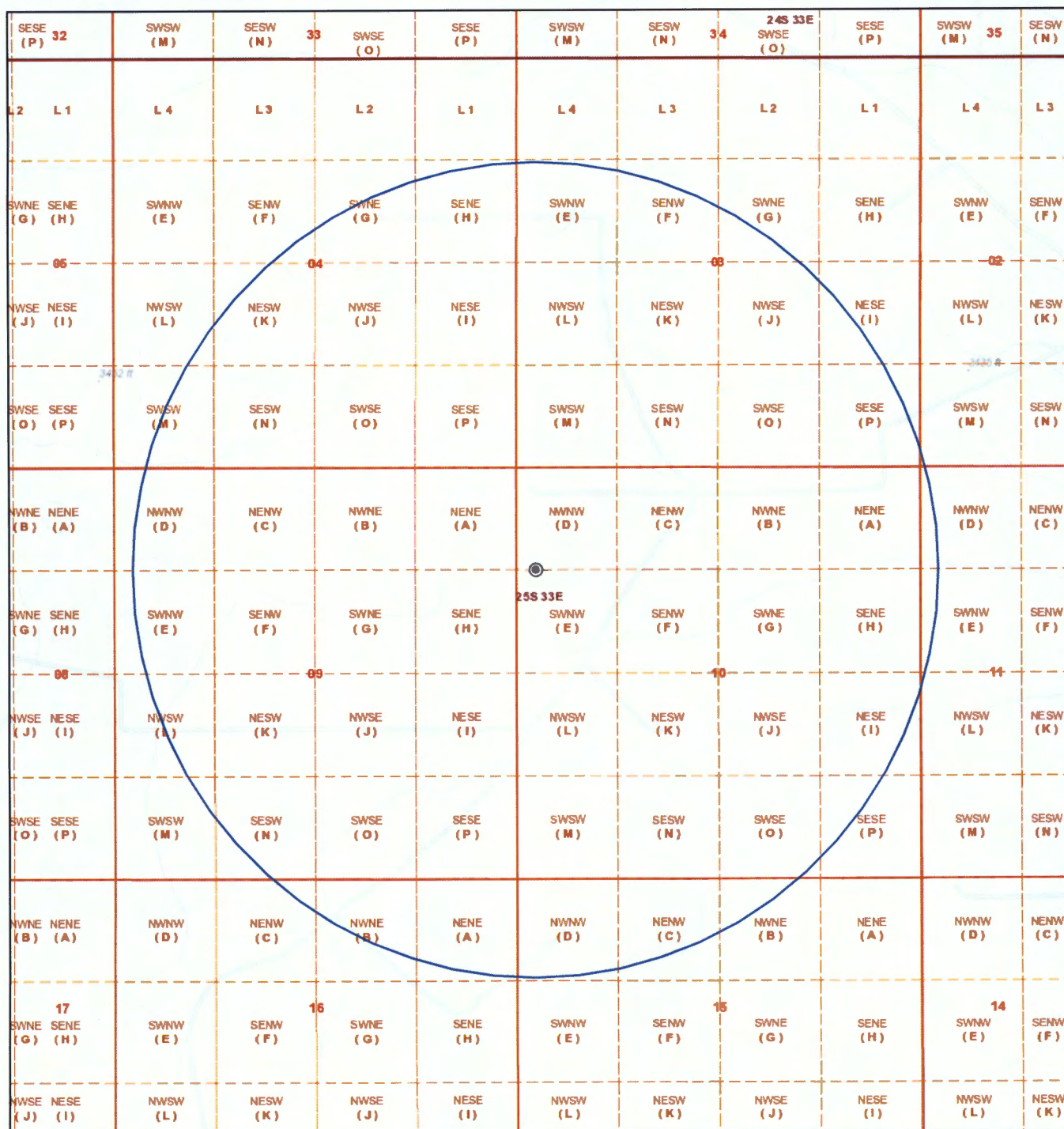
Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505 within 15 days.
#34059

67115647

00227336

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

Mind The Gap Federal SWD #1 - Water Wells within 1 Mile AOR



4/17/2019, 11:05:42 AM

Override 1

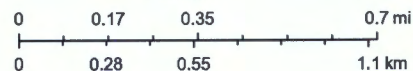
Override 1

PLSS First Division

PLSS Second Division

PLSS Townships

1:18,056



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 6	Q 4	Q 1	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
C 02312		CUB	LE	1	2	1	05	25S	33E	632241	3559687*	150	90	60
C 02313		CUB	LE	2	3	3	26	25S	33E	636971	3552098*	150	110	40
C 02373 CLW317846	O	CUB	LE	2	1	1	13	25S	33E	638518	3556544*	625	185	440
C 02373 S		CUB	LE	1	2	1	13	25S	33E	638721	3556549*	625	185	440

Average Depth to Water: **142 feet**

Minimum Depth: **90 feet**

Maximum Depth: **185 feet**

Record Count: 4

PLSS Search:

Township: 25S

Range: 33E

*UTM location was derived from PLSS - see Help

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

4/24/19 3:30 PM

WATER COLUMN/ AVERAGE DEPTH TO
WATER



Item XII. Affirmative Statement

Re: C-108 Application for SWD Well
Permian Oilfield Partners, LLC
Mind the Gap Federal SWD #1
Sec. 10, Twp. 25S, Rge. 33E
1326' FNL, 250' FWL
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: 4/24/2019

**Plugging Risk Assessment
Permian Oilfield Partners, LLC.
Mind The Gap Federal SWD #1
SL: 1326' FNL & 250' FWL
Sec 10, T25S, R33E
Lea County, New Mexico**

WELLBORE SCHEMATIC

Permian Oilfield Partners, LLC.
Mind The Gap Federal SWD #1
1326' FNL, 250' FWL
Sec. 10, T25S, R33E, Lea Co. NM
Lat 32.1486917° N, Lon 103.5679617° W
GL 3408', RKB 3438'

Surface - (Conventional)

Hole Size: 26"
Casing: 20" - 94# H-40 & 106.5# J-55 STC Casing
Depth Top: Surface
Depth Btm: 1053'
Cement: 693 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: 4985'
Cement: 1646 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: 12184'
Cement: 2101 sks - Lite Class C (60:40:0) + Additives
Cement Top: Surface - (Circulate)
ECP/DV Tool: 5085'

Intermediate #3 - (Liner)

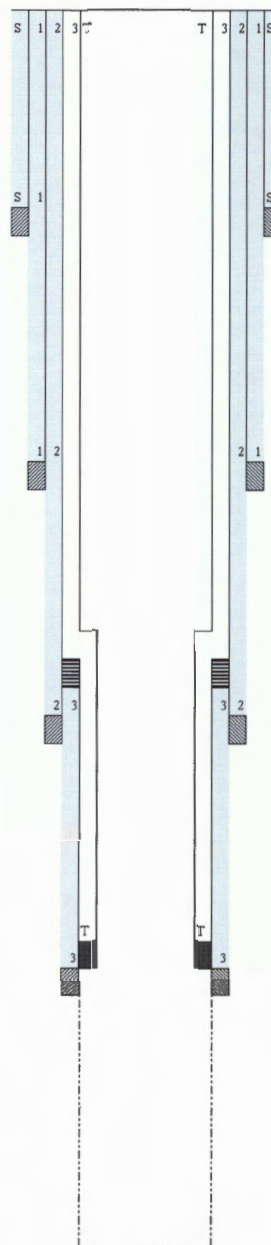
Hole Size: 8.5"
Casing: 7.625" - 39# HCL-80 FJ Casing
Depth Top: 11984'
Depth Btm: 17427'
Cement: 259 sks - Lite Class C (60:40:0) + Additives
Cement Top: 11984' - (Volumetric)

Intermediate #4 - (Open Hole)

Hole Size: 6.5"
Depth: 18895'
Inj. Interval: 17427' - 18895' (Open-Hole Completion)

Tubing - (Tapered)

Tubing Depth: 17382'
Tubing: 7" - 26# HCP-110 FJ Casing & 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
X/O Depth: 11984'
X/O: 7" 26# HCP-110 FJ Casing - X - 5.5" 17# HCL-80 FJ Casing (Fiberglass Lined)
Packer Depth: 17392'
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 8 5/8" to 7 1/2" Inclusive

Maximum Catch Size (Spiral)		6 5/8"	6 7/8"	7"	7 1/2"
Maximum Catch Size (Basket)		5 7/8"	6 1/8"	6 5/8"	6 7/8"
Overshot O.D.		8 3/4"	7 3/4"	8 3/4"	8 9/8"
Type		F.S.	S.H.	S.H.	S.H.
Complete Assembly	Part No.	C-3032	C-5222	Q217	C-5354
(Dressed Spiral Parts)	Weight	280	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-5228	Q223	B-5360
Standard Guide	Part No.	A-1818	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-5228	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

Series 150 Overshots

Tools are listed in order of maximum catch size.

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

NOTE: Nitralloy Grapples are available upon request.

Bowen Series 150 Releasing and Circulation Overshots

Maximum Catch Size 4 1/4" to 5 1/2" Inclusive

Maximum Catch Size (Spiral)		4 1/4"	4 1/2"	4 3/4"	4 7/8"	5"	5 1/4"	5 1/2"
Maximum Catch Size (Basket)		3 3/4"	4"	4 1/4"	4 1/2"	4 3/4"	4 7/8"	5"
Overshot O.D.		5 3/4"	5 1/2"	5 1/4"	5 1/8"	5 1/4"	5 1/8"	5 1/4"
Type		F.S.	S.H.	S.H.	S.F.S.	S.H.	F.S.	S.H.
Complete Assembly		Part No.	5898	5898	C-5108	8975	C-5171	C-4825
(Dressed Spiral Parts)		Weight	130	130	133	138	140	182
Replacement Parts								
Top Sub		Part No.	5897	5899	A-5109	8976	A-5172	B-4826
Bowl		Part No.	5898	5700	B-5170	8977	B-5173	B-4827
Packer		Part No.	169	1140	B-2199	0114	L-5050	L-4505
Spiral Grapple		Part No.	165	1135	B-2201	0112	B-4369	M-1071
Spiral Grapple Control		Part No.	188	1137	B-2202	0113	B-4370	M-1072
Standard Guide		Part No.	187	1143	B-2203	0121	B-4371	L-1074
Basket Parts								
Basket Grapple		Part No.	165	1135	B-2201	0112	B-4369	M-1071
Basket Grapple Control		Part No.	188	1137	B-2202	0113	B-4370	M-1072
Mill Control Packer		Part No.	189-R	1140-R	B-2199-R	0114-R	L-5050-R	M-4505

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

5.5" 17# FJ Casing Inside 7.625" 39# FJ Casing													
Clearance (in)	Pipe Size (in)	Weight lb/ft	Grade	Conn.	Type	Body O.D. (in)	Coupling O.D. (in)	I.D. (in)	Drift (in)	Lined Wt. lb/ft	Lined I.D. (in)	Flare I.D. (in)	Lined Drift (in)
0.500	7 5/8	39.0	HCL-80	FJ	Casing	7.625	7.625	6.625	6.500	-	-	-	-
	5 1/2	17.0	HCL-80	FJ	Casing	5.500	5.500	4.892	4.767	18.500	4.520	4.400	4.275

*Red Indicates Tubing

Fishing Procedure

Overshot Fishing Procedure

In the Event of a Connection Break

- If fishing neck is clean

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

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

- If dressing fishing neck is required

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

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

In the Event of a Body Break

- If fishing neck is clean

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

- If dressing fishing neck is required

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

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

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

Spear Fishing Procedure

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

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

Inside Diameter Cutting Tool Fishing Procedure

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

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

Abandonment Procedure

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

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



Attachment to C-108
Permian Oilfield Partners, LLC
Mind the Gap Federal SWD #1
Sec. 10, Twp. 25S, Rge. 33E
1326' FNL, 250' FWL
Lea County, NM

April 16, 2019

STATEMENT REGARDING SEISMICITY

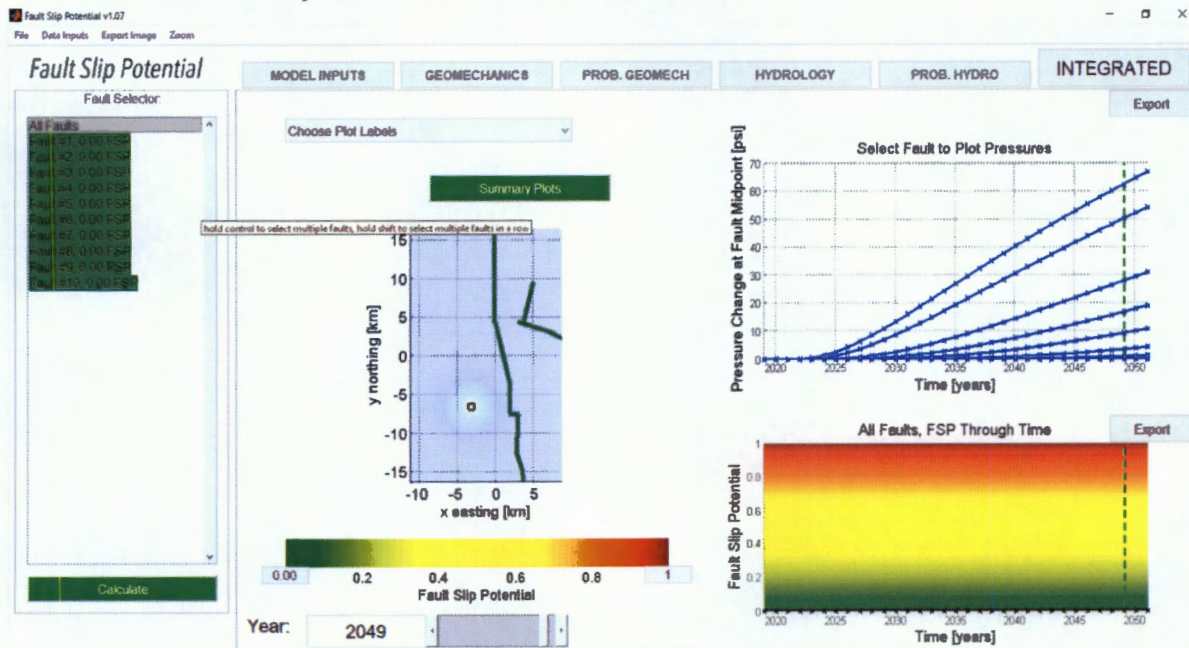
Examination of the USGS and TexNet seismic activity databases has shown minimal historic seismic activity in the area (< 30 miles) of our proposed above referenced SWD well as follows:

1. M2.9, 1984-12-09, 8.25 miles away @ 4.83 deg heading
2. M3.1, 2012-03-18, 21.08 miles away @ 296.11 deg heading
3. M3.3, 2001-06-02, 28.21 miles away @ 62.46 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. A basement PreCambrian fault is 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.
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 2.61 miles away from the nearest active or permitted Devonian disposal well.

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