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

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

CASE NO. _____

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 Striker 4 SWD #1 well at a surface location 850 feet from the South line and 174 feet from the West line of Section 24, Township 24 South, Range 34 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 Bell and Cherry Canyon formations at a depth of 5,437 to 7,200'.

(3) NGL intends to use 5.5 inch tubing and NGL requests that the Division approve a maximum daily injection rate for the well of 20,000 bbls per day.

(4) NGL anticipates using an average pressure of 815 psi for this well, and it requests that a maximum pressure of 1,087 psi be approved for the well.

(5) A proposed 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 January 9, 2020; and that after notice and hearing, the Division enter its order approving this application.

Respectfully submitted,

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

By: Deana M Bennett

Deana Bennett
Post Office Box 2168
500 Fourth Street NW, Suite 1000
Albuquerque, New Mexico 87103-2168
Telephone: 505.848.1800
Attorneys for Applicant

CASE NO. _____: Application of NGL Water Solutions Permian, LLC for approval of salt water disposal well in Lea County, New Mexico. Applicant seeks an order approving the Striker 4 SWD #1 well, with a surface location 850 feet from the South line and 174 feet from the West line of Section 24, Township 24 South, Range 34 East, NMPM, Lea County, New Mexico. Applicant requests authorization to inject salt water into the Bell and Cherry Canyon formations at a depth of 5,437 to 7,200'. Applicant requests that the Division approve a maximum daily injection rate for the well of 20,000 bbls per day. Said location is approximately 15 miles west of Jal, New Mexico.

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:

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 LLC **OGRID Number:** 372338
Well Name: STRIKER 4 SWD #1 **API:** 30-025-TBD
Pool: SWD; DELAWARE **Pool Code:** 96100

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

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

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

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.

9/25/2019
Date

CHRIS WEYAND
Print or Type Name

512-600-1764
Phone Number

Signature

CHRIS@LONQUIST.COM
e-mail Address

EXHIBIT A
tabbies

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: NGL WATER SOLUTIONS PERMIAN, LLC

ADDRESS: 1509 W WALL ST // STE 306 // MIDLAND, TEXAS 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).

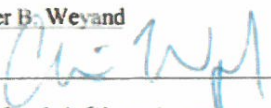
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

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: 9/25/2019

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: _____

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

Side 2

III. WELL DATA

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

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

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

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

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

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

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

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

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

INJECTION WELL DATA SHEET

OPERATOR: NGL WATER SOLUTIONS PERMIAN, LLC

WELL NAME & NUMBER: STRIKER 4 SWD #1

WELL LOCATION:	850' FSL & 174' FWL	M	24	24S	34E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17.500" Casing Size: 13.375"

Cemented with: 907 sx. *or* _____ ft³

Top of Cement: surface Method Determined: circulation

Production Casing

Hole Size: 12.250" Casing Size: 9.625"

Cemented with: 1,886 sx. *or* _____ ft³

Top of Cement: surface Method Determined: circulation

Injection Interval

5,437 feet to 7,200 feet

(Perforated)

INJECTION WELL DATA SHEET

Tubing Size: 5.500", 17 lb/ft, L-80, LTC from 0'- 5,390'
Lining Material: NOV TK805 IPC & KC CBR

Type of Packer: Arrowset I-XS 10k mechanical Nickel coated injection packer

Packer Setting Depth: 5,390'

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

Additional Data

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

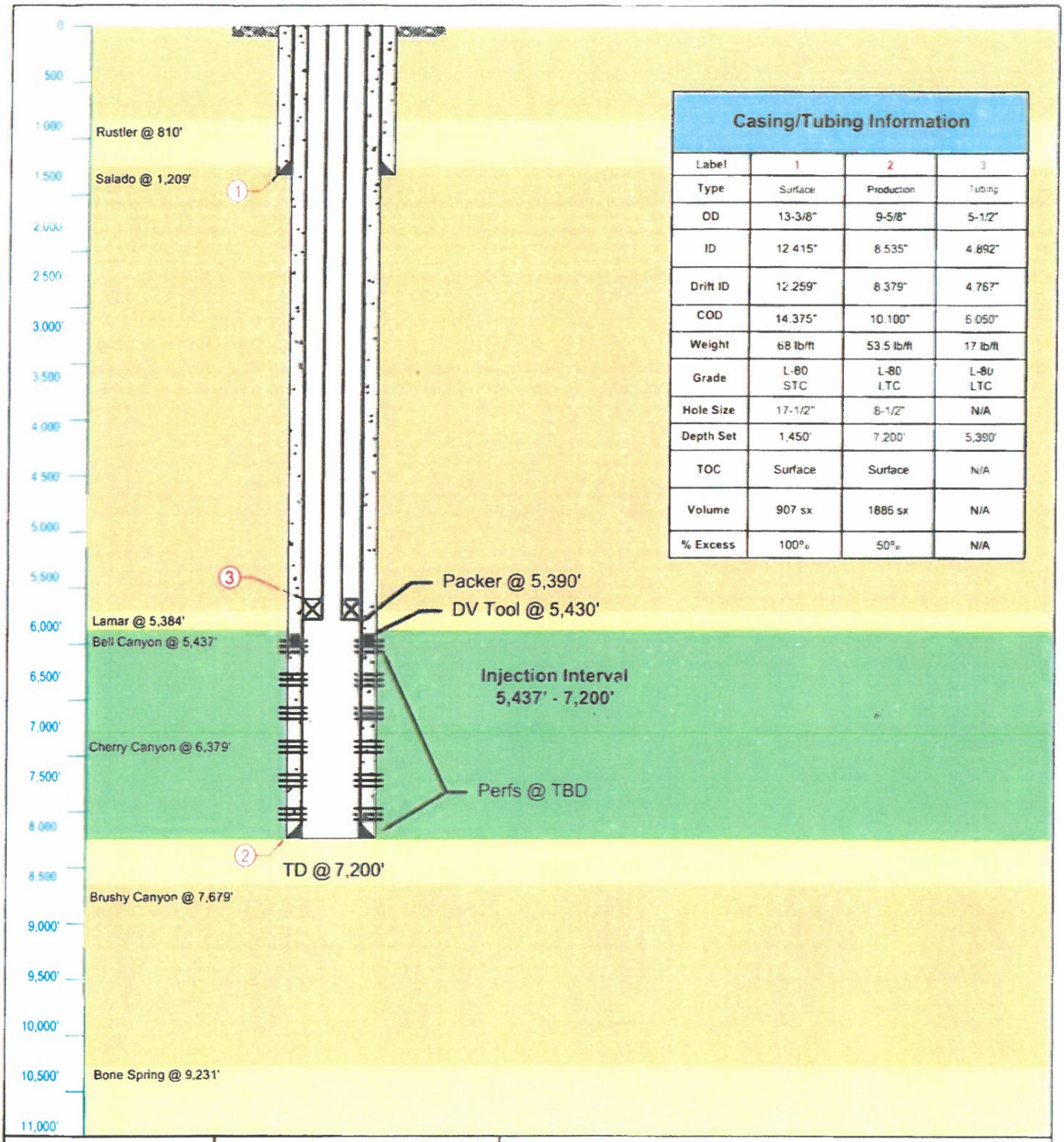
   If no, for what purpose was the well originally drilled? N/A

2. Name of the Injection Formation: Bell and Cherry Canyon

3. Name of Field or Pool (if applicable): SWD; Delaware

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: 9,231'
   Wolfcamp: 12,280'
   Strawn: 12,542'
   Atoka: 12,617'
   Morrow: 12,796'



Casing/Tubing Information			
Label	1	2	3
Type	Surface	Production	Tubing
OD	13-3/8"	9-5/8"	5-1/2"
ID	12.415"	8.535"	4.892"
Drift ID	12.259"	8.379"	4.767"
COD	14.375"	10.100"	6.050"
Weight	68 lb/ft	53.5 lb/ft	17 lb/ft
Grade	L-80 STC	L-80 LTC	L-80 LTC
Hole Size	17-1/2"	8-1/2"	N/A
Depth Set	1,450'	7,200'	5,390'
TOC	Surface	Surface	N/A
Volume	907 sx	1886 sx	N/A
% Excess	100%	50%	N/A

LONQUIST & CO LLC PETROLEUM ENGINEERS / ENERGY ADVISORS HOUSTON CALGARY AUSTIN WICHITA DENVER	NGL Water Solutions Permian LLC	Striker 4 - SWD No. 1	
	Country: USA	**State/Province:** New Mexico	**County/Parish:** Eddy
	Location:	**Site:**	**Survey/STR:** 24-24S-34E
	API No:	**Field:**	**Well Type/Status:** SWD
Texas License F-9147	**State ID No:**	**Project No:** 1470	**Date:** 09/24/2019
12912 Hill Country Blvd. Ste F-200 Austin, Texas 78738 Te 512.732.9812 Fax: 512.732.9816	**Drawn:** JAM	**Reviewed:** CW	**Approved:** CW
	Rev No: 2	**Notes:**	

NGL Water Solutions Permian, LLC

Striker 4 SWD No. 1

FORM C-108 Supplemental Information

III. Well Data

A. Wellbore Information

1.

Well information	
Lease Name	Striker 4 SWD
Well No.	1
County	Lea
Location	S-24 T-24S R-34E
Footage Location	850' FSL & 174' FWL

2.

a. Wellbore Description

Casing Information		
Type	Surface	Production
OD	13.375"	9.625"
WT	0.480"	0.545"
ID	12.415"	8.535"
Drift ID	12.259"	8.379"
COD	14.375"	10.100"
Weight	68 lb/ft	53.5 lb/ft
Grade	L-80	L-80
Hole Size	17.5"	12.25"
Depth Set	1,450'	7,200'

b. Cementing Program

Cement Information		
Casing String	**Surface**	**Production**
Cement Type	C	C
Cement Yield	2.22 ft3/sk	1.69 ft3/sk
Total Cement Volume	907 sks	1886 sks
Cement Excess	100%	50%
TOC	Surface	Surface
Method	Circulate to Surface	Circulate to Surface

3. Tubing Description

Tubing Information	
OD	5.500"
WT	0.304"
ID	4.98"
Drift ID	3.875"
COD	5.000"
Weight	11.6 lb/ft
Grade	L-80
Depth Set	0'-5,390'

Lining Material: NOV TK805 IPC & KC CBR

4. Packer Description

Arrowset 1-XS 10k mechanical nickel-coated injection packer

B. Completion Information

1. Injection Formation: Bell and Cherry Canyon
2. Gross Injection Interval: 5,437' – 7,200'

Completion Type: Perforated

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

Formation	Depth
Bone Spring	9,231'
Wolfcamp	12,280'
Strawn	12,542'
Atoka	12,617'
Morrow	12,796'

VI. Area of Review

All wells that penetrate the proposed injection interval within the ½-Mile AOR are horizontally completed in deeper formations and have been cemented across the proposed injection interval.

VII. Proposed Operation Data

1. Proposed Daily Rate of Fluids to be Injection:

   Average Volume: 10,000 BPD
   Maximum Volume: 20,000 BPD

2. Closed System

3. Anticipated Injection Pressure:

   Average Injection Pressure: 815 PSI (surface pressure)
   Maximum Injection Pressure: 1,087 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 Delaware, Bone Spring, Wolfcamp, Strawn, Atoka, and Morrow formations.

5. The disposal interval is non-productive. No water samples are available from the surrounding area.

VIII. Geological Data

The Delaware Mountain Group (DMG) of the Delaware Basin comprises of Guadalupian-age arkosic to subarkosic sandstone, siltstone, and detrital limestone that was deposited in deep water, mainly during lowstand and early transgressive sea-level stages. The basin succession is formally divided into the Brushy Canyon, Cherry Canyon, and Bell Canyon Formations (descending order). Stratigraphic divisions within the Delaware Mountain Group are somewhat uncertain due to lithologic similarity and thus a lack of clear boundaries between the major formational intervals. The Delaware Basin during deposition of the Delaware Mountain Group was a deep-water basin bounded by carbonate-ramp (San Andres and Grayburg) and carbonate-rim (Goat Seep and Capitan) margins that developed on the western edge of the Central Basin Platform, the Northwest Shelf, and the Diablo Platform. The top of the interval is designated by another carbonate, the Lamar limestone included in the Bell Canyon Formation. The Bell Canyon contains carbonaceous silty sandstone along with clean, fine grained, massive friable sand. The Brushy Canyon and Cherry Canyon intervals consist of the following: (1) very fine to fine-grained arkosic to subarkosic sandstones, mostly massive in character, (2) very fine grained sandstones microlaminated with siltstones, (3) dark-colored organic siltstones (lutites), (4) carbonate beds (limestone or dolomite) more prevalent near shelf margins, and (5) black to dark gray, calcareous shales. Shale is notably rare in the section and is virtually absent from the Brushy Canyon Formation. Carbonate units (mainly limestone) are present in the upper Cherry Canyon and, especially, Bell Canyon intervals. Porosities and permeabilities in productive intervals range from 12–25% and 1–5 md, respectively, but occasional "streaks" of permeability of up to 200 md are sometimes present. These good porosities indicate a rock that is capable of taking water injection.

A. Injection Zone: Bell and Cherry Canyon

Formation	Depth
Rustler Anhydrite	810′
Salado	1,209′
Delaware	5,384′
Bell Canyon	5,437′
Cherry Canyon	6,379′
Brushy Canyon	7,679′
Bone Spring	9,231′
Wolfcamp	12,280′

B. Underground Sources of Drinking Water

The most closely offsetting water wells were drilled to 610′ or shallower, generally producing from the Santa Rosa. Fresh water depth appears to vary from 40′ to 475′ (300′ on average) in the area in the form of sporadic alluvial sources and the Santa Rosa. In general, any USDWs (i.e. Upper Rustler) would be expected to fall above the salt and will be protected. The top of the Rustler Anhydrite is estimated at approximately 810′.

IX. Proposed Stimulation Program

No proposed stimulation program planned at this time.

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

The only fresh water well (C-03580) within one mile of the well location as shown on the attached map could not be located. As a result, fresh water samples were not obtained for analysis purposes.

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 (of the proposed **Striker 4 SWD #1**) and any underground sources of drinking water.

NAME: John C. Webb TITLE: Sr. Geologist

SIGNATURE: John C Webb DATE: Sept. 24, 2019

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	2. OGRID Number
NGL WATER SOLUTIONS PERMIAN, LLC 1509 W WALL ST, STE 306 MIDLAND, TEXAS 79701	372338
	3. API Number 30-025-TBD

4. Property Code	5. Property Name	6. Well No.
	STRIKER 4 SWD	1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N S Line	Feet From	E W Line	County
M	24	24S	34E		850	SOUTH	174	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	Pool Code
SWD; Delaware	96100

Additional Well Information

11. Work Type	12. Well Type	13. Cable Rotary	14. Lease Type	15. Ground Level Elevation
N	SWD	R	Private	3,422'
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	7,200'	Delaware	TBD	ASAP
Depth to Ground water	**Distance from nearest fresh water well**		**Distance to nearest surface water**	
<810'	2,963'		> 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	17.5"	13.375"	68 lb/ft	1,450'	907	Surface
Production	12.25"	9.625"	53.5 lb/ft	7,200'	1,886	Surface

Casing/Cement Program: Additional Comments

See attached schematic.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Hydraulic Blinds, Pipe	5,000 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:	OIL CONSERVATION DIVISION
	Approved By:
Printed name: Chris Weyand	Title:
Title: Consulting Engineer	Approved Date: / Expiration Date:
E-mail Address: chris@lonquist.com	
Date: 9/24/2019 / Phone: 512-600-1764	Conditions of Approval Attached

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
	96100	SWD; Delaware

4 Property Code	5 Property Name	6 Well Number
	STRIKER 4 SWD	1

7 OGRID No.	8 Operator Name	9 Elevation
372338	NGL WATER SOLUTIONS PERMIAN, LLC	3,422'

10 Surface Location

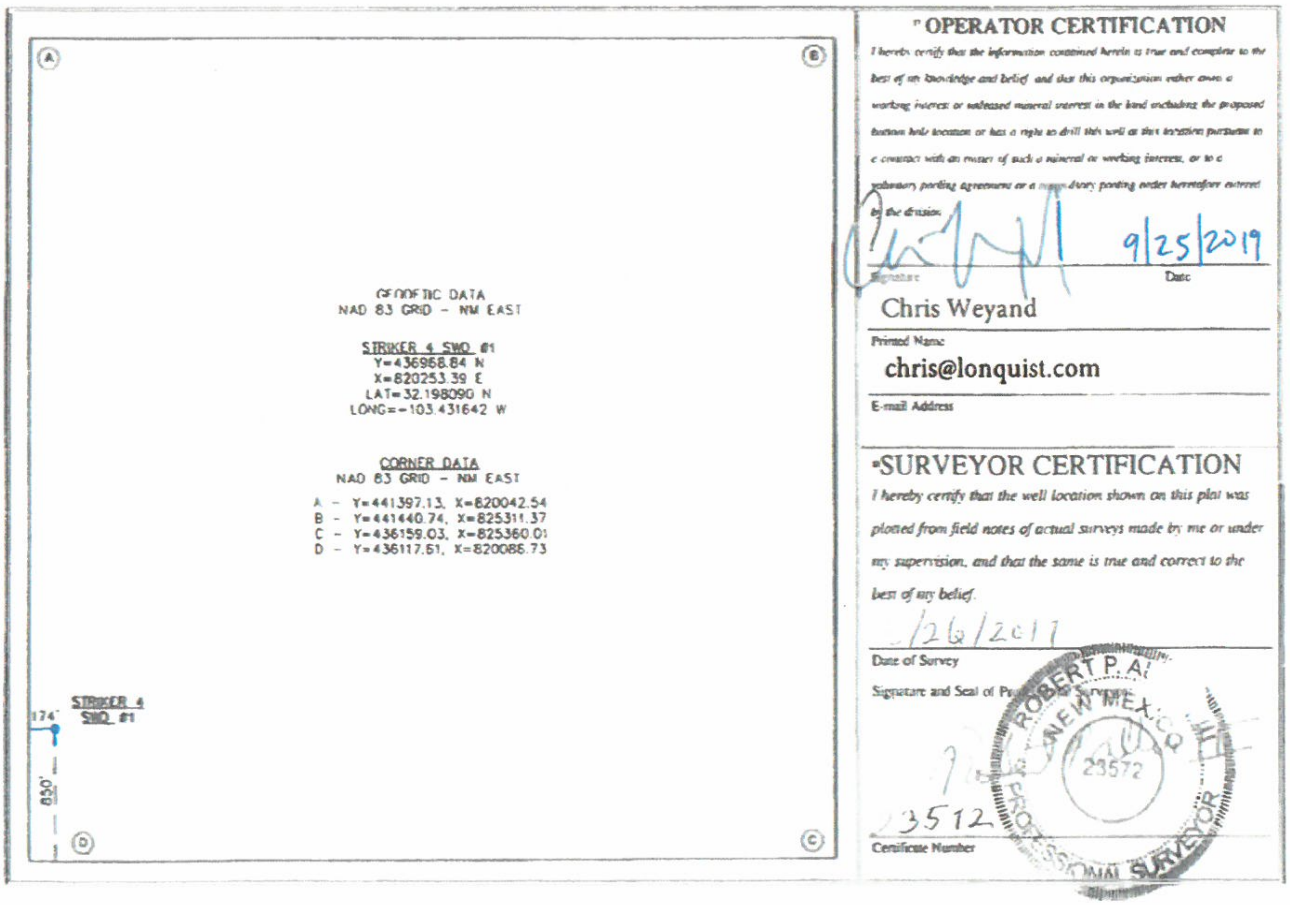
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	24	24 S	34 E		850	SOUTH	174	WEST	LEA

11 Bottom Hole Location If Different From Surface

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

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

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



16 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 9/25/2019 Date

Chris Weyand
Printed Name

chris@lonquist.com
E-mail Address

17 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.

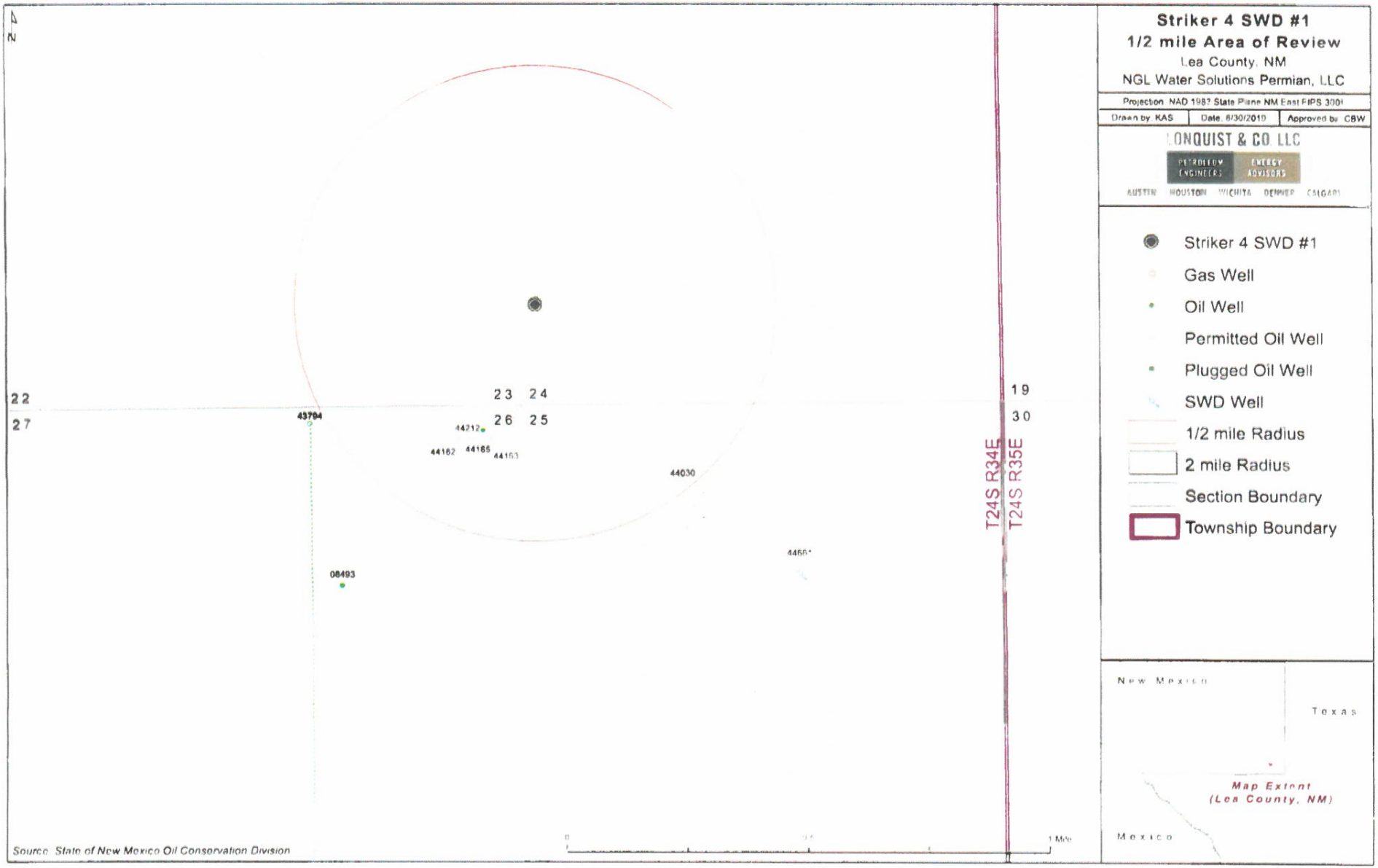
1/26/2017
Date of Survey

Signature and Seal of Professional Surveyor

ROBERT P. A. NEW MEXICO 23572 PROFESSIONAL SURVEYOR

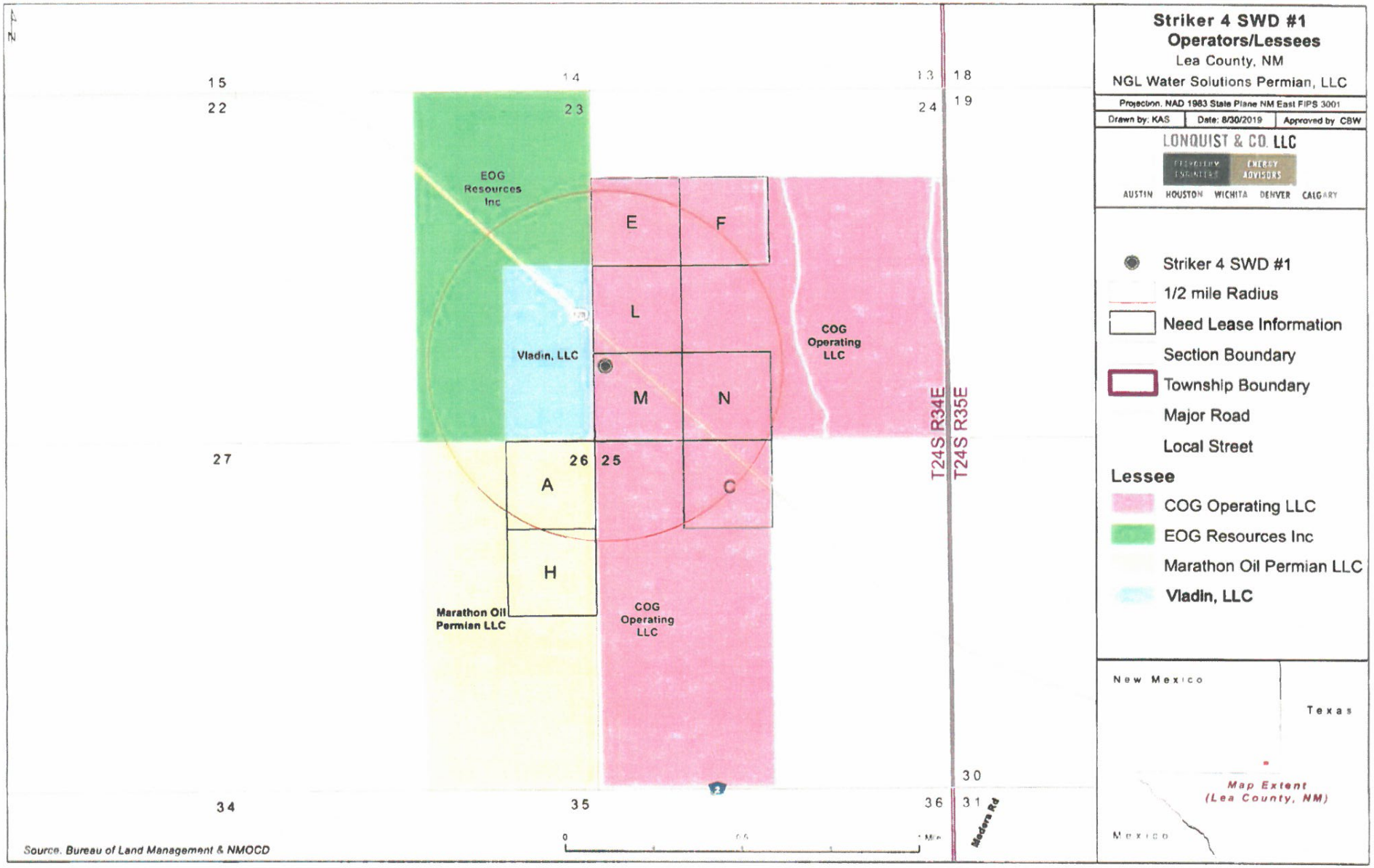
23512
Certificate Number


Striker 4 SWD #1
2 mile Area of Review
Lea County, NM
NGL Water Solutions Permian, LLC
Drawn by KAS
Date 8/30/2019
Approved by CBW
LONQUIST & CO LLC
Production Type
OIL
GAS
DISPOSAL
Striker 4 SWD #1
Well Symbols
Gas
Gas Abandoned
Injection
Location
Oil
Oil Abandoned
1/2 mile Radius
2 mile Radius
New Mexico
Texas
Mexico
Map Extent
(Lea County, NM)
T24S R34E
T24S R35E

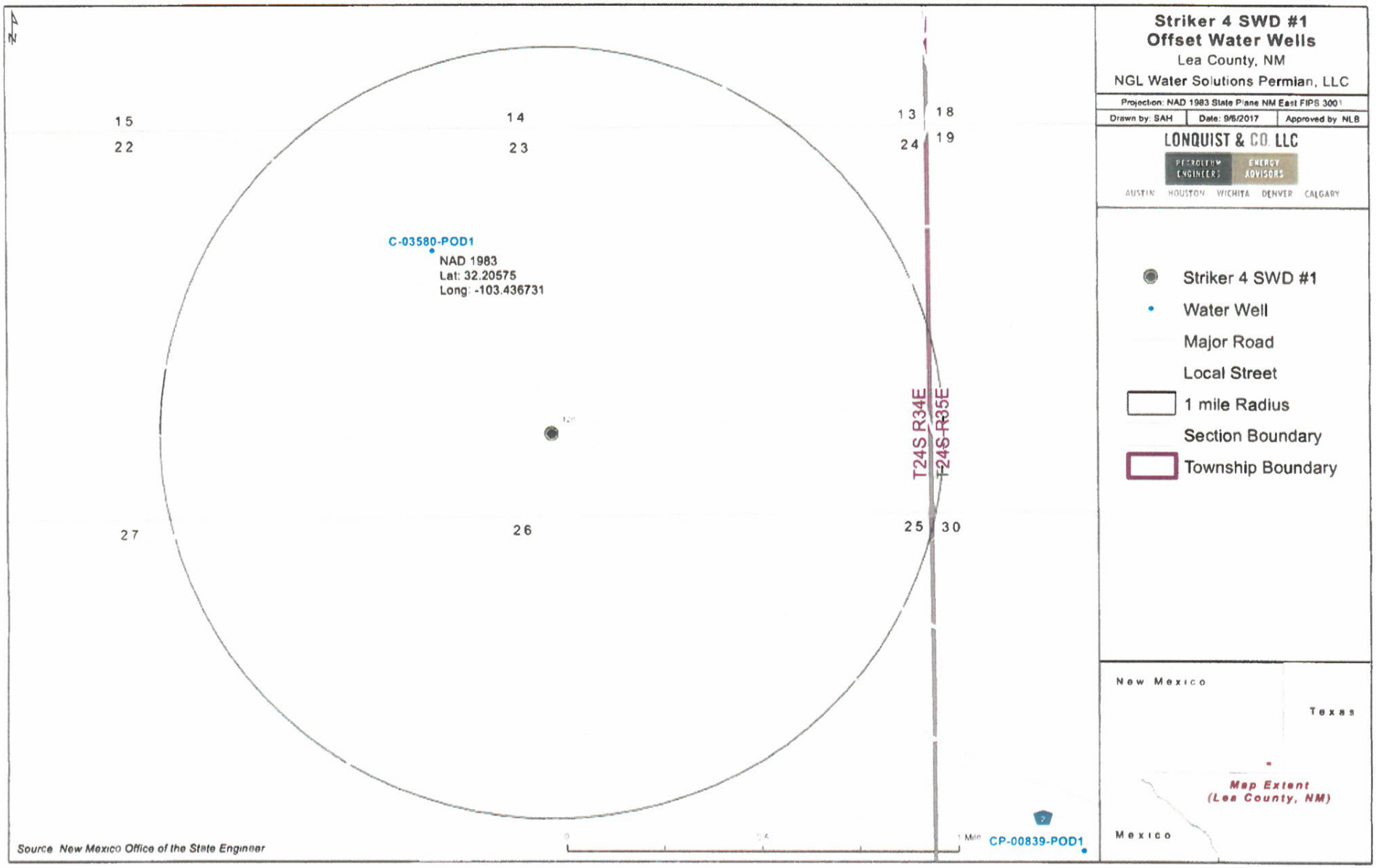


Striker 4 SWD No. 1
1/2 Mile Area of Review List

API (30-025-_____)	WELL NAME	WELL TYPE	STATUS	OPERATOR	TVD (FT.)	LATITUDE (NAD83 DD)	LONGITUDE (NAD83 DD)	SPUD DATE	FIELD
3002544212	DEE BOOT FEE 24 34 26 WA #006H	O	A	MARATHON OIL PERMIAN LLC	13729	32.1950206700	-103.4360043200	4/6/2018	[2220] ANTELOPE RIDGE, WOLFCAMP; [70415] ANTELOPE RIDGE, WOLFCAMP, N (GAS)
3002544165	DEE BOOT FEE 24 34 26 TB #007H	O	A	MARATHON OIL PERMIAN LLC	17434	32.1950701B000	-103.4359075000	4/1/2018	[96434] RED HILLS, BONE SPRING, NORTH
3002544163	DEE BOOT FEE 24 34 26 WXY #015H	G	A	MARATHON OIL PERMIAN LLC	12671	32.1950194900	-103.4358210370	3/29/2018	[2220] ANTELOPE RIDGE, WOLFCAMP
3002544162	DEE BOOT FEE 24 34 26 WXY #003H	G	A	MARATHON OIL PERMIAN LLC	12583	32.1950215600	-103.4361912790	3/26/2018	[2220] ANTELOPE RIDGE, WOLFCAMP; [98234] WC-025 S263426A, LOWER WOLFCAMP (GAS)
3002544031	SUPER FEE WCXY #001H	O	N	COG OPERATING LLC	0	32.1823440000	-103.4258117000		[98116] WC-025 G-09 S253402N, WOLFCAMP
3002544153	BASEBALL CAP FEDERAL COM #026H	O	A	COG OPERATING LLC	12615	32.1819080000	-103.4253174000	12/9/2017	[98116] WC-025 G-09 S253402N, WOLFCAMP
3002544030	SUPER FEE WCA #003H	O	N	COG OPERATING LLC	0	32.1947080000	-103.4248030000		[98116] WC-025 G-09 S253402N, WOLFCAMP
3002544029	SUPER FEE WCA #001H	O	N	COG OPERATING LLC	0	32.1823440000	-103.4259780000		[98116] WC-025 G-09 S253402N, WOLFCAMP
3002545795	BASEBALL CAP FEDERAL COM #605H	O	N	COG OPERATING LLC	0	32.1821820000	-103.4272310000		[96434] RED HILLS, BONE SPRING, NORTH
3002545797	BASEBALL CAP FEDERAL COM #608H	O	N	COG OPERATING LLC	0	32.1821350000	-103.4291060000		[96434] RED HILLS, BONE SPRING, NORTH
3002545790	BASEBALL CAP FEDERAL COM #707H	O	N	COG OPERATING LLC	0	32.1821330000	-103.4290090000		[98116] WC-025 G-09 S253402N, WOLFCAMP
3002545786	BASEBALL CAP FEDERAL COM #607H	O	N	COG OPERATING LLC	0	32.1821320000	-103.4278910000		[96434] RED HILLS, BONE SPRING, NORTH
3002545789	BASEBALL CAP FEDERAL COM #705H	O	N	COG OPERATING LLC	0	32.1821810000	-103.4277340000		[96434] RED HILLS, BONE SPRING, NORTH; [98116] WC-025 G-09 S253402N, WOLFCAMP
3002545791	BASEBALL CAP FEDERAL COM #708H	O	N	COG OPERATING LLC	0	32.1821360000	-103.4292030000		[98116] WC-025 G-09 S253402N, WOLFCAMP



Striker 4 SWD #1: Offsetting Produced Water Analysis														
wellname	api	county	formation	ph	tds_mgL	sodium_mgL	calcium_mgL	iron_mgL	magnesium_mgL	manganese_mgL	chloride_mgL	bicarbonate_mgL	sulfate_mgL	co2_mgL
ANTELOPE RIDGE UNIT #002	3002520444	LEA	ATOKA	6.7	51475						31000	317	340	
BELL LAKE UNIT #009	3002520261	LEA	BONE SPRING		204652						130000	512	260	
THISTLE UNIT #071H	3002542425	Lea	BONE SPRING 1ST SAND	5.6	171476.3	55363.2	9140	40.4	1023	1.1	104576.4	244	560	770
BELL LAKE 19 STATE #002H	3002541515	Lea	BONE SPRING 2ND SAND	6.2		47148	6419	15	854	0	86572	232	670	240
BELL LAKE 19 STATE #004H	3002541517	Lea	BONE SPRING 2ND SAND	6.3		47537	6950	11	886	0	88389	171	650	210
BELL LAKE 19 STATE #001H	3002541024	Lea	BONE SPRING 2ND SAND	7		60725	8703	52	1020	0.88	113193	145	700	100
BELL LAKE UNIT A #007	3002508367	LEA	DELAWARE		87686						53920	391	749	
BELL LAKE UNIT #002	3002508489	LEA	DELAWARE		57115						32200	451	529	
MARSHALL #001	3002508358	LEA	DELAWARE		238931						148600	177	156	
THISTLE UNIT #017H	3002539893	Lea	DELAWARE-BRUSHY CANYON	6		89832	22107	15	4443	3	189304	73	700	350
THISTLE UNIT #018H	3002540010	Lea	DELAWARE-BRUSHY CANYON	5.7		93485	22643	33	4570	3.2	195932	73	270	390
CUSTER MOUNTAIN UNIT #001	3002520756	LEA	MORROW		287741						176800	161	650	
PRONGHORN AHO FEDERAL #001	3002526496	LEA	STRAWN	5.5			20.1	0	12.7		35.5	61.1	48.8	
BELLOQ 2 STATE #002H	3001542895	EDDY	WOLFCAMP	6.8	119471.8	37359.2	5659.1	22.4	746.1		73172.5		1035.5	250



New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: C 03580 **Subbasin:** - **Cross Reference:** -

Primary Purpose: EXP EXPLORATION

Primary Status:

Total Acres: **Subfile:** -

Total Diversion: 0 **Cause/Case:** -

Owner: INTERCONTINENTAL POTASH CORP

Contact: TOM COPE

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	515225	EXPL	2012-10-17	PMT	APR	C 03580 (2 BOREHOLES-MIN EXPL)	T	0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Source	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Other Location Desc
C 03580 POD1		3	2	23	24S	34E		647336	3564313	ICP-011
C 03580 POD2		3	1	24	24S	33E		638123	3563932	ICP-097