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

OCTOBER 4, 2018 HEARING

AMENDED APPLICATION OF NGL WATER SOLUTIONS PERMIAN, LLC FOR APPROVAL OF SALT WATER DISPOSAL WELL IN LEA COUNTY, NEW MEXICO (JACK TANK SWD #1)

CASE NO. 16438

AMENDED APPLICATION OF NGL WATER SOLUTIONS PERMIAN, LLC FOR APPROVAL OF SALT WATER DISPOSAL WELL IN LEA COUNTY, NEW MEXICO (MCCLOY WEST SWD #1)

CASE NO. 16440

TABLE OF CONTENTS

CASE NO. 16438 AND CASE NO. 16440

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

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

CASE NO. 16438

AMENDED APPLICATION

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

(1) NGL proposes to drill the Jack Tank SWD #1 well at a surface location 1,400 feet from the North line and 1,853 feet from West line of Section 5, Township 24 South, Range 32 East, NMPM, Lea County, New Mexico for the purpose of operating a salt water disposal well.

(2) NGL seeks authority to inject salt water into the Devonian formation at a depth of 16,800' – 17,809'.

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

(4) NGL anticipates using an average pressure of 2,520 psi for this well, and it requests that a maximum pressure of 3,360 psi be approved for the well.

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

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

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

Respectfully submitted,

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

By: _____

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

CASE NO. 16438: Amended Application of NGL Water Solutions Permian, LLC for approval of salt water disposal well in Lea County, New Mexico. Applicant seeks an order approving disposal into the Devonian formation through the Jack Tank SWD #1 well. NGL proposes to drill this well at a surface location 1,400 feet from the North line and 1,853 feet from West line of Section 5, Township 24 South, Range 32 East, NMPM, Lea County, New Mexico. The target injection interval is the Devonian formation at a depth of 16,800' – 17,809'. NGL further seeks approval of the use of 7 inch tubing inside the surface and intermediate casings and 5 ½ inch tubing inside the liner and requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day. Said area is located approximately 22 miles west of Jal, New Mexico.

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: JACK TANK SWD #1 **API:** TBD
Pool: SWD; SILURIAN-DEVONIAN **Pool Code:** 96101

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

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

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

CHRIS WEYAND
Print or Type Name

09/12/2018
Date

512-600-1764
Phone Number

Signature

CHRIS@LONQUIST.COM
e-mail Address

EXHIBIT
tabbies
A

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, TX 79701

CONTACT PARTY: SARAH JORDAN PHONE: (432) 685-0005 x1989

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____ Yes ___X___ No
If yes, give the Division order number authorizing the project: _____

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

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

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

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

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

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

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Christopher B. Weyand TITLE: Consulting Engineer

SIGNATURE: _____ DATE: 8/21/2018

E-MAIL ADDRESS: chris@lonquist.com

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

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.

NGL Water Solutions Permian, LLC

Jack Tank SWD No. 1

FORM C-108 Supplemental Information

III. Well Data

A. Wellbore Information

1.

Well information	
Lease Name	Jack Tank SWD
Well No.	1
Location	S-05 T-24S R-32E
Footage Location	1,400' FNL & 1,853 FWL

2.

a. Wellbore Description

Casing Information				
Type	Surface	Intermediate	Production	Liner
OD	20"	13.375"	9.625"	7.625"
WT	0.438"	0.480"	0.545"	0.500"
ID	19.124"	12.415"	8.535"	6.625"
Drift ID	18.937"	12.259"	8.535"	6.500"
COD	21.00"	14.375"	10.625"	7.625"
Weight	94 lb/ft	68 lb/ft	53.5 lb/ft	39 lb/ft
Grade	J-55	L-80	HCL-80	Q-125
Hole Size	24"	17.5"	12.25"	8.5"
Depth Set	1,250'	4,770'	12,200	16,800'

b. Cementing Program

Cement Information				
Casing String	Surface	Intermediate	Production	Liner
Lead Cement	C	C	H,H,C	H
Lead Cement Volume	685	1,658	Stage 1: 664 sks Stage 2: 621 sks Stage 3: 773 sks	95
Tail Cement	C	C	H,H,C	H
Tail Cement Volume	931	1,055	Stage 1: 393 sks Stage 2: 472 sks Stage 3: 295 sks	H
Cement Excess	25%	10%	10%	10%
TOC	Surface	Surface	Surface	11,700'
Method	Circulate to Surface	Circulate to Surface	Circulate to Surface	Logged

3. Tubing Description

Tubing Information		
OD	7"	5.5"
WT	0.362"	0.304"
ID	6.276"	4.892"
Drift ID	7.875"	6.050"
COD	6.151"	4.653"
Weight	26 lb/ft	17 lb/ft
Grade	P-110 TCPC	P-110 TCPC
Depth Set	0'-11,600'	11,600-16,750

Tubing will be lined with Duoline.

4. Packer Description

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

B. Completion Information

1. Injection Formation: Devonian, Silurian, Fusselman, Montoya (Top 100')

2. Gross Injection Interval: 16,800' – 17,809'

   Completion Type: Open Hole

3. Drilled for injection.

4. See the attached wellbore schematic.

5. Oil and Gas Bearing Zones within area of well:

Formation	Depth
Delaware	4,759'
Bone Spring	8,559'
Wolfcamp	11,969'

VI. Area of Review

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

VII. Proposed Operation Data

1. Proposed Daily Rate of Fluids to be Injection:

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

2. Closed System

3. Anticipated Injection Pressure:

   Average Injection Pressure: 2,520 PSI (surface pressure)
   Maximum Injection Pressure: 3,360 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, and Wolfcamp formations.

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

VIII. Geological Data

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

A. Injection Zone: Siluro-Devonian Formation

Formation	Depth
Rustler	791'
Salado	1,105'
Delaware	4,759'
Bone Spring	8,559'
Wolfcamp	11,969'
Penn	13,352'
Atoka	13,729'
Morrow	14,589'
Mississippian Lime	16,174'
Woodford	16,569'
Devonian	16,769'

B. Underground Sources of Drinking Water

Within 1-mile of the proposed Jack Tank 1 SWD #1 location, the only reported water well has a depth of 600 ft and a water depth of 380 ft. Water wells in the surrounding area have an average depth of 741 ft and an average water depth of 352 ft generally producing from the Santa Rosa. The upper Rustler may also be another USDW and will be protected.

IX. Proposed Stimulation Program

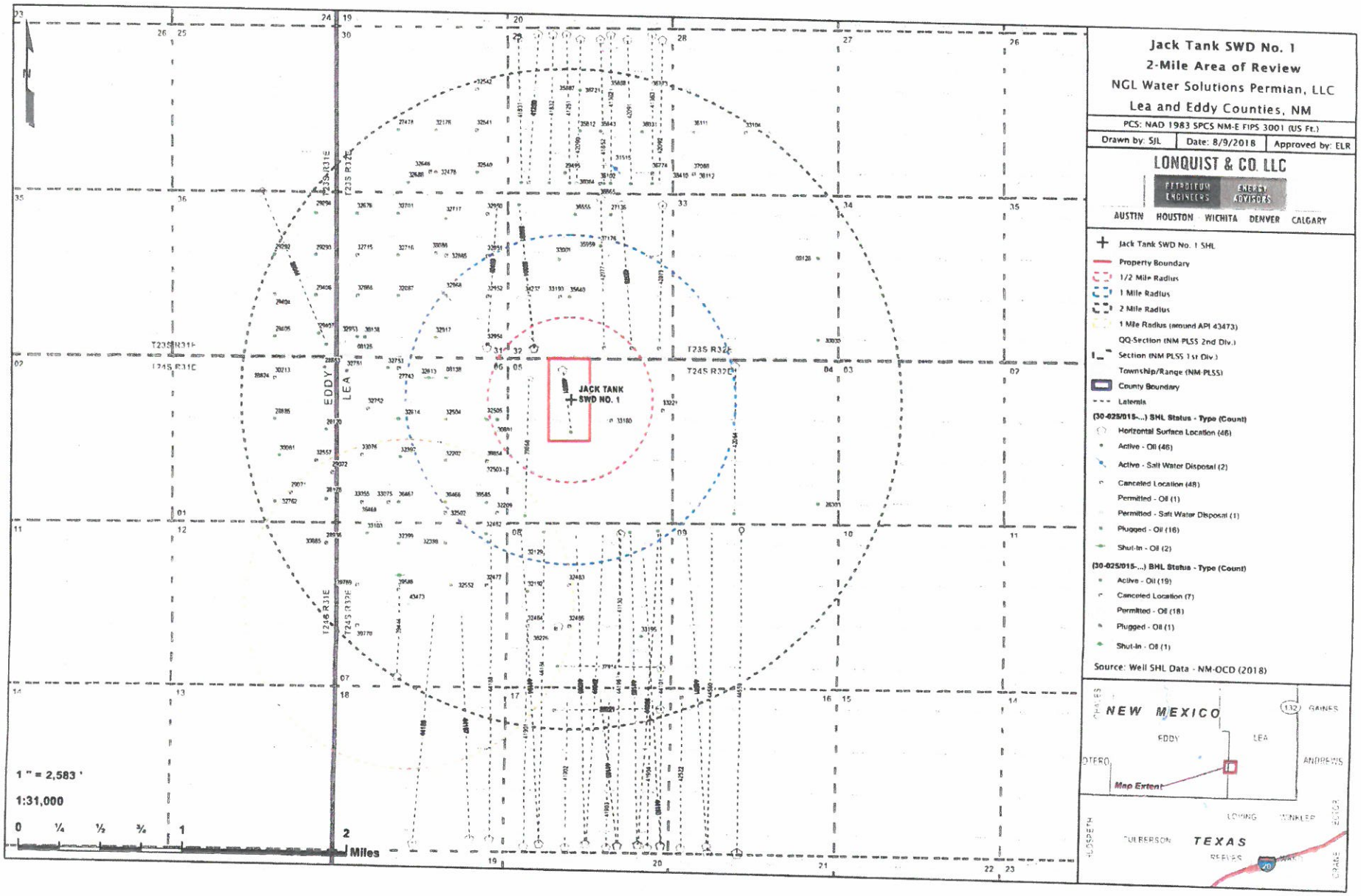
Stimulate with up to 50,000 gallons of acid.

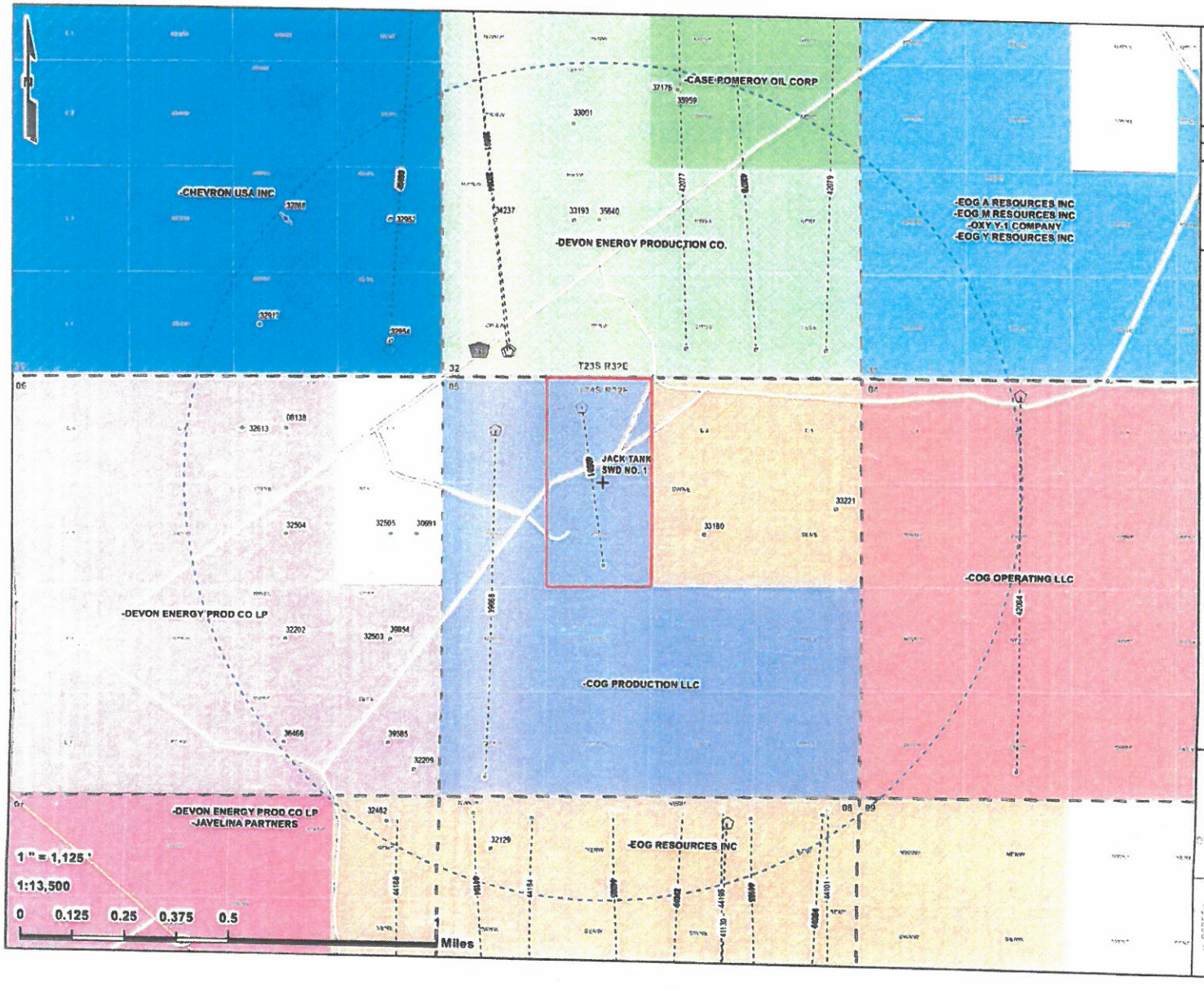
X. Logging and Test Data on the Well

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

XI. Chemical Analysis of Fresh Water Wells

There is one water well that exists within one mile of the well location. A fresh water sample was obtained from C-03555 and a map and the Water Right Summary from the New Mexico Office of the State Engineer are attached.


Jack Tank SWD No. 1
2-Mile Area of Review
NGL Water Solutions Permian, LLC
Lea and Eddy Counties, NM
PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)
Drawn by: SJL
Date: 8/9/2018
Approved by: ELR
LONQUIST & CO. LLC
PETROLEUM ENGINEERS
ENERGY ADVISORS
AUSTIN HOUSTON WICHITA DENVER CALGARY
Jack Tank SWD No. 1 SHL
Property Boundary
1/2 Mile Radius
1 Mile Radius
2 Mile Radius
1 Mile Radius (around API 43473)
QQ-Section (NM PLSS 2nd Div.)
Section (NM PLSS 1st Div.)
Township/Range (NM PLSS)
County Boundary
Laterals
(30-025/015-...) SHL Status - Type (Count)
Horizontal Surface Location (46)
Active - Oil (46)
Active - Salt Water Disposal (2)
Canceled Location (48)
Permitted - Oil (1)
Permitted - Salt Water Disposal (1)
Plugged - Oil (16)
Shut-In - Oil (2)
(30-025/015-...) BHL Status - Type (Count)
Active - Oil (19)
Canceled Location (7)
Permitted - Oil (18)
Plugged - Oil (1)
Shut-In - Oil (1)
Source: Well SHL Data - NM-OCD (2018)
JACK TANK SWD NO. 1
EDDY
LEA
T23S R31E
T24S R31E
T23S R32E
T24S R32E
1 " = 2,583 '
1:31,000
0 ¼ ½ ¾ 1 2 Miles
NEW MEXICO
EDDY
LEA
OTERO
GAINES
ANDREWS
Map Extent
LOVING
WINKLER
CULBERSON
TEXAS
REEVES



Jack Tank SWD No. 1
1 Mile Offset Lessees
NGL Water Solutions Permian, LLC

Lea County, NM

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

Drawn by: SJL	Date: 8/10/2018	Approved by: ELR

LONQUIST & CO. LLC

PETROLEUM ENGINEERS | ENERGY ADVISORS

AUSTIN HOUSTON WICHITA DENVER CALGARY

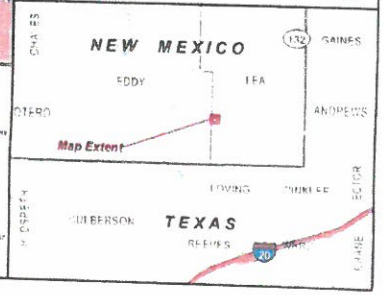
- Jack Tank SWD No. 1 SHL
- Property Boundary
- 1 Mile Radius
- QQ Section (NM PLSS 2nd Div.)
- Section (NM PLSS 1st Div.)
- Township/Range (NM PLSS)
- Laterals

API (30-025-...) SHL Status - Type (Count)
- Horizontal Surface Location (19)
- Active - Oil (7)
- Active - Salt Water Disposal (1)
- Canceled Location (11)
- Plugged (Site Released) - Oil (5)
- Shut-In - Oil (1)

API (30-025-...) BHL Status - Type (Count)
- Active - Oil (10)
- Canceled Location (3)
- Permitted - Oil (5)
- Plugged (Site Released) - Oil (1)
- NM-BLM
- NM-SLO

Lessee(s)
- CASE POMEROY OIL CORP
- CHEVRON USA INC
- COG OPERATING LLC
- COG PRODUCTION LLC
- DEVON ENERGY PROD CO LP
- DEVON ENERGY PROD CO LP -JAVELINA PARTNERS
- DEVON ENERGY PRODUCTION CO
- EOG A RESOURCES INC; EOG M RESOURCES INC; OXY Y-1 COMPANY; EOG Y RESOURCES INC
- EOG RESOURCES INC

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



New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	C 03555 POD1	2	2	1	05	24S	32E	622709	3569231

Driller License: 1654 **Driller Company:** NOT WORKING FOR HIRE--SIRMAN DRILLING AND CONSTRUC
Driller Name: JOHN SIRMAN

Drill Start Date: 10/20/2013 **Drill Finish Date:** 10/21/2013 **Plug Date:**
Log File Date: 11/07/2013 **PCW Rcv Date:** **Source:** Shallow
Pump Type: **Pipe Discharge Size:** **Estimated Yield:** 5 GPM
Casing Size: 6.00 **Depth Well:** 600 feet **Depth Water:** 380 feet

Water Bearing Stratifications:

Top	Bottom	Description
475	550	Sandstone/Gravel/Conglomerate

Casing Perforations:

Top	Bottom
460	520

Side 1

INJECTION WELL DATA SHEET

OPERATOR: NGL WATER SOLUTIONS PERMIAN, LLC

WELL NAME & NUMBER: JACK TANK SWD #1

WELL LOCATION: 1,400' FNL & 1,853' FWL — F — 05 — 24S — 32E

FOOTAGE LOCATION — UNIT LETTER — SECTION — TOWNSHIP — RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 24.000" Casing Size: 20.000"

Cemented with: 1,616 sx. *or* _____ ft^3

Top of Cement: Surface Method Determined: Circulation

1st Intermediate Casing

Hole Size: 17.500" Casing Size: 13.375"

Cemented with: 2,713 sx. *or* _____ ft^3

Top of Cement: Surface Method Determined: Circulation

2nd Intermediate Casing

Hole Size: 12.250" Casing Size: 9.625"

Cemented with: 3,218 sx. *or* _____ ft^3

Top of Cement: Surface Method Determined: Circulation

Production Liner

Hole Size: 8.500"

Cemented with: 350 sx.

Top of Cement: 11,700'

Total Depth: 16,800'

Casing Size: 7.625"

or _____ ft^3

Method Determined: Calculation

Injection Interval

16,800 feet to 17,809 feet

(Open Hole)

INJECTION WELL DATA SHEET

Tubing Size: 7", 26 lb/ft, P-110, TCPC from 0'- 11,600' and 5.500", 17 lb/ft, P-110 TCPC from 11,600'- 16,750'
Lining Material: Duoline

Type of Packer: 7.625" x 5.5" TCPC Permanent Packer with High Temp Elastomer and Full Inconel

Packer Setting Depth: 16,750'

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

Additional Data

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

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

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

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

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No, new drill.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
   Delaware: 4,759
   Bone Spring: 8,559
   Wolfcamp: 11,969

XII. Affirmative Statement of Examination of Geologic and Engineering Data

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

NAME: John C. Webb

TITLE: Sr. Geologist

SIGNATURE: John C Webb

DATE: 8/22/2018

Jack Tank SWD No. 1

1 Mile Area of Review List

API (30-025-...)	WELL NAME	WELL TYPE	STATUS	OPERATOR	TVD (FT.)	LATITUDE (NAD83 DD)	LONGITUDE (NAD83 DD)	DATE DRILLED
08138	PRE-ONGARD WELL #001	O	P	PRE-ONGARD WELL OPERATOR	4796	32.25186920000	-103.71158600000	1/1/1900
30691	PRE-ONGARD WELL #001	O	P	PRE-ONGARD WELL OPERATOR	4855	32.24826050000	-103.70627590000	1/1/1900
32129	JACK TANK 8 FEDERAL #001	O	C	BURLINGTON RESOURCES OIL & GAS CO	99999	32.23738231530	-103.70313154500	12/31/9999
32202	MESA VERDE 6 FEDERAL #002	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	8550	32.24461750000	-103.71163940000	8/26/1993
32209	MESA VERDE 6 FEDERAL #001	O	C	EOG RESOURCES INC	99999	32.24008711640	-103.70634063600	12/31/9999
32482	JACK TANK 7 FEDERAL #002	O	P	BURLINGTON RESOURCES OIL & GAS CO	9900	32.23828130000	-103.70741270000	11/10/1994
32503	MESA VERDE 6 FEDERAL #004I	O	C	DEVON SFS OPERATING INC	0	32.24462190010	-103.70738416600	12/31/9999
32504	MESA VERDE 6 FEDERAL #005	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	9902	32.24823760000	-103.71161650000	5/2/1994
32505	ZIA 6 FEDERAL #001	O	P	DEVON ENERGY PRODUCTION COMPANY, LP	9930	32.24825670000	-103.70734410000	5/20/1994
32613	MESA VERDE 6 FEDERAL #007	O	S	DEVON ENERGY PRODUCTION COMPANY, LP	8760	32.25186160000	-103.71340180000	11/22/1995
32868	SDE 31 FEDERAL #009	S	A	XTO ENERGY, INC	9850	32.25912480000	-103.71157840000	3/11/1995
32917	SDE 31 FEDERAL #015	O	A	XTO ENERGY, INC	8800	32.25549320000	-103.71264650000	1/10/1997
32952	SDE 31 FEDERAL #012	O	C	TEXACO EXPLORATION & PRODUCTION INC	0	32.25914229530	-103.70731854700	12/31/9999
32954	SDE 31 FEDERAL #016	O	C	TEXACO EXPLORATION & PRODUCTION INC	0	32.25496401520	-103.70731515900	12/31/9999
33001	FALCON 32 STATE #001	O	P	DEVON ENERGY PRODUCTION COMPANY, LP	10000	32.26250840000	-103.69983670000	8/28/1995
33180	NAFTA 5 FEDERAL #001	O	C	BURLINGTON RESOURCES OIL & GAS CO	99999	32.24830556270	-103.69455382800	12/31/9999
33193	FALCON 32 STATE #002	O	C	DEVON SFS OPERATING INC	0	32.25917101560	-103.69980950100	12/31/9999
33221	NAFTA 5 FEDERAL #002	O	C	BURLINGTON RESOURCES OIL & GAS CO	0	32.24923324690	-103.68918454400	12/31/9999
34237	FALCON 32 STATE #002	O	C	DEVON SFS OPERATING INC	0	32.25915867900	-103.70302766400	12/31/9999
35640	FALCON 32 STATE #003	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	8690	32.25917430000	-103.69876860000	7/29/2001
35959	STATE IG #002	O	C	HARVARD PETROLEUM COMPANY, LLC	0	32.26368425810	-103.69559687600	12/31/9999
36466	MESA VERDE 6 FEDERAL #003	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	8682	32.24098970000	-103.71166990000	4/26/2004
37176	STATE IG #002	O	A	HARVARD PETROLEUM COMPANY, LLC	8628	32.26371000000	-103.69556430000	4/12/2005
39364	FALCON 32 STATE #005M	O	P	DEVON ENERGY PRODUCTION COMPANY, LP	340	32.25462340000	-103.70254520000	1/17/2010
39585	MESA VERDE 6 FEDERAL #011	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	9921	32.24100490000	-103.70739750000	12/27/2009
39661	FALCON 32 STATE #005Y	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	8387	32.25468060000	-103.70244600000	3/2/2010
39668	TRISTE DRAW 5 FEDERAL #001H	O	A	COG PRODUCTION, LLC	12460	32.25189970000	-103.70304870000	6/25/2010
39854	MESA VERDE 6 FEDERAL #004C	O	C	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.24463270000	-103.70736690000	12/31/9999
40460	SDE 31 FEDERAL #018H	O	A	XTO ENERGY, INC	10635	32.25466160000	-103.70736690000	11/13/2013
40581	TRISTE DRAW 5 FEDERAL COM #002H	O	A	COG PRODUCTION, LLC	8535	32.25273900000	-103.69951630000	5/29/2012
41130	BIMINI 8 FEDERAL COM #002H	O	A	COG PRODUCTION, LLC	8573	32.23836140000	-103.69350430000	7/26/2013
42064	MASTIFF FEDERAL #003H	O	A	COG OPERATING LLC	10652	32.25327300000	-103.68167880000	9/6/2015
42077	JAMES STATE #041C	O	C	CIMAREX ENERGY CO.	0	32.26788710000	-103.69557950000	12/31/9999
42078	JAMES STATE #042C	O	C	CIMAREX ENERGY CO.	0	32.26734540000	-103.69344330000	12/31/9999
42079	JAMES STATE #043C	O	C	CIMAREX ENERGY CO.	0	32.26736450000	-103.68917080000	12/31/9999
44042	MESA VERDE BONE SPRING UNIT #006H	O	N	OXY USA INC	0	32.21098790000	-103.69667100000	1/6/2018
44064	MESA VERDE BONE SPRING UNIT #004H	O	A	OXY USA INC	10447	32.21101310000	-103.69130720000	12/31/9999
44065	MESA VERDE BONE SPRING UNIT #007H	O	N	OXY USA INC	0	32.21098730000	-103.69680040000	1/3/2018
44101	MESA VERDE WOLFCAMP UNIT #001H	O	N	OXY USA INC	0	32.21099920000	-103.68897930000	12/30/2017
44184	MESA VERDE BONE SPRING UNIT #008H	O	A	OXY USA INC	10403	32.21096220000	-103.70158450000	12/31/9999
44185	MESA VERDE BONE SPRING UNIT #005H	O	A	OXY USA INC	10449	32.21101270000	-103.69140420000	1/29/2018
44188	MESA VERDE BONE SPRING UNIT #010H	O	N	OXY USA INC	0	32.21131660000	-103.70671130000	2/27/2018
44194	MESA VERDE BONE SPRING UNIT #009H	O	A	OXY USA INC	10392	32.21096170000	-103.70158150000	1/22/2018
44196	MESA VERDE BONE SPRING UNIT #002H	O	N	OXY USA INC	0	32.21089330000	-103.69340570000	2/3/2018

Jack Tank SWD #1 - Offsetting Produced Water Analysis

wellname	api	county	state	formation	ph	tds_mgL	sodium_mgL	calcium_mgL	iron_mgL	magnesium_mgL	manganese_mgL	chloride_mgL	bicarbonate_mgL	sulfate_mgL	co2_mgL
FALCON 32 STATE #005Y	3002539661	Lea	NM	DELAWARE-BRUSHY CANYON	5.9	239678.9	74767.3	13436.5	40.6	2234	2.32	146645.4	73.2	0	420
MESA VERDE 6 FEDERAL #002	3002532202	Lea	NM	DELEWARE	6.98	270965.8	79714.9	19683.5	40.1	2954	5.63	165223.1	24.4	0	320
MESA VERDE 6 FEDERAL #003	3002536466	Lea	NM	DELEWARE	6	281924.3	74484.4	24247.3	188.8	3585	10.33	175354.2	122	0	900
MESA VERDE 6 FEDERAL #005	3002532504	Lea	NM	DELEWARE	6	247168	67097	17110	48	2594	5	156376	695	429	300
MESA VERDE 6 FEDERAL #006	3002537397	Lea	NM	BONE SPRING	7.24	87932.4	29224.9	1557.4	55.7	280.6	0.82	52394.8	1967.7	0	5.9
MESA VERDE 6 FEDERAL #007	3002532613	Lea	NM	BONE SPRING	6.86	256555.1	77637.8	16794	46.4	2698.4	3.11	156655.5	24.4	0	250
MESA VERDE 6 FEDERAL #008	3002532614	Lea	NM	DELEWARE	5.7	281832.3	79586.3	21150	21	3716	6.5	173364	83	607	225
MESA VERDE 6 FEDERAL #009	3002536467	Lea	NM		6.9	240679.8	74554	12265	32.4	2006.8	2.21	149239.8	36.6	0	250
MESA VERDE 6 FEDERAL #010	3002532751	Lea	NM	AVALON LOWER	6.9	141332	48380	556	215	214	3	86816	2318	1929	700
MESA VERDE 6 FEDERAL #011	3002539585	Lea	NM	BONE SPRING	6.2	233470.3	76027.1	10236.6	103.2	1644.5	2.8	142833.7	185.4	0	400
MESA VERDE 6 FEDERAL #014	3002532753	Lea	NM	BONE SPRING	6.84	258703.1	77318.3	16317.4	47.6	2633	2.97	159717	24.4	0	370
MESA VERDE 7 FEDERAL #001	3002532398	Lea	NM		6.92	253400.9	70901.7	20723.2	32.9	3012.4	6.9	155181.1	36.6	0	360
MESA VERDE 7 FEDERAL #002	3002532399	Lea	NM		6.87	249018.4	76614.7	12874.5	39.1	2109.7	2.28	154729.2	24.4	0	360
MESA VERDE 7 FEDERAL #003	3002539444	Lea	NM		6	260512	70324	20074	136	2913	9	162623	707	0	700
MESA VERDE 7 FEDERAL #007	3002533103	Lea	NM		6.85	265901.2	76369.9	20703.5	58.1	2990	8.23	162372.7	24.4	0	370
BELLOQ 2 STATE #002H	3001542895	EDDY	NM	WOLFCAMP	6.8	119471.8	37359.2	5659.1	22.4	746.1		73172.5		1035.5	250

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

August 21, 2018

Will George

Lonquist Field Services, LLC

3345 Bee Cave Road, Suite 201

Austin, TX 78746

RE: JACK TANK SWD #1

Enclosed are the results of analyses for samples received by the laboratory on 08/14/18 14:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Lonquist Field Services, LLC 3345 Bee Cave Road, Suite 201 Austin TX, 78746	Project: JACK TANK SWD #1 Project Number: 32.253067 Project Manager: Will George Fax To: (512) 732-9816	Reported: 21-Aug-18 17:14

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C-035555-POD 1	H802257-01	Water	14-Aug-18 11:35	14-Aug-18 14:50

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Lonquist Field Services, LLC 3345 Bee Cave Road, Suite 201 Austin TX, 78746	Project: JACK TANK SWD #1 Project Number: 32.253067 Project Manager: Will George Fax To: (512) 732-9816	Reported: 21-Aug-18 17:14

C-035555-POD 1

H802257-01 (Water)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories										
Inorganic Compounds										
Alkalinity, Bicarbonate	**220**		5.00	mg/L	1	8080602	AC	15-Aug-18	310.1	
Alkalinity, Carbonate	<1.00		1.00	mg/L	1	8080602	AC	15-Aug-18	310.1	
Chloride*	**168**		4.00	mg/L	1	8081511	AC	15-Aug-18	4500-Cl-B	
Conductivity*	**3860**		1.00	uS/cm	1	8081509	AC	15-Aug-18	120.1	
pH*	**7.61**		0.100	pH Units	1	8081509	AC	15-Aug-18	150.1	
Resistivity	**2.59**			Ohms/m	1	8081509	AC	15-Aug-18	120.1	
Specific Gravity @ 60° F	**1.002**		0.000	[blank]	1	8081507	AC	15-Aug-18	SM 2710F	
Sulfate*	**1670**		500	mg/L	50	8081510	AC	16-Aug-18	375.4	
TDS*	**3320**		5.00	mg/L	1	8081401	AC	15-Aug-18	160.1	
Alkalinity, Total*	**180**		4.00	mg/L	1	8080602	AC	15-Aug-18	310.1	
Sulfide, total	**0.188**		0.0100	mg/L	1	8081508	AC	15-Aug-18	376.2	
Green Analytical Laboratories										
Total Recoverable Metals by ICP (E200.7)										
Barium*	**0.069**		0.050	mg/L	1	B808162	AES	20-Aug-18	EPA200.7	
Calcium*	**250**		0.100	mg/L	1	B808162	AES	20-Aug-18	EPA200.7	
Iron*	**3.12**		0.050	mg/L	1	B808162	AES	20-Aug-18	EPA200.7	
Magnesium*	**178**		0.500	mg/L	5	B808162	AES	21-Aug-18	EPA200.7	
Potassium*	**8.38**		1.00	mg/L	1	B808162	AES	20-Aug-18	EPA200.7	
Sodium*	**504**		5.00	mg/L	5	B808162	AES	21-Aug-18	EPA200.7	

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Lonquist Field Services, LLC 3345 Bee Cave Road, Suite 201 Austin TX, 78746	Project: JACK TANK SWD #1 Project Number: 32.253067 Project Manager: Will George Fax To: (512) 732-9816	Reported: 21-Aug-18 17:14

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8080602 - General Prep - Wet Chem										
Blank (8080602-BLK1)				Prepared: 10-Aug-18 Analyzed: 17-Aug-18						
Alkalinity, Carbonate	ND	1.00	mg/L							
Alkalinity, Bicarbonate	ND	5.00	mg/L							
Alkalinity, Total	4.00	4.00	mg/L							
LCS (8080602-BS1)				Prepared: 10-Aug-18 Analyzed: 17-Aug-18						
Alkalinity, Carbonate	ND	2.50	mg/L				80-120			
Alkalinity, Bicarbonate	ND	12.5	mg/L				80-120			
Alkalinity, Total	270	10.0	mg/L	250		108	80-120			
LCS Dup (8080602-BSD1)				Prepared: 10-Aug-18 Analyzed: 17-Aug-18						
Alkalinity, Carbonate	ND	2.50	mg/L				80-120		20	
Alkalinity, Bicarbonate	ND	12.5	mg/L				80-120		20	
Alkalinity, Total	270	10.0	mg/L	250		108	80-120	0.00	20	
Batch 8081401 - Filtration										
Blank (8081401-BLK1)				Prepared: 14-Aug-18 Analyzed: 16-Aug-18						
TDS	ND	5.00	mg/L							
LCS (8081401-BS1)				Prepared: 14-Aug-18 Analyzed: 15-Aug-18						
TDS	522	5.00	mg/L	527		99.1	80-120			
Duplicate (8081401-DUP1)		Source: H802238-05		Prepared: 14-Aug-18 Analyzed: 15-Aug-18						
TDS	4680	5.00	mg/L		4510			3.66	20	
Batch 8081507 - General Prep - Wet Chem										
Duplicate (8081507-DUP1)		Source: H802257-01		Prepared & Analyzed: 15-Aug-18						
Specific Gravity @ 60° F	1.001	0.000	[blank]		1.002			0.120	20	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Lonquist Field Services, LLC 3345 Bee Cave Road, Suite 201 Austin TX, 78746	Project: JACK TANK SWD #1 Project Number: 32.253067 Project Manager: Will George Fax To: (512) 732-9816	Reported: 21-Aug-18 17:14

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8081508 - General Prep - Wet Chem										
Blank (8081508-BLK1)				Prepared & Analyzed: 15-Aug-18						
Sulfide, total	ND	0.0100	mg/L							
Duplicate (8081508-DUP1)		Source: H802257-01		Prepared & Analyzed: 15-Aug-18						
Sulfide, total	0.191	0.0100	mg/L		0.188			1.27	20	
Batch 8081509 - General Prep - Wet Chem										
LCS (8081509-BS1)				Prepared & Analyzed: 15-Aug-18						
Conductivity	479		uS/cm	500		95.8	80-120			
pH	7.05		pH Units	7.00		101	90-110			
Duplicate (8081509-DUP1)		Source: H802257-01		Prepared & Analyzed: 15-Aug-18						
Conductivity	3860	1.00	uS/cm		3860			0.00	20	
pH	7.60	0.100	pH Units		7.61			0.131	20	
Resistivity	2.59		Ohms/m		2.59			0.00	20	
Batch 8081510 - General Prep - Wet Chem										
Blank (8081510-BLK1)				Prepared & Analyzed: 16-Aug-18						
Sulfate	ND	10.0	mg/L							
LCS (8081510-BS1)				Prepared & Analyzed: 16-Aug-18						
Sulfate	18.9	10.0	mg/L	20.0		94.6	80-120			
LCS Dup (8081510-BSD1)				Prepared & Analyzed: 16-Aug-18						
Sulfate	16.8	10.0	mg/L	20.0		84.2	80-120	11.6	20	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Lonquist Field Services, LLC 3345 Bee Cave Road, Suite 201 Austin TX, 78746	Project: JACK TANK SWD #1 Project Number: 32.253067 Project Manager: Will George Fax To: (512) 732-9816	Reported: 21-Aug-18 17:14

Inorganic Compounds - Quality Control

Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8081511 - General Prep - Wet Chem										
Blank (8081511-BLK1)				Prepared & Analyzed: 15-Aug-18						
Chloride	ND	4.00	mg/L							
LCS (8081511-BS1)				Prepared & Analyzed: 15-Aug-18						
Chloride	100	4.00	mg/L	100		100	80-120			
LCS Dup (8081511-BSD1)				Prepared & Analyzed: 15-Aug-18						
Chloride	100	4.00	mg/L	100		100	80-120	0.00	20	

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Lonquist Field Services, LLC 3345 Bee Cave Road, Suite 201 Austin TX, 78746	Project: JACK TANK SWD #1 Project Number: 32.253067 Project Manager: Will George Fax To: (512) 732-9816	Reported: 21-Aug-18 17:14

Total Recoverable Metals by ICP (E200.7) - Quality Control

Green Analytical Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B808162 - Total Rec. 200.7/200.8/200.2										
Blank (B808162-BLK1)				Prepared: 17-Aug-18 Analyzed: 20-Aug-18						
Iron	ND	0.050	mg/L							
Potassium	ND	1.00	mg/L							
Barium	ND	0.050	mg/L							
Magnesium	ND	0.100	mg/L							
Calcium	ND	0.100	mg/L							
Sodium	ND	1.00	mg/L							
LCS (B808162-BS1)				Prepared: 17-Aug-18 Analyzed: 20-Aug-18						
Sodium	3.34	1.00	mg/L	3.24		103	85-115			
Potassium	8.09	1.00	mg/L	8.00		101	85-115			
Magnesium	20.2	0.100	mg/L	20.0		101	85-115			
Iron	3.96	0.050	mg/L	4.00		99.0	85-115			
Calcium	4.05	0.100	mg/L	4.00		101	85-115			
Barium	2.05	0.050	mg/L	2.00		102	85-115			
LCS Dup (B808162-BSD1)				Prepared: 17-Aug-18 Analyzed: 20-Aug-18						
Magnesium	19.7	0.100	mg/L	20.0		98.6	85-115	2.60	20	
Potassium	8.14	1.00	mg/L	8.00		102	85-115	0.632	20	
Calcium	3.99	0.100	mg/L	4.00		99.7	85-115	1.54	20	
Sodium	3.23	1.00	mg/L	3.24		99.6	85-115	3.27	20	
Barium	2.04	0.050	mg/L	2.00		102	85-115	0.286	20	
Iron	3.94	0.050	mg/L	4.00		98.6	85-115	0.419	20	

Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: LOAR WEST	**BILL TO**
Project Manager:	P.O. #:
Address:	Company:
City: State: Zip:	Attn:
Phone #: Fax #:	Address:
Project #: Project Owner:	City:
Project Name: IGGIS TANK SLD #1	State: Zip:
Project Location: 32-253067	Phone #:
Sampler Name:	Fax #:

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING DATE	TIME	Scale	T. Sulfide
H802257 1	C-03555-1001	G	3	✓									8-18	11:35	✓	✓

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: [signature]	Date: 8-18	Received By: [signature]	Phone Result: ☐ Yes ☐ No Add'l Phone #:
	Time: 2:50		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: Rush!
	Time:		
Delivered By: (Circle One) 11.4°		Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No	CHECKED BY: (Initials) T.O. #75
Sampler - UPS - Bus - Other: Corrected 11.35°			

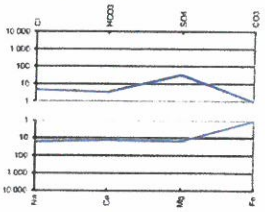
+ Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL LABORATORIES
SCALE INDEX WATER ANALYSIS REPORT

Company :	LONQUIST FIELD SERVICES, LLC	Date Sampled :	08/14/18
Lease Name :	JACK TANK SWD #1	Company Rep. :	CHRIS WEYAND
Well Number :	C-03555-POD1 (H802257-01)		
Location :	32.253067		

ANALYSIS					
1. pH	7.61				
2. Specific Gravity @ 60/60 F.	1.0020				
3. CaCO3 Saturation Index @ 80 F.	+0.293	'Calcium Carbonate Scale Possible'			
@ 140 F.	+0.993	'Calcium Carbonate Scale Possible'			
Dissolved Gasses					
4. Hydrogen Sulfide	0.188	PPM			
5. Carbon Dioxide	ND	PPM			
6. Dissolved Oxygen	ND	PPM			
Cations		/	Eq. Wt.	=	MEQ/L
7. Calcium (Ca++)	250.00	/	20.1	=	12.44
8. Magnesium (Mg++)	178.00	/	12.2	=	14.59
9. Sodium (Na+)	504	/	23.0	=	15.53
10. Barium (Ba++)	0.069	/	68.7	=	0.00
Anions					
11. Hydroxyl (OH-)	0	/	17.0	=	0.00
12. Carbonate (CO3=)	0	/	30.0	=	0.00
13. Bicarbonate (HCO3-)	220	/	61.1	=	3.60
14. Sulfate (SO4=)	1,670	/	48.8	=	34.22
15. Chloride (Cl-)	168	/	35.5	=	4.73
Other					
16. Total Iron (Fe)	3.120	/	18.2	=	0.17
17. Total Dissolved Solids	3,320				
18. Total Hardness As CaCO3	1,357.0				
19. Calcium Sulfate Solubility @ 90 F.	1,421				
20. Resistivity (Measured)	2.590	Ohm/Meters		@ 77	Degrees (F)

Logarithmic Water Pattern



PROBABLE MINERAL COMPOSITION

COMPOUND	Eq. Wt.	X	MEQ/L	=	mg/L
Ca(HCO3)2	81.04	X	3.60	=	292
CaSO4	68.07	X	8.84	=	602
CaCl2	55.50	X	0.00	=	0
Mg(HCO3)2	73.17	X	0.00	=	0
MgSO4	60.19	X	14.59	=	878
MgCl2	47.62	X	0.00	=	0
NaHCO3	84.00	X	0.00	=	0
NaSO4	71.03	X	10.79	=	767
NaCl	58.46	X	4.73	=	277

ND = Not Determined

NGL Energy Partners LP

NGL Jack Tank SWD #1

Vertical Injection - Devonian, Silurian, Fusselman

Location: Eddy County NM

TD: 17809'

Directions to Site -

Geologic Tops (MD ft)	Section	Bit/BHA	Casing	Logging	Cement (HOLD)	Injection String
Triassic - 418' Permian Dewey Lake - 656' Rustler Anhydrite - 791' Salado Anh - 1105' **Surface TD - 1250'**	**Surface** Drill 24" 0' - 1250 Set and Cement 20" Casing	24" Tricone 9-5/8" x 8" MM 9 jts: 8" DC 21 jts: 5" HWDP 5 " DP to surface	1250' of 20" 94# J55 BTC Centralizers - bottom 2 joints and every 3rd jt thereafter, Cement basket 5th jt from surface	No Logs	Thixotropic Cement 13.2 ppg Class C - 1,616 sks 3hr TT 25% Excess 1000psi CSD after 10hrs	
Top Salt - 1299' Base Salt - 4539' Delaware Mtn Group - 4759' **1st Int TD - 4770'**	**1st Intermediate** Drill 3520' of 17-1/2" Hole 1250' - 4770' Set and Cement 13-3/8" Casing	17-1/2" PDC 9-5/8" x 8" MM 9 jts: 8" DC 21 jts: 5" HWDP 5 " DP to surface	5M A Section Casing Bowl 4770' of 13-3/8" 68# L80 BTC Centralizers - bottom jt, every 3rd joint in open hole and 2 jt inside the surface casing	Mudlogger on site by 1250'	13.2 ppg Class C - 2,713 sks 4hr TT 10% Excess 1000psi CSD after 10 hrs Cement to Surface	11600' of 7" P110 26# TCPC
ECP DV Tool - 4765' Lamar Limestone - 4772' Bell Canyon - 4824' Cherry Canyon - 5893' Brushy Canyon - 7674' **DV Tool - 8600'** Bone Spring - 8559' **3rd Int Liner Top - 11700'** Wolfcamp - 11969' **2nd Int TD - 12200'**	**2nd Intermediate** Drill 7430' of 12-1/4" Hole 4770' - 12200' Set 9-5/8" Intermediate Casing and Cement in 3 Stages	12-1/4" PDC 8" MM 9jts: 8" DC 8" Drilling Jars 21 jts: 5" HWDP 5" DP to Surface	10M B Section 12200' of 9-5/8" 53.5# HCL80 BTC **Special Drift to 8.535"** **Externally Coat 3850' Between DV Tools** DV tool at at 8600' ECP DV Tool 15' Inside Previous Casing Centralizers - bottom jt, 100' aside of DV tool, every 3rd joint in open hole and 5 within the surface casing	MWD GR Triple combo + CBL of 13-3/8" Casing	**Stage 3:** 13.2 ppg Class C - 1,068 sk 5hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface **Stage 2:** 13.2 ppg Class H - 1,094 sks 5hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface **Stage 1:** 13.2 ppg Class H - 1,056 sks 6hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface	5150' of 5-1/2" P110 17# TCPC Duoline Internally Coated Injection Tubing
Penn - 13352' Strawn - 13569' Atoka - 13729' Morrow - 14589' Miss Lst - 16174' Woodford - 16569' Perm Packer - 16750' **3rd Int TD - 16800'**	**3rd Intermediate** Drill 4600' of 8-1/2" Hole 12200' - 16800' Set 7-5/8" Liner and Cement in Single Stage	8-1/2" PDC 6-3/4" MM 9 jts: 6" DC 21 jts: 5" HWDP 5" DP to Surface	5100' of 7-5/8" 39# Q125 - **DTL (FJ4) FJ (Gas Tight)** **VersaFlex Packer Hanger** Centralizers on and 1 jt above shoe jt and then every 2nd jt.	MWD GR Triple combo, CBL of 9-5/8" Casing	15.6 ppg Class H - 350 sks 8hr TT 10% Excess 1000psi CSD after 10hrs	7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and full Inconel 925 trim
Devonian - 16769' **Fusselman - 17229'** **Montoya - 17709'** **TD - 17809'**	**Injection Interval** Drill 1009' of 6-1/2" hole 16800' - 17809'	6-1/2" PDC 4-3/4"MM 9 jts: 4-3/4" DC 4-3/4" Drilling Jars 18 jts: 4" FH HWDP 4" FH DP to Surface	Openhole completion	MWD GR Triple Combo with FMI, CBL of 7-5/8"	Displace with 3% KCl (or heavier brine if necessary)	

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

State of New Mexico

Energy Minerals and Natural Resources

Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-101
Revised July 18, 2013

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
NGL WATER SOLUTIONS PERMIAN, LLC 1509 W WALL ST, STE 306 MIDLAND, TX 79701	372338
	3. API Number TBD

4. Property Code	5. Property Name	6. Well No.
	JACK TANK SWD	1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
F	05	24S	32E	N/A	1,400'	NORTH	1,853'	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; Silurian-Devonian	96101

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
N	SWD	R	Private	3,605'
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	17,809'	Siluro-Devonian	TBD	ASAP

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water
380'	1,156'	> 1 mile

☐ **We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	24"	20"	94 lb/ft	1,250'	1,616	Surface
Intermediate	17.5"	13.375"	68 lb/ft	4,770'	2,713	Surface
Production	12.25"	9.625"	53.5 lb/ft	12,200'	3,218	Surface
Prod. Liner	8.5"	7.625"	39 lb/ft	16,800'	350	11,700
Tubing	N/A	7"	26 lb/ft	0' – 11,600'	N/A	N/A
Tubing	N/A	5.5"	17 lb/ft	11,600' – 16750'	N/A	N/A

Casing/Cement Program: Additional Comments

See attached schematic.

22. Proposed Blowout Prevention Program

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

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☒, if applicable.** Signature:		OIL CONSERVATION DIVISION Approved By:	
Printed name: Christopher B. Weyand		Title:	
Title: Consulting Engineer		Approved Date:	Expiration Date:
E-mail Address: chris@longuist.com			
Date: 8/2/2018	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-10
Revised August 1
201
Submit one copy to appropriat
District Offic

☐ AMENDED REPOR

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	96101	SWD; Silurian-Devonian

[4] Property Code	[5] Property Name	[6] Well Number
	JACK TANK SWD	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
372338	NGL WATER SOLUTIONS PERMIAN, LLC	3605.00'±

[10] Surface Location

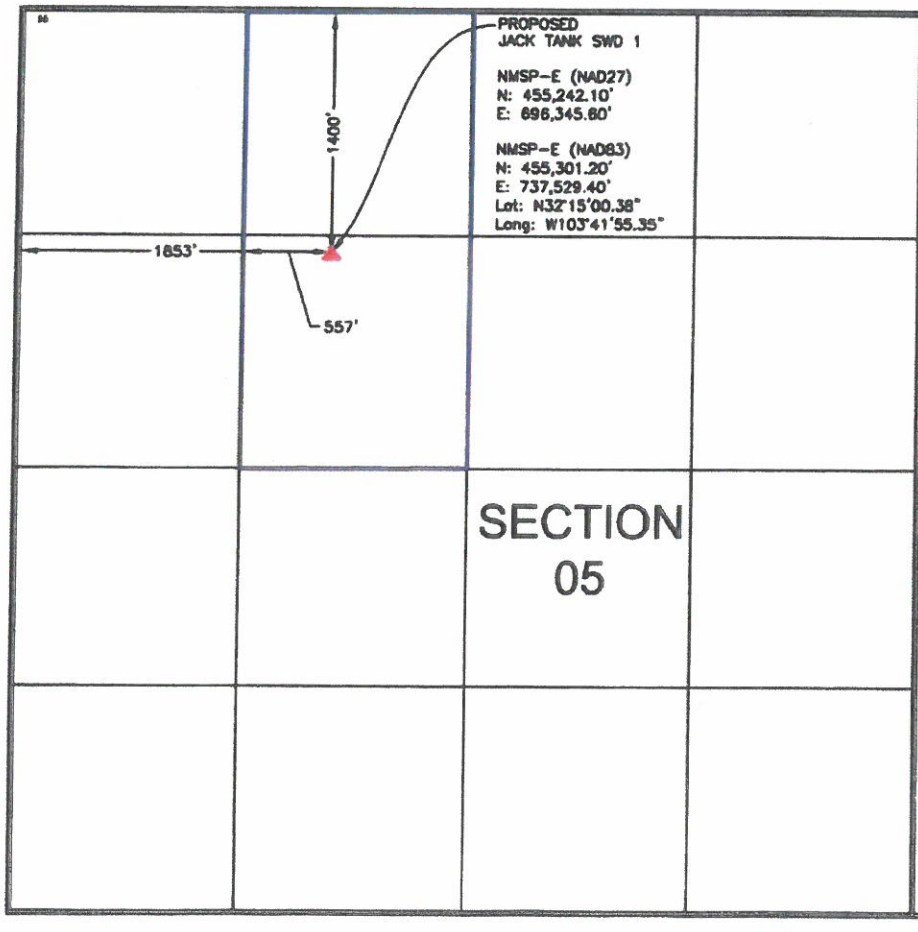
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	05	24 S	32 E	N/A	1400'	NORTH	1853'	WEST	LEA

[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.



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete the best of my knowledge and belief, and that this organization either owns 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 locatic pursuant to a contract with an owner of such a mineral or working interest or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division

Signature Date

Chris Weyand
Printed Name

chris@lonquist.com
E-mail Address

[18] SURVEYOR CERTIFICATION

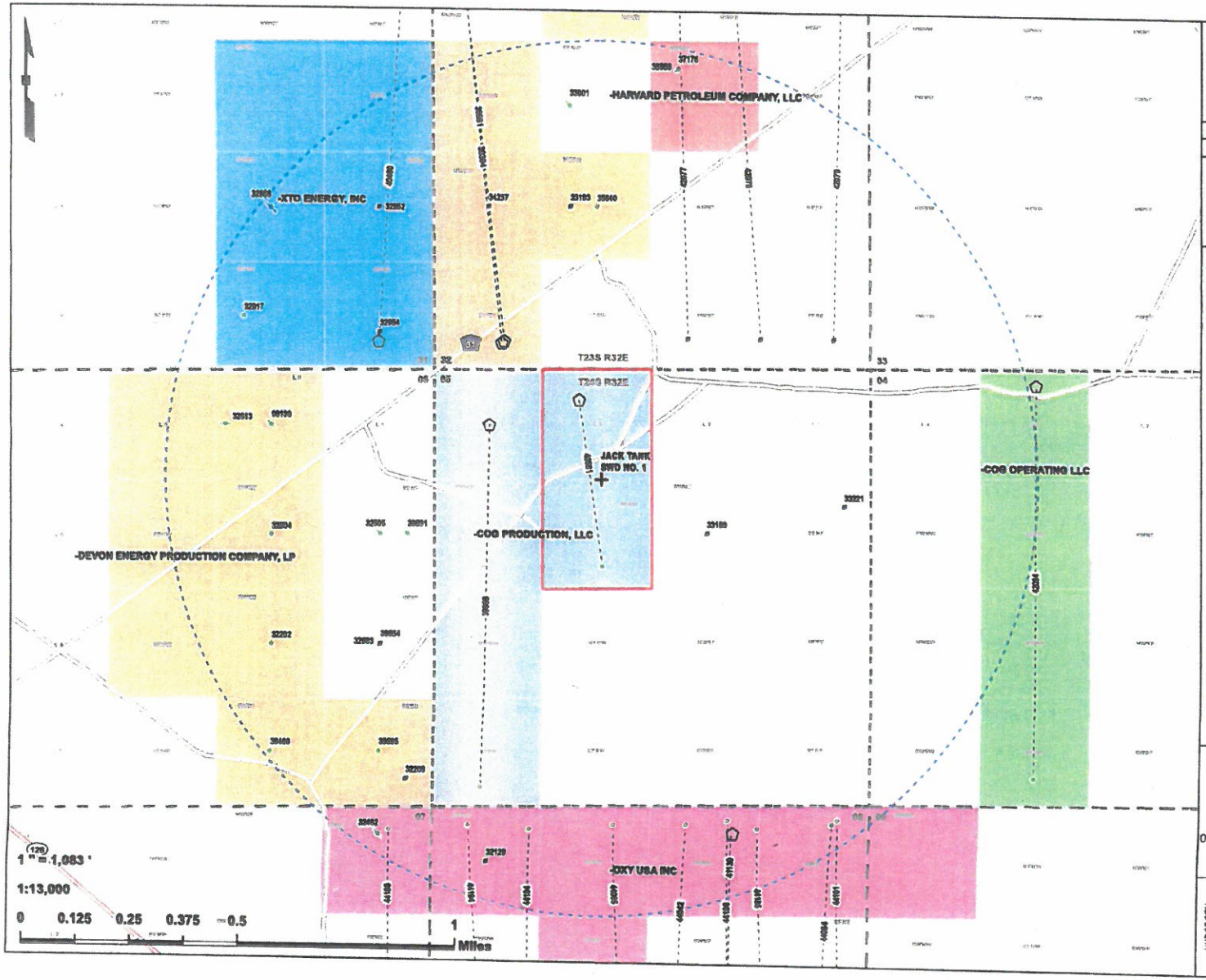
I hereby certify that the well location shown on this plat wa plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

8/17/18
Date of Survey

Signature and Seal of Professional Surveyor

CODY A. CLARK
NEW MEXICO
23001
PROFESSIONAL SURVEYOR

23001
Certificate Number



Jack Tank SWD No. 1
1 Mile Offset Operators
NGL Water Solutions Permian, LLC
Lea County, NM

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

Drawn by: SJL	Date: 8/24/2018	Approved by: ELR

LONQUIST & CO LLC
PETROLEUM ENGINEERS | ENERGY ADVISORS
AUSTIN HOUSTON WICHITA DENVER CALGARY

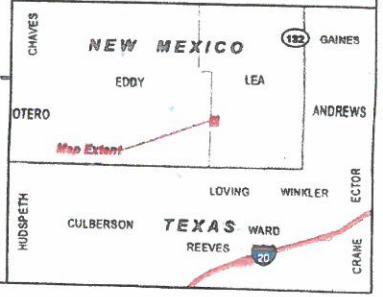
- Jack Tank SWD No. 1 SHL
- Property Boundary
- 1 Mile Radius
- QQ-Section (NM-PLSS 2nd Div.)
- Section (NM-PLSS 1st Div.)
- Township/Range (NM-PLSS)
- Laterals

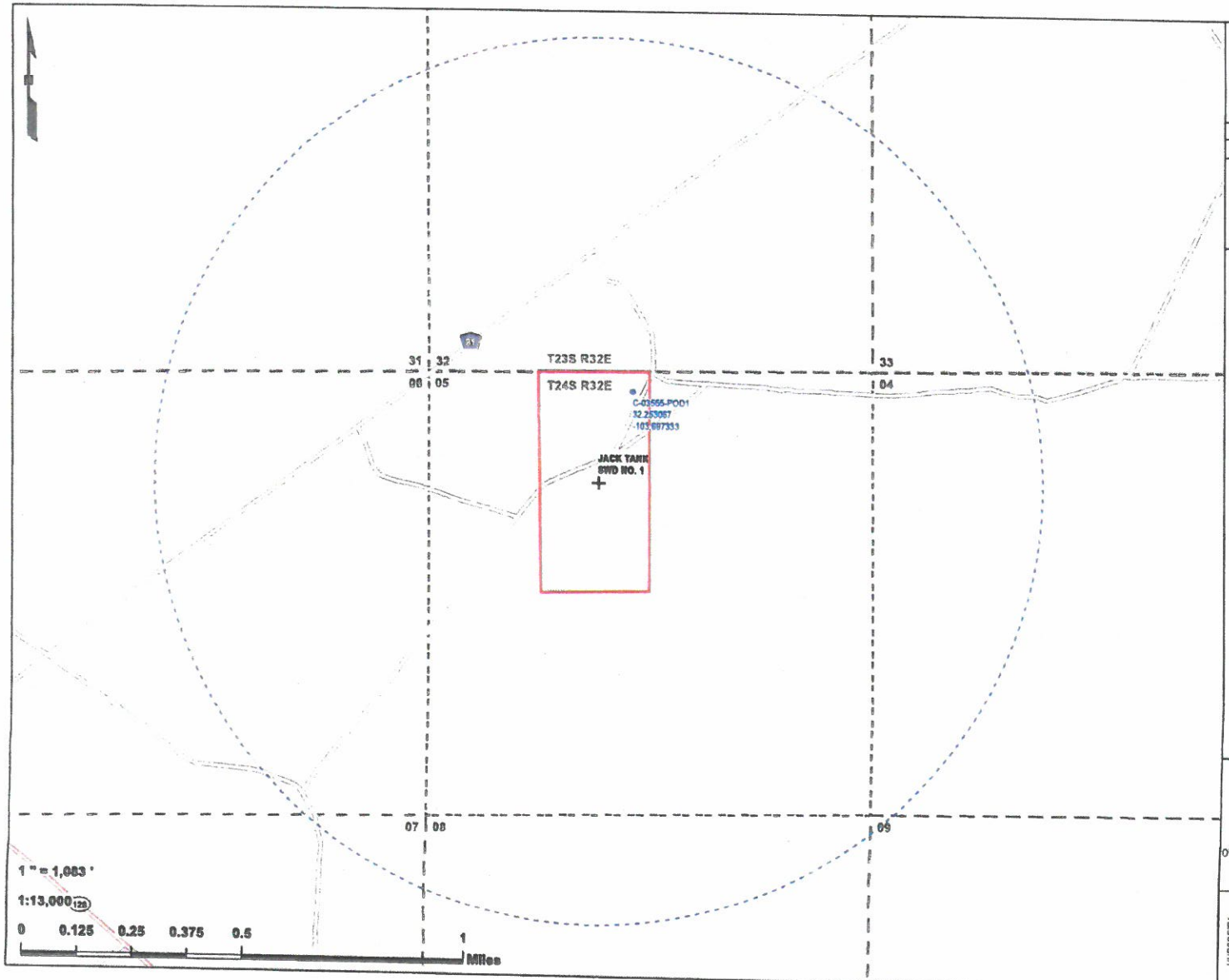
API (30-025-...) SHL Status - Type (Count)
- Horizontal Surface Location (10)
- Active - Oil (7)
- Active - Salt Water Disposal (1)
- Canceled Location (11)
- Plugged (Site Released) - Oil (9)
- Shut-In - Oil (1)

API (30-025-...) SHL Status - Type (Count)
- Active - Oil (10)
- Canceled Location (3)
- Permitted - Oil (6)
- Plugged (Site Released) - Oil (1)

Operators
- -COG OPERATING LLC
- -COG PRODUCTION, LLC
- -DEVON ENERGY PRODUCTION COMPANY, LP
- -HARVARD PETROLEUM COMPANY, LLC
- -OXY USA INC
- -XTO ENERGY, INC

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





Jack Tank SWD No. 1
Water Wells within 1 Mile
NGL Water Solutions Permian, LLC
Lea County, NM

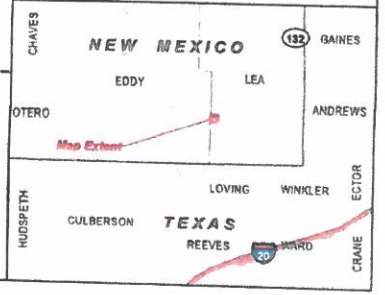
PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)

Drawn by: SJL	Date: 8/9/2018	Approved by: ELR

LONQUIST & CO. LLC
PETROLEUM ENGINEERS | ENERGY ADVISORS
AUSTIN HOUSTON WICHITA DENVER CALGARY

- Jack Tank SWD No. 1 SHL
- Water Well (1) [NM-OSE 2018]
- 1 Mile Radius
- Property Boundary
- QQ-Section (NM-PLSS 2nd Div.)
- Section (NM-PLSS 1st Div.)
- Township/Range (NM-PLSS)

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



Jack Tank

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

PS Form 3877

Type of Mailing: CERTIFIED
09/18/2018

SEP 18 2018 USPS

Firm Mailing Book ID: 151704

Line	Article Number	Name, Street & P.O. Address	Postage	Fee	R.R.Fee	Reference	Rest.Del.Fee Contents
1	9314 8699 0430 0050 9171 23	Oil Conservation Division District I - Hobbs 1625 N. French Drive Hobbs NM 88240	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
2	9314 8699 0430 0050 9171 30	NEW MEXICO STATE LAND OFFICE P.O. Box 1148 Santa Fe NM 87504	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
3	9314 8699 0430 0050 9171 47	BUREAU OF LAND MGMT 301 Dinosaur Trail Santa Fe NM 87508	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
4	9314 8699 0430 0050 9171 54	XTO ENERGY, INC 6401 Holiday Hill Road Building #5 Midland TX 79707	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
5	9314 8699 0430 0050 9171 61	CHEVRON USA INC 6301 DEAUVILLE Midland TX 79706	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
6	9314 8699 0430 0050 9171 85	DEVON ENERGY PRODUCTION COMPANY, LP 20 N Broadway Oklahoma City OK 73102	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
7	9314 8699 0430 0050 9171 92	DEVON ENERGY PRODUCTION COMPANY, LP 333 W. SHERIDAN AVENUE Oklahoma City OK 73012	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
8	9314 8699 0430 0050 9172 08	HARVARD PETROLEUM COMPANY, LLC P.O. Box 936 Roswell NM 88202	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
9	9314 8699 0430 0050 9172 15	CASE-POMEROY OIL CORP 16666 NORTHCASE DR STE 475 Houston TX 77060	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
10	9314 8699 0430 0050 9172 22	OXY Y-1 COMPANY PO BOX 27570 Houston TX 77227	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
11	9314 8699 0430 0050 9172 39	EOG A RESOURCES INC 105 S 4TH Street Artesia NM 88210	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
12	9314 8699 0430 0050 9172 46	EOG M RESOURCES INC P.O. Box 840 Artesia NM 88211	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
13	9314 8699 0430 0050 9172 53	EOG Y RESOURCES INC 104 S. 4th St. Artesia NM 88210	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
14	9314 8699 0430 0050 9172 60	COG PRODUCTION, LLC P.O. Box 2064 Midland TX 79702	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
15	9314 8699 0430 0050 9172 77	COG PRODUCTION, LLC 600 W ILLINOIS AVE Midland TX 79701	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice

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

PS Form 3877

Type of Mailing: CERTIFIED
09/18/2018

ALBUQUERQUE NM 87101
SEP 18 2018
USPS

Firm Mailing Book ID: 151704

Line	Article Number	Name, Street & P.O. Address	Postage	Fee	R.R.Fee	Reference	Rest.Del.Fee Contents
16	9314 8699 0430 0050 9172 84	COG OPERATING LLC 550 W Texas Midland TX 79701	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
		Totals:	$26.08	$55.20	$24.00		$0.00
						Grand Total:	$105.28

List Number of Pieces Listed by Sender	Total Number of Pieces Received at Post Office	Postmaster: Name of receiving employee	Dated:
16			

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

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

CASE NO. 16440

AMENDED APPLICATION

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

(1) NGL proposes to drill the McCloy West SWD #1 well at a surface location 1,019 feet from the South line and 2,388 feet from the East line of Section 14, Township 24 South, Range 32 East, NMPM, Lea County, New Mexico for the purpose of operating a salt water disposal well.

(2) NGL seeks authority to inject salt water into the Devonian and Silurian formations at a depth of 17,350' – 18,451'.

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

(4) NGL anticipates using an average pressure of 2,620 psi for this well, and it requests that a maximum pressure of 3,470 psi be approved for the well.

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

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

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

Respectfully submitted,

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

By: _____

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

CASE NO. 16440: Amended Application of NGL Water Solutions Permian, LLC for approval of salt water disposal well in Lea County, New Mexico. Applicant seeks an order approving disposal into the Devonian and Silurian formations through the McCloy West SWD #1 well. NGL proposes to drill this well at a surface location 1,019 feet from the South line and 2,388 feet from the East line of Section 14, Township 24 South, Range 32 East, NMPM, Lea County, New Mexico. The target injection interval is the Devonian and Silurian formations at a depth of 17,350' – 18,451'. NGL further seeks approval of the use of 7 inch tubing inside the surface and intermediate casings and 5 ½ inch tubing inside the liner and requests that the Division approve a maximum daily injection rate for the well of 50,000 bbls per day. Said area is located approximately 28 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: MCCLOY WEST SWD #1 **API:** TBD
Pool: SWD; SILURIAN-DEVONIAN **Pool Code:** 96101

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

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

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

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

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

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

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

CHRIS WEYAND
Print or Type Name

09/05/2018
Date

512-600-1764
Phone Number

Signature

CHRIS@LONQUIST.COM
e-mail Address

EXHIBIT
tabbies
A

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, TX 79701

CONTACT PARTY: SARAH JORDAN PHONE: (432) 685-0005 x1989

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____ Yes ___X___ No
If yes, give the Division order number authorizing the project: _____

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

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

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

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

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

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

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Christopher B. Weyand TITLE: Consulting Engineer

SIGNATURE: _____ DATE: _____

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

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 I

INJECTION WELL DATA SHEET

OPERATOR: NGL WATER SOLUTIONS PERMIAN, LLC

WELL NAME & NUMBER: MCCLOY WEST SWD #1

WELL LOCATION: 1,019 FSL & 2,388' FEL — O — 14 — 24S — 32E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 24.000"

Casing Size: 20.000"

Cemented with: 1,554 sx.

or _____ ft^3

Top of Cement: Surface

Method Determined: Circulation

1st Intermediate Casing

Hole Size: 17.500"

Casing Size: 13.375"

Cemented with: 2,441 sx.

or _____ ft^3

Top of Cement: Surface

Method Determined: Circulation

2nd Intermediate Casing

Hole Size: 12.250"

Casing Size: 9.625"

Cemented with: 2,910 sx.

or _____ ft^3

Top of Cement: Surface

Method Determined: Circulation

Production Liner

Hole Size: 8.500"

Cemented with: 382 sx.

Top of Cement: 11,700'

Total Depth: 18,451'

Casing Size: 7.625"

or _____ ft^3

Method Determined: Calculation

Injection Interval

17,350 feet to 18,451 feet

(Open Hole)

INJECTION WELL DATA SHEET

Tubing Size: 7", 26 lb/ft, P-110, TCPC from 0'- 11,600' and 5.500", 17 lb/ft, P-110 TCPC from 11,600'- 17,300'
Lining Material: Duoline

Type of Packer: 7.625" x 5.5" TCPC Permanent Packer with High Temp Elastomer and Full Inconel

Packer Setting Depth: 17,300'

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

Additional Data

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

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

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

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

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No, new drill.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
   Delaware: 4,921'
   Bone Spring: 8,941'
   Wolfcamp: 12,111'

NGL Water Solutions Permian, LLC

McCloy West SWD No. 1

FORM C-108 Supplemental Information

III. Well Data

A. Wellbore Information

1.

Well information	
Lease Name	McCloy West SWD
Well No.	1
Location	S-14 T-24S R-32E
Footage Location	1,019' FSL & 2,388' FEL

2.

a. Wellbore Description

Casing Information				
Type	Surface	Intermediate	Production	Liner
OD	20"	13.375"	9.625"	7.625"
WT	0.500"	0.480"	0.545"	0.500"
ID	19.000"	12.415"	8.535"	6.625"
Drift ID	18.813"	12.259"	8.535"	6.500"
COD	21.00"	14.375"	10.625"	7.625"
Weight	106.5 lb/ft	68 lb/ft	53.5 lb/ft	39 lb/ft
Grade	J-55	HCL-80	P-110	Q-125
Hole Size	24"	17.5"	12.25"	8.5"
Depth Set	1,250'	4,920'	12,200	17,350'

b. Cementing Program

Cement Information				
Casing String	Surface	Intermediate	Production	Liner
Lead Cement	C	C	H, H, C	H
Lead Cement Volume	623	1283	Stage 1: 235 sks Stage 2: 465 sks Stage 3: 532 sks	194
Tail Cement	C	C	H,H,C	H
Tail Cement Volume	931	1158	Stage 1: 656 sks Stage 2: 573 sks Stage 3: 449 sks	188
Cement Excess	25%	10%	10%	10%
TOC	Surface	Surface	Surface	11,700'
Method	Circulate to Surface	Circulate to Surface	Circulate to Surface	Logged

3. Tubing Description

Tubing Information		
OD	7"	5.5"
WT	0.362"	0.304"
ID	6.276"	4.892"
Drift ID	6.151"	4.767"
COD	7.875"	6.050"
Weight	26 lb/ft	17 lb/ft
Grade	P-110 TCPC	P-110 TCPC
Depth Set	0'-11,600'	11,600'-17,300'

Tubing will be lined with Duoline.

4. Packer Description

7.625"x5.5" TCPC Permanent Packer with High Temp Elastomer and Full Inconel

B. Completion Information

1. Injection Formation: Devonian, Silurian, Fusselman, Montoya (Top 100')

2. Gross Injection Interval: 17,350 – 18,451'

   Completion Type: Open Hole

3. Drilled for injection.

4. See the attached wellbore schematic.

5. Oil and Gas Bearing Zones within area of well:

Formation	Depth
Delaware	4,921'
Bone Spring	8,941'
Wolfcamp	12,111'

VI. Area of Review

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

VII. Proposed Operation Data

1. Proposed Daily Rate of Fluids to be Injection:

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

2. Closed System

3. Anticipated Injection Pressure:

   Average Injection Pressure: 2,600 PSI (surface pressure)
   Maximum Injection Pressure: 3,470 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 and Bone Spring formations.

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

VIII. Geological Data

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

A. Injection Zone: Siluro-Devonian Formation

Formation	Depth
Rustler	1,112'
Salado	1,442'
Delaware	4,921'
Bone Spring	8,941'
Wolfcamp	12,111'
Penn	13,569'
Atoka	14,156'
Morrow	14,933'
Mississippian Lime	15,951'
Woodford	17,153'
Devonian	17,342'

B. Underground Sources of Drinking Water

The water wells have an average depth of 400 ft and with water depths ranging from 50' to 575' generally producing from the Santa Rosa. The upper Rustler may also be another USDW and will be protected.

IX. Proposed Stimulation Program

Stimulate with up to 50,000 gallons of acid.

X. Logging and Test Data on the Well

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

XI. Chemical Analysis of Fresh Water Wells

There are no fresh water wells within one mile of the well location.

XII. Affirmative Statement of Examination of Geologic and Engineering Data

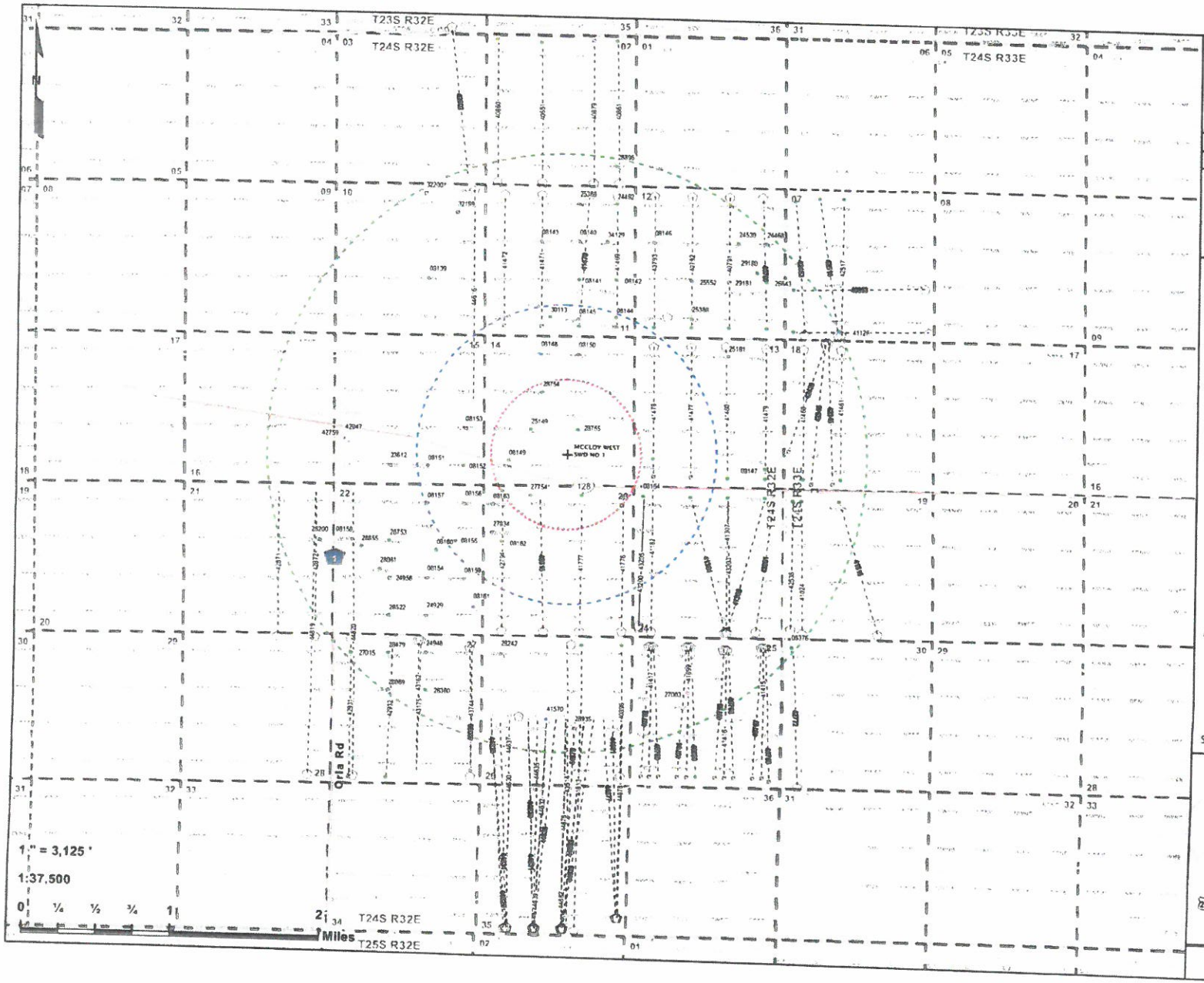
Based on the available engineering and geologic data we find no evidence of open faults or any other hydrologic connection between the disposal zone (in the proposed **McCloy West SWD #1**) and any underground sources of drinking water.

NAME: John C. Webb

TITLE: Sr. Geologist

SIGNATURE: John C Webb

DATE: 8/22/2018



McCloy West SWD No. 1

2 Mile Area of Review

NGL Water Solutions Permian, LLC

Lea Co., NM

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

Drawn by: ASG	Date: 8/29/2018	Approved by: ELR

LONQUIST & CO. LLC

PETROLEUM ENGINEERS | ENERGY ADVISORS

AUSTIN HOUSTON WICHITA DENVER CALGARY

- McCloy West SWD No.1
- 1-Mile
- 1/2-Mile
- 2-Mile
- QQ-Section (NM-PLSS 2nd Div.)
- Section (NM-PLSS 1st Div.)
- Township/Range (NM-PLSS)
- Lateral

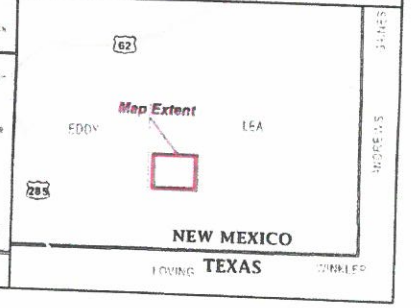
API (30-025-...) SHL Status - Type (Count)

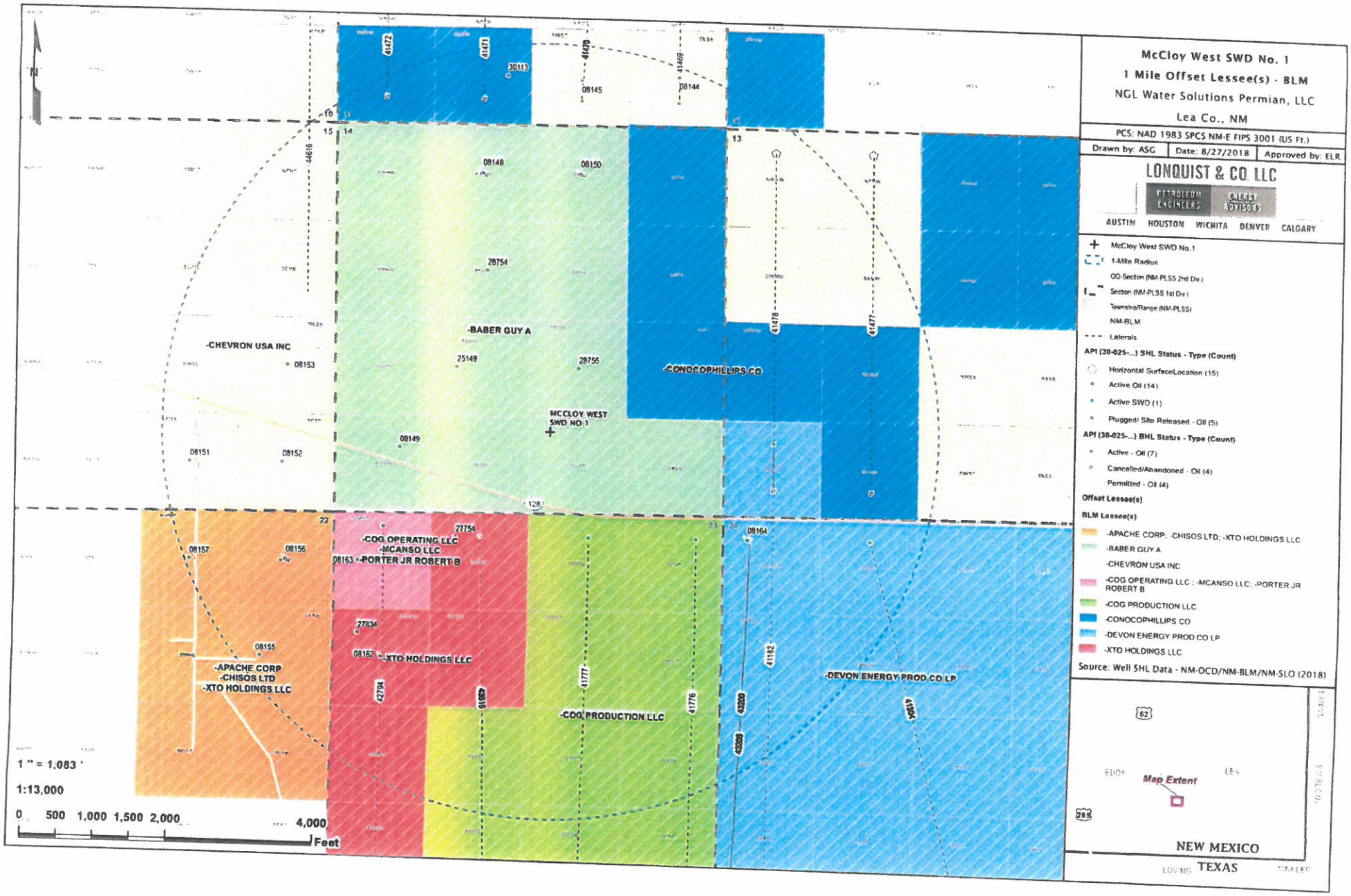
- Horizontal SurfaceLocation (92)
- Active Oil (26)
- Active SWD (5)
- Cancelled/Abandoned - Oil (4)
- Plugged/Not Released - SWD (1)
- Plugged/Site Released - Gas (1)
- Plugged/Site Released - Oil (29)

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

- Active - Oil (92)
- Cancelled/Abandoned - Oil (21)
- Permitted - Oil (38)
- Plugged/Not Released - Oil (1)

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




McCloy West SWD No. 1
1 Mile Offset Lessee(s) - BLM
NGL Water Solutions Permian, LLC
Lea Co., NM
PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)
Drawn by: ASG
Date: 8/27/2018
Approved by: ELR
LONQUIST & CO. LLC
PETROLEUM ENGINEERS
ENERGY ADVISORS
AUSTIN HOUSTON WICHITA DENVER CALGARY
McCloy West SWD No.1
1-Mile Radius
QQ-Section (NM-PLSS 2nd Div.)
Section (NM-PLSS 1st Div.)
Township/Range (NM-PLSS)
NM-BLM
Laterals
API (30-025-...) SHL Status - Type (Count)
Horizontal SurfaceLocation (15)
Active Oil (14)
Active SWD (1)
Plugged/ Site Released - Oil (5)
API (30-025-...) BHL Status - Type (Count)
Active - Oil (7)
Cancelled/Abandoned - Oil (4)
Permitted - Oil (4)
Offset Lessee(s)
BLM Lessee(s)
-APACHE CORP; -CHISOS LTD; -XTO HOLDINGS LLC
-BABER GUY A
-CHEVRON USA INC
-COG OPERATING LLC ; -MCANSO LLC; -PORTER JR ROBERT B
-COG PRODUCTION LLC
-CONOCOPHILLIPS CO
-DEVON ENERGY PROD CO LP
-XTO HOLDINGS LLC
Source: Well SHL Data - NM-OCD/NM-BLM/NM-SLO (2018)
-CHEVRON USA INC
-BABER GUY A
-CONOCOPHILLIPS CO
MCCLOY WEST SWD NO 1
-COG OPERATING LLC
-MCANSO LLC
-PORTER JR ROBERT B
-XTO HOLDINGS LLC
-APACHE CORP
-CHISOS LTD
-XTO HOLDINGS LLC
-COG PRODUCTION LLC
-DEVON ENERGY PROD CO LP
1 " = 1,083 '
1:13,000
0 500 1,000 1,500 2,000 4,000
Feet
Map Extent
NEW MEXICO
TEXAS

McCloy West SWD No. 1
1 Mile Area of Review List

API (30-025-...)	WELL NAME	WELL TYPE	STATUS	OPERATOR	TVD (FT.)	LATITUDE (NAD83 DD)	LONGITUDE (NAD83 DD)	DATE DRILLED
41777	TREASURE ISLAND FEDERAL #002H	O	A	COG PRODUCTION, LLC	10961	32.19637300000	-103.64295960000	6/30/2014
41776	TREASURE ISLAND FEDERAL #001H	O	A	COG PRODUCTION, LLC	10722	32.19639590000	-103.63814540000	8/9/2014
43205	BELL LAKE 24 FEDERAL #009H	O	N	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.19679660000	-103.63622580000	12/31/9999
08144	GULF HANAGAN FEDERAL #001	O	A	MARKS AND GARNER PRODUCTION LTD CO	5065	32.22675700000	-103.63896940000	12/31/9999
08163	ERNEST FEDERAL #001	O	A	MARKS AND GARNER PRODUCTION LTD CO	4992	32.20852280000	-103.65292360000	12/31/9999
08156	BRADLEY FEDERAL #003	O	P	MARKS AND GARNER PRODUCTION LTD CO	4980	32.20851140000	-103.65612030000	12/31/9999
43200	BELL LAKE 24 FEDERAL #005H	O	N	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.19693420000	-103.63622540000	12/31/9999
41304	BELL LAKE 24 FEDERAL #004H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	11056	32.19645690000	-103.62644960000	4/12/2014
41182	BELL LAKE 24 FEDERAL #001H	O	A	DEVON ENERGY PRODUCTION COMPANY, LP	10991	32.19643400000	-103.63478090000	9/8/2013
44616	MODELO 10 FEDERAL COM #528H	O	N	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.23884350000	-103.65524770000	7/31/2018
27834	EXXON 23 FEDERAL #002	O	A	ROBERT H FORREST JR OIL LLC	5013	32.20580290000	-103.65292360000	12/31/9999
27754	EXXON 23 FEDERAL #001	O	A	ROBERT H FORREST JR OIL LLC	4985	32.20944980000	-103.64865110000	2/25/1982
30113	WIMBERLY #006	O	A	ROVER OPERATING, LLC	5075	32.22671890000	-103.64648440000	12/31/9999
08151	HANAGAN B FEDERAL #001	O	A	MCI OPERATING OF NM, LLC	4955	32.21212390000	-103.66038510000	12/31/9999
08157	U S SMELTING FEDERAL #001	O	A	MCI OPERATING OF NM, LLC	5014	32.20849610000	-103.66039280000	12/31/9999
25149	JENNINGS FEDERAL #004	O	A	MCI OPERATING OF NM, LLC	5000	32.21580120000	-103.64863590000	12/31/9999
08155	BRADLEY FEDERAL #002	O	A	MCI OPERATING OF NM, LLC	4976	32.20487980000	-103.65719600000	12/31/9999
08145	GULF HANAGAN FEDERAL #002	O	A	MCI OPERATING OF NM, LLC	5046	32.22657010000	-103.64324190000	5/1/1962
08148	JENNINGS FEDERAL #001	S	A	MCI OPERATING OF NM, LLC	5019	32.22308350000	-103.64755250000	12/31/9999
28755	JENNINGS FEDERAL #006	O	A	MCI OPERATING OF NM, LLC	4933	32.21582410000	-103.64326480000	12/31/9999
08149	JENNINGS FEDERAL #002	O	A	MCI OPERATING OF NM, LLC	5000	32.21277240000	-103.65113070000	12/31/9999
08152	HANAGAN B FEDERAL #002	O	A	MCI OPERATING OF NM, LLC	4990	32.21213910000	-103.65631100000	12/31/9999
28754	JENNINGS FEDERAL #005	O	A	MCI OPERATING OF NM, LLC	4950	32.21945570000	-103.64732360000	12/31/9999
42794	CHARRO FEDERAL COM #001H	O	A	COG OPERATING LLC	10972	32.19630200000	-103.65184500000	10/13/2015
08162	PRE-ONGARD WELL #001	O	P	PRE-ONGARD WELL OPERATOR	5020	32.20489880000	-103.65186310000	1/1/1900
08150	PRE-ONGARD WELL #003	O	P	PRE-ONGARD WELL OPERATOR	5030	32.22310640000	-103.64324950000	1/1/1900
08153	PRE-ONGARD WELL #003	O	P	PRE-ONGARD WELL OPERATOR	4970	32.21576690000	-103.65610500000	1/1/1900
08164	PRE-ONGARD WELL #001	O	P	PRE-ONGARD WELL OPERATOR	5080	32.20950700000	-103.63581090000	1/1/1900
41470	DOS EQUIS 11 FEDERAL COM #002H	O	A	CIMAREX ENERGY CO.	10893	32.23855590000	-103.64215850000	8/31/2014
41478	DOS EQUIS 13 FEDERAL COM #004H	O	C	CIMAREX ENERGY CO.	0	32.22404860000	-103.63470460000	12/31/9999
41469	DOS EQUIS 11 FEDERAL COM #001H	O	A	CIMAREX ENERGY CO.	10925	32.23857120000	-103.63895420000	2/16/2014
41472	DOS EQUIS 11 FEDERAL COM #004H	O	C	CIMAREX ENERGY CO.	0	32.23850630000	-103.65180210000	12/31/9999
41471	DOS EQUIS 11 FEDERAL COM #003H	O	C	CIMAREX ENERGY CO.	0	32.23852920000	-103.64753720000	12/31/9999
41477	DOS EQUIS 13 FEDERAL COM #003H	O	C	CIMAREX ENERGY CO.	0	32.22405620000	-103.63043980000	12/31/9999
43515	TREASURE ISLAND FEDERAL COM #003H	O	N	COG PRODUCTION, LLC	0	32.19625100000	-103.64710000000	12/31/9999

McCloy West SWD #1: Offsetting Produced Water Analysis

wellname	api	section	township	range	county	state	formation	ph	tds_mgl	sodium_mgl	calcium_mgl	iron_mgl	magnesium_mgl	manganese_mgl	chloride_mgl	bicarbonate_mgl	sulfate_mgl	co2_mgl
BELL LAKE 19 STATE #001H	3002541024	19	24S	33E	Lea	NM	BONE SPRING 2ND SAND	6.77	134649.2	44572.9	6215	37.9	759.3	0.93	81681.6	244	765	200
BELL LAKE 19 STATE #002H	3002541515	19	24S	33E	Lea	NM	BONE SPRING 2ND SAND	7.01	128413.3	44427.6	4207	41.9	705.9	0.78	77482.5	366	910	300
BELL LAKE 19 STATE #003H	3002541516	19	24S	33E	Lea	NM	BONE SPRING 2ND SAND	6.67	138617.2	46648.4	5778	41.1	731.5	1.1	84081	244	710	300
BELL LAKE 19 STATE #004H	3002541517	19	24S	33E	Lea	NM	BONE SPRING 2ND SAND	6.68	133460.5	44483.1	5917	30.5	718.2	0.83	80981.7	244	675	300
BELL LAKE 24 FEDERAL #001H	3002541182	24	24S	32E	Lea	NM	BONE SPRING 2ND SAND	6.8		49221	8660	63	1324	1.9	95000	195	113	330
BELL LAKE 24 FEDERAL #002H	3002541306	24	24S	32E	Lea	NM	BONE SPRING 2ND SAND	6.8		48200	7820	38	1081	0.8	91000	171	436	330
BELL LAKE 24 FEDERAL #004H	3002541304	24	24S	32E	Lea	NM	BONE SPRING 2ND SAND	6.7		44730	12294	38	1595	1	95000	122	586	264
BELLOQ 2 STATE #002H	3001542895	2	23S	31E	EDDY	NM	WOLFCAMP	6.8	119471.8	37359.2	5659.1	22.4	746.1		73172.5		1035.5	250
HANAGAN B FEDERAL #001	3002508151	15	24S	32E	LEA	NM	DELAWARE		229878						142200	168	491	
HANAGAN B FEDERAL #001	3002508151	15	24S	32E	LEA	NM	DELAWARE		229709						142100	168	491	
HANAGAN B FEDERAL #001	3002508151	15	24S	32E	LEA	NM	DELAWARE	7.1	229813	65198	18727		3040		142188	168	491	

NGL Energy Partners LP

NGL McCloy West SWD #1

Vertical Injection - Devonian, Silurian, Fusselman

Location: Eddy County NM

TD: 17650'

GL/KB:

Directions to Site:

Geologic Tops (MD ft)	Section	Problems	Bit/BHA	Mud	Casing	Logging	Cement (HOLD)	Injection String
Triassic - 182' Permian Dewey Lake - 582' Rustler Anhydrite - 1112' **Surface TD - 1250'**	**Surface** Drill 24" 0' - 1250 Set and Cement 20" Casing	Loss Circulation Hole Cleaning Wellbore stability in the Red Beds Anhydrite in the Rustler	24" Tricone 9-5/8" x 8" MM 9 jts: 8" DC 21 jts: 5" HWDP 5 " DP to surface	Spud Mud MW< 9.0	1250' of 20" 106.5# J55 BTC Centralizers - bottom 2 joints and every 3rd jt thereafter, Cement basket 5th jt from surface	No Logs	Thixotropic Cement 13.2 ppg Class C 3hr TT 25% Excess 1000psi CSD after 10hrs	
Top Salt - 1442' Castile - 3342' Base Salt - 4829' Delaware Mtn Group - 4921' **ECP DV Tool - 4900'** **1st Int TD - 4920'**	**1st Intermediate** Drill 3670' of 17-1/2" Hole 1250' - 4920' Set and Cement 13-3/8" Casing	Seepage Losses Possible H2S Anhydrite Salt Sections	17-1/2" PDC 9-5/8" x 8" MM 9 jts: 8" DC 21 jts: 5" HWDP 5 " DP to surface	8.5 ppg OBM High Vis Sweeps UBD/MPD usig ADA	5M A Section Casing Bowl 4920' of 13-3/8" 68# HCL80 BTC Centralizers - bottom jt, every 3rd Joint in open hole and 2 jt inside the surface casing	Mudlogger on site by 1250'	13.2 ppg Class C 4hr TT 10% Excess 1000psi CSD after 10 hrs Cement to Surface	11600' of 7" P110 26# TCPC
Lamar Limestone - 4923' Bell Canyon - 4961' Cherry Canyon - 5991' Brushy Canyon - 7721' **DV Tool - 8940'** Bone Spring - 8941' **3rd Int Liner Top - 11700'** Wolfcamp - 12111' **2nd Int TD - 12200'**	**2nd Intermediate** Drill 7280' of 12-1/4" Hole 4920' - 12200' Set 9-5/8" Intermediate Casing and Cement in 3 Stages	Hard Drilling in the Brushy Canyon Seepage to Complete Loss Water Flows Some Anhydrite H2S possible Production in the Bone Spring and Wolfcamp Ballooning is possible in Cherry Canyon and Brushy if Broken Down	12-1/4" PDC 8" MM 9jts: 8" DC 8" Drilling Jars 21 jts: 5" HWDP 5" DP to Surface		10M B Section 12200' of 9-5/8" 53.5# P110 BTC **Special Drift to 8.535"** Externally Coat 4000' Between DV Tools DV tool at 8940' ECP DV Tool 15' Inside Previous Casing Centralizers - bottom jt, 100' aside of DV tool, every 3rd joint in open hole and 5 within the surface casing	MWD GR Triple combo + CBL of 13-3/8" Casing	**Stage 3:** 13.2 ppg Class C 5hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface **Stage 2:** 13.2 ppg Class H 5hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface **Stage 1:** 13.2 ppg Class H 6hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface	5700' of 5-1/2" P110 17# TCPC Duoline Internally Coated Injection Tubing
Penn - 13569' Strawn - 13923' Atoka - 14156' Morrow - 14933' Miss Lst - 16781' Woodford - 17153' **Perm Packer - 17300'** **3rd Int TD - 17350'**	**3rd Intermediate** Drill 5150' of 8-1/2" Hole 12200' - 17350' Set 7-5/8" Liner and Cement in Single Stage	High Pressure (up to 15ppg) and wellbore instability (fracturing) expected in the Wolfcamp Production in the Wolfcamp Atoka and Morrow Hard Drilling in the Morrow Clastic	8-1/2" PDC 6-3/4" MM 9 jts: 6" DC 21 jts: 5" HWDP 5" DP to Surface	12.5 ppg OBM UBD/MPD using ADA	5650' of 7-5/8" 39# Q125 - DTL (FJ4) FJ (Gas Tight) VersaFlex Packer Hanger Centralizers on and 1 jt above shoe jt and then every 2nd jt.	MWD GR Triple combo, CBL of 9-5/8" Casing	15.6 ppg Class H 8hr TT 10% Excess 1000psi CSD after 10hrs	7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and full Inconel 925 trim
Devonian - 17342' Silurian - 17716' Fusselman - 17896' Montoya - 18351' TD - 18451'	**Injection Interval** Drill 1100' of 6-1/2" hole 17350' - 18451'	Chert is possible Loss of Circulation is expected H2S encountered on the Striker 3 well BHT estimated at 280F	6-1/2" PDC 4-3/4"MM 9 jts: 4-3/4" DC 4-3/4" Drilling Jars 18 jts: 4" FH HWDP 4" FH DP to Surface	Fresh Water - possible flows	Openhole completion	MWD GR Triple Combo with FMI, CBL of 7-5/8"	Displace with 3% KCl (or heavier brine if necessary)	

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

State of New Mexico

Energy Minerals and Natural Resources

Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-101
Revised July 18, 2013

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
NGL WATER SOLUTIONS PERMIAN, LLC 1509 W WALL ST, STE 306 MIDLAND, TX 79701	372338
	3. API Number TBD

4. Property Code	5. Property Name	6. Well No.
	MCCLOY WEST SWD	1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
O	14	24S	32E	N/A	1019'	SOUTH	2388'	EAST	EDDY

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; Silurian-Devonian	96101

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
N	SWD	R	Private	
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	18,451'	Siluro-Devonian	TBD	ASAP

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water
32'	>1-mile	>1-mile

☐ **We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	24"	20"	106.5 lb/ft	1,250'	1,554	Surface
Intermediate	17.5"	13.375"	68 lb/ft	4,920'	2,441	Surface
Production	12.25"	9.625"	53.5 lb/ft	12,200'	2,910	Surface
Prod. Liner	8.5"	7.625"	39 lb/ft	17,350'	382	11,700
Tubing	N/A	7"	26 lb/ft	0' – 11,600'	N/A	N/A
Tubing	N/A	5.5"	17 lb/ft	11,600' – 17,300'	N/A	N/A

Casing/Cement Program: Additional Comments

See attached schematic.

22. Proposed Blowout Prevention Program

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

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☒, if applicable.** Signature:		OIL CONSERVATION DIVISION Approved By:	
Printed name: Christopher B. Weyand		Title:	
Title: Consulting Engineer		Approved Date:	Expiration Date:
E-mail Address: chris@longuist.com			
Date: 9/6/2018	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-10
Revised August 1
201
Submit one copy to appropriat
District Offic

☐ AMENDED REPOR

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	96101	SWD; Silurian-Devonian

[4] Property Code	[5] Property Name	[6] Well Number
	MCCLOY WEST SWD	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
372338	NGL Water Solutions Permian, LLC	3578.00'±

[10] Surface Location

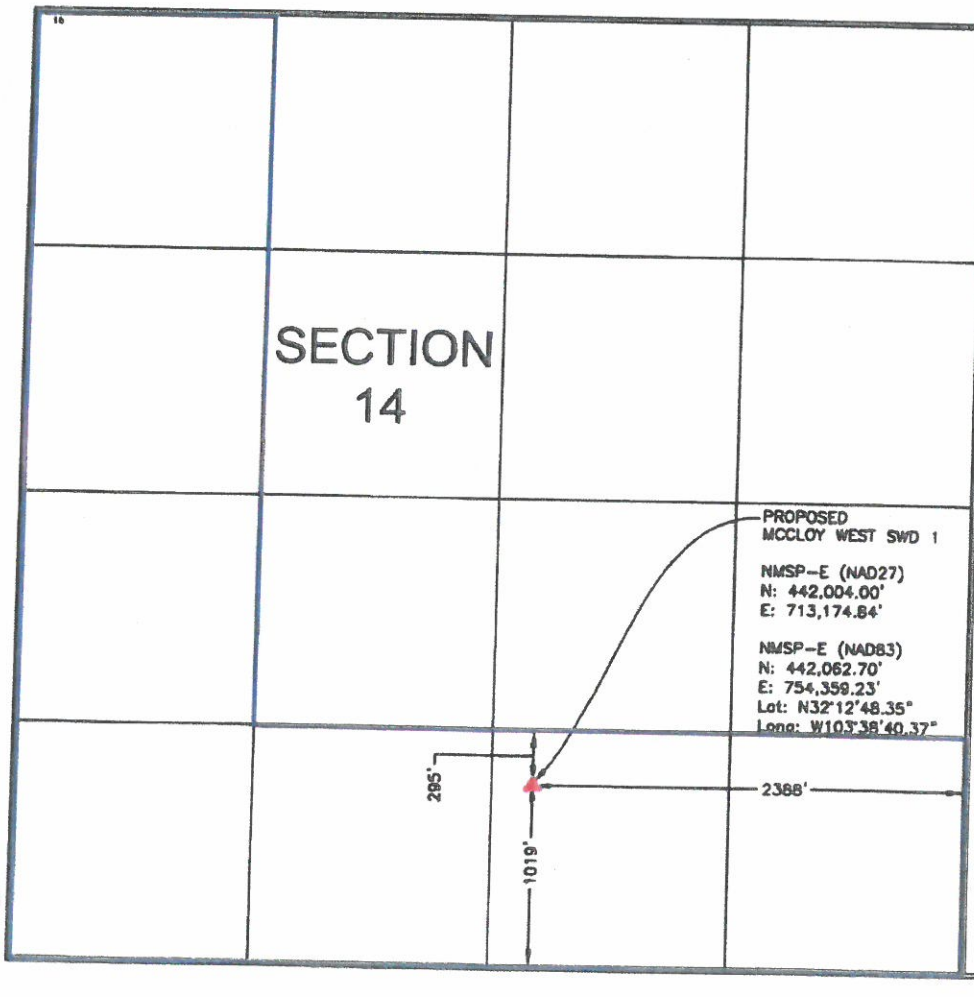
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	14	24 S	32 E	N/A	1019'	SOUTH	2388'	EAST	Lea

[11] Bottom Hole Location If Different From Surface

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

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

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



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete the best of my knowledge and belief, and that this organization either owns 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 locatio 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 wa 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

8/17/18

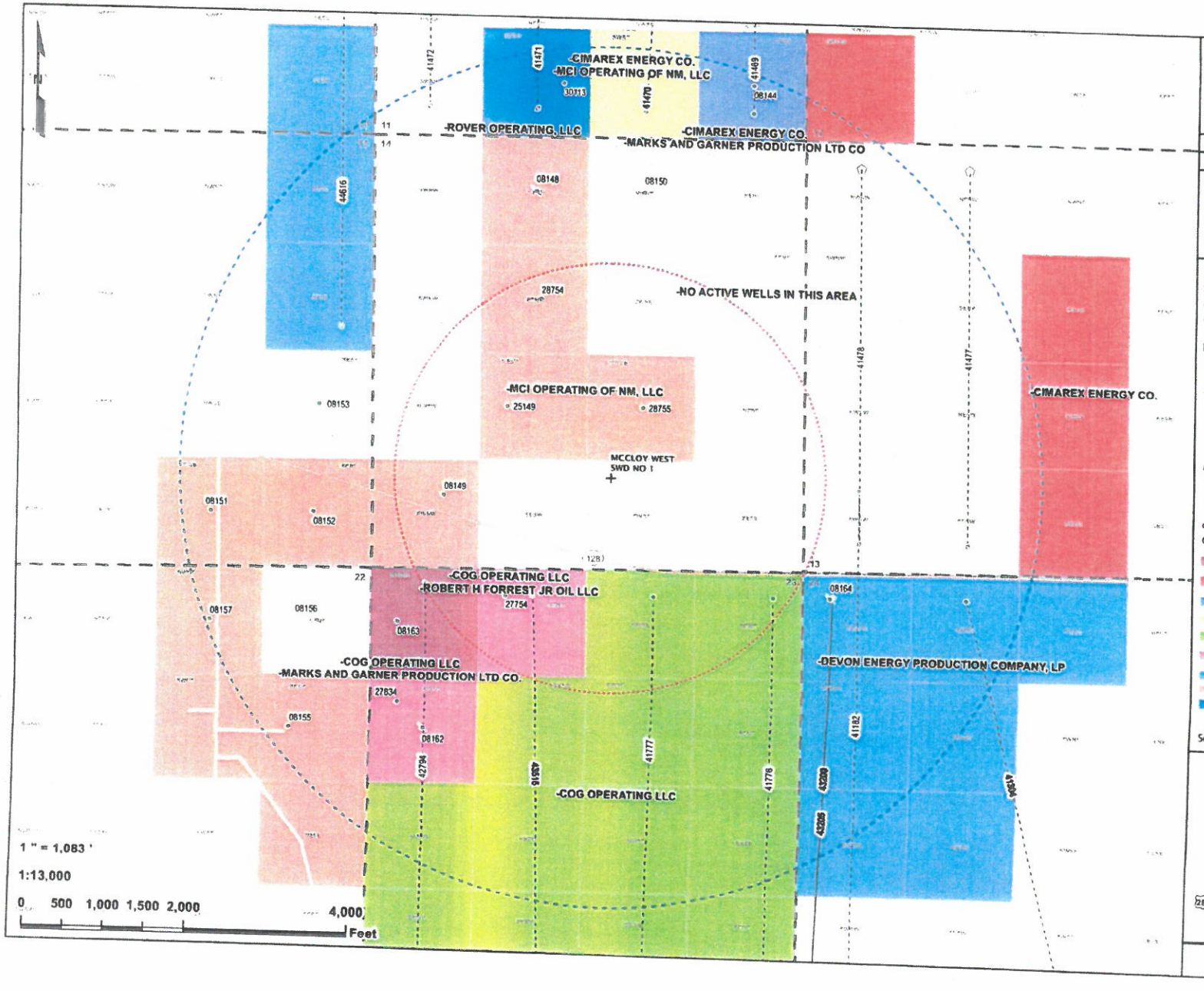
Date of Survey

Signature and Seal of Professional Surveyor

COD A. CLARK
NEW MEXICO
23001
PROFESSIONAL SURVEYOR

23001

Certificate Number



McCloy West SWD No. 1

1 Mile Offset Operators

NGL Water Solutions Permian, LLC

Lea Co., NM

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

Drawn by: ASG | Date: 8/30/2018 | Approved by: ELR

LONQUIST & CO. LLC

PETROLEUM ENGINEERS | ENERGY ADVISORS

AUSTIN HOUSTON WICHITA DENVER CALGARY

- McCloy West SWD No.1
- 1/2-Mile
- 1-Mile
- 2-Mile
- QQ-Section (NM-PLSS 2nd Div)
- Section (NM-PLSS 1st Div)
- Township/Range (NM-PLSS)
- Laterals

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

- Horizontal SurfaceLocation (15)
- Active Oil (14)
- Active SWD (1)
- Plugged/ Site Released - Oil (5)

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

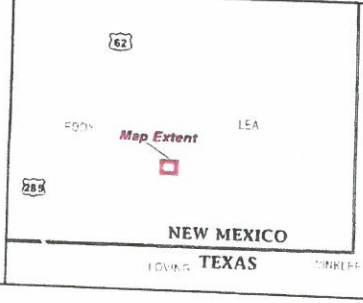
- Active - Oil (7)
- Cancelled/Abandoned - Oil (4)
- Permitted - Oil (4)

Offset Lessee(s)

OCD

- -COG OPERATING LLC; -MARKS AND GARNER PRODUCTION LTD CO.
- -CIMAREX ENERGY CO.
- -CIMAREX ENERGY CO.; -MARKS AND GARNER PRODUCTION LTD CO
- -CIMAREX ENERGY CO.; -MCI OPERATING OF NM, LLC
- -COG OPERATING LLC
- -COG OPERATING LLC; -ROBERT H FORREST JR OIL LLC
- -DEVON ENERGY PRODUCTION COMPANY, LP
- -MCI OPERATING OF NM, LLC
- -ROVER OPERATING, LLC
- -NO ACTIVE WELLS IN THIS

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



McCloy Wx

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

PS Form 3877

Type of Mailing: CERTIFIED
09/18/2018

ALBUQUERQUE NM 87101 SEP 18 2018 USPS

Firm Mailing Book ID: 151687

Line	Article Number	Name, Street & P.O. Address	Postage	Fee	R.R.Fee	Reference	Rest.Del.Fee Contents
1	9314 8699 0430 0050 9136 82	BABER GUY A PO BOX 1772 Hobbs NM 88240	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
2	9314 8699 0430 0050 9136 99	BUREAU OF LAND MGMT 301 Dinosaur Trail Santa Fe Santa Fe NM 87508	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
3	9314 8699 0430 0050 9137 05	CHEVRON USA INC 6301 DEAUVILLE Midland TX 79706	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
4	9314 8699 0430 0050 9137 12	CIMAREX ENERGY CO. OF COLORADO 1700 LINCOLN ST STE 1800 Denver CO 80203	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
5	9314 8699 0430 0050 9137 29	COG PRODUCTION LLC 600 W. ILLINOIS AVENUE Midland TX 79701	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
6	9314 8699 0430 0050 9137 36	CONOCOPHILLIPS CO PO BOX 7500 Bartlesville OK 74005	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
7	9314 8699 0430 0050 9137 43	DEVON ENERGY PRODUCTION COMPANY, LP 20 N Broadway Oklahoma City OK 73102	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
8	9314 8699 0430 0050 9137 50	DEVON ENERGY PRODUCTION COMPANY, LP 1700 LINCOLN ST STE 1800 Denver CO 80203	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
9	9314 8699 0430 0050 9137 67	EOG Y RESOURCES 104 S. FOURTH STREET Denver CO 80203	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
10	9314 8699 0430 0050 9137 74	NEW MEXICO STATE LAND OFFICE P.O. Box 1148 Santa Fe NM 87504	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
11	9314 8699 0430 0050 9137 81	NGL WATER SOLUTIONS PERMIAN, LLC 1509 W Wall St., Ste. 306 Midland TX 79701	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
12	9314 8699 0430 0050 9137 98	Oil Conservation Division District I - Hobbs 1625 N. French Drive Hobbs NM 88240	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
13	9314 8699 0430 0050 9138 04	Oil Conservation Division District IV 1220 South St. Francis Drive Santa Fe NM 87505	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
14	9314 8699 0430 0050 9138 11	OXY USA INC P.O. BOX 4294 HOUSTON TX 77210	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
15	9314 8699 0430 0050 9138 28	ROVER OPERATING, LLC 55 Old Sante Fe Trail, Second Floor Santa Fe NM 87501	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice

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

PS Form 3877

Type of Mailing: CERTIFIED
09/18/2018

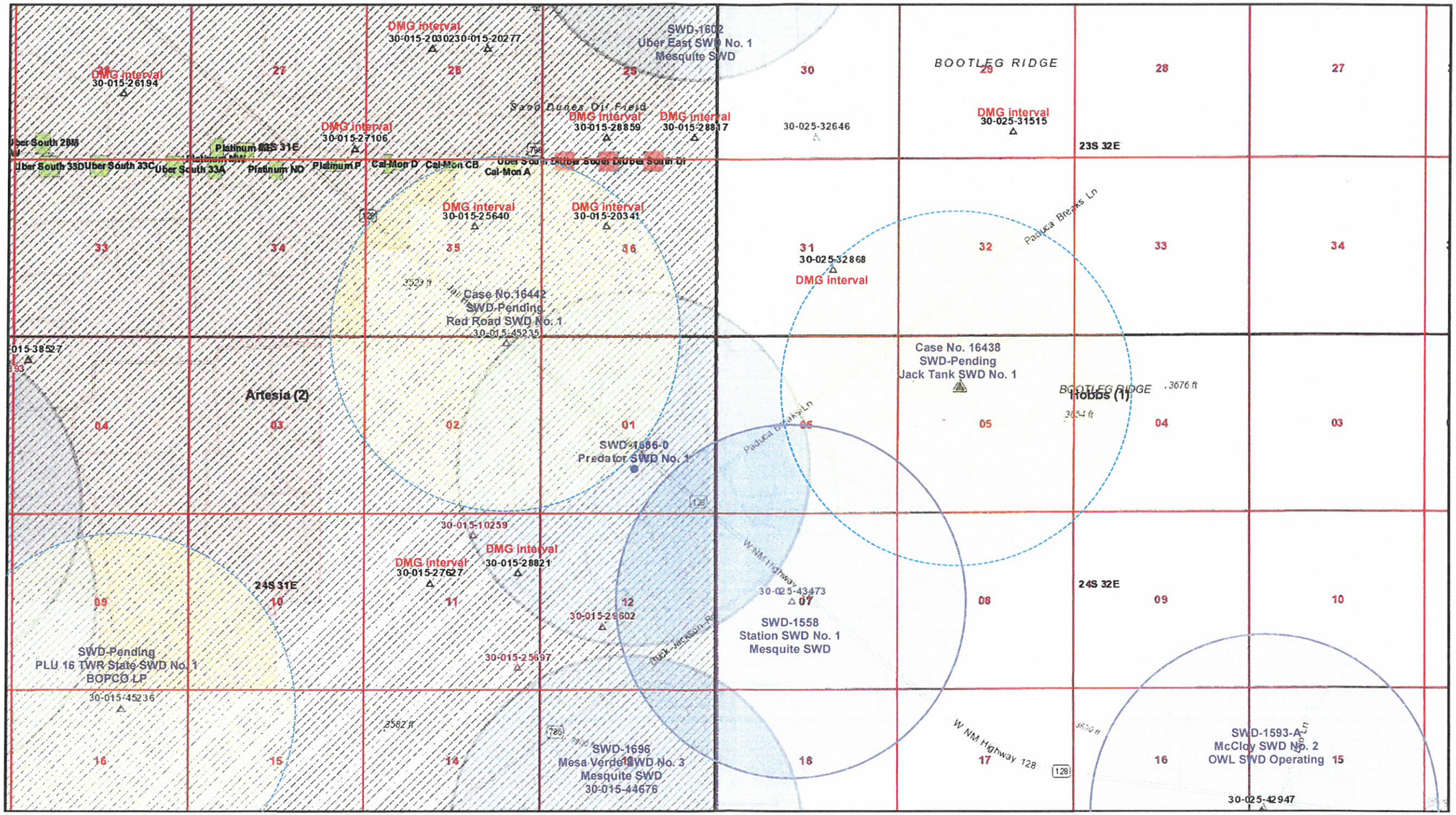
ALBUQUERQUE NM 87101 SEP 18 2018

Firm Mailing Book ID: 151687

Line	Article Number	Name, Street & P.O. Address		Postage	Fee	R.R.Fee	Reference	Rest.Del.Fee Contents
			Totals:	$21.30	$51.75	$22.50		$0.00
							Grand Total:	$95.55

List Number of Pieces Listed by Sender	Total Number of Pieces Received at Post Office	Postmaster: Name of receiving employee	Dated:
15			

Pending Application for High-Volume Devonian Disposal Well
C-108 Applications for Red Road SWD No. 1 and Jack Tank SWD No. 1 – NGL Water Solutions

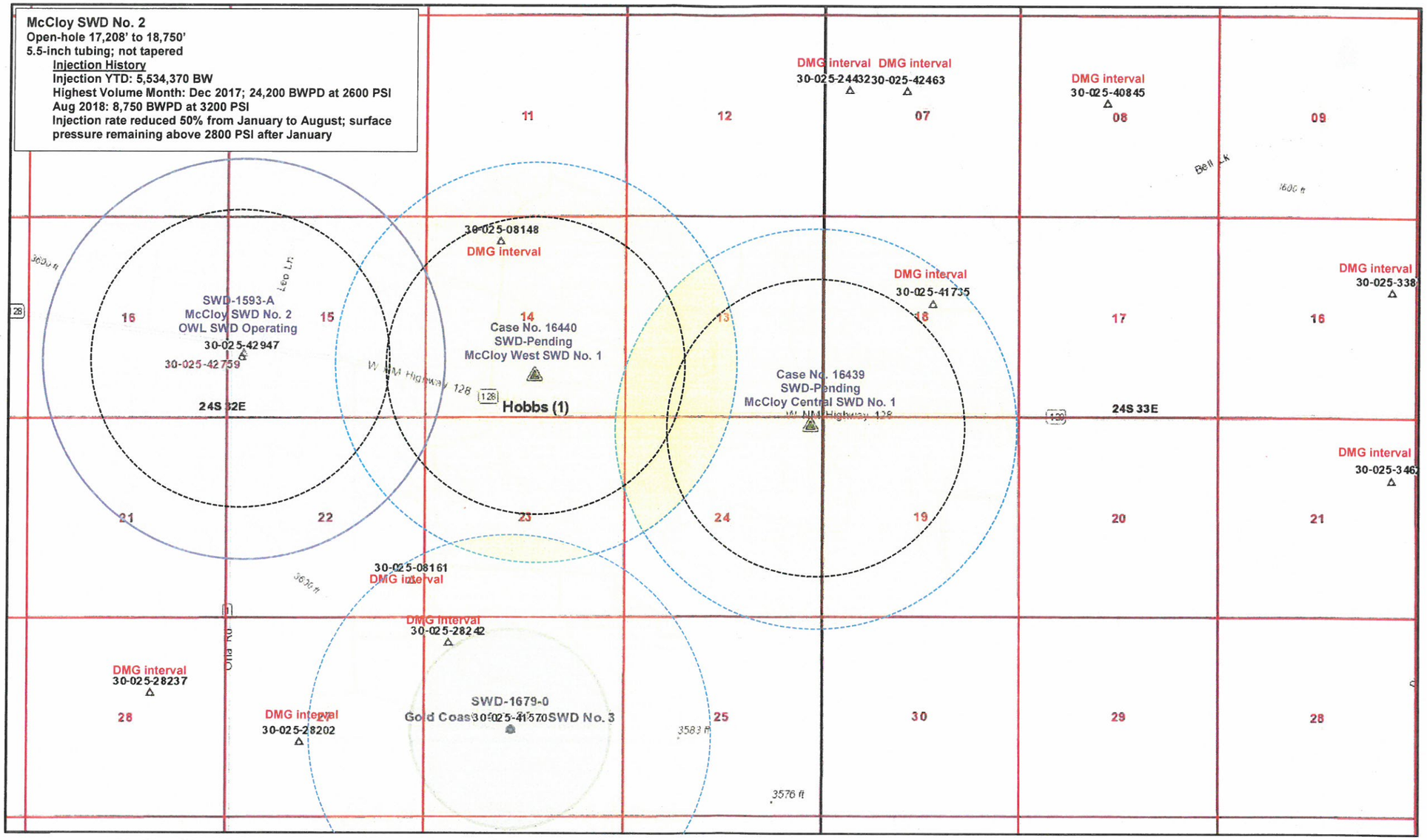


Red Road SWD No. 1
API 30-015-45235; Case No. 16442
Proposed interval: 16,450' – 17,458'
Proposed tapered tubing: 7-in. x 5.5-in.; max injection rate: 50,000 BWPD

Jack Tank SWD No. 1
API 30-025-Pending; Case No. 16438
Proposed interval: 16,800' – 17,809'
Proposed tapered tubing: 7-in. x 5.5-in.; max injection rate: 50,000 BWPD

Closest Devonian Wells with Large-Volume Potential: Approved: Predator SWD No. 1 (30-015-Pending) and Station SWD No. 1 (30-025-43473); both are Mesquite SWD Inc. permits. Remaining SWD locations are shallower disposal intervals (DMG).

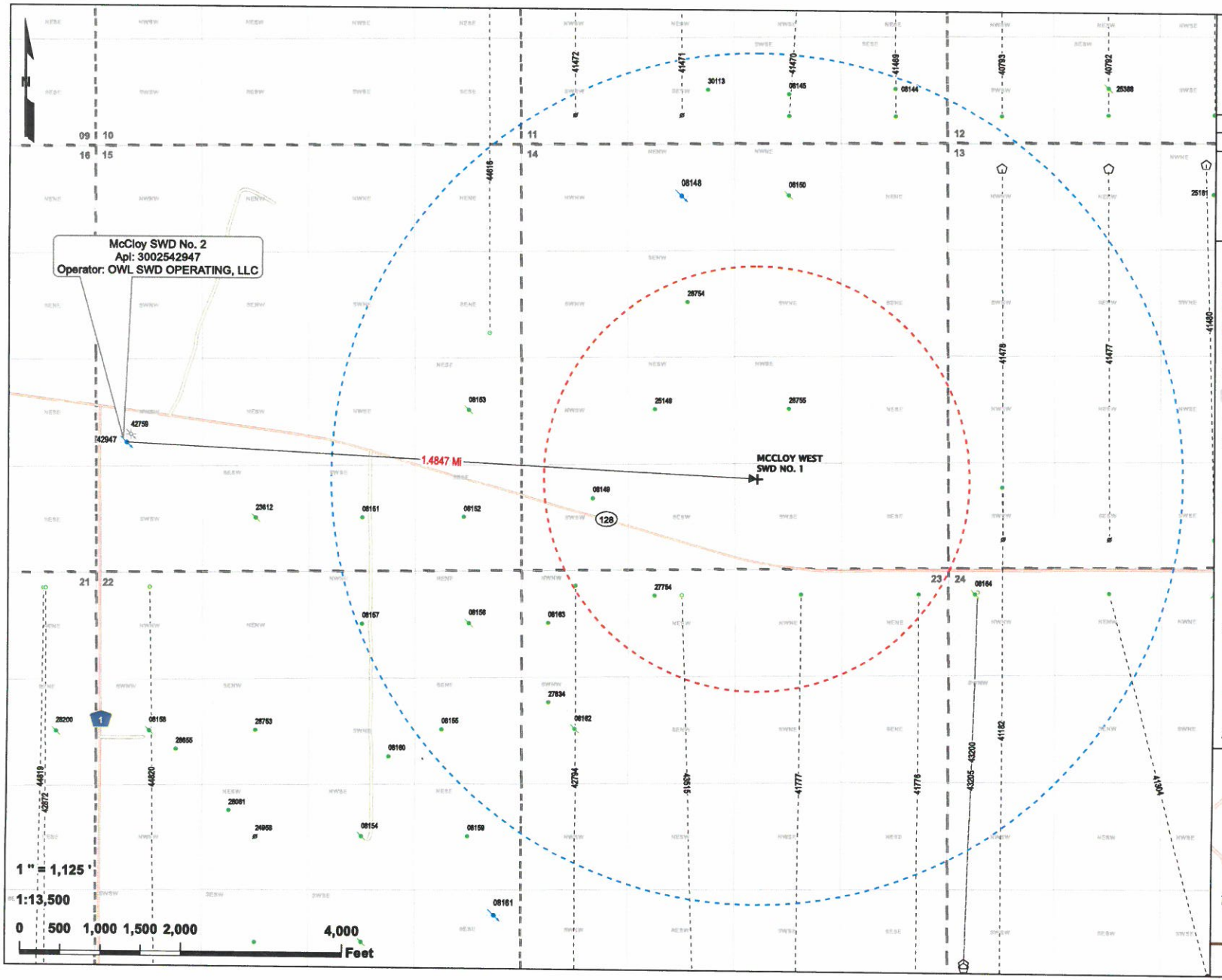
Pending Application for High-Volume Devonian Disposal Well
C-108 Applications for McCloy Central SWD No. 1 and McCloy West SWD No. 1 – NGL Water Solutions



McCloy West SWD No. 1
API 30-025-Pending; Case No. 16440
Proposed interval: 17,350'-18,451'
Proposed tapered tubing: 7-in. x 5.5-in.; max injection rate: 50,000 BWPD

McCloy Central SWD No. 1
API 30-025-Pending; Case No. 16439
Proposed interval: 17,424' – 18,533'
Proposed tapered tubing: 7-in. x 5.5-in.; max injection rate: 50,000 BWPD

Closest Devonian Wells with Large-Volume Potential: Approved: McCloy SWD No. 2 (30-025-42947); OWL SWD Operating LLC. Remaining SWD locations are shallower disposal intervals (DMG).



McCloy West SWD No. 1
Area Of Review
NGL Water Solutions Permian, LLC
Lea Co., NM

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

Drawn by: ASG	Date: 10/03/2018	Approved by: ELR

LONQUIST & CO. LLC
PETROLEUM ENGINEERS | ENERGY ADVISORS
AUSTIN · HOUSTON · WICHITA · DENVER · CALGARY

- McCloy West SWD No.1
- Distance Call
- 1-Mile
- 1/2-Mile
- QQ-Section (NM-PLSS 2nd Div.)
- Section (NM-PLSS 1st Div.)
- Township/Range (NM-PLSS)
- Lateral

API (30-025-...) SHL Status - Type (Count)
- Horizontal SurfaceLocation (92)
- Active Oil (26)
- Active SWD (5)
- Cancelled/Abandoned - Oil (4)
- Plugged/Not Released - SWD (1)
- Plugged/Site Released - Gas (1)
- Plugged/Site Released - Oil (29)

API (30-025-...) BHL Status - Type (Count)\
- Active - Oil (92)
- Cancelled/Abandoned - Oil (21)
- Permitted - Oil (39)
- Plugged/Not Released - Oil (1)

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

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

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

CASE NO. 16438

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

CASE NO. 16440

AFFIDAVIT OF SCOTT J. WILSON

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

I, Scott J. Wilson, make the following affidavit based upon my own personal knowledge.

1. I am over eighteen (18) years of age and am otherwise competent to make the statements contained herein.

2. I am the Senior Vice President for Ryder Scott Company in Denver, Colorado. My responsibilities at Ryder Scott Company include the performance of reserve appraisals, technical evaluations, and reservoir analysis.

3. I have obtained a bachelor's degree in petroleum engineering from the Colorado School of Mines, and a master's degree business from the University of Colorado. I have worked as a petroleum engineer since 1983.

4. I am familiar with the application that NGL Water Solutions Permian, LLC ("NGL") has filed in this matter, and I have conducted a nodal analysis and reservoir study related to the area which is the subject matter of that application. Copies of my study are attached hereto as Exhibit A.

5. The applicant, NGL (OGRID No. 372338), seeks an order the Jack Tank SWD #1 and McCloy West SWD #1 water disposal wells.

6. The wells will be spaced out and not located closer than approximately 1 mile from other disposal wells, approved for injection into the Devonian and Silurian formations.

7. The approved injection zone for the wells is located below the base of the Woodford Shale formation and above the Ordovician formation, which consists of significant shale deposits.

8. The well will primarily be injecting fluids into the Wristen Group and Fusselman formations, with some fluids potentially being injected into the Upper Montoya Group. Each of these sub-formations or zones are located within what is commonly referred to by operators and the Division as the "Devonian Silurian" formations. These zones consist of a very thick sequence of limestone and dolostone which has significant primary and secondary porosity and permeability that is collectively between 800 to 1,800 feet thick.

9. I have reviewed step rate tests for similar disposal wells drilled within the area and conducted a nodal analysis. It is my opinion that a large percentage of surface pressure it was encountering using smaller diameter tubing was a result of friction pressure. In Case No. 15720 evidence had been presented to the Division showing that up to 85% of this surface pressure was due to friction. Increasing the tubing size would reduce friction and would conserve forced power.

10. My nodal analysis indicates that increasing the tubing size to 7" by 5 ½" would not significantly increase reservoir pressures over a twenty-year time period. . The injection zone is located within a thick, high permeability reservoir which disperses injected fluids easily and quickly. Only small local pressure increases result when injecting 40,000 barrels per day over a 20 year period.

11. It is my opinion that increasing the tubing size will not cause fractures in the formation. Wellhead pressures are set at a maximum that is below the formation fracture pressure and, as a result, it is impossible to get above the formation fracture pressure while honoring wellhead pressure constraints. Consequently, it is highly unlikely that increasing the tubing size in the wells would result in fractures to the formation.

12. I have also studied the potential impact on pore pressures and put together a simulation of the radial influence that the wells would have if larger tubing is used for a period of time. A copy of this study is included within Exhibit A to this affidavit. This study shows that it is anticipated that there will be a minimal impact on reservoir pressures and that the majority of fluids will not travel greater than 1 mile in 20 years.

13. My studies further indicate that additional injection wells located one mile away from the wells, will not create any materially adverse pressures in the formation.

14. I attest that the information provided herein is correct and complete to the best of my knowledge and belief.

15. The granting of this application is in the interests of conservation and the prevention of waste.

Scott J. Wilson

SUBSCRIBED AND SWORN to before me this 3rd day of October, 2018 by Scott J. Wilson.

Notary Public

My commission expires: 8/23/21

DARSHAE E RODRIGUEZ
Notary Public - State of Colorado
Notary ID 20134006986
My Commission Expires Aug 23, 2021

NGL Water Solutions, LLC

Typical Wellbore Hydraulics Models predict a 30% increase in maximum injection rate between 5.5 tubing and 7x5.5 tubing.

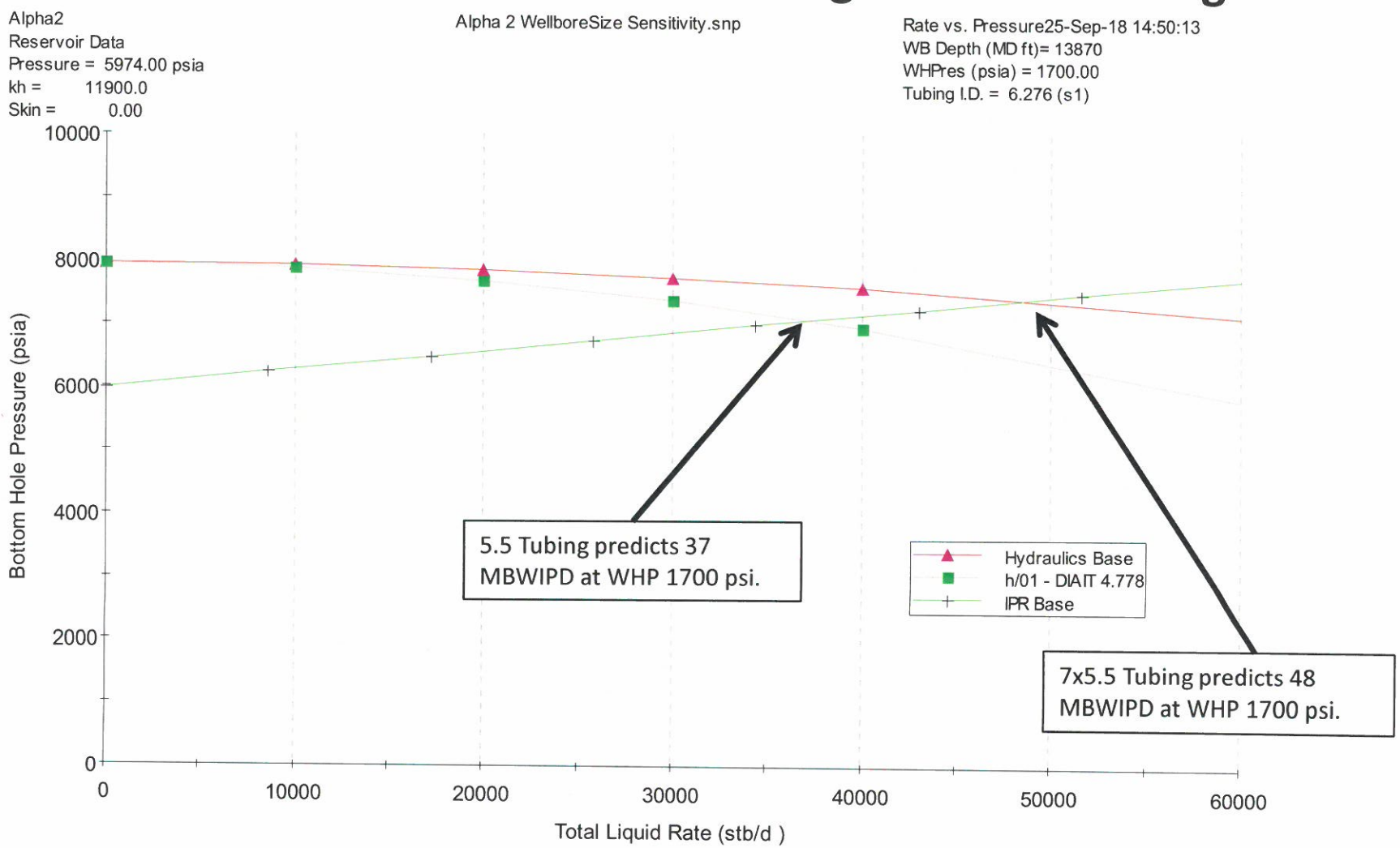
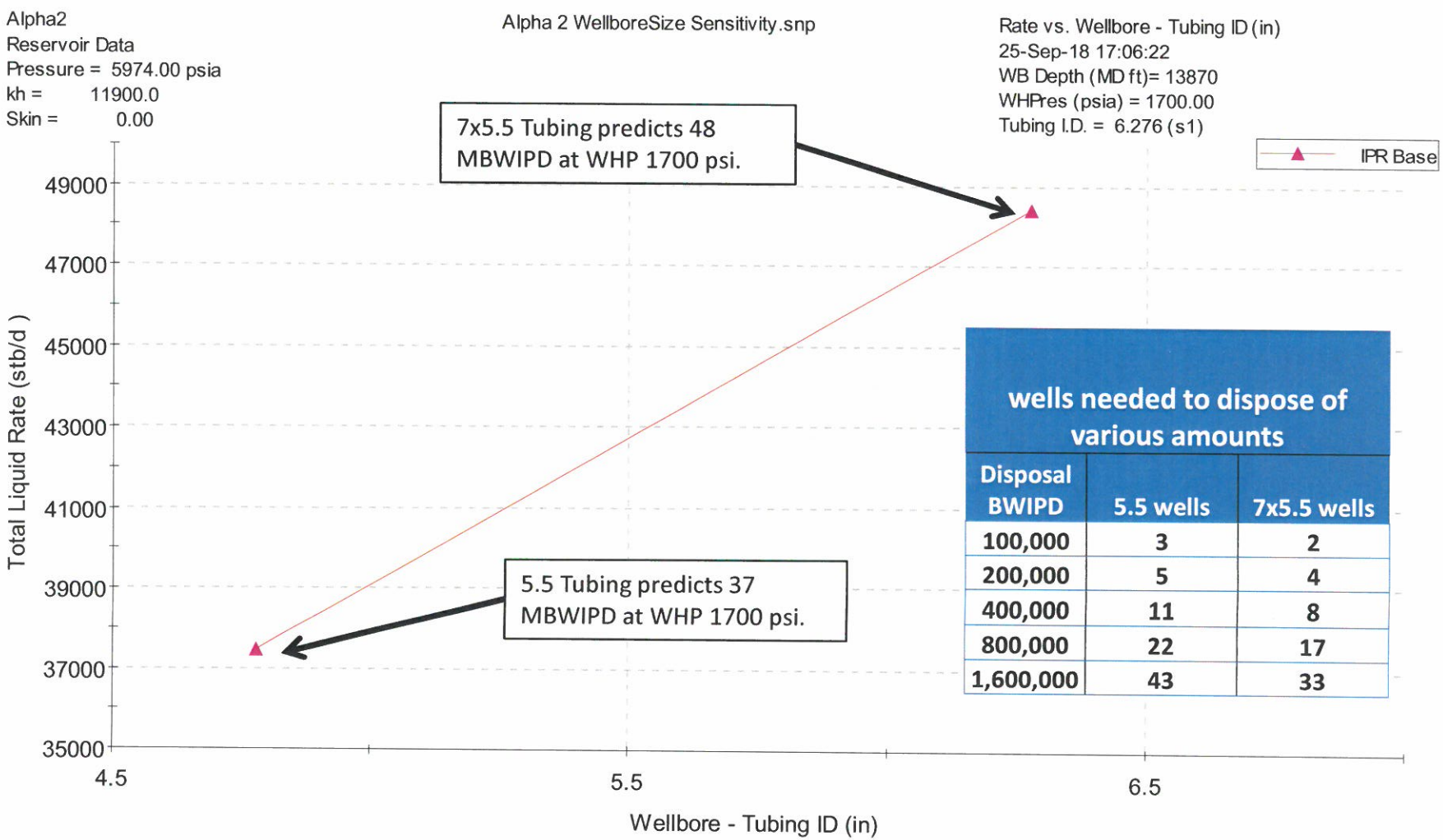


Exhibit A

NGL Water Solutions, LLC

Increased injection rate per well equates to fewer injectors.

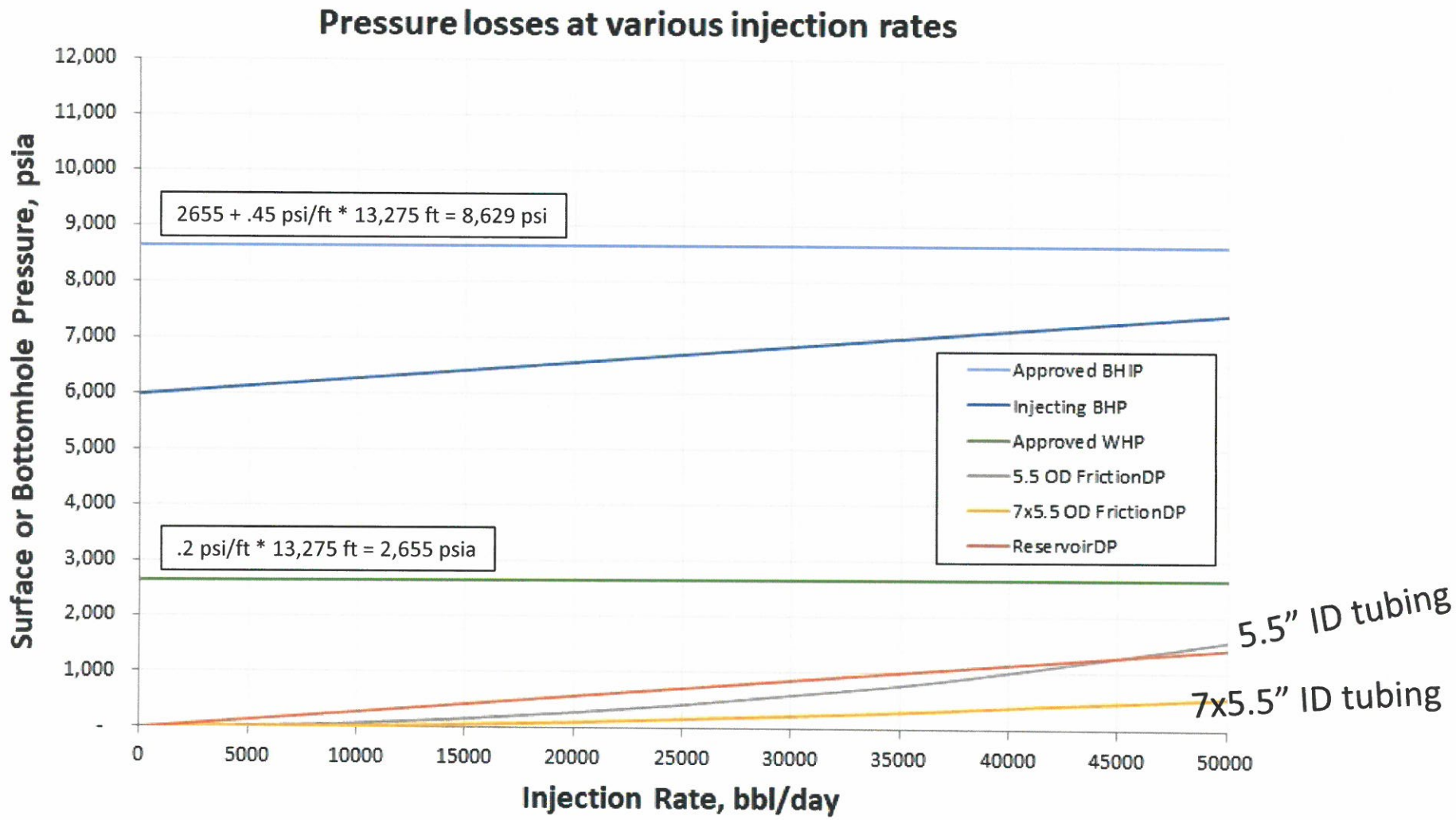


wells needed to dispose of various amounts		
Disposal BWIPD	5.5 wells	7x5.5 wells
100,000	3	2
200,000	5	4
400,000	11	8
800,000	22	17
1,600,000	43	33

NGL Water Solutions, LLC

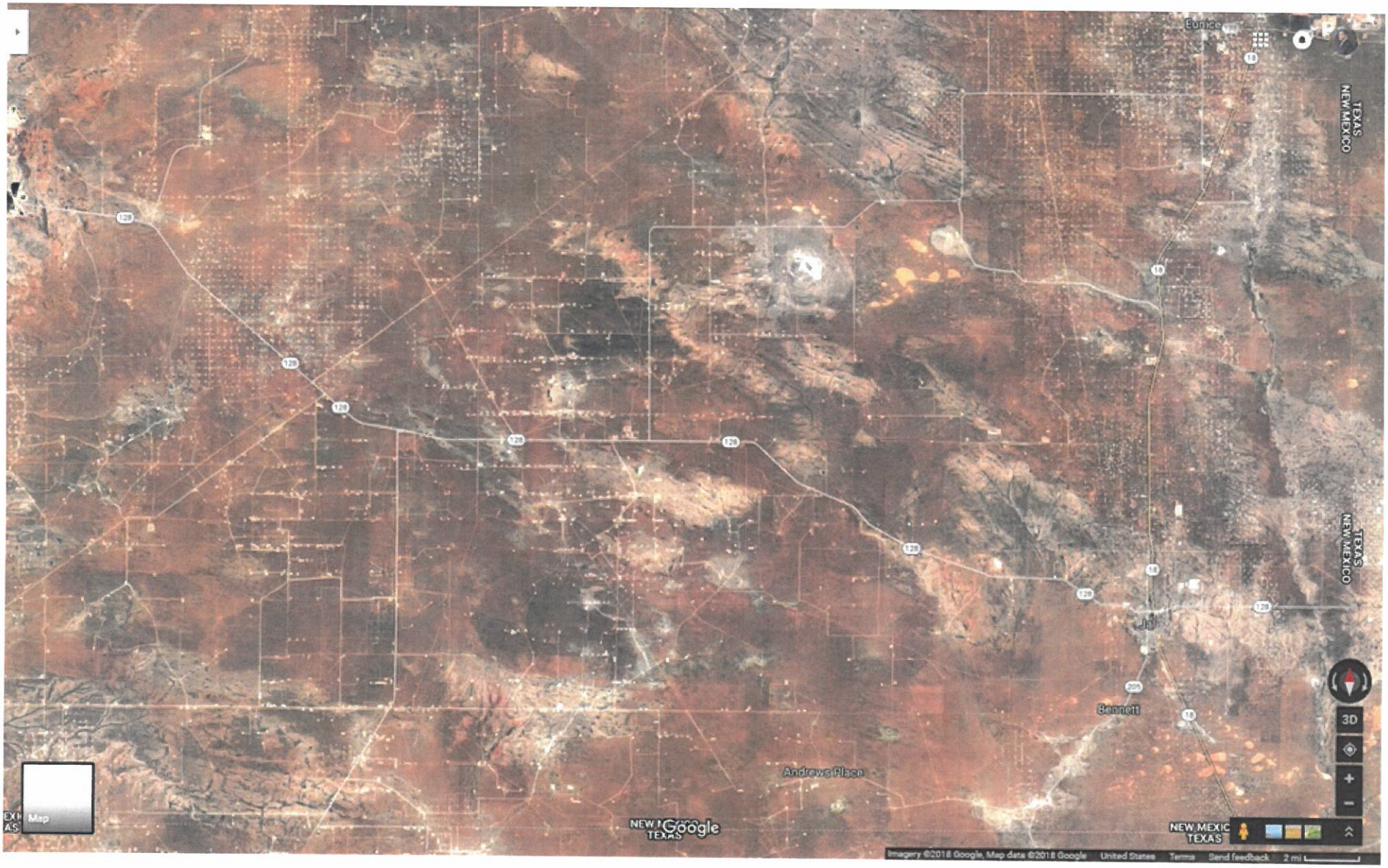
Increasing tubing size will decrease friction losses and conserve horsepower

2 example tubing sizes and their impact on friction losses



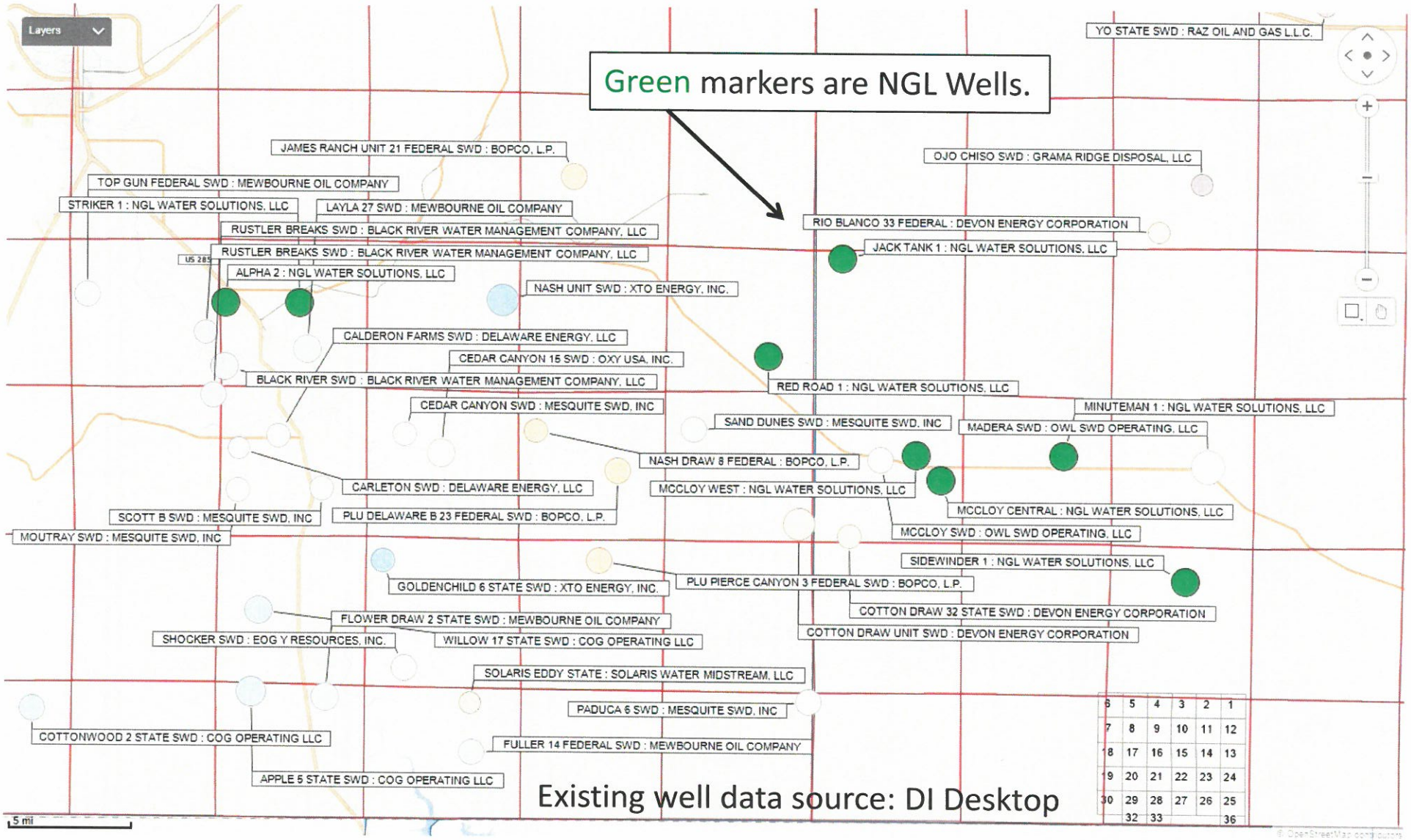
NGL Water Solutions, LLC

Terrain is level and infrastructure is plentiful.



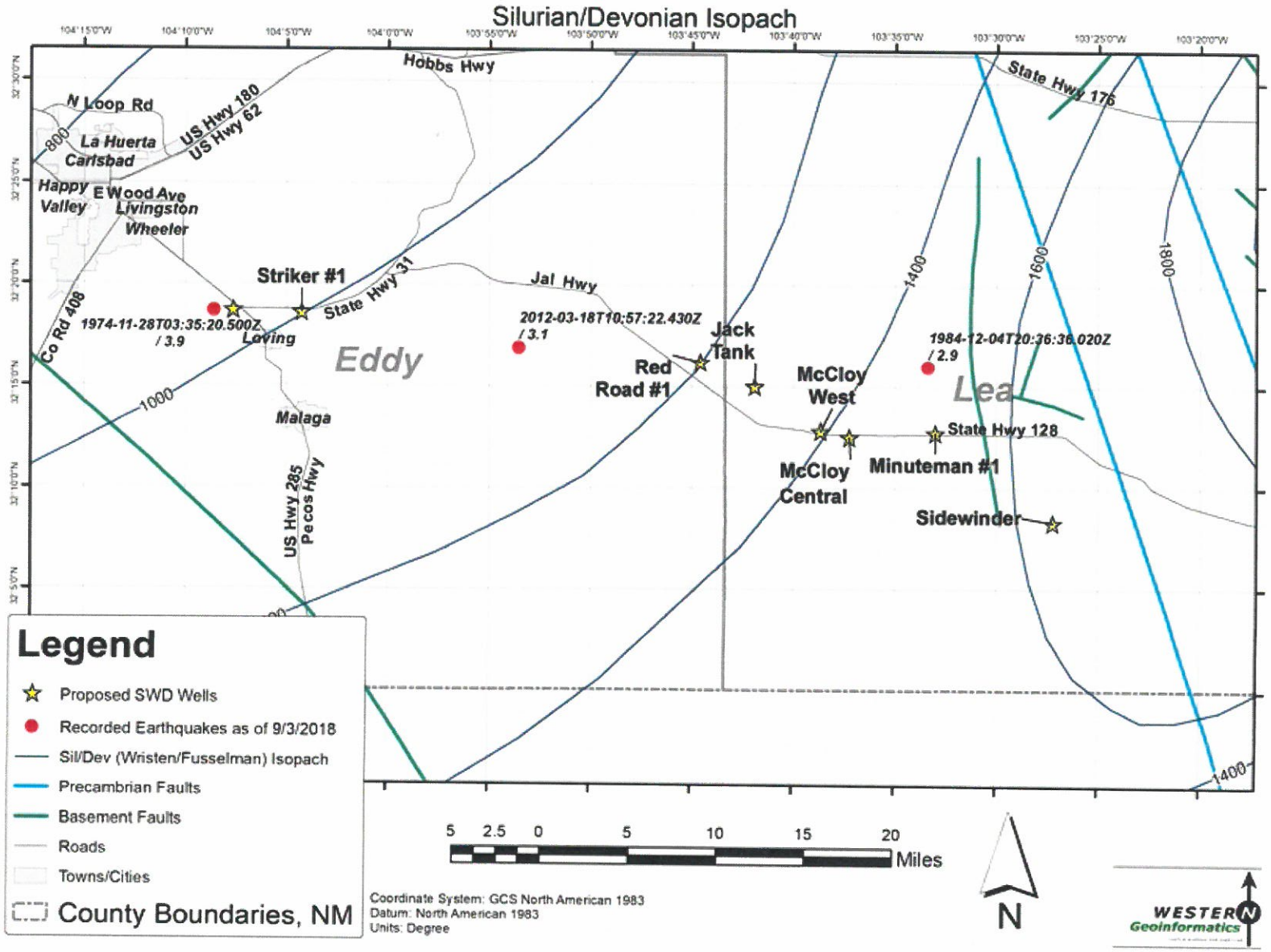
NGL Water Solutions, LLC

Wells injecting water into the Devonian formation in the area.
Area is roughly 60 miles (E-W) by 35 miles (N-S)



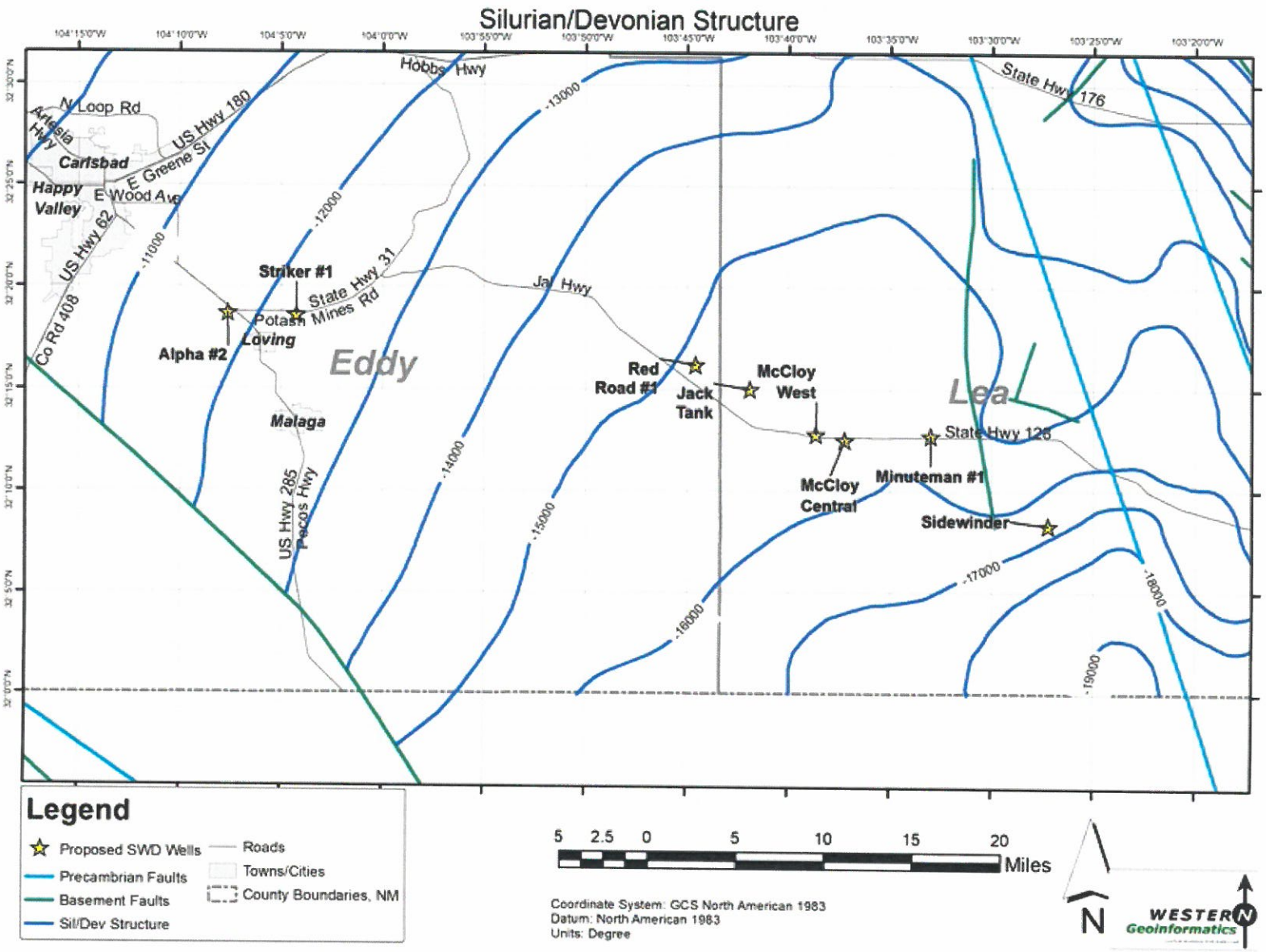
NGL Water Solutions, LLC

Sil/Dev Thickness increases from NW to E-SE



NGL Water Solutions, LLC

Sil/Dev structure dips from NW to SE

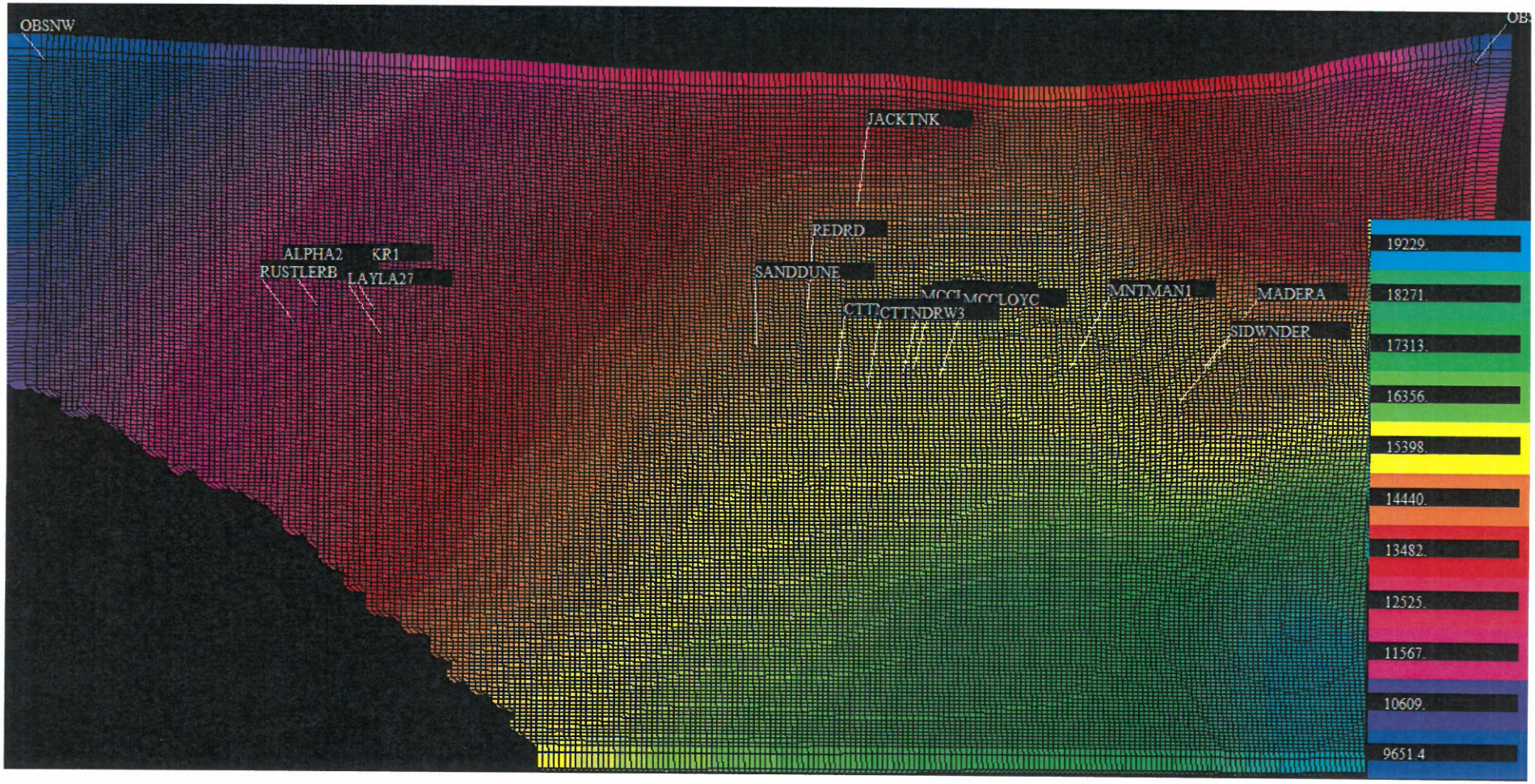


NGL Water Solutions, LLC

Simulation Grid matches Structure and Thickness

Reservoir Simulation grid incorporates the NGL proposed wells and the close offsets.

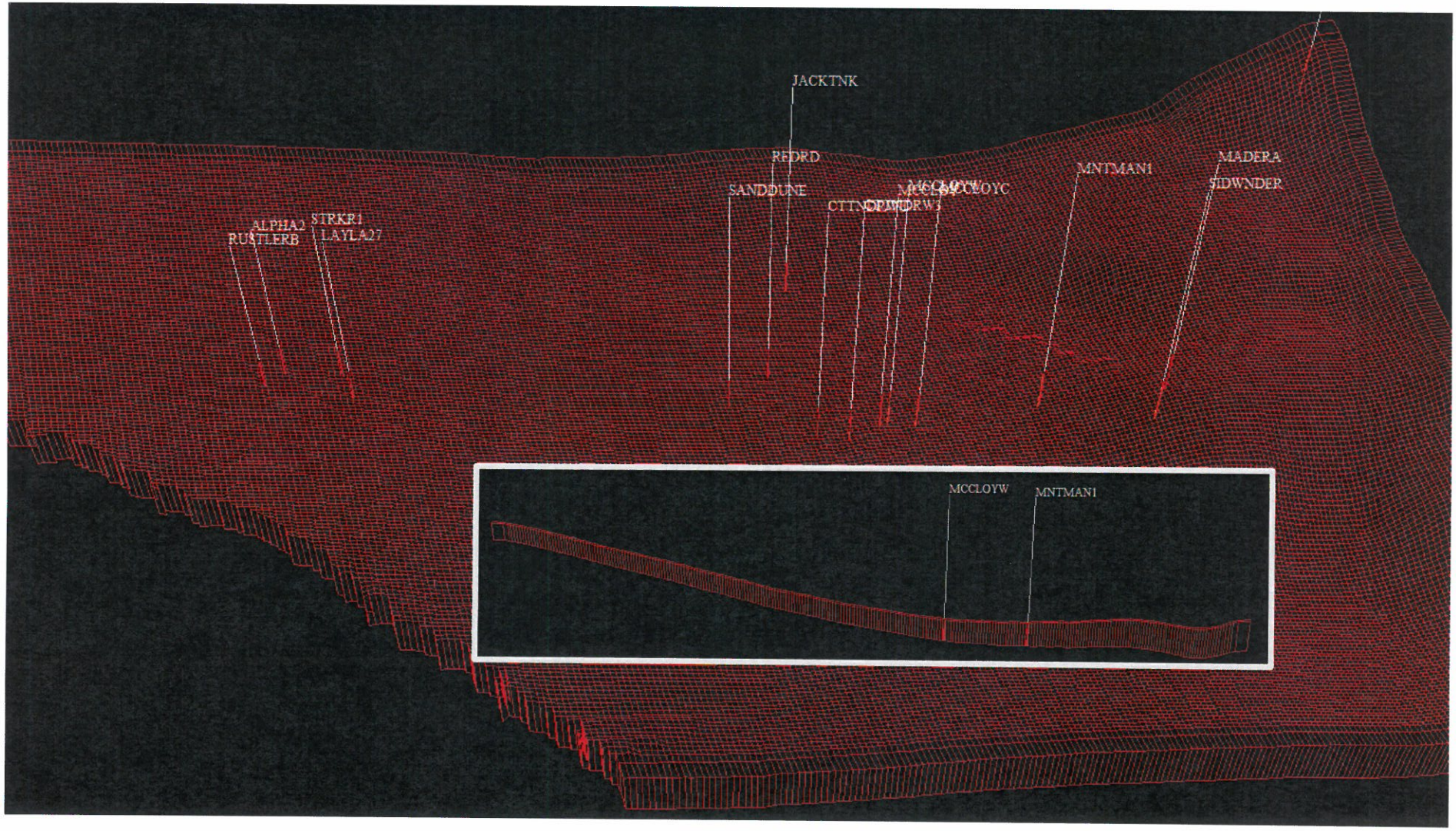
Observation wells are placed in grid corners to monitor the large scale pressure distribution.



NGL Water Solutions, LLC

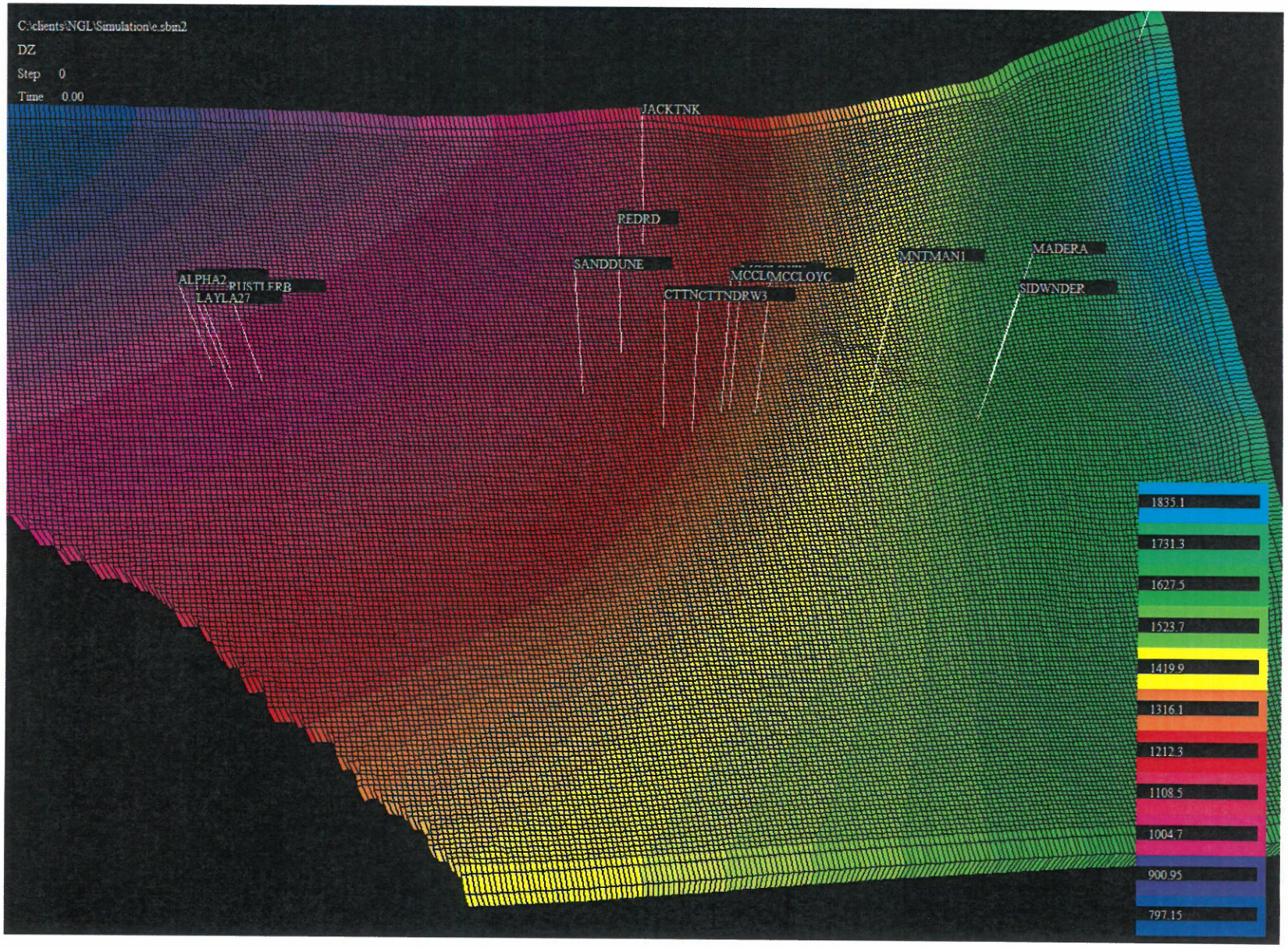
3D view of grid shows Structural Relief.

Thickness is accurate but not easy to see at this aspect ratio.



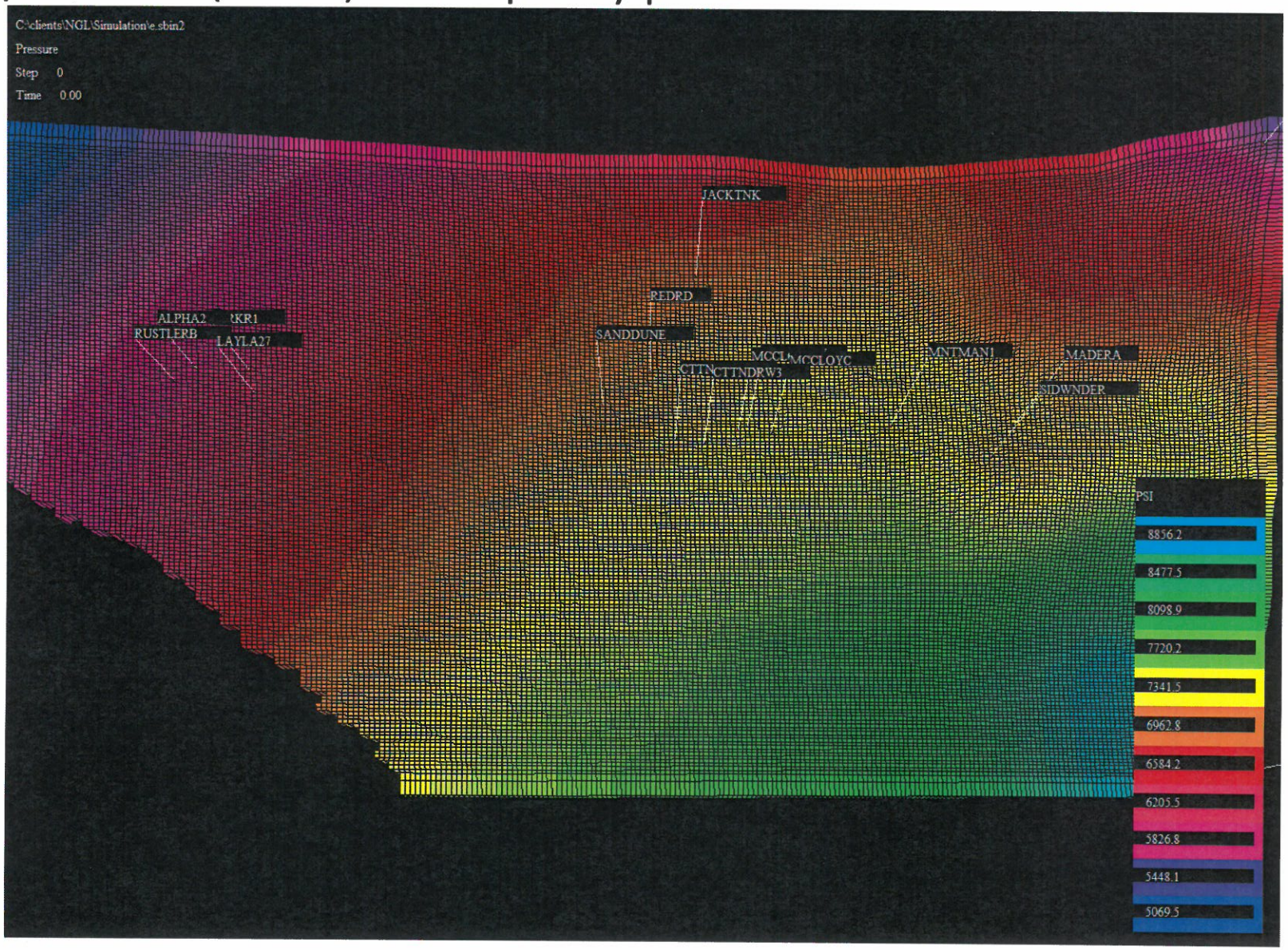
NGL Water Solutions, LLC

Light Blue color to the North East represents the thickest Sil/Dev.



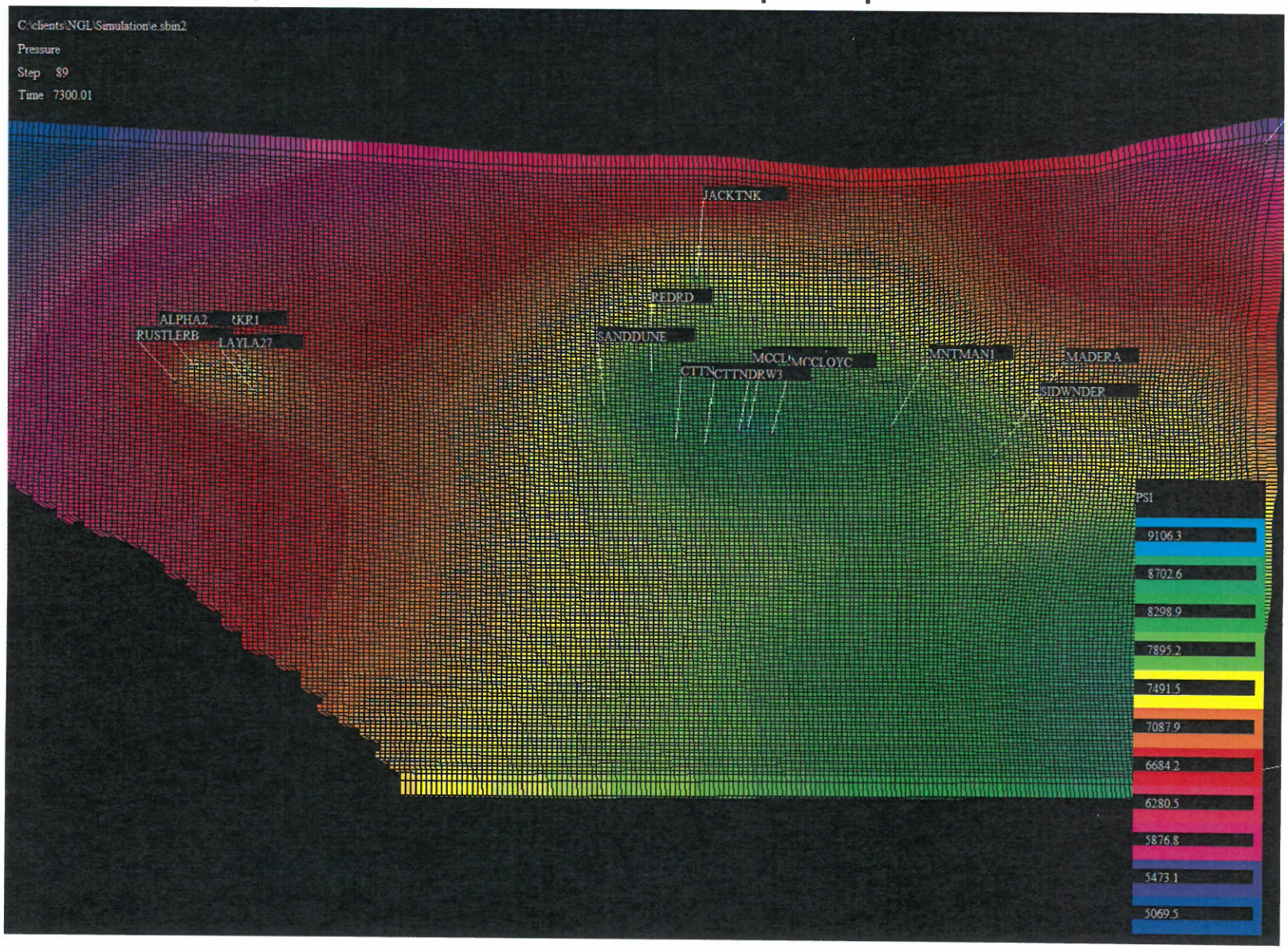
NGL Water Solutions, LLC

Initial pressure is equilibrated by the model based on grid cell depth, fluids(water) and capillary pressure.



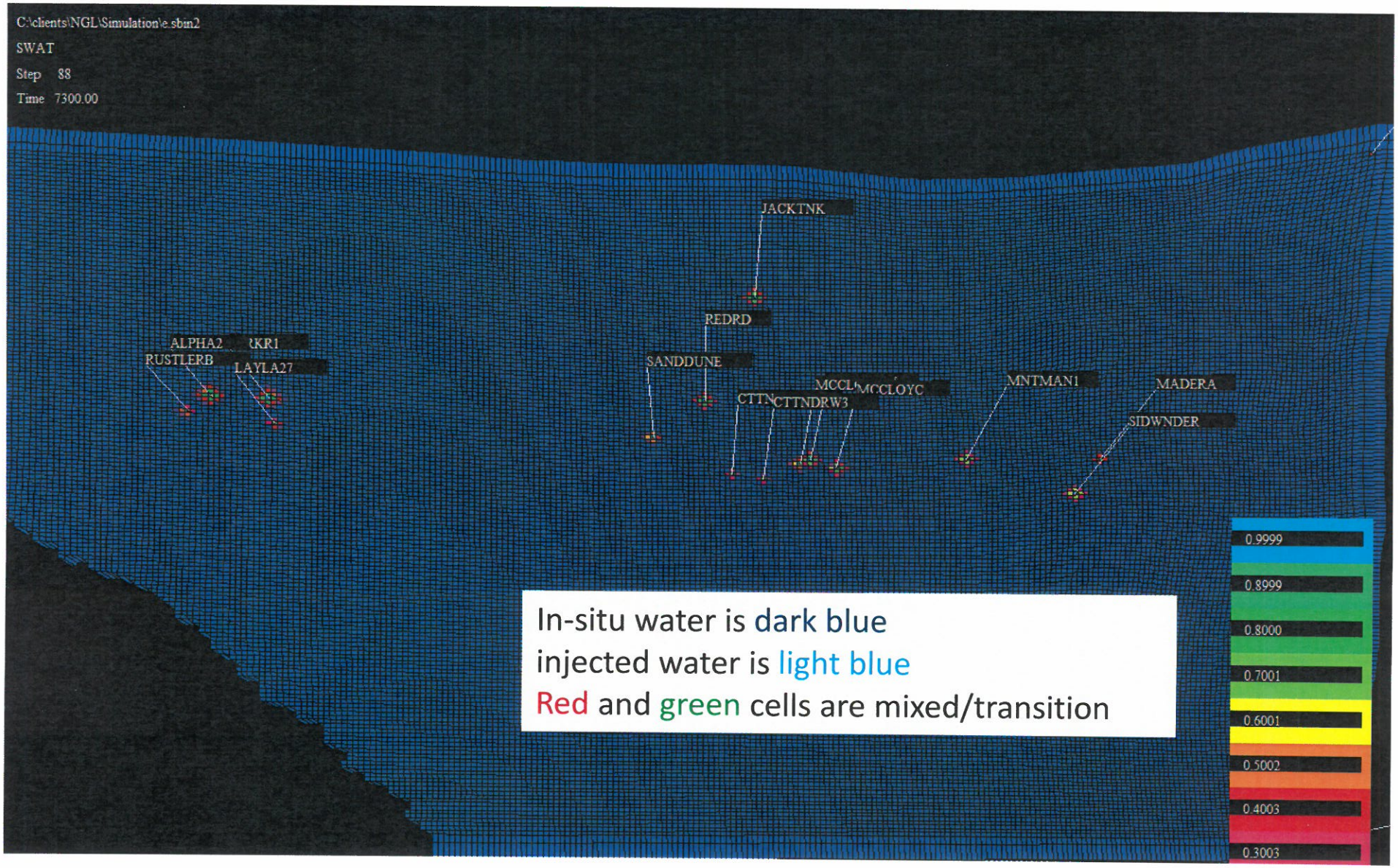
NGL Water Solutions, LLC

Pressure at 20 years is affected by original pressure, injected volumes, and the ability of the reservoir to dissipate pressure.



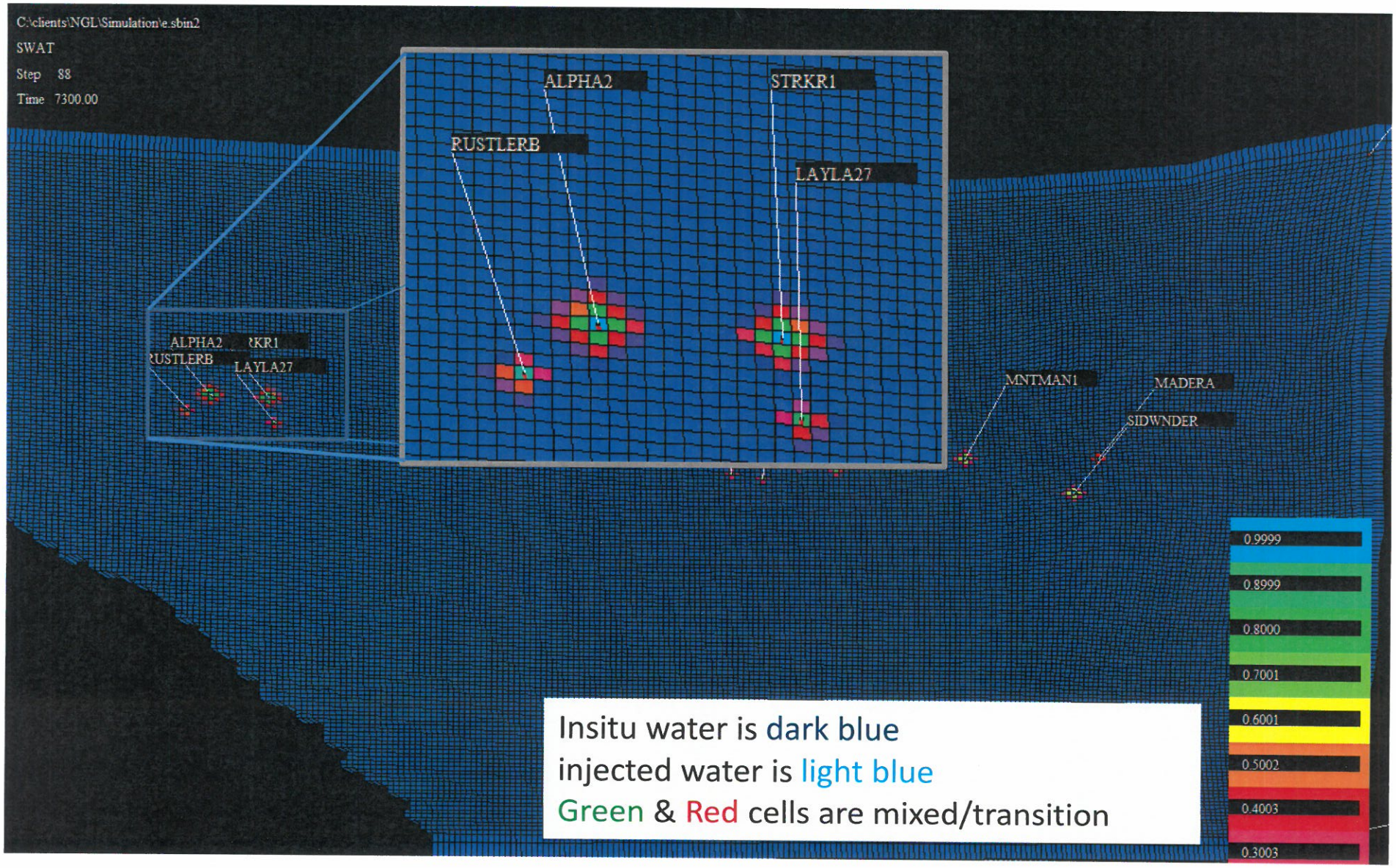
NGL Water Solutions, LLC

Large scale saturation profiles after 20 years of injection.



NGL Water Solutions, LLC

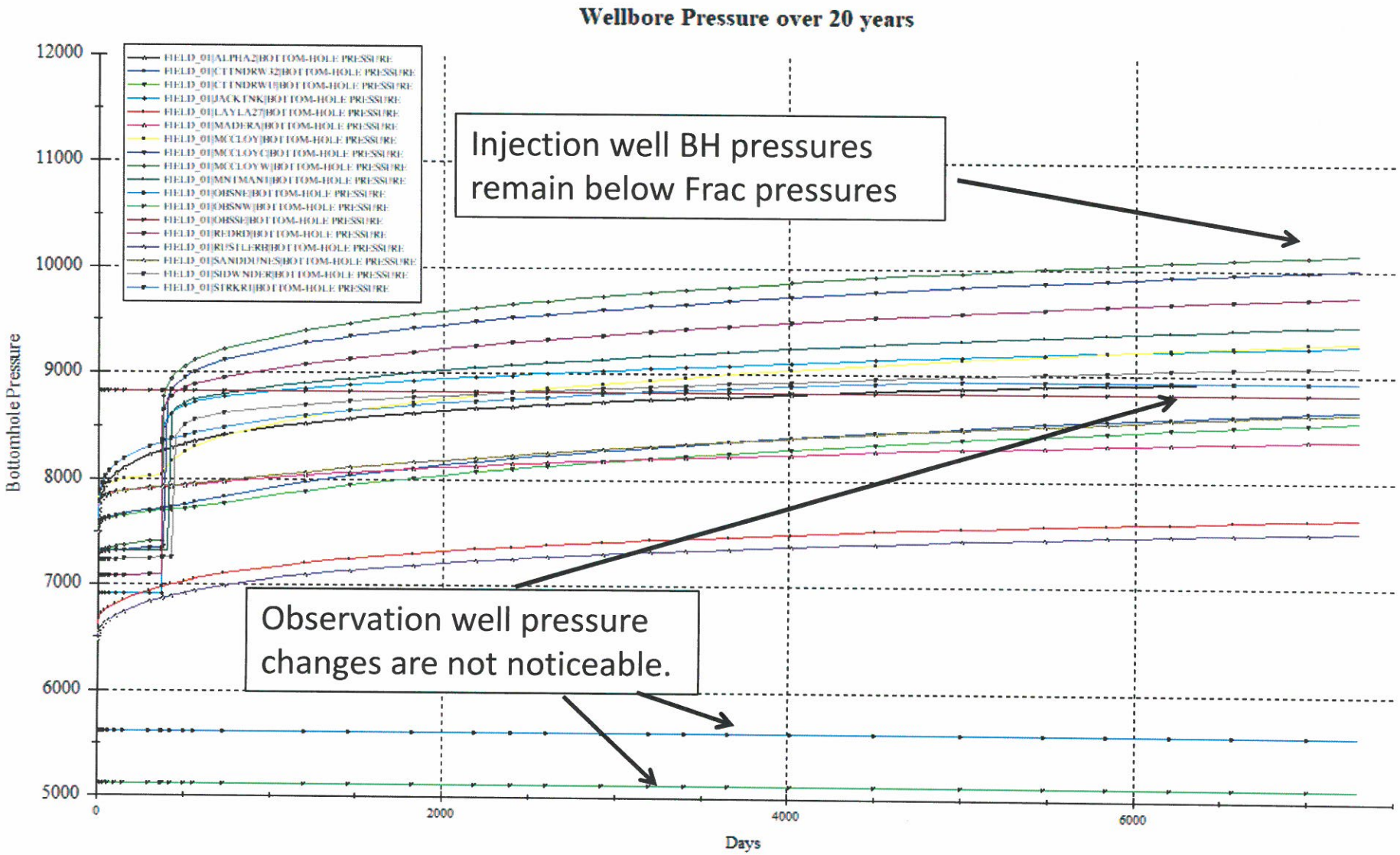
Detailed saturation profiles after 20 years of injection.



Insitu water is dark blue
injected water is light blue
Green & Red cells are mixed/transition

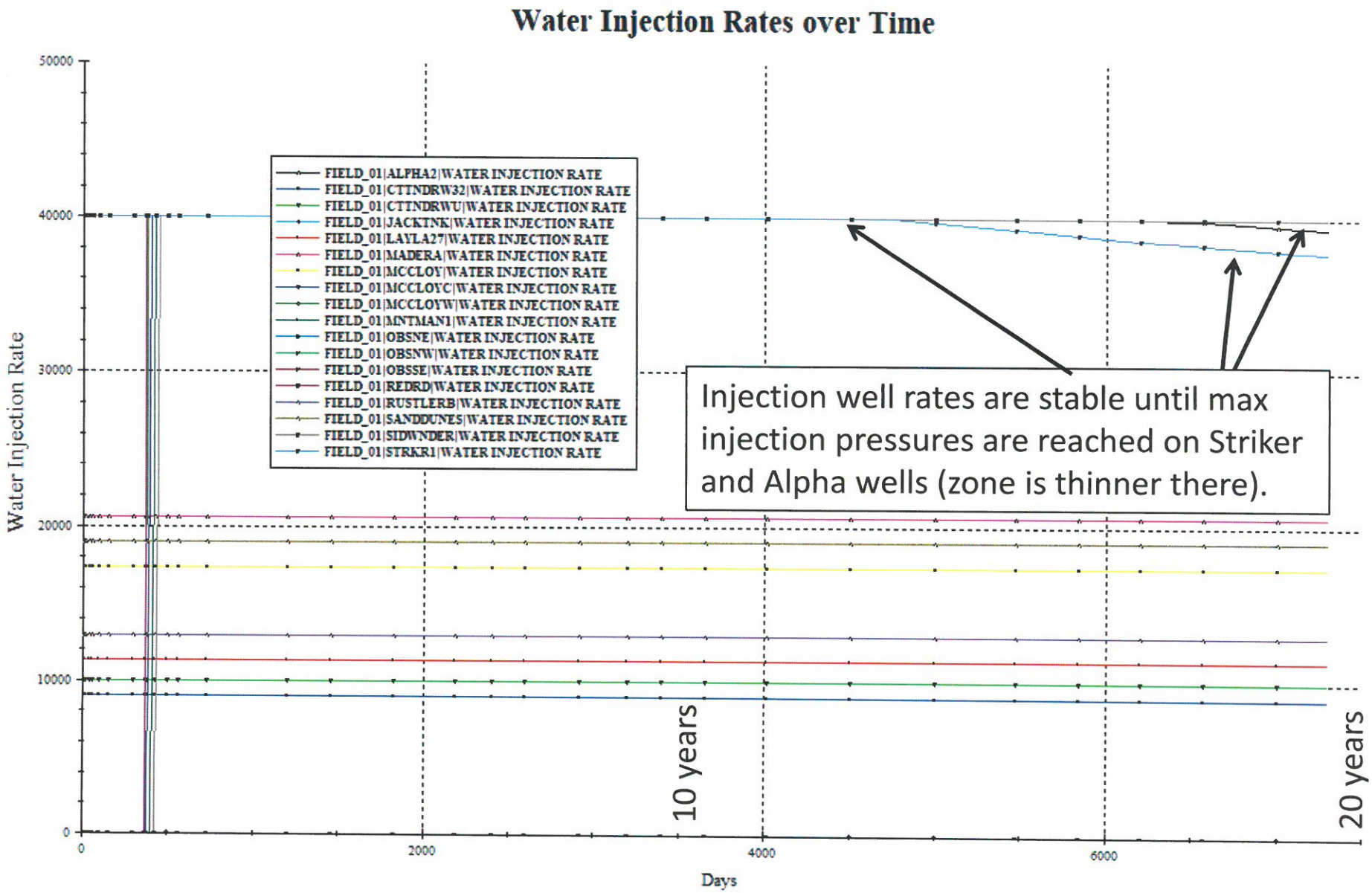
NGL Water Solutions, LLC

Simulation predictions for individual wells over time



NGL Water Solutions, LLC

Simulation predictions for individual wells over time



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

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

CASE NO. 16438

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

CASE NO. 16440

AFFIDAVIT OF KATE ZEIGLER

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

I, Kate Zeigler, make the following affidavit based upon my own personal knowledge.

1. I am over eighteen (18) years of age and am otherwise competent to make the statements contained herein.

2. I am the senior geologist at Zeigler Geologic Consulting, and I provide a wide range of geoscience related services to companies and other entities in Southeastern New Mexico.

3. I have obtained a bachelor's degree in geology from Rice University, a master's degree in paleontology from the University of New Mexico, and a Ph.D. in stratigraphy and paleomagnetism from the University of New Mexico. Additionally, I have completed several surface geologic maps for the New Mexico Bureau of Geology and Mineral Resource's Geologic

Mapping Program as well as for independent operators who are exploring prospects within the western Permian Basin. I have also conducted a prior geologic study concerning what is commonly referred to as the Devonian and Silurian formations in Southeastern New Mexico to help determine whether the approval of 7" by 5 ½" tubing is appropriate in Devonian and Silurian salt water disposal wells approved by the New Mexico Oil Conservation Division.

4. I am familiar with the application that NGL Water Solutions Permian, LLC ("NGL") has filed in this matter, and I have conducted a geologic study of the lands which are the subject matter of that application. A copy of my geologic study, including cross sections, a structure map and isopach are is included in Attachment A to this affidavit.

5. The applicant, NGL (OGRID No. 372338), seeks an order the Jack Tank SWD #1 and McCloy West SWD #1 water disposal wells.

6. I have been informed that the injection intervals for the wells will be isolated to the Devonian and Silurian formations (also referred to as the Wristen Group and Fusselman Formation) and the wells will have four strings of casing protecting the fresh water aquifer, the salt-bearing interval, the Permian aged rocks through the Wolfcamp Formation. The deepest casing 7 5/8", which is cemented and cement is circulated on the 7 5/8" casing.

7. The wells will be spaced out and not located closer than approximately 1 mile from other disposal wells that have been approved for injection into the Devonian and Silurian formations.

8. The injection zone for the well is located below the Woodford Shale. The Woodford Shale is an Upper Devonian unit which has low porosity and permeability and consists predominantly of shale and mudstone with some carbonate beds. The Woodford Shale acts as a permeability boundary to prevent fluids from moving upward out of the underlying formations.

The Woodford Shale formation in the areas where the well is located is between 80 feet to 140 feet thick.

9. Below the injection zone for the well is the Ordovician formation, also referred to as the Simpson Group, which contains sequences of shale that make up approximately 55% of the total thickness of the formation in any given place and can likewise act as a permeability boundary which prevents fluids from migrating downwards into deeper formations and the basement rock. In the areas where the well is located, the Ordovician formation is between 300' and 500' feet thick and, as a result, there is a significant thickness in this lower shale. Below the Ordovician is the Ellenburger Formation, which is up to 1,000 feet thick.

10. Based on my geologic study of the area, it is my opinion that the approved injection zone for the wells is located below the base of the Woodford Shale formation and above the Simpson Group formation, both of which consist of significant shale deposits. Evidence indicates that shale formations located above and below the approved injection zones will likely restrict fluids from migrating beyond the approved injection zones for the wells.

11. The wells will primarily be injecting fluids into the Wristen Group and Fusselman Formation, with some fluids potentially being injected into the Upper Montoya Group. Each of these rock units are located within what is commonly referred to by operators and the Division as the "Devonian-Silurian" formations. These zones consist of a very thick sequence of limestone and dolostone which has significant primary and secondary porosity and permeability that is collectively between 1,500 to 3,000 feet thick.

12. It is my opinion that there is no risk to freshwater resources for injection within the Wristen Group, Fusselman, and Upper Montoya Group because of the depth of these sub-formations and the upper shale permeability boundary created by the Woodford Shale.

13. I have also studied the location of known fault lines within the area where the well is proposed to be drilled and the closest known fault line to the well is located approximately 8 miles away from where the wells are proposed to be drilled.

14. There are no currently recognized production shales within the Wristen Group, Fusselman Formation, and Upper Montoya Group in this part of the western Permian Basin. While there may be some isolated traps located within these sub-formations, it takes significant ability with imaging to be able to locate these deposits in order to properly target them.

15. I attest that the information provided herein is correct and complete to the best of my knowledge and belief.

16. The granting of this application is in the interests of conservation and the prevention of waste.

Kate Zeigler

Kate Zeigler

SUBSCRIBED AND SWORN to before me this 2nd day of October, 2018 by Kate Zeigler.

Jessica Bertolucci

Notary Public

My commission expires: May 3, 2019

OFFICIAL SEAL
JESSICA BERTOLUCCI
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires May 3 2019

Delaware Basin Stratigraphic Unit Descriptions

Lower Paleozoic

Woodford Shale (Upper Devonian)

The Woodford Shale is dominated by organic-rich mudstone interbedded with carbonate (limestone and/or dolostone) beds, chert beds and radiolarian laminae. This unit has been interpreted to include sedimentary gravity-flow deposits. Dominantly shale means lower porosity and permeability than the limestone/dolostone units above and below. The Woodford Shale is unconformable on the units below it. Locally this contact includes solution cavities and fissures down into the underlying carbonate unit(s), creating a complex boundary. It is up to 150' thick locally.

Thirtyone Formation (Lower Devonian)

The Thirtyone Formation is part of a wedge of sedimentary rocks that thins to the north and the west where the wedge ends up truncated beneath the base of the overlying Woodford Shale. The Thirtyone Formation is only present in southeastern Lea County and consists of an upper coarsely crystalline dolostone unit and lower chert unit. This unit is not present in the area of concern.

Wristen Group (Middle-Upper Silurian)

The Wristen Group consists of interbedded limestone and dolostone that has a maximum thickness in Lea County, then thins to the north and the west. Thicknesses range from 0 to 1,400' thick. In the Delaware Basin, it occurs up to 19,000' below land surface, then rises to 10,000' to 12,000' subsurface to the north and west. It represents deposition in a shelf-margin environment and includes buildups of coral reefs, stromatoporoids and other invertebrate colonialists. The carbonate beds include boundstones, rudstones and oolitic grainstones with significant primary porosity. To the north, reservoirs targeted for production are dolomitic with vugular and fracture-related porosity.

Fusselman Formation (Late Ordovician-Lower Silurian)

The Fusselman Formation is almost entirely dolostone and can be up to 1,500' thick. As with the overlying Thirtyone Formation and Wristen Group, the Fusselman Formation thinks to the north and west where it is truncated beneath the Woodford Shale to the north of where the Wristen Group pinches out. In Lea County, the Fusselman Formation can be 18,000' or more below land surface. It is primarily coarsely crystalline dolostone that is vugular, fractured and/or brecciated, with significant secondary porosity due to the fracturing and brecciation.

EXHIBIT

A

Montoya Group (Middle-Upper Ordovician)

The Montoya Formation includes three dolostone members overlying a sandstone unit. The three upper carbonate units include the Upham, Aleman and Cutter Members and the lower sandstone unit is the Cable Canyon Sandstone. The entire package can be up to 600' thick and depth to the top of the unit ranges from 5,500' near the northern pinchout in Chaves County to as much as 20,000' in southern Lea County. The Montoya Group was stripped from the higher parts of the Central Basin Platform by erosion in the Late Pennsylvanian and Early Permian.

Simpson Group (Middle-Upper Ordovician)

The Simpson Group in a heterogeneous unit with limestone, dolostone, sandstone and green shale horizons. Up to 1000' thick, it is dominated by the shale beds (55% of total thickness), followed by the dolostone and limestone beds (40%) and finally sandstone (5%). The shale horizons can serve as a permeability barrier between the underlying Precambrian basement rocks and overlying reservoirs where the Simpson Group is present and has sufficient thickness. Depths to the Simpson Group range from 6,700' on parts of the Central Basin Platform to up to 21,000' in the Delaware Basin.

Ellenburger Formation (Lower Ordovician)

The Ellenburger Formation is up to 1000' thick and composed of limestone and dolostone that represent cyclic deposition in waters of the inner platform with restricted circulation. Porosity in the Ellenburger Formation includes porosity in the matrix, vugs, major karst dissolution features, collapse karst breccias and fractures. Depths to the top of the unit range from 7,500' on the Central Basin Platform to up to 22,000' in the Delaware Basin.

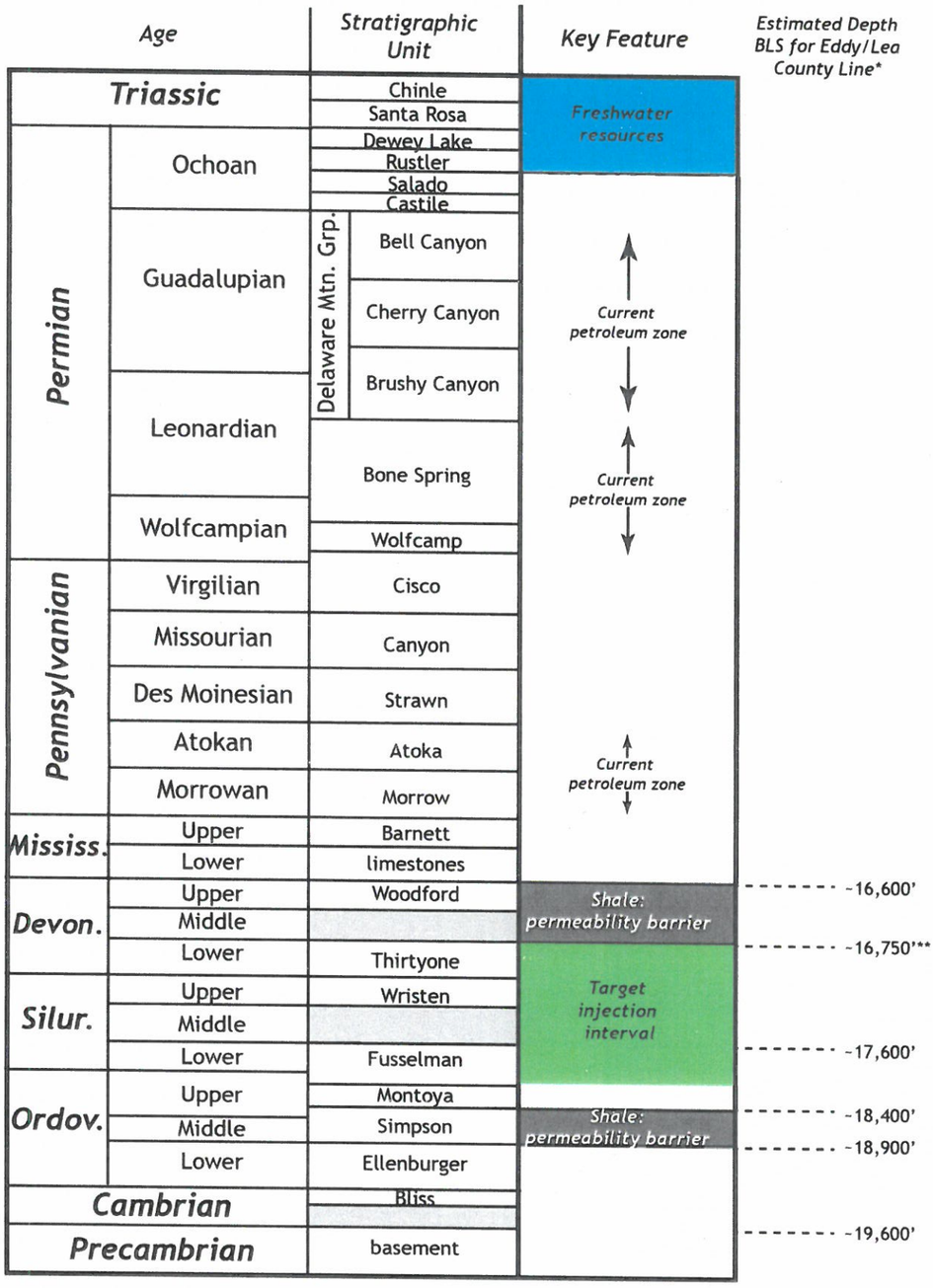
References

Broadhead, R.F., 2017, Petroleum Geology: *in* V.T. McLemore, S. Timmons and M. Wilks (eds.), Energy and Mineral Resources of New Mexico, New Mexico Bureau of Geology and Mineral Resources Memoir 50, vol. A, 90 p.

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

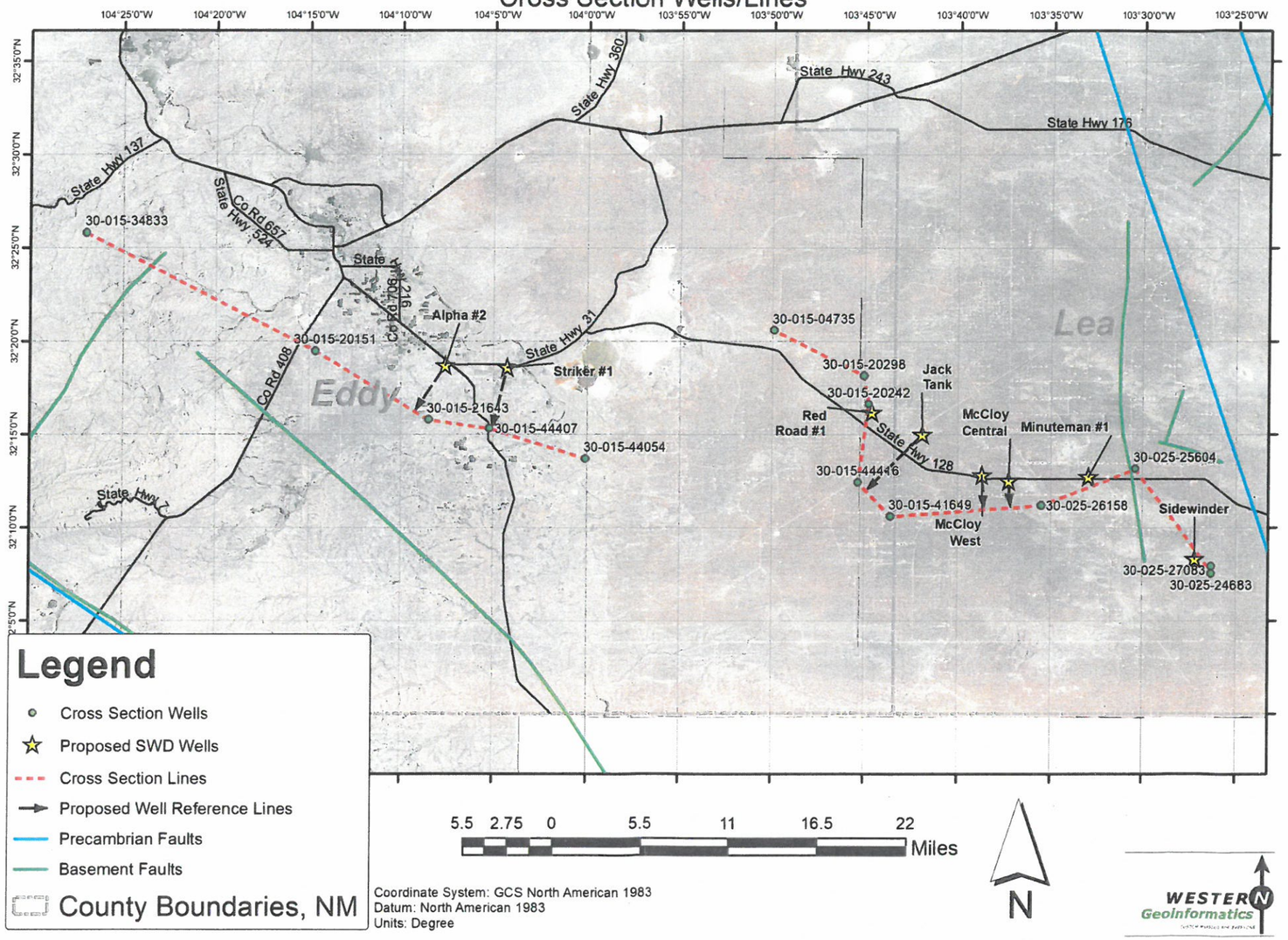
Hemmesch, N.T., Harris, N.B., Mnich, C.A. and Selby, D., 2014, A sequence-stratigraphic framework for the Upper Devonian Woodford Shale, Permian Basin, west Texas: American Association of Petroleum Geologists Bulletin, v. 98, no. 1, p. 23-47, doi:10.1306/05221312077

Texas Bureau of Economic Geology, 2009, Integrated Synthesis of the Permian Basin: Data and Models for Recovering Existing and Undiscovered Oil Resources from the Largest Oil-Bearing Basin in the U.S.: Department of Energy Final Technical Report, Award No: DE-FC26-04NT15509, 964 p.



Stratigraphic chart for the Delaware Basin from Broadhead (2017).
* Based on data from 30-015-44416 Striker 2 SWD #1 (23-24S-31E).
**Note the Thirtyone Formation is not present in the project area.

Cross Section Wells/Lines



Legend

- Cross Section Wells
- Proposed SWD Wells
- Cross Section Lines
- Proposed Well Reference Lines
- Precambrian Faults
- Basement Faults
- County Boundaries, NM

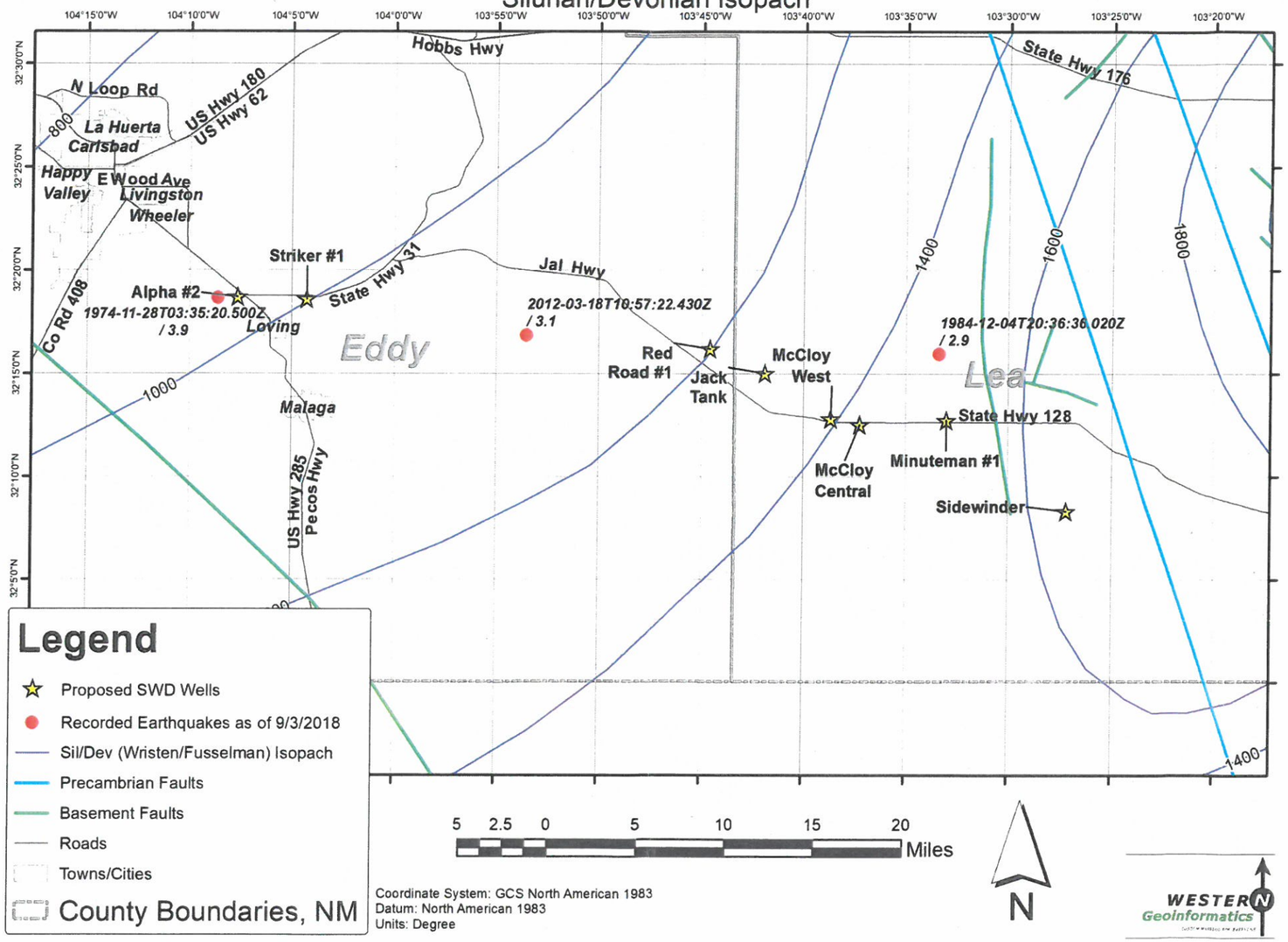
5.5 2.75 0 5.5 11 16.5 22 Miles

N

Coordinate System: GCS North American 1983
Datum: North American 1983
Units: Degree

WESTERN GeoInformatics

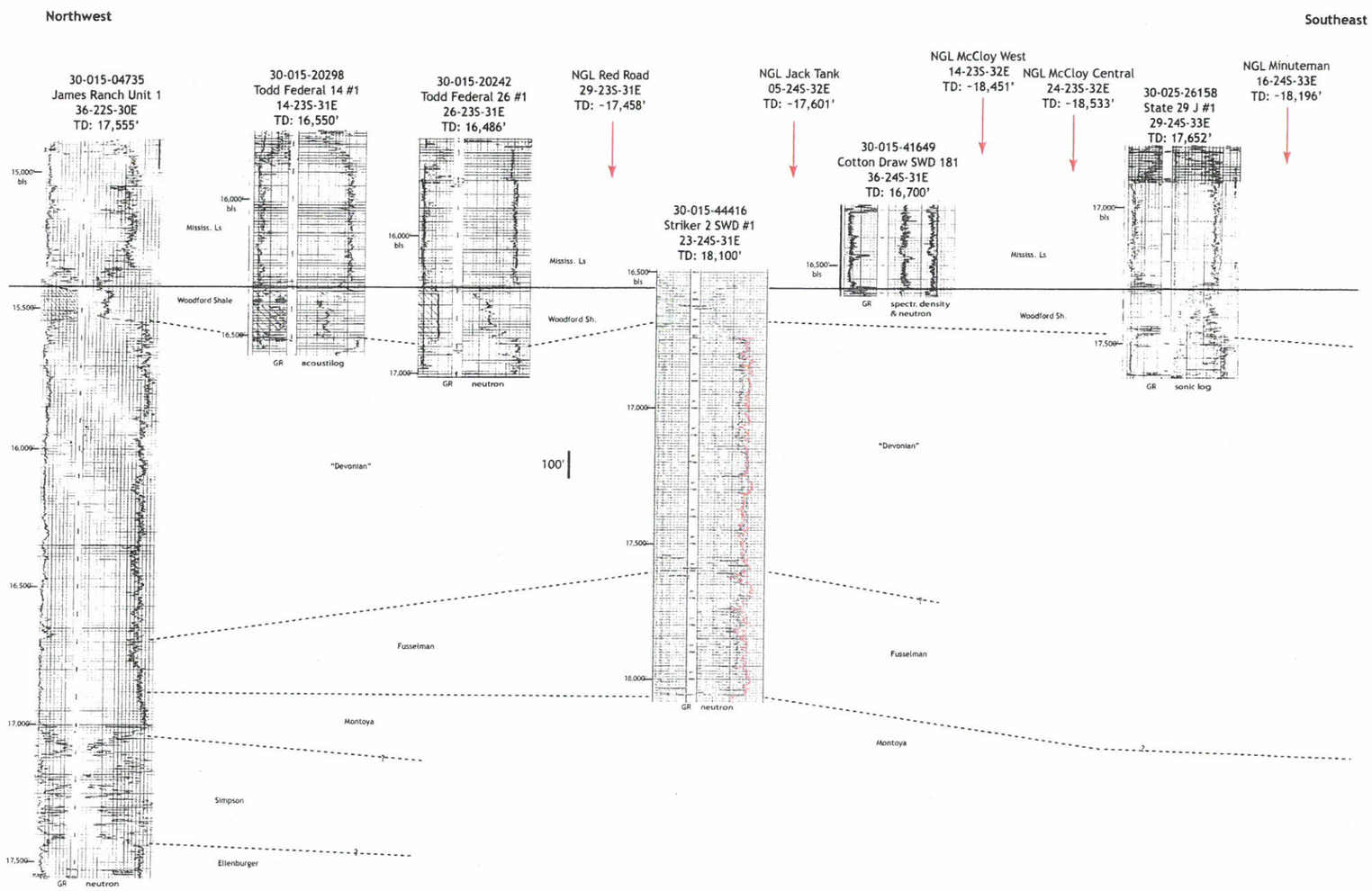
Silurian/Devonian Isopach

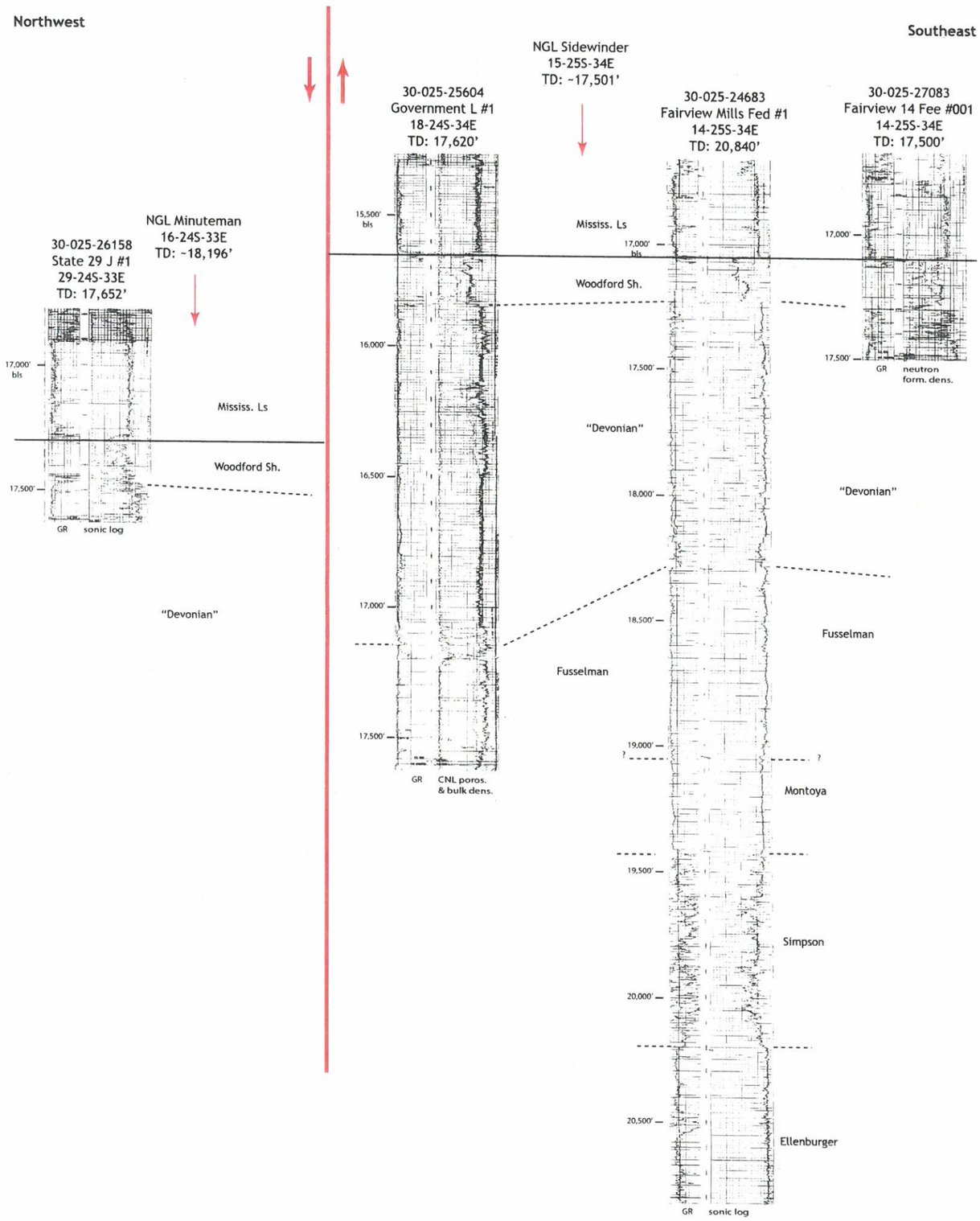


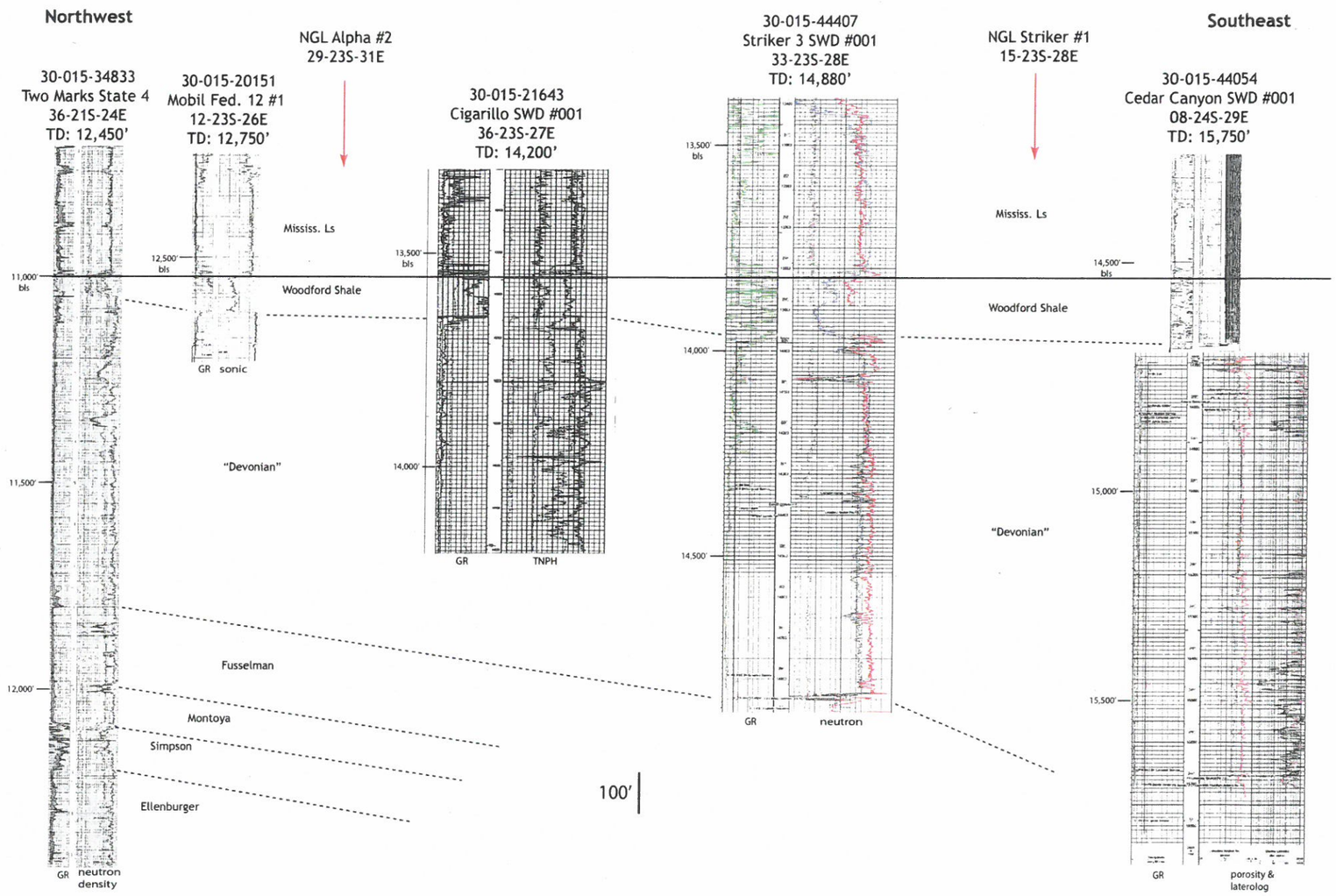
Legend

- Proposed SWD Wells
- Recorded Earthquakes as of 9/3/2018
- Sil/Dev (Wristen/Fusselman) Isopach
- Precambrian Faults
- Basement Faults
- Roads
- Towns/Cities
- County Boundaries, NM

Northwest
Southeast
30-015-04735
James Ranch Unit 1
36-22S-30E
TD: 17,555'
30-015-20298
Todd Federal 14 #1
14-23S-31E
TD: 16,550'
30-015-20242
Todd Federal 26 #1
26-23S-31E
TD: 16,486'
NGL Red Road
29-23S-31E
TD: ~17,458'
30-015-44416
Striker 2 SWD #1
23-24S-31E
TD: 18,100'
NGL Jack Tank
05-24S-32E
TD: ~17,601'
30-015-41649
Cotton Draw SWD 181
36-24S-31E
TD: 16,700'
NGL McCloy West
14-23S-32E
TD: ~18,451'
NGL McCloy Central
24-23S-32E
TD: ~18,533'
30-025-26158
State 29 J P1
29-24S-33E
TD: 17,652'
NGL Minuteman
16-24S-33E
TD: ~18,196'
NGL Sidewinder
15-25S-34E
TD: ~17,501'
30-025-25604
Government L #1
18-24S-34E
TD: 17,620'
30-025-24683
Fairview Mills Fed #1
14-25S-34E
TD: 20,840'
30-025-27083
Fairview 34 Fee #001
14-25S-34E
TD: 17,500'
Woodford Shale
Woodford Sh.
"Devonian"
Fusselman
Montoya
Simpson
Ellenburger
100'


Northwest
Southeast
30-015-04735
James Ranch Unit 1
36-22S-30E
TD: 17,555'
30-015-20298
Todd Federal 14 #1
14-23S-31E
TD: 16,550'
30-015-20242
Todd Federal 26 #1
26-23S-31E
TD: 16,486'
NGL Red Road
29-23S-31E
TD: ~17,458'
NGL Jack Tank
05-24S-32E
TD: ~17,601'
NGL McCloy West
14-23S-32E
TD: ~18,451'
NGL McCloy Central
24-23S-32E
TD: ~18,533'
30-025-26158
State 29 J #1
29-24S-33E
TD: 17,652'
NGL Minuteman
16-24S-33E
TD: ~18,196'
30-015-41649
Cotton Draw SWD 181
36-24S-31E
TD: 16,700'
30-015-44416
Striker 2 SWD #1
23-24S-31E
TD: 18,100'
15,000 bls
15,500
16,000
16,500
17,000
17,500
18,000
16,000 bls
16,500 bls
17,000 bls
Mississ. Ls
Woodford Shale
Woodford Sh.
"Devonian"
Fusselman
Montoya
Simpson
Ellenburger
GR
acoustilog
neutron
spectr. density & neutron
sonic log
100'


Northwest
Southeast
NGL Minuteman
16-24S-33E
TD: ~18,196'
30-025-26158
State 29 J #1
29-24S-33E
TD: 17,652'
17,000' bls
17,500'
GR sonic log
Mississ. Ls
Woodford Sh.
"Devonian"
NGL Sidewinder
15-25S-34E
TD: ~17,501'
30-025-25604
Government L #1
18-24S-34E
TD: 17,620'
15,500' bls
16,000'
16,500'
17,000'
17,500'
GR CNL poros. & bulk dens.
Mississ. Ls
Woodford Sh.
"Devonian"
Fusselman
30-025-24683
Fairview Mills Fed #1
14-25S-34E
TD: 20,840'
17,000' bls
17,500'
18,000'
18,500'
19,000'
19,500'
20,000'
20,500'
GR sonic log
"Devonian"
Fusselman
Montoya
Simpson
Ellenburger
30-025-27083
Fairview 14 Fee #001
14-25S-34E
TD: 17,500'
17,000'
17,500'
GR neutron form. dens.


Northwest
Southeast
30-015-34833
Two Marks State 4
36-21S-24E
TD: 12,450'
30-015-20151
Mobil Fed. 12 #1
12-23S-26E
TD: 12,750'
NGL Alpha #2
29-23S-31E
30-015-21643
Cigarillo SWD #001
36-23S-27E
TD: 14,200'
30-015-44407
Striker 3 SWD #001
33-23S-28E
TD: 14,880'
NGL Striker #1
15-23S-28E
30-015-44054
Cedar Canyon SWD #001
08-24S-29E
TD: 15,750'
Mississ. Ls
Woodford Shale
"Devonian"
Fusselman
Montoya
Simpson
Ellenburger
11,000' bls
11,500'
12,000'
12,500' bls
13,500' bls
14,000'
14,500'
14,500' bls
15,000'
15,500'
GR
sonic
GR
TNPH
GR
neutron
GR
neutron density
GR
porosity & laterolog
100'

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

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

CASE NO. 16438

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

CASE NO. 16440

AFFIDAVIT OF STEVEN TAYLOR

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

I, Dr. Steven Taylor, make the following affidavit based upon my own personal knowledge.

1. I am over eighteen (18) years of age and am otherwise competent to make the statements contained herein.

2. I have worked at the Los Alamos National Labs from 1991 to 2006. I currently am the secretary of GeoEnergy Monitoring Systems, Inc., a company that builds and conducts seismic monitoring.

3. I have obtained a Bachelor of Science degree in geology at Ohio University (1975) and a Ph.D. in Geophysics at the Massachusetts Institute of Technology (1980).

4. I am familiar with the application that NGL Water Solutions Permian, LLC ("NGL") has filed in this matter, and I have conducted a study related to the area which is the subject matter of that application.

5. The applicant, NGL (OGRID No. 372338), seeks an order approving the McCloy West SWD #1 and Jack Tank SWD #1 salt water disposal wells.

6. In its applications, NGL requests approval to use larger diameter tubing in both wells which is 7" by 5 ½".

7. The wells will be spaced out and not located closer than approximately 1 mile from other disposal wells, approved for injection into the Devonian and Silurian formations.

8. The approved injection zone for the wells is located below the base of the Woodford Shale formation and above the Ordovician formation, which consists of significant shale deposits.

9. The wells will primarily be injecting fluids into the Wristen Group and Fusselman formations, with some fluids potentially being injected into the Upper Montoya Group. Each of these sub-formations or zones are located within what is commonly referred to by operators and the Division as the "Devonian and Silurian" formations. These zones consist of a very thick sequence of limestone and dolostone which has significant primary and secondary porosity and permeability that is collectively between 1,500 to 3,000 feet thick.

10. The closest known fault line is located approximately 2 to 20 miles away from where the wells are located.

11. I have studied seismic catalogs, unpublished catalogs and USGS catalogs for the time period of 2010 – 2017 selective events within 50 km of one the Striker SWD wells, located in the area where the Striker 1 and Alpha 2 wells are located. Attached as Exhibit A is a copy of

my study. My study concludes that there is very little seismic activity in the areas where the wells are located.

12. I have also reviewed information provided by FTI Platt Sparks involving several different fault slip probability analysis conducted, using a tool created by Stanford University. These fault slip potential models showed low probability of slip or earthquakes to known mapped faults located closest to the wells. A copy of the studies are attached hereto as Exhibit B.

13. I attest that the information provided herein is correct and complete to the best of my knowledge and belief.

14. The granting of this application is in the interests of conservation and the prevention of waste.

Steven R. Taylor

Steven Taylor

SUBSCRIBED AND SWORN to before me this ~~2nd~~ 3rd day of October, 2018 by Steven Taylor.

Valeria Williams

Notary Public

My commission expires: 4-6-20

OFFICIAL SEAL
VALERIA WILLIAMS
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 4-6-20

Seismic Catalog Analysis Within 50 km of Striker SWD #2, #3, #6

Prepared for NGL-Permian
by
GeoEnergy Monitoring Systems
August 22, 2018

Analysis based on NMT seismic catalogs, unpublished catalogs and USGS catalogs for the time period 2010-2017 selecting events within 50 km of one of the Striker SWD wells. **Figure** 1 shows seismic station locations for three wells (blue pushpins) with estimated detection levels for M 1.0 (green circles) and M 1.5 (red circles) along with NGL-Permian stations (yellow pushpins). **Figure 2** shows seismicity listed in Table 1 shown as red circles and additional regional stations from TexNet and NMT (green pushpins). These regional stations will be used along with the 3 Striker SWD seismic stations for regional monitoring.

Striker Two, Sand Dunes well, Lat/Long: 32.2072820/-103.7557370
Striker Three, Gossett well, Lat/Long: 32.2551110/-104.0868610
Striker Six, Madera well, Lat/Long: 32.2091150/-103.5359570

The USGS reports only two events in the vicinity since 2010. New Mexico Tech runs a seismic network (SC) north of the wells for the DOE Waste Isolation Plant (only short-period vertical components). There are a total of seven seismic events in this time period ranging in magnitude from 1.0 to 3.1.

Table 1: Seismicity Within 50 km of Striker SWD Wells 2010-2017

Date	Origin Time GMT	Latitude	Longitude	Depth (km)	Magnitude
20111227	23:10:37	32.37	-103.95	NaN	1.6
20120318	10:57:22	32.281	-103.892	5.0	3.1
20170211	14:34:27	32.29	-103.92	NaN	1.5
20170302	11:38:53	32.37	-103.88	NaN	1.7
20170325	22:46:01	32.13	-103.77	NaN	1
20170503	17:47:21	32.082	-103.023	5.0	2.6
20170814	01:09:56	32.39	-103.56	NaN	1.2

Snee and Zoback (2018) have mapped out fault slip potential across the Permian Basin of New Mexico and Texas in response to injection-related pressure changes at depth by combining maximum horizontal compressive stress orientation along mapped faults. Their estimates of fault slip potential is shown in **Figure 3** (from Figure 3 of Snee and Zoback, 2018). As indicated by the green lines in Figure 3, the fault slip potential is predicted to be very low in southeastern New Mexico.

EXHIBIT
A

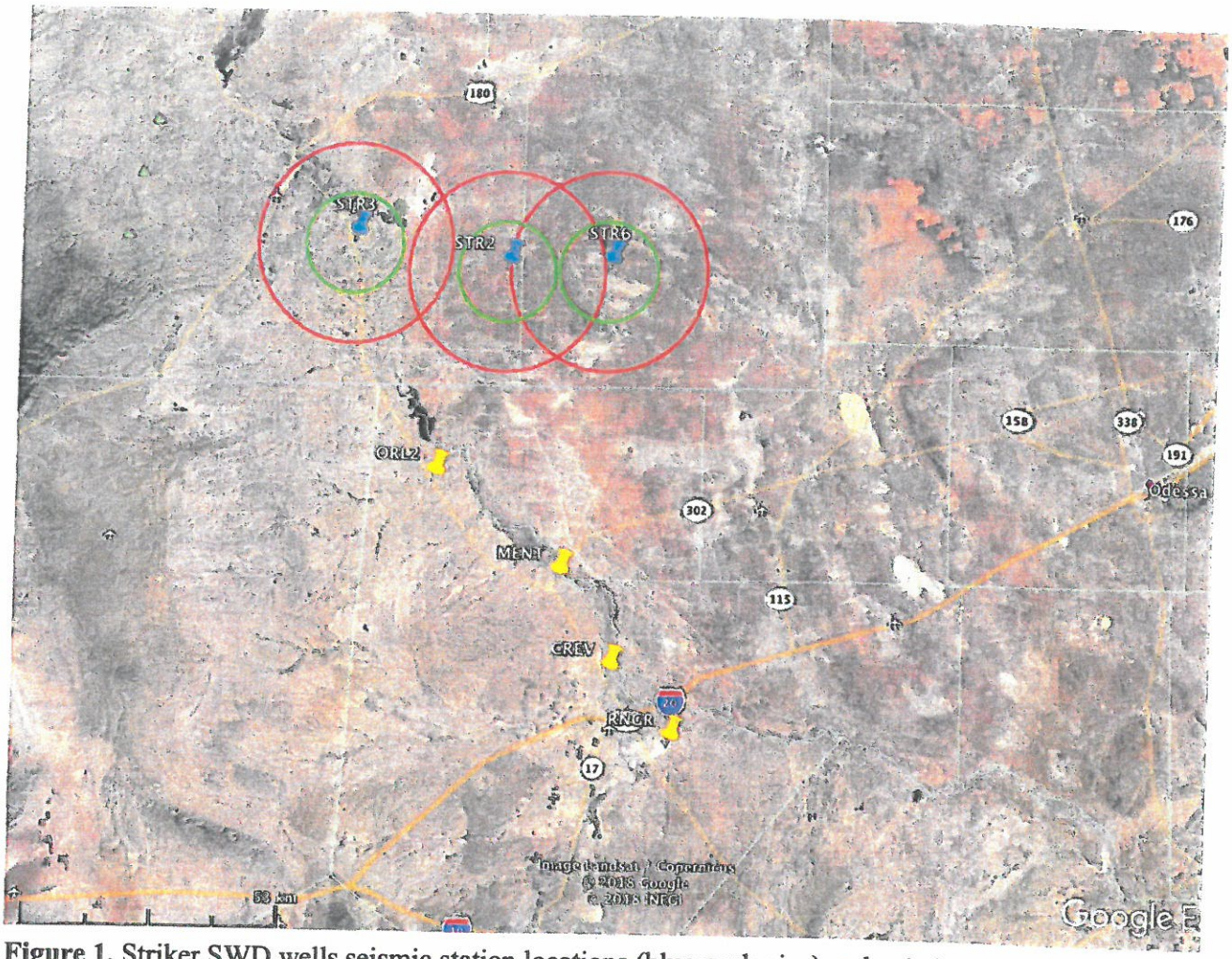


Figure 1. Striker SWD wells seismic station locations (blue push pins) and existing NGL-Permian seismic stations (yellow pushpins). Green and red circles around stations show approximate detection levels for ML 1.0 and 1.5, respectively.

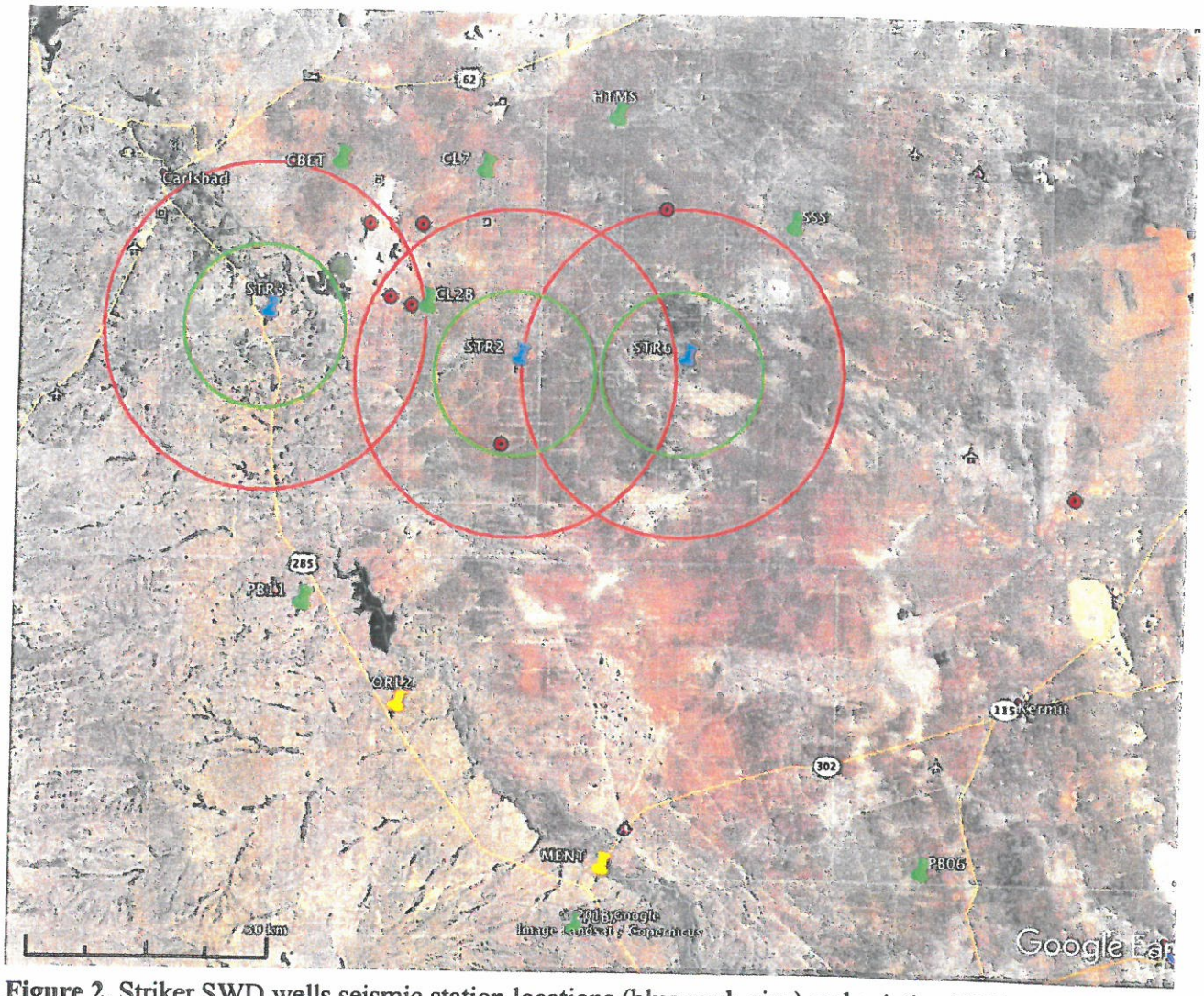


Figure 2. Striker SWD wells seismic station locations (blue push pins) and existing NGL-Permian seismic stations (yellow pushpins). Green and red circles around stations show approximate detection levels for ML 1.0 and 1.5, respectively. Other regional seismic stations run by TexNet and New Mexico Tech are shown as green pushpins. Seismicity listed in Table 1 shown as red circles.

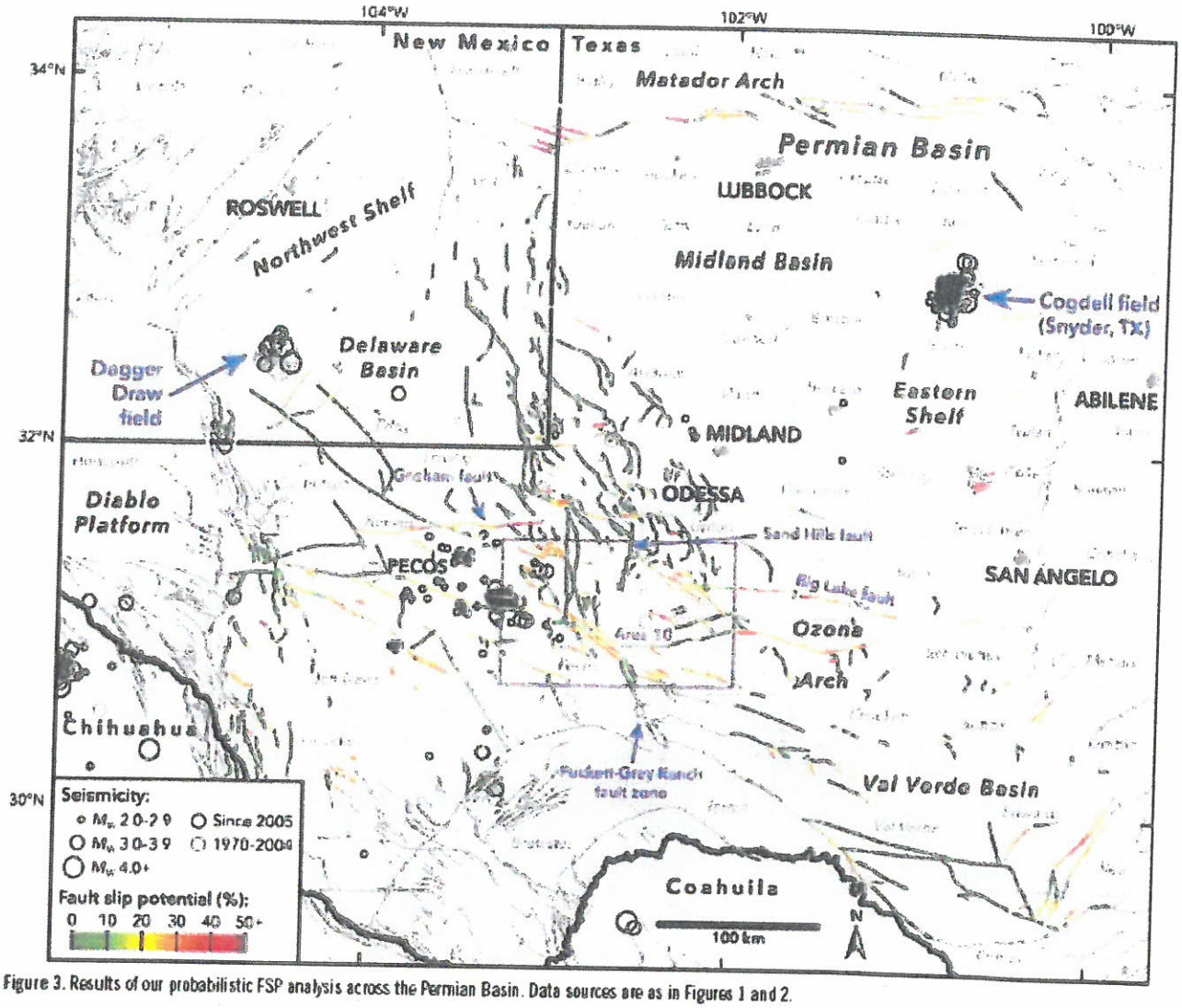


Figure 3. Results of our probabilistic FSP analysis across the Permian Basin. Data sources are as in Figures 1 and 2.

Figure 3. Fault slip analysis from Snee and Zoback (2018) for the Delaware Basin of southeast New Mexico and western Texas. Potential for induced seismicity fault slip in response to injection-related pressure changes at depth in southeast New Mexico appears to be very low as indicated by the green lines on mapped faults.

FTI™
PLATT SPARKS
Texas Registered Engineering Firm No F - 16381

September 25, 2018

RE: FSP Analysis Multiple NGL SWD well locations
Eddy and Lea Counties, New Mexico

FSP Analysis

The FSP software used for this analysis was jointly developed by Stanford University, Exxon Mobil and XTO Energy as a tool for estimating fault slip potential resulting from fluid injection.

I have reviewed the geology, seismic activity, injection history and future proposed injection in the Subject Area and I would conclude that the Proposed SWD wells do not pose a substantial risk of increasing seismicity in the area. The primary risk reduction factor is that the faults are not optimally oriented to slip, and significant pressure increases would be needed to initiate slip on the faults analyzed.

Fault slip potential (FSP) was analyzed in the area of review shown on **Exhibit No. 1.** The analysis integrates all of the proposed well locations as well as any existing injection wells in order to fully assess the pressure implications of injection in the area and the potential for slip along existing faults.

Exhibit No. 2 shows the FSP input parameters for the local stress, average reservoir depth, pressure gradients and reservoir characteristics. Depths and reservoir characteristics were derived from nearby well logs and stress values were derived from the Lund Snee and Zoback (2018) paper related to Stress in the Permian Basin.

Exhibit No. 3 shows the location of existing wells and locations of the Proposed SWD wells relative to the faults documented in this area. The faults are sourced from the Texas Bureau of Economic Geology and these are also the faults shown in the referenced Snee/Zoback paper (Figure 3 in the paper) and shown as **Exhibit No. 4** in my report. The Snee/Zoback paper only considers fault orientation

925-A Capital of Texas Highway, South | Austin, TX 78746
512.327.6930 telephone | 512.327.7069 fax | ftiplattsparks.com

EXHIBIT
B

relative to the stress orientation in determination of fault slip potential. Based on their limited analysis of the area they concluded the faults have low slip potential based on orientation/azimuth. My analysis further incorporates the injection history and future injection projections and the injection reservoir characteristics to fully assess the potential for slip along these faults. Existing wells were incorporated into the analysis using their injection volume histories and holding them constant into the future at their last reported monthly injection volume. The proposed wells were all modelled at 40,000 bbls/day and held constant for the life of the analysis (+30 years).

The proposed wells are denoted in the model as follows: **(Exhibit No. 3)**

RR - Red Road

JT – Jack Tank

S2 – Striker 2

SW – Sidewinder

MW – McCloy West

MM – Minuteman

MC – McCloy Central

Exhibit No. 5 illustrates the geomechanical properties of the fault segments in the area of review. It should be noted that the FSP software only calculates a single pressure change along a fault (at the fault mid-point) so it is critical that faults are broken in to multiple segments to get a true evaluation of the pressure increases associated with injection. **Exhibit No. 5 also** shows the **direction** of max hor. stress as denoted by the grey arrows outside the circle on the stereonet in the lower right portion of this exhibit. Faults that align parallel or closer to this orientation will have the highest potential for slip or lowest Delta PP to slip. Faults 7 and 8 have the highest potential for slip and Faults 1-6 have very low potential for slip.

Exhibit No. 6 shows that the input stress and fault values were varied by +/-10% to allow for uncertainty in the input parameters. Even considering the variability of the inputs the model results show low probability for slip on the faults in the area of review. An increase of 500 psi at Fault 7 still only results in a 10% probability of fault slip.

Exhibit No. 7 takes a closer look at fault 7. The sensitivity analysis is highlighted in the lower right portion of this exhibit and shows that without any variability of inputs the ΔP needed to slip is 1,000 psi along this fault. A 10% decrease in the friction coefficient of the fault could lower ΔP needed to slip to 550 psi.

Exhibit No. 8 takes a closer look at fault 8. The sensitivity analysis is highlighted in the lower right portion of this exhibit and shows that without any variability of inputs the ΔP needed to slip is 1,500 psi along this fault. A 10% change in the fault strike or SHmax azimuth could lower ΔP needed to slip to 900 psi.

Exhibit No. 9 takes a closer look at fault 6. The sensitivity analysis is highlighted in the lower right portion of this exhibit and shows that without any variability of inputs the ΔP needed to slip is +3,500 psi along this fault. A 10% change in the fault strike or SHmax azimuth could lower ΔP needed to slip to 1,850 psi.

Exhibit No. 10 takes a closer look at fault 1. The sensitivity analysis is highlighted in the lower right portion of this exhibit and shows that without any variability of inputs the ΔP needed to slip is +5,600 psi along this fault. A 10% change in the fault strike or SHmax azimuth could lower ΔP needed to slip to 3,050 psi. Faults 2-5 all exhibit similar high ΔP pressure values needed to initiate slip and thus fault slip potential is very low.

In general, only Fault segment 7 shows any concern for fault slip potential. The following exhibits will track the pressure changes at the faults moving forward in time based upon the anticipated injection in the future from these proposed wells and the existing wells in the Subject Area.

Exhibit No. 11 illustrates the ΔP pressure in a "heat map" and shows ΔP pressure increases at the faults as of 1/1/2020. This map indicates ΔP pressure increases of 12 psi at F7 and 79 psi at F8.

Exhibit No. 12 illustrates the ΔP pressure in a "heat map" and shows ΔP pressure increases at the faults as of 1/1/2025. This map indicates ΔP pressure increases of 72 psi at F7 and 163 psi at F8.

Exhibit No. 13 illustrates the ΔP pressure in a "heat map" and shows ΔP pressure increases at the faults as of 1/1/2030. This map indicates ΔP pressure increases of 146 psi at F7 and 230 psi at F8. Note that these pressures are still well above the pressures that could initiate fault slip. F3 shows a ΔP pressure increase of 380 psi however this fault requires extremely high pressures (+4,500 psi) to initiate fault slip.

Exhibit No. 14 illustrates the ΔP pressure in a "heat map" and shows ΔP pressure increases at the faults as of 1/1/2035. This map indicates ΔP pressure increases of 217 psi at F7 and 291 psi at F8. Note that these pressures are still well above the pressures that could initiate fault slip. F3 shows a ΔP pressure increase of 501 psi however this fault requires extremely high pressures (+4,500 psi) to initiate fault slip.

Exhibit No. 15 illustrates the ΔP pressure in a "heat map" and shows ΔP pressure increases at the faults as of 1/1/2040. This map indicates ΔP pressure increases of 285 psi at F7 and 349 psi at F8. Note that these pressures are still well above the pressures that could initiate fault slip. F3 shows a ΔP pressure increase of 608 psi however this fault requires extremely high pressures (+4,500 psi) to initiate fault slip.

Exhibit No. 16 illustrates the ΔP pressure in a "heat map" and shows ΔP pressure increases at the faults as of 1/1/2045. This map indicates ΔP pressure increases of 348 psi at F7 and 405 psi at F8. Note that these pressures are still well above the pressures that could initiate fault slip. F3 shows a ΔP pressure increase of 705 psi however this fault requires extremely high pressures (+4,500 psi) to initiate fault slip.

Exhibit No. 17 illustrates the ΔP pressure in a "heat map" and shows ΔP pressure increases at the faults as of 1/1/2050. This map indicates ΔP pressure increases of 409 psi at F7 and 458 psi at F8. Note that these pressures are still well above the pressures that could initiate fault slip. F3 shows a ΔP pressure increase of 796 psi however this fault requires extremely high pressures (+4,500 psi) to initiate fault slip.

The pressure analysis over time shows that pressure is expected to increase along the faults however pressures remain below critical levels. The table below shows the ΔP pressure increases needed to imitate fault slip along each fault segment and the corresponding ΔP pressure increases as of 2050:

Fault Segment	ΔP to slip (fixed inputs)	ΔP to slip (10% varied inputs)	ΔP at 2050
F1	5,600	3,050	39
F2	6,600	4,300	278
F3	6,750	4,650	796
F4	6,700	4,500	504
F5	6,900	4,900	371
F6	3,500	1,850	193
F7	1,000	550	409
F8	1,500	900	458

This analysis demonstrates that there is a low likelihood of injection induced seismicity in the Subject Area.

Conclusion

The faults and fault trends in this area of review are not optimally oriented to slip. The orientation of the faults requires significant pressure changes (ΔP +1,000 psi) based the input parameters and the ΔP increase at the most vulnerable fault only reaches 409 psi by 2050. This model assumes constant injection rates over the next +30 years which is not a typical scenario as SWD wells tend to decrease injection volumes over time as the well ages and disposal demand decreases in the area. If injection volumes are lower over time than the model represents, then the risk for fault slip is lowered also.

In the event seismicity should occur in the future, the wells closest to the faults (proposed and existing) should be the wells considered for modification or reduction of injection rates. At this time there is no evidence to support rate reduction for any of the existing or proposed wells.

Should you have any questions, please do not hesitate to call me at (512) 327-6930 or email me at todd.reynolds@ftiplattsparks.com.

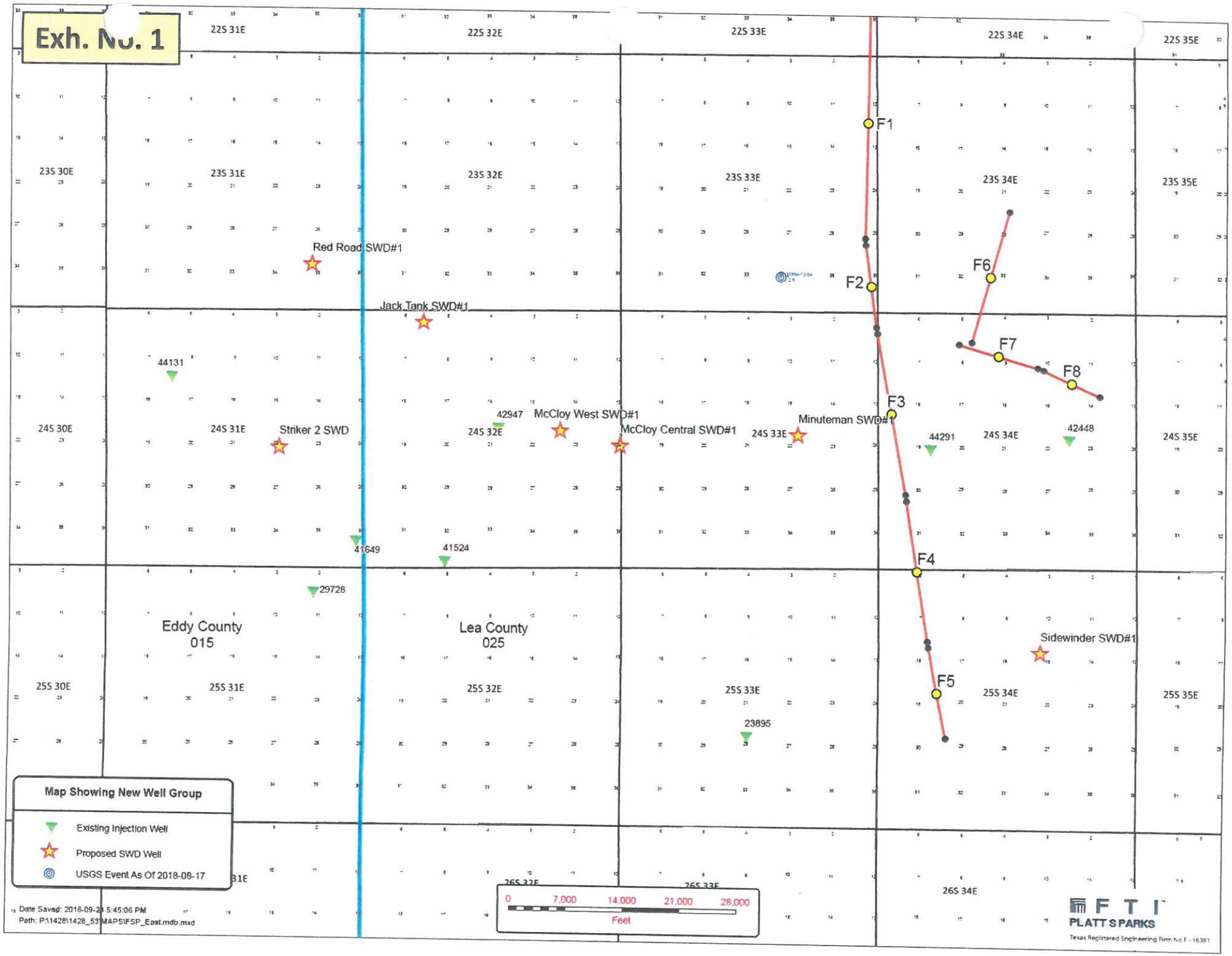
Regards,

Todd W. Reynolds – Geologist/Geophysicist
Senior Director, Economics/FTI Platt Sparks

Todd W. Reynolds

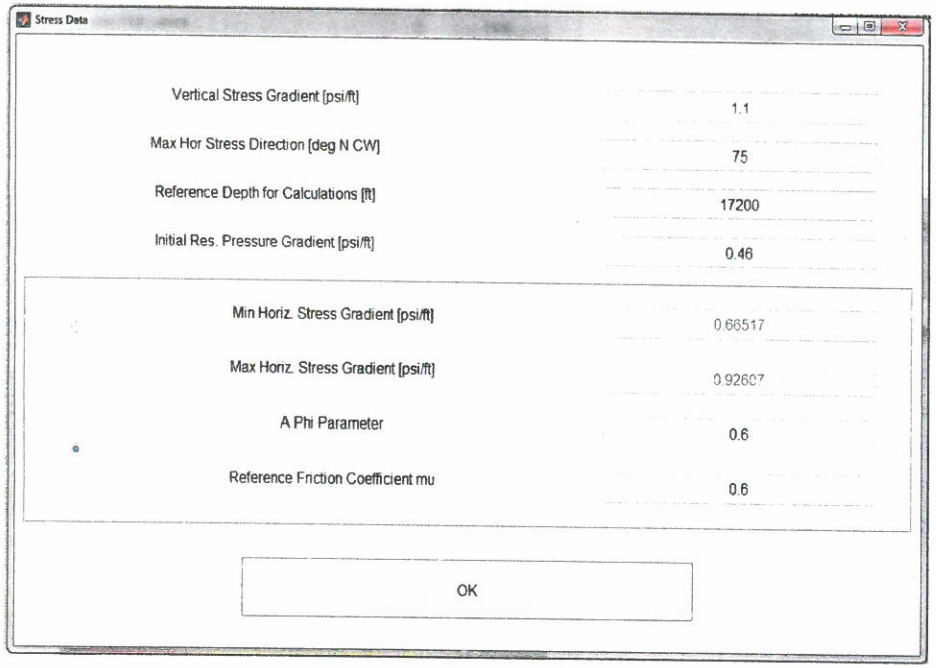
FTI Platt Sparks
512.327.6930 office

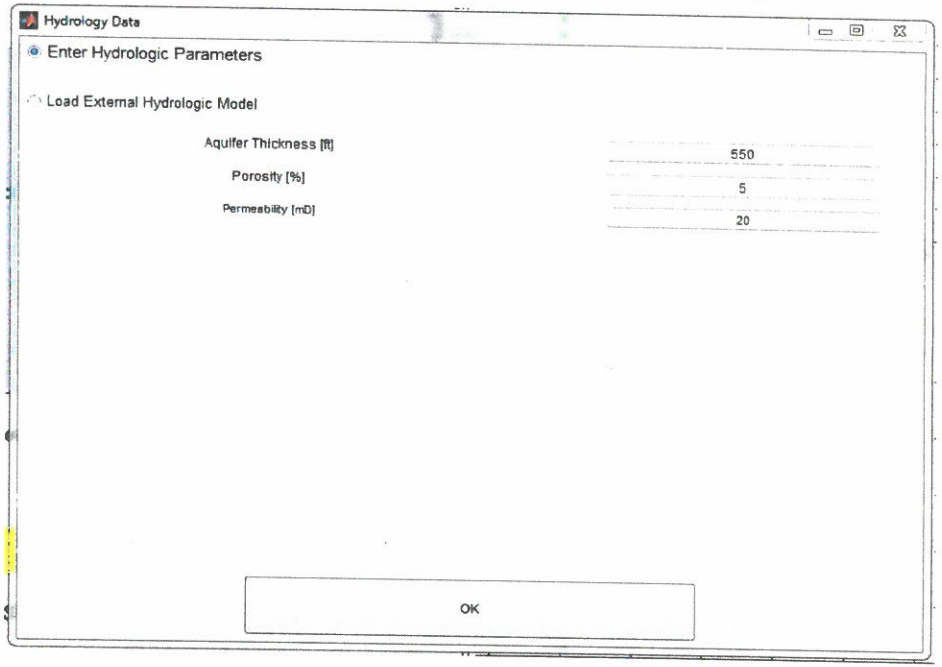
Exh. No. 1

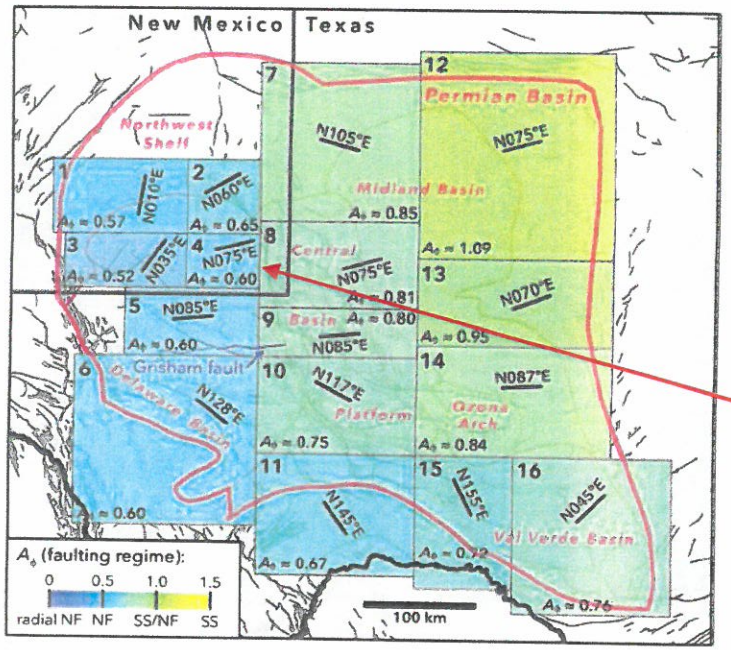

22S 31E
22S 32E
22S 33E
22S 34E
22S 35E
23S 30E
23S 31E
23S 32E
23S 33E
23S 34E
23S 35E
24S 30E
24S 31E
24S 32E
24S 33E
24S 34E
24S 35E
25S 30E
25S 31E
25S 32E
25S 33E
25S 34E
25S 35E
26S 34E
Red Road SWD#1
Jack Tank SWD#1
44131
Striker 2 SWD
42947
McCloy West SWD#1
McCloy Central SWD#1
Minuteman SWD#1
44291
42448
41649
41524
29728
23895
Sidewinder SWD#1
Eddy County
015
Lea County
025
F1
F2
F3
F4
F5
F6
F7
F8
Map Showing New Well Group
Existing Injection Well
Proposed SWD Well
USGS Event As Of 2018-08-17
0
7,000
14,000
21,000
28,000
Feet
Date Saved: 2018-09-24 5:45:06 PM
Path: P:\1428\1428_53\MAPS\FSP_East.mdb.mxd
FTI
PLATTS PARKS
Texas Registered Engineering Firm No F - 16381

Exh. No. 2

FSP INPUT PARAMETERS







Input Parameter Comments

Hydrologic Parameters – Derived from Striker 6 SWD #2 logs

Stress Gradients – Derived from A Phi parameter from Snee/Zoback paper (.60)

Max Hor. Stress Direction - Derived from Snee/Zoback paper (N75E)

Exh. No. 3

Fault Slip Potential

MODEL INPUTS | GEOMECHANICS | PROB. GEOMECH | HYDROLOGY | PROB. HYDRO | INTEGRATED

Fault Selector:

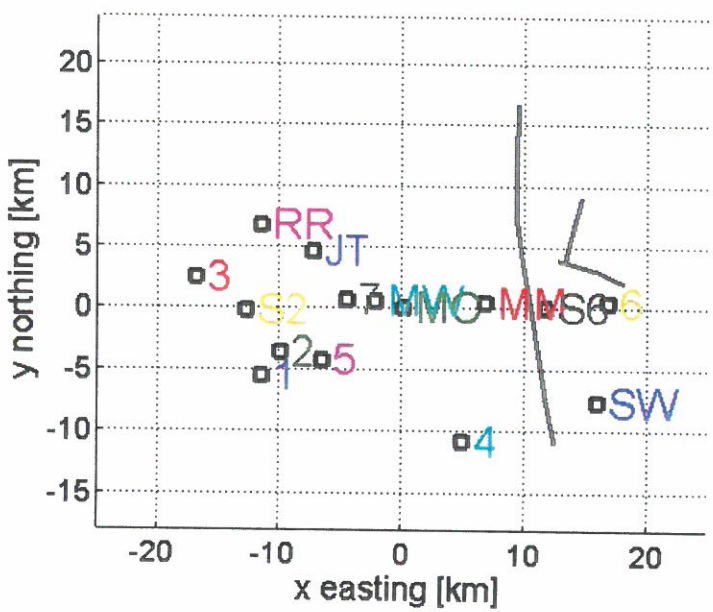
- All Faults
- Fault #1
- Fault #2
- Fault #3
- Fault #4
- Fault #5
- Fault #6
- Fault #7
- Fault #8

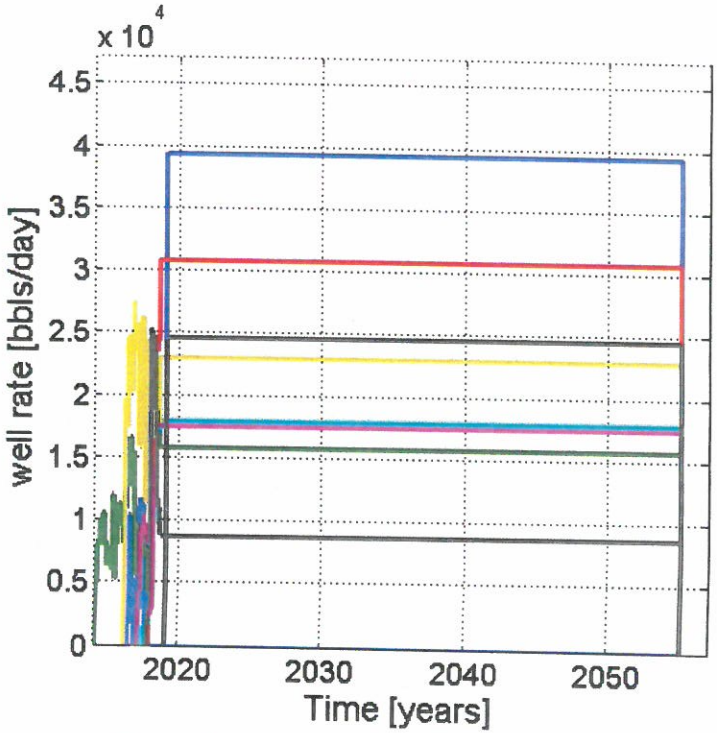
Calculate

Stress Regime: Normal Faulting

Select Well: All

FSP INPUT Fault and well locations





FSP INPUT Injection history and projected future injection

Exh. No. 4

Area of Review

Low slip potential based on fault orientation (green faults)

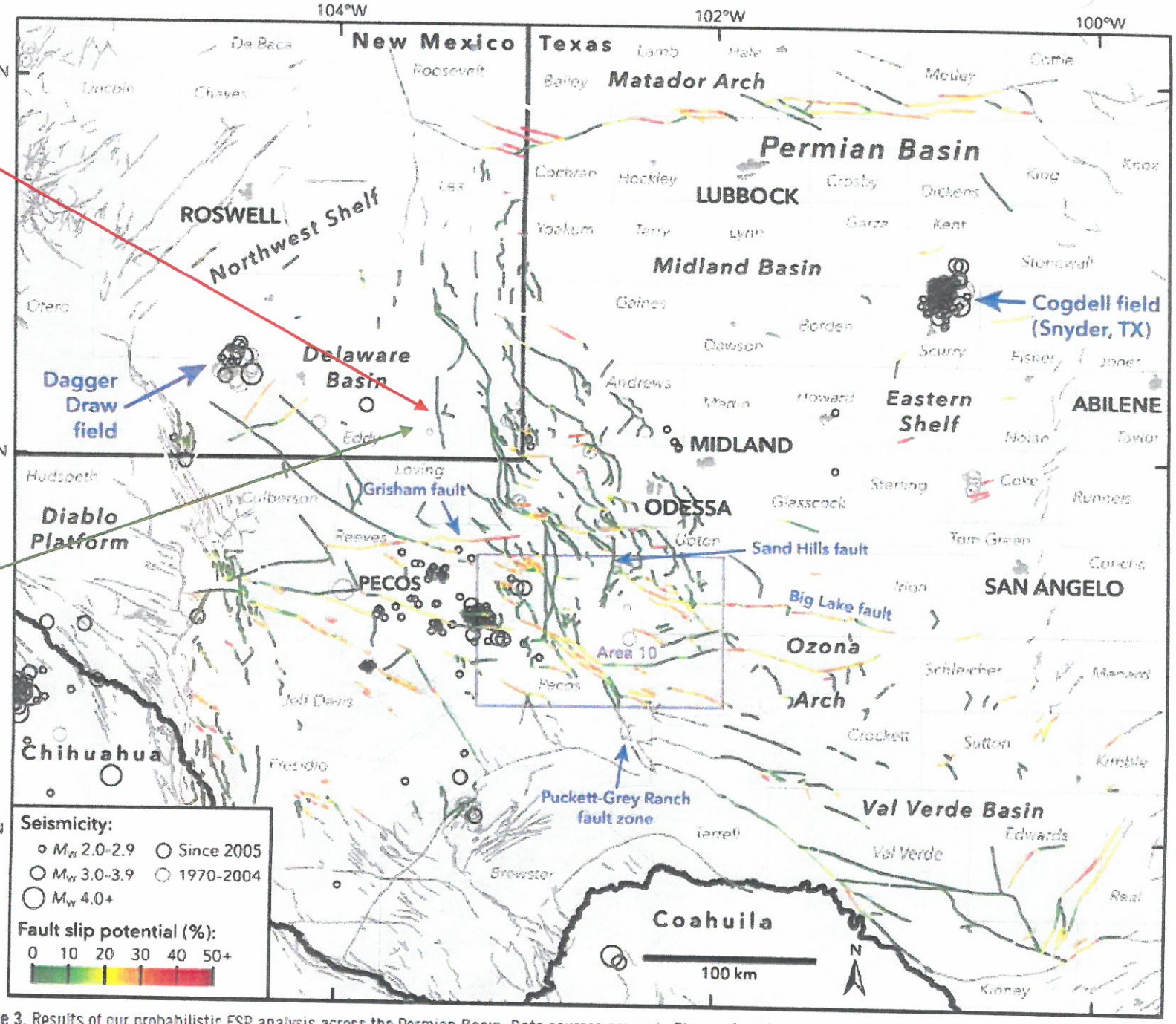


Figure 3. Results of our probabilistic FSP analysis across the Permian Basin. Data sources are as in Figures 1 and 2.

From Lund Snee and Zoback (2018)

Exh. No. 5

Zoom

Fault Slip Potential

MODEL INPUTS | GEOMECHANI... | PROB. GEOMECH | HYDROLOGY | PROB. HYDRO | INTEGRATED

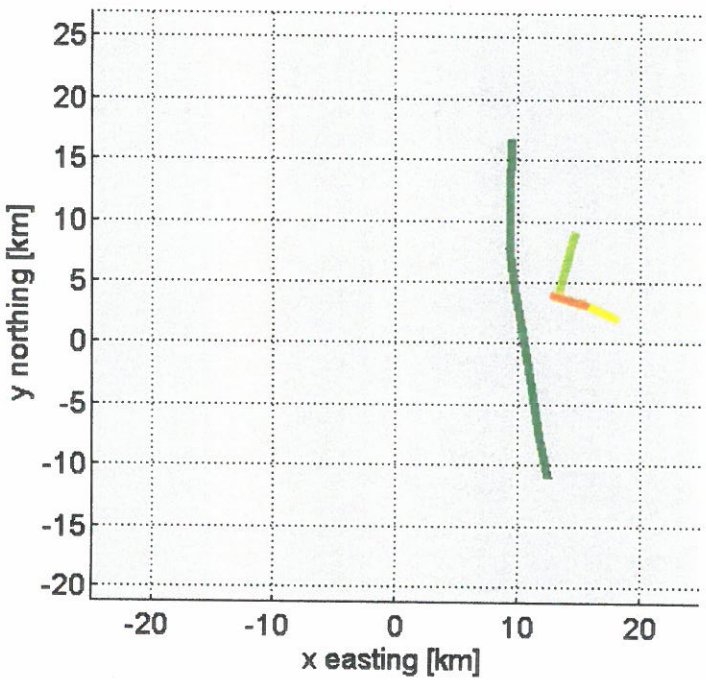
Fault Selector:

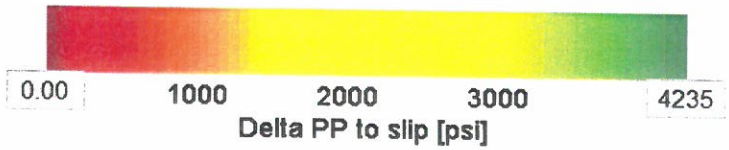
All Faults
Fault #1
Fault #2
Fault #3
Fault #4
Fault #5
Fault #6
Fault #7
Fault #8

Calculate

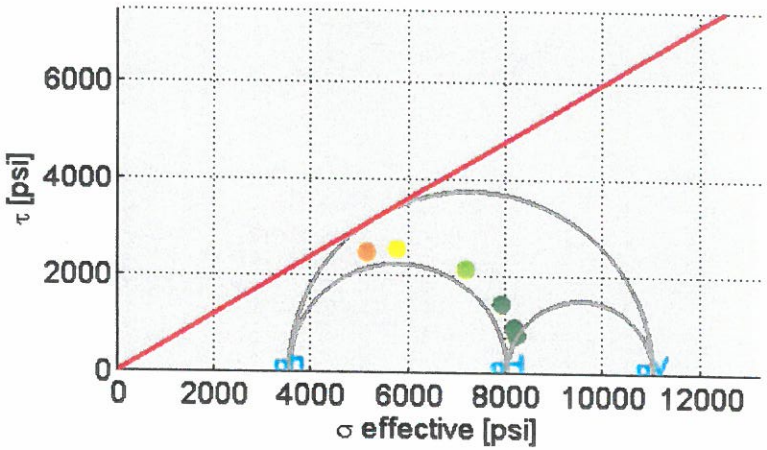
Choose Plot Labels

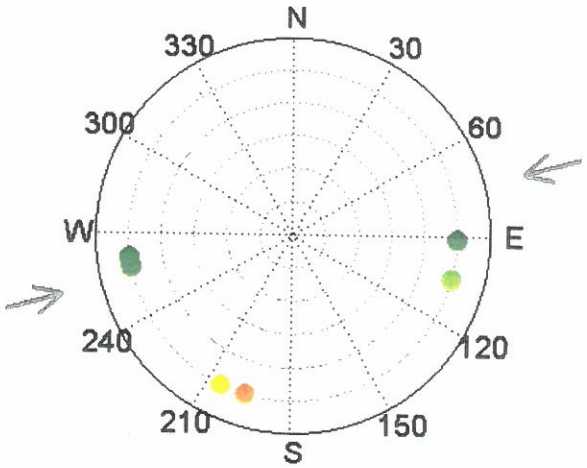
Help





Stress Regime: Normal Faulting





Stereonet Show: Fault Normals

Exh. No. 6

Zoom

Fault Slip Potential

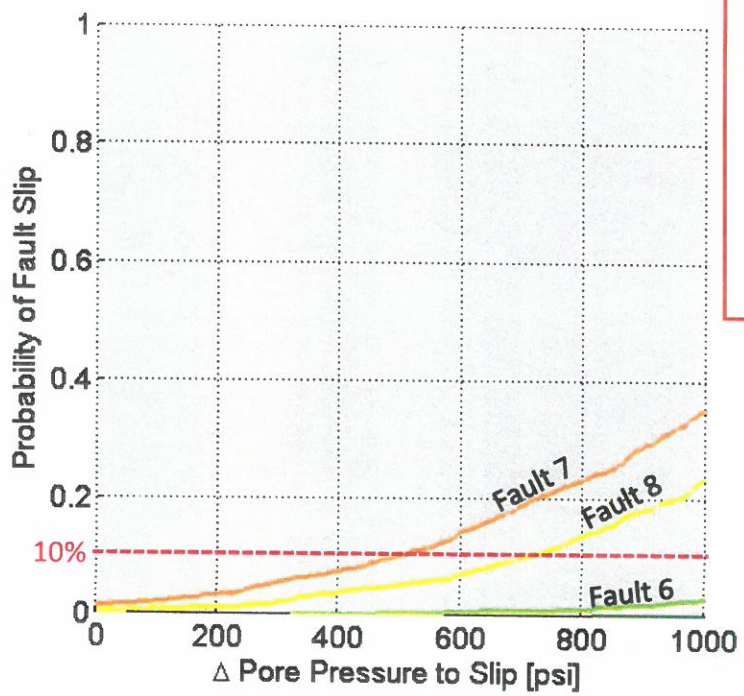
MODEL INPUTS | GEOMECHANICS | PROB. GEOM... | HYDROLOGY | PROB. HYDRO | INTEGRATED

Fault Selector:

- All Faults
- Fault #1
- Fault #2
- Fault #3
- Fault #4
- Fault #5
- Fault #6
- Fault #7
- Fault #8

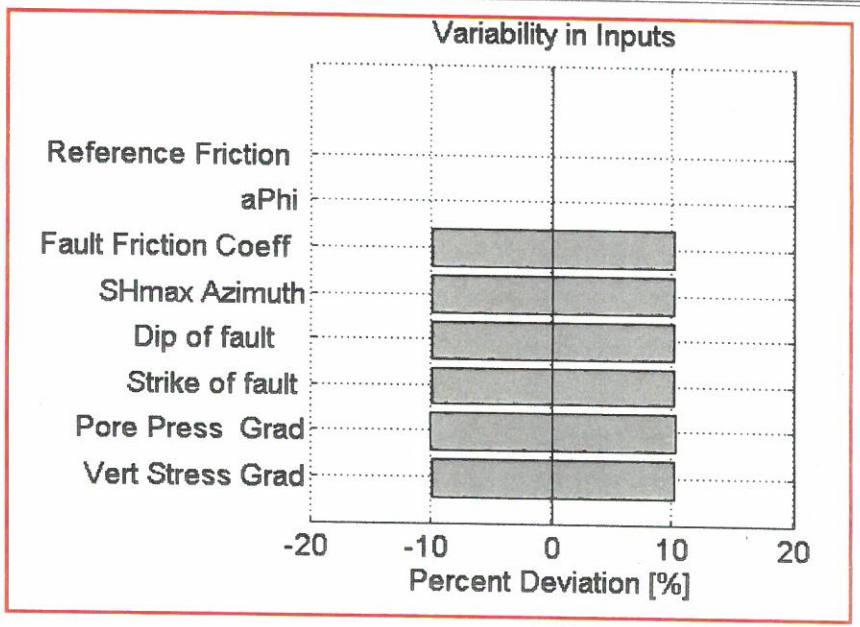
Calculate

Load Distributions | Run Analysis

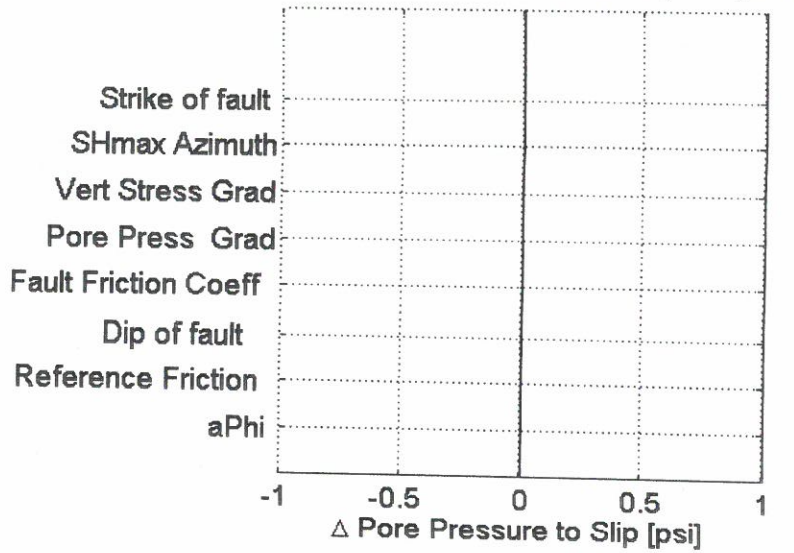


Max Delta PP [psi]: 1000

Export CDF data | Show Input Distributions



Choose a fault to see sensitivity analysis



Exh. No. 7

Zoom

Fault Slip Potential

MODEL INPUTS | GEOMECHANICS | PROB. GEOM... | HYDROLOGY | PROB. HYDRO | INTEGRATED

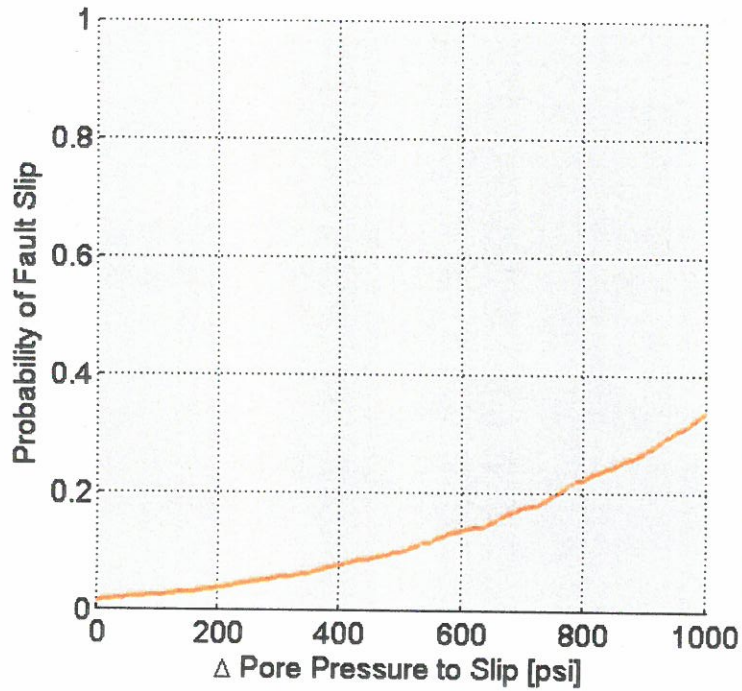
Fault Selector:

All Faults
Fault #1
Fault #2
Fault #3
Fault #4
Fault #5
Fault #6
Fault #7
Fault #8

Calculate

Load Distributions

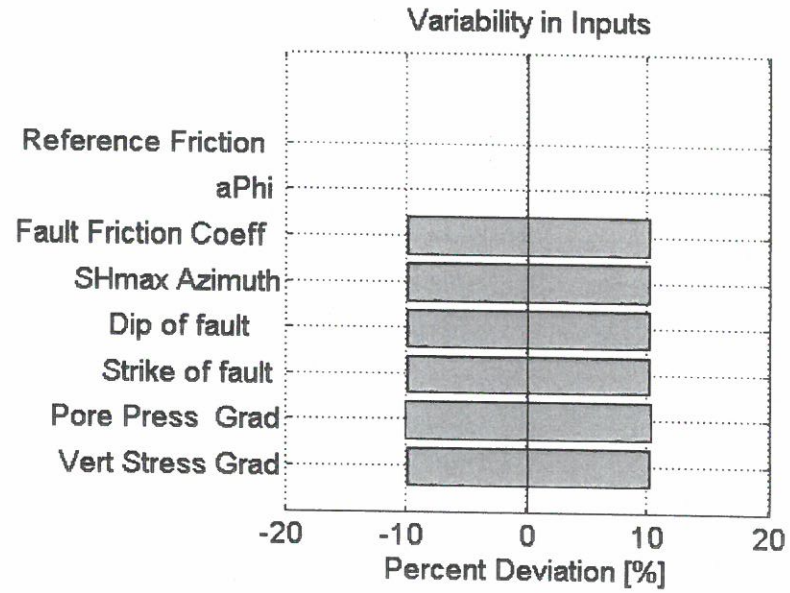
Run Analysis

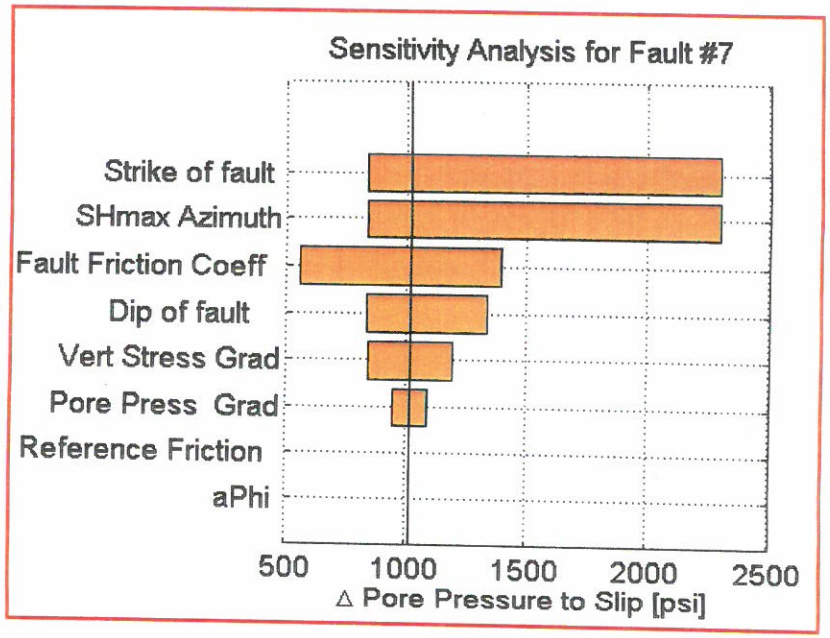


Max Delta PP [psi]: 1000

Export CDF data

Show Input Distributions





Exh. No. 8

Zoom

Fault Slip Potential

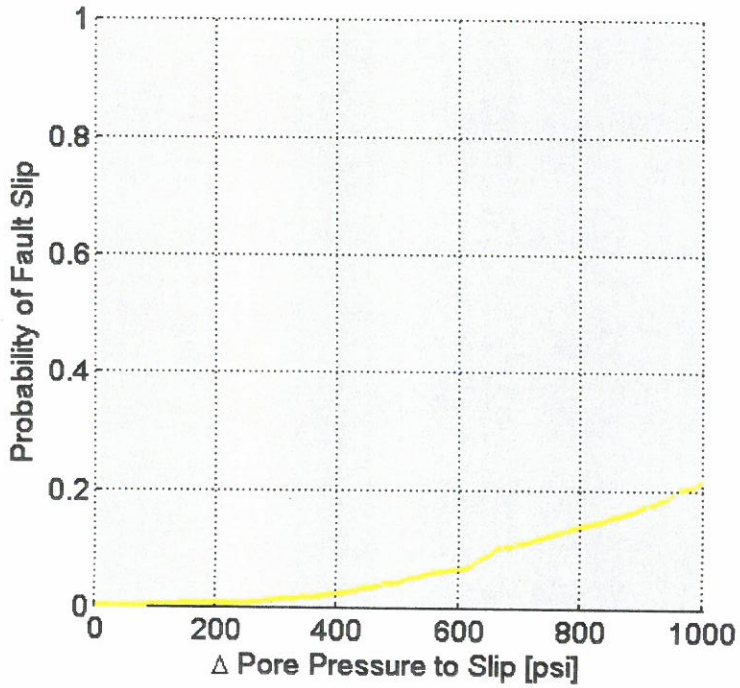
MODEL INPUTS | GEOMECHANICS | PROB. GEOM... | HYDROLOGY | PROB. HYDRO | INTEGRATED

Fault Selector:

All Faults
- Fault #1
- Fault #2
- Fault #3
- Fault #4
- Fault #5
- Fault #6
- Fault #7
- Fault #8

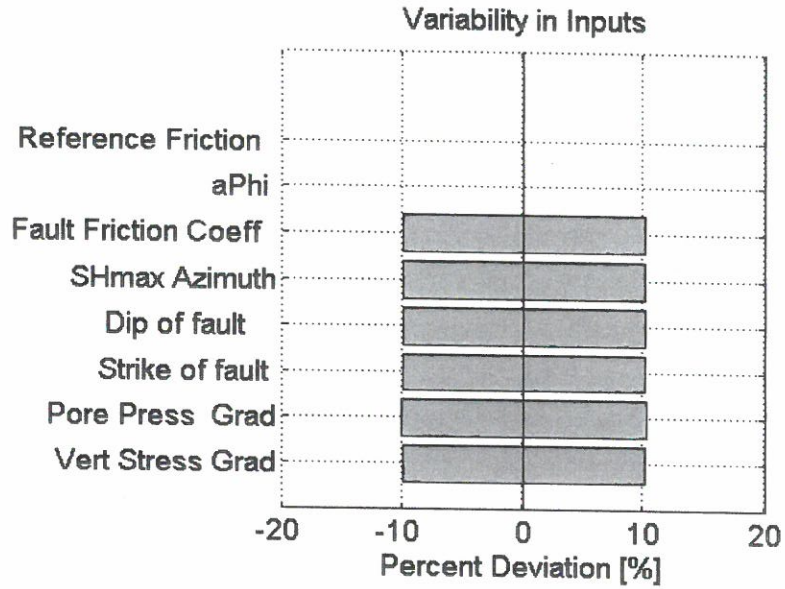
Calculate

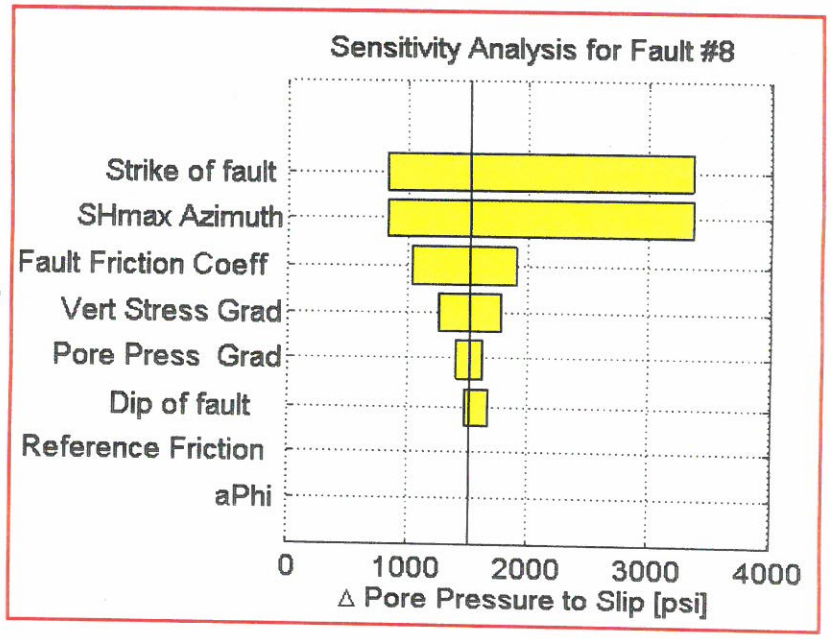
Load Distributions | Run Analysis



Max Delta PP [psi]: 1000

Export CDF data | Show Input Distributions





Exh. No. 9

Zoom

Fault Slip Potential

MODEL INPUTS | GEOMECHANICS | PROB. GEOM... | HYDROLOGY | PROB. HYDRO | INTEGRATED

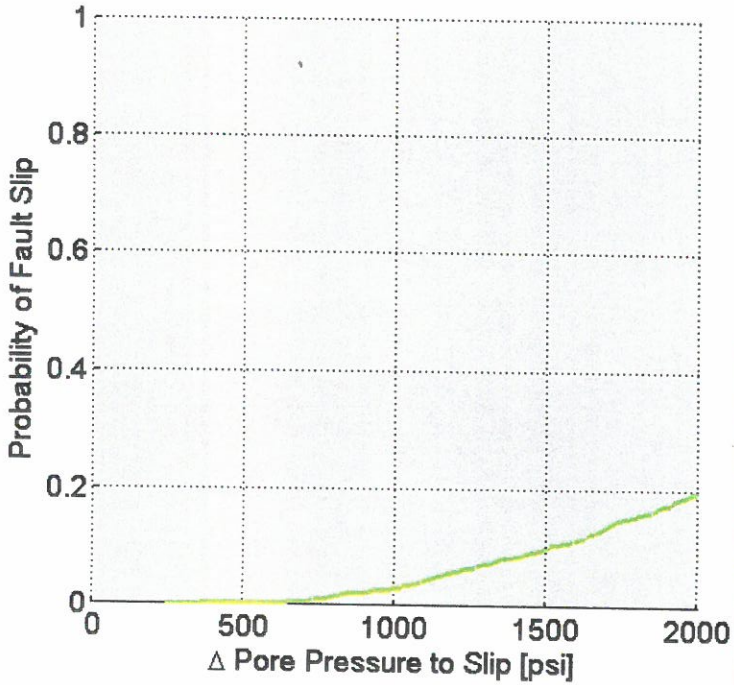
Fault Selector:

All Faults
Fault #1
Fault #2
Fault #3
Fault #4
Fault #5
Fault #6
Fault #7
Fault #8

Calculate

Load Distributions

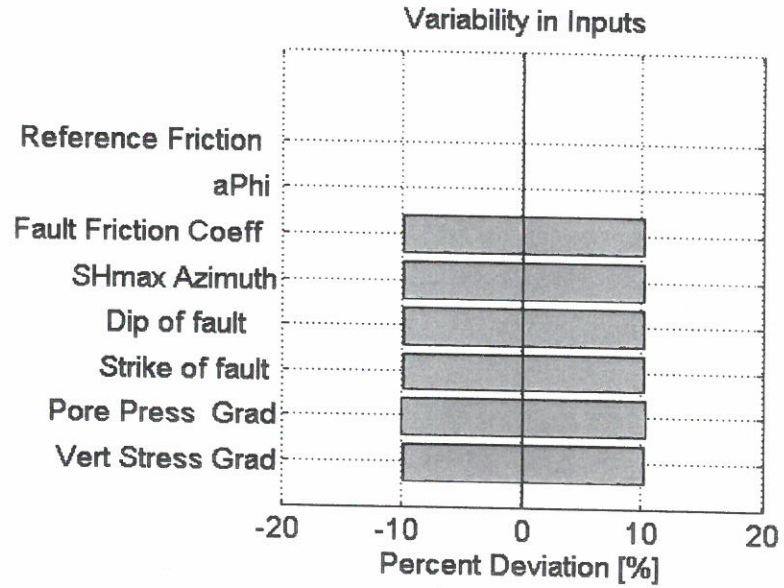
Run Analysis

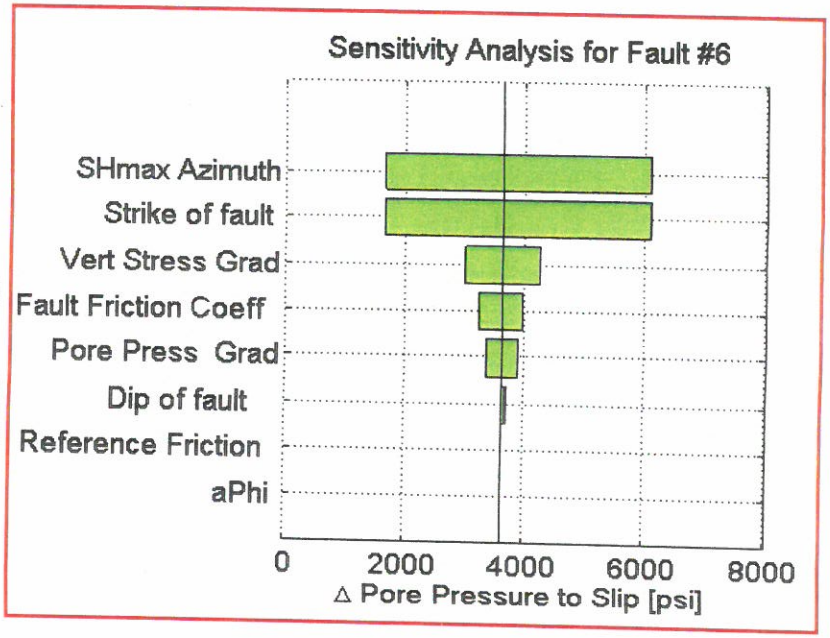


Max Delta PP [psi]: 2000

Export CDF data

Show Input Distributions





Exh. No. 10

Zoom

Fault Slip Potential

MODEL INPUTS | GEOMECHANICS | PROB. GEOM... | HYDROLOGY | PROB. HYDRO | INTEGRATED

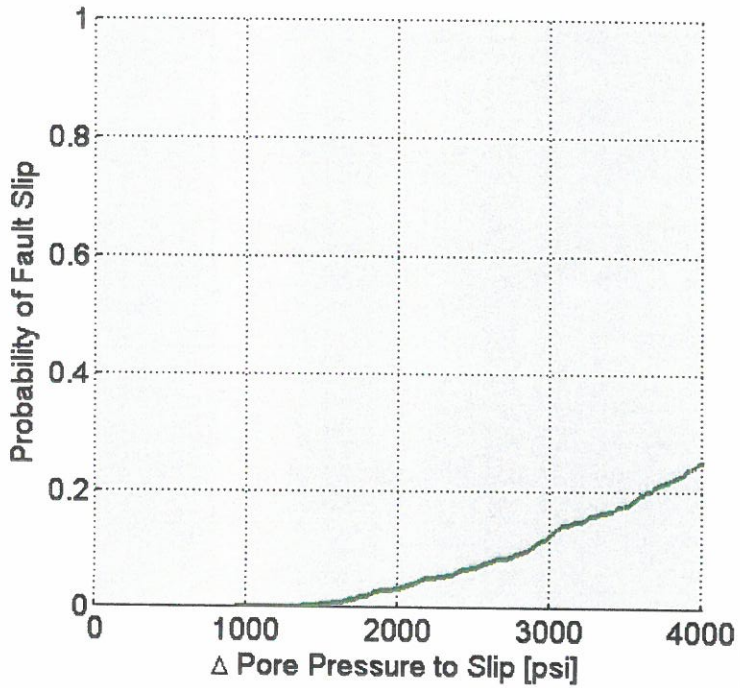
Fault Selector:

- All Faults
- Fault #1
- Fault #2
- Fault #3
- Fault #4
- Fault #5
- Fault #6
- Fault #7
- Fault #8

Calculate

Load Distributions

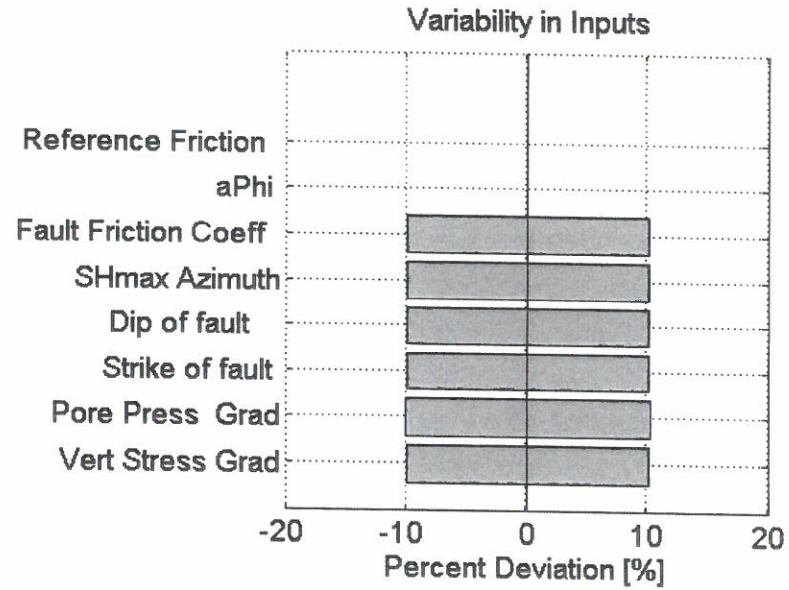
Run Analysis

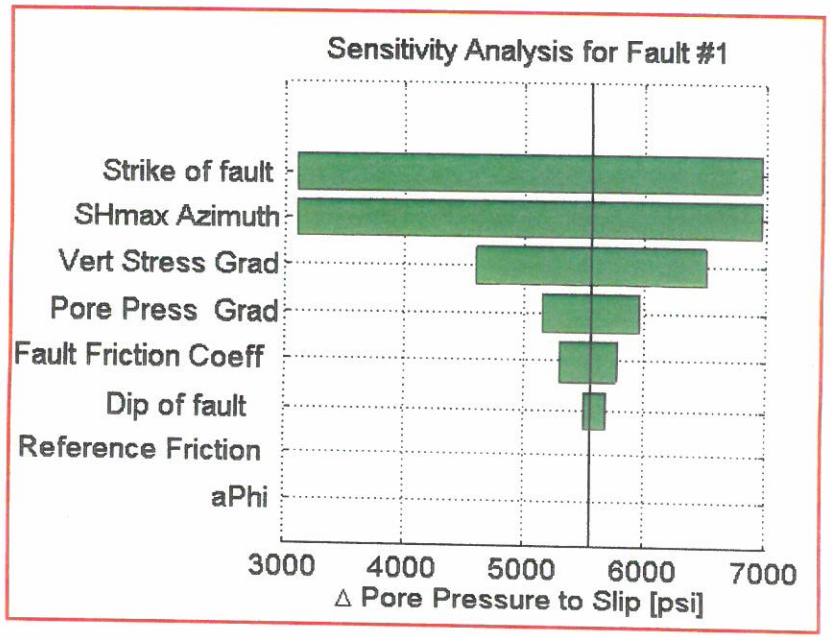


Max Delta PP [psi]: 4000

Export CDF data

Show Input Distributions





Exh. No. 11

Zoom

Fault Slip Potential

MODEL INPUTS | GEOMECHANICS | PROB. GEOMECH | HYDROLOGY | PROB. HYDRO | INTEGRATED

Fault Selector:

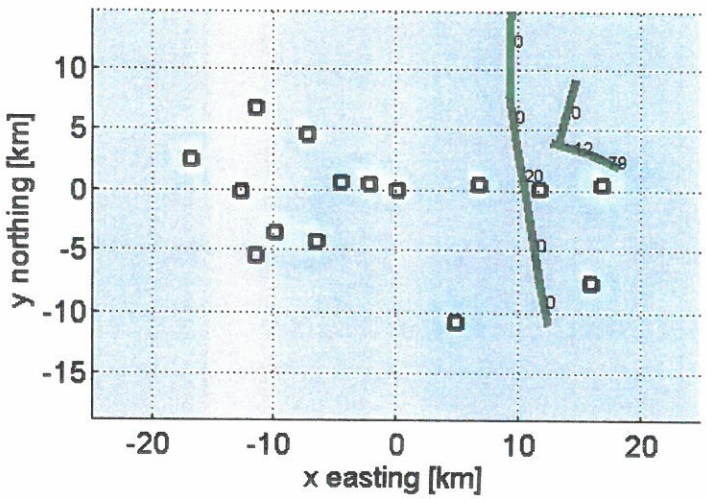
All Faults
Fault #1, 0.00 FSP
Fault #2, 0.00 FSP
Fault #3, 0.00 FSP
Fault #4, 0.00 FSP
Fault #5, 0.00 FSP
Fault #6, 0.00 FSP
Fault #7, 0.02 FSP
Fault #8, 0.01 FSP

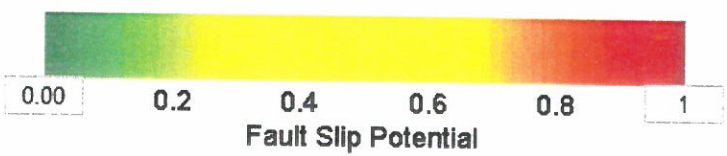
Calculate

b) PP Change at fault [psi]

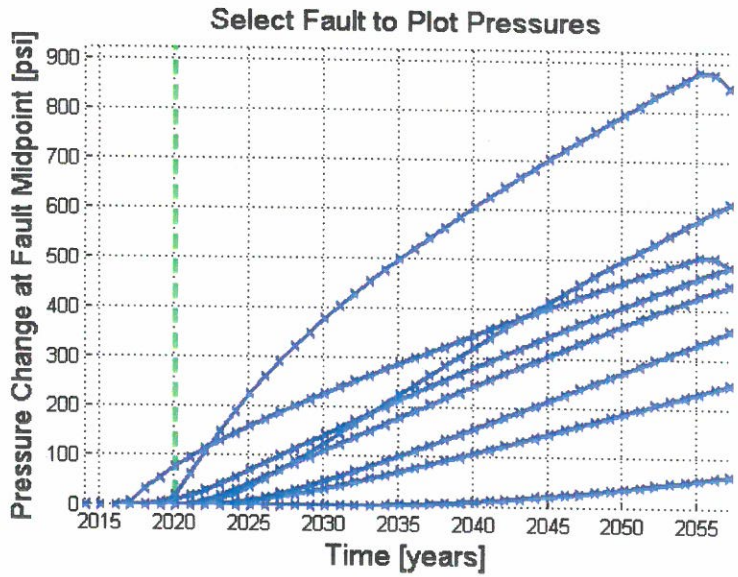
Export

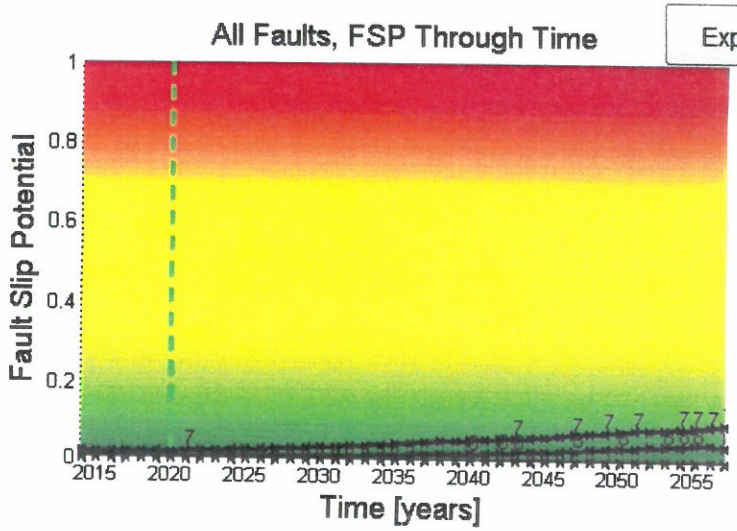
Summary Plots





Year: 2020





Export

Exh. No. 12

Zoom

Fault Slip Potential

MODEL INPUTS | GEOMECHANICS | PROB. GEOMECH | HYDROLOGY | PROB. HYDRO | INTEGRATED

Export

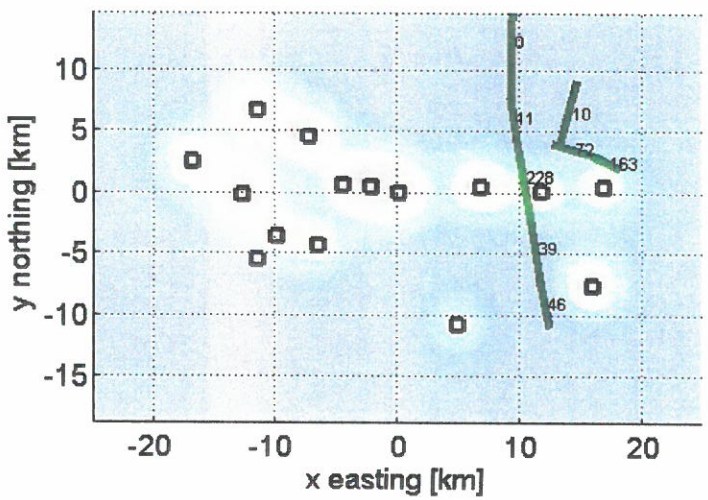
Fault Selector:

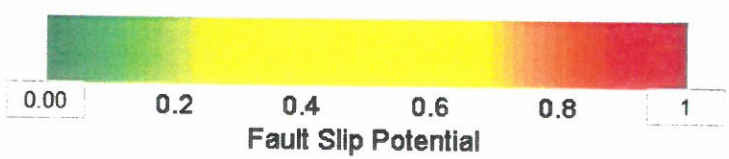
All Faults
Fault #1, 0.00 FSP
Fault #2, 0.00 FSP
Fault #3, 0.00 FSP
Fault #4, 0.00 FSP
Fault #5, 0.00 FSP
Fault #6, 0.00 FSP
Fault #7, 0.03 FSP
Fault #8, 0.01 FSP

Calculate

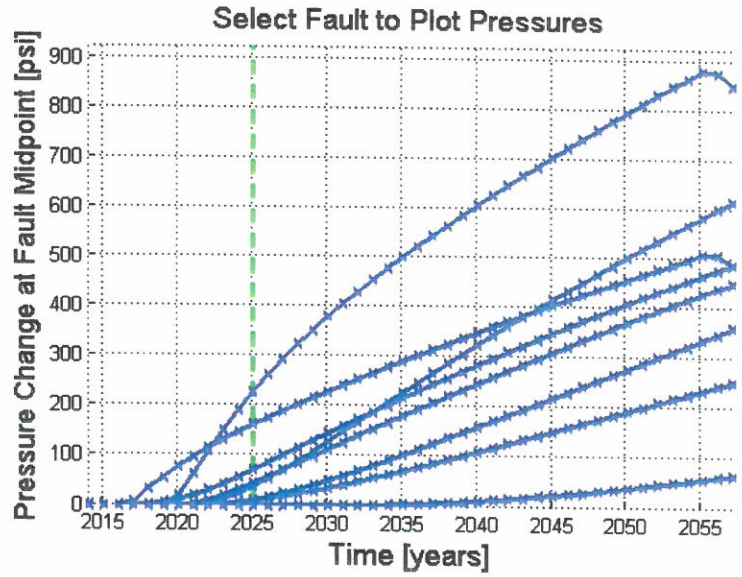
b) PP Change at fault [psi]

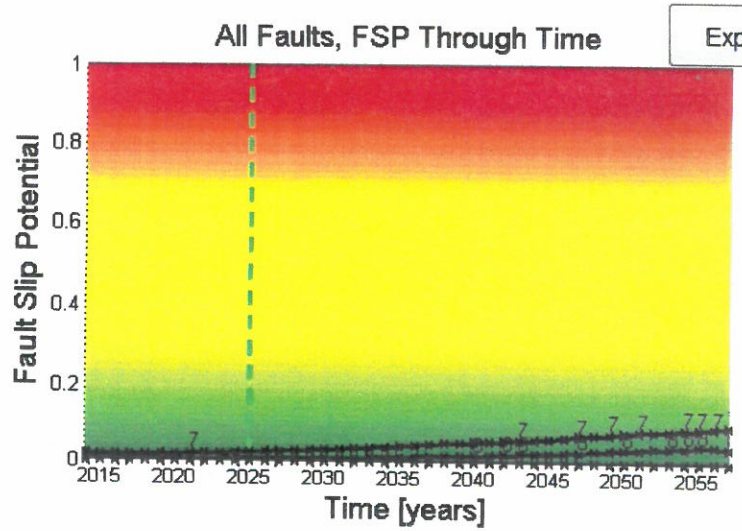
Summary Plots





Year: 2025





Exh. No. 13

Zoom

Fault Slip Potential

MODEL INPUTS | GEOMECHANICS | PROB. GEOMECH | HYDROLOGY | PROB. HYDRO | INTEGRATED

Fault Selector:

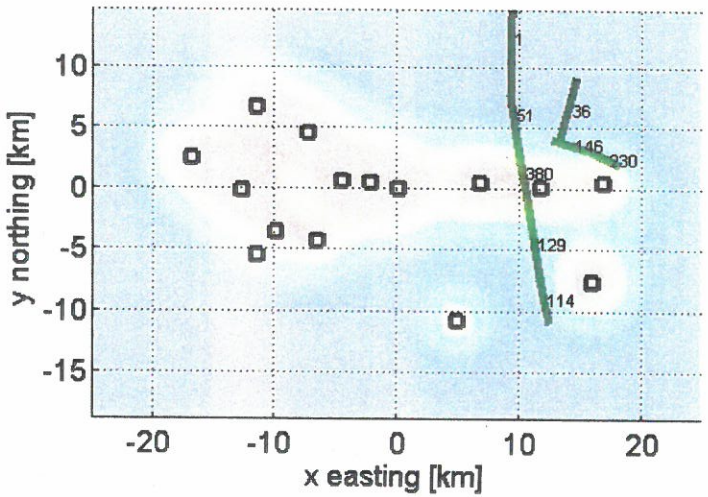
All Faults
Fault #1, 0.00 FSP
Fault #2, 0.00 FSP
Fault #3, 0.00 FSP
Fault #4, 0.00 FSP
Fault #5, 0.00 FSP
Fault #6, 0.00 FSP
Fault #7, 0.03 FSP
Fault #8, 0.01 FSP

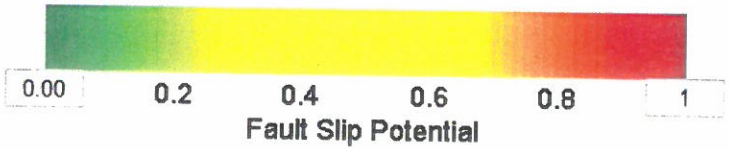
Calculate

b) PP Change at fault [psi]

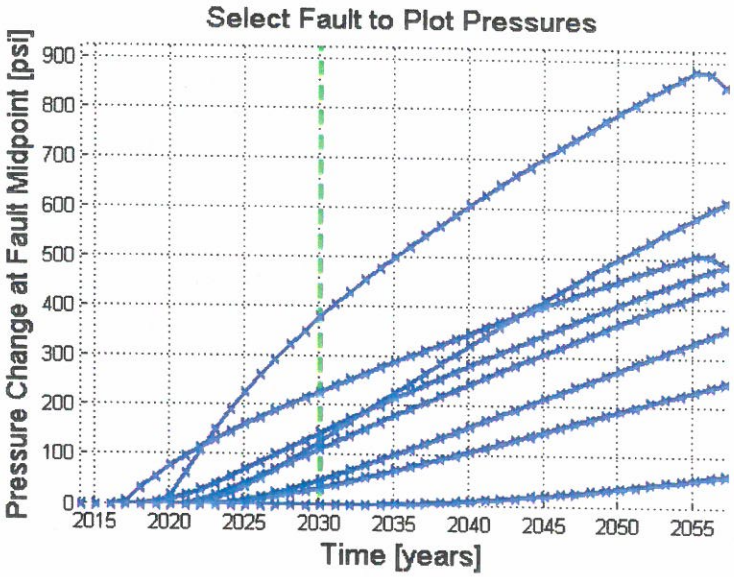
Export

Summary Plots

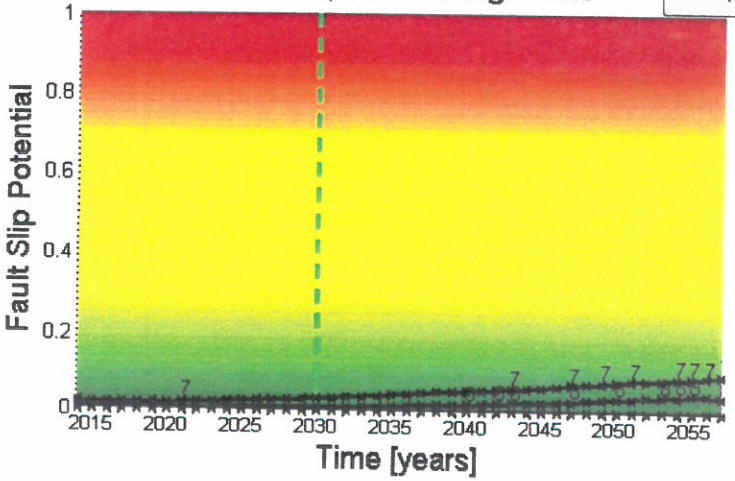




Year: 2030



Export



Exh. No. 14

Zoom

Fault Slip Potential

MODEL INPUTS | GEOMECHANICS | PROB. GEOMECH | HYDROLOGY | PROB. HYDRO | INTEGRATED

Export

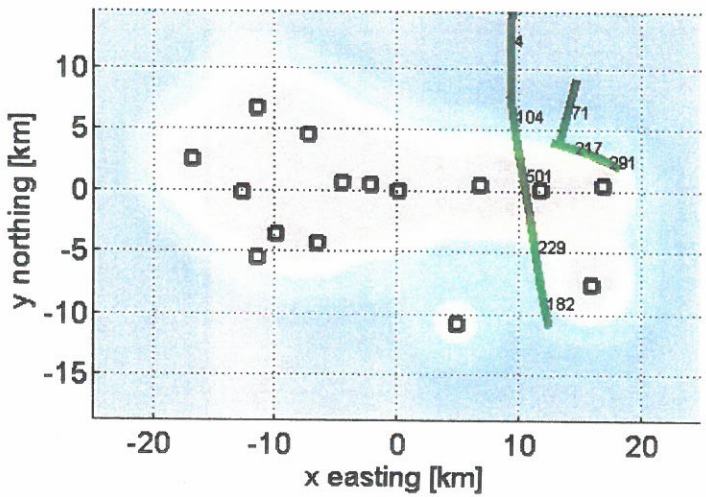
Fault Selector:

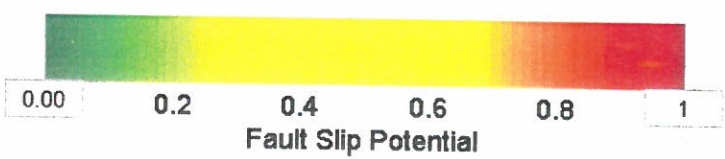
All Faults
Fault #1, 0.00 FSP
Fault #2, 0.00 FSP
Fault #3, 0.00 FSP
Fault #4, 0.00 FSP
Fault #5, 0.00 FSP
Fault #6, 0.00 FSP
Fault #7, 0.04 FSP
Fault #8, 0.01 FSP

Calculate

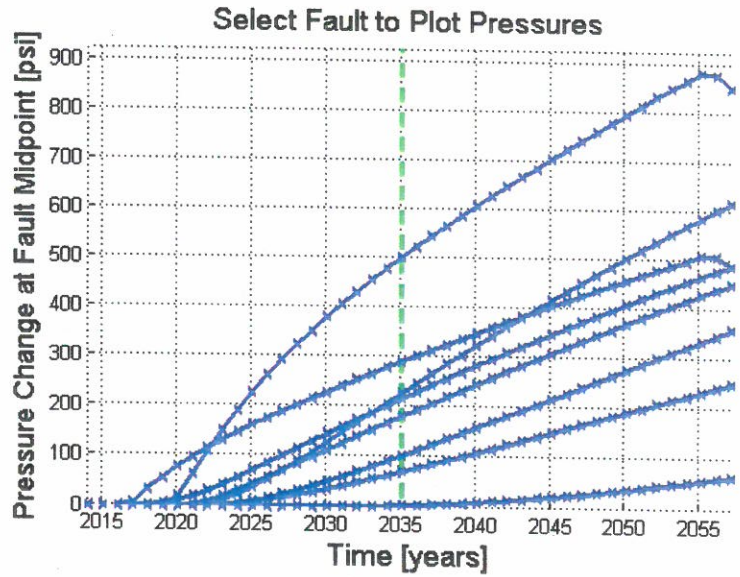
b) PP Change at fault [psi]

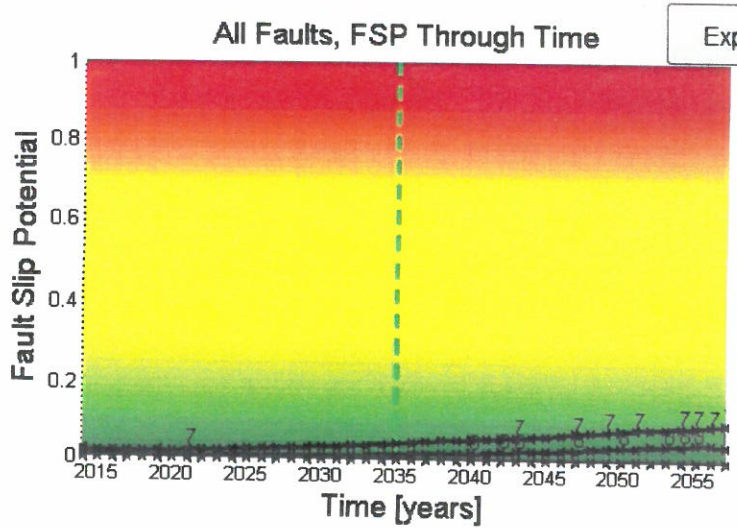
Summary Plots





Year: 2035





Export

Exh. No. 15

Zoom

Fault Slip Potential

MODEL INPUTS | GEOMECHANICS | PROB. GEOMECH | HYDROLOGY | PROB. HYDRO | INTEGRATED

Export

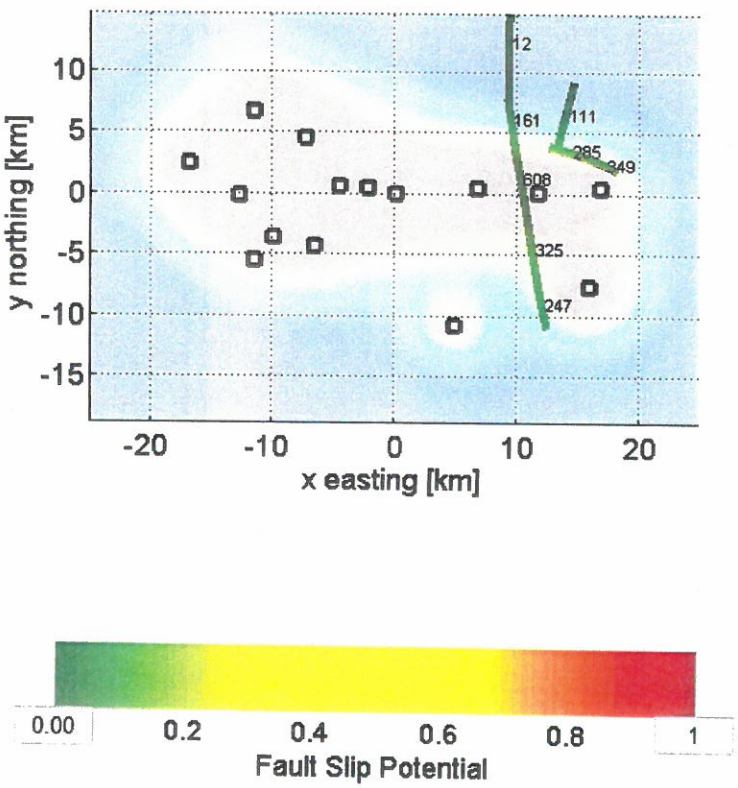
Fault Selector:

All Faults
Fault #1, 0.00 FSP
Fault #2, 0.00 FSP
Fault #3, 0.00 FSP
Fault #4, 0.00 FSP
Fault #5, 0.00 FSP
Fault #6, 0.00 FSP
Fault #7, 0.06 FSP
Fault #8, 0.02 FSP

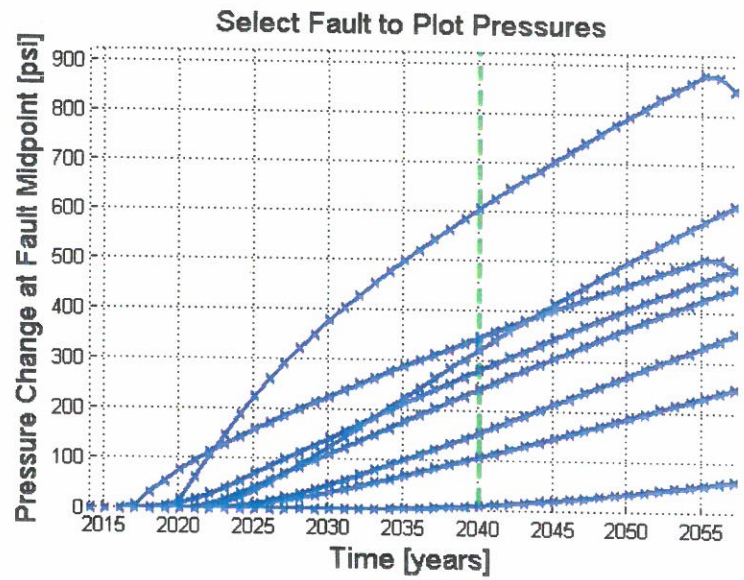
Calculate

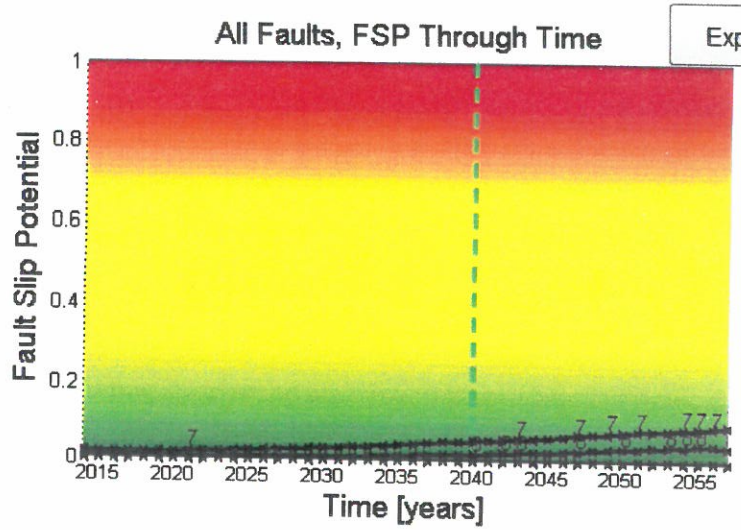
b) PP Change at fault [psi]

Summary Plots



Year: 2040





Export

Exh. No. 16

Zoom

Fault Slip Potential

MODEL INPUTS | GEOMECHANICS | PROB. GEOMECH | HYDROLOGY | PROB. HYDRO | INTEGRATED

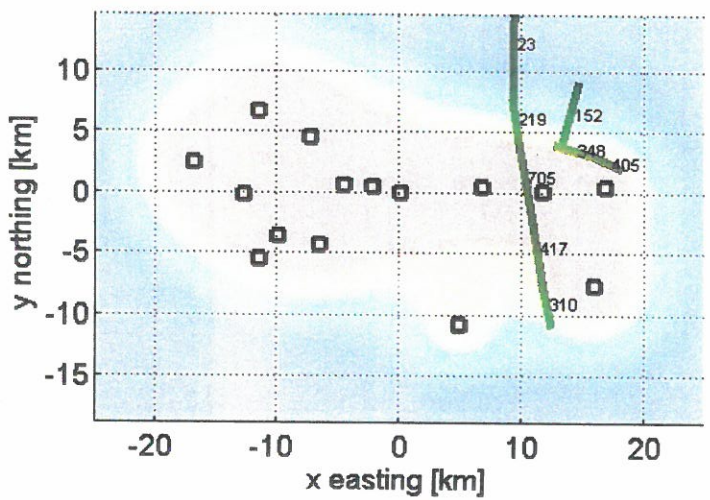
Export

Fault Selector:

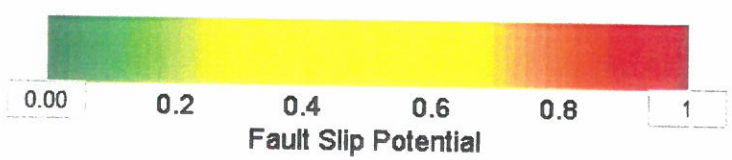
All Faults
Fault #1, 0.00 FSP
Fault #2, 0.00 FSP
Fault #3, 0.00 FSP
Fault #4, 0.00 FSP
Fault #5, 0.00 FSP
Fault #6, 0.00 FSP
Fault #7, 0.07 FSP
Fault #8, 0.03 FSP

b) PP Change at fault [psi]

Summary Plots

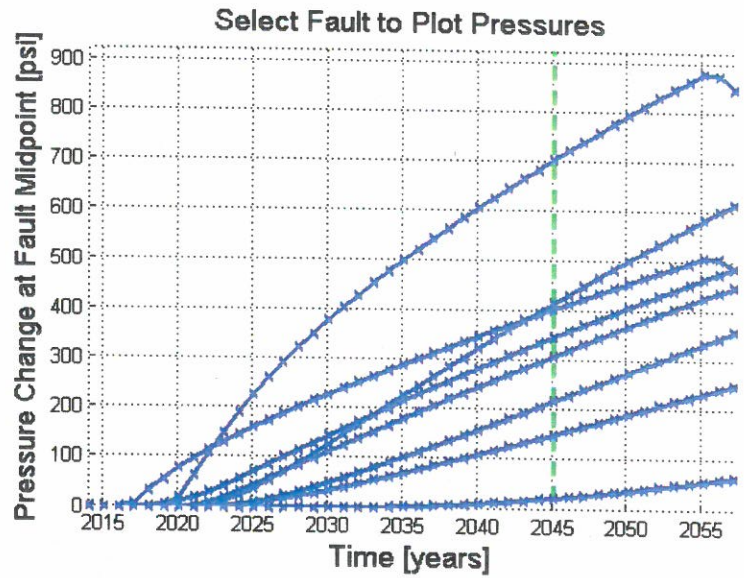


hold control to select multiple faults, hold shift to select multiple faults in a row

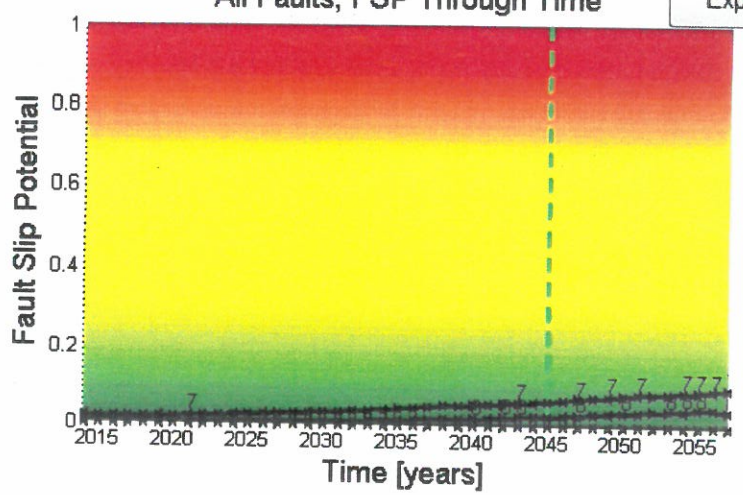


Calculate

Year: 2045



Export



Exh. No. 17

Zoom

Fault Slip Potential

MODEL INPUTS | GEOMECHANICS | PROB. GEOMECH | HYDROLOGY | PROB. HYDRO | INTEGRATED

Export

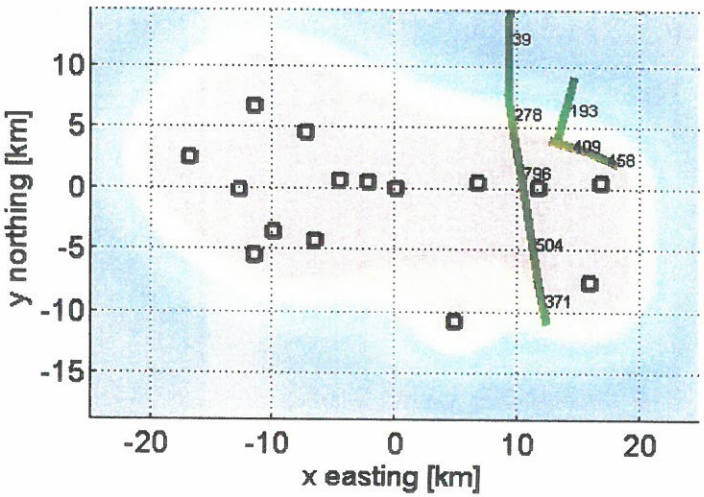
Fault Selector:

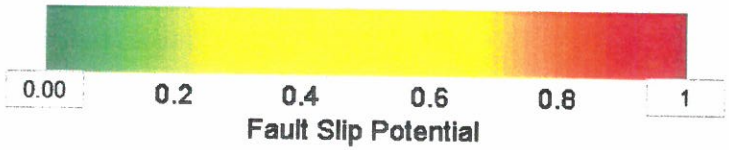
All Faults
Fault #1, 0.00 FSP
Fault #2, 0.00 FSP
Fault #3, 0.00 FSP
Fault #4, 0.00 FSP
Fault #5, 0.00 FSP
Fault #6, 0.00 FSP
Fault #7, 0.08 FSP
Fault #8, 0.04 FSP

Calculate

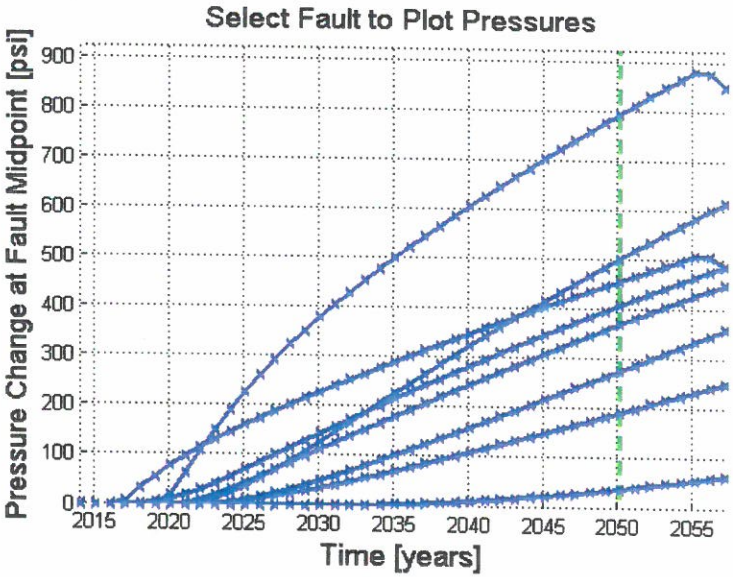
b) PP Change at fault [psi]

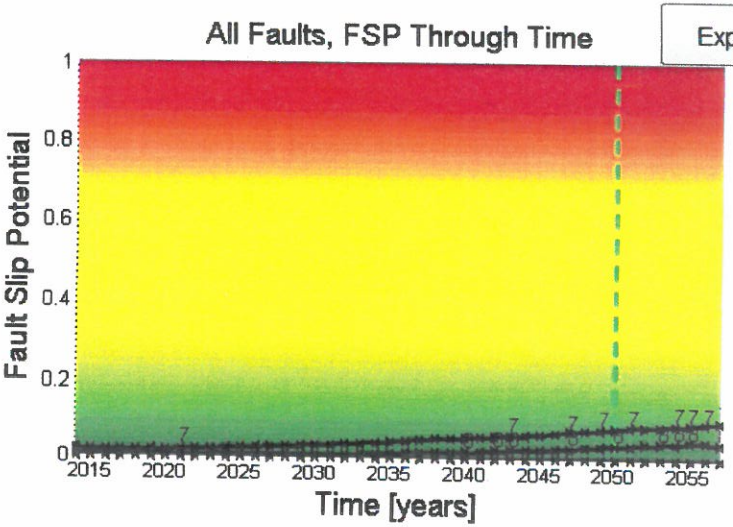
Summary Plots





Year: 2050





Export

DECLARATION OF STEVEN NAVE

I, Steven Nave, declare under penalty of perjury under the law of New Mexico that the following is true and correct to the best of my knowledge and belief.

1. I am over eighteen (18) years of age and am otherwise competent to make this declaration.

2. I am the president of Nave Oil and Gas, which is a fishing tool company that performs fishing operations in several areas, including the area of Southeastern, New Mexico.

3. I worked as a fisherman for Star Tool Company, a fishing tool company, from 1980 until 2001. I later became a partner in Star Tool Company until that company was sold. I then later started my own company, Nave Oil and Gas, which also performs fishing operations. Over the years, I have developed expertise in fishing operations and I have performed fishing operations on Devonian salt water disposal wells located within Southeastern, New Mexico.

4. I am familiar with tubing and casing design requested by NGL Water Solutions Permian, LLC which consists of using tapered string tubing that is 7" x 5 1/2".

5. I have been informed that NGL's wells will be isolated to the Devonian and Silurian formations and will have four strings of casing protecting the fresh water, the salt interval, the Permian aged rocks through the Wolfcamp formation, and the depths to the top of the Devonian. There is a liner, and the deepest casing is 7 5/8", which will be cemented and cement will be circulated.

6. Based on my experience as a fisherman, it is my opinion that there is sufficient clearance between the 7 5/8" 39 pounds per foot or less casing and the proposed 5 ½" tubing to

perform fishing operations. My company regularly performs fishing operations in situations involving similar dimensions and clearances.

7. Fishing can be performed through different methods when 7 5/8" 39 pounds per foot or less casing and the proposed 5 ½" tubing is utilized; such as through the use of overshot tools, spear fishing tools, and (if needed) cutting tools.

8. The use of 7 5/8" 39 pounds per foot or less casing and the proposed 5 ½" tubing will actually allow for the use of a wider variety of fishing tools that cannot typically be used within salt water disposal wells equipped with smaller tubing and casing sizes. This is because there is more room to run tools through the inside of the tubing. Additionally, it is my opinion that it is easier to perform fishing operations when 5 ½" tubing is used.

9. Recently, I supervised a fishing job which involved a horizontal Wolfcamp well which was equipped with casing with a diameter of 7 5/8" 39 pounds per foot or less and casing with a diameter of 5 ½". In that situation, my company was able to mill off the collar and use overshot tools to latch on to the piping that needed to be fished out of the well.

10. In my opinion, fishing operations could be successfully performed even at deeper depths for Devonian disposal wells provided that a sufficient rig is obtained for the operation.

[Signature Page Follows.]

Steven Nave

STEPHAN NAVE

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

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

CASE NO. 16438

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

CASE NO. 16440

AFFIDAVIT

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

Deana M. Bennett, attorney in fact and authorized representative of NGL Water Solutions Permian, LLC., the Applicant herein, being first duly sworn, upon oath, states that the above-referenced Application was provided under the notice letter and that proof of receipt is attached hereto.

Deana M. Bennett

SUBSCRIBED AND SWORN to before me this 3rd day of October, 2018 by Deana M. Bennett.

OFFICIAL SEAL
Karlene Schuman
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 02-27-2021

Notary Public

My commission expires:_____

Kathleen Allen
Modrall Sperling Roehl Harris & Sisk, P.A.
P.O. Box 2168
Albuquerque NM 87103-2168

PS Form 3877

Type of Mailing: CERTIFIED
08/31/2018

mccloy West

Firm Mailing Book ID: 150167

Line	Article Number	Name, Street & P.O. Address	Postage	Fee	R.R.Fee	Reference	Rest.Del.Fee Contents
1	9314 8699 0430 0050 3099 73	BABER GUY A PO BOX 1772 Hobbs NM 88240	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
2	9314 8699 0430 0050 3099 80	BUREAU OF LAND MGMT 301 Dinosaur Trail Santa Fe Santa Fe NM 87508	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
3	9314 8699 0430 0050 3099 97	CHEVRON USA INC 6301 DEAUVILLE Midland TX 79706	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
4	9314 8699 0430 0050 3100 09	CIMAREX ENERGY CO. OF COLORADO 1700 LINCOLN ST STE 1800 Denver CO 80203	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
5	9314 8699 0430 0050 3100 16	COG PRODUCTION LLC 600 W. ILLINOIS AVENUE Midland TX 79701	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
6	9314 8699 0430 0050 3100 23	CONOCOPHILLIPS CO PO BOX 7500 Bartlesville OK 74005	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
7	9314 8699 0430 0050 3100 30	DEVON ENERGY PRODUCTION COMPANY, LP 20 N Broadway Oklahoma City OK 73102	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
8	9314 8699 0430 0050 3100 47	DEVON ENERGY PRODUCTION COMPANY, LP 1700 LINCOLN ST STE 1800 Denver CO 80203	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
9	9314 8699 0430 0050 3100 54	EOG Y RESOURCES 104 S. FOURTH STREET Denver CO 80203	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
10	9314 8699 0430 0050 3100 61	NEW MEXICO STATE LAND OFFICE P.O. Box 1148 Santa Fe NM 87504	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
11	9314 8699 0430 0050 3100 78	Oil Conservation Division District I - Hobbs 1625 N. French Drive Hobbs NM 88240	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
12	9314 8699 0430 0050 3100 85	OXY USA INC P.O. BOX 4294 HOUSTON TX 77210	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
13	9314 8699 0430 0050 3100 92	ROVER OPERATING, LLC 55 Old Sante Fe Trail, Second Floor Santa Fe NM 87501	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
14	9314 8699 0430 0050 3101 08	MCI OPERATING OF NM, LLC 3208c East Colonial Dr. #277 Orlando FL 32803	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
15	9314 8699 0430 0050 3101 15	CIMAREX ENERGY CO. 202 S. Cheyenne Ave. Suite 1000 Tulsa OK 74103	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice

Kathleen Allen
Modrall Sperling Roehl Harris & Sisk, P.A.
P.O. Box 2168
Albuquerque NM 87103-2168

PS Form 3877
Type of Mailing: CERTIFIED
08/31/2018

Firm Mailing Book ID: 150167

Line	Article Number	Name, Street & P.O. Address	Postage	Fee	R.R.Fee	Reference	Rest.Del.Fee Contents
16	9314 8699 0430 0050 3101 22	MARKS AND GARNER PRODUCTION LTD CO P.O. Box 70 Loving NM 88260	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
17	9314 8699 0430 0050 3101 39	ROBERT H FORREST JR OIL LLC 609 Elora Dr. Carlsbad NM 88220	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
18	9314 8699 0430 0050 3101 46	COG PRODUCTION, LLC P.O. Box 2064 Midland TX 79702	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
19	9314 8699 0430 0050 3101 53	COG OPERATING LLC 550 W Texas Midland TX 79701	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
20	9314 8699 0430 0050 3101 60	DEVON ENERGY PROD CO LP 333 W SHERIDAN AVE Oklahoma City OK 73102	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
21	9314 8699 0430 0050 3101 77	CONOCOPHILLIPS CO PO BOX 7500 Bartlesville OK 74005	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
22	9314 8699 0430 0050 3101 84	APACHE CORP 2000 POST OAK BLVD STE 100 HOUSTON TX 74005	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
23	9314 8699 0430 0050 3101 91	CHISOS LTD 670 DONA ANA RD SW Deming NM 88030	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
24	9314 8699 0430 0050 3102 07	XTO HOLDINGS LLC 22777 SPRINGWOODS VILLAGE PKWY Spring TX 77389	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
		Totals:	**$34.08**	**$82.80**	**$36.00**		**$0.00**
						Grand Total:	**$152.88**

List Number of Pieces Listed by Sender	Total Number of Pieces Received at Post Office	Postmaster: Name of receiving employee	Dated:
24			

Transaction Report Details - CertifiedPro.net
Firm Mail Book ID= 150167
Generated: 10/3/2018 10:02:55 AM

Certified Mail Article Number	Date Created	Name 1	Address	City	State	Zip	Certified Mailing Status	Service Options	Mail Delivery Date
93148699043000503102 07	2018-08-31 2:37 PM	XTO HOLDINGS LLC	22777 SPRINGWOODS VILLAGE PKWY	Spring	TX	77389	Delivered	Return Receipt - Electronic	09-04-2018
9314869904300050310191	2018-08-31 2:37 PM	CHISOS LTD	670 DONA ANA RD SW	Deming	NM	88030	Delivered	Return Receipt - Electronic	09-13-2018
9314869904300050310184	2018-08-31 2:37 PM	APACHE CORP	2000 POST OAK BLVD STE 100	HOUSTON	TX	74005	Mailed	Return Receipt - Electronic	
9314869904300050310177	2018-08-31 2:37 PM	CONOCOPHILLIPS CO	PO BOX 7500	Bartlesville	OK	74005	Delivered	Return Receipt - Electronic	09-04-2018
9314869904300050310160	2018-08-31 2:37 PM	DEVON ENERGY PROD CO LP	333 W SHERIDAN AVE	Oklahoma City	OK	73102	Delivered	Return Receipt - Electronic	09-04-2018
9314869904300050310153	2018-08-31 2:37 PM	COG OPERATING LLC	550 W Texas	Midland	TX	79701	Delivered	Return Receipt - Electronic	09-04-2018
9314869904300050310146	2018-08-31 2:37 PM	COG PRODUCTION, LLC	P.O. Box 2064	Midland	TX	79702	Delivered	Return Receipt - Electronic	09-12-2018
9314869904300050310139	2018-08-31 2:37 PM	ROBERT H FORREST JR OIL LLC	609 Elora Dr.	Carlsbad	NM	88220	Delivered	Return Receipt - Electronic	09-04-2018
9314869904300050310122	2018-08-31 2:37 PM	MARKS AND GARNER PRODUCTION LTD CO	P.O. Box 70	Loving	NM	88260	Delivered	Return Receipt - Electronic	09-14-2018
9314869904300050310115	2018-08-31 2:37 PM	CIMAREX ENERGY CO.	202 S. Cheyenne Ave. Suite 1000	Tulsa	OK	74103	Lost	Return Receipt - Electronic	
9314869904300050310108	2018-08-31 2:37 PM	MCI OPERATING OF NM, LLC	3208c East Colonial Dr. #277	Orlando	FL	32803	Delivered	Return Receipt - Electronic	09-04-2018
9314869904300050310092	2018-08-31 2:37 PM	ROVER OPERATING, LLC	55 Old Sante Fe Trail, Second Floor	Santa Fe	NM	87501	Delivered	Return Receipt - Electronic	09-05-2018
9314869904300050310085	2018-08-31 2:37 PM	OXY USA INC	P.O. BOX 4294	HOUSTON	TX	77210	Delivered	Return Receipt - Electronic	09-07-2018
9314869904300050310078	2018-08-31 2:37 PM	Oil Conservation Division District I - Hobbs	1625 N. French Drive	Hobbs	NM	88240	Delivered	Return Receipt - Electronic	09-04-2018
9314869904300050310061	2018-08-31 2:37 PM	NEW MEXICO STATE LAND OFFICE	P.O. Box 1148	Santa Fe	NM	87504	Delivered	Return Receipt - Electronic	09-04-2018
9314869904300050310054	2018-08-31 2:37 PM	EOG Y RESOURCES	104 S. FOURTH STREET	Denver	CO	80203	Delivered	Return Receipt - Electronic	09-14-2018
9314869904300050310047	2018-08-31 2:37 PM	DEVON ENERGY PRODUCTION COMPANY, LP	1700 LINCOLN ST STE 1800	Denver	CO	80203	Delivered	Return Receipt - Electronic	09-04-2018
9314869904300050310030	2018-08-31 2:37 PM	DEVON ENERGY PRODUCTION COMPANY, LP	20 N Broadway	Oklahoma City	OK	73102	Delivered	Return Receipt - Electronic	09-04-2018
9314869904300050310023	2018-08-31 2:37 PM	CONOCOPHILLIPS CO	PO BOX 7500	Bartlesville	OK	74005	Delivered	Return Receipt - Electronic	09-04-2018
9314869904300050310016	2018-08-31 2:37 PM	COG PRODUCTION LLC	600 W. ILLINOIS AVENUE	Midland	TX	79701	Delivered	Return Receipt - Electronic	09-05-2018
9314869904300050310009	2018-08-31 2:37 PM	CIMAREX ENERGY CO. OF COLORADO	1700 LINCOLN ST STE 1800	Denver	CO	80203	Delivered	Return Receipt - Electronic	09-04-2018
9314869904300050309997	2018-08-31 2:37 PM	CHEVRON USA INC	6301 DEAUVILLE	Midland	TX	79706	Delivered	Return Receipt - Electronic	09-05-2018
9314869904300050309980	2018-08-31 2:37 PM	BUREAU OF LAND MGMT	301 Dinosaur Trail Santa Fe	Santa Fe	NM	87508	To be Mailed	Return Receipt - Electronic	
9314869904300050309973	2018-08-31 2:37 PM	BABER GUY A	PO BOX 1772	Hobbs	NM	88240	Delivered	Return Receipt - Electronic	09-05-2018

Transaction Details

Recipient:
APACHE CORP
2000 POST OAK BLVD STE 100
HOUSTON, TX 74005

Sender:
Kathleen Allen
Modrall Sperling Roehl Harris & Sisk, P.A.
P.O. Box 2168
Albuquerque, NM 87103-2168

Transaction created by: KatAllen
User ID: 20619
Firm Mailing Book ID: 150167
Batch ID: 143842

Certified Mail Article Number:	9314869904300050310184
Return Receipt Article Number:	
Service Options:	Return Receipt - Electronic
Mail Service:	Certified
Reference #:	87806-0003
Postage:	$1.42
Fees:	$4.95
Status:	Mailed
Custom Field 1:	87806-0003
Custom Field 2:	87806-0003

Transaction History

Event Description	Event Date	Details
Mailbook Generated	08-31-2018 02:41 PM	[WALZ] - Firm Mailing Book 150167 generated by KatAllen
USPS® Certified Mail	08-31-2018 07:07 PM	[USPS] - PRESHIPMENT INFO SENT USPS AWAITS ITEM at TEMECULA,CA
USPS® Certified Mail	09-02-2018 03:29 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-02-2018 09:00 PM	[USPS] - DEPART USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-02-2018 11:34 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-07-2018 03:23 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at NORTH HOUSTON,TX
USPS® Certified Mail	09-07-2018 10:48 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at NORTH HOUSTON,TX
USPS® Certified Mail	09-09-2018 07:19 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-10-2018 12:15 AM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-11-2018 03:52 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-11-2018 10:19 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-13-2018 04:01 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-13-2018 10:21 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-15-2018 08:27 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at NORTH HOUSTON,TX
USPS® Certified Mail	09-18-2018 06:11 AM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-21-2018 12:58 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at NORTH HOUSTON,TX
USPS® Certified Mail	09-21-2018 08:18 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at NORTH HOUSTON,TX
USPS® Certified Mail	09-23-2018 04:31 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-23-2018 11:23 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-25-2018 03:44 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-25-2018 11:42 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-27-2018 02:28 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-27-2018 10:52 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-29-2018 01:37 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-30-2018 11:58 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	10-02-2018 06:19 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	10-03-2018 02:11 AM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK

Transaction Details

Recipient:
CIMAREX ENERGY CO.
202 S. Cheyenne Ave. Suite 1000
Tulsa, OK 74103

Sender:
Kathleen Allen
Modrall Sperling Roehl Harris & Sisk, P.A.
P.O. Box 2168
Albuquerque, NM 87103-2168

Transaction created by: KatAllen
User ID: 20619
Firm Mailing Book ID: 150167
Batch ID: 143842

Certified Mail Article Number:	9314869904300050310115
Return Receipt Article Number:	
Service Options:	Return Receipt - Electronic
Mail Service:	Certified
Reference #:	87806-0003
Postage:	$1.42
Fees:	$4.95
Status:	Lost
Custom Field 1:	87806-0003
Custom Field 2:	87806-0003

Transaction History

Event Description	Event Date	Details
Mailbook Generated	08-31-2018 02:41 PM	[WALZ] - Firm Mailing Book 150167 generated by KatAllen
USPS® Certified Mail	08-31-2018 07:07 PM	[USPS] - PRESHIPMENT INFO SENT USPS AWAITS ITEM at TEMECULA,CA
USPS® Certified Mail	09-02-2018 02:18 PM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-02-2018 09:00 PM	[USPS] - DEPART USPS FACILITY at TULSA,OK
USPS® Certified Mail	09-03-2018 12:58 AM	[USPS] - PROCESSED THROUGH USPS FACILITY at TULSA,OK

Transaction Details

Recipient:
BUREAU OF LAND MGMT
301 Dinosaur Trail Santa Fe
anta Fe, NM 87508

Sender:
Kathleen Allen
Modrall Sperling Roehl Harris & Sisk, P.A.
P.O. Box 2168
Albuquerque, NM 87103-2168

Transaction created by: KatAllen
User ID: 20619
Firm Mailing Book ID: 150167
Batch ID: 143842

Certified Mail Article Number:	93148699043000503099 80
Return Receipt Article Number:	
Service Options:	Return Receipt - Electronic
Mail Service:	Certified
Reference #:	87806-0003
Postage:	$1.42
Fees:	$4.95
Status:	To be Mailed
Custom Field 1:	87806-0003
Custom Field 2:	87806-0003

Transaction History

Event Description	Event Date	Details
Mailbook Generated	08-31-2018 02:41 PM	[WALZ] - Firm Mailing Book 150167 generated by KatAllen
USPS® Certified Mail	08-31-2018 07:07 PM	[USPS] - PRESHIPMENT INFO SENT USPS AWAITS ITEM at TEMECULA,CA

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
September 20, 2018
and ending with the issue dated
September 20, 2018.

Publisher

Sworn and subscribed to before me this
20th day of September 2018.

Business Manager

My commission expires
January 29, 2019
(Seal)

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires 1-29-19

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGAL NOTICE
September 20, 2018

Case No. 16439: Notice to all affected parties, as well as the heirs and devisees of DEVON ENERGY PRODUCTION COMPANY, LP; CIMAREX ENERGY CO. OF COLORADO; ROVER OPERATING, LLC; OXY USA INC; COG PRODUCTION LLC; DEVON ENERGY PRODUCTION COMPANY, LP; EOG Y RESOURCES; BABER GUY A; CHEVRON USA INC; CONOCOPHILLIPS CO; BUREAU OF LAND MGMT; NEW MEXICO STATE LAND OFFICE. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 is filing an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's McCloy Central SWD #1 well. The proposed well will have a surface hole located 762' from the North line and 383' from the East line, and a bottom hole located 762' from the North line and 256' from the East line, Section 24, Township 24 South, Range 32 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Silurian-Devonian Formations at an interval of 17,424' to 18,533'. The maximum surface pressure will be 3,484 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the use of 7-inch tubing inside the surface and intermediate casings and 5 ½-inch tubing inside the liner.

Case No. 16438: Notice to all affected parties, as well as the heirs and devisees of XTO ENERGY, INC; CHEVRON USA INC; DEVON ENERGY PRODUCTION COMPANY, LP; HARVARD PETROLEUM COMPANY, LLC; CASE-POMEROY OIL CORP; OXY Y-1 COMPANY; EOG A RESOURCES INC; EOG M RESOURCES INC; EOG Y RESOURCES INC; COG PRODUCTION, LLC; COG OPERATING LLC; JAVELINA PARTNERS; OXY USA INC; NEW MEXICO STATE LAND OFFICE; BUREAU OF LAND MGMT. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 is filing an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's Jack Tank SWD #1 well. The proposed well will have a surface hole located 1,400' from the North line and 1,853' from the West line, Section 5, Township 24 South, Range 32 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Devonian Formations at an interval of 16,800' to 17,809'. The maximum surface pressure will be 3,360 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the use of 7-inch tubing inside the surface and intermediate casings and 5 ½-inch tubing inside the liner.

Case No. 16440: Notice to all affected parties, as well as the heirs and devisees of DEVON ENERGY PRODUCTION COMPANY, LP; ROVER OPERATING, LLC; MCI OPERATING OF NM, LLC; CIMAREX ENERGY CO.; MARKS AND GARNER PRODUCTION LTD CO; ROBERT H FORREST JR OIL LLC; COG PRODUCTION, LLC; COG OPERATING LLC; DEVON ENERGY PROD CO LP; CHEVRON USA INC.; GUY A BABER; CONOCOPHILLIPS CO; APACHE CORP; CHISOS LTD; XTO HOLDINGS LLC AND THE BUREAU OF LAND MANAGEMENT. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 has filed an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's McCloy West SWD #1 well. The proposed well will have a surface hole located 1019' from the South line and 2388' from the East line, Section 14, Township 24 South, Range 32 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Silurian-Devonian Formations at an interval of 17,350' to 18,451'. The maximum surface pressure will be 3,470 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the use of 7-inch tubing inside the surface and intermediate casings and 5 ½-inch tubing inside the liner.

Case No. 16441: Notice to all affected parties, as well as the heirs and devisees of DEVON ENERGY PRODUCTION COMPANY, LP; EOG RESOURCES INC; MATADOR PRODUCTION COMPANY; COG OPERATING LLC; TAP ROCK OPERATING, LLCBUREAU OF LAND MGMT; NEW MEXICO STATE LAND OFFICE. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 is filing an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's Minuteman SWD #1 well. The proposed well will have a surface hole located 659' from the South line and 449' from the West line, Section 14, Township 24 South, Range 33 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Silurian-Devonian Formations at an interval of 16,691' to 18,326'. The maximum surface pressure will be 3,338 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the use of 7-inch tubing inside the surface and intermediate casings and 5 ½-inch tubing inside the liner.

Case No. 16443: Notice to all affected parties, as well as the heirs and devisees of Fortis Minerals II, LLC; Katy Pipeline and Production Corporation; Sugarberry Oil & Gas Corporation; Marathon Oil Permian, LLC; Energen Resources Corporation; EOG Resources, Inc.; COG Operating, LLC; Susan Duff; Nommensen Investment Company; John V. McCarthy, II; Bates Family Investment Company, LLC, The Trust Company of Oklahoma (TCO), as Agent; Duard B. Thomas, as Personal Representative Of the Estate of Warren J. Bates, deceased; Texas State Bank, San Angelo, Texas Successor Trustee of the Lucille Chism Bates Testamentary Trust, U/W/O of Lucille Chism Bates; Robert F. Fleet Revocable Trust; Rae Ann Fleet Gossett; Rae Ann Fleet Gossett; B.H.C.H. Mineral, Ltd. & Fredericksburg Royalty, Ltd.; James Ray Bates; Margaret Helen Kalmar Trust A, A/K/A the Margaret Helen Kalmar Children's Trust; PAWN Enterprises, Ltd. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 is filing an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's Sidewinder SWD #1 well. The proposed well will have a surface hole located 244' from the South line and 1,581' from the East line, Section 10, Township 25 South, Range 34 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Silurian-Devonian Formations at an interval of 16,157' to 19,067'. The maximum surface pressure will be 3,431 psi and applicant is requesting

McCloy West

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

PS Form 3877

Type of Mailing: CERTIFIED
09/18/2018

ALBUQUERQUE NM 87101 SEP 18 2018 USPS

Firm Mailing Book ID: 151687

Line	Article Number	Name, Street & P.O. Address	Postage	Fee	R.R.Fee	Reference	Rest.Del.Fee Contents
1	9314 8699 0430 0050 9136 82	BABER GUY A PO BOX 1772 Hobbs NM 88240	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
2	9314 8699 0430 0050 9136 99	BUREAU OF LAND MGMT 301 Dinosaur Trail Santa Fe Santa Fe NM 87508	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
3	9314 8699 0430 0050 9137 05	CHEVRON USA INC 6301 DEAUVILLE Midland TX 79706	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
4	9314 8699 0430 0050 9137 12	CIMAREX ENERGY CO. OF COLORADO 1700 LINCOLN ST STE 1800 Denver CO 80203	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
5	9314 8699 0430 0050 9137 29	COG PRODUCTION LLC 600 W. ILLINOIS AVENUE Midland TX 79701	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
6	9314 8699 0430 0050 9137 36	CONOCOPHILLIPS CO PO BOX 7500 Bartlesville OK 74005	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
7	9314 8699 0430 0050 9137 43	DEVON ENERGY PRODUCTION COMPANY, LP 20 N Broadway Oklahoma City OK 73102	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
8	9314 8699 0430 0050 9137 50	DEVON ENERGY PRODUCTION COMPANY, LP 1700 LINCOLN ST STE 1800 Denver CO 80203	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
9	9314 8699 0430 0050 9137 67	EOG Y RESOURCES 104 S. FOURTH STREET Denver CO 80203	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
10	9314 8699 0430 0050 9137 74	NEW MEXICO STATE LAND OFFICE P.O. Box 1148 Santa Fe NM 87504	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
11	9314 8699 0430 0050 9137 81	NGL WATER SOLUTIONS PERMIAN, LLC 1509 W Wall St., Ste. 306 Midland TX 79701	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
12	9314 8699 0430 0050 9137 98	Oil Conservation Division District I - Hobbs 1625 N. French Drive Hobbs NM 88240	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
13	9314 8699 0430 0050 9138 04	Oil Conservation Division District IV 1220 South St. Francis Drive Santa Fe NM 87505	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
14	9314 8699 0430 0050 9138 11	OXY USA INC P.O. BOX 4294 HOUSTON TX 77210	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
15	9314 8699 0430 0050 9138 28	ROVER OPERATING, LLC 55 Old Sante Fe Trail, Second Floor Santa Fe NM 87501	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice

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

PS Form 3877

Type of Mailing: CERTIFIED
09/18/2018

ALBUQUERQUE NM 87101 SEP 18 2018 USPS

Firm Mailing Book ID: 151687

Line	Article Number	Name, Street & P.O. Address		Postage	Fee	R.R.Fee	Reference	Rest.Del.Fee Contents
			Totals:	$21.30	$51.75	$22.50		$0.00
							Grand Total:	$95.55

List Number of Pieces Listed by Sender: 15

Total Number of Pieces Received at Post Office

Postmaster: Name of receiving employee

Dated:

Transaction Report Details - CertifiedPro.net
Firm Mail Book ID= 151687
Generated: 10/3/2018 11:06:45 AM

Certified Mail Article Number	Date Created	Name 1	Address	City	State	Zip	Certified Mailing Status	Service Options	Mail Delivery Date
93148699043000509138 28	2018-09-18 11:18 AM	ROVER OPERATING, LLC	55 Old Sante Fe Trail, Second Floor	Santa Fe	NM	87501	Delivered	Return Receipt - Electronic	09-21-2018
93148699043000509138 11	2018-09-18 11:18 AM	OXY USA INC	P.O. BOX 4294	HOUSTON	TX	77210	Delivered	Return Receipt - Electronic	09-25-2018
93148699043000509138 04	2018-09-18 11:18 AM	Oil Conservation Division District IV	1220 South St. Francis Drive	Santa Fe	NM	87505	Delivered	Return Receipt - Electronic	09-20-2018
93148699043000509137 98	2018-09-18 11:18 AM	Oil Conservation Division District I - Hobbs	1625 N. French Drive	Hobbs	NM	88240	Delivered	Return Receipt - Electronic	09-21-2018
93148699043000509137 81	2018-09-18 11:18 AM	NGL WATER SOLUTIONS PERMIAN, LLC	1509 W Wall St., Ste. 306	Midland	TX	79701	Delivered	Return Receipt - Electronic	09-21-2018
93148699043000509137 74	2018-09-18 11:18 AM	NEW MEXICO STATE LAND OFFICE	P.O. Box 1148	Santa Fe	NM	87504	Delivered	Return Receipt - Electronic	09-20-2018
93148699043000509137 67	2018-09-18 11:18 AM	EOG Y RESOURCES	104 S. FOURTH STREET	Denver	CO	80203	To be Returned	Return Receipt - Electronic	
93148699043000509137 50	2018-09-18 11:18 AM	DEVON ENERGY PRODUCTION COMPANY, LP	1700 LINCOLN ST STE 1800	Denver	CO	80203	Delivered	Return Receipt - Electronic	09-24-2018
93148699043000509137 43	2018-09-18 11:18 AM	DEVON ENERGY PRODUCTION COMPANY, LP	20 N Broadway	Oklahoma City	OK	73102	Delivered	Return Receipt - Electronic	09-21-2018
93148699043000509137 36	2018-09-18 11:18 AM	CONOCOPHILLIPS CO	PO BOX 7500	Bartlesville	OK	74005	Delivered	Return Receipt - Electronic	09-21-2018
93148699043000509137 29	2018-09-18 11:18 AM	COG PRODUCTION LLC	600 W. ILLINOIS AVENUE	Midland	TX	79701	Delivered	Return Receipt - Electronic	09-21-2018
93148699043000509137 12	2018-09-18 11:18 AM	CIMAREX ENERGY CO. OF COLORADO	1700 LINCOLN ST STE 1800	Denver	CO	80203	Delivered	Return Receipt - Electronic	09-24-2018
93148699043000509137 05	2018-09-18 11:18 AM	CHEVRON USA INC	6301 DEAUVILLE	Midland	TX	79706	Delivered	Return Receipt - Electronic	09-21-2018
93148699043000509136 99	2018-09-18 11:18 AM	BUREAU OF LAND MGMT	301 Dinosaur Trail Santa Fe	Santa Fe	NM	87508	Mailed	Return Receipt - Electronic	
93148699043000509136 82	2018-09-18 11:18 AM	BABER GUY A	PO BOX 1772	Hobbs	NM	88240	Delivered	Return Receipt - Electronic	09-21-2018

USPS Tracking®

FAQs > (https://www.usps.com/faqs/uspstracking-faqs.htm)

Track Another Package +

Tracking Number: 9314869904300050913767

Remove ×

USPS was unable to deliver your item as of 9:43 am on September 21, 2018 in DENVER, CO 80203. The address may be incorrect, incomplete, or illegible.

Alert

September 21, 2018 at 9:43 am
Unable to deliver item, problem with address
DENVER, CO 80203

Get Updates ∨

Feedback

Text & Email Updates ∨

Return Receipt Electronic ∨

Tracking History ∨

Product Information ∨

See Less ∧

Can't find what you're looking for?

Go to our FAQs section to find answers to your tracking questions.

USPS Tracking®

FAQs > (https://www.usps.com/faqs/uspstracking-faqs.htm)

Track Another Package +

Tracking Number: 9314869904300050913699

Remove ×

Your package is moving within the USPS network and is on track to be delivered to its final destination. It is currently in transit to the next facility.

In-Transit

September 23, 2018
In Transit to Next Facility

Get Updates ∨

Feedback

Text & Email Updates ∨

Return Receipt Electronic ∨

Tracking History ∨

Product Information ∨

See Less ∧

Can't find what you're looking for?

Go to our FAQs section to find answers to your tracking questions.

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
September 20, 2018
and ending with the issue dated
September 20, 2018.

Publisher

Sworn and subscribed to before me this
20th day of September 2018.

Business Manager

My commission expires
January 29, 2019
(Seal)

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires 1-29-19

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGAL NOTICE
September 20, 2018

Case No. 16439: Notice to all affected parties, as well as the heirs and devisees of DEVON ENERGY PRODUCTION COMPANY, LP; CIMAREX ENERGY CO. OF COLORADO; ROVER OPERATING, LLC; OXY USA INC; COG PRODUCTION LLC; DEVON ENERGY PRODUCTION COMPANY, LP; EOG Y RESOURCES; BABER GUY A; CHEVRON USA INC; CONOCOPHILLIPS CO; BUREAU OF LAND MGMT; NEW MEXICO STATE LAND OFFICE. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 is filing an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's McCloy Central SWD #1 well. The proposed well will have a surface hole located 762' from the North line and 383' from the East line, and a bottom hole located 762' from the North line and 256' from the East line, Section 24, Township 24 South, Range 32 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Silurian-Devonian Formations at an interval of 17,424' to 18,533'. The maximum surface pressure will be 3,484 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the use of 7-inch tubing inside the surface and intermediate casings and 5 ½-inch tubing inside the liner.

Case No. 16438: Notice to all affected parties, as well as the heirs and devisees of XTO ENERGY, INC; CHEVRON USA INC; DEVON ENERGY PRODUCTION COMPANY, LP; HARVARD PETROLEUM COMPANY, LLC; CASE-POMEROY OIL CORP; OXY Y-1 COMPANY; EOG A RESOURCES INC; EOG M RESOURCES INC; EOG Y RESOURCES INC; COG PRODUCTION, LLC; COG OPERATING LLC; JAVELINA PARTNERS; OXY USA INC; NEW MEXICO STATE LAND OFFICE; BUREAU OF LAND MGMT. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 is filing an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's Jack Tank SWD #1 well. The proposed well will have a surface hole located 1,400' from the North line and 1,853' from the West line, Section 5, Township 24 South, Range 32 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Devonian Formations at an interval of 16,800' to 17,809'. The maximum surface pressure will be 3,360 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the use of 7-inch tubing inside the surface and intermediate casings and 5 ½-inch tubing inside the liner.

Case No. 16440: Notice to all affected parties, as well as the heirs and devisees of DEVON ENERGY PRODUCTION COMPANY, LP; ROVER OPERATING, LLC; MCI OPERATING OF NM, LLC; CIMAREX ENERGY CO.; MARKS AND GARNER PRODUCTION LTD CO; ROBERT H FORREST JR OIL LLC; COG PRODUCTION, LLC; COG OPERATING LLC; DEVON ENERGY PROD CO LP; CHEVRON USA INC.; GUY A BABER; CONOCOPHILLIPS CO; APACHE CORP; CHISOS LTD; XTO HOLDINGS LLC AND THE BUREAU OF LAND MANAGEMENT. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 has filed an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's McCloy West SWD #1 well. The proposed well will have a surface hole located 1019' from the South line and 2388' from the East line, Section 14, Township 24 South, Range 32 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Silurian-Devonian Formations at an interval of 17,350' to 18,451'. The maximum surface pressure will be 3,470 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the use of 7-inch tubing inside the surface and intermediate casings and 5 ½-inch tubing inside the liner.

Case No. 16441: Notice to all affected parties, as well as the heirs and devisees of DEVON ENERGY PRODUCTION COMPANY, LP; EOG RESOURCES INC; MATADOR PRODUCTION COMPANY; COG OPERATING LLC; TAP ROCK OPERATING, LLCBUREAU OF LAND MGMT; NEW MEXICO STATE LAND OFFICE. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 is filing an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's Minuteman SWD #1 well. The proposed well will have a surface hole located 659' from the South line and 449' from the West line, Section 14, Township 24 South, Range 33 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Silurian-Devonian Formations at an interval of 16,691' to 18,326'. The maximum surface pressure will be 3,338 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the use of 7-inch tubing inside the surface and intermediate casings and 5 ½-inch tubing inside the liner.

Case No. 16443: Notice to all affected parties, as well as the heirs and devisees of Fortis Minerals II, LLC; Katy Pipeline and Production Corporation; Sugarberry Oil & Gas Corporation; Marathon Oil Permian, LLC; Energen Resources Corporation; EOG Resources, Inc.; COG Operating, LLC; Susan Duff; Nommensen Investment Company; John V. McCarthy, II; Bates Family Investment Company, LLC, The Trust Company of Oklahoma (TCO), as Agent; Duard B. Thomas, as Personal Representative Of the Estate of Warren J. Bates, deceased; Texas State Bank, San Angelo, Texas Successor Trustee of the Lucille Chism Bates Testamentary Trust, U/W/O of Lucille Chism Bates; Robert F. Fleet Revocable Trust; Rae Ann Fleet Gossett; Rae Ann Fleet Gossett; B.H.C.H. Mineral, Ltd. & Fredericksburg Royalty, Ltd.; James Ray Bates; Margaret Helen Kalmar Trust A, A/K/A the Margaret Helen Kalmar Children's Trust; PAWN Enterprises, Ltd. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 is filing an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's Sidewinder SWD #1 well. The proposed well will have a surface hole located 244' from the South line and 1,581' from the East line, Section 10, Township 25 South, Range 34 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Silurian-Devonian Formations at an interval of 16,157' to 19,067'. The maximum surface pressure will be 3,431 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the

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

PS Form 3877

Type of Mailing: CERTIFIED
08/31/2018

Tank

Firm Mailing Book ID: 150170

Line	Article Number	Name, Street & P.O. Address	Postage	Fee	R.R.Fee	Reference	Rest.Del.Fee Contents
1	9314 8699 0430 0050 3120 89	Oil Conservation Division District I - Hobbs 1625 N. French Drive Hobbs NM 88240	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
2	9314 8699 0430 0050 3120 96	NEW MEXICO STATE LAND OFFICE P.O. Box 1148 Santa Fe NM 87504	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
3	9314 8699 0430 0050 3121 02	BUREAU OF LAND MGMT 301 Dinosaur Trail Santa Fe NM 87508	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
4	9314 8699 0430 0050 3121 19	XTO ENERGY, INC 6401 Holiday Hill Road Building #5 Midland TX 79707	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
5	9314 8699 0430 0050 3121 26	CHEVRON USA INC 6301 DEAUVILLE Midland TX 79706	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
6	9314 8699 0430 0050 3121 33	DEVON ENERGY PRODUCTION COMPANY, LP 20 N Broadway Oklahoma City OK 73102	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
7	9314 8699 0430 0050 3121 40	DEVON ENERGY PRODUCTION COMPANY, LP 333 W. SHERIDAN AVENUE Oklahoma City OK 73012	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
8	9314 8699 0430 0050 3121 57	HARVARD PETROLEUM COMPANY, LLC P.O. Box 936 Roswell NM 88202	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
9	9314 8699 0430 0050 3121 64	CASE-POMEROY OIL CORP 16666 NORTHCASE DR STE 475 Houston TX 77060	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
10	9314 8699 0430 0050 3121 71	OXY Y-1 COMPANY PO BOX 27570 Houston TX 77227	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
11	9314 8699 0430 0050 3121 88	EOG A RESOURCES INC 105 S 4TH Street Artesia NM 88210	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
12	9314 8699 0430 0050 3121 95	EOG M RESOURCES INC P.O. Box 840 Artesia NM 88211	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
13	9314 8699 0430 0050 3122 01	EOG Y RESOURCES INC 104 S. 4th St. Artesia NM 88210	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
14	9314 8699 0430 0050 3122 18	COG PRODUCTION, LLC P.O. Box 2064 Midland TX 79702	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
15	9314 8699 0430 0050 3122 25	COG PRODUCTION, LLC 600 W ILLINOIS AVE Midland TX 79701	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice

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

PS Form 3877

Type of Mailing: CERTIFIED
08/31/2018

Firm Mailing Book ID: 150170

Line	Article Number	Name, Street & P.O. Address	Postage	Fee	R.R.Fee	Reference	Rest.Del.Fee Contents
16	9314 8699 0430 0050 3122 32	COG OPERATING LLC 550 W Texas Midland TX 79701	$1.42	$3.45	$1.50	87806-0003	$0.00 Notice
		Totals:	$22.72	$55.20	$24.00		$0.00
						Grand Total:	$101.92

List Number of Pieces Listed by Sender	Total Number of Pieces Received at Post Office	Postmaster: Name of receiving employee	Dated:
16			

Transaction Report Details - CertifiedPro.net
Firm Mail Book ID= 150170
Generated: 10/3/2018 10:57:31 AM

Certified Mail Article Number	Date Created	Name 1	Address	City	State	Zip	Certified Mailing Status	Service Options	Mail Delivery Date
93148699043000503122 32	2018-08-31 3:23 PM	COG OPERATING LLC	550 W Texas	Midland	TX	79701	Delivered	Return Receipt - Electronic	09-04-2018
93148699043000503122 25	2018-08-31 3:23 PM	COG PRODUCTION, LLC	600 W ILLINOIS AVE	Midland	TX	79701	Delivered	Return Receipt - Electronic	09-05-2018
93148699043000503122 18	2018-08-31 3:23 PM	COG PRODUCTION, LLC	P.O. Box 2064	Midland	TX	79702	Delivered	Return Receipt - Electronic	09-12-2018
93148699043000503122 01	2018-08-31 3:23 PM	EOG Y RESOURCES INC	104 S. 4th St.	Artesia	NM	88210	Delivered	Return Receipt - Electronic	09-04-2018
93148699043000503121 95	2018-08-31 3:23 PM	EOG M RESOURCES INC	P.O. Box 840	Artesia	NM	88211	Delivered	Return Receipt - Electronic	09-04-2018
93148699043000503121 88	2018-08-31 3:23 PM	EOG A RESOURCES INC	105 S 4TH Street	Artesia	NM	88210	Delivered	Return Receipt - Electronic	09-04-2018
93148699043000503121 71	2018-08-31 3:23 PM	OXY Y-1 COMPANY	PO BOX 27570	Houston	TX	77227	Delivered	Return Receipt - Electronic	09-05-2018
93148699043000503121 64	2018-08-31 3:23 PM	CASE-POMEROY OIL CORP	16666 NORTHCASE DR STE 475	Houston	TX	77060	Mailed	Return Receipt - Electronic	
93148699043000503121 57	2018-08-31 3:23 PM	HARVARD PETROLEUM COMPANY, LLC	P.O. Box 936	Roswell	NM	88202	Delivered	Return Receipt - Electronic	09-05-2018
93148699043000503121 40	2018-08-31 3:23 PM	DEVON ENERGY PRODUCTION COMPANY, LP	333 W. SHERIDAN AVENUE	Oklahoma City	OK	73012	To be Returned	Return Receipt - Electronic	
93148699043000503121 33	2018-08-31 3:23 PM	DEVON ENERGY PRODUCTION COMPANY, LP	20 N Broadway	Oklahoma City	OK	73102	Delivered	Return Receipt - Electronic	09-04-2018
93148699043000503121 26	2018-08-31 3:23 PM	CHEVRON USA INC	6301 DEAUVILLE	Midland	TX	79706	Delivered	Return Receipt - Electronic	09-05-2018
93148699043000503121 19	2018-08-31 3:23 PM	XTO ENERGY, INC	6401 Holiday Hill Road Building #5	Midland	TX	79707	Delivered	Return Receipt - Electronic	09-04-2018
93148699043000503121 02	2018-08-31 3:23 PM	BUREAU OF LAND MGMT	301 Dinosaur Trail	Santa Fe	NM	87508	Lost	Return Receipt - Electronic	
93148699043000503120 96	2018-08-31 3:23 PM	NEW MEXICO STATE LAND OFFICE	P.O. Box 1148	Santa Fe	NM	87504	Delivered	Return Receipt - Electronic	09-04-2018
93148699043000503120 89	2018-08-31 3:23 PM	Oil Conservation Division District I - Hobbs	1625 N. French Drive	Hobbs	NM	88240	Delivered	Return Receipt - Electronic	09-04-2018

USPS Tracking®

FAQs > (https://www.usps.com/faqs/uspstracking-faqs.htm)

Track Another Package +

Tracking Number: 9314869904300050312140

Remove ×

Expected Delivery on

SATURDAY

22 SEPTEMBER 2018

See Product Information

Feedback

Delivery Attempt

September 22, 2018 at 10:00 am
Delivery Attempted - No Access to Delivery Location
ALBUQUERQUE, NM 87102

Get Updates

Text & Email Updates

Return Receipt Electronic

Tracking History

Product Information

See Less

USPS Tracking®

FAQs > (https://www.usps.com/faqs/uspstracking-faqs.htm)

Track Another Package +

Tracking Number: 9314869904300050312102

Remove ×

Your package is moving within the USPS network and is on track to be delivered to its final destination. It is currently in transit to the next facility.

In-Transit

September 5, 2018
In Transit to Next Facility

Get Updates ∨

Feedback

Text & Email Updates ∨

Return Receipt Electronic ∨

Tracking History ∨

Product Information ∨

See Less ∧

Can't find what you're looking for?

Go to our FAQs section to find answers to your tracking questions.

USPS Tracking®

FAQs > (https://www.usps.com/faqs/uspstracking-faqs.htm)

Track Another Package +

Tracking Number: 9314869904300050312164

Remove ×

Your package is moving within the USPS network and is on track to be delivered to its final destination. It is currently in transit to the next facility.

In-Transit

September 28, 2018
In Transit to Next Facility

Get Updates ∨

Feedback

Text & Email Updates ∨

Return Receipt Electronic ∨

Tracking History ∨

Product Information ∨

See Less ∧

Can't find what you're looking for?

Go to our FAQs section to find answers to your tracking questions.

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
September 20, 2018
and ending with the issue dated
September 20, 2018.

Publisher

Sworn and subscribed to before me this
20th day of September 2018.

Business Manager

My commission expires
January 29, 2019
(Seal)

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires 1-29-19

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGAL NOTICE
September 20, 2018

Case No. 16439: Notice to all affected parties, as well as the heirs and devisees of DEVON ENERGY PRODUCTION COMPANY, LP; CIMAREX ENERGY CO. OF COLORADO; ROVER OPERATING, LLC; OXY USA INC; COG PRODUCTION LLC; DEVON ENERGY PRODUCTION COMPANY, LP; EOG Y RESOURCES; BABER GUY A; CHEVRON USA INC; CONOCOPHILLIPS CO; BUREAU OF LAND MGMT; NEW MEXICO STATE LAND OFFICE. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 is filing an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's McCloy Central SWD #1 well. The proposed well will have a surface hole located 762' from the North line and 383' from the East line, and a bottom hole located 762' from the North line and 256' from the East line, Section 24, Township 24 South, Range 32 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Silurian-Devonian Formations at an interval of 17,424' to 18,533'. The maximum surface pressure will be 3,484 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the use of 7-inch tubing inside the surface and intermediate casings and 5 ½-inch tubing inside the liner.

Case No. 16438: Notice to all affected parties, as well as the heirs and devisees of XTO ENERGY, INC; CHEVRON USA INC; DEVON ENERGY PRODUCTION COMPANY, LP; HARVARD PETROLEUM COMPANY, LLC; CASE-POMEROY OIL CORP; OXY Y-1 COMPANY; EOG A RESOURCES INC; EOG M RESOURCES INC; EOG Y RESOURCES INC; COG PRODUCTION, LLC; COG OPERATING LLC; JAVELINA PARTNERS; OXY USA INC; NEW MEXICO STATE LAND OFFICE; BUREAU OF LAND MGMT. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 is filing an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's Jack Tank SWD #1 well. The proposed well will have a surface hole located 1,400' from the North line and 1,853' from the West line, Section 5, Township 24 South, Range 32 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Devonian Formations at an interval of 16,800' to 17,809'. The maximum surface pressure will be 3,360 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the use of 7-inch tubing inside the surface and intermediate casings and 5 ½-inch tubing inside the liner.

Case No. 16440: Notice to all affected parties, as well as the heirs and devisees of DEVON ENERGY PRODUCTION COMPANY, LP; ROVER OPERATING, LLC; MCI OPERATING OF NM, LLC; CIMAREX ENERGY CO.; MARKS AND GARNER PRODUCTION LTD CO; ROBERT H FORREST JR OIL LLC; COG PRODUCTION, LLC; COG OPERATING LLC; DEVON ENERGY PROD CO LP; CHEVRON USA INC.; GUY A BABER; CONOCOPHILLIPS CO; APACHE CORP; CHISOS LTD; XTO HOLDINGS LLC AND THE BUREAU OF LAND MANAGEMENT. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 has filed an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's McCloy West SWD #1 well. The proposed well will have a surface hole located 1019' from the South line and 2388' from the East line, Section 14, Township 24 South, Range 32 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Silurian-Devonian Formations at an interval of 17,350' to 18,451'. The maximum surface pressure will be 3,470 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the use of 7-inch tubing inside the surface and intermediate casings and 5 ½-inch tubing inside the liner.

Case No. 16441: Notice to all affected parties, as well as the heirs and devisees of DEVON ENERGY PRODUCTION COMPANY, LP; EOG RESOURCES INC; MATADOR PRODUCTION COMPANY; COG OPERATING LLC; TAP ROCK OPERATING, LLCBUREAU OF LAND MGMT; NEW MEXICO STATE LAND OFFICE. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 is filing an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's Minuteman SWD #1 well. The proposed well will have a surface hole located 659' from the South line and 449' from the West line, Section 14, Township 24 South, Range 33 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Silurian-Devonian Formations at an interval of 16,691' to 18,326'. The maximum surface pressure will be 3,338 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the use of 7-inch tubing inside the surface and intermediate casings and 5 ½-inch tubing inside the liner.

Case No. 16443: Notice to all affected parties, as well as the heirs and devisees of Fortis Minerals II, LLC; Katy Pipeline and Production Corporation; Sugarberry Oil & Gas Corporation; Marathon Oil Permian, LLC; Energen Resources Corporation; EOG Resources, Inc.; COG Operating, LLC; Susan Duff; Nommensen Investment Company; John V. McCarthy, II; Bates Family Investment Company, LLC, The Trust Company of Oklahoma (TCO), as Agent; Duard B. Thomas, as Personal Representative Of the Estate of Warren J. Bates, deceased; Texas State Bank, San Angelo, Texas Successor Trustee of the Lucille Chism Bates Testamentary Trust, U/W/O of Lucille Chism Bates; Robert F. Fleet Revocable Trust; Rae Ann Fleet Gossett; Rae Ann Fleet Gossett; B.H.C.H. Mineral, Ltd. & Fredericksburg Royalty, Ltd.; James Ray Bates; Margaret Helen Kalmar Trust A, A/K/A the Margaret Helen Kalmar Children's Trust; PAWN Enterprises, Ltd. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 is filing an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's Sidewinder SWD #1 well. The proposed well will have a surface hole located 244' from the South line and 1,581' from the East line, Section 10, Township 25 South, Range 34 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Silurian-Devonian Formations at an interval of 16,157' to 19,067'. The maximum surface pressure will be 3,431 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the

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

PS Form 3877

Type of Mailing: CERTIFIED
09/18/2018

ALBUQUERQUE NM 87101 SEP 18 2018 USPS

Jack Cink

Firm Mailing Book ID: 151704

Line	Article Number	Name, Street & P.O. Address	Postage	Fee	R.R.Fee	Reference	Rest.Del.Fee Contents
1	9314 8699 0430 0050 9171 23	Oil Conservation Division District I - Hobbs 1625 N. French Drive Hobbs NM 88240	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
2	9314 8699 0430 0050 9171 30	NEW MEXICO STATE LAND OFFICE P.O. Box 1148 Santa Fe NM 87504	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
3	9314 8699 0430 0050 9171 47	BUREAU OF LAND MGMT 301 Dinosaur Trail Santa Fe NM 87508	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
4	9314 8699 0430 0050 9171 54	XTO ENERGY, INC 6401 Holiday Hill Road Building #5 Midland TX 79707	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
5	9314 8699 0430 0050 9171 61	CHEVRON USA INC 6301 DEAUVILLE Midland TX 79706	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
6	9314 8699 0430 0050 9171 85	DEVON ENERGY PRODUCTION COMPANY, LP 20 N Broadway Oklahoma City OK 73102	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
7	9314 8699 0430 0050 9171 92	DEVON ENERGY PRODUCTION COMPANY, LP 333 W. SHERIDAN AVENUE Oklahoma City OK 73012	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
8	9314 8699 0430 0050 9172 08	HARVARD PETROLEUM COMPANY, LLC P.O. Box 936 Roswell NM 88202	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
9	9314 8699 0430 0050 9172 15	CASE-POMEROY OIL CORP 16666 NORTHCASE DR STE 475 Houston TX 77060	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
10	9314 8699 0430 0050 9172 22	OXY Y-1 COMPANY PO BOX 27570 Houston TX 77227	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
11	9314 8699 0430 0050 9172 39	EOG A RESOURCES INC 105 S 4TH Street Artesia NM 88210	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
12	9314 8699 0430 0050 9172 46	EOG M RESOURCES INC P.O. Box 840 Artesia NM 88211	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
13	9314 8699 0430 0050 9172 53	EOG Y RESOURCES INC 104 S. 4th St. Artesia NM 88210	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
14	9314 8699 0430 0050 9172 60	COG PRODUCTION, LLC P.O. Box 2064 Midland TX 79702	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
15	9314 8699 0430 0050 9172 77	COG PRODUCTION, LLC 600 W ILLINOIS AVE Midland TX 79701	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice

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

PS Form 3877

Type of Mailing: CERTIFIED
09/18/2018

ALBUQUERQUE NM 87101
SEP 18 2018
USPS

Firm Mailing Book ID: 151704

Line	Article Number	Name, Street & P.O. Address	Postage	Fee	R.R.Fee	Reference	Rest.Del.Fee Contents
16	9314 8699 0430 0050 9172 84	COG OPERATING LLC 550 W Texas Midland TX 79701	$1.63	$3.45	$1.50	87806-0003	$0.00 Notice
		Totals:	$26.08	$55.20	$24.00		$0.00
						Grand Total:	$105.28

List Number of Pieces Listed by Sender	Total Number of Pieces Received at Post Office	Postmaster: Name of receiving employee	Dated:
16			

Transaction Report Details - CertifiedPro.net
Firm Mail Book ID= 151704
Generated: 10/3/2018 10:59:41 AM

Certified Mail Article Number	Date Created	Name 1	Address	City	State	Zip	Certified Mailing Status	Service Options	Mail Delivery Date
93148699043000509172 84	2018-09-18 12:01 PM	COG OPERATING LLC	550 W Texas	Midland	TX	79701	Delivered	Return Receipt - Electronic	09-22-2018
9314869904300050917277	2018-09-18 12:01 PM	COG PRODUCTION, LLC	600 W ILLINOIS AVE	Midland	TX	79701	Delivered	Return Receipt - Electronic	09-21-2018
9314869904300050917260	2018-09-18 12:01 PM	COG PRODUCTION, LLC	P.O. Box 2064	Midland	TX	79702	Delivered	Return Receipt - Electronic	10-02-2018
9314869904300050917253	2018-09-18 12:01 PM	EOG Y RESOURCES INC	104 S. 4th St.	Artesia	NM	88210	Delivered	Return Receipt - Electronic	09-21-2018
9314869904300050917246	2018-09-18 12:01 PM	EOG M RESOURCES INC	P.O. Box 840	Artesia	NM	88211	Delivered	Return Receipt - Electronic	09-21-2018
9314869904300050917239	2018-09-18 12:01 PM	EOG A RESOURCES INC	105 S 4TH Street	Artesia	NM	88210	Delivered	Return Receipt - Electronic	09-21-2018
9314869904300050917222	2018-09-18 12:01 PM	OXY Y-1 COMPANY	PO BOX 27570	Houston	TX	77227	Delivered	Return Receipt - Electronic	09-24-2018
9314869904300050917215	2018-09-18 12:01 PM	CASE-POMEROY OIL CORP	16666 NORTHCASE DR STE 475	Houston	TX	77060	Mailed	Return Receipt - Electronic	
9314869904300050917208	2018-09-18 12:01 PM	HARVARD PETROLEUM COMPANY, LLC	P.O. Box 936	Roswell	NM	88202	Delivered	Return Receipt - Electronic	09-21-2018
9314869904300050917192	2018-09-18 12:01 PM	DEVON ENERGY PRODUCTION COMPANY, LP	333 W. SHERIDAN AVENUE	Oklahoma City	OK	73012	To be Returned	Return Receipt - Electronic	
9314869904300050917185	2018-09-18 12:01 PM	DEVON ENERGY PRODUCTION COMPANY, LP	20 N Broadway	Oklahoma City	OK	73102	Delivered	Return Receipt - Electronic	09-21-2018
9314869904300050917161	2018-09-18 12:01 PM	CHEVRON USA INC	6301 DEAUVILLE	Midland	TX	79706	Delivered	Return Receipt - Electronic	09-21-2018
9314869904300050917154	2018-09-18 12:01 PM	XTO ENERGY, INC	6401 Holiday Hill Road Building #5	Midland	TX	79707	Delivered	Return Receipt - Electronic	09-21-2018
9314869904300050917147	2018-09-18 12:01 PM	BUREAU OF LAND MGMT	301 Dinosaur Trail	Santa Fe	NM	87508	Mailed	Return Receipt - Electronic	
9314869904300050917130	2018-09-18 12:01 PM	NEW MEXICO STATE LAND OFFICE	P.O. Box 1148	Santa Fe	NM	87504	Delivered	Return Receipt - Electronic	09-20-2018
9314869904300050917123	2018-09-18 12:01 PM	Oil Conservation Division District I - Hobbs	1625 N. French Drive	Hobbs	NM	88240	Delivered	Return Receipt - Electronic	09-21-2018

USPS Tracking®

FAQs > (https://www.usps.com/faqs/uspstracking-faqs.htm)

Track Another Package +

Tracking Number: 9314869904300050917215

Remove ×

Your item departed our NORTH HOUSTON TX DISTRIBUTION CENTER destination facility on October 3, 2018 at 1:24 am. The item is currently in transit to the destination.

In-Transit

October 3, 2018 at 1:24 am
Departed USPS Regional Destination Facility
NORTH HOUSTON TX DISTRIBUTION CENTER

Get Updates ∨

Feedback

Text & Email Updates ∨

Return Receipt Electronic ∨

Tracking History ∨

Product Information ∨

See Less ∧

Can't find what you're looking for?

Go to our FAQs section to find answers to your tracking questions.

USPS Tracking®

FAQs > (https://www.usps.com/faqs/uspstracking-faqs.htm)

Track Another Package +

Tracking Number: 9314869904300050917192

Remove ×

Your item was returned to the sender on September 22, 2018 at 2:25 pm in EDMOND, OK 73003 because it could not be delivered as addressed.

Alert

September 22, 2018 at 2:25 pm
Return to Sender
EDMOND, OK 73003

Get Updates ∨

Feedback

Text & Email Updates ∨

Return Receipt Electronic ∨

Tracking History ∨

Product Information ∨

See Less ∧

Can't find what you're looking for?

Go to our FAQs section to find answers to your tracking questions.

USPS Tracking®

FAQs > (https://www.usps.com/faqs/uspstracking-faqs.htm)

Track Another Package +

Tracking Number: 9314869904300050917147

Remove ×

Your package is moving within the USPS network and is on track to be delivered to its final destination. It is currently in transit to the next facility.

In-Transit

September 23, 2018
In Transit to Next Facility

Get Updates ∨

Feedback

Text & Email Updates ∨

Return Receipt Electronic ∨

Tracking History ∨

Product Information ∨

See Less ∧

Can't find what you're looking for?

Go to our FAQs section to find answers to your tracking questions.

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
September 20, 2018
and ending with the issue dated
September 20, 2018.

Publisher

Sworn and subscribed to before me this
20th day of September 2018.

Business Manager

My commission expires
January 29, 2019
(Seal)

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires 1-29-19

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGAL NOTICE
September 20, 2018

Case No. 16439: Notice to all affected parties, as well as the heirs and devisees of DEVON ENERGY PRODUCTION COMPANY, LP; CIMAREX ENERGY CO. OF COLORADO; ROVER OPERATING, LLC; OXY USA INC; COG PRODUCTION LLC; DEVON ENERGY PRODUCTION COMPANY, LP; EOG Y RESOURCES; BABER GUY A; CHEVRON USA INC; CONOCOPHILLIPS CO; BUREAU OF LAND MGMT; NEW MEXICO STATE LAND OFFICE. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 is filing an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's McCloy Central SWD #1 well. The proposed well will have a surface hole located 762' from the North line and 383' from the East line, and a bottom hole located 762' from the North line and 256' from the East line, Section 24, Township 24 South, Range 32 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Silurian-Devonian Formations at an interval of 17,424' to 18,533'. The maximum surface pressure will be 3,484 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the use of 7-inch tubing inside the surface and intermediate casings and 5 ½-inch tubing inside the liner.

Case No. 16438: Notice to all affected parties, as well as the heirs and devisees of XTO ENERGY, INC; CHEVRON USA INC; DEVON ENERGY PRODUCTION COMPANY, LP; HARVARD PETROLEUM COMPANY, LLC; CASE-POMEROY OIL CORP; OXY Y-1 COMPANY; EOG A RESOURCES INC; EOG M RESOURCES INC; EOG Y RESOURCES INC; COG PRODUCTION, LLC; COG OPERATING LLC; JAVELINA PARTNERS; OXY USA INC; NEW MEXICO STATE LAND OFFICE; BUREAU OF LAND MGMT. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 is filing an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's Jack Tank SWD #1 well. The proposed well will have a surface hole located 1,400' from the North line and 1,853' from the West line, Section 5, Township 24 South, Range 32 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Devonian Formations at an interval of 16,800' to 17,809'. The maximum surface pressure will be 3,360 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the use of 7-inch tubing inside the surface and intermediate casings and 5 ½-inch tubing inside the liner.

Case No. 16440: Notice to all affected parties, as well as the heirs and devisees of DEVON ENERGY PRODUCTION COMPANY, LP; ROVER OPERATING, LLC; MCI OPERATING OF NM, LLC; CIMAREX ENERGY CO.; MARKS AND GARNER PRODUCTION LTD CO; ROBERT H FORREST JR OIL LLC; COG PRODUCTION, LLC; COG OPERATING LLC; DEVON ENERGY PROD CO LP; CHEVRON USA INC.; GUY A BABER; CONOCOPHILLIPS CO; APACHE CORP; CHISOS LTD; XTO HOLDINGS LLC AND THE BUREAU OF LAND MANAGEMENT. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 has filed an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's McCloy West SWD #1 well. The proposed well will have a surface hole located 1019' from the South line and 2388' from the East line, Section 14, Township 24 South, Range 32 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Silurian-Devonian Formations at an interval of 17,350' to 18,451'. The maximum surface pressure will be 3,470 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the use of 7-inch tubing inside the surface and intermediate casings and 5 ½-inch tubing inside the liner.

Case No. 16441: Notice to all affected parties, as well as the heirs and devisees of DEVON ENERGY PRODUCTION COMPANY, LP; EOG RESOURCES INC; MATADOR PRODUCTION COMPANY; COG OPERATING LLC; TAP ROCK OPERATING, LLCBUREAU OF LAND MGMT; NEW MEXICO STATE LAND OFFICE. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 is filing an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's Minuteman SWD #1 well. The proposed well will have a surface hole located 659' from the South line and 449' from the West line, Section 14, Township 24 South, Range 33 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Silurian-Devonian Formations at an interval of 16,691' to 18,326'. The maximum surface pressure will be 3,338 psi and applicant is requesting approval of a maximum injection rate of 50,000 BWPD. NGL further seeks approval of the use of 7-inch tubing inside the surface and intermediate casings and 5 ½-inch tubing inside the liner.

Case No. 16443: Notice to all affected parties, as well as the heirs and devisees of Fortis Minerals II, LLC; Katy Pipeline and Production Corporation; Sugarberry Oil & Gas Corporation; Marathon Oil Permian, LLC; Energen Resources Corporation; EOG Resources, Inc.; COG Operating, LLC; Susan Duff; Nommensen Investment Company; John V. McCarthy, II; Bates Family Investment Company, LLC, The Trust Company of Oklahoma (TCO), as Agent; Duard B. Thomas, as Personal Representative Of the Estate of Warren J. Bates, deceased; Texas State Bank, San Angelo, Texas Successor Trustee of the Lucille Chism Bates Testamentary Trust, U/W/O of Lucille Chism Bates; Robert F. Fleet Revocable Trust; Rae Ann Fleet Gossett; Rae Ann Fleet Gossett; B.H.C.H. Mineral, Ltd. & Fredericksburg Royalty, Ltd.; James Ray Bates; Margaret Helen Kalmar Trust A, A/K/A the Margaret Helen Kalmar Children's Trust; PAWN Enterprises, Ltd. NGL Water Solutions Permian, LLC 1509 W. Wall Street, Suite 306, Midland, Texas 79701 is filing an application for hearing along with a C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for approval of salt water disposal well in Lea County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on October 4, 2018 to consider this application. This is application for approval of the applicant's Sidewinder SWD #1 well. The proposed well will have a surface hole located 244' from the South line and 1,581' from the East line, Section 10, Township 25 South, Range 34 East, N.M.P.M., Lea County, New Mexico. Disposal water will be sourced from area production and will be injected in to the Silurian-Devonian Formations at an interval of 16,157' to 19,067'. The maximum surface pressure will be 3,431 psi and applicant is requesting