



MODRALL SPERLING
L A W Y E R S

September 18, 2018

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Deana M. Bennett
Deana.bennett@modrall.com
505-848-1834

**Re: AMENDED APPLICATION OF NGL WATER SOLUTIONS
PERMIAN, LLC FOR APPROVAL OF SALT WATER
DISPOSAL WELL IN LEA COUNTY, NEW MEXICO**

CASE NO. 16441

TO: AFFECTED PERSONS

This letter is to advise you that NGL Water Solutions Permian, LLC ("NGL") has filed the enclosed application, which seeks an order approving disposal into the Devonian and Silurian formations through the **Minuteman SWD #1** well. NGL proposes to drill this well at a surface location 659 feet from the South line and 449 feet from West line of Section 14, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico. The target injection interval is the Devonian and Silurian formations at a depth of 16,691' – 18,326'. NGL further seeks approval of the use of 7 inch tubing inside the surface and intermediate casings and 5 ½ inch tubing inside the liner and requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day. Also attached to the application is an updated C-108 for the proposed well.

This case is currently set for a hearing before a Division Examiner on October 4, 2018, starting at 8:15 a.m. The hearing will be held in Porter Hall in the Oil Conservation Division's Santa Fe Office located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505. As a pooled party who may be affected by this application, we are notifying you of your right to appear at the hearing and participate in the case, including the right to present evidence either in support of or in opposition to the application. Failure to appear at the hearing may preclude you from any involvement in the case at a later date.

You are further notified that if you desire to appear in this case, then you are requested to file a Pre-Hearing Statement with the Division at least four business days in advance of a scheduled hearing before the Division or the Commission, but in no event later than 5:00 p.m. mountain time, on the Thursday preceding the scheduled hearing date, with a copy delivered to the undersigned.

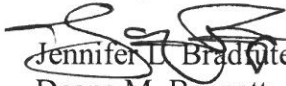
Modrall Sperling
Roehl Harris & Sisk P.A.

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Suite 1000
Albuquerque,
New Mexico 87102

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Albuquerque,
New Mexico 87103-2168

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Sincerely,


Jennifer L. Bradfute, and
Deana M. Bennett
Attorneys for Applicant

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

**AMENDED APPLICATION OF NGL WATER
SOLUTIONS PERMIAN, LLC
TO APPROVE SALT WATER
DISPOSAL WELL IN LEA
COUNTY, NEW MEXICO.**

CASE NO. 16441

AMENDED APPLICATION

NGL Water Solutions Permian, LLC ("NGL"), OGRID No. 372338, through its undersigned attorneys, hereby makes this application to the Oil Conservation Division pursuant to the provisions of N.M. Stat. Ann. § 70-2-12, for an order approving drilling of a salt water disposal well in Lea County, New Mexico. In support of this application, NGL states as follows:

(1) NGL proposes to drill the Minuteman SWD #1 well at a surface location 659 feet from the South line and 449 feet from West line of Section 14, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico for the purpose of operating a salt water disposal well.

(2) NGL seeks authority to inject salt water into the Devonian and Silurian formations at a depth of 16,691' – 18,326'.

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

(4) NGL anticipates using an average pressure of 2,504 psi for this well, and it requests that a maximum pressure of 3,338 psi be approved for the well.

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

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

WHEREFORE, NGL requests that this application be set for hearing before an Examiner of the Oil Conservation Division on October 4, 2018; and that after notice and hearing, the Division enter its order approving this application.

Respectfully submitted,

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

By: _____

Jennifer Bradfute

Deana Bennett

Post Office Box 2168

Bank of America Centre

500 Fourth Street NW, Suite 1000

Albuquerque, New Mexico 87103-2168

Telephone: 505.848.1800

Attorneys for Applicant

CASE NO. 16441: Amended Application of NGL Water Solutions Permian, LLC for approval of salt water disposal well in Lea County, New Mexico. Applicant seeks an order approving disposal into the Devonian and Silurian formations through the Minuteman SWD #1 well. NGL proposes to drill this well at a surface location 659 feet from the South line and 449 feet from West line of Section 14, Township 24 South, Range 33 East, NMPM, Lea County, New Mexico. The target injection interval is the Devonian and Silurian formations at a depth of 16,691' – 18,326'. NGL further seeks approval of the use of 7-inch tubing inside the surface and intermediate casings and 5 ½-inch tubing inside the liner and requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day. Said area is located approximately 22 miles west of Jal, New Mexico.

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

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



ADMINISTRATIVE APPLICATION CHECKLIST

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

Applicant: NGL WATER SOLUTIONS PERMIAN LLCOGRID Number: 372338Well Name: MINUTEMAN SWD #1API: TBDPool: SWD; SILURIAN-DEVONIANPool Code: 96101

**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☐ PPR2) **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.

CHRIS WEYAND

Print or Type Name

09/05/2018

Date

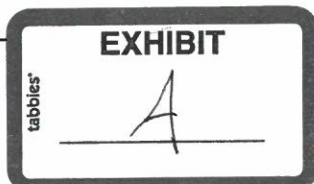
512-600-1764

Phone Number

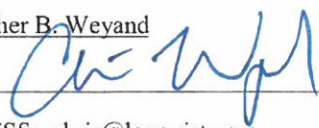
CHRIS@LONQUIST.COM

e-mail Address

Signature



APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance X Disposal _____ Storage
Application qualifies for administrative approval? X Yes _____ No
- II. OPERATOR: NGL WATER SOLUTIONS PERMIAN, LLC
ADDRESS: 1509 W WALL ST // STE 306 // MIDLAND, TX 79701
CONTACT PARTY: SARAH JORDAN PHONE: (432) 685-0005 x1989
- 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 X 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: Christopher B. Weyand TITLE: Consulting Engineer
SIGNATURE:  DATE: 8/20/2018
E-MAIL ADDRESS: chris@lonquist.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.

INJECTION WELL DATA SHEET

OPERATOR: NGL WATER SOLUTIONS PERMIAN, LLCWELL NAME & NUMBER: MINUTEMAN SWD #1WELL LOCATION: 659 FSL & 449' FWL

UNIT LETTER	SECTION	TOWNSHIP	RANGE
M	14	24S	33E

WELLBORE SCHEMATICWELL CONSTRUCTION DATA
Surface Casing

Hole Size: 24.000" Casing Size: 20.000" ft³

Cemented with: 1,730 sx. *or* _____

Top of Cement: Surface Method Determined: Circulation

1st Intermediate Casing

Hole Size: 17.500" Casing Size: 13.375" ft³

Cemented with: 2,600 sx. *or* _____

Top of Cement: Surface Method Determined: Circulation

2nd Intermediate Casing

Hole Size: 12.250" Casing Size: 9.625" ft³

Cemented with: 2,771 sx. *or* _____

Top of Cement: Surface Method Determined: Circulation

Production Liner

Hole Size: 8.500"

Casing Size: 7.625"

Cemented with: 325 sx.

or _____ ft³

Top of Cement: 11,800'

Method Determined: Calculation

Total Depth: 18,326'

Injection Interval

16,691 feet to 18,326 feet

(Open Hole)

INJECTION WELL DATA SHEET

Tubing Size: 7", 26 lb/ft, P-110, TCPC from 0' - 11,700' and 5.500", 17 lb/ft, P-110 TCPC from 11,700' - 16,641'
Lining Material: Duoline

Type of Packer: 7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and Full Inconel

Packer Setting Depth: 16,641'

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

Additional Data

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

If no, for what purpose was the well originally drilled? N/A

2. Name of the Injection Formation: Devonian, Silurian, Fusselman and Montoya (Top 100')

3. Name of Field or Pool (if applicable): SWD; Silurian-Devonian

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, new drill.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

Bone Spring: 9,130'

Wolfcamp: 12,100'

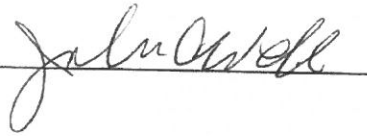
XII. Affirmative Statement of Examination of Geologic and Engineering Data

Based on the available engineering and geologic data we find no evidence of open faults or any other hydrologic connection between the disposal zone (in the proposed **Minuteman SWD #1**) and any underground sources of drinking water.

NAME: John C. Webb

TITLE: Sr. Geologist

SIGNATURE: _____

A handwritten signature in cursive script, appearing to read "John C. Webb", written over a horizontal line.

DATE: _____

8/22/2018

NGL Water Solutions Permian, LLC

Minuteman SWD No. 1

FORM C-108 Supplemental Information

III. Well Data

A. Wellbore Information

1.

Well information	
Lease Name	Minuteman SWD
Well No.	1
Location	S-14 T-24S R-33E
Footage Location	659' FSL & 449' FWL

2.

a. Wellbore Description

Casing Information				
Type	Surface	Intermediate	Production	Liner
OD	20"	13.375"	9.625"	7.625"
WT	0.500"	0.480"	0.545"	0.500"
ID	19.000"	12.415"	8.535"	6.625"
Drift ID	18.812"	12.259"	8.535"	6.500"
COD	21.00"	14.375"	10.625"	7.625"
Weight	106.5 lb/ft	68 lb/ft	53.5 lb/ft	39 lb/ft
Grade	J-55	HCL-80	P-110	Q-125
Hole Size	24"	17.5"	12.25"	8.5"
Depth Set	1,400'	5,200'	12,300'	16,691'

b. Cementing Program

Cement Information				
Casing String	Surface	Intermediate	Production	Liner
Lead Cement	C	C	H,H,C	H
Lead Cement Volume	727	1,274	Stage 1: 443 sks Stage 2: 521 sks Stage 3: 709 sks	95
Tail Cement	C	C	H,H,C	H
Tail Cement Volume	1,004	1,327	Stage 1: 384 sks Stage 2: 443 sks Stage 3: 272 sks	230
Cement Excess	25%	10%	10%	10%
TOC	Surface	Surface	Surface	11,800'
Method	Circulate to Surface	Circulate to Surface	Circulate to Surface	Logged

3. Tubing Description

Tubing Information		
OD	7"	5.5"
WT	0.362"	0.304"
ID	6.276"	4.892"
Drift ID	7.875"	6.050"
COD	6.151"	4.767"
Weight	26 lb/ft	17 lb/ft
Grade	P-110 TCPC	P-110 TCPC
Depth Set	0'-11,700'	11,700'-16,641'

Tubing will be lined with Duoline.

4. Packer Description

7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and Full Inconel

B. Completion Information

1. Injection Formation: Devonian, Silurian, Fusselman, Montoya (Top 100')
2. Gross Injection Interval: 16,691' – 18,326'

Completion Type: Open Hole

3. Drilled for injection.
4. See the attached wellbore schematic.
5. Oil and Gas Bearing Zones within area of well:

Formation	Depth
Bone Spring	9,130'
Wolfcamp	12,100'

VI. Area of Review

No wells within the area of review penetrate the proposed injection zone.

VII. Proposed Operation Data

1. Proposed Daily Rate of Fluids to be Injection:

Average Volume: 40,000 BPD
Maximum Volume: 50,000 BPD

2. Closed System

3. Anticipated Injection Pressure:

Average Injection Pressure: 2,504 PSI (surface pressure)
Maximum Injection Pressure: 3,338 PSI (surface pressure)

4. The injection fluid is to be locally produced water. Attached are produced water sample analyses taken from the closest wells that feature samples from the Bone Spring and Wolfcamp formations.
5. The disposal interval is non-productive. No water samples are available from the surrounding area.

VIII. Geological Data

The Devonian formation is a dolomitic ramp carbonate that occurs below the Woodford shale and above the Fusselman formation. Strata found in the Devonian formation include two major groups, the Wristen Buildups and the Thirtyone Deepwater Chert, with the Wristen being more abundant. The Wristen Groups is composed of mixed limestone and dolomites with mudstone to grainstone and boundstone textures. Porosity in the Wristen group is a result of both primary and secondary development. Present are moldic, vugular, karstic (including collapse breccia) features that allow for higher porosities and permeabilities. The Thirtyone Formation contains two end-member reservoir facies, skeletal packstones/grainstones and spiculitic chert, with most of the porosity and permeability found in the coarsely crystalline cherty dolomite. These particular characteristics allow for this formation to be a tremendous Salt Water Disposal horizon.

A. Injection Zone: Siluro-Devonian Formation

Formation	Depth
Rustler	1,234'
Salado	1,494'
Delaware	5,232'
Bone Spring	9,130'
Wolfcamp	12,100'
Penn	13,230'
Atoka	13,695'
Morrow	14,425'
Mississippian Lime	16,111'
Woodford	16,481'
Devonian	16,691'

B. Underground Sources of Drinking Water

Within 1-mile of the proposed Minuteman SWD #1 location, there are 9 reported water wells. The water wells have an average depth of 360 ft and an average water depth of 229 ft generally producing from the Santa Rosa. The upper Rustler may also be another USDW and will be protected.

IX. Proposed Stimulation Program

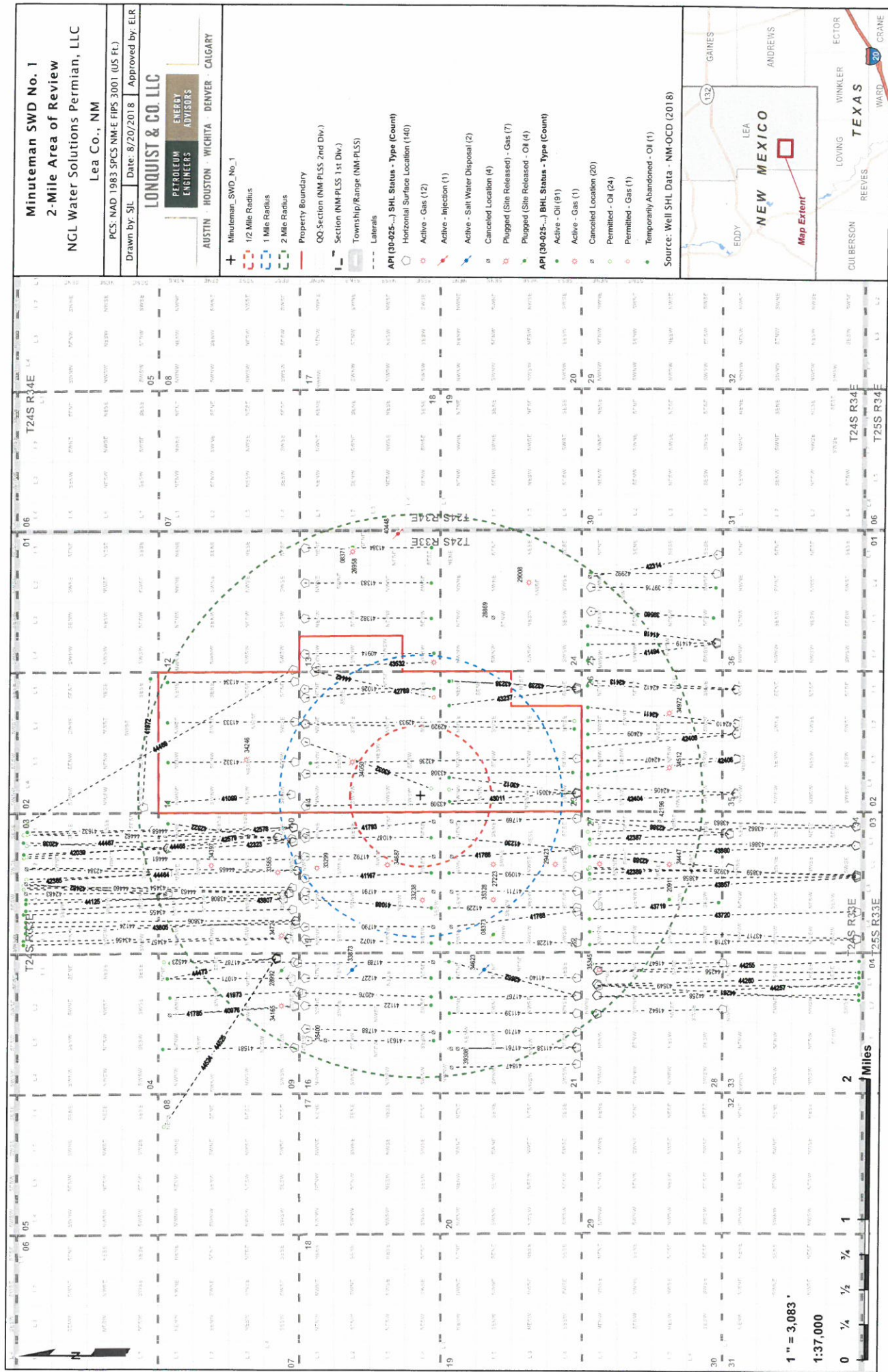
Stimulate with up to 50,000 gallons of acid.

X. Logging and Test Data on the Well

There are no logs or test data on the well. During the process of drilling and completion resistivity, gamma ray, and density logs will be run.

XI. Chemical Analysis of Fresh Water Wells

Even though there are 9 fresh water wells within 1-mile of the proposed Minuteman SWD #1 location, there were no fresh water samples obtained. A 3rd party sampling and analysis company determined that all wells were plugged. A map of the nearby water wells is attached.



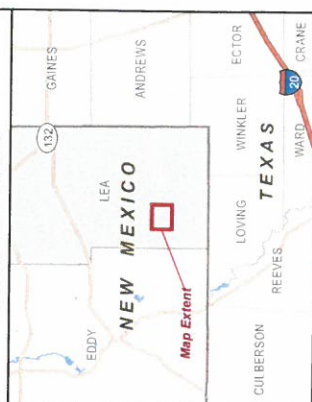
Minuteman SWD No. 1
2-Mile Area of Review
NGL Water Solutions Permian, LLC
Lea Co., NM

PCS: NAD 1983 SPCS NM-E FIPS 3001 (US FL.)
Drawn by: JIL Date: 8/20/2018 Approved by: ELR

LONGQUEST & CO. LLC
PETROLEUM
ENGINEERS
AUSTIN HOUSTON WICHITA DENVER CALGARY

- + Minuteman_SWD_No_1
- 1/2 Mile Radius
- 1 Mile Radius
- 2 Mile Radius
- Property Boundary
- QQ Section (NM PLSS 2nd Div.)
- Section (NM PLSS 1st Div.)
- Township/Range (NM PLSS)
- Laterals
- API (30-425-...) SHL Status - Type (Count)
- Horizontal Surface Location (140)
- Active - Gas (12)
- Active - Injection (1)
- Active - Salt Water Disposal (2)
- Canceled Location (4)
- Plugged (Site Released) - Gas (7)
- Plugged (Site Released) - Oil (4)
- API (30-425-...) BHL Status - Type (Count)
- Active - Oil (91)
- Active - Gas (1)
- Canceled Location (20)
- Permitted - Oil (24)
- Permitted - Gas (1)
- Temporarily Abandoned - Oil (1)

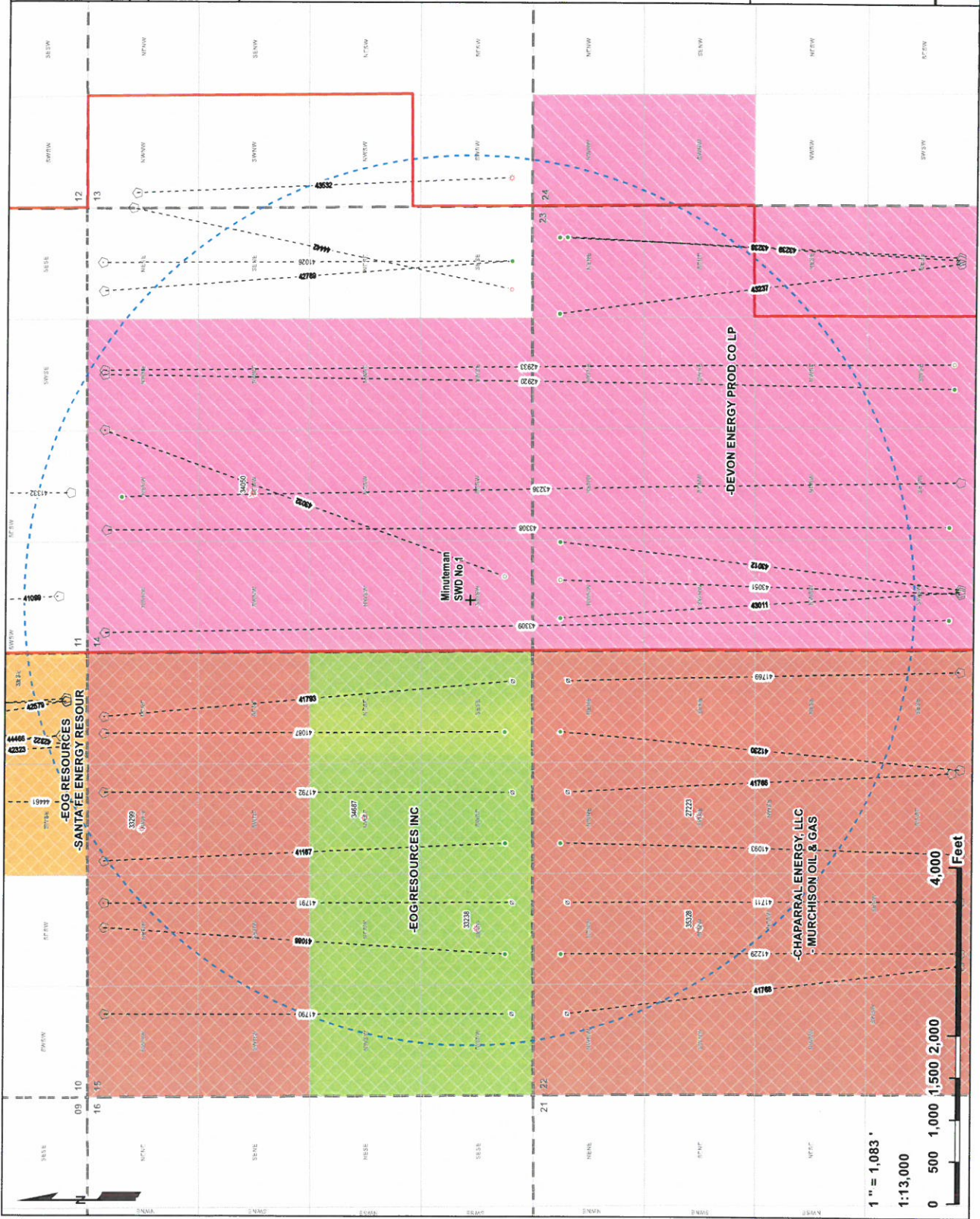
Source: Well SHL Data - NM-OC (2018)



1" = 3,083'
1:37,000

0 1/4 1/2 1 2 Miles

Source: Well SHL Data - NM-OCD/NM-BLM/NM-SLO (2018)



0	500	1,000	1,500	2,000
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Minuteman SWD No. 1
1 Mile Area of Review List

API (30-025-...)	WELL NAME	WELL TYPE	STATUS	OPERATOR	TVD (FT.)	LATITUDE (NAD83 DD)	LONGITUDE (NAD83 DD)	DATE DRILLED
27223	JACKSON UNIT #001	G	A	TAP ROCK OPERATING, LLC	15860	32.20493700000	-103.55804400000	1/29/1981
33238	JACKSON UNIT #003	G	A	TAP ROCK OPERATING, LLC	13920	32.21219640000	-103.56231690000	2/9/1996
33299	JACKSON UNIT #004	G	A	EOG RESOURCES INC	15534	32.22308350000	-103.55842590000	3/14/1996
34050	LELA MAE STEVENS FEDERAL COM #001	G	P	EOG RESOURCES INC	13840	32.21944810000	-103.54556270000	10/23/1997
34687	JACKSON UNIT #007	G	A	TAP ROCK OPERATING, LLC	13841	32.21582030000	-103.55804400000	10/16/1999
35328	JACKSON UNIT #008	G	A	TAP ROCK OPERATING, LLC	13920	32.20493700000	-103.56231690000	3/28/2001
41026	TYRELL FEE #001H	O	A	COG OPERATING LLC	10951	32.22437290000	-103.53671260000	4/24/2013
41072	JACKSON UNIT #014H	O	A	TAP ROCK OPERATING, LLC	11187	32.22435380000	-103.56703950000	11/3/2013
41086	JACKSON UNIT #015H	O	A	TAP ROCK OPERATING, LLC	11184	32.22435000000	-103.56224060000	12/12/2013
41087	JACKSON UNIT #017H	O	A	TAP ROCK OPERATING, LLC	11186	32.22434230000	-103.55477140000	3/11/2014
41093	JACKSON UNIT #024H	O	A	TAP ROCK OPERATING, LLC	11102	32.19641110000	-103.55950930000	6/1/2013
41099	ROY BATTY FEDERAL COM #001H	O	A	COG OPERATING LLC	10700	32.22579960000	-103.54949950000	6/24/2013
41167	JACKSON UNIT #016H	O	A	TAP ROCK OPERATING, LLC	11180	32.22434620000	-103.55967710000	1/30/2014
41229	JACKSON UNIT #023H	O	A	TAP ROCK OPERATING, LLC	11111	32.19641490000	-103.56332400000	6/23/2014
41230	JACKSON UNIT #025H	O	A	TAP ROCK OPERATING, LLC	11121	32.19640730000	-103.55626680000	5/15/2014
41332	ROY BATTY FEDERAL COM #002H	O	A	COG OPERATING LLC	11101	32.22541430000	-103.54553220000	11/1/2013
41711	JACKSON UNIT #040C	O	C	MURCHISON OIL & GAS INC	0	32.19641110000	-103.56132510000	12/31/1999
41766	JACKSON UNIT #041C	O	C	MURCHISON OIL & GAS INC	0	32.19668580000	-103.55641700000	12/31/1999
41768	JACKSON UNIT #039C	O	C	MURCHISON OIL & GAS INC	0	32.19641490000	-103.56381230000	12/31/1999
41769	JACKSON UNIT #042C	O	C	MURCHISON OIL & GAS INC	0	32.19640730000	-103.55252840000	12/31/1999
41790	JACKSON UNIT #035C	O	C	MURCHISON OIL & GAS INC	0	32.22435380000	-103.56556700000	12/31/1999
41791	JACKSON UNIT #036C	O	C	MURCHISON OIL & GAS INC	0	32.22435000000	-103.56130220000	12/31/1999
41792	JACKSON UNIT #037C	O	C	MURCHISON OIL & GAS INC	0	32.22434620000	-103.55703740000	12/31/1999
41793	JACKSON UNIT #038C	O	C	MURCHISON OIL & GAS INC	0	32.22434230000	-103.55413060000	12/31/1999
42322	NEPTUNE 10 STATE COM #501H	O	A	EOG RESOURCES INC	11171	32.22557530200	-103.55517992600	1/31/2015
42323	NEPTUNE 10 STATE COM #502H	O	A	EOG RESOURCES INC	11205	32.22557538400	-103.55527741600	2/17/2015
42578	NEPTUNE 10 STATE COM #503C	O	C	EOG RESOURCES INC	0	32.22557107670	-103.55342510800	12/31/1999
42579	NEPTUNE 10 STATE COM #701C	O	C	EOG RESOURCES INC	0	32.22557115870	-103.55352259800	12/31/1999
42789	TYRELL FEE #002H	O	A	COG OPERATING LLC	9359	32.22433795000	-103.53780440000	11/4/2015
42920	BOOMSLANG 14 23 FEDERAL #001H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	9517	32.22431530000	-103.54100470000	7/28/2017
42933	BOOMSLANG 14 23 FEDERAL #004H	O	N	DEVON ENERGY PRODUCTION COMPANY, LP	11476	32.22431510000	-103.54084320000	7/5/2017
43011	BLUE KRAIT 23 14 FEDERAL #001H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	9370	32.19639980000	-103.54944480000	7/8/2017
43012	BLUE KRAIT 23 14 FEDERAL #005H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	9398	32.19639980000	-103.54934780000	7/12/2017
43032	BOOMSLANG 14 23 FEDERAL #009H	O	N	DEVON ENERGY PRODUCTION COMPANY, LP	10658	32.22431260000	-103.54313220000	8/13/2017
43051	BLUE KRAIT 23 FEDERAL #010H	O	N	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.19639980000	-103.54950950000	12/31/1999
43236	BLUE KRAIT 23 14 FEDERAL #002H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	11851	32.19639980000	-103.54524320000	6/18/2017
43237	BLUE KRAIT 23 FEDERAL #003H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	9399	32.19639820000	-103.53686120000	7/1/2017
43238	BLUE KRAIT 23 FEDERAL #004H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	11130	32.19639820000	-103.53686120000	6/21/2017
43239	BLUE KRAIT 23 FEDERAL #006H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	9408	32.19639800000	-103.53671980000	6/26/2017
43308	BOOMSLANG 14 23 FEDERAL #002H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	9485	32.22424690000	-103.54696970000	8/18/2017
43309	BOOMSLANG 14 23 FEDERAL #003H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	11451	32.22431250000	-103.55090420000	8/7/2017
44442	STRONG 14 24 33 AR #214H	G	N	MATADOR PRODUCTION COMPANY	0	32.22337350000	-103.53461800000	12/31/1999
44461	NEPTUNE 10 STATE COM #604H	O	N	EOG RESOURCES INC	0	32.22519620000	-103.55740560000	12/31/1999
44466	NEPTUNE 10 STATE COM #709H	O	N	EOG RESOURCES INC	0	32.22574450000	-103.55485830000	12/31/1999
44468	NEPTUNE 10 STATE COM #711H	O	N	EOG RESOURCES INC	0	32.22555060000	-103.55353460000	12/31/1999

Minuteman SWD #1: Offsetting Produced Water Analysis																
wellname	api	county	state	formation	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	co2_mg/L	
BELL LAKE 19 STATE #001H	3002541024	Lea	NM	BONE SPRING 2ND SAND	6.77	134649.2	44572.9		6215	37.9	759.3	0.93	81681.6	244	765	200
BELL LAKE 19 STATE #002H	3002541515	Lea	NM	BONE SPRING 2ND SAND	7.01	128413.3	44427.6		4207	41.9	705.9	0.78	77482.5	366	910	300
BELL LAKE 19 STATE #003H	3002541516	Lea	NM	BONE SPRING 2ND SAND	6.67	138617.2	46648.4		5778	41.1	731.5	1.1	84081	244	710	300
BELL LAKE 19 STATE #004H	3002541517	Lea	NM	BONE SPRING 2ND SAND	6.68	133460.5	44483.1		5917	30.5	718.2	0.83	80981.7	244	675	300
BELLOQ 2 STATE #002H	3003542895	EDDY	NM	WOLFCAMP	6.8	119471.8	37359.2		5659.1	22.4	746.1		73172.5		1035.5	250

NGL McCloy Minuteman SWD #1			Location - 23.2 miles west of Jal NM on Hwy 128.		TD: 18,326 GL/KB: 3593' /3617'		Directions to Site - Lat/Long 32.211719/-103.550778	
Vertical Injection - Devonian, Silurian, Fusselman			Lea County NM					
Geologic Tops (MD ft)			Section	Bit/BHA	Casing	Logging	Cement (HOLD)	Injection String
Triassic - 209 Permian Dewey Lake - 659 Rustler Anhydrite - 1234 Surface TD - 1400 Base of Silicates 1494 Top Salt - 1,494' Castile - 3680 Base Salt - 5140 ECP DV Tool - 5150 1st Int TD - 5200		Surface Drill 24" 0' - 1400 Set and Cement 20" Casing	24" Tricone 9-5/8" x 8" MM 9 jts: 8" DC 21 jts: 5" HWDP 5" DP to surface	1400' of 20" 106.5# J55 BTC Centralizers - bottom 2 joints and every 3rd jt thereafter, Cement basket 5th jt from surface	No Logs	Thixotropic Cement 13.2 ppg Class C - 1,730 sks 3hr TT 25% Excess 1000psi CSD after 10hrs	11700' of 7" P110 26# TCP	
		1st Intermediate Drill 3800' of 17-1/2" Hole 1400' - 5200' Set and Cement 13-3/8" Casing	17-1/2" PDC 9-5/8" x 8" MM 9 jts: 8" DC 21 jts: 5" HWDP 5" DP to surface	5M A Section Casing Bowl 5200' of 13-3/8" 68# HCL80 BTC Centralizers - bottom jt, every 3rd joint in open hole and 2 jt inside the surface casing	Mudlogger on site by 1250'	13.2 ppg Class C - 2,600 sks 4hr TT 10% Excess 1000psi CSD after 10 hrs Cement to Surface		
		2nd Intermediate Drill 7100' of 12-1/4" Hole 5200' - 12300' Set 9-5/8" Intermediate Casing and Cement in 3 Stages	12-1/4" PDC 8" MM 9jts: 8" DC 8" Drilling Jars 21 jts: 5" HWDP 5" DP to Surface	10M B Section 12300' of 9-5/8" 53.5# P110 BTC Special Drift to 8.535" Externally Coat 4000' Between DV Tools DV tool at at 8940' ECP DV Tool 15' inside Previous Casing Centralizers - bottom jt, 100' aside of DV tool, every 3rd joint in open hole and 5 within the surface casing	MWD GR Triple combo + CBL of 13-3/8" Casing	Stage 3: 13.2 ppg Class C - 981 sks 5hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface Stage 2: 13.2 ppg Class H - 964 sks 5hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface Stage 1: 13.2 ppg Class H - 827 sks 6hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface		
		3rd Intermediate Drill 4381' of 8-1/2" Hole 12300' - 16691' Set 7-5/8" Liner and Cement in Single Stage	8-1/2" PDC 6-3/4" MM 9 jts: 6" DC 21 jts: 5" HWDP 5" DP to Surface	4891' of 7-5/8" 39# Q125 - DTL (F14) FJ (Gas Tight) VersaFlex Packer Hanger Centralizers on and 1 jt above shoe jt and then every 2nd jt.	MWD GR Triple combo, CBL of 9- 5/8" Casing	15.6 ppg Class H - 325 sks 8hr TT 10% Excess 1000psi CSD after 10hrs		7-5/8" x 5-1/2" TCP Permanent Packer with High Temp Elastomer and full Inconel 925 trim
Penn - 13230 Strawn - 13470 Atoka - 13695 Morrow - 14425 Miss Lst - 14476 Woodford - 16481 Perm Packer - 16641 3rd Int TD - 16691 Devonian - 16,691 Silurian - 17071 Fusselman - 17651 Montoya - 18,226' TD - 18,326'		Injection Interval Drill 1635' of 6-1/2" hole 16691+157' - 18,326'	6-1/2" PDC 4-3/4" MM 9 jts: 4-3/4" DC 4-3/4" Drilling Jars 18 jts: 4" FH HWDP 4" FH DP to Surface	Openhole completion	MWD GR	Displace with 3% KCl (or heavier brine if necessary)		

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 and Natural Resources****Oil Conservation Division****1220 South St. Francis Dr.****Santa Fe, NM 87505**

Form C-101
Revised July 18, 2013

☐ AMENDED REPORT**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

¹ Operator Name and Address NGL WATER SOLUTIONS PERMIAN, LLC 1509 W WALL ST, STE 306 MIDLAND, TX 79701		² OGRID Number 372338
		³ API Number TBD
⁴ Property Code	⁵ Property Name MINUTEMAN SWD	⁶ Well No. 1

⁷ Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
M	14	24S	33E	N/A	659'	SOUTH	449'	WEST	LEA

⁸ Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
-	-	-	-	-	-	-	-	-	-

⁹ Pool Information

Pool Name SWD; Silurian-Devonian	Pool Code 96101
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Additional Well Information

¹¹ Work Type N	¹² Well Type SWD	¹³ Cable/Rotary R	¹⁴ Lease Type Private	¹⁵ Ground Level Elevation 3,594'
¹⁶ Multiple N	¹⁷ Proposed Depth 18,326'	¹⁸ Formation Siluro-Devonian	¹⁹ Contractor TBD	²⁰ Spud Date ASAP
Depth to Ground water 229'		Distance from nearest fresh water well 767'		Distance to nearest surface water > 1 mile

☐ We will be using a closed-loop system in lieu of lined pits**²¹ Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	24"	20"	106.5 lb/ft	1,400'	1,730	Surface
Intermediate	17.5"	13.375"	68 lb/ft	5,200	2,600	Surface
Production	12.25"	9.625"	53.5 lb/ft	12,300'	2,771	Surface
Prod. Liner	8.5"	7.625"	39 lb/ft	16,691	325	11,800
Tubing	N/A	7"	26 lb/ft	0' - 11,700'	N/A	N/A
Tubing	N/A	5.5"	17 lb/ft	11,700' - 16,641'	N/A	N/A

Casing/Cement Program: Additional Comments

See attached schematic.

²² Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Hydraulic/Blinds, Pipe	10,000 psi	8,000 psi	TBD - Schaffer/Cameron

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☒, if applicable.

Signature:

Printed name: Christopher B. Weyand

Title: Consulting Engineer

E-mail Address: chris@lonquist.com

Date: 8/20/2018

Phone: (512) 600-1764

OIL CONSERVATION DIVISION

Approved By:

Title:

Approved Date:

Expiration Date:

Conditions of Approval Attached

District I
1625 N. French Dr., Hobbs, NM 88240
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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 96101	³ Pool Name SWD, Silurian-Devonian
⁴ Property Code	⁵ Property Name MINUTEMAN SWD	⁶ Well Number 1
⁷ OGRID No. 372338	⁸ Operator Name NGL WATER SOLUTIONS PERMIAN, LLC	⁹ Elevation 3594.00"±

¹⁰ Surface Location

UL or lot no. M	Section 14	Township 24 S	Range 33 E	Lot Idn N/A	Feet from the 659'	North/South line SOUTH	Feet from the 449'	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
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¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.

PROPOSED MINUTEMAN SWD 1 NAD83 N: 441,826.46' E: 742,500.05' NAD83 N: 441,885.13' E: 783,684.53' Lat: N32°12'44.61" Long: W103°32'59.06"	SECTION 14			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 _____ Date _____ Chris Weyand Printed Name _____ chris@lonquist.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 <u>08/17/2018</u> Signature and Seal of Professional Surveyor _____ Cody A. Clark Certificate Number <u>23001</u>

Minuteman SWD No. 1
1 Mile Offset Operators

NGL Water Solutions Permian, LLC
Lea Co., NM

PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)

Drawn by: ASG Date: 8/27/2018 Approved by: ELR

LONGQUEST & CO. LLC

PETROLEUM
ENGINEERS
ENERGY
ADVISORS

AUSTIN · HOUSTON · WICHITA · DENVER · CALGARY

+ Minuteman SWD No. 1

1 Mile Radius

Property Boundary

Oil Section (NMPLSS 2nd Dk)

Oil Section (NMPLSS 1st Dk)

Traverse/Range (NMPLSS)

Laterals

API (30-025-...) SHL Status - Type (Count)

Horizontal Surface Location (39)

Active - Gas (5)

Plugged (Site Released) - Gas (1)

API (30-025-...) BHL Status - Type (Count)

Active - Oil (21)

Active - Gas (1)

Permitted - Oil (6)

Permitted - Gas (1)

Cancelled Location (10)

Other Operators

COG OPERATING LLC - MATADOR PRODUCTION COMPANY

DEVON ENERGY PRODUCTION COMPANY, LP

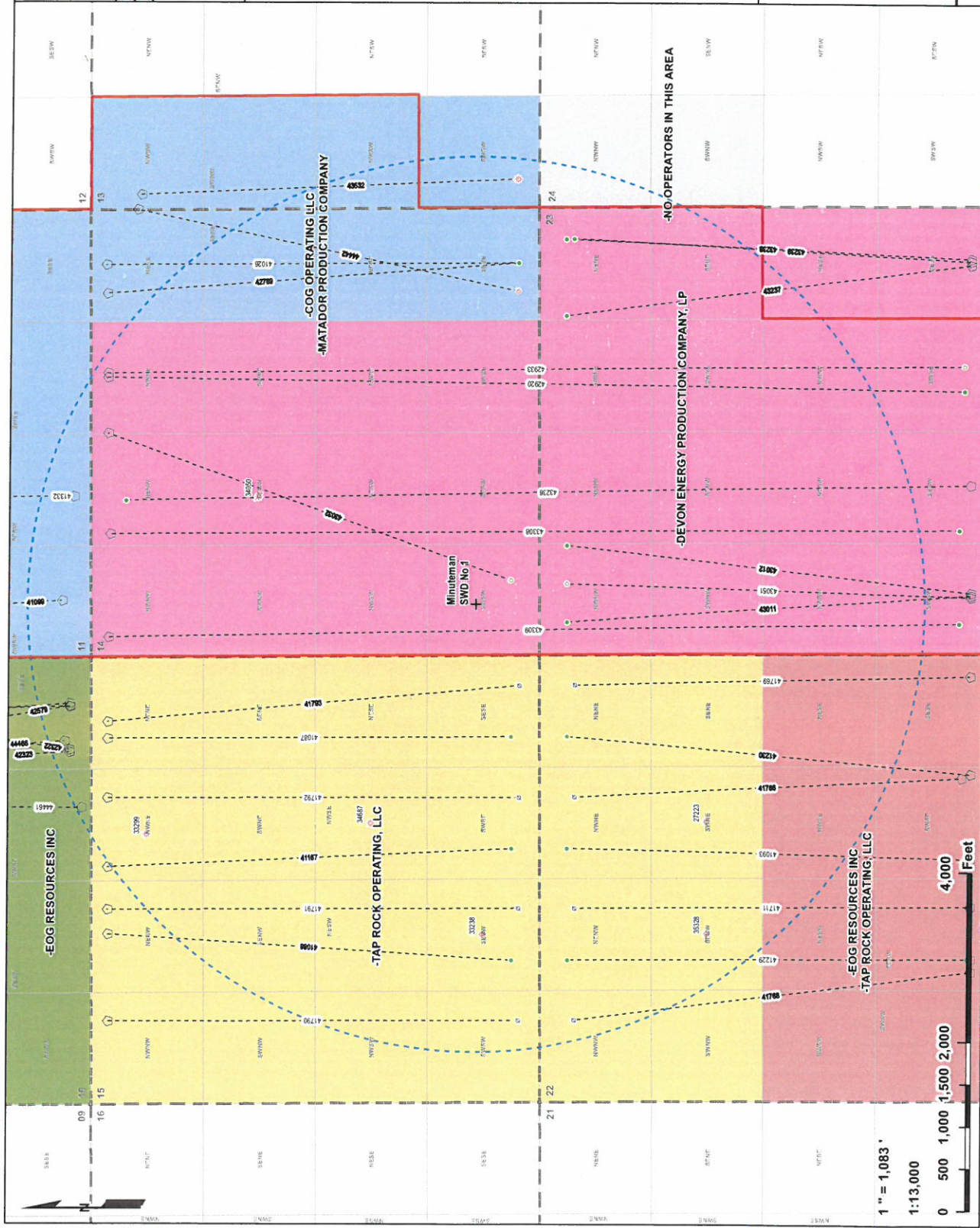
EDG RESOURCES INC

EDG RESOURCES INC - TAP ROCK OPERATING, LLC

TAP ROCK OPERATING, LLC

NO OPERATORS IN THIS AREA

Source: Well SHL Data - NM-OCG/NM-BLM/NM-SLO (2018)

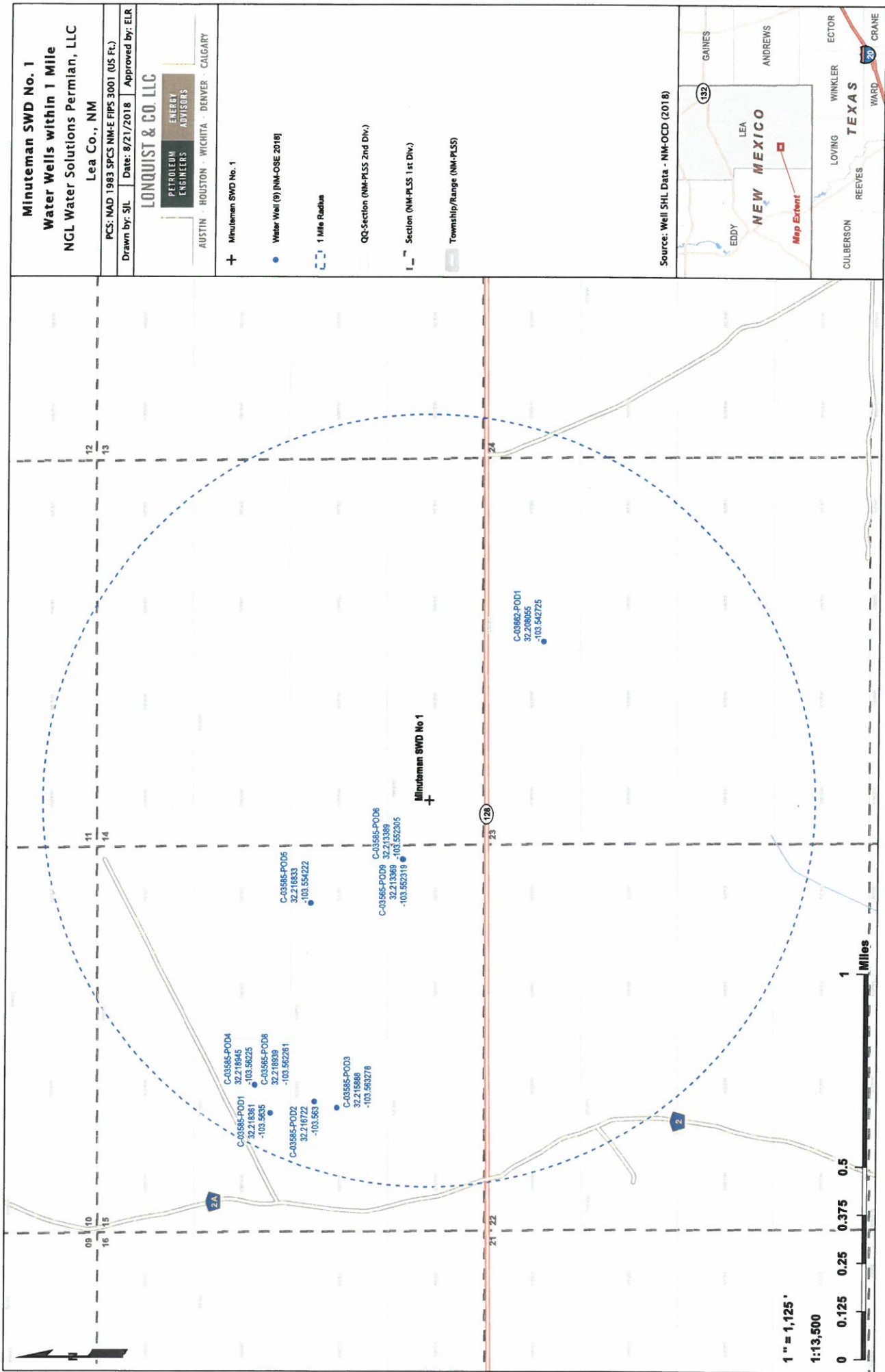


1" = 1,083'

1:13,000

0 500 1,000 1,500 2,000

4,000 Feet



Minuteman SWD No. 1
Water Wells within 1 Mile
NGL Water Solutions Permian, LLC
Lea Co., NM

PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)
Drawn by: JIL Date: 8/21/2018 Approved by: ELR

LONQUIST & CO. LLC

PETROLEUM
ENGINEERS
ENERGY
ADVISORS

AUSTIN - HOUSTON - WICHITA - DENVER - CALGARY

+ Minuteman SWD No. 1

• Water Well (9) [NM-OSSE 2018]

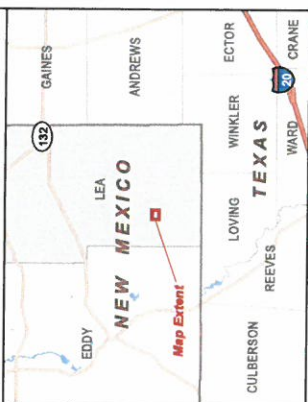
○ 1 Mile Radius

--- QQ-Section (NM-PLSS 2nd Div.)

— Section (NM-PLSS 1st Div.)

— Township/Range (NM-PLSS)

Source: Well SHL Data - NM-OSD (2018)



1" = 1,125'

1:13,500

0 0.125 0.25 0.375 0.5 1 Miles

Murate Man

Zina Crum
Modrall Sperling
500 4th Street NW
Suite 1000
Albuquerque NM 87102

PS Form 3877

Type of Mailing: CERTIFIED
09/18/2018



Firm Mailing Book ID: 151701



Line	Article Number	Name, Street & P.O. Address	Postage	Fee	R.R.Fee	Reference	Rest.Del.Fee Contents
1	9314 8699 0430 0050 9165 60	Oil Conservation Division District I - Hobbs 1625 N. French Drive Hobbs NM 88240	\$1.63	\$3.45	\$1.50	87806-0003	\$0.00 Notice
2	9314 8699 0430 0050 9165 77	BUREAU OF LAND MGMT 301 Dinosaur Trail Santa Fe NM 87508	\$1.63	\$3.45	\$1.50	87806-0003	\$0.00 Notice
3	9314 8699 0430 0050 9165 84	NEW MEXICO STATE LAND OFFICE P.O. Box 1148 Santa Fe NM 87504	\$1.63	\$3.45	\$1.50	87806-0003	\$0.00 Notice
4	9314 8699 0430 0050 9165 91	DEVON ENERGY PRODUCTION COMPANY, LP 20 N Broadway Oklahoma City OK 73102	\$1.63	\$3.45	\$1.50	87806-0003	\$0.00 Notice
5	9314 8699 0430 0050 9166 07	EOG RESOURCES INC P.O. Box 2267 Midland TX 79702	\$1.63	\$3.45	\$1.50	87806-0003	\$0.00 Notice
6	9314 8699 0430 0050 9166 14	MATADOR PRODUCTION COMPANY One Lincoln Centre 5400 Lbj Freeway, Ste 1500 Dallas TX 75240	\$1.63	\$3.45	\$1.50	87806-0003	\$0.00 Notice
7	9314 8699 0430 0050 9166 21	COG OPERATING LLC 550 W Texas Midland TX 79701	\$1.63	\$3.45	\$1.50	87806-0003	\$0.00 Notice
8	9314 8699 0430 0050 9166 38	TAP ROCK OPERATING, LLC 602 PARK POINT DRIVE Golden CO 80401	\$1.63	\$3.45	\$1.50	87806-0003	\$0.00 Notice
Totals:			\$13.04	\$27.60	\$12.00	Grand Total:	
						\$0.00	\$52.64

List Number of Pieces
Listed by Sender

Total Number of Pieces
Received at Post Office

Postmaster:
Name of receiving employee

Dated: