Initial Application Part I

Received 6/16/21

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

DY0PM-210616-C-1080

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
6/16/21		SWD	pBL211955396

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: Anthem Water Solutions, LLC **OGRID Number:** 330069
Well Name: Grackle 072527 Federal SWD 1 **API:** 30-015-XXXXX
Pool: SWD; Devonian-Silurian **Pool Code:** 97869

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

1) **TYPE OF APPLICATION:** Check those which apply for [A]
A. Location – Spacing Unit – Simultaneous Dedication
☐NSL ☐ NSP(PROJECT AREA) ☐NSP(PRORATION UNIT) ☐SD SWD-2431

B. Check one only for [I] or [II]
[I] Commingling – Storage – Measurement
☐DHC ☐CTB ☐PLC ☐PC ☐OLS ☐OLM
[II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery
☐ WFX ☐PMX ☒ SWD ☐ IPI ☐EOR ☐PPR

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

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

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

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

Marshall Tippen
Print or Type Name

Signature

6/16/2021
Date

(972) 795-4201
Phone Number

mtippen@anthemwsllc.com
e-mail Address

ANTHEM
WATER SOLUTIONS

6/16/2021

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

Re: Application of Anthem Water Solutions, LLC to drill and permit the saltwater disposal well Grackle 072527 Federal SWD 1 located in Unit D, Section 7, Township 25 South, Range 27 East, NMPM, Eddy County, New Mexico.

To Whom it May Concern:

Please find the enclosed C-108 Application for Authority to Inject, supporting the above-referenced request for saltwater disposal. The well will be operated as a commercial endeavor offering operations in the area additional options for produced water disposal. Please find the enclosed C-108 Application for Authority to Inject along with supporting documents.

I would like to point out that this application for a proposed Devonian-Silurian SWD interval includes the following: Published legal notice ran 6/15/2021 in Carlsbad Current-Argus and all offset operators and other interested parties have been notified individually. The legal notice affidavit is included herein. This application also all information required for a completed Form C-108, as well as a wellbore schematic, area of review maps, affected party plat and other required and pertinent information. This well is located on federal land and federal minerals; a copy of the application has been sent to the appropriate regulatory bodies.

I respectfully request that the approval of this saltwater disposal well proceed swiftly and if your staff requires additional information or has any questions, please do not hesitate to call or email me.

Sincerely,

Marshall Tippen
Anthem Water Solutions
mtippen@anthemwsllc.com | (972) 795-4201

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 ____X____Disposal _____Storage
Application qualifies for administrative approval? ____X____Yes _____No

II. OPERATOR: **Anthem Water Solutions, LLC**

ADDRESS: **5914 W. Courtyard Drive, Suite 320, Austin TX 78730**

CONTACT PARTY: **Marshall Tippen** PHONE: **(979) 795-4201**

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: **Marshall Tippen** TITLE: **Director of Engineering**

SIGNATURE:  DATE: 6/16/2021

E-MAIL ADDRESS: **mtippen@anthemwsllc.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.

(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.

Item III – Subject Well Data (Attachment 1)

A. Well Data

1) General Well Data

Operator: Anthem Water Solutions, LLC
Lease Name and Well Number: Grackle 072527 Federal SWD 1
Location Footage Calls: 91' from FNL, 69' from FWL
Legal Location: Unit D, Section 7, Township 25 South, Range 27 East, NMPM
Ground Elevation: 3261 feet
Proposed Injection Interval: 13851 - 14933 (open hole)
County: Eddy

2) - 3) Casing , Tubing & Cement Information

Casing Information						
Type	**Conductor (1)**	**Surface (2)**	**Intermediate (3)**	**Production (4)**	**Liner (5)**	**Open Hole (6)**
OD	30"	16"	13 3/8"	9 5/8"	7 5/8"	N/A
Weight	N/A	84 lb / ft	68 lb / ft	53.5 lb / ft	39 lb / ft	N/A
Grade	N/A	J-55 BTC	L-80 EZ-GO FJ3	HCP-110 BTC	HCP-110 EZ-GO FJ3	N/A
Hole Size	N/A	18 1/8"	14 3/4"	12 1/4"	8 1/2"	6 1/2"
Depth Set Top	-	-	-	-	10,243	13,851
Depth Set Bottom	120	1,256	2,053	10,443	13,851	14,933
TOC	Surf	Surf	Surf	Surface	-	-
TOC Method	Circ	Circ	Circ	Circ	CBL	-
Volume (Sacks)	250	631	366	3,077	598	N/A
DV Tool 1	N/A	N/A	N/A	2,103	N/A	N/A
DV Tool 2	N/A	N/A	N/A	7,534	N/A	N/A

Tubing Information		
Type	**Upper String (7)**	**Lower String (8)**
OD	5 1/2"	4 1/2"
Weight	20 lb / ft	18 lb / ft
Grade	HCL-80 BTC	HCL-80 LTC
Hole Size	N/A	N/A
Depth Set Top	-	10,143
Depth Set Bottom	10,143	13,801

**Wellbore Diagram Attached*

4) **Packer Information:**
   Arrowset AS1-X or equivalent packer set at approximately 13801 feet
   **Packer Schematic Attached*

B. Completion Information

1) **Injection Formation Name:** Devonian-Silurian
   Pool Name: SWD; Devonian-Silurian
   Pool Code: 97869
2) **Injection Interval:** 13851 - 14933 (open hole)
3) **Drilling Purpose:** Drilled for injection
4) **Overlying Oil and Gas Zones:** Below are approximate tops for known oil and gas producing zones in the area.
   - Delaware: 2003’
   - Bone Spring: 6723’
   - Wolfcamp: 8921’
   - Strawn: 10714’
   - Atoka: 11027’
   - Morrow: 11610’
5) **Underlying Oil and Gas Zones:** No underlying oil and gas zones exist.

Item V – Well and Lease Maps (Attachment 2)

1) **2-mile oil & Gas Well Map**
2) **1-mile Well Detail List**
3) **2-Mile Lease Map**
4) **2-Mile Mineral Ownership Map**
5) **2-Mile Surface Ownership map**
6) **1.5-Mile Deep SWD Map (Devonian-Silurian)**
7) **Potash Lease Map**

Item VI – AOR Well List (Attachment 2)

There have been 29 wells drilled within the 1-mile AOR. None of these wells nor any new or permitted wells penetrate the injection zone.

Item VII – Proposed Operation (Attachment 3)

1) **Proposed Maximum Injection Rate:** 30,000 bwpd
   Proposed Average Injection Rate: 15,000 bwpd
2) A **closed system** will be used.
3) **Proposed Maximum Injection Pressure:** 2770 psi (surface)
4) **Proposed Average Injection Pressure:** 1662 psi (surface)
5) **Source Water Analysis:** It is expected that the injected fluid will consist of water produced from the Wolfcamp and Bone Springs formations. Water samples from these formations are included in Attachment 3.
6) **Injection Formation Water Analysis:** The proposed SWD will be injecting water into the Devonian-Silurian formation which is a non-productive zone known to be compatible with formation water from the Wolfcamp and Bone Springs formations. Water analyses from the Devonian-Silurian formation in the area are included in attachment 3.

Item VIII – Geologic Description

The proposed injection interval includes the Devonian–Silurian formation from 13851 feet to 14933 feet. This formation consists of interbedded carbonate rocks consisting of dolomites and limestones with some interbedded siltstones and shales. Several thick sections of porous and permeable intervals capable of taking water are present within the subject formations in the area.

The base of the lowermost Underground Source of Drinking Water (USDW) is at a depth of approximately 1240 feet. The USDW is covered by 16-inch casing set at 1256 feet and cemented to surface, additionally the USDW is covered by intermediate casing set at 2053 feet and cemented to surface. Geophysical log assessment was conducted to accurately determine the top of the Rustler formation, as well as the top and base of the Salado formation in the area. Water well depths in the area range from approximately 30 feet – 150 feet below ground surface.

Item IX – Proposed Stimulation

A small cleanup acid job may be used to remove mud and drill cutting from the formation. However, no other formation stimulation is currently planned.

Item X – Logging and Test Data

Log data will be submitted to the OCD upon completion of this well.

Item XI – Fresh Groundwater Samples (Attachment 4)

Based on a review of the data from the New Mexico Office of State Engineer there are no fresh water wells within a 1-mile radius of the proposed location. As a result, no groundwater samples were obtained.

XII – No Hydrologic Connection Statement (Attachment 5)

Anthem has examined available geologic and engineering data, and has found no evidence of faulting present in the area that would provide a hydrologic connection between the injection interval and overlying USDWs. Additionally, the casing and cementing progam has been designed to further insure there will be no hydrologic connection between the injection interval and overlying USDWs. A letter from a knowledgeable and qualified expert stating that there is a low risk of seismic activity from the proposed injection activities is included in Attachment 5.

XIII – Proof of Notice (Attachment 6)

A Public Notice was filed with Carlsbad Current-Argus and an affidavit is included in Attachment 6.

A copy of the application was mailed to the OCD District Office, landowners, appropriate regulatory bodies, and leasehold operators within a 1-mile radius of the proposed SWD location. A list of recipients, as well as delivery confirmations, is included in Attachment 6.

Attachments Table of Content:

Attachment 1: Form C-102

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-XXXXX	97869	SWD; Devonian-Silurian

[4] Property Code	[5] Property Name	[6] Well Number
	Grackle 072527 Federal SWD	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
330069	Anthem Water Solutions, LLC	3261

[10] Surface Location

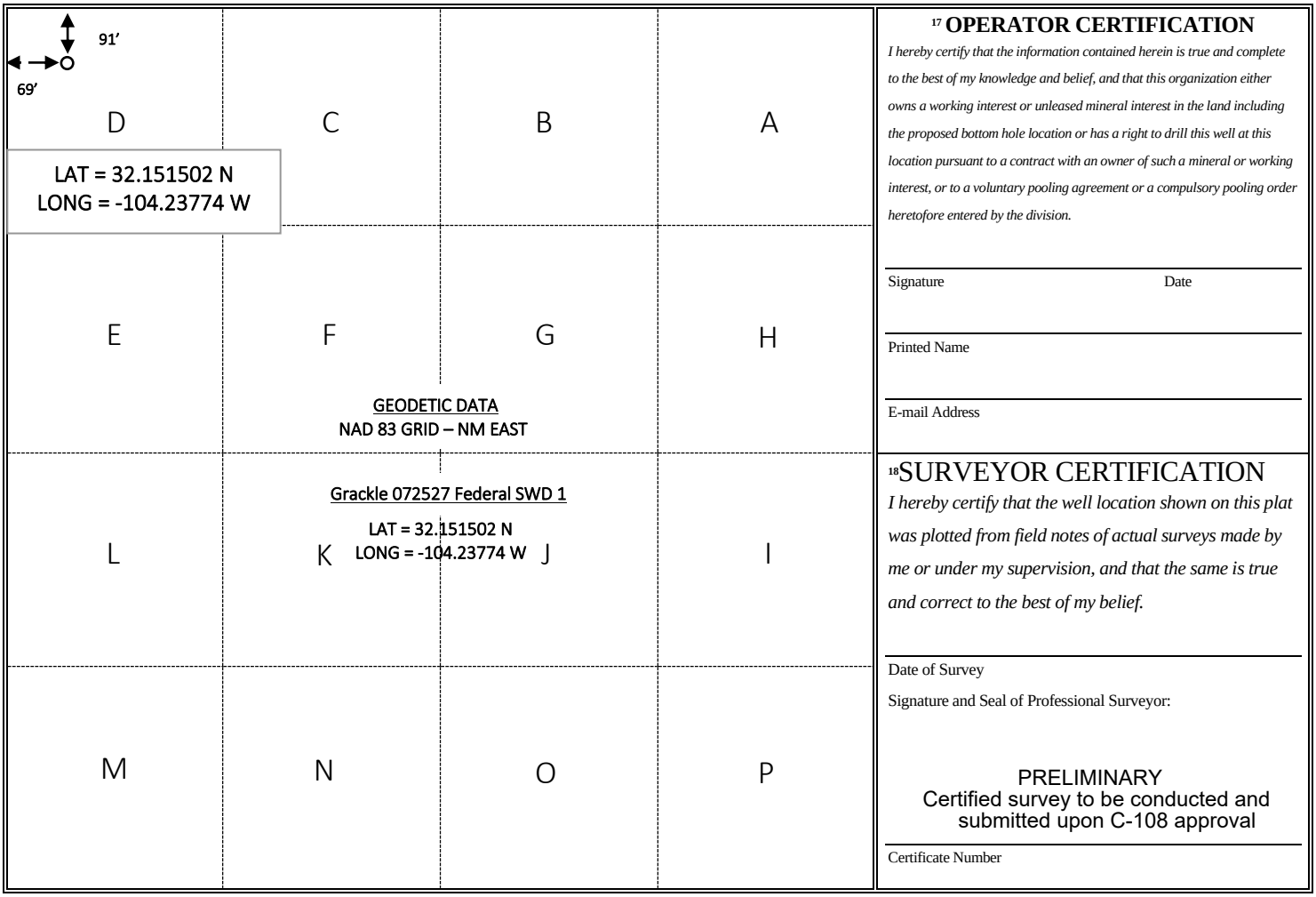
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	7	25S	27E		91	North	69	West	Eddy

[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.



[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

Printed Name

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.

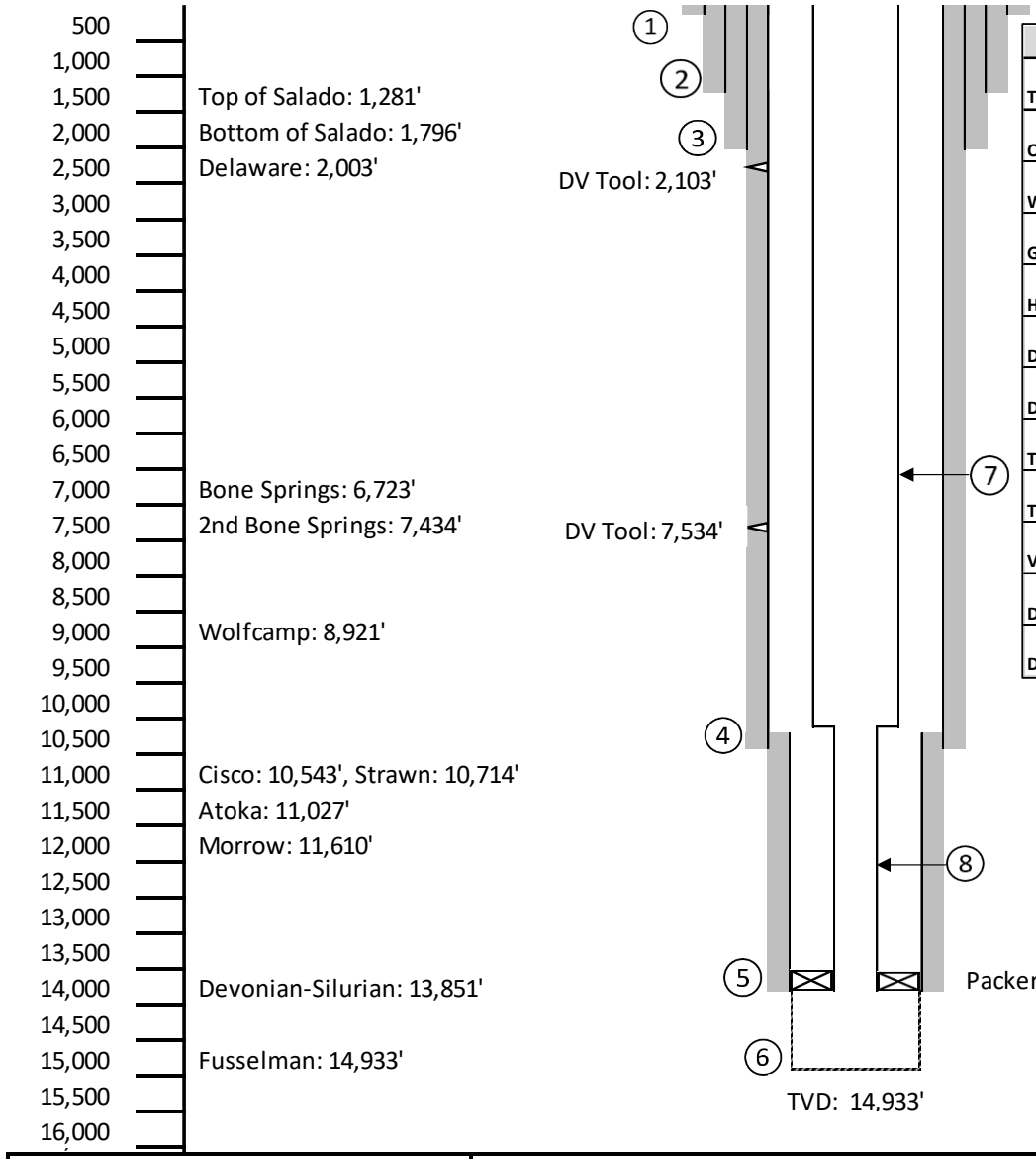
Date of Survey

Signature and Seal of Professional Surveyor:

PRELIMINARY
Certified survey to be conducted and submitted upon C-108 approval

Certificate Number

Attachment 1: Proposed Wellbore Diagram



Casing Information						
Type	Conductor (1)	Surface (2)	Intermediate (3)	Production (4)	Liner (5)	Open Hole (6)
OD	30"	16"	13 3/8"	9 5/8"	7 5/8"	N/A
Weight	N/A	84 lb / ft	68 lb / ft	53.5 lb / ft	39 lb / ft	N/A
Grade	N/A	J-55 BTC	L-80 EZ-GO FJ3	HCP-110 BTC	HCP-110 EZ-GO FJ3	N/A
Hole Size	N/A	18 1/8"	14 3/4"	12 1/4"	8 1/2"	6 1/2"
Depth Set Top	-	-	-	-	10,243	13,851
Depth Set Bottom	120	1,256	2,053	10,443	13,851	14,933
TOC	Surf	Surf	Surf	Surface	-	-
TOC Method	Circ	Circ	Circ	Circ	CBL	-
Volume (Sacks)	250	631	366	3,077	598	N/A
DV Tool 1	N/A	N/A	N/A	2,103	N/A	N/A
DV Tool 2	N/A	N/A	N/A	7,534	N/A	N/A

Tubing Information		
Type	Upper String (7)	Lower String (8)
OD	5 1/2"	4 1/2"
Weight	20 lb / ft	18 lb / ft
Grade	HCL-80 BTC	HCL-80 LTC
Hole Size	N/A	N/A
Depth Set Top	-	10,143
Depth Set Bottom	10,143	13,801

ANTHEM WATER SOLUTIONS

5914 W. Courtyard Dr. Suite 320, Austin, Texas, 78730

Wellbore Schematic: Grackle 072527 Federal SWD

API: 30-015-XXXXX	Section: 7
NMOCD District: 2	Township: 25S
Prepared By: PMT	Range: 27E
	County: Eddy
Notes:	

Attachment 1: Packer Schematic

AS1-X MECHANICAL PACKER

The ACT AS1-X Packer is the most versatile of the mechanically set retrievable packers and may be used in any production application. Treating, testing, injecting, pumping wells, flowing wells, deep or shallow, the AS1-X is suited for all. The packer can be left in tension or compression, depending on well conditions and the required application. A large internal by-pass reduces swabbing when running and retrieving. The by-pass closes when the packer is set and opens prior to releasing the upper slips when retrieving to allow pressure equalization.

The J-slot design allows easy setting and releasing; 1/4 turn right-hand set, right-hand release. A patented upper-slip releasing system reduces the force required to release the packer. A non directional slip is released first, making it easier to release the other slips. The AS1-X packer can withstand 7,000 psi (48 MPa) of differential pressure above or below.

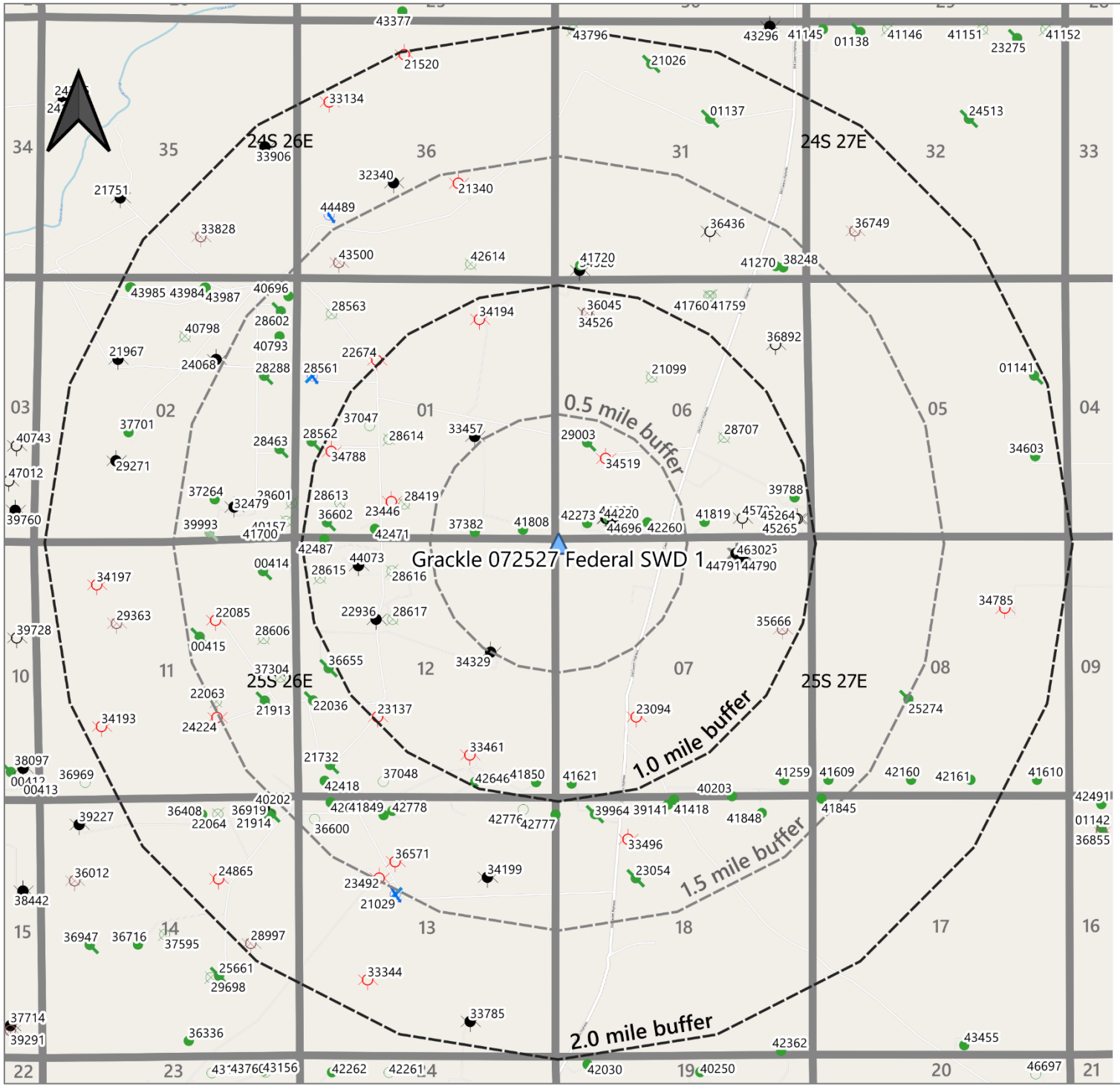
FEATURES, ADVANTAGES AND BENEFITS:

- The design holds high differential pressure from above or below, enabling the packer to meet most production, stimulation, and injection needs
- The packer can be set with compression, tension, or wire line, enabling deployment in shallow and deep applications
- The packer can be set and released with only a one-quarter turn of the tubing
- The bypass valve is below the upper slips so that debris are washed from the slips when the valve is opened, reducing the times for circulation and total retrieval
- The full opening enables unrestricted flow and the passage of wire line tools and other packer systems
- The packer can be run with the T-2 on-off tool, which enables the tubing to be disconnected and retrieved without retrieving the packer

OPTIONS:

- Elastomer options are available for hostile environments
- Optional safety releases are available

Attachment 2: 2-Mile Oil & Gas Map



Legend

- Gas, Active
- Gas, Cancelled
- Gas, New
- Gas, Plugged (site released)
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged (site released)
- Oil, Temporary Abandonment (expired)
- Salt Water Disposal, Active
- Salt Water Disposal, Plugged (site released)

Sec 07 25S 27E

Eddy County

New Mexico

Offset Well Review Area of Review

Grackle 072527 Federal SWD 1

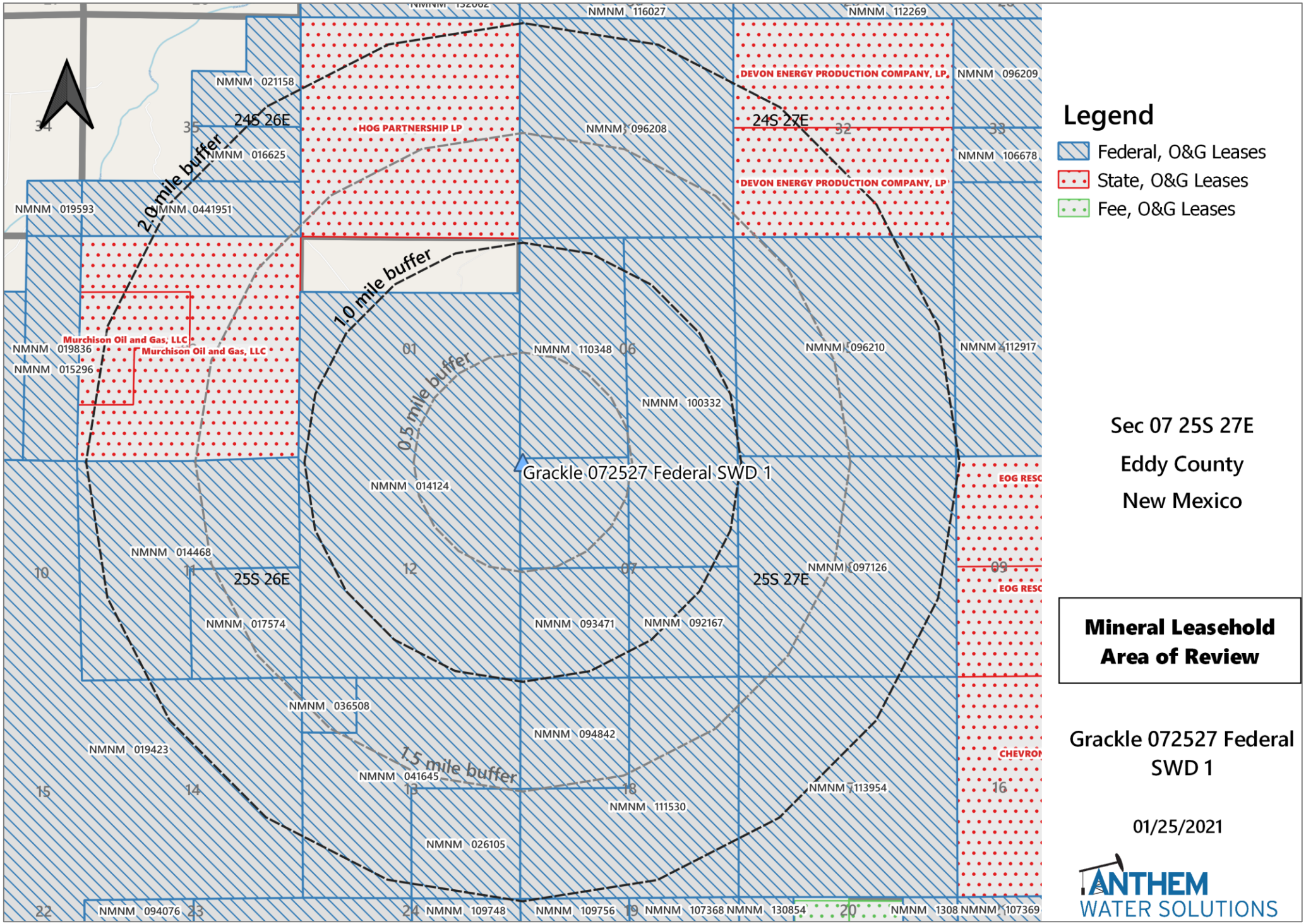
01/25/2021

ANTHEM WATER SOLUTIONS

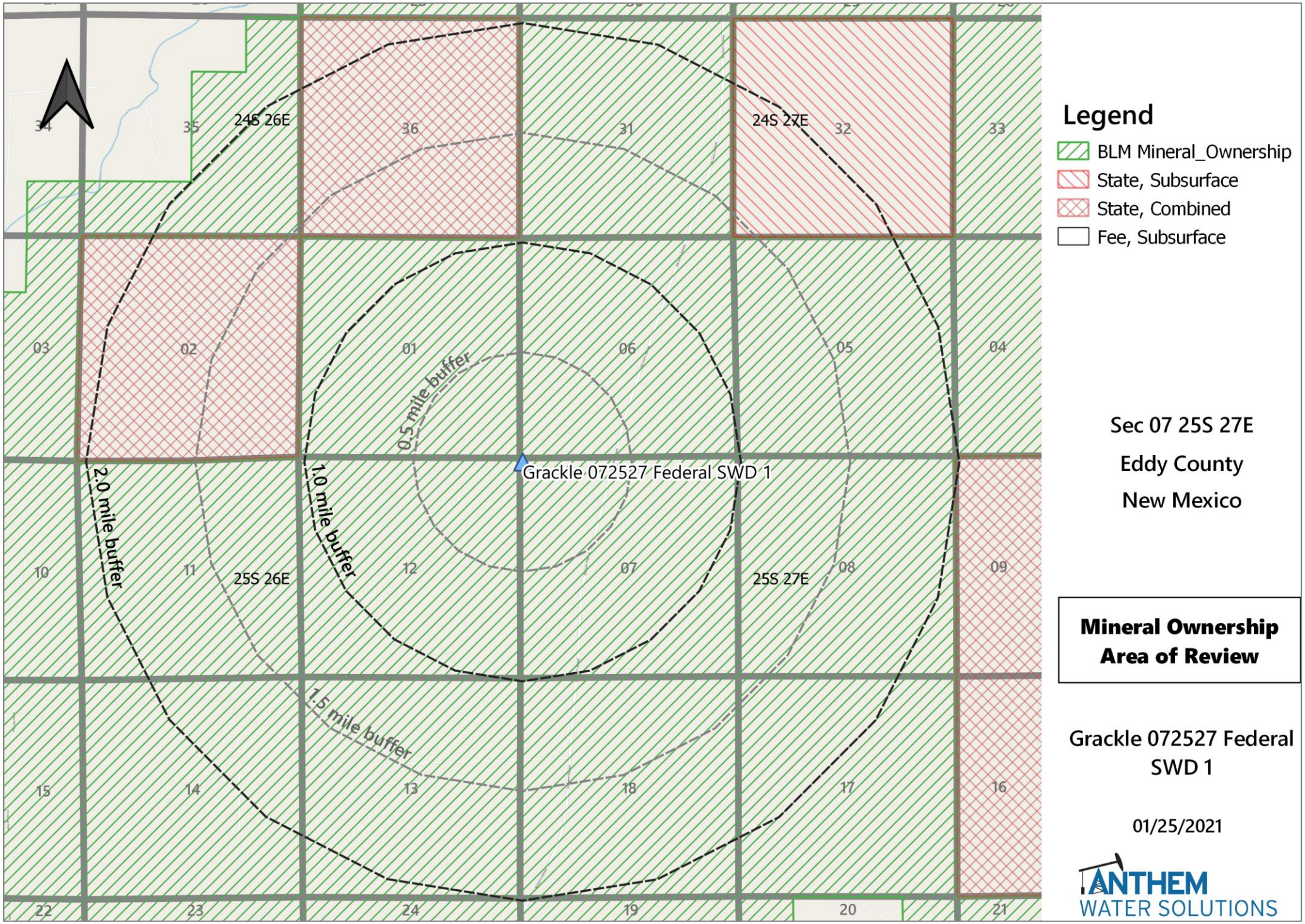
Attachment 2: 1-mile Well Detail List

AOR Tabulation for Grackle 072527 Federal SWD 1 (Top of Injection Interval: 13,851')								
Well Name	**API #**	**Well Type**	**Well Status**	**Operator**	**Spud Date**	**Location (Sec, Tn, Rg)**	**Total Vertical Depth**	**Penetrate Inj Zone**
MARQUARDT FEDERAL #008	30-015-36602	Oil	Plugged (site released)	CIMAREX ENERGY CO. OF COLORADO	11/4/2008	M-01-25S-26E	3,058	no
MARQUARDT FEDERAL #016H	30-015-42487	Oil	Active	CIMAREX ENERGY CO. OF COLORADO	10/16/2015	D-12-25S-26E	7,992	no
MARQUARDT 1 PENN FEDERAL #003	30-015-34788	Gas	Plugged (site released)	CIMAREX ENERGY CO. OF COLORADO	9/1/2006	L-01-25S-26E	11,875	no
MARQUARDT FEDERAL #015H	30-015-42471	Oil	Active	CIMAREX ENERGY CO. OF COLORADO	8/19/2015	N-01-25S-26E	7,165	no
MARQUARDT 12 13 FEDERAL COM #011H	30-015-44073	Gas	Active	CIMAREX ENERGY CO. OF COLORADO	3/13/2017	D-12-25S-26E	9,592	no
MARQUARDT FEDERAL #010	30-015-37047	Oil	New	CIMAREX ENERGY CO. OF COLORADO	N/A	K-01-25S-26E	-	no
MARQUARDT FEDERAL #002	30-015-22936	Gas	Active	CHEVRON U S A INC	7/8/1979	F-12-25S-26E	11,615	no
MARQUARDT FEDERAL #004	30-015-23446	Gas	Plugged (site released)	CHEVRON U S A INC	12/31/9999	01-25S-26E	11,824	no
MARQUARDT FEDERAL #003	30-015-23137	Gas	Plugged (site released)	CHEVRON U S A INC	12/31/9999	K-12-25S-26E	11,700	no
MARQUARDT 12 PENN FEDERAL #001	30-015-33461	Gas	Plugged (site released)	CIMAREX ENERGY CO. OF COLORADO	12/1/2004	O-12-25S-26E	12,079	no
MARQUARDT FEDERAL #017H	30-015-42646	Oil	Active	CIMAREX ENERGY CO. OF COLORADO	11/2/2015	O-12-25S-26E	7,138	no
MARQUARDT 1 PENN FEDERAL #002	30-015-34194	Gas	Plugged (site released)	CIMAREX ENERGY CO. OF COLORADO	7/23/2005	B-01-25S-26E	12,175	no
MARQUARDT 1 PENN FEDERAL #001	30-015-33457	Gas	Active	CIMAREX ENERGY CO. OF COLORADO	12/31/2004	J-01-25S-26E	11,891	no
MARQUARDT FEDERAL #013H	30-015-37382	Oil	Active	CIMAREX ENERGY CO. OF COLORADO	11/3/2013	O-01-25S-26E	7,120	no
MARQUARDT 12 PENN FEDERAL #002	30-015-34329	Gas	Active	CIMAREX ENERGY CO. OF COLORADO	9/23/2005	G-12-25S-26E	12,234	no
MARQUARDT FEDERAL #012H	30-015-41850	Oil	Active	CIMAREX ENERGY CO. OF COLORADO	3/27/2014	P-12-25S-26E	7,318	no
MARQUARDT FEDERAL #014H	30-015-41808	Oil	Active	CIMAREX ENERGY CO. OF COLORADO	4/22/2014	P-01-25S-26E	7,121	no
DA VINCI 7 FEDERAL COM #005H	30-015-41621	Oil	Active	CIMAREX ENERGY CO.	11/26/2013	M-07-25S-27E	7,194	no
SCOTER 6 FEDERAL #005H	30-015-42273	Oil	Active	CIMAREX ENERGY CO. OF COLORADO	7/13/2015	M-06-25S-27E	7,194	no
MERGANSER 6 FED COM #001	30-015-36045	Gas	New	CIMAREX ENERGY CO. OF COLORADO	N/A	06-25S-27E	-	no
WHITE CITY 6 FEDERAL #001	30-015-29003	Oil	Plugged (site released)	CHEVRON U S A INC	7/10/1996	L-06-25S-27E	5,677	no
DAVINCI 7 18 FEDERAL COM #009H	30-015-44697	Gas	Active	CIMAREX ENERGY CO.	5/2/2018	M-06-25S-27E	9,744	no
SCOTER 6 31 FEDERAL COM #007H	30-015-44806	Oil	Active	CIMAREX ENERGY CO.	5/15/2018	M-06-25S-27E	9,453	no
DAVINCI 7 18 FEDERAL COM #008H	30-015-44696	Gas	New	CIMAREX ENERGY CO.	N/A	M-06-25S-27E	-	no
MONA LISA #002	30-015-23094	Gas	Plugged (site released)	CHEVRON U S A INC	11/23/1979	K-07-25S-27E	11,970	no
DAVINCI 7 18 FEDERAL COM #006H	30-015-44220	Gas	Active	CIMAREX ENERGY CO.	10/12/2017	M-06-25S-27E	10,655	no
SCOTER 6 FED COM #001	30-015-34519	Gas	Plugged (site released)	CIMAREX ENERGY CO. OF COLORADO	3/17/2006	L-06-25S-27E	12,125	no
DAVINCI 7 18 FEDERAL COM #032H	30-015-45707	Gas	New	CIMAREX ENERGY CO.	N/A	B-07-25S-27E	-	no
DAVINCI 7 18 FEDERAL COM #033H	30-015-45708	Gas	New	CIMAREX ENERGY CO.	N/A	B-07-25S-27E	-	no
SCOTER 6 FED COM #002	30-015-39788	Oil	Active	CIMAREX ENERGY CO. OF COLORADO	6/27/2013	P-06-25S-27E	7,383	no
SCOTER 6 31 FEDERAL COM #029H	30-015-45723	Gas	New	CIMAREX ENERGY CO.	N/A	O-06-25S-27E	-	no
SCOTER 6 31 FEDERAL COM #043H	30-015-45265	Gas	New	CIMAREX ENERGY CO.	3/31/2019	P-06-25S-27E	9,688	no
SCOTER 6 FEDERAL #003H	30-015-41819	Oil	Active	CIMAREX ENERGY CO. OF COLORADO	3/2/2014	O-06-25S-27E	7,319	no
DAVINCI 7 18 FEDERAL COM #029H	30-015-44695	Gas	Active	CIMAREX ENERGY CO.	1/4/2020	B-07-25S-27E	9,610	no
SCOTER 6 31 FEDERAL COM #044H	30-015-45264	Gas	New	CIMAREX ENERGY CO.	N/A	P-06-25S-27E	-	no
DAVINCI 7 18 FEDERAL COM #030H	30-015-44790	Gas	Active	CIMAREX ENERGY CO.	1/3/2020	B-07-25S-27E	7,907	no
SCOTER 6 FEDERAL #004H	30-015-42260	Oil	Active	CIMAREX ENERGY CO. OF COLORADO	10/20/2014	N-06-25S-27E	7,307	no
DAVINCI 7 18 FEDERAL COM #035H	30-015-46303	Gas	New	CIMAREX ENERGY CO.	N/A	B-07-25S-27E	-	no
DAVINCI 7 18 FEDERAL COM #034H	30-015-46302	Gas	New	CIMAREX ENERGY CO.	N/A	B-07-25S-27E	-	no
DAVINCI 7 18 FEDERAL COM #031H	30-015-44791	Gas	New	CIMAREX ENERGY CO.	N/A	B-07-25S-27E	-	no
Notes: No Wells within a 1-mile radius penetrated the injection interval.								

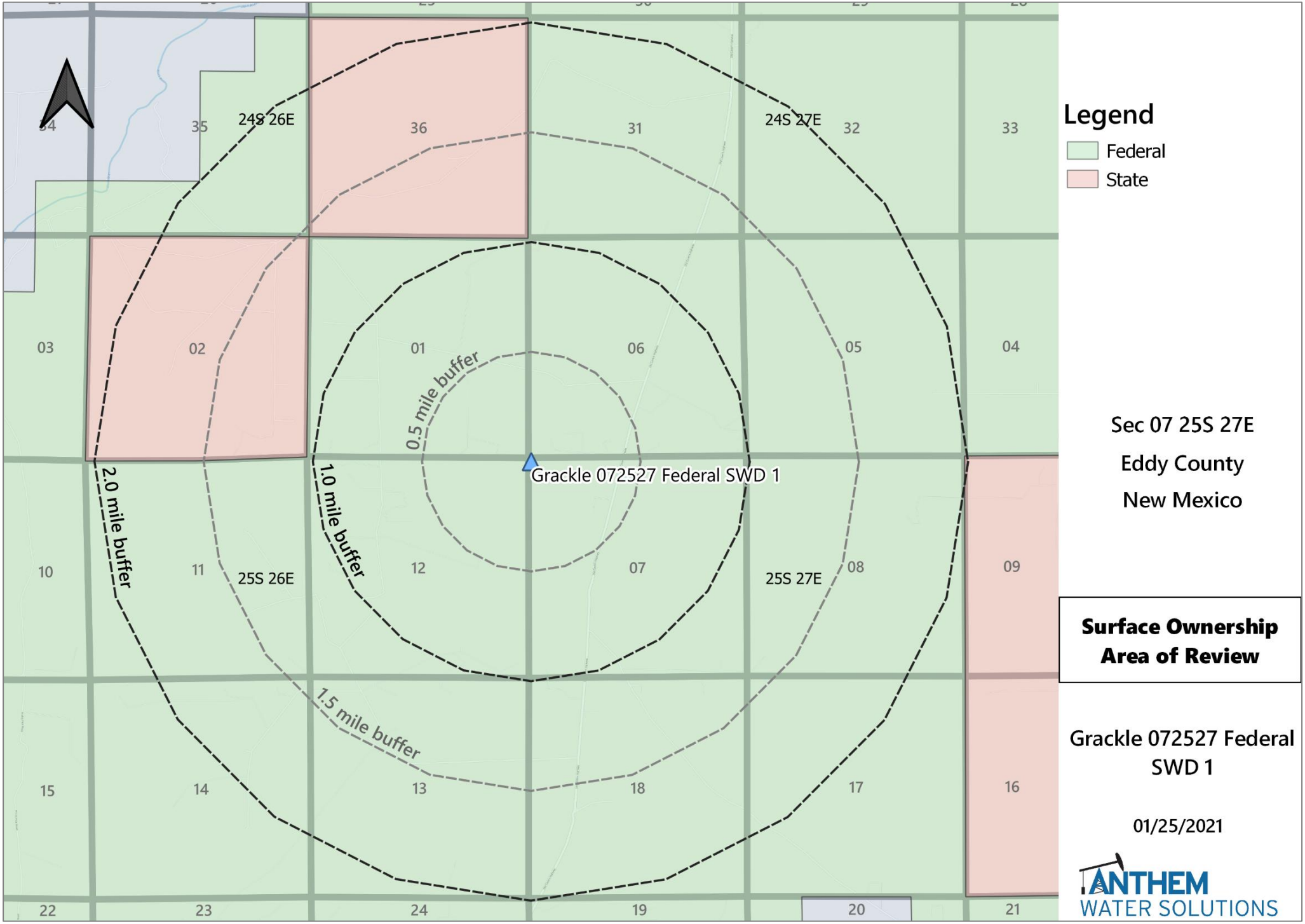
Attachment 2: 2-Mile Oil & Gas Lease Map



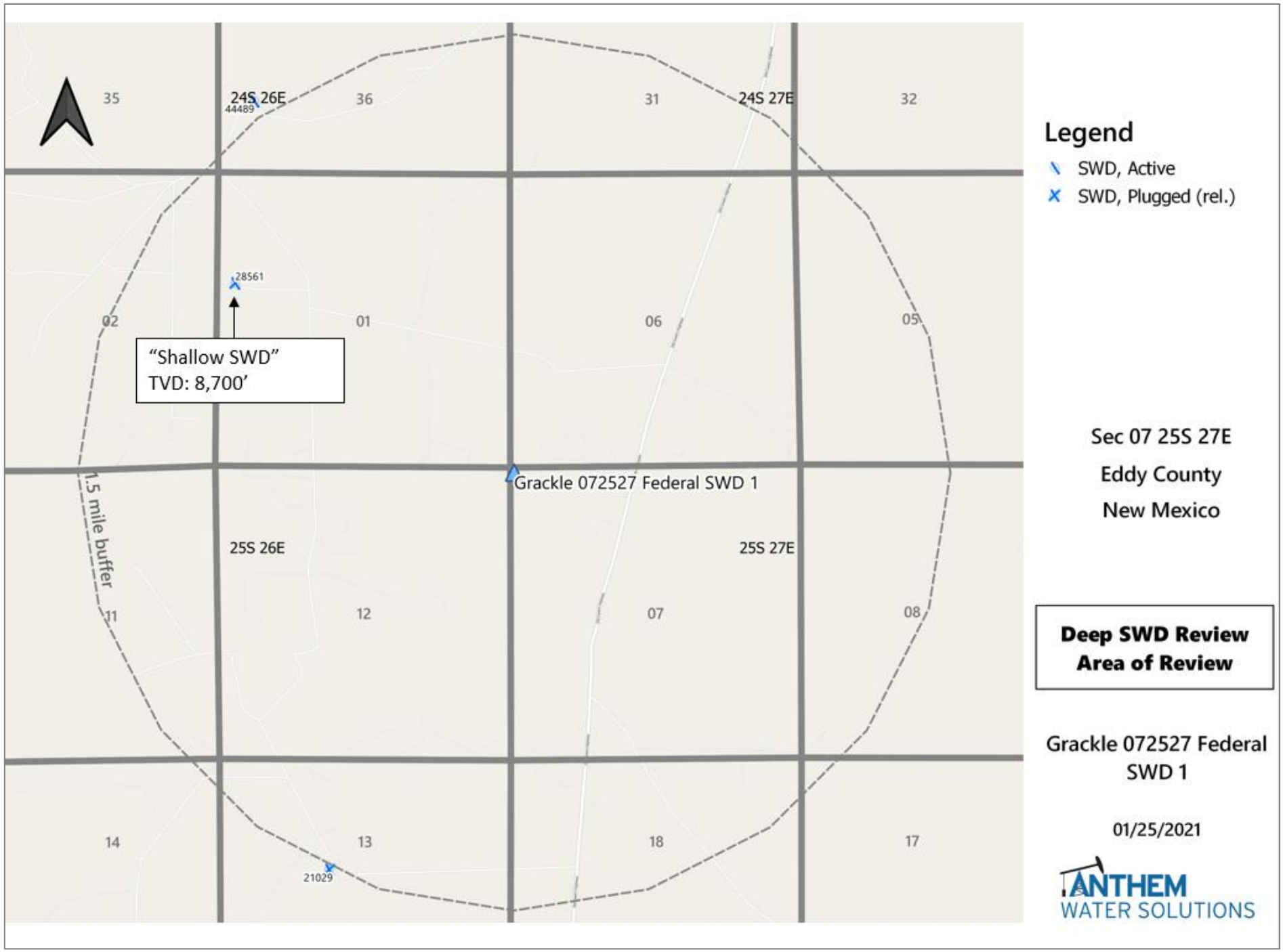
Attachment 2: Mineral Ownership Map



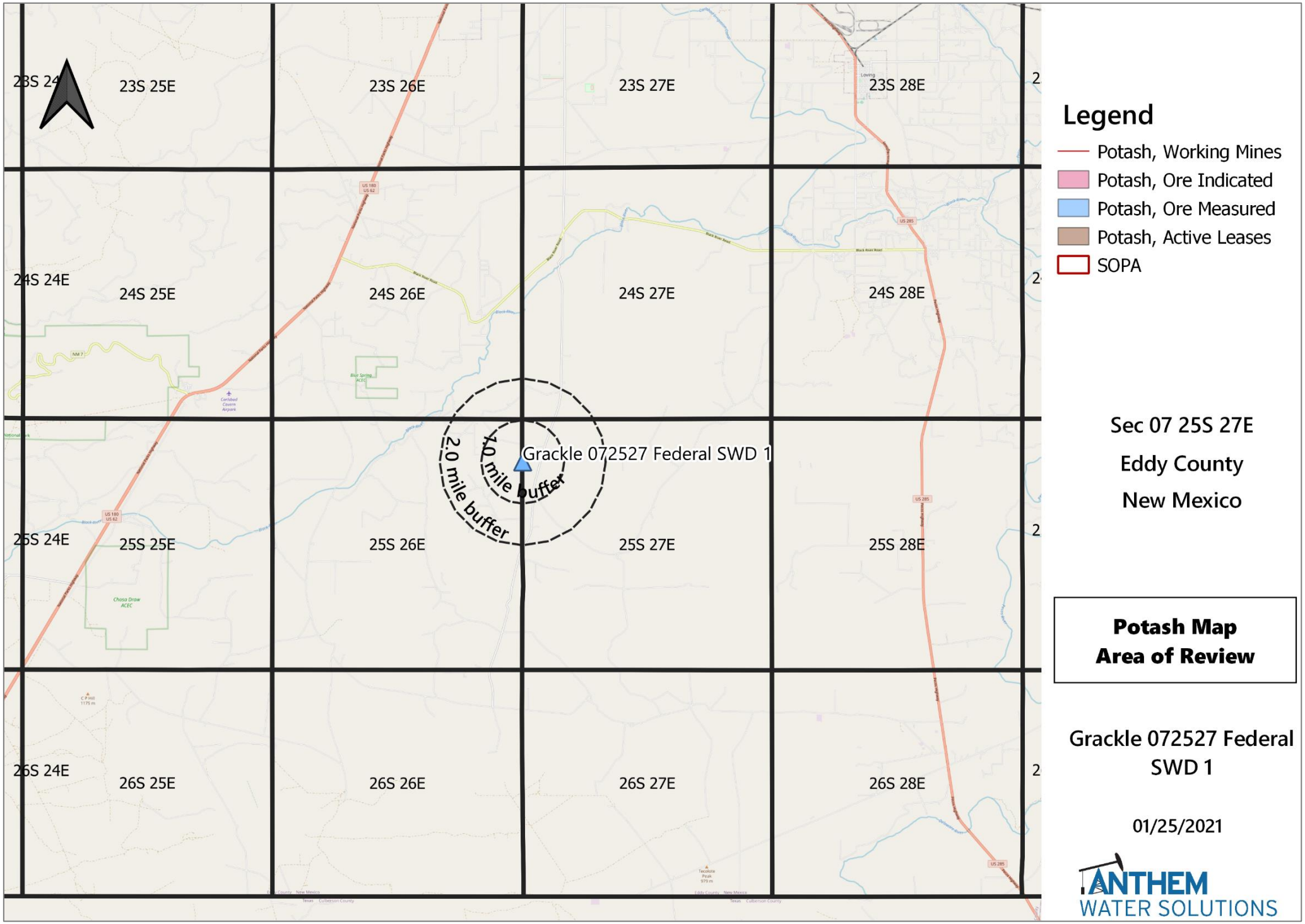
Attachment 2: Surface Ownership Map



Attachment 2: 1.5 Mile Deep SWD Map



Attachment 2: Potash Lease Map



Attachment 3: Formation & Source Water Analysis

Injection Formation Water Analysis													
Anthem Water Solutions, LLC													
Well Name	**API**	**Latitude**	**Longitude**	**Section**	**Township**	**Range**	**County**	**State**	**Field**	**Formation**	**TDS (Mg/L)**	**Bicarbonate (MG/L)**	**Sulfate (Mg/L)**
PRE-ONGARD WELL #001	30-015-02416	32.5527229	-104.1623917	22	20S	28E	Eddy	NM		DEVONIAN	39,605	810	1,618
PRE-ONGARD WELL #001	30-015-02475	32.4421539	-104.042305	36	21S	28E	Eddy	NM		DEVONIAN	50,026	762	1,150
PRE-ONGARD WELL #001	30-015-03537	32.6839676	-104.0347595	1	19S	29E	Eddy	NM		DEVONIAN	29,011	520	1,500
WHITE CITY PENN GAS COM UNIT 1 #001	30-015-00408	32.1937523	-104.3088455	29	24S	26E	Eddy	NM	WHITE CITY	DEVONIAN	#N/A	653	1,336
REMUDA BASIN UNIT #001	30-015-03691	32.2886238	-103.9360428	24	23S	29E	Eddy	NM	REMUDA	DEVONIAN	271,010	130	100
BIG EDDY SWD #001	30-015-05819	32.5968154	-103.8504983	3	20S	31E	Eddy	NM	SWD	DEVONIAN	137,989	1,420	1,751
COTTON DRAW UNIT #084	30-015-29728	32.1592751	-103.7438736	2	25S	31E	Eddy	NM	PADUCA	DEVONIAN	85,799	59	389
COTTON DRAW UNIT #076	30-015-29252	32.1565857	-103.737999	1	25S	31E	Eddy	NM	PADUCA	DEVONIAN	128,947	317	481
COTTON DRAW UNIT #086	30-015-29850	32.1446877	-103.7278824	12	25S	31E	Eddy	NM	PADUCA	DEVONIAN	131,450	353	542

Source Water Analysis													
Anthem Water Solutions, LLC													
Well Name	**API**	**Latitude**	**Longitude**	**Section**	**Township**	**Range**	**County**	**State**	**Field**	**Formation**	**TDS (Mg/L)**	**Bicarbonate (MG/L)**	**Sulfate (Mg/L)**
PRE-ONGARD WELL #001	30-015-02416	32.5527229	-104.1623917	22	20S	28E	Eddy	NM		WOLFCAMP	55,965	252	2,260
PRE-ONGARD WELL #004	30-015-02280	32.6479454	-104.1791229	21	19S	28E	Eddy	NM	MILLMAN EAST	WOLFCAMP	118,720	2,700	1,080
SERRANO 29 FEDERAL #001H	30-015-37763	32.1901523	-104.2192003	29	24S	27E	Eddy	NM	SULPHATE DRAW	WOLFCAMP	102,136	183	#N/A
HABANERO 17 FEDERAL COM #001H	30-015-36108	32.2218759	-104.2189611	17	24S	27E	Eddy	NM	BLACK RIVER	WOLFCAMP	108,205	146	#N/A
WHITE CITY PENN GAS COM UNIT 1 #001	30-015-00408	32.1937523	-104.3088455	29	24S	26E	Eddy	NM	WHITE CITY	WOLFCAMP	#N/A	653	1,336
STATE AC COM #001	30-015-22299	32.5572166	-104.1806107	21	20S	28E	Eddy	NM	BURTON FLAT	WOLFCAMP	144,926	37	1,350
PURE GOLD C-17 FEDERAL #002	30-015-26021	32.3057258	-103.7987356	17	23S	31E	Eddy	NM	SAND DUNES WEST	WOLFCAMP	11,361	1,708	#N/A
PARKWAY WEST UNIT #015	30-015-32363	32.6353531	-104.0734329	28	19S	29E	Eddy	NM	PARKWAY WEST UNIT #015	BONE SPRING	215,934	98	702
APACHE 25 FEDERAL #009	30-015-32797	32.361248	-103.8309479	25	22S	30E	Eddy	NM	APACHE 25 FEDERAL #009	BONE SPRING	160,590	146	856
TODD 22 G FEDERAL #007	30-015-32881	32.2917137	-103.7635422	22	23S	31E	Eddy	NM	TODD 22 G FEDERAL #007	BONE SPRING	269,658	37	10
PARKWAY #021	30-015-32686	32.6253433	-104.0725937	28	19S	29E	Eddy	NM	PARKWAY #021	BONE SPRING	214,972	85	715
TODD 15 M FEDERAL #013	30-015-33118	32.2989769	-103.7720947	15	23S	31E	Eddy	NM	TODD 15 M FEDERAL #013	BONE SPRING	292,473	85	490
APACHE 25 FEDERAL #005	30-015-32720	32.3612404	-103.8266678	25	22S	30E	Eddy	NM	APACHE 25 FEDERAL #005	BONE SPRING	300,667	61	17
STRAWBERRY 7 FEDERAL #003	30-015-37171	32.6812553	-103.9148483	7	19S	31E	Eddy	NM	STRAWBERRY 7 FEDERAL #003	BONE SPRING	185,540	183	600
STRAWBERRY 7 FEDERAL #007	30-015-38485	32.6812526	-103.9012376	7	19S	31E	Eddy	NM	STRAWBERRY 7 FEDERAL #007	BONE SPRING	187,930	98	940
REMUDA BASIN UNIT #001	30-015-03691	32.2886238	-103.9360428	24	23S	29E	Eddy	NM	REMUDA BASIN UNIT #001	BONE SPRING	271,010	130	100
JONES FEDERAL B #003	30-015-10394	32.6405487	-103.8334885	23	19S	31E	Eddy	NM	JONES FEDERAL B #003	BONE SPRING	178,015	305	721
LONETREE STATE #001	30-015-21920	32.478508	-104.1454086	13	21S	27E	Eddy	NM	LONETREE STATE #001	BONE SPRING	244,966	122	1,013
FEDERAL HJ-27 #001	30-015-25780	32.6335258	-103.863533	27	19S	31E	Eddy	NM	FEDERAL HJ-27 #001	BONE SPRING	176,639	305	530
HANLEY FEDERAL #001	30-015-26068	32.7674713	-103.9105911	7	18S	31E	Eddy	NM	HANLEY FEDERAL #001	BONE SPRING	204,076	293	1,515
ALLIED 7 FEDERAL #001	30-015-25900	32.7638435	-103.9067764	7	18S	31E	Eddy	NM	ALLIED 7 FEDERAL #001	BONE SPRING	225,562	122	740
APACHE 25 FEDERAL #002	30-015-27478	32.3576164	-103.8298492	25	22S	30E	Eddy	NM	APACHE 25 FEDERAL #002	BONE SPRING	9,546	183	51
ORE IDA 14 FEDERAL #009	30-015-29278	32.2118607	-103.9491348	14	24S	29E	Eddy	NM	ORE IDA 14 FEDERAL #009	BONE SPRING	190,367	244	539
H B 11 FEDERAL #003	30-015-29249	32.2272186	-103.9569855	11	24S	29E	Eddy	NM	H B 11 FEDERAL #003	BONE SPRING	195,306	256	650
HACKBERRY 18 FEDERAL #001	30-015-29780	32.654953	-103.9065323	18	19S	31E	Eddy	NM	HACKBERRY 18 FEDERAL #001	BONE SPRING	180,325	85	850
WEST SHUGART 19 FEDERAL #002	30-015-30780	32.7271385	-103.9094238	19	18S	31E	Eddy	NM	WEST SHUGART 19 FEDERAL #002	BONE SPRING	144,906	390	850
WEST SHUGART 30 FEDERAL #003	30-015-30776	32.7247467	-103.9067154	30	18S	31E	Eddy	NM	WEST SHUGART 30 FEDERAL #003	BONE SPRING	136,715	244	675
ROOKIE STATE #001	30-015-10060	32.4134165	-104.3325848	7	22S	26E	Eddy	NM	ROOKIE STATE #001	BONE SPRING	67,985	61	1,148

Attachment 4: 1-mile Fresh Water Map and Tabular List

Water Well Sampling Rational					
Grackle 072527 Federal SWD 1					
Water Wells	**Owner**	**Available Contact Information**	**Use**	**Sampling Required**	**Notes**
There are no fresh water wells within a 1-mile radius.					

PERMITS WEST
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 505-466-8120

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

Re: Geology Statement
Anthem Water Solutions, LLC
Grackle 072527 Federal SWD No. 1
Section 7, T. 25S, R. 27E
Eddy County, New Mexico

To whom it may concern:

Publicly available geologic and engineering data related to the proposed well have been thoroughly reviewed, and no evidence for open faults or any other hydrologic connection between the proposed Devonian-Silurian injection zone and any underground sources of drinking water has been found. Please see the attached seismic risk assessment for additional information.

Sincerely,

Cory Walk

Cory Walk
Geologist

Seismic Risk Assessment

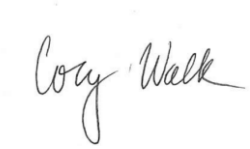
Anthem Water Solutions, LLC

Grackle 072527 Federal SWD No. 1

Section 7, Township 25 South, Range 27 East

Eddy County, New Mexico

Cory Walk, M.S.



Geologist

Permits West Inc.

June 3, 2021

GENERAL INFORMATION

Grackle 072527 Federal SWD No. 1 is located in the NW 1/4, section 7, T25S, R27E, about 11 miles southwest of Malaga, NM in the Permian Basin. Anthem Water Solutions proposes the injection zone to be within the Devonian-Silurian formation through an open hole from 13,851'-14,933' below ground surface. This report assesses concerns relating to induced seismicity along deep penetrating Precambrian faults or the connection between the injection zone and known underground potable water sources.

SEISMIC RISK ASSESSMENT

Historical Seismicity

Searching the USGS earthquake catalog resulted in no (0) earthquakes above a magnitude 2.5 within 6 miles (9.7 km) of the proposed deep disposal site since 1970 (Fig. 1). The nearest earthquake occurred on November 28, 1974 about 12.3 miles (~19.8 km) northeast of the proposed SWD site and had a magnitude of 3.9.

Basement Faults and Subsurface Conditions

A structure contour map (Fig. 1) of the Precambrian basement shows the Grackle 072527 Federal SWD #1 is approximately 3.5 miles from the nearest basement-penetrating fault inferred by Ewing et al (1990). **Information about nearby faults is listed in Table 1**.

Snee and Zoback (2018) state, "In the western part of Eddy County, New Mexico, S_{Hmax} is ~north-south (consistent with the state of stress in the Rio Grande Rift; Zoback and Zoback, 1980) but rotates to ~east-northeast-west-southwest in southern Lea County, New Mexico and the northernmost parts of Culberson and Reeves counties, Texas." **Around the Grackle 072527 Federal SWD site, Snee and Zoback indicate a S_{Hmax} direction of N035°E and an A_{φ} of 0.52, indicating an extensional (normal) stress regime.**

Induced seismicity is a growing concern of deep SWD wells. Software developed by the Stanford Center for Induced and Triggered Seismicity allows for the probabilistic screening of deeply penetrating faults near the proposed injection zone (Walsh et al., 2016; Walsh et al., 2017). This software uses parameters such as stress orientations, fault strike/dip, injection rates, fault friction coefficients, etc. to estimate the potential for fault slip. Using this software, Snee and Zoback (2018) indicate that the nearest fault (3.5 miles to the northeast) has a 0% probability of fault slip (Fig. 2). Nearby surface faults 6 miles away are not connected to the Devonian-Silurian injection zone and are therefore not affected by increased pressures from disposal.

GROUNDWATER SOURCES

Quaternary Alluvium and some members of the Rustler Formation act as the principal aquifers used for potable ground water in this location. Around the Grackle 072527 Federal SWD #1, the base of the underground source of drinking water lies at a depth of approximately 1240' bgs.

VERTICAL MIGRATION OF FLUIDS

Permeability barriers exist above (Woodford shale; 115 ft thick) and below (Simpson Group; 105 ft thick) the targeted Devonian-Silurian injection zone (Plate 2, Comer et al., 1991; Fig. 8, Frenzel et al., 1988). Precambrian structure contours (Ruppel, 2009) show the basement to be at a depth of approximately 15,822' in this area. Therefore, the injection zone lies approximately 890' above the Precambrian basement and approximately 12,600' below the previously stated lower limit of potable water. The stratigraphy suggests that the Woodford Shale and Simpson Group are adequate confining barriers that would prevent the vertical migration of injected fluids.

CONCLUSION

After examination of publicly available geologic and engineering data, there is no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

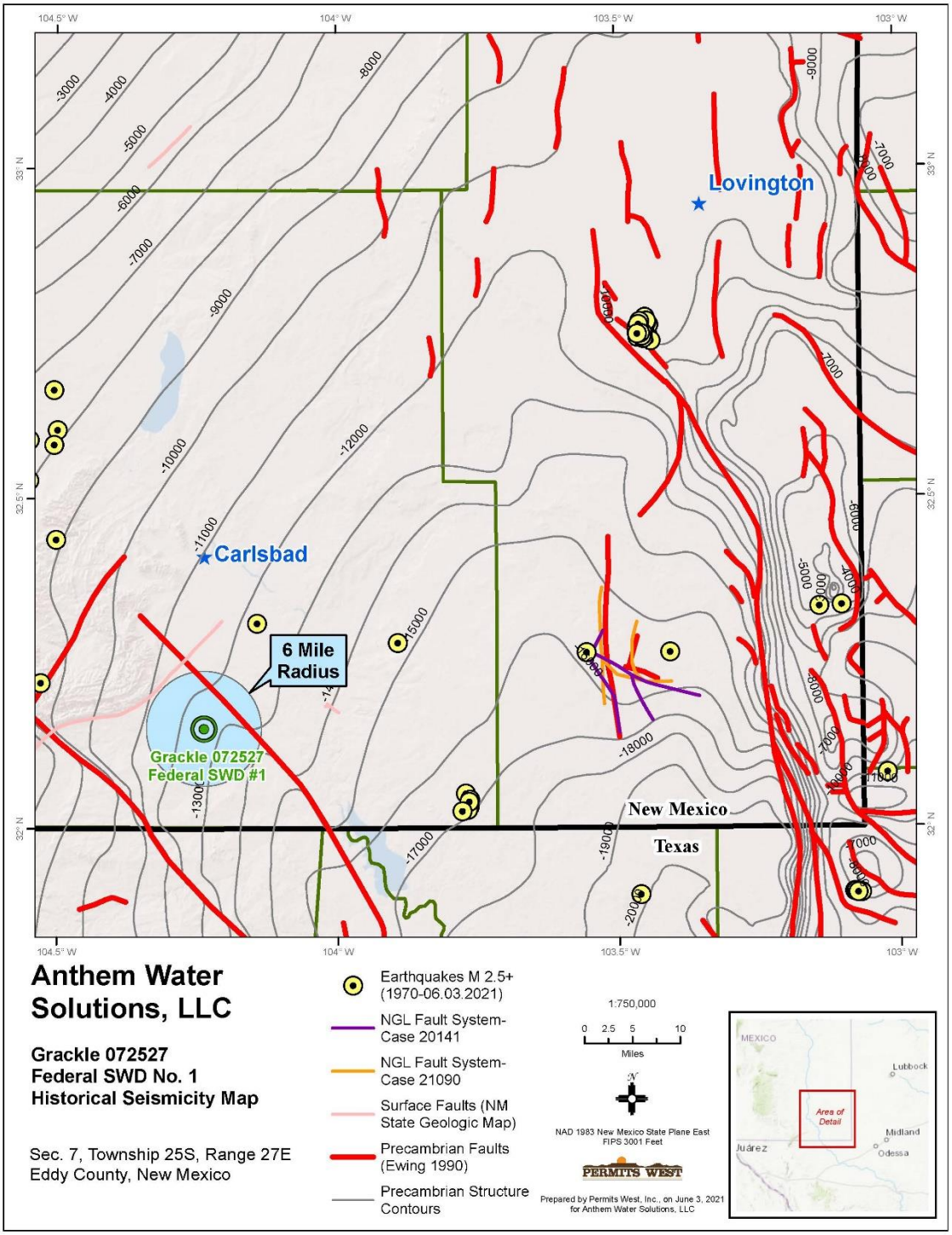


Figure 1. Structural contour map of the Precambrian basement in feet below sea level. Red lines represent the locations of Precambrian basement-penetrating faults (Ewing et al., 1990). Purple and orange lines represent the locations of basement-penetrating faults inferred by Todd Reynolds representing NGL in NMOCD Case Nos. 20141 and 21090. The Grackle 072527 Federal SWD #1 well lies ~3.5 miles southwest of the closest deeply penetrating fault and ~12.3 miles southwest of the closest historic earthquake.

Table 1: Nearby Fault Information

Fault Number (Fig. 2)	Distance to proposed SWD (mi)	Strike (°)	Dip (°)	FSP (%)
1	3.5	315	50-90	0
2 (surface fault)	6.3	45	50-90	20-30
3	10.9	332	50-90	0

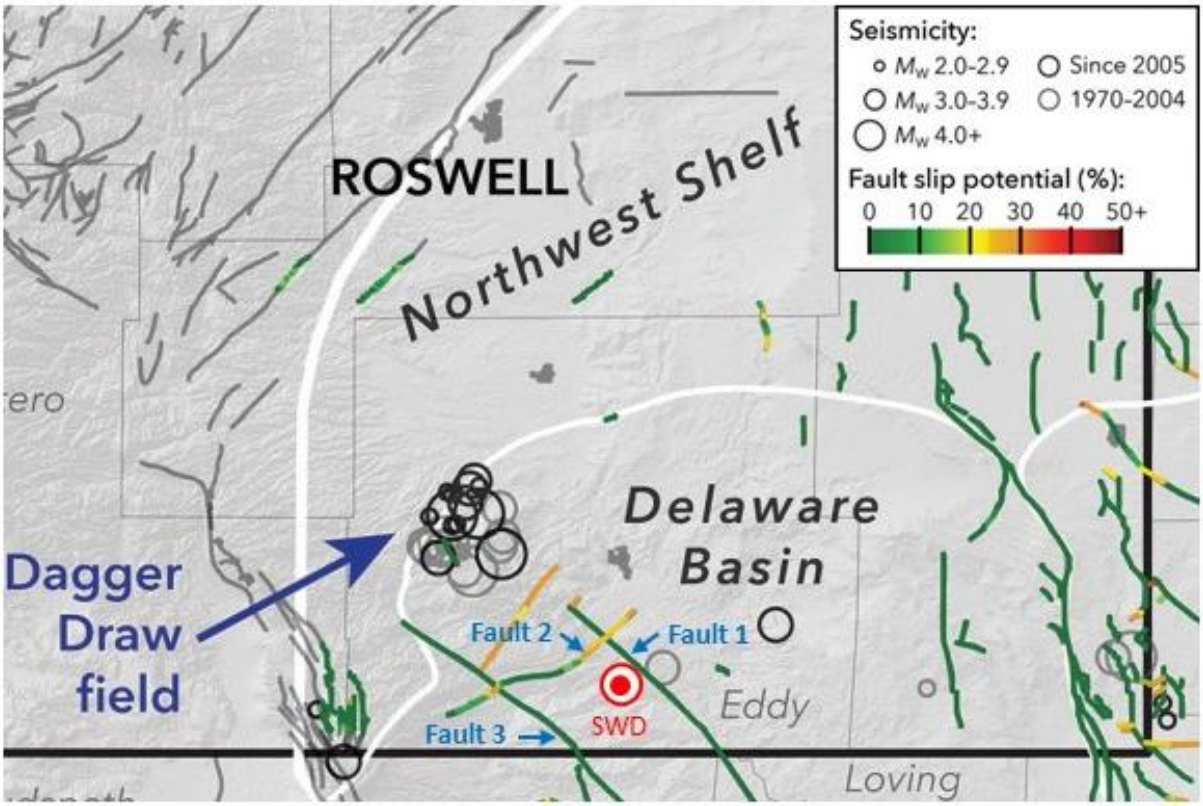


Figure 2. Modified Figure 3 from Snee and Zoback (2018). Map showing proposed location of Grackle 072527 Federal SWD #1 in relation to Snee and Zoback's results of their FSP analysis.

References Cited

Comer, J. B., 1991, Stratigraphic Analysis of the Upper Devonian Woodford Formation, Permian Basin, West Texas and Southeastern New Mexico: The University of Texas at Austin, Bureau of Economic Geology, Report of Investigations No. 201, 63 p.

Ewing, T. E., 1990, The tectonic map of Texas: Austin, Bureau of Economic Geology, The University of Texas at Austin.

Frenzel, H. N., Bloomer, R. R., Cline, R. B., Cys, J. M., Galley, J. E., Gibson, W. R., Hills, J. M., King, W. E., Seager, W. R., Kottlowski, F. E., Thompson, S., III, Luff, G. C., Pearson, B. T., and Van Siclen, D. C., 1988, The Permian Basin region, in Sloss, L. L., ed., Sedimentary cover—North American Craton, U.S.: Boulder, Colorado, Geological Society of America, The Geology of North America, v. D-2, p. 261–306.

Hurd, O; Zoback, MD, 2012, Intraplate earthquakes, regional stress and fault mechanics in the Central and Eastern U.S. and Southeastern Canada. Tectonophysics, 581:182-92.

Ruppel, S.C., 2009, Integrated synthesis of the Permian basin: data and models for recovering existing and undiscovered oil resources from the largest oil-bearing basin: U.S. Oil & Natural Gas Technology, Bureau Economic Geology, The University of Texas at Austin, p. 1-959.

Snee, J.-E.L., Zoback, M.D., 2018, State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity: Leading Edge, v. 37, p. 127–134.

Walsh, F. R., and Zoback, M. D., (2016) Probabilistic assessment of potential fault slip related to injection induced earthquakes: Application to north central Oklahoma, USA, Geology, Data Repository item 2016334, doi:10.1130/G38275.1

Walsh, F. R., Zoback, M. D., Pais, D., Weingarten, M., and Tyrrell, T. (2017) FSP 1.0: A Program for Probabilistic Estimation of Fault Slip Potential Resulting From Fluid Injection, User Guide from the Stanford Center for Induced and Triggered Seismicity, available at SCITS.Stanford.edu/software

Zoback, M. L., and M. D. Zoback, 1980, State of stress in the conterminous United States: Journal of Geophysical Research, 85, no. B11, 6113–6156, https://doi.org/10.1029/JB085iB11p06113.

Attachment 6: Public Notice Affidavit

Carlsbad Current Argus.

Affidavit of Publication

Ad # 0004779992

This is not an invoice

ANTHEM WATER SOLUTIONS, LLC
5914 W. COURTYARD DR, STE 320

AUSTIN, TX 78730

I, a legal clerk of the **Carlsbad Current Argus**, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

06/15/2021

Legal Clerk

Subscribed and sworn before me this June 15, 2021:

State of WI, County of Brown
NOTARY PUBLIC

1-7-25

My commission expires

KATHLEEN ALLEN
Notary Public
State of Wisconsin

Ad # 0004779992
PO #:
# of Affidavits: 1

This is not an invoice

APPLICATION FOR AUTHORITY TO INJECT

To Whom it May Concern,

NOTICE IS HEREBY GIVEN: That Anthem Water Solutions, LLC, 5914 W. Courtyard Dr., Suite 320, Austin Texas, 78730, is requesting that the New Mexico Oil Conservation Division administratively approve the APPLICATION FOR AUTHORITY TO INJECT as follow:

PURPOSE: The intended purpose of the injection well is to dispose of salt water produced from permitted oil and gas wells.

WELL NAME AND LOCATION: Grackle 072527 Federal SWD 1 Located 11 miles southwest of Malaga. NW1/4 of the NW1/4 Section 7, Township 25S, Range 27E, 91' from North Line & 69' from West Line, Eddy County, New Mexico.

NAME AND DEPTH OF DISPOSAL ZONE: Devonian-Silurian (13851' – 14933')

EXPECTED MAXIMUM INJECTION RATE: 30,000 barrels/day

EXPECTED MAXIMUM INJECTION PRESSURE: 2770 psi (surface)

Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objections or requests 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 Marshall Tippen (972) 795-4201.

Current Argus June 15, 2021 #4779992

Attachment 6: List of Notification Applicants & Delivery Confirmations

Grackle 072527 Federal SWD 1 - Notice of Application Receipts				
Entity	**Address**	**City**	**State**	**Zip Code**
Landowner and Mineral Owner				
New Mexico BLM	620 E Greene St.	Carlsbad	NM	88220
OCD District				
NMOCD District 2	811 S. First St	Artesia	NM	88210
Leasehold Operators (1-mile)				
CHEVRON USA INC	6301 DEAUVILLE	MIDLAND	TX	79706
EOG RESOURCES INC	PO BOX 4362	HOUSTON	TX	77210
CIMAREX ENERGY CO	1700 N LINCOLN ST STE 3700	DENVER	TX	80203
COG OPERATING LLC	600 W ILLINOIS AVE	MIDLAND	TX	79701
SPC RESOURCES LLC	101 S. 4TH ST SUITE B	ARTESIA	NM	88210
OCCIDENTAL PERMIAN LIMITED PARTNERSHIP	P. O. BOX 4294	HOUSTON	TX	77210
ABO PETROLEUM CORPORATION	105 S 4TH ST	ARTESIA	NM	88210
F & F EXPLORATION LLC	6333 EAST MOCKINGBIRD LANE SUITE 147-863	DALLAS	TX	75214
BRIGHAM EXPLORATION COMPANY LLC	5914 W. COURTYARD DR SUITE 340	AUSTIN	TX	78730

Notes: The table above shows the Entities who were idenfified as parties of interest requiring notification on either the 1-mile well detail list (Attachment 2) or on the 2-mile Mineral Lease Map (Attachment 2).

ANTHEM
WATER SOLUTIONS

Marshall Tippen
Anthem Water Solutions, LLC
3300 North A Street, Building 2, Suite 222
Midland, Texas 79705

New Mexico BLM
620 E Greene St.
Carlsbad, NM 88220

APPLICATION FOR AUTHORITY TO INJECT

To Whom it May Concern,

NOTICE IS HEREBY GIVEN; That Anthem Water Solutions, LLC, 5914 W. Courtyard Dr., Suite 320, Austin Texas, 78730, is requesting that the New Mexico Oil Conservation Division administratively approve the APPLICATION FOR AUTHORITY TO INJECT as follow:

PURPOSE: The intended purpose of the injection well is to dispose of salt water produced from permitted oil and gas wells.

WELL NAME AND LOCATION: Grackle 072527 Federal SWD 1 Located 11 miles southwest of Malaga. NW1/4 of the NW1/4 Section 7, Township 25S, Range 27E, 91‘ from North Line & 69’ from West Line, Eddy County, New Mexico.

NAME AND DEPTH OF DISPOSAL ZONE: Devonian-Silurian (13851’ – 14933’)

EXPECTED MAXIMUM INJECTION RATE: 30,000 barrels/day

EXPECTED MAXIMUM INJECTION PRESSURE: 2770 psi (surface)

Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objections or requests 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 Marshall Tippen (972) 795-4201.

Regards,

Marshall Tippen

ANTHEM
WATER SOLUTIONS

Marshall Tippen
Anthem Water Solutions, LLC
3300 North A Street, Building 2, Suite 222
Midland, Texas 79705

NMOCD District 2
811 S. First St
Artesia, NM 88210

APPLICATION FOR AUTHORITY TO INJECT

To Whom it May Concern,

NOTICE IS HEREBY GIVEN; That Anthem Water Solutions, LLC, 5914 W. Courtyard Dr., Suite 320, Austin Texas, 78730, is requesting that the New Mexico Oil Conservation Division administratively approve the APPLICATION FOR AUTHORITY TO INJECT as follow:

PURPOSE: The intended purpose of the injection well is to dispose of salt water produced from permitted oil and gas wells.

WELL NAME AND LOCATION: Grackle 072527 Federal SWD 1 Located 11 miles southwest of Malaga. NW1/4 of the NW1/4 Section 7, Township 25S, Range 27E, 91‘ from North Line & 69’ from West Line, Eddy County, New Mexico.

NAME AND DEPTH OF DISPOSAL ZONE: Devonian-Silurian (13851’ – 14933’)

EXPECTED MAXIMUM INJECTION RATE: 30,000 barrels/day

EXPECTED MAXIMUM INJECTION PRESSURE: 2770 psi (surface)

Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objections or requests 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 Marshall Tippen (972) 795-4201.

Regards,

Marshall Tippen

ANTHEM
WATER SOLUTIONS

Marshall Tippen
Anthem Water Solutions, LLC
3300 North A Street, Building 2, Suite 222
Midland, Texas 79705

CHEVRON USA INC
6301 DEAUVILLE
MIDLAND, TX 79706

APPLICATION FOR AUTHORITY TO INJECT

To Whom it May Concern,

NOTICE IS HEREBY GIVEN; That Anthem Water Solutions, LLC, 5914 W. Courtyard Dr., Suite 320, Austin Texas, 78730, is requesting that the New Mexico Oil Conservation Division administratively approve the APPLICATION FOR AUTHORITY TO INJECT as follow:

PURPOSE: The intended purpose of the injection well is to dispose of salt water produced from permitted oil and gas wells.

WELL NAME AND LOCATION: Grackle 072527 Federal SWD 1 Located 11 miles southwest of Malaga. NW1/4 of the NW1/4 Section 7, Township 25S, Range 27E, 91‘ from North Line & 69’ from West Line, Eddy County, New Mexico.

NAME AND DEPTH OF DISPOSAL ZONE: Devonian-Silurian (13851’ – 14933’)

EXPECTED MAXIMUM INJECTION RATE: 30,000 barrels/day

EXPECTED MAXIMUM INJECTION PRESSURE: 2770 psi (surface)

Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objections or requests 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 Marshall Tippen (972) 795-4201.

Regards,

Marshall Tippen

ANTHEM
WATER SOLUTIONS

Marshall Tippen
Anthem Water Solutions, LLC
3300 North A Street, Building 2, Suite 222
Midland, Texas 79705

EOG RESOURCES INC
PO BOX 4362
HOUSTON, TX 77210

APPLICATION FOR AUTHORITY TO INJECT

To Whom it May Concern,

NOTICE IS HEREBY GIVEN; That Anthem Water Solutions, LLC, 5914 W. Courtyard Dr., Suite 320, Austin Texas, 78730, is requesting that the New Mexico Oil Conservation Division administratively approve the APPLICATION FOR AUTHORITY TO INJECT as follow:

PURPOSE: The intended purpose of the injection well is to dispose of salt water produced from permitted oil and gas wells.

WELL NAME AND LOCATION: Grackle 072527 Federal SWD 1 Located 11 miles southwest of Malaga. NW1/4 of the NW1/4 Section 7, Township 25S, Range 27E, 91‘ from North Line & 69’ from West Line, Eddy County, New Mexico.

NAME AND DEPTH OF DISPOSAL ZONE: Devonian-Silurian (13851’ – 14933’)

EXPECTED MAXIMUM INJECTION RATE: 30,000 barrels/day

EXPECTED MAXIMUM INJECTION PRESSURE: 2770 psi (surface)

Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objections or requests 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 Marshall Tippen (972) 795-4201.

Regards,

Marshall Tippen

ANTHEM
WATER SOLUTIONS

Marshall Tippen
Anthem Water Solutions, LLC
3300 North A Street, Building 2, Suite 222
Midland, Texas 79705

CIMAREX ENERGY CO
1700 N LINCOLN ST STE 3700
DENVER, TX 80203

APPLICATION FOR AUTHORITY TO INJECT

To Whom it May Concern,

NOTICE IS HEREBY GIVEN; That Anthem Water Solutions, LLC, 5914 W. Courtyard Dr., Suite 320, Austin Texas, 78730, is requesting that the New Mexico Oil Conservation Division administratively approve the APPLICATION FOR AUTHORITY TO INJECT as follow:

PURPOSE: The intended purpose of the injection well is to dispose of salt water produced from permitted oil and gas wells.

WELL NAME AND LOCATION: Grackle 072527 Federal SWD 1 Located 11 miles southwest of Malaga. NW1/4 of the NW1/4 Section 7, Township 25S, Range 27E, 91‘ from North Line & 69’ from West Line, Eddy County, New Mexico.

NAME AND DEPTH OF DISPOSAL ZONE: Devonian-Silurian (13851’ – 14933’)

EXPECTED MAXIMUM INJECTION RATE: 30,000 barrels/day

EXPECTED MAXIMUM INJECTION PRESSURE: 2770 psi (surface)

Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objections or requests 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 Marshall Tippen (972) 795-4201.

Regards,

Marshall Tippen

ANTHEM
WATER SOLUTIONS

Marshall Tippen
Anthem Water Solutions, LLC
3300 North A Street, Building 2, Suite 222
Midland, Texas 79705

COG OPERATING LLC
600 W ILLINOIS AVE
MIDLAND, TX 79701

APPLICATION FOR AUTHORITY TO INJECT

To Whom it May Concern,

NOTICE IS HEREBY GIVEN; That Anthem Water Solutions, LLC, 5914 W. Courtyard Dr., Suite 320, Austin Texas, 78730, is requesting that the New Mexico Oil Conservation Division administratively approve the APPLICATION FOR AUTHORITY TO INJECT as follow:

PURPOSE: The intended purpose of the injection well is to dispose of salt water produced from permitted oil and gas wells.

WELL NAME AND LOCATION: Grackle 072527 Federal SWD 1 Located 11 miles southwest of Malaga. NW1/4 of the NW1/4 Section 7, Township 25S, Range 27E, 91‘ from North Line & 69’ from West Line, Eddy County, New Mexico.

NAME AND DEPTH OF DISPOSAL ZONE: Devonian-Silurian (13851’ – 14933’)

EXPECTED MAXIMUM INJECTION RATE: 30,000 barrels/day

EXPECTED MAXIMUM INJECTION PRESSURE: 2770 psi (surface)

Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objections or requests 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 Marshall Tippen (972) 795-4201.

Regards,

Marshall Tippen

ANTHEM
WATER SOLUTIONS

Marshall Tippen
Anthem Water Solutions, LLC
3300 North A Street, Building 2, Suite 222
Midland, Texas 79705

SPC RESOURCES LLC
101 S. 4TH ST SUITE B
ARTESIA, NM 88210

APPLICATION FOR AUTHORITY TO INJECT

To Whom it May Concern,

NOTICE IS HEREBY GIVEN; That Anthem Water Solutions, LLC, 5914 W. Courtyard Dr., Suite 320, Austin Texas, 78730, is requesting that the New Mexico Oil Conservation Division administratively approve the APPLICATION FOR AUTHORITY TO INJECT as follow:

PURPOSE: The intended purpose of the injection well is to dispose of salt water produced from permitted oil and gas wells.

WELL NAME AND LOCATION: Grackle 072527 Federal SWD 1 Located 11 miles southwest of Malaga. NW1/4 of the NW1/4 Section 7, Township 25S, Range 27E, 91‘ from North Line & 69’ from West Line, Eddy County, New Mexico.

NAME AND DEPTH OF DISPOSAL ZONE: Devonian-Silurian (13851’ – 14933’)

EXPECTED MAXIMUM INJECTION RATE: 30,000 barrels/day

EXPECTED MAXIMUM INJECTION PRESSURE: 2770 psi (surface)

Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objections or requests 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 Marshall Tippen (972) 795-4201.

Regards,

Marshall Tippen

ANTHEM
WATER SOLUTIONS

Marshall Tippen
Anthem Water Solutions, LLC
3300 North A Street, Building 2, Suite 222
Midland, Texas 79705

OCCIDENTAL PERMIAN LIMITED PARTNERSHIP
P. O. BOX 4294
HOUSTON, TX 77210

APPLICATION FOR AUTHORITY TO INJECT

To Whom it May Concern,

NOTICE IS HEREBY GIVEN; That Anthem Water Solutions, LLC, 5914 W. Courtyard Dr., Suite 320, Austin Texas, 78730, is requesting that the New Mexico Oil Conservation Division administratively approve the APPLICATION FOR AUTHORITY TO INJECT as follow:

PURPOSE: The intended purpose of the injection well is to dispose of salt water produced from permitted oil and gas wells.

WELL NAME AND LOCATION: Grackle 072527 Federal SWD 1 Located 11 miles southwest of Malaga. NW1/4 of the NW1/4 Section 7, Township 25S, Range 27E, 91‘ from North Line & 69’ from West Line, Eddy County, New Mexico.

NAME AND DEPTH OF DISPOSAL ZONE: Devonian-Silurian (13851’ – 14933’)

EXPECTED MAXIMUM INJECTION RATE: 30,000 barrels/day

EXPECTED MAXIMUM INJECTION PRESSURE: 2770 psi (surface)

Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objections or requests 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 Marshall Tippen (972) 795-4201.

Regards,

Marshall Tippen

ANTHEM
WATER SOLUTIONS

Marshall Tippen
Anthem Water Solutions, LLC
3300 North A Street, Building 2, Suite 222
Midland, Texas 79705

ABO PETROLEUM CORPORATION
105 S 4TH ST
ARTESIA, NM 88210

APPLICATION FOR AUTHORITY TO INJECT

To Whom it May Concern,

NOTICE IS HEREBY GIVEN; That Anthem Water Solutions, LLC, 5914 W. Courtyard Dr., Suite 320, Austin Texas, 78730, is requesting that the New Mexico Oil Conservation Division administratively approve the APPLICATION FOR AUTHORITY TO INJECT as follow:

PURPOSE: The intended purpose of the injection well is to dispose of salt water produced from permitted oil and gas wells.

WELL NAME AND LOCATION: Grackle 072527 Federal SWD 1 Located 11 miles southwest of Malaga. NW1/4 of the NW1/4 Section 7, Township 25S, Range 27E, 91‘ from North Line & 69’ from West Line, Eddy County, New Mexico.

NAME AND DEPTH OF DISPOSAL ZONE: Devonian-Silurian (13851’ – 14933’)

EXPECTED MAXIMUM INJECTION RATE: 30,000 barrels/day

EXPECTED MAXIMUM INJECTION PRESSURE: 2770 psi (surface)

Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objections or requests 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 Marshall Tippen (972) 795-4201.

Regards,

Marshall Tippen

ANTHEM
WATER SOLUTIONS

Marshall Tippen
Anthem Water Solutions, LLC
3300 North A Street, Building 2, Suite 222
Midland, Texas 79705

F & F EXPLORATION LLC
6333 EAST MOCKINGBIRD LANE SUITE 147-863
DALLAS, TX 75214

APPLICATION FOR AUTHORITY TO INJECT

To Whom it May Concern,

NOTICE IS HEREBY GIVEN; That Anthem Water Solutions, LLC, 5914 W. Courtyard Dr., Suite 320, Austin Texas, 78730, is requesting that the New Mexico Oil Conservation Division administratively approve the APPLICATION FOR AUTHORITY TO INJECT as follow:

PURPOSE: The intended purpose of the injection well is to dispose of salt water produced from permitted oil and gas wells.

WELL NAME AND LOCATION: Grackle 072527 Federal SWD 1 Located 11 miles southwest of Malaga. NW1/4 of the NW1/4 Section 7, Township 25S, Range 27E, 91‘ from North Line & 69’ from West Line, Eddy County, New Mexico.

NAME AND DEPTH OF DISPOSAL ZONE: Devonian-Silurian (13851’ – 14933’)

EXPECTED MAXIMUM INJECTION RATE: 30,000 barrels/day

EXPECTED MAXIMUM INJECTION PRESSURE: 2770 psi (surface)

Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objections or requests 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 Marshall Tippen (972) 795-4201.

Regards,

Marshall Tippen

ANTHEM
WATER SOLUTIONS

Marshall Tippen
Anthem Water Solutions, LLC
3300 North A Street, Building 2, Suite 222
Midland, Texas 79705

BRIGHAM EXPLORATION COMPANY LLC
5914 W. COURTYARD DR SUITE 340
AUSTIN, TX 78730

APPLICATION FOR AUTHORITY TO INJECT

To Whom it May Concern,

NOTICE IS HEREBY GIVEN; That Anthem Water Solutions, LLC, 5914 W. Courtyard Dr., Suite 320, Austin Texas, 78730, is requesting that the New Mexico Oil Conservation Division administratively approve the APPLICATION FOR AUTHORITY TO INJECT as follow:

PURPOSE: The intended purpose of the injection well is to dispose of salt water produced from permitted oil and gas wells.

WELL NAME AND LOCATION: Grackle 072527 Federal SWD 1 Located 11 miles southwest of Malaga. NW1/4 of the NW1/4 Section 7, Township 25S, Range 27E, 91‘ from North Line & 69’ from West Line, Eddy County, New Mexico.

NAME AND DEPTH OF DISPOSAL ZONE: Devonian-Silurian (13851’ – 14933’)

EXPECTED MAXIMUM INJECTION RATE: 30,000 barrels/day

EXPECTED MAXIMUM INJECTION PRESSURE: 2770 psi (surface)

Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objections or requests 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 Marshall Tippen (972) 795-4201.

Regards,

Marshall Tippen

Certified Mail® Labels Top of the page Print postage using Stamps.com Template **SDC-3610**

Jack Ball
Anthem Water Solutions
5914 W. Courtyard Dr., Ste 320
Austin TX 78730-4924

$4.11[0] US POSTAGE FIRST-CLASS FROM 78730 06/11/2021 stamps endicia 062S0014203870

Place label at top of the center of the envelope and fold at dotted line.

CERTIFIED MAIL®

CERTIFIED MAIL®

9407 1118 9956 0074 6534 85

ABO PETROLEUM CORP
105 S 4TH ST
ARTESIA NM 88210-2177

Jack Ball
Anthem Water Solutions
5914 W. Courtyard Dr., Ste 320
Austin TX 78730-4924

$4.11[0] US POSTAGE FIRST-CLASS FROM 78730 06/11/2021 stamps endicia 062S0014203870

Place label at top of the center of the envelope and fold at dotted line.

CERTIFIED MAIL®

CERTIFIED MAIL®

9407 1118 9956 0074 6549 25

BRIGHAM EXPLORATION COMPANY LLC
5914 W. COURTYARD DR SUITE 340
AUSTIN TX 78730-4928

Jack Ball
Anthem Water Solutions
5914 W. Courtyard Dr., Ste 320
Austin TX 78730-4924

$4.11[0] US POSTAGE FIRST-CLASS FROM 78730 06/11/2021 stamps endicia 062S0014203870

Place label at top of the center of the envelope and fold at dotted line.

CERTIFIED MAIL®

CERTIFIED MAIL®

9407 1118 9956 0074 6541 23

CHEVRON USA INC
6301 DEAUVILLE
MIDLAND TX 79706-2964

Jack Ball
Anthem Water Solutions
5914 W. Courtyard Dr., Ste 320
Austin TX 78730-4924

$4.11[0] US POSTAGE FIRST-CLASS FROM 78730 06/11/2021 stamps endicia 062S0014203870

Place label at top of the center of the envelope and fold at dotted line.

CERTIFIED MAIL®

CERTIFIED MAIL®

9407 1118 9956 0074 6540 31

CIMAREX ENERGY CO
1700 N LINCOLN ST STE 3700
DENVER CO 80203-4553

For best results, feed this sheet through your printer as few times as possible.
To purchase or for printing instructions go to **www.stamps.com/3610.**

stamps.com®

Certified Mail® Labels Top of the page Print postage using Stamps.com Template **SDC-3610**

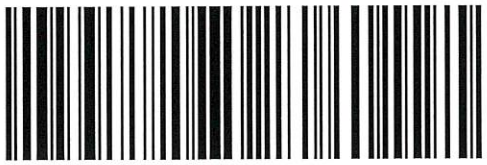
Jack Ball
Anthem Water Solutions
5914 W. Courtyard Dr., Ste 320
Austin TX 78730-4924

$4.11⁰ US POSTAGE FIRST-CLASS FROM 78730 06/11/2021 stamps endicia 062S0014203870

Place label at top of the center of the envelope and fold at dotted line.

CERTIFIED MAIL®

CERTIFIED MAIL®



9407 1118 9956 0074 6559 22

COG OPERATING LLC
600 W ILLINOIS AVE
MIDLAND TX 79701-4882

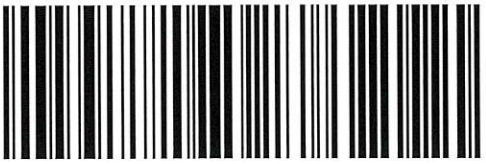
Jack Ball
Anthem Water Solutions
5914 W. Courtyard Dr., Ste 320
Austin TX 78730-4924

$4.11⁰ US POSTAGE FIRST-CLASS FROM 78730 06/11/2021 stamps endicia 062S0014203870

Place label at top of the center of the envelope and fold at dotted line.

CERTIFIED MAIL®

CERTIFIED MAIL®



9407 1118 9956 0074 6553 59

EOG Resources Inc
P.O Box 4362
Houston TX 77210-4362

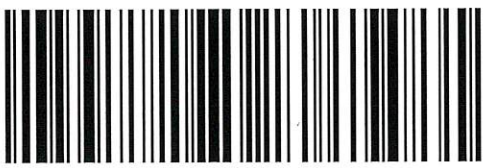
Jack Ball
Anthem Water Solutions
5914 W. Courtyard Dr., Ste 320
Austin TX 78730-4924

$4.11⁰ US POSTAGE FIRST-CLASS FROM 78730 06/11/2021 stamps endicia 062S0014203870

Place label at top of the center of the envelope and fold at dotted line.

CERTIFIED MAIL®

CERTIFIED MAIL®



9407 1118 9956 0074 6550 83

New Mexico BLM
620 E Greene St.
Carlsbad NM 88220

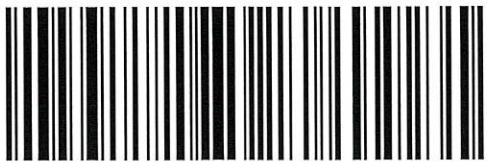
Jack Ball
Anthem Water Solutions
5914 W. Courtyard Dr., Ste 320
Austin TX 78730-4924

$4.11⁰ US POSTAGE FIRST-CLASS FROM 78730 06/11/2021 stamps endicia 062S0014203870

Place label at top of the center of the envelope and fold at dotted line.

CERTIFIED MAIL®

CERTIFIED MAIL®



9407 1118 9956 0074 6555 26

NMOCD District 2
811 S. First St
Artesia NM 88210

For best results, feed this sheet through your printer as few times as possible.
To purchase or for printing instructions go to **www.stamps.com/3610.**

stamps.com®

Certified Mail® Labels Top of the page Print postage using Stamps.com Template **SDC-3610**

Jack Ball
Anthem Water Solutions
5914 W. Courtyard Dr., Ste 320
Austin TX 78730-4924

$4.11[0] US POSTAGE FIRST-CLASS FROM 78730 06/11/2021 stamps endicia 062S0014203870

Place label at top of the center of the envelope and fold at dotted line.

CERTIFIED MAIL®

CERTIFIED MAIL®

9407 1118 9956 0074 6527 23

OCCIDENTAL PERMIAN LIMITED PARTNERSHIP
5 GREENWAY PLAZA SUITE 110
Houston TX 77046-0521

Jack Ball
Anthem Water Solutions
5914 W. Courtyard Dr., Ste 320
Austin TX 78730-4924

$4.11[0] US POSTAGE FIRST-CLASS FROM 78730 06/11/2021 stamps endicia 062S0014203870

Place label at top of the center of the envelope and fold at dotted line.

CERTIFIED MAIL®

CERTIFIED MAIL®

9407 1118 9956 0074 6526 17

SPC RESOURCES LLC
101 S. 4TH ST SUITE B
ARTESIA NM 88210-2139

Jack Ball
Anthem Water Solutions
5914 W. Courtyard Dr., Ste 320
Austin TX 78730-4924

$4.11[0] US POSTAGE FIRST-CLASS FROM 78730 06/11/2021 stamps endicia 062S0014203870

Place label at top of the center of the envelope and fold at dotted line.

CERTIFIED MAIL®

CERTIFIED MAIL®

9407 1118 9956 0074 6521 29

F & F EXPLORATION LLC
6333 EAST MOCKINGBIRD LANE SUITE 147-863
DALLAS TX 75214-2306

Place label at top of the center of the envelope and fold at dotted line.

CERTIFIED MAIL®

CERTIFIED MAIL®

For best results, feed this sheet through your printer as few times as possible.
To purchase or for printing instructions go to **www.stamps.com/3610.**

stamps.com®