

AE Order Number Banner

Application Number: pMSG2324251335

SWD-2555

Pilot Water Solutions SWD LLC [331374]



August 23, 2023

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Subject: Pilot Water Solutions SWD LLC
Application for Authorization to Inject
Jameis SWD State #1

Mr. Fuge,

Pilot Water Solutions SWD LLC (Pilot) is applying for administrative approval of the attached Application for Authorization to Inject (Form C-108) for their proposed Jameis SWD State #1. The application is requesting authorization to dispose of saltwater from oil and gas production in the area via commercial disposal into the San Andres Formation in Lea County, NM.

Questions regarding this application or the included materials can be directed to Nate Alleman (Pilot Regulatory Advisor Contractor) via telephone at 918-237-0559 or via email at nate.alleman@aceadvisors.com.

Sincerely,

A handwritten signature in black ink that reads "Nathan Alleman".

Nate Alleman
Chief Regulatory Advisor
Ace Energy Advisors

Revised March 23, 2017

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

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



ADMINISTRATIVE APPLICATION CHECKLIST

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

Applicant: Pilot Water Solutions SWD LLC OGRID Number: 331374
 Well Name: Jameis SWD State #1 API: 30-025-
 Pool: SWD; San Andres Pool Code: 96121

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

1) TYPE OF APPLICATION: Check those which apply for [A]

A. Location – Spacing Unit – Simultaneous Dedication

☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD

B. Check one only for [I] or [II]

[I] Commingling – Storage – Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery

☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

2) NOTIFICATION REQUIRED TO: Check those which apply.

- A. ☒ Offset operators or lease holders
 B. ☐ Royalty, overriding royalty owners, revenue owners
 C. ☒ Application requires published notice
 D. ☒ Notification and/or concurrent approval by SLO
 E. ☐ Notification and/or concurrent approval by BLM
 F. ☒ Surface owner
 G. ☒ For all of the above, proof of notification or publication is attached, and/or,
 H. ☐ No notice required

FOR OCD ONLY

- ☐ Notice Complete
☐ Application Content Complete

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

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

David Grounds

Print or Type Name

David Grounds

Signature

08/23/2023

Date

713-307-8752

Phone Number

david.grounds@pilotwater.com

e-mail Address

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance _____ ☒ Disposal _____ Storage
Application qualifies for administrative approval? _____ ☒ Yes _____ No
- II. OPERATOR: Pilot Water Solutions SWD LLC
ADDRESS: 20 Greenway Plaza, Suite 200, Houston, TX 77046
CONTACT PARTY: David Grounds PHONE: 713-307-8752
- 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? _____ Yes _____ ☒ No
If yes, give the Division order number authorizing the project: _____
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half 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: David Grounds TITLE: VP - Regulatory Compliance
SIGNATURE: David Grounds DATE: 08/23/2023
E-MAIL ADDRESS: david.grounds@pilotwater.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. Well Data

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.**

Operator: Pilot Water Solutions SWD LLC (OGRID# 331374)

Lease/Well Name & Number: Jameis SWD State #1

Legal Location: 1,429' FSL & 458' FEL - Unit I – Section 7 T19S R37E – Lea County

- (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.**

Casing String	Hole Size (in)	Casing Size (in)	Casing Depth (ft)	Sacks Cement (sx)	Top of Cement (ft)	Method Determined
Surface	17-1/2	13-3/8	1,418	2,222.6	0	Circulation
Production	12-1/4	9-5/8	5,496	1,640.6	0	Circulation

A wellbore diagram is included in **Attachment 1**.

- (3) A description of the tubing to be used including its size, lining material, and setting depth.**

5-1/2" fiberglass-coated tubing set at 4,257'

- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.**

Weatherford AS1X Stainless 9-5/8" X 5-1/2" set at 4,257'

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.**

Injection Formation Name - San Andres

Pool Name - SWD; San Andres

Pool Code – 96121

- (2) The injection interval and whether it is perforated or open-hole.**

Cased-hole injection between 4,257' - 5,496'

- (3) State if the well was drilled for injection or, if not, the original purpose of the well.**

New drill for injection

- (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.**

None

- (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.**

- **Overlying**
 - Yates (2,668')
 - 7 Rivers (2,928')
 - Queen (3,441')
 - Grayburg (3,776')
- **Underlying** - No underlying oil and gas zones present.

Note: the proposed SWD is located on the Central Basin Platform. Therefore, the listed productive zones are limited to those productive zones occurring on the Central Basin Platform.

V. AOR Maps

Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

The following maps are included in **Attachment 2**:

- ½-Mile AOR/Surface & Mineral Ownership Map
- ½-Mile Lease Map
- 2-Mile Oil & Gas Well Map

VI. AOR List

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.

Details of the wells within the 0.5-mile AOR are included in **Attachment 2**. No wells within the 0.5-mile AOR penetrate the top of the proposed injection zone.

VII. Operational Information

Attach data on the proposed operation, including:

- (1) Proposed average and maximum daily rate and volume of fluids to be injected;**

Maximum: 25,000 bpd

Average: 15,000 bpd

- (2) Whether the system is open or closed;**

The system will be closed.

- (3) Proposed average and maximum injection pressure;**

Maximum: 851 psi (surface)

Average: approx. 500-600 psi (surface)

- (4) Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water;**

It is anticipated that produced water from Wolfcamp and Bone Spring production wells in the area will be injected into the proposed SWD. Therefore, water analysis from these formations was obtained and is included in **Attachment 3**.

- (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.).**

The proposed injection interval for this SWD is the San Andres formation, which is a non-productive zone known to be compatible with formation water from the Wolfcamp and Bone Spring formations. Water analyses of samples collected from the proposed injection formation in the area were obtained and are included in **Attachment 4**.

VIII. Geologic Description

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.

The proposed injection interval is located in the San Andres formation between the depths of 4,257 and 5,496 feet. The San Andres formation consists of an interbedded carbonate sequence composed of limestone and dolomite. These cycles tend to be mappable within the San Andres and are differentiated by sections of either very high or very low porosity and permeability development. Upper and lower confinement will be provided by tight carbonate facies present within San Andres that occur above and below the porous injection interval. The upper confining interval occurs at the top of the San Andres formation, directly underlying the Grayburg formation, and ranges from 125' – 150' net thickness based on a review of nearby open-hole geophysical logs. The lower confining interval occurs at the bottom of the San Andres formation, directly overlying the Glorieta formation, and ranges from 150' - 200' net thickness based on a review of nearby open-hole geophysical logs.

The base of the lowermost Underground Source of Drinking Water (USDW), identified as the top of the first anhydrite, was determined to occur at the top of the Rustler formation at a depth of 1,393'. Water wells in the area are drilled to a depth of approximately 95' – 143'.

IX. Proposed Stimulation Program

Describe the proposed stimulation program, if any.

A minor acid job utilizing 15-20% hydrochloric acid may be used to cleanup the wellbore.

X. Logging and Test Data

Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

Logs will be run and submitted to the Division once the well is completed.

XI. Groundwater Wells

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.

Based on data obtained from the New Mexico Office of the State Engineer (OSE), a total of 18 groundwater wells (13 active, 1 pending, 4 plugged) are located within 1 mile of the proposed SWD location. Water samples have been collected and analyzed for 4 of these wells.

Attachment 5 includes a table with details of the water wells within 1-mile, a water well map, and analysis of the collected water samples.

XII. No Hydrologic Connection Statement

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.

A geologic review conducted on offset wireline log data and published regional studies did not identify any faulting in the vicinity of the proposed locations that would allow for the hydraulic communication between the injection interval and overlying USDWs. The base of the lowermost Underground Source of Drinking Water (USDW), identified as the top of the first anhydrite, was determined to occur at the top of the Rustler formation at a depth of 1,393'.

XIII. Proof of Notice

Applicants must complete the "Proof of Notice" section on the reverse side of this form.

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.

A copy of the application was mailed to the Affected Persons, including the OCD District Office, surface owner, leasehold operators within the AOR, and BLM/SLO if they own minerals within the AOR. **Attachment 6** includes a list of the Affected Persons receiving notice of the application and the associated certified mailing receipts (green sheets).

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.

A Public Notice was published in the Hobbs NewsSun, a newspaper of general circulation in the area, and the associated affidavit is included in **Attachment 6**.

Attachment 1

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 96121	³ Pool Name SWD; San Andres
⁴ Property Code	⁵ Property Name JAMEIS SWD STATE	⁶ Well Number #1
⁷ OGRID No. 331374	⁸ Operator Name Pilot Water Solutions SWD LLC	⁹ Elevation 3707.75'

¹⁰ Surface Location

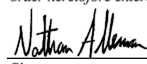
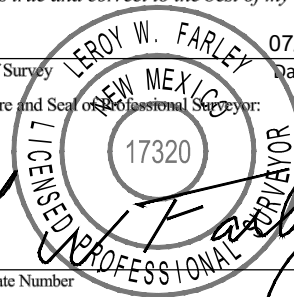
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	7	19 S	37 E		1429	SOUTH	458	EAST	LEA

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

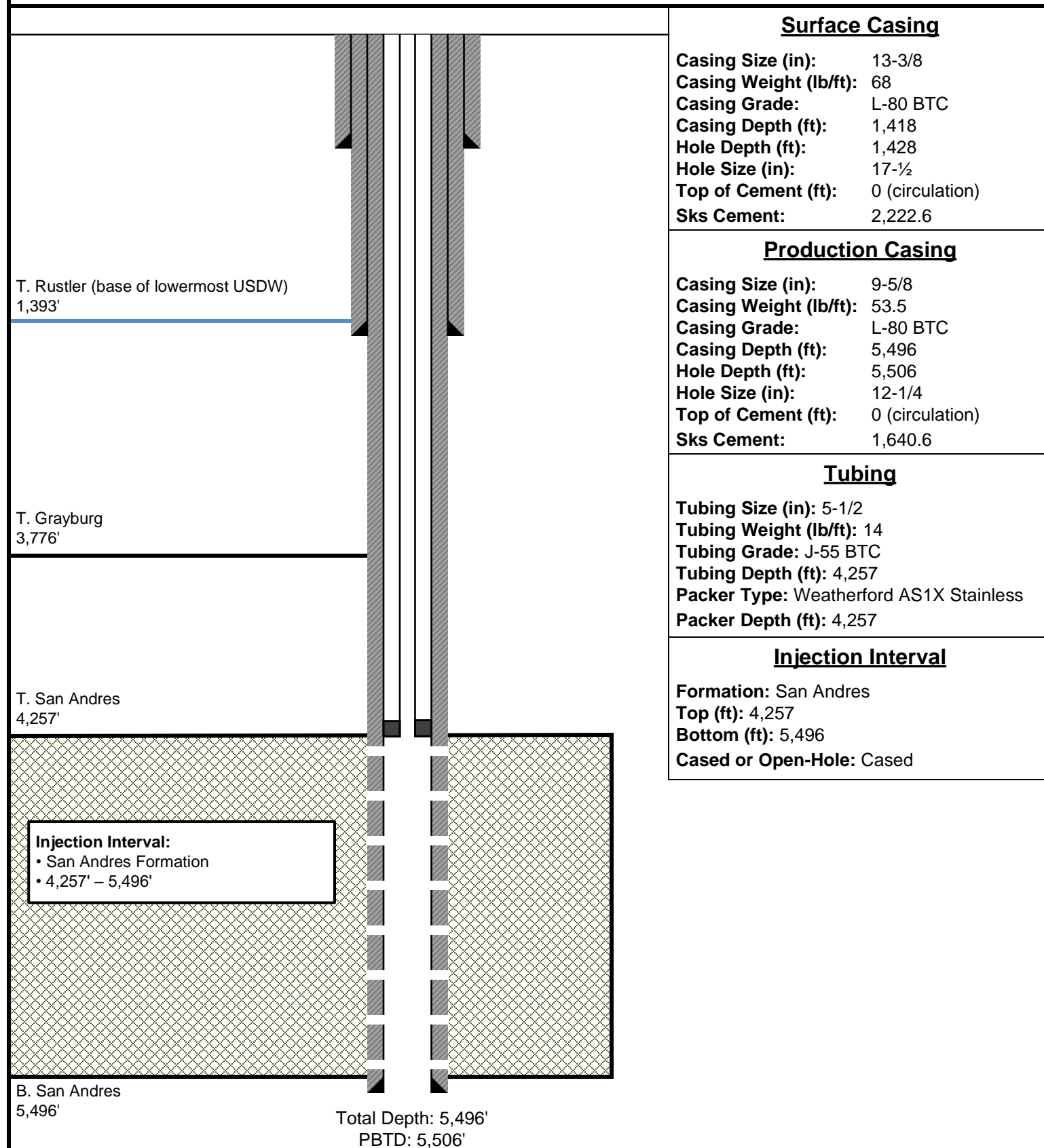
¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

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

¹⁶ ① D C B A E F G H L K J M N O ④	GEODETTIC DATA NAD 83 NM EAST JAMEIS SWD STATE 1 X: 864340.28' Y: 609630.70' LAT.: N 32.67152906 LONG.: W -103.2836506 1-Y=613523.07', X=859519.35' 2-Y=613473.44', X=864761.20' 3-Y=608197.49', X=864814.68' 4-Y=608228.87', X=859582.20'	② 458' 1429' ③	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 08/22/2023 Date Nate Alleman Printed Name nate.alleman@aceadvisors.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.  Date of Survey Signature and Seal of Professional Surveyor 07/25/2023 Date Certificate Number

Pilot Water Solutions SWD LLC

Jameis SWD State #1 Wellbore Diagram



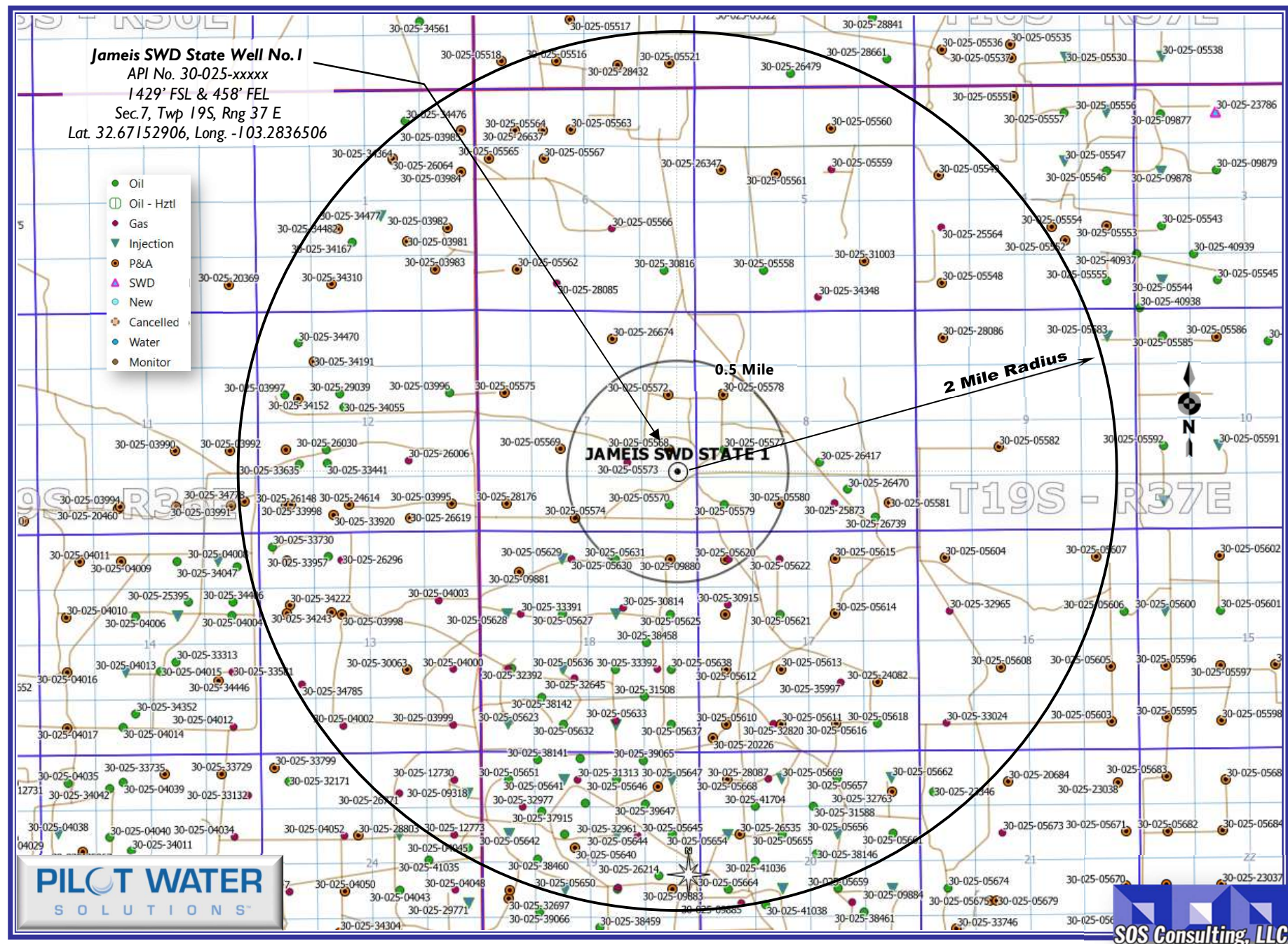
Note: Listed depths and cement volumes are approximates based on available information.

NOT TO SCALE

Attachment 2

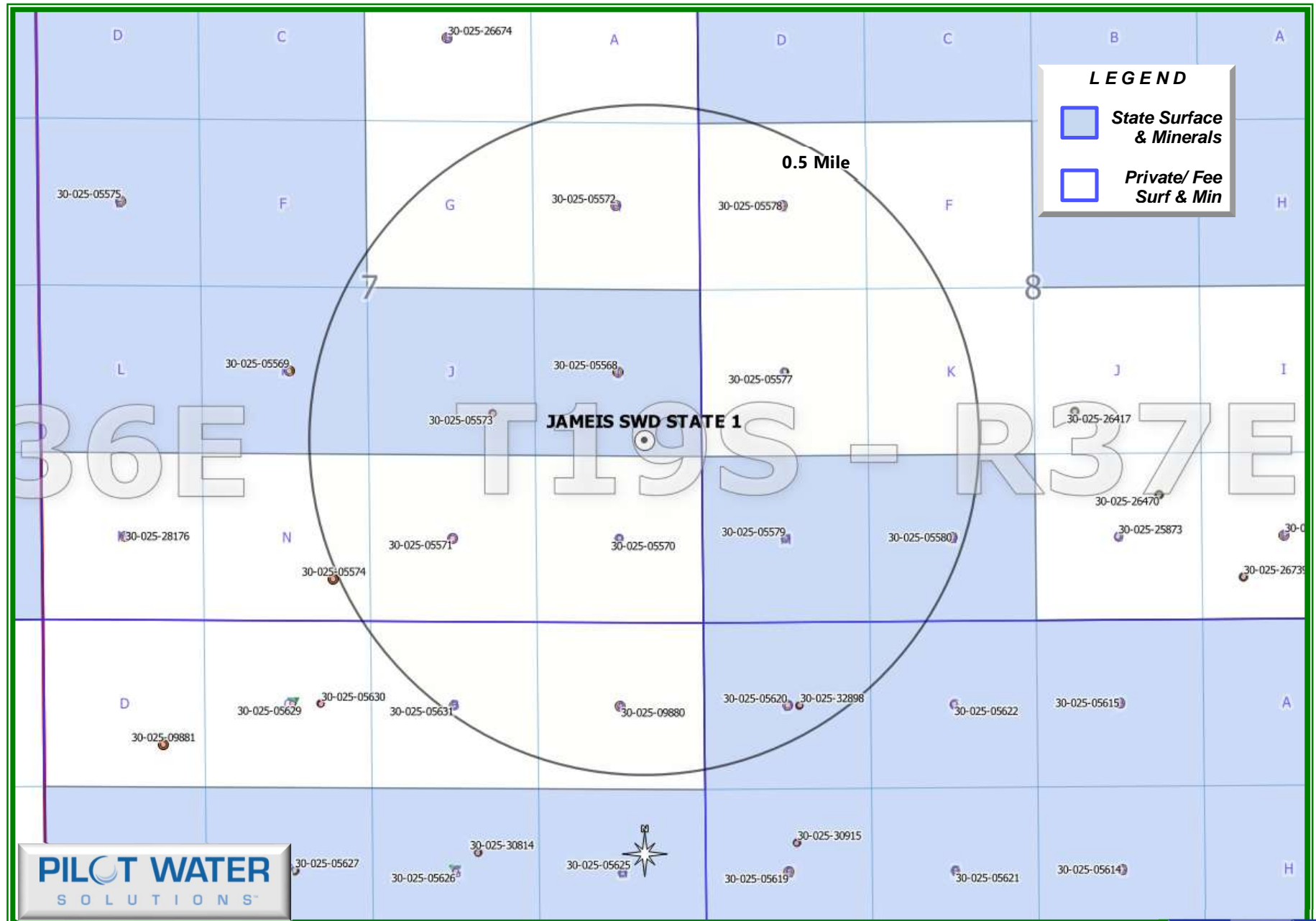
Jameis SWD State Well No.1 - Area of Review - 2 Miles

(Attachment to NMOCD Form C-108 - Item V)



Jameis SWD State #1 – Surface & Minerals Ownership

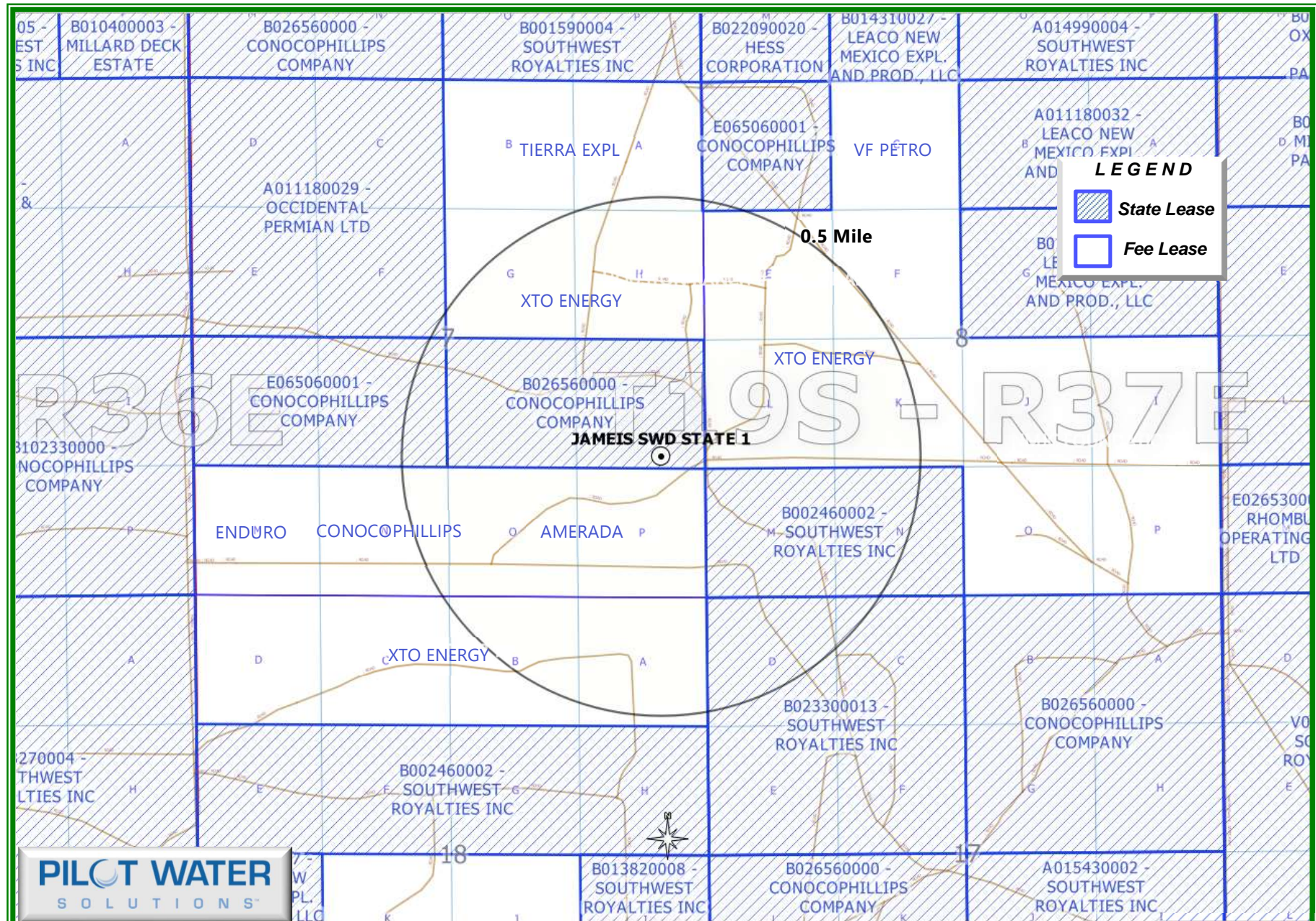
(Attachment to NMOCD Form C-108, Application for Authority to Inject.)



1/2-mile AOR Tabulation for Jameis SWD State #1 (Top of Injection Interval: 4,257')								
Well Name	API#	Well Type	Operator	Status	Spud Date	Location (Sec., Tn., Rng.)	Total Vertical Depth (feet)	Penetrate Inj. Zone?
NORTH MONUMENT G/SA UNIT #002	30-025-05631	O	APACHE CORPORATION	Active	7/28/1937	B-18-19S-37E	4,025	No
C H KYTE #002	30-025-05571	G	XTO ENERGY, INC	Plugged (not released)	11/29/1937	O-07-19S-37E	4,033	No
STATE A 7 #002	30-025-05573	G	Petroleum Exploration Company Ltd., Limited P	Active	12/13/1957	J-07-19S-37E	4,095	No
B M KEOHANE A #001	30-025-09880	O	TEXACO EXPLORATION & PRODUCTION INC	Plugged (site released)	6/17/1937	A-18-19S-37E	4,020	No
NORTH MONUMENT G/SA UNIT #009	30-025-05568	O	APACHE CORPORATION	Plugged (site released)	2/10/1958	I-07-19S-37E	4,046	No
NORTH MONUMENT G/SA UNIT #016	30-025-05570	O	APACHE CORPORATION	Active	8/30/1937	P-07-19S-37E	4,025	No
PRE-ONGARD WELL #003	30-025-05572	G	PRE-ONGARD WELL OPERATOR	Plugged (site released)	1/15/1956	H-07-19S-37E	4,040	No
NORTH MONUMENT G/SA UNIT #013	30-025-05579	O	APACHE CORPORATION	Active	7/29/1937	M-08-19S-37E	4,040	No
ELBERT SHIPP NCT B COM #002	30-025-05578	G	XTO ENERGY, INC	Plugged (site released)	4/13/1951	E-08-19S-37E	4,030	No
NORTH MONUMENT G/SA UNIT #012	30-025-05577	O	APACHE CORPORATION	Active	10/3/1937	L-08-19S-37E	4,040	No
PRE-ONGARD WELL #002	30-025-05620	O	PRE-ONGARD WELL OPERATOR	Plugged (site released)	5/15/1937	D-17-19S-37E	4,030	No
STATE J #006	30-025-32898	G	FORTY ACRES ENERGY, LLC	Active	6/13/1995	D-17-19S-37E	3,800	No
PRE-ONGARD WELL #002	30-025-05580	O	PRE-ONGARD WELL OPERATOR	Plugged (site released)	2/3/1938	N-08-19S-37E	4,155	No
Notes: No wells within the 1/2-mile AOR penetrate the injection interval.								

Jameis SWD State #1 – Leasehold Plat

(Attachment to NMOCD Form C-108, Application for Authority to Inject.)



PILOT WATER
SOLUTIONS™

SOS Consulting, LLC

Attachment 3

Source Formation Water Analysis																							
Well Name	API	Latitude	Longitude	Section	Township	Range	Unit	Ftgs	Ftgw	County	State	Formation	Sampled	PH	TDS (Mg/L)	Sodium (Mg/L)	Calcium (Mg/L)	Iron (Mg/L)	Magnesium (Mg/L)	Manganese (Mg/L)	Chloride (Mg/L)	Bicarbonate (Mg/L)	Sulfate (Mg/L)
STATE NPA #001	3002503156	32.6879654	-103.5031815	6	19S	35E	L	1980S	660W	LEA	NM	BONE SPRING	1960	7.7	25800.0						14100.0	830.0	1120.0
SHOOTING STAR STATE SWD #001	3002529805	32.7594261	-103.4270935	11	18S	35E	J	1650S	2310E	LEA	NM	BONE SPRING	2001	6.2			15600.0	2.5	981.9		148248.0	244.0	650.0
SINCLAIR STATE #002	3002503123	32.7386246	-103.4561005	21	18S	35E	A	660N	660E	LEA	NM	WOLFCAMP	1960	7.1	60950.0						33568.0	1087.0	3049.0
IRONHOUSE 19 STATE COM #001H	3002540676	32.7266121	-103.499527	19	18S	35E	N	200S	1800W	Lea	NM	BONE SPRING 2ND SAND	2014	6.4	182863.9	58171.0	4944.4	49.0	1892.6	1.4	113954.0	195.2	0.0
IRONHOUSE 19 STATE COM #004H	3002541245	32.7264938	-103.5014343	19	18S	35E	M	150S	1215W	Lea	NM	BONE SPRING 2ND SAND	2014	6.2	189029.2	64016.2	5319.3	38.8	2044.4	1.5	113566.0	158.6	0.0
IRONHOUSE 19 STATE COM #002H	3002541094	32.7271118	-103.4903336	19	18S	35E	P	410S	630E	Lea	NM	BONE SPRING 2ND SAND	2014	6.0	205332.0	72646.0	4828.0	39.0	2316.0	2.0	130450.0	488.0	1503.0
IRONHOUSE 20 STATE COM #001	3002540611	32.7265129	-103.4774857	20	18S	35E	O	200S	1980E	Lea	NM	BONE SPRING 2ND SAND	2014	6.1	186865.0	65638.0	4698.0	16.0	1700.0	1.0	116510.0	1098.0	1804.0
IRONHOUSE 20 STATE #002H	3002540748	32.7265129	-103.4731903	20	18S	35E	P	200S	660E	Lea	NM	BONE SPRING 2ND SAND	2014	6.6	196865.0	66738.0	4631.0	23.0	1790.0	1.0	116580.0	1298.0	1894.0
IRONHOUSE 19 STATE COM #003H	3002541050	32.7264977	-103.4941711	19	18S	35E	O	175S	1810E	Lea	NM	BONE SPRING 2ND SAND	2014	6.2	178457.0	56874.0	6125.0	22.0	1457.0	1.0	125412.0	845.0	849.0
HAMON STATE #001	3002503140	32.7175827	-103.4464035	27	18S	35E	K	2310S	2310W	LEA	NM	BONE SPRING			154510.0						96360.0	430.0	1210.0
LEA 403 STATE #001	3002503126	32.7386093	-103.4518051	22	18S	35E	D	660N	660W	LEA	NM	BONE SPRING	1958	6.7	255451.0						156699.0	327.0	779.0

Attachment 4

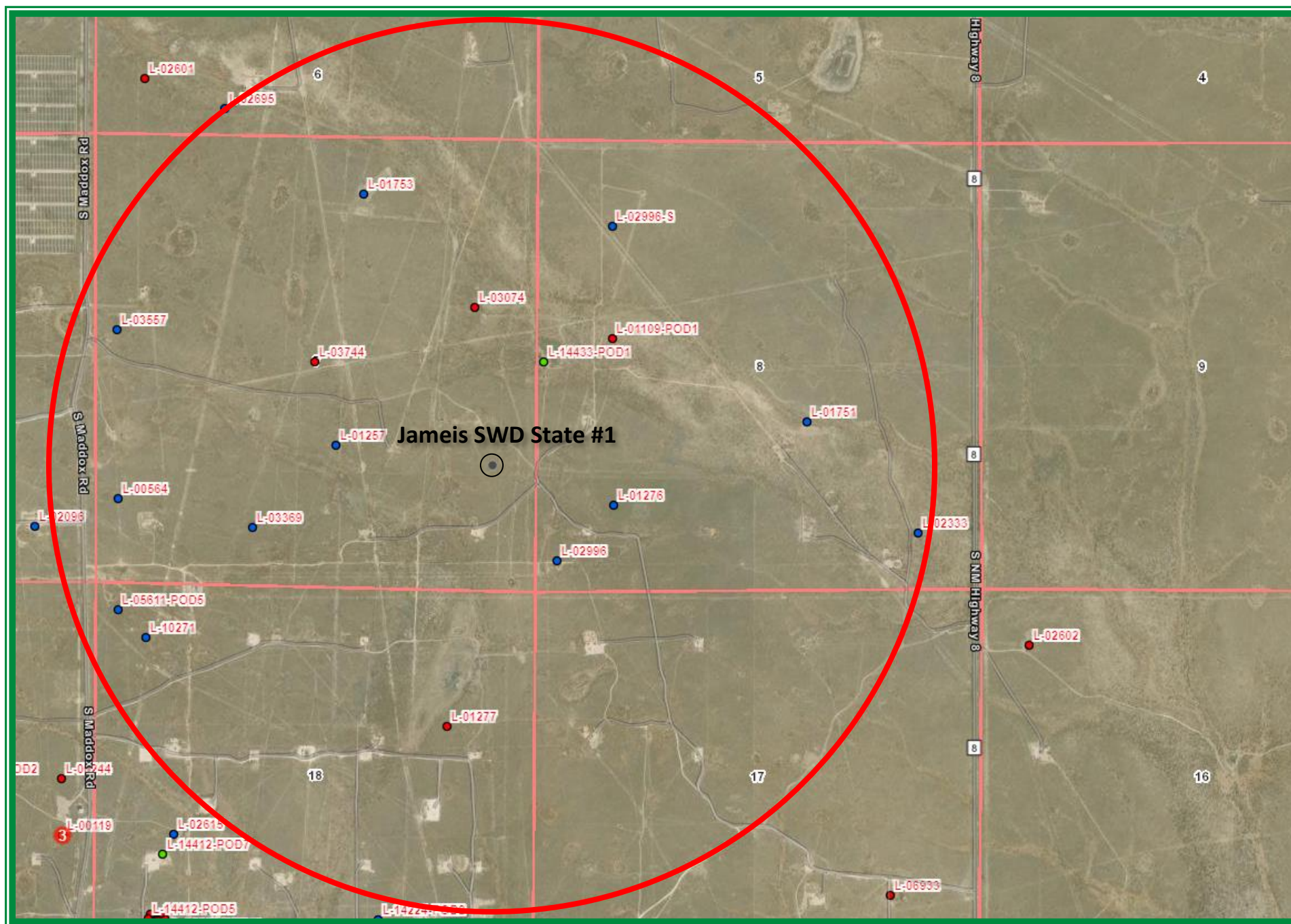
Injection Formation Water Analysis																		
Well Name	API	Latitude	Longitude	Section	Township	Range	Unit	Ftgns	Ftgew	County	State	Formation	Sampled	PH	TDS (Mg/L)	Chloride (MG/L)	Bicarbonate (MG/L)	Sulfate (MG/L)
B V CULP NCT A #008	3002505640	32.6467896	-103.2919235	19	19S	37E	F	2310N	2239W	LEA	NM	SAN ANDRES			10905	2350	1100	3700
B V CULP NCT A #008	3002505640	32.6467896	-103.2919235	19	19S	37E	F	2310N	2239W	LEA	NM	SAN ANDRES			26735	14500	1370	1020
B V CULP NCT A #008	3002505640	32.6467896	-103.2919235	19	19S	37E	F	2310N	2239W	LEA	NM	SAN ANDRES			40250	20800	1390	3100
B V CULP NCT A #008	3002505640	32.6467896	-103.2919235	19	19S	37E	F	2310N	2239W	LEA	NM	SAN ANDRES			71110	39800	810	3500
B V CULP NCT A #008	3002505640	32.6467896	-103.2919235	19	19S	37E	F	2310N	2239W	LEA	NM	SAN ANDRES			156218	95130	176	771
NORTH MONUMENT G/SA UNIT #001	3002505647	32.6512489	-103.2843475	19	19S	37E	A	660N	660E	Lea	NM	SAN ANDRES	1964	6.0		10200	592	1938
GOODWIN #002	3002520651	32.7204323	-103.2928467	30	18S	37E	F	1980N	1980W	LEA	NM	SAN ANDRES			80467	45060	1492	3315
GOODWIN #002	3002520651	32.7204323	-103.2928467	30	18S	37E	F	1980N	1980W	LEA	NM	SAN ANDRES			69848	39130	1225	3114
NORTH HOBBS UNIT #001	3002505449	32.7530632	-103.21138	13	18S	37E	D	660N	660W	LEA	NM	SAN ANDRES	1960	8.0	12100	4500	504	2300
NORTH HOBBS UNIT #001	3002505449	32.7530632	-103.21138	13	18S	37E	D	660N	660W	LEA	NM	SAN ANDRES			12100	4541	509	2321
BOBBI STATE WF UNIT #006	3002503978	32.7231979	-103.373436	29	18S	36E	B	990N	1650E	LEA	NM	SAN ANDRES			20882	11190	645	1232
STATE NG #001	3002522795	32.7349815	-103.3057404	24	18S	36E	G	1980N	1980E	LEA	NM	SAN ANDRES	1968	6.5	265665	157000	98	5400
STATE NG #001	3002522795	32.7349815	-103.3057404	24	18S	36E	G	1980N	1980E	LEA	NM	SAN ANDRES	1968	6.3	203913	122000	110	3000
GRAHAM STATE NCT F #003	3002512476	32.6149902	-103.3056641	36	19S	36E	J	1980S	1980E	LEA	NM	SAN ANDRES	1900	6.5		16406	611	
NORTHWEST EUMONT UNIT #156	3002504099	32.617733	-103.3518143	33	19S	36E	H	2310N	330E	Lea	NM	SAN ANDRES	1960	7.0		38119	405	4317
GRAHAM STATE NCT F #003	3002512476	32.6149902	-103.3056641	36	19S	36E	J	1980S	1980E	Lea	NM	SAN ANDRES	1964	6.5		16406	611	
GRAHAM STATE NCT F #003	3002512476	32.6149902	-103.3056641	36	19S	36E	J	1980S	1980E	LEA	NM	SAN ANDRES			26344			
E M E SWD #008	3002506017	32.5895042	-103.2725601	8	20S	37E	G	1980N	2310E	LEA	NM	SAN ANDRES	1964	8.5	65365	36905	560	1460
THEODORE ANDERSON #002	3002506139	32.5785942	-103.2758102	17	20S	37E	C	660N	1980W	Lea	NM	SAN ANDRES	1964	6.7		67245	564	489
E M E SWD #008	3002506017	32.5895042	-103.2725601	8	20S	37E	G	1980N	2310E	LEA	NM	SAN ANDRES			65361	36900	560	1460
EUNICE MONUMENT UNIT #031	3002506169	32.5531693	-103.2843781	19	20S	37E	P	660S	660E	LEA	NM	SAN ANDRES			91120	59850	0	722

Attachment 5

Water Well Sampling Table					
Water Well ID	OSE Status	Owner	Available Contact Information	Use	Notes
L 03557	Active	VERSADO GAS PROCESSORS LLC	Versado Gas Processors, Llc Po Box 1909 Eunice, NM 88235	Industrial	Industrial use - not fresh water supply well
L 01109 POD1	Plugged	GULF OIL CORPORTATION	Gulf Oil Corportation Box 1290 Fort Worth, TX	Prospecting	Plugged - O&G Prospecting - not fresh water supply well
L 01257	Active	GULF OIL CORPORATION	Gulf Oil Corportation Box 1290 Fort Worth, TX	Prospecting	O&G Prospecting - not fresh water supply well
L 01276	Active	GULF OIL CORPORATION	Gulf Oil Corportation Box 1290 Fort Worth, TX	Prospecting	O&G Prospecting - not fresh water supply well
L 01277	Plugged	GULF OIL CORPORATION	Gulf Oil Corportation Box 1290 Fort Worth, TX	Prospecting	Plugged - O&G Prospecting - not fresh water supply well
L 02333	Active	ROGERS INC	J W Rogers Inc Hobbs, NM	Prospecting	O&G Prospecting - not fresh water supply well
L 10271	Active	SNYDER RANCHES INC.	Snyder Ranches Inc. P.o. Box 2158 Hobbs, NM 88240	Commercial	No additional samples needed.
L 03074	Plugged	OSCAR BOURG DRILLING COMPANY	Oscar Bourg Drilling Company C/o O R Musslewhite Box 56 Hobbs, NM	Prospecting	Plugged - O&G Prospecting - not fresh water supply well
L 03369	Active	VELMA PETROLEUM COMPANY	Velma Petroleum Company Box 1955 Hobbs, NM	Prospecting	O&G Prospecting - not fresh water supply well
L 02695	Active	THE TEXAS COMPANY	The Texas Company Box Ff Hobbs, NM	Prospecting	O&G Prospecting - not fresh water supply well
L 03744	Plugged	HOWARD P HOLMES DRILLING CONT.	Howard P Holmes Drilling Cont. Box 667 Hobbs, NM	Prospecting	Plugged - O&G Prospecting - not fresh water supply well
L 01751	Active	HUSTON JR.	Robert H. Huston, Jr. Box 1082 Hobbs, NM	Irrigation	OSE Records indicate water right was cancelled.
L 01753	Active	HUSTON JR.	Robert H. Huston, Jr. Box 1082 Hobbs, NM	Irrigation	OSE Records indicate water right was cancelled.
L 00564	Active	VERSADO GAS PROCESSORS LLC	Versado Gas Processors, Llc Po Box 1909 Eunice, NM 88235	Industrial	Sample collected 7/26/2023
L 05611 POD5	Active	MONUMENT WATER USERS COOP.	Monument Water Users Coop. Po Box 48 Monument, NM 88265	Municipal	Sample collected 7/26/2023
L 02996	Active	VERSADO GAS PROCESSORS LLC	Versado Gas Processors, Llc Po Box 1909 Euncie, NM 88235	Industrial	Sample collected 7/12/2023
L 02996 S	Active	VERSADO GAS PROCESSORS LLC	Versado Gas Processors, Llc Po Box 1909 Euncie, NM 88235	Industrial	Industrial use - not fresh water supply well
L 14433 POD1	Pending	HUSTON RANCH NO 1 LLC	Huston Ranch No 1 Llc Po Drawer 1599 Lovington, NM 88260	Livestock watering	Sample collected 7/12/2023
Notes:					

Jameis SWD State #1 – Water Well Map

(Attachment to NMOCD Form C-108, Application for Authorization to Inject)





Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 09, 2023

Brian Wood

Permits West

37 Verano Loop

Santa Fe, NM 87508

TEL: (505) 466-8120

FAX: (505) 466-9682

Sample ID "Pump Tank" is from Water Well L-00564
and Sample ID "PWRTank" is from Water Well L-05611-POD5

RE: Pilot

OrderNo.: 2307D30

Dear Brian Wood:

Hall Environmental Analysis Laboratory received 2 sample(s) on 7/27/2023 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman'.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 2307D30

Date Reported: 8/9/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West

Client Sample ID: PWRTank

Project: Pilot

Collection Date: 7/26/2023 10:10:00 AM

Lab ID: 2307D30-001

Matrix: AQUEOUS

Received Date: 7/27/2023 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 1664B							Analyst: SMS
N-Hexane Extractable Material	ND	5.06		mg/L	1	8/4/2023 5:29:00 PM	76563
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	29	2.5		mg/L	5	7/27/2023 2:20:37 PM	R98559
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: JAG
Total Dissolved Solids	332	100	D	mg/L	1	7/31/2023 4:18:00 PM	76539

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Page 1 of 5

Analytical Report

Lab Order 2307D30

Date Reported: 8/9/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West

Client Sample ID: Pump Tank

Project: Pilot

Collection Date: 7/26/2023 10:30:00 AM

Lab ID: 2307D30-002

Matrix: AQUEOUS

Received Date: 7/27/2023 9:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 1664B							Analyst: SMS
N-Hexane Extractable Material	ND	4.83		mg/L	1	8/4/2023 5:29:00 PM	76563
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	65	2.5		mg/L	5	7/27/2023 2:46:22 PM	R98559
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: JAG
Total Dissolved Solids	452	50.0		mg/L	1	7/31/2023 4:18:00 PM	76539

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Page 2 of 5

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**WO#: **2307D30****09-Aug-23****Client:** Permits West**Project:** Pilot

Sample ID: MB-76563	SampType: MBLK	TestCode: EPA Method 1664B								
Client ID: PBW	Batch ID: 76563	RunNo: 98748								
Prep Date: 8/1/2023	Analysis Date: 8/4/2023	SeqNo: 3596785	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	ND	5.00								
Silica Gel Treated N-Hexane Extract	ND	5.00								

Sample ID: LCS-76563	SampType: LCS-1L	TestCode: EPA Method 1664B								
Client ID: BatchQC	Batch ID: 76563	RunNo: 98748								
Prep Date: 8/1/2023	Analysis Date: 8/4/2023	SeqNo: 3596786	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	36.3	5.00	40.00	0	90.8	78	114			
Silica Gel Treated N-Hexane Extract	12.9	5.00	20.00	0	64.5	64	132			

Sample ID: LCSD-76563	SampType: LCSD-1L	TestCode: EPA Method 1664B								
Client ID: BatchQC	Batch ID: 76563	RunNo: 98748								
Prep Date: 8/1/2023	Analysis Date: 8/4/2023	SeqNo: 3596787	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	35.3	5.00	40.00	0	88.3	78	114	2.79	20	
Silica Gel Treated N-Hexane Extract	13.1	5.00	20.00	0	65.5	64	132	1.54	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2307D30

09-Aug-23

Client: Permits West

Project: Pilot

Sample ID: MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R98559		RunNo: 98559							
Prep Date:	Analysis Date: 7/27/2023		SeqNo: 3589058		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID: LCS	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R98559		RunNo: 98559							
Prep Date:	Analysis Date: 7/27/2023		SeqNo: 3589059		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.1	90	110			

Sample ID: MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R98559		RunNo: 98559							
Prep Date:	Analysis Date: 7/27/2023		SeqNo: 3589173		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2307D30
09-Aug-23

Client: Permits West
Project: Pilot

Sample ID: MB-76539	SampType: MBLK	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: PBW	Batch ID: 76539	RunNo: 98611								
Prep Date: 7/28/2023	Analysis Date: 7/31/2023	SeqNo: 3591121	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	50.0								

Sample ID: LCS-76539	SampType: LCS	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: LCSW	Batch ID: 76539	RunNo: 98611								
Prep Date: 7/28/2023	Analysis Date: 7/31/2023	SeqNo: 3591122	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1000	50.0	1000	0	100	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank

E Above Quantitation Range/Estimated Value

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 5 of 5



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Permits West

Work Order Number: 2307D30

RcptNo: 1

Received By: Steve McQuiston

7/27/2023 9:55:00 AM

Completed By: Desiree Dominguez

7/27/2023 10:02:07 AM

Reviewed By:

7-27-23

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. Received at least 1 vial with headspace $<1/4$ " for AQ VOA? Yes ☐ No ☐ NA ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☐ No ☒
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: SCM 07/27/23

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:

Date:

By Whom:

Via:

☐ eMail

☐ Phone

☐ Fax

☐ In Person

Regarding:

Client Instructions:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.4	Good	Not Present	Morty		



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 25, 2023

Brian Wood
Permits West
37 Verano Loop
Santa Fe, NM 87508
TEL: (505) 466-8120
FAX: (505) 466-9682

Sample ID "Tank 1" is from Water Well L-02996
and Sample ID "WM Pond" is from Water Well L-14433-POD1

RE: Pi

OrderNo.: 2307569

Dear Brian Wood:

Hall Environmental Analysis Laboratory received 2 sample(s) on 7/13/2023 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

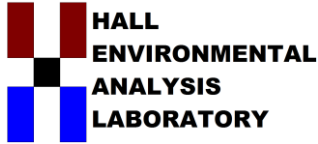
Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman'.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Case Narrative

WO#: 2307569
Date: 7/25/2023

CLIENT: Permits West

Project: Pi

Analytical Notes Regarding EPA Method 1664:
A matrix spike was not performed with this batch of samples.

Analytical Report

Lab Order 2307569

Date Reported: 7/25/2023

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West

Client Sample ID: WM Pond

Project: Pi

Collection Date: 7/12/2023 12:45:00 PM

Lab ID: 2307569-002

Matrix: AQUEOUS

Received Date: 7/13/2023 10:18:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 1664B							Analyst: SMS
N-Hexane Extractable Material	ND	10.9		mg/L	1	7/19/2023 7:21:00 PM	76250
EPA METHOD 300.0: ANIONS							Analyst: JMT
Chloride	160	5.0		mg/L	10	7/13/2023 5:55:00 PM	R98202
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: JAG
Total Dissolved Solids	910	100	*D	mg/L	1	7/19/2023 2:20:00 PM	76283

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of standard limits. If undiluted results may be estimated.		

Page 3 of 6

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2307569

25-Jul-23

Client: Permits West**Project:** Pi

Sample ID: MB-76250	SampType: MBLK			TestCode: EPA Method 1664B						
Client ID: PBW	Batch ID: 76250			RunNo: 98341						
Prep Date: 7/17/2023	Analysis Date: 7/19/2023			SeqNo: 3579205		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	ND	10.0								

Sample ID: LCS-76250	SampType: LCS			TestCode: EPA Method 1664B						
Client ID: LCSW	Batch ID: 76250			RunNo: 98341						
Prep Date: 7/17/2023	Analysis Date: 7/19/2023			SeqNo: 3579206		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	34.6	10.0	40.00	0	86.5	78	114			

Sample ID: LCSD-76250	SampType: LCSD			TestCode: EPA Method 1664B						
Client ID: LCSS02	Batch ID: 76250			RunNo: 98341						
Prep Date: 7/17/2023	Analysis Date: 7/19/2023			SeqNo: 3579207		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	36.4	10.0	40.00	0	91.0	78	114	5.07	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of standard limits. If undiluted results may be estimated.

B Analyte detected in the associated Method Blank
E Above Quantitation Range/Estimated Value
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 2307569
25-Jul-23

Client: Permits West
Project: Pi

Sample ID: MB	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: R98202	RunNo: 98202								
Prep Date:	Analysis Date: 7/13/2023	SeqNo: 3573573		Units: mg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID: LCS	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: R98202	RunNo: 98202								
Prep Date:	Analysis Date: 7/13/2023	SeqNo: 3573574		Units: mg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.9	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 2307569
25-Jul-23

Client: Permits West
Project: Pi

Sample ID: MB-76283	SampType: MBLK	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: PBW	Batch ID: 76283	RunNo: 98335								
Prep Date: 7/18/2023	Analysis Date: 7/19/2023	SeqNo: 3578905	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	50.0								

Sample ID: LCS-76283	SampType: LCS	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: LCSW	Batch ID: 76283	RunNo: 98335								
Prep Date: 7/18/2023	Analysis Date: 7/19/2023	SeqNo: 3578906	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	50.0	1000	0	102	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.

B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Permits West

Work Order Number: 2307569

RcptNo: 1

Received By: Steve McQuiston

7/13/2023 10:18:00 AM

Completed By: Cheyenne Cason

7/13/2023 10:59:52 AM

Reviewed By:

7/13/23

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐

2. How was the sample delivered? Client

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐

4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☐ No ☒ NA ☐

5. Sample(s) in proper container(s)? Yes ☒ No ☐ Not required

6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐

7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐

8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐

9. Received at least 1 vial with headspace $<1/4$ " for AQ VOA? Yes ☐ No ☐ NA ☒

10. Were any sample containers received broken? Yes ☐ No ☒

11. Does paperwork match bottle labels? Yes ☒ No ☐

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐

13. Is it clear what analyses were requested? Yes ☒ No ☐

14. Were all holding times able to be met? Yes ☒ No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: JA 7-13-23

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	14.3	Good	Not Present	Morty		

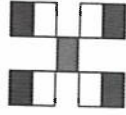
Chain-of-Custody Record

Chain-of-Custody Record		Turn-Around Time:	
Client:	Permits West	<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Rush
Mailing Address:	30 Vera	Project Name: P3	
Phone #:	SF 414 87508	Project #: 666	
email or Fax#:	brian@	Project Manager: Brian Wood	
QA/QC Package:	permitswest.com	Sampler:	
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Level 4 (Full Validation)	On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Accreditation:	<input type="checkbox"/> Az Compliance	# of Containers:	
<input type="checkbox"/> NELAC	<input type="checkbox"/> Other		
<input type="checkbox"/> EDD (Type)			

[illegible]

Analysis Request	
BTEX / MTBE / TMB's (8021)	
TPH:8015D(GRO / DRO / MRO)	
8081 Pesticides/8082 PCB's	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	
Cl, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄	
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	

Remarks: Temp Appraisal Cmt 7/12/23



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Project Manager:

B-7 wood

Sampler:

On Ice: ☒ Yes ☐ No *Marty*
of Coolers: *1*

Cooler Temp (including CF): $14.3 - 0.1 = 14.2$ (°C)

Container Type and #	Preservative Type	HEAL No.
		2307569

001			
002			
003			
004			
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202

[illegible]

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[illegible][illegible][illegible]

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Received by: SEN Date: 07/13/93 Time: 10:00
Via: CDO

received by: _____ Via: _____ Date _____ Time _____

Remarks:

Temp approved cnc 7/13/23

Attachment 6

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
August 20, 2023
and ending with the issue dated
August 20, 2023.



Publisher

Sworn and subscribed to before me this
20th day of August 2023.

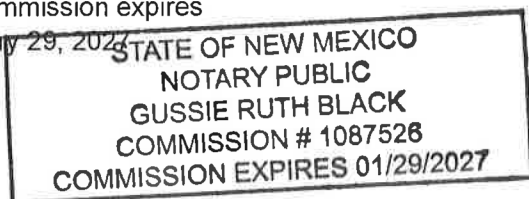


Business Manager

My commission expires

January 29, 2027

(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 publication has been made.

LEGAL NOTICE
August 20, 2023

Pilot Water Solutions SWD LLC, 20 Greenway Plaza, Suite 200, Houston, TX 77046, is filing Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for commercial saltwater injection into its Jameis State SWD #1. This will be a new well located 1,429' FSL & 458' FEL in Section 7 Township 19S Range 37E in Lea County, New Mexico. The purpose of the well is to inject produced water from permitted oil and gas wells in the area for commercial disposal into the San Andres formation at depths of 4,257' - 5,496' at a maximum surface injection pressure of 851 psi and a maximum injection rate of 25,000 barrels of water per day.

Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objection or request for hearing should be mailed to the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505. Additional information may be obtained by contacting the operator contact, David Grounds, at 713-307-8752.
#00281842

67117907

00281842

NATE ALLEMAN
ACE ENERGY ADVISORS
501 E. FRANK PHILLIPS BLVD.
SUITE 201
BARTLESVILLE, OK 74006

Statement of Notification

A copy of the C-108 application has been provided to the following Affected Persons as notification of the subject Application for Authorization to Inject (C-108).

Entity Name	Entity Address	Mailing Date
Surface Owner		
STATE LAND OFFICE	P.O. Box 1148, Santa Fe, NM 87504	08/23/2023
Mineral Owners (BLM/SLO or Unleased Tracts)		
STATE LAND OFFICE	P.O. Box 1148, Santa Fe, NM 87504	08/23/2023
OCD District		
OCD - DISTRICT 1	1625 N. French Drive, Hobbs, NM 88240	08/23/2023
Applicable Affected Persons		
SOUTHWEST ROYALTIES INC	6 DESTA DRIVE, MIDLAND, TX 79705	08/23/2023
CONOCOPHILLIPS COMPANY	10 DESTA DRIVE, MIDLAND, TX 79705	08/23/2023
XTO ENERGY	500 W, ILLINOIS, SUITE 100, MIDLAND, TX 79701	08/23/2023
TIERRA EXPL	P.O BOX 56, MIDLAND, TX 79702	08/23/2023
OCCIDENTAL PERMIAN LTD	P.O. BOX 50250, MIDLAND, TX, 79710	08/23/2023
AMERADA PETROLEUM CORP	PO BOX 591, MIDLAND, TX 79701	08/23/2023
APACHE CORPORATION	303 VETERANS PARK LANE, SUITE 3000, MIDLAND, TX 79705	08/23/2023
PETROLEUM EXPLORATION COMPANY LTD.	200 W 1ST ST., SUITE 434, ROSWELL, NM 88203	08/23/2023
FORTY ACRES ENERGY, LLC	1177 7-B KATY FREEWAY, SUITE 305, HOUSTON, TX 77079	08/23/2023

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 Street and Apt. No., or PO Box No.
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City, State, ZIP+4®

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11777 7-B Katy Freeway, Suite 305

City, State, ZIP+4®

Houston, TX 77079

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Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 260034

CONDITIONS

Operator: Pilot Water Solutions SWD LLC 20 Greenway Plaza, Suite 200 Houston, TX 77046	OGRID: 331374
	Action Number: 260034
	Action Type: [IM-SD] Admin Order Support Doc (ENG) (IM-AAO)

CONDITIONS

Created By	Condition	Condition Date
mgebremichael	None	8/30/2023