

**BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION**

**APPLICATION OF SAN MATEO STEBBINS WATER  
MANAGEMENT, LLC FOR APPROVAL OF A SALT  
WATER DISPOSAL WELL, EDDY COUNTY, NEW MEXICO.**

**Case No. \_\_\_\_\_**

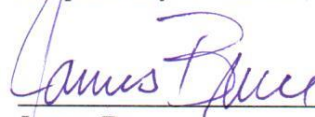
**APPLICATION**

San Mateo Stebbins Water Management, LLC applies for an order approving a salt water disposal well, and in support thereof, states:

1. Applicant proposes to drill the Jim Pat SWD Well No. 4, to be located 3745 feet from the south line and 1716 feet from the west line (Lot 14) of irregular Section 4, Township 21 South, Range 28 East, N.M.P.M., Eddy County, New Mexico.
2. Applicant proposes to dispose of produced water into the Devonian formation in the well at depths of approximately 13103 - 14083 feet subsurface. The maximum injection rate will be 45000 BWPD and the maximum injection pressure will be 2620 psi.
3. A Form C-108 for the subject well is attached hereto as Exhibit A.
4. The granting of this application will prevent waste and protect correlative rights.

**WHEREFORE**, applicant requests that, after notice and hearing, the Division enter its order approving this application.

Respectfully submitted,



James Bruce  
Post Office Box 1056  
Santa Fe, New Mexico 87504  
(505) 982-2043

Attorney for San Mateo Stebbins Water  
Management, LLC

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 XXX Disposal Storage  
Application qualifies for administrative approval? XXX Yes No
- II. OPERATOR: SAN MATEO STEBBINS WATER MANAGEMENT, LLC  
ADDRESS: 5400 LBJ FREEWAY, SUITE 1500, DALLAS TX 75240  
CONTACT PARTY: BRIAN WOOD (PERMITS WEST, INC.) PHONE: 505 466-8120
- 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 XXX 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.  
Jim Pat SWD 4  
Devonian (96101)
- VII. Attach data on the proposed operation, including:
- Proposed average and maximum daily rate and volume of fluids to be injected;
  - Whether the system is open or closed;
  - Proposed average and maximum injection pressure;
  - Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
  - 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: BRIAN WOOD Brian Wood TITLE: CONSULTANT  
SIGNATURE: \_\_\_\_\_ DATE: JULY 2, 2019  
E-MAIL ADDRESS: brian@permitswest.com
- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, 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

EXHIBIT

A



Side 2

## 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.

Side 1

## INJECTION WELL DATA SHEET

OPERATOR: SAN MATEO STEBBINS WATER MANAGEMENT, LLC

WELL NAME &amp; NUMBER: JIM PAT SWD 4

WELL LOCATION: 3145' FSL &amp; 1716' FEL

LOT 15

FOOTAGE LOCATION

UNIT LETTER

SECTION 4

TOWNSHIP 21 S

RANGE 28 E

WELLBORE SCHEMATIC

(not to scale)

WELL CONSTRUCTION DATASurface Casing20" 94# in  
26" hole @ 280'  
TOC (470 sx) = GL13.375" 68# in  
17.5" hole @ 3100'  
TOC (2000 sx) = GL9.625" 40# in  
12.25" hole @ 9700'  
TOC (1300 sx) = GL7.625" 33.7# FJM in 8.75" hole  
9200' - 13103'  
TOC (182 sx) = 9200' (CBL)packer @  
>13003'Devonian  
6.5" open hole  
13013' - 14083'TD  
14083'

Hole Size: 26"

Cemented with: 470 sx.

Casing Size: 20"

or ft<sup>3</sup>

Top of Cement: SURFACE

Method Determined: VISUAL

Intermediate Casing

Hole Size: 17.5" &amp; 12.25

Cemented with: 2000 &amp; 1300 sx.

Casing Size: 13.375" &amp; 9.625"

or ft<sup>3</sup>

Top of Cement: SURFACE FOR BOTH

Method Determined: VISUAL &amp; CBL

Production Casing

Hole Size: 8.75"

Cemented with: 182 sx.

Casing Size: 7.625" @ 13,103'

or ft<sup>3</sup>

Top of Cement: 9,200'

Method Determined: CBL

Total Depth: 14,083'

Injection Interval 6.5" OPEN HOLE

13,103 feet to 14,083'

(Perforated or Open Hole; indicate which)

|||||

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 5.5" Lining Material: IPC

Type of Packer: STAINLESS STEEL &/OR NICKEL

Packer Setting Depth: 13,103' - 14,083'

Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

Additional Data

1. Is this a new well drilled for injection?      XXX Yes           No

If no, for what purpose was the well originally drilled? \_\_\_\_\_

2. Name of the Injection Formation: DEVONIAN
3. Name of Field or Pool (if applicable): SWD; DEVONIAN (POOL CODE 96101)
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_  
NO
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: \_\_\_\_\_  
OVER: DELAWARE (4,182'), BONE SPRING (8,121'), WOLFCAMP (11,376')

UNDER: none



I. Goal is to drill a 14,083' deep commercial saltwater disposal well on fee land. Disposal interval will be 13,103' – 14,083' in the SWD; Devonian (96101). See Exhibit A for C-102 and map.

II. Operator: San Mateo Stebbins Water Management, LLC [OGRID 328762]  
Operator phone number: (972) 371-5420  
Operator address: 5400 LBJ Freeway, Suite 1500, Dallas TX 75240  
Contact for Application: Brian Wood (Permits West, Inc.)  
Phone: (505) 466-8120

III. A. (1) Lease (fee): Fenton patent (1922) Lease Size: 160 acres  
Lease Area: Lots 14-16 & NESE Sec. 4, T. 21 S., R 28 E.  
Well name and number: Jim Pat SWD 4  
Location: ~~2770'~~ <sup>3145'</sup> FSL & ~~1937'~~ <sup>1716'</sup> FEL Section 4, T. 21 S., R. 28 E.

A. (2) Surface casing (20", 94#, J-55, BTC) will be set at 280' in a 26" hole and cemented to GL with 470 sacks (based on 50% OH excess).

First intermediate casing (13.375", 68#, J-55, BTC) will be set at 3,100' in a 17.5" hole and cemented to GL with 2,000 sacks (based on 50% OH excess). (A DV/packer tool may be set at ≈1400' with 2-stage cement job.)

Second intermediate casing (9.625", 40#, P-110 HC, BTC) will be set at 9,700' in a 12.25" hole and cemented to GL with 1,300 sacks (based on 40% OH excess).

Production liner (7.625", 33.7#, P-110 HP, USS Liberty FJM) will be set from 9,200' to 13,103' in an 8.75" hole and cemented to 9,200' (CBL) with 182 sacks.

A 6.5" open hole will be drilled from 13,103' to 14,083'.

- A. (3) Tubing will be IPC lined, 5.5", 20#, P-110 IC, BTC. Setting depth will be  $\geq 13,003'$ . (Disposal interval will be 13,103' to 14,083'.)
  - A. (4) A stainless steel and/or nickel packer will be set at  $\geq 13,003'$  (top of the open hole which will be at 13,103').
  - B. (1) Disposal zone will be the Devonian (SWD; Devonian (96101) pool). Estimated fracture gradient is from  $\approx 0.62$  to  $\approx 0.68$  psi per foot. Variation depends on whether limestone or dolomite.
  - B. (2) Disposal interval will be open hole from 13,103' to 14,083'.
  - B. (3) Well has not been drilled. It will be drilled as a saltwater disposal well.
  - B. (4) No perforated intervals are in the well.
  - B. (5) Deepest of the two wells that have been drilled in the 1-mile area of review (Exhibit B) is 12,332' deep. It found production in the Atoka (10,998') and Morrow (11,367'). No oil or gas zone is below the Devonian in the area of review.
- IV. This is not an expansion of an existing injection project. It is disposal only.
- V. Exhibit B shows and tabulates the 2 wells and within a 1-mile radius. Deepest TVD is 12,332'. Closest approved SWD; Devonian well (30-015-45535) is 1.56 miles east in E-2-21s-28e. Closest Devonian oil or gas well is >6 miles away. Exhibit C shows the 32 existing wells (16 P&A, 11 oil or gas, 3 SWD, and 2 water) within a 2-mile radius.
- All leases within a one-mile radius are BLM or fee. Exhibit D shows and tabulates all the leases within a mile. Exhibit E shows all lessors within a two-mile radius. Two-mile radius leases are BLM, fee, or NMSLO.



VI. No Devonian penetrator is within a mile. Deepest well within a mile is 12,332'. That well bottomed in the Morrow.

- VII.
1. Average injection rate will be  $\approx 40,000$  bwpd.  
Maximum injection rate will be 45,000 bwpd.
  2. System will be open and closed. Water will both be trucked and piped.
  3. Average injection pressure will be  $\approx 2,500$  psi  
Maximum injection pressure will be 2,620 psi ( $= 0.2$  psi/foot  $\times 13,103'$  (top of open hole)).
  4. Disposal water will be produced water, mainly from Bone Spring, Delaware, and Wolfcamp wells. There are 141 approved Bone Spring wells, 81 approved Delaware wells, and 10 approved Wolfcamp wells in T. 20 S., R. 29 E. and T. 21 S., R. 28 E. The well will also take other Permian Basin waters. A summary of produced water analyses from T. 20 S., R. 29 E. and T. 21 S., R. 28 E. is in Exhibit F. Compatibility problems are not expected. At least 2,051,695 barrels of water have been disposed in a Devonian SWD (30-015-20866) that is 3.43 miles southeast.
  5. No Devonian production is within  $>6$  miles.

VIII. The Devonian ( $\approx 1,000'$  thick) is comprised of limestone and dolomite. Closest possible underground source of drinking water above the proposed disposal interval is the Quaternary at the surface.

According to State Engineer Office (SEO) records (Exhibit G), two water wells are within 2 miles. One was drilled in 1890 and the other in 1905. Neither were found during a June 6-7, 2019 field inspection. C 03266, if SEO data is accurate, appears to have been obliterated by pipeline and US 62/180 construction. C 03267 is in Fenton Draw, but no evidence of it was found. Three windmills were found. One was turning, but not producing water. The other two windmills were toppled. No underground source of drinking water is below the proposed disposal interval.



Formation tops are:

Quaternary = 0'  
Rustler anhydrite = 246'  
Salado = 746'  
Base salt = 1054'  
Yates = 1196'  
Seven Rivers = 1478'  
Capitan = 1531'  
Cherry Canyon = 3056'  
Brushy Canyon = 4671'  
Bone Spring = 6050'  
Wolfcamp = 9410'  
Pennsylvania shale = 10028'  
Canyon = 10525'  
Strawn = 10607'  
Atoka = 10998'  
Morrow = 11367'  
Barnett = 11959'  
Mississippian limestone = 12435'  
Woodford shale = 12993'  
Devonian carbonate = 13093'  
*disposal interval = 13103' - 14083'*  
TD = 14083'  
(Montoya = 14093')

Two  $\geq 114$  year old water wells are within a 2-mile radius according to State Engineer records (Exhibit G). Neither were found during a June 6-7, 2019 inspection. There will be >2.4 miles of vertical separation and shale, salt, and anhydrite intervals between the bottom of the only likely underground water source (Quaternary) and the top of the Devonian.

IX. The well will be stimulated with acid.

- X. Gamma MWD and CBL logs will be run. Triple/quad combo log may be run.
- XI. No water wells were found within 2 miles during a June 6-7, 2019 field inspection.
- XII. San Mateo Stebbins Management, LLC (Exhibit H) is not aware of any geologic or engineering data that may indicate the Devonian is in hydrologic connection with any underground sources of water. There are 152 active Devonian SWD wells and 9 active Devonian water injection wells in New Mexico. There are no faults within the immediate area.
- XIII. A legal ad (see Exhibit I) was published on May 11, 2019. Notice (this application) has been sent (Exhibit J) to the surface owner (Harley & Jan Ballard) and all operators, lessees, and unleased mineral interest owners within a mile who are required to receive notice.



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

EXHIBIT A

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number	<sup>2</sup> Pool Code	<sup>3</sup> Pool Name
<sup>4</sup> Property Code	<sup>5</sup> Property Name JIM PAT SWD	<sup>6</sup> Well Number 4
<sup>7</sup> GRID No.	<sup>8</sup> Operator Name SAN MATEO STEBBINS WATER MANAGEMENT, LLC	<sup>9</sup> Elevation 3215'

<sup>10</sup>Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
14	4	21-S	28-E	-	3745'	SOUTH	1716'	WEST	EDDY

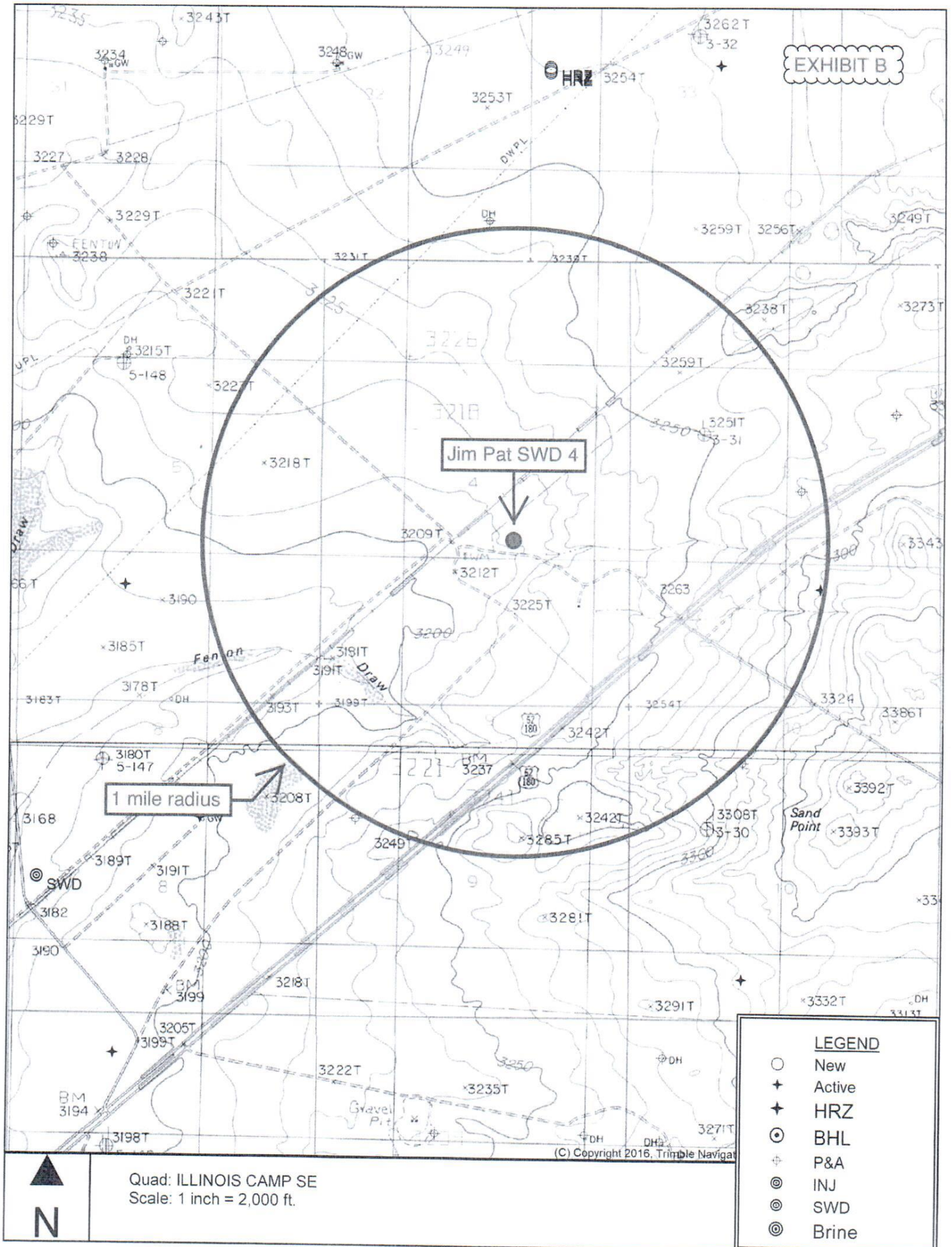
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
-	-	-	-	-	-	-	-	-	-

<sup>12</sup> Dedicated Acres 40.00	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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.

<sup>16</sup>										<sup>17</sup> 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 _____ Date _____  Printed Name _____  E-mail Address _____	
<sup>18</sup> 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 to the best of my belief.  09/06/2019 Date of Survey Signature and Seal of Professional Surveyor 										Certificate Number _____	

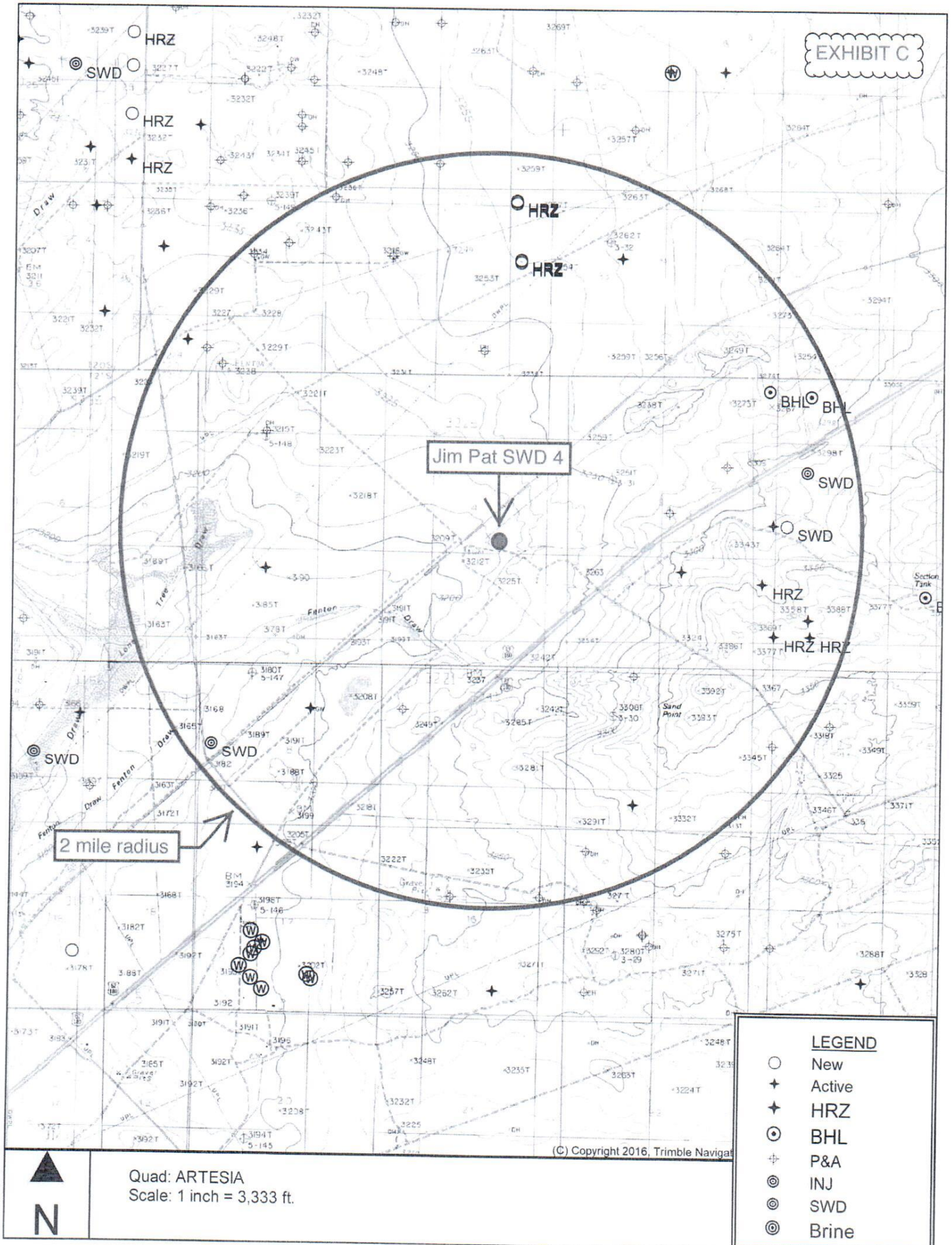






## SORTED BY DISTANCE FROM JIM PAT SWD 4

API	OPERATOR	WELL	TYPE WELL	UNIT- SECTION	TVD	ZONE @ TD	FEET FROM JIM PAT SWD 4
30-015-02460	Ross-Luck	Cowan 1	P&A	O-3	1340'	Yates	4981'
30-015-22859	Bopco	BEU 072	Gas	O-3	12332'	Morrow	5274'
30-015-20008	Huber	Yates Fed 1	P&A	P-32	12120'	Chester	5391'









## JIM PAT SWD 4 AREA OF REVIEW LEASES

Aliquot Parts in Area of Review	Lessor	Lease	Lessee(s) of Record	Operators (all shallower than Devonian)
T. 20 S., R. 29 E.				
S2SE4 Sec. 32	BLM	NMNM-0004825	Trigg	N/A
S2SW4 Sec. 33	BLM	NMNM-0004825	Trigg	N/A
T. 21 S., R. 28 E.				
Lots 7, 10, & 11 Sec. 3	BLM	NMNM-0003926	Thru Line	XTO Permian Op.
Lots 3 & 6 Sec. 3	BLM	NMLC-0060515A	Thru Line	XTO Permian Op.
Lot 4 Sec. 3	BLM	NMLC-0060515D	Marshall & Winston	XTO Permian Op.
Lots 5 & 12 Sec. 3	BLM	NMNM-0133826	Occidental Permian	XTO Permian Op.
Lot 13 Sec. 3	BLM	NMLC-0069707	Thru Line	XTO Permian Op.
Lots 14 & 15 Sec. 3	BLM	NMNM-0005214	Thru Line	XTO Permian Op.
SW4 & W2SE4 Sec. 3	BLM	NMLC-0067145	Thru Line	XTO Permian Op.
Lots 1-12 Sec. 4	BLM	NMLC-0060515A	Thru Line	N/A
Lot 13 Sec. 4	BLM	NMLC-0069707	Thru Line	N/A
Lots 14-16 & NESE Sec. 4	fee	Fenton	San Mateo Stebbins	N/A
NWSE & SESE Sec. 4	BLM	NMLC-0069707	Thru Line	N/A
SW4 & SWSE Sec. 4	BLM	NMLC-0069550A	Thru Line	N/A
Lots 1, 8-10, 15, & 16 Sec. 5	BLM	NMLC-0060572	N. Conrow and B. & R. Trigg	N/A
SE4 Sec. 5	BLM	NMNM-0002536	Thru Line	XTO Permian Op.
NENE Sec. 8	BLM	NMLC-0060572A	Thru Line	XTO Permian Op.
NE4 Sec. 9	BLM	NMLC-0063410	Thru Line	N/A
NW4 Sec. 9	BLM	NMLC-0063543	Thru Line	N/A
E2NW4 Sec. 10	BLM	NMLC-0063543	Thru Line	N/A
W2NW4 Sec. 10	BLM	NMLC-0067145	Thru Line	N/A
all Sections 3-10	BLM	NMNM-068294X	BEPCO	XTO Permian Op.

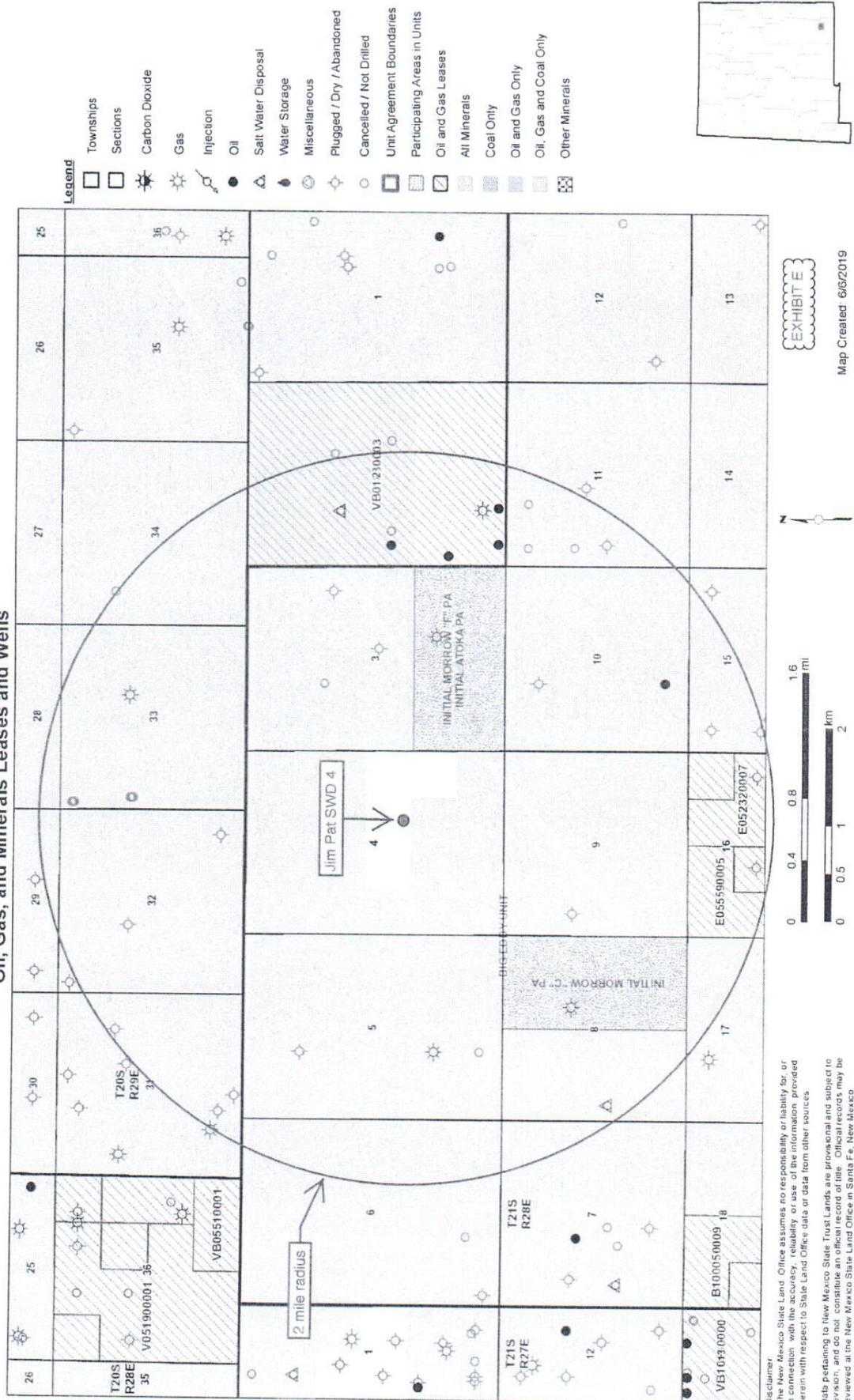


New Mexico State Land Office



EXHIBIT E

## Oil, Gas, and Minerals Leases and Wells





FESCO, Ltd.  
1100 FESCO Ave. - Alice, TX 78332

April 18, 2019



For: Matador Production Company  
One Lincoln Centre  
5400 LBJ Freeway, Suite 1500  
Dallas, Texas 75240

Field: N/A  
County: Eddy, New Mexico

Sample: Stebbins 20 Federal No. 123H (2nd Bone)  
Type: Separator Water  
Formation: N/A  
Depth (Ft): N/A

Date: 4/4/2019  
Time: 16:55

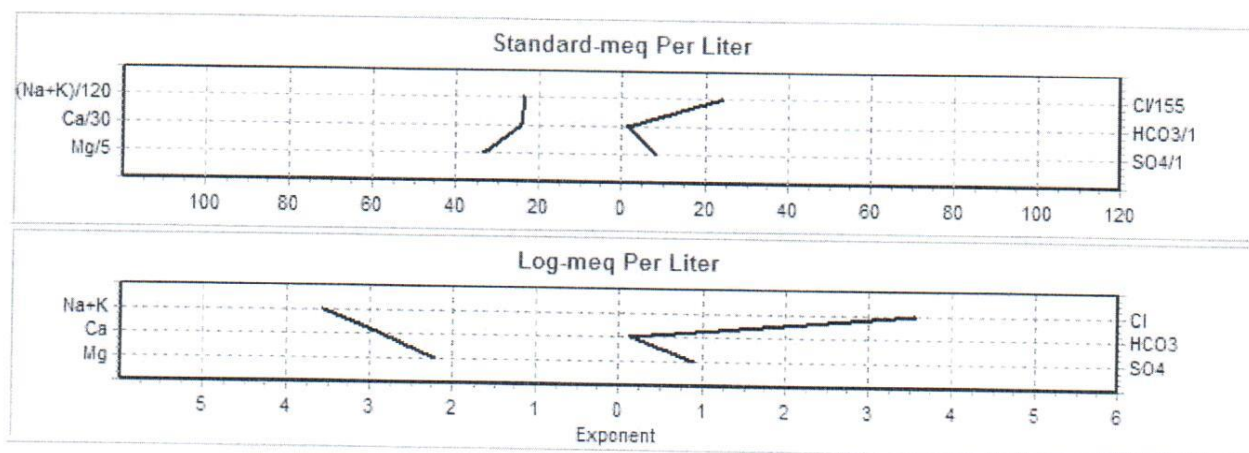
### REPORT OF WATER ANALYSIS

#### \*\*\*\*\* Dissolved Solids \*\*\*\*\*

	mg/L	meq/L
Sodium (Na)	64031.00	2785.17
Calcium (Ca)	14773.00	737.18
Magnesium (Mg)	2020.00	166.12
Barium (Ba)	0.95	0.01
Potassium (K)	1584.00	40.51
Iron (Fe)	14.30	---
Chloride (Cl)	134000.00	3779.97
Sulfate (SO <sub>4</sub> )	388.00	8.08
Carbonate (CO <sub>3</sub> )	0.00	0.00
Bicarbonate (HCO <sub>3</sub> )	85.00	1.39
Hydroxide (OH)	0.00	0.00
Sulfide (H <sub>2</sub> S)	0.00	
Total Solids	216896	
Total Alkalinity (CaCO <sub>3</sub> )	70	
Total Hardness (CaCO <sub>3</sub> )	45228	

#### \*\*\*\*\* Other Properties \*\*\*\*\*

pH ----- 5.69  
Specific Gravity @ 60/60 °F ----- 1.150  
Resistivity (Ohm-meters @ 77.0 °F) ----- 0.039



Certified: FESCO, Ltd. - Alice, Texas

*David Dannhaus*

David Dannhaus 361-661-7015

Job Number: 191857.1312



April 18, 2019



FESCO, Ltd.  
1100 FESCO Ave. - Alice, TX 78332



For: Matador Production Company  
One Lincoln Centre  
5400 LBJ Freeway, Suite 1500  
Dallas, Texas 75240

Field: N/A  
County: Eddy, New Mexico

Sample: Stebbins 20 Federal No. 134H (3rd Bone)  
Type: Separator Water  
Formation: N/A  
Depth (Ft): N/A

Date: 4/4/2019  
Time: 16:50

## REPORT OF WATER ANALYSIS

## \*\*\*\*\* Dissolved Solids \*\*\*\*\*

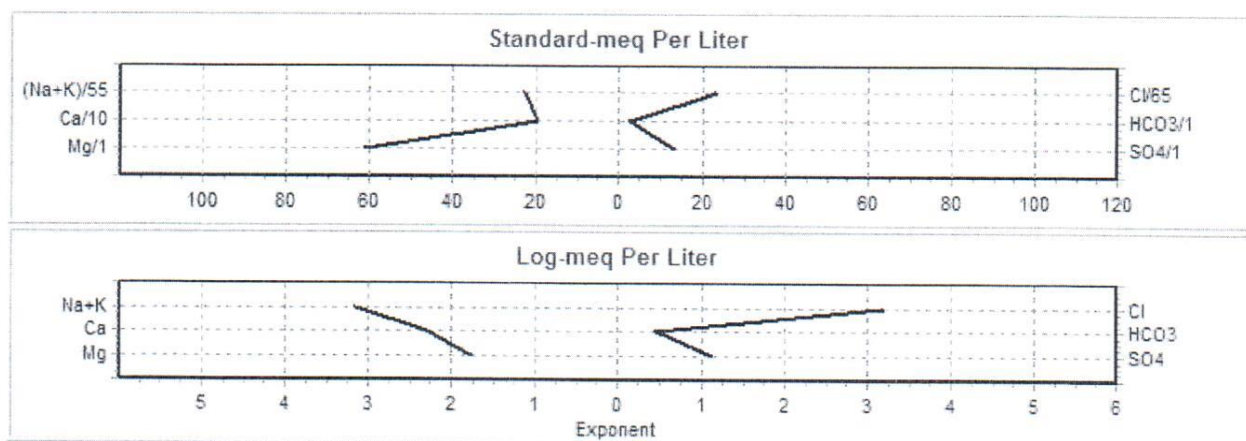
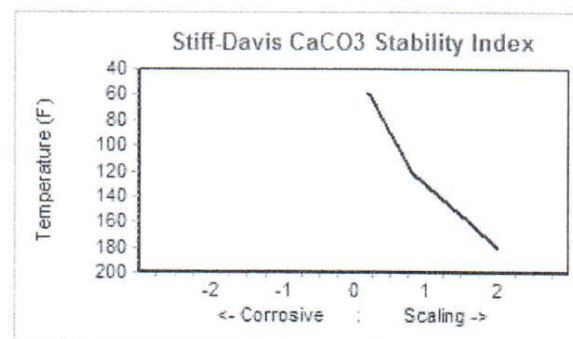
	mg/L	meq/L
Sodium (Na)	28625.00	1245.11
Calcium (Ca)	3992.00	199.20
Magnesium (Mg)	739.00	60.77
Barium (Ba)	1.64	0.02
Potassium (K)	630.00	16.11
Iron (Fe)	0.11	---

Chloride (Cl)	54400.00	1534.56
Sulfate (SO <sub>4</sub> )	650.00	13.53
Carbonate (CO <sub>3</sub> )	0.00	0.00
Bicarbonate (HCO <sub>3</sub> )	179.00	2.93
Hydroxide (OH)	0.00	0.00

Sulfide (H <sub>2</sub> S)	0.00
Total Solids	89217
Total Alkalinity (CaCO <sub>3</sub> )	147
Total Hardness (CaCO <sub>3</sub> )	13010

## \*\*\*\*\* Other Properties \*\*\*\*\*

pH ----- 7.25  
Specific Gravity @ 60/60 °F ----- 1.060  
Resistivity (Ohm-meters @ 77.0 °F) ----- 0.084



Certified: FESCO, Ltd. - Alice, Texas

*David Dannhaus*

David Dannhaus 361-661-7015

Job Number: 191857.1315



October 1, 2018



FESCO, Ltd.  
1100 FESCO Ave. - Alice, TX 78332



For: Matador Production Company  
One Lincoln Centre  
5400 LBJ Freeway, Suite 1500  
Dallas, Texas 75240

Field: N/A  
County: Eddy, New Mexico

Sample: Stebbins 20 Federal No. 204H (Wolfcamp)  
Type: Separator Water  
Formation: N/A  
Depth (Ft): N/A

Date: 9/24/2018  
Time: N/A

## REPORT OF WATER ANALYSIS

## \*\*\*\*\* Dissolved Solids \*\*\*\*\*

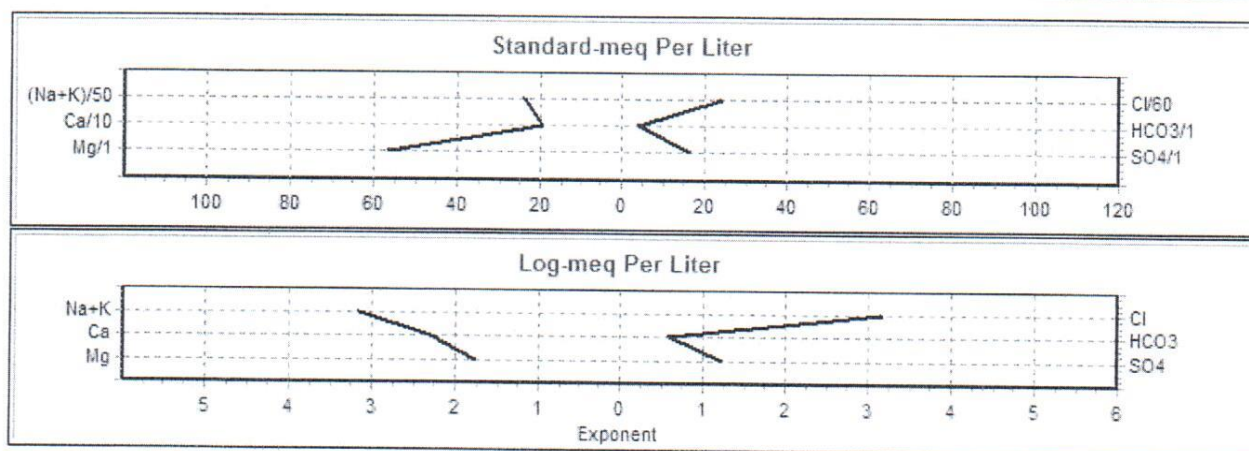
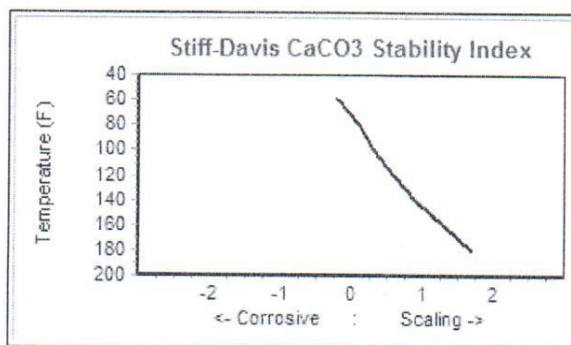
	mg/L	meq/L
Sodium (Na)	26937.00	1171.68
Calcium (Ca)	3920.00	195.61
Magnesium (Mg)	681.00	56.00
Barium (Ba)	1.20	0.02
Potassium (K)	651.00	16.65
Iron (Fe)	9.93	---

Chloride (Cl)	51200.00	1444.29
Sulfate (SO4)	788.00	16.41
Carbonate (CO3)	0.00	0.00
Bicarbonate (HCO3)	240.00	3.93
Hydroxide (OH)	0.00	0.00

Sulfide (H2S)	0.00
Total Solids	84428
Total Alkalinity (CaCO3)	197
Total Hardness (CaCO3)	12609

## \*\*\*\*\* Other Properties \*\*\*\*\*

pH ----- 6.87  
Specific Gravity @ 60/60 °F ----- 1.055  
Resistivity (Ohm-meters @ 77.0 °F) ----- 0.085



Certified: FESCO, Ltd. - Alice, Texas

*David Dannhaus*

David Dannhaus 361-661-7015

## PRODUCED WATER ANALYSES (mg/l)

API	Section	Township	Range	UL	Formation	TDS	Chloride	Bicarbonate	Sulfate
3001510002	2	20S	29E	E	ARTESIA	23528	8526	2416	4466
3001503642	11	20S	29E	K	ARTESIA	29411	14350	1578	2808
3001503642	11	20S	29E	K	ARTESIA	28684	17030	61	612
3001503645	13	20S	29E	C	ARTESIA	26017	12160	1622	3042
3001502475	36	21S	28E	C	ATOKA	50026	29200	762	1150
3001502475	36	21S	28E	C	ATOKA	31911	18000	1220	887
3001524707	7	21S	28E	F	DELAWARE	153408	103522	719	248
3001521715	35	21S	28E	F	DELAWARE	149252	99299	267	2082
3001521853	35	21S	28E	L	DELAWARE	146197	96177	400	1764
3001522229	35	21S	28E	K	DELAWARE	148805	99247	335	1729
3001522671	35	21S	28E	N	DELAWARE	144959	95968	200	1883
3001522673	35	21S	28E	O	DELAWARE	163756	110195	135	1662
3001524968	35	21S	28E	E	DELAWARE	136419	89021	398	1682
3001527939	27	20S	29E	E	DELAWARE/ WOLFCAMP	189739	116724	427	750
3001502475	36	21S	28E	C	DEVONIAN	16223	7000	1030	2290
3001502475	36	21S	28E	C	DEVONIAN	19941	10700	640	1130
3001503625	2	20S	29E	O	MORROW	31170			
3001510044	24	20S	29E	M	MORROW	11718	4466	1634	1441
3001510044	24	20S	29E	M	MORROW	31191	18540	188	1318
3001524722	11	20S	29E	F	STRAWN		77532	244	13
3001523698	11	20S	29E	H	STRAWN	117276	72846	146	50
3001526762	12	20S	29E	C	STRAWN	113541	69864	171	13
3001526697	28	20S	29E	H	STRAWN	90201	55380	244	13
3001520008	32	20S	29E	P	STRAWN	108466	66700	146	270
3001520008	32	20S	29E	P	STRAWN	99199	61300	146	180





# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

EXHIBIT G

(A CLW#### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,  
O=orphaned,  
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03266 POD1		CUB	ED	3	4	4	04	21S	28E	585844	3596555*	800	260	80	180
C 03267 POD1		CUB	ED	4	3	3	04	21S	28E	584833	3596541*	1039	52	40	12

Average Depth to Water: 60 feet

Minimum Depth: 40 feet

Maximum Depth: 80 feet

Record Count: 2

### UTM NAD83 Radius Search (in meters):

Easting (X): 585545

Northing (Y): 3597298

Radius: 3220

\*UTM location was derived from PLSS - see Help

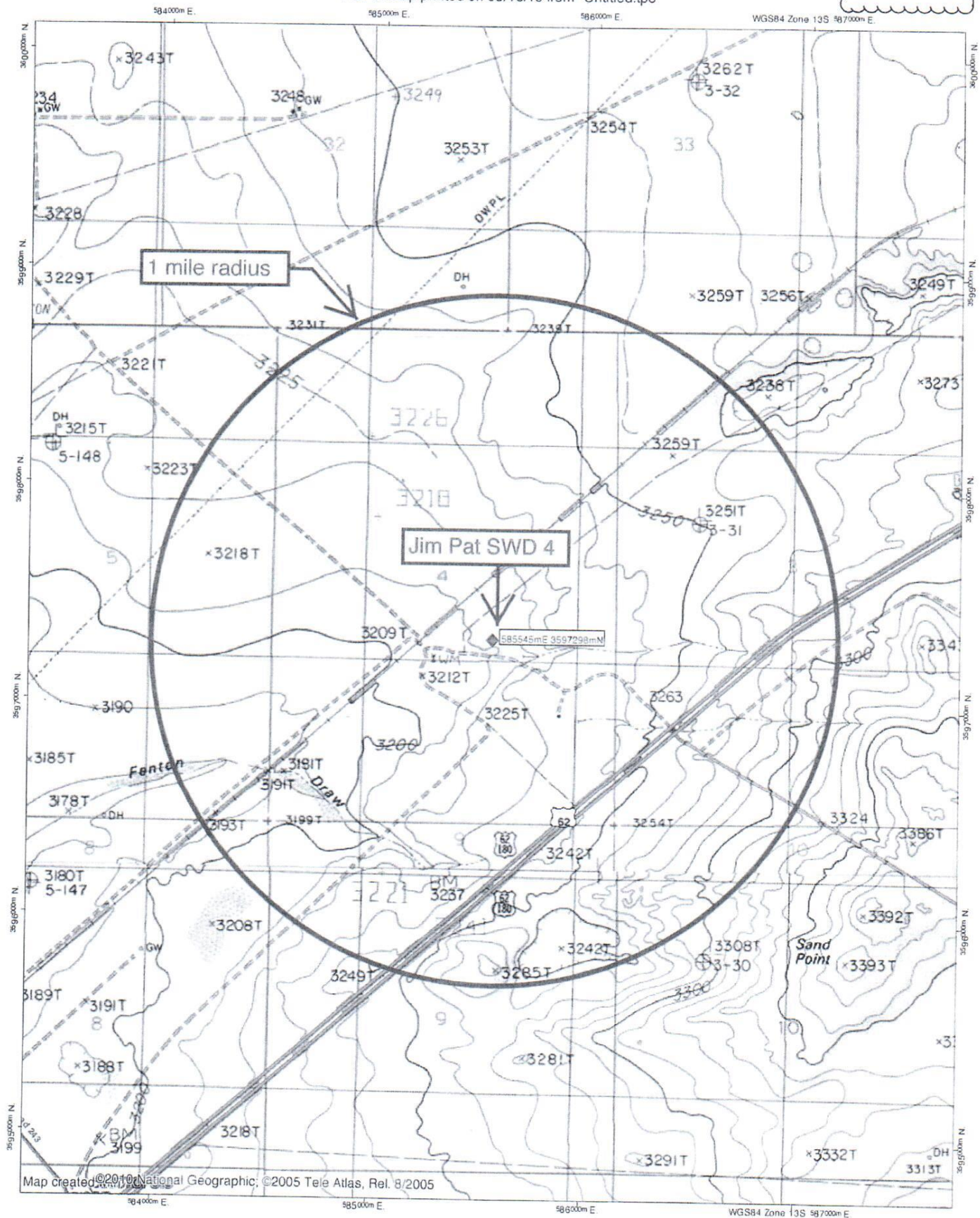
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/16/19 8:24 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

EXHIBIT G

TOPO! map printed on 05/16/19 from "Untitled.tpo"



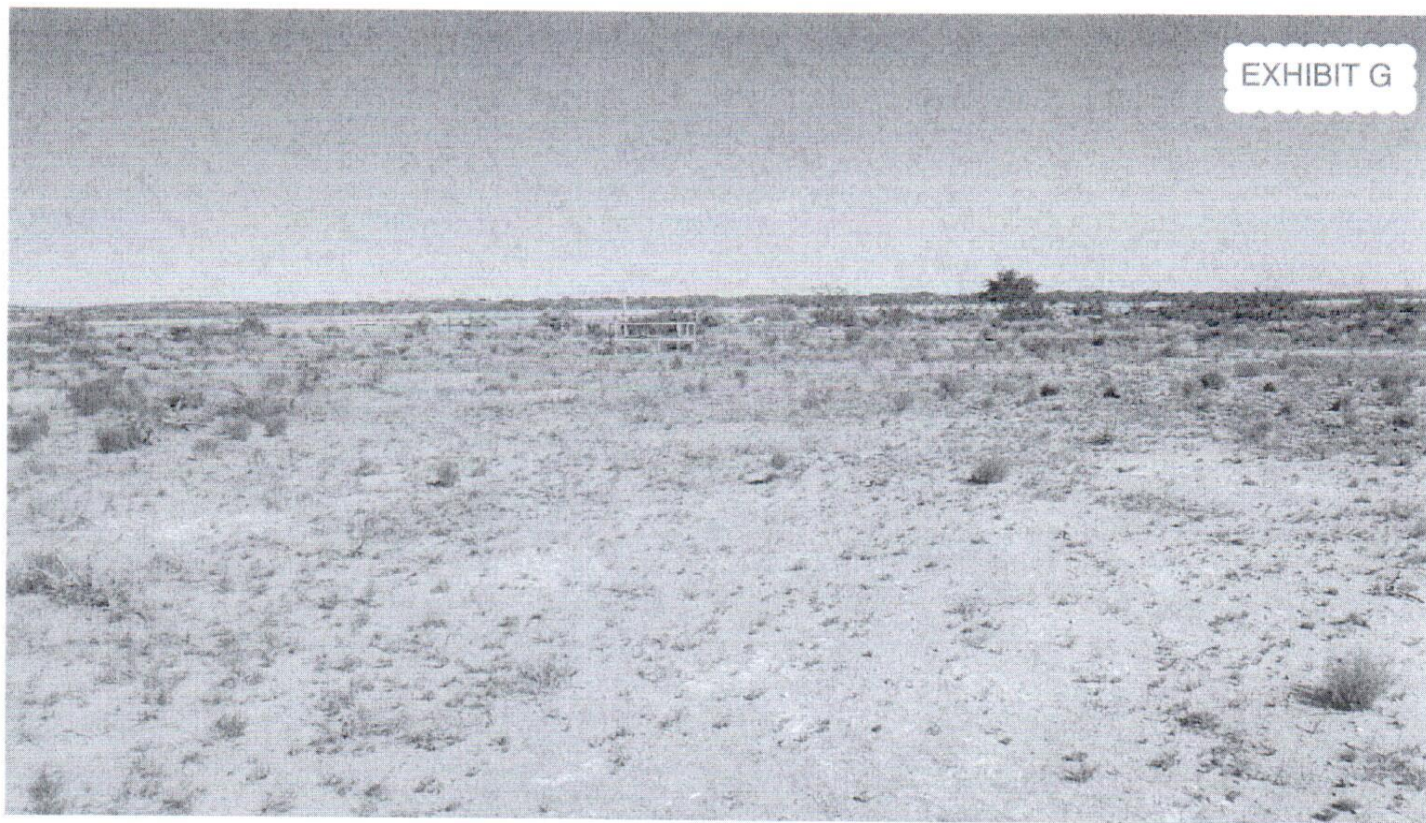
NATIONAL GEOGRAPHIC

0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 miles  
0.0 0.5 1.0 km

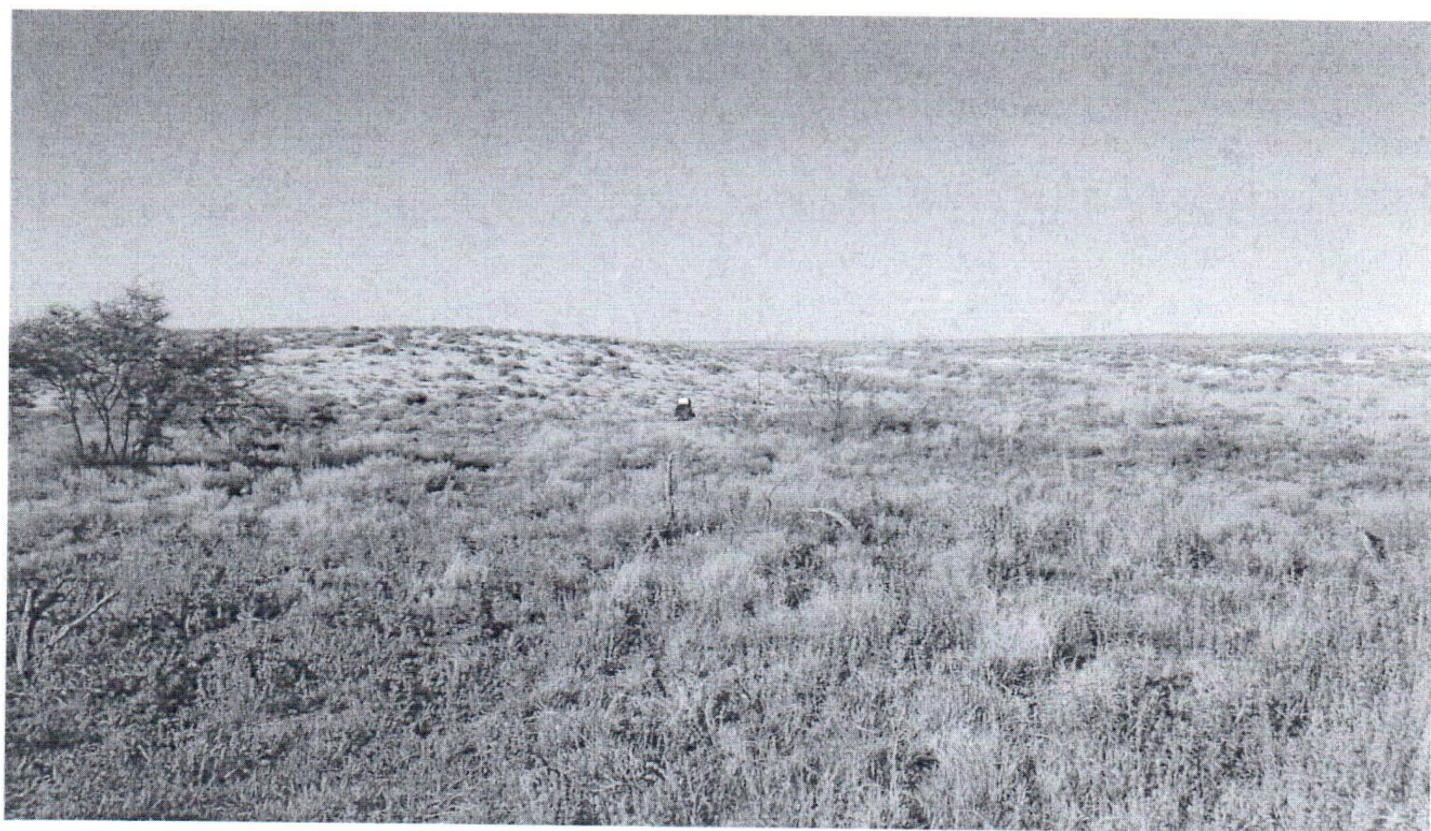
TN MN  
7'  
05/16/19



EXHIBIT G



C 03266



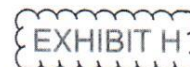
C 03267



TOPO! map printed on 06/09/19 from "Untitled.tpo"







## San Mateo Stebbins Water Management, LLC

One Lincoln Centre • 5400 LBJ Freeway • Suite 1500 • Dallas, Texas 75240

Voice 972.371.5200 • Fax 972.371.5201

[jharrington@matadorresources.com](mailto:jharrington@matadorresources.com)

**Jake Harrington**  
Senior Geologist

April 26, 2019

NM Oil Conservation Division  
1220 S. St. Francis Dr.  
Santa Fe, NM 87505

**Re: Geology Statement**  
**Jim Pat SWD #4**  
**Section 4, T. 21S, R. 28E**  
**Eddy County, New Mexico**

To whom it may concern:

Available geologic and engineering data related to the proposed Well have been thoroughly reviewed, and no evidence for a hydrological connection between the proposed deep Devonian injection zone, located at approximately 13,093 ft., and any underground sources of drinking water has been found.

Sincerely,  
San Mateo Stebbins Water Management, LLC

A handwritten signature in black ink, appearing to read "Jake Harrington", with a long horizontal stroke extending to the right.

Jake Harrington