Initial Application Part I

Received 8/4/21

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

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

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

8/4/21

FORM C-108
Revised June 10, 2003

UFP4H-210804-C-1080

APPLICATION FOR AUTHORIZATION TO INJECT

pBL2121744525

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance ____X____Disposal _____Storage
Application qualifies for administrative approval? ____ X _____Yes _____No

II. OPERATOR: **Mewbourne Oil Company**

ADDRESS: **4801 Business Park Blvd**
Hobbs, NM 88240
CONTACT PARTY: **Zane Anderson** PHONE: **575-393-5905**

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:

SWD-2445

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: **Zane Anderson** TITLE: **Engineer**

SIGNATURE: _____DATE: _____

E-MAIL ADDRESS: **zanderson@mewbourne.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.

INJECTION WELL DATA SHEET

OPERATOR: **Mewbourne Oil Company**

WELL NAME & NUMBER: **Low Ball 4 Fed SWD #1**

WELL LOCATION:	**830' FSL & 200' FEL**	**P**	**4**	**26S**	**30E**
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC *(See Attached)*

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: **26"**

Casing Size: **20" (94 & 106.5 #) @ 1,325'**

Cement with: **1950 sx (100% excess)**

Top of Cement: **Surface**

Intermediate Casing

Hole Size: **17 1/2"**

Casing Size: **13 3/8" (54.5 & 61#) @ 3,600'**

Stage 1: **1800 sx (25% excess)**

Top of Cement: **Surface (Calculated)**

Production Casing

Hole Size: **12 1/4"**

Casing Size: **9 5/8" (40#) @ 10,775'**

Stage 1: **1265 sx**

Top of Cement: **Surface (Calculated)**

Stage 2: **1115 sx**

DV Tool @4,900'

Top of Cement: **Surface (Calculated)**

Production Liner

Hole Size: **8 1/2"**

Casing Size: 7 5/8**" (39#)**
Top @ 10,575'
Bottom @ 16,350'

Cement with: **320 sx (25% excess)**

Top of Cement: **10,575'**
(Proposed: circulated to liner top)

TD @ 17,500'

Permitted Injection Interval 16,350'-17,500'

Side 2

INJECTION WELL DATA SHEET

Tubing Size: **7”** x **5 ½”** Lining Material: **Duoline**
7”, P110 UFJ GB to approximately 10,450’
5 1/2”, P110 UFJ GB to 16,270’

Type of Packer: **3 ½” x 7 5/8” Model R Packer (Inconel)**

Packer Setting Depth: **+/- 16,270’**

Other Type of Tubing/Casing Seal (if applicable): **N/A**

Additional Data

1. Is this a new well drilled for injection? **Yes**

   If no, for what purpose was the well originally drilled? **NA**

2. Name of the Injection Formation: **Devonian - Open Hole Completion**

3. Name of Field or Pool (if applicable): **96101 SWD; Devonian**

4. Has the well ever been perforated in any other zone(s)? **No.**

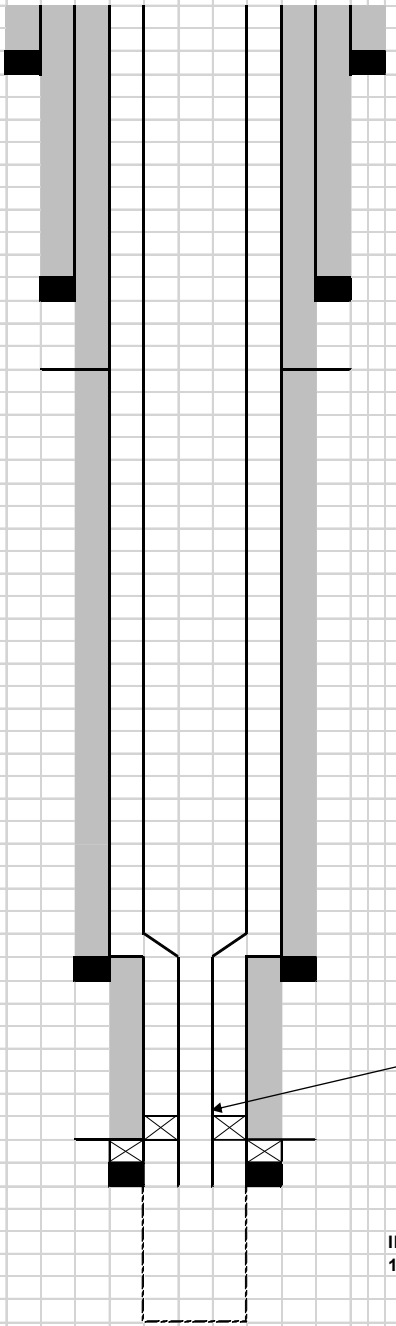
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   Overlying potentially productive zone tops – **Delaware (3,675’), Bone Spring (7,500’), Wolfcamp (10,750’), & Morrow (13,900’)**

   Underlying producing zone – **N/A**

Mewbourne Oil Company

Well Name: Low Ball 4 Fed SWD #1
Spud: 2021



20" 94 & 106.5# J-55 BTC
Set @ 1,325'
Cmt w / 1950 sx

13 3/8" 54.5 & 61# J55 & HCL80 STC
Set @ 3,600'
Cmt w / 1800 sx

ECP/DV Tool @ 4900'
Cmt 2nd stg w / 1115 sx

9 5/8" 40# HCL80 LTC
Set @ 10,775'
Cmt 1st stg w / 1265 sx

Injection String
7" P110 UFJ GB & 5 1/2" P110 UFJ GB
Nickel-Plated Pkr Set @ 16,270'

DV Tool @ 16,280'
External Csg Pkr Set @ 16,320'

7 5/8" 39# P-110 UFJ Liner
Set from 10,575'-16,350'
Cmt w / 320 sx

INJECTION ZONE: DEVONIAN
16350' 17500'

6 1/8" Open Hole
TD @ 17,500'

LOW BALL 4 FED SWD #1
Additional Details

VI. There are no wells penetrating the disposal formation within the area of review.

VII. 1. Proposed average rate of 20,000 bwpd and maximum rate of 40,000 bwpd.

2. Non-commercial SWD (closed system).

3. Proposed average injection pressure is unknown and the maximum injection pressure is approximately 3,270 psi (0.2 psi/ft x 16,350 ft).

4. This well is being permitted as a private SWD, therefore all the injected fluid will be formation water from Mewbourne Oil Company operated wells currently producing or planned in the area. Representative water samples from the Wolfcamp and Bone Spring formations are attached.

5. We will be injecting into the Devonian formation. Devonian formation water is known to be compatible with the formation water of the Bone Spring and Wolfcamp. No Devonian water analysis are available within the immediate area. The following data is the closest produced water analysis that is available on the USGS

IDUSGS	IDORIG	IDDB	SOURCE	LATITUDE	LONGITUDE	API	COUNTY	FIELD	WELLNAME	TOWNRANGE
35292	30000310	USGSBREIT	Pan American Petroleum Corporation	32.183	-103.7766	30015108590000	Eddy	Poker Lake South	Poker Lake Unit #36	S 24 E 31 28

DATESAMPLE	METHOD	FORMATION	DEPTHUPPER	DEPTHLOWER	SG	SPGRAV	RESIS	RESIST	PH	TDSUSGS	TDS
1967-04-06	Separator	Devonian	16578	16660	1.086	1.086	0.067	77	6.6	120326	120326

VIII. 1. The proposed injection interval is within the Devonian formation which is a porous dolomitic limestone from 16,350' to 17,500'. It is estimated that the base of the injection interval should be approximately 1,030' above the top of the Ellenburger.

Other Projected Formation Tops:

Mississippian	15,915'
Woodford	16,200'
Devonian	16,330'
EST TOTAL DEPTH	**17,500'**
Montoya	17,530'
Simpson	17,930'
Ellenburger	18,530'

2. The underground fresh water aquifers (unnamed) are present at shallow depths (per revue of well records, within 2 miles of the proposed SWD, on the NM Office of the State Engineers website) with the deepest water being encountered at a depth of 320', the shallowest water at a depth of 173' and the average water depth at 220'. There are no known fresh water intervals underlying the injecting formation.

IX. The proposed stimulation is an open-hole acid treatment of 30,000 gallons of 15% HCL.

X. A gamma-ray / neutron log will be run from TD to surface upon the drilling and completion of proposed well.

XI. There were 9 wells on record with the NM State Engineers Office within 2 miles of the proposed SWD. Many of these wells could not be located or were inaccessible. A fresh water sample taken from a well located in Section 4, Twp 26S, Rge 30E, and the analysis is attached.

XII. Mewbourne Oil Company has examined geologic and engineering data and has found that there is no evidence of faulting between the proposed disposal zone and any underground sources of drinking water. A signed affidavit is attached.

XIII. See attached Proof of Notice

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name

4 Property Code	5 Property Name	6 Well Number
	LOW BALL 4 FED SWD	1

7 OGRID NO.	8 Operator Name	9 Elevation
	MEWBOURNE OIL COMPANY	3158'

10 Surface Location

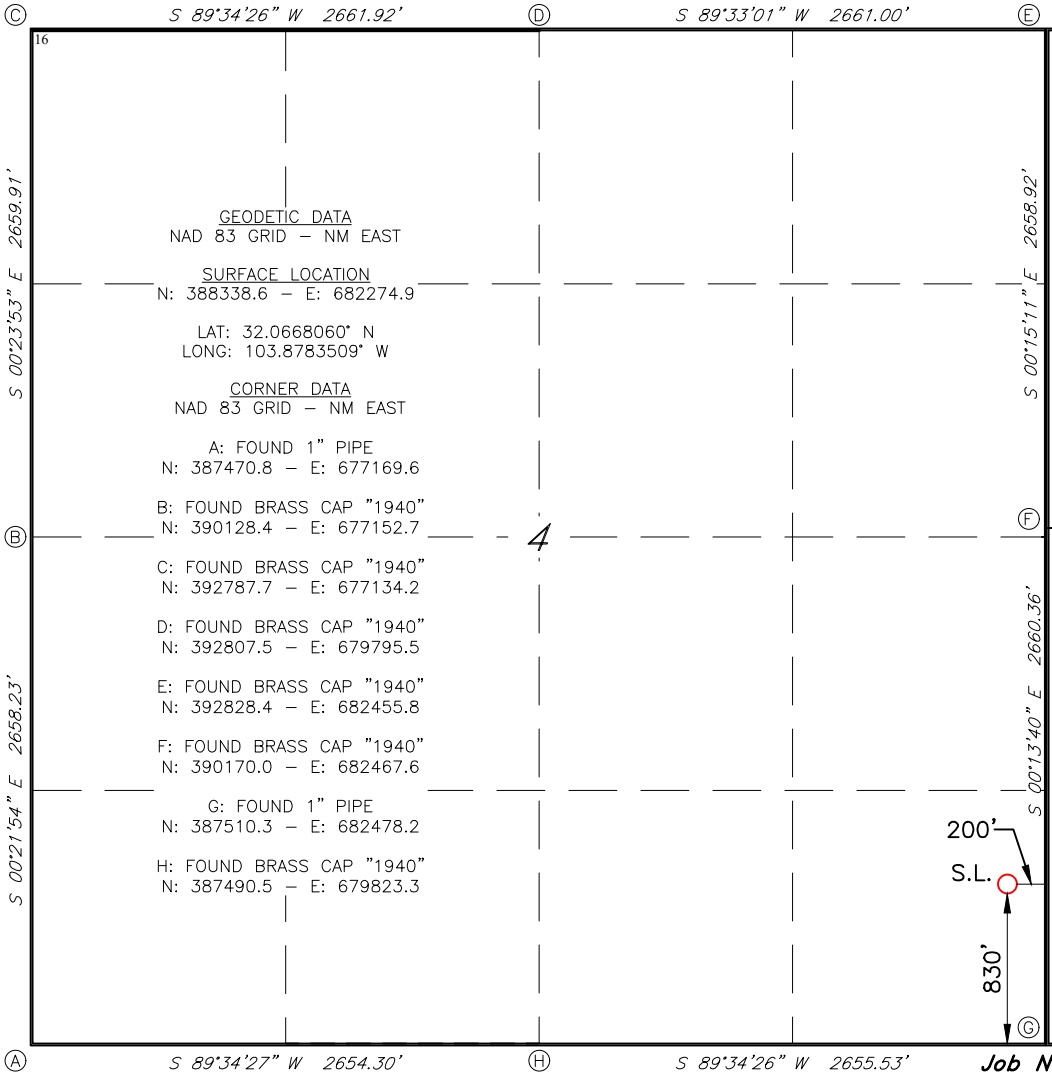
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
P	4	26S	30E		830	SOUTH	200	EAST	EDDY

11 Bottom Hole Location If Different From Surface

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

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

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



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Date

Printed Name

E-mail Address

18 SURVEYOR CERTIFICATION

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

06-07-2021
Date of Survey

Signature and Seal of Professional Surveyor

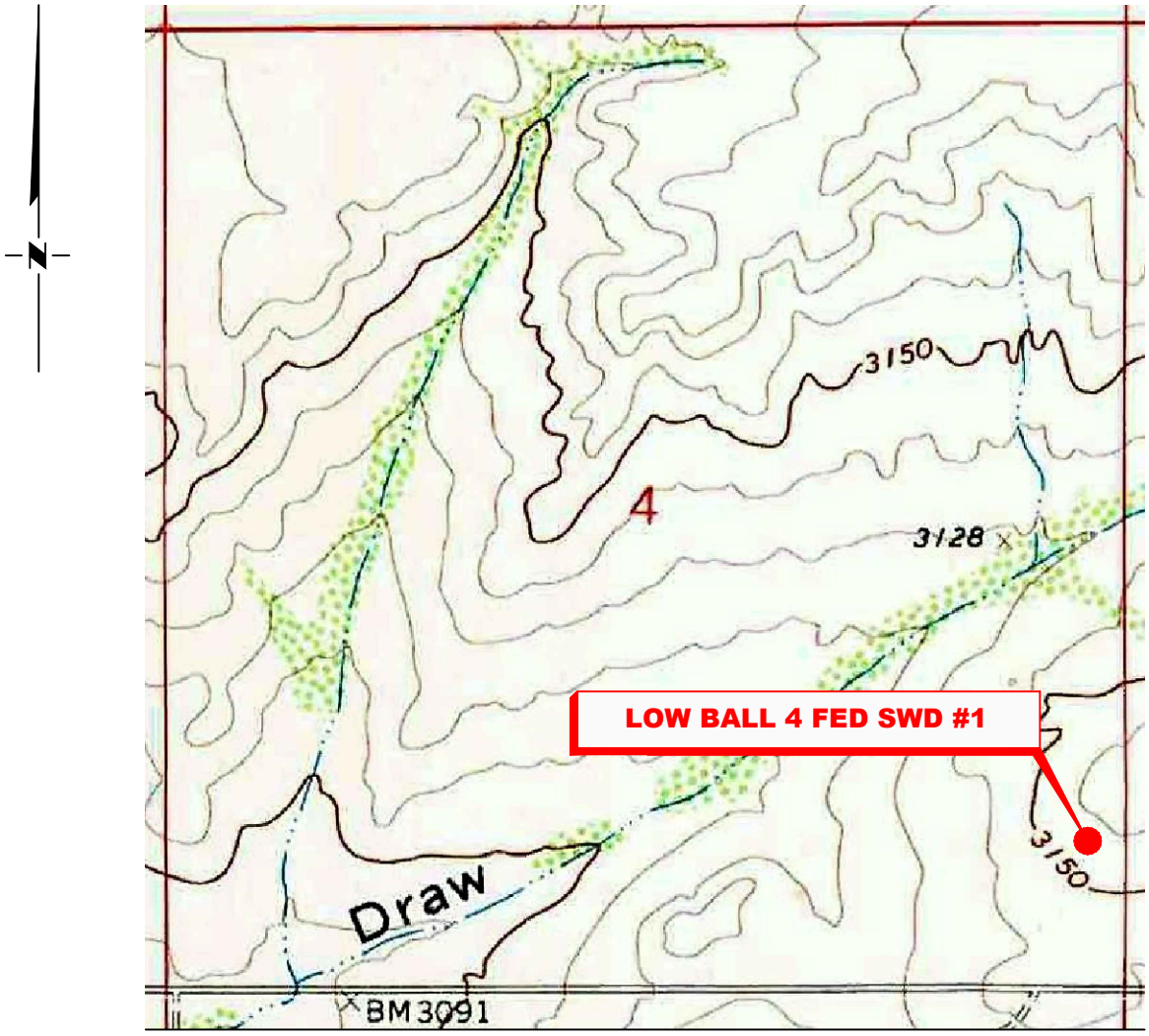
ROBERT M. HOWETT
NEW MEXICO
19680
PROFESSIONAL SURVEYOR

19680
Certificate Number

Job No.: LS21060599

LOCATION VERIFICATION MAP

NOT TO SCALE



SECTION 4, TWP. 26 SOUTH, RGE. 30 EAST,
N. M. P. M., EDDY CO., NEW MEXICO

OPERATOR: Mewbourne Oil Company
LEASE: Low Ball 4 Fed SWD
WELL NO.: 1
ELEVATION: 3158'

LOCATION: 830' FSL & 200' FEL
CONTOUR INTERVAL: 10'
USGS TOPO. SOURCE MAP:
Ross Ranch, NM (1968)

NO.	REVISION	DATE

JOB NO.: LS21060599
DWG. NO.: 21060599-2

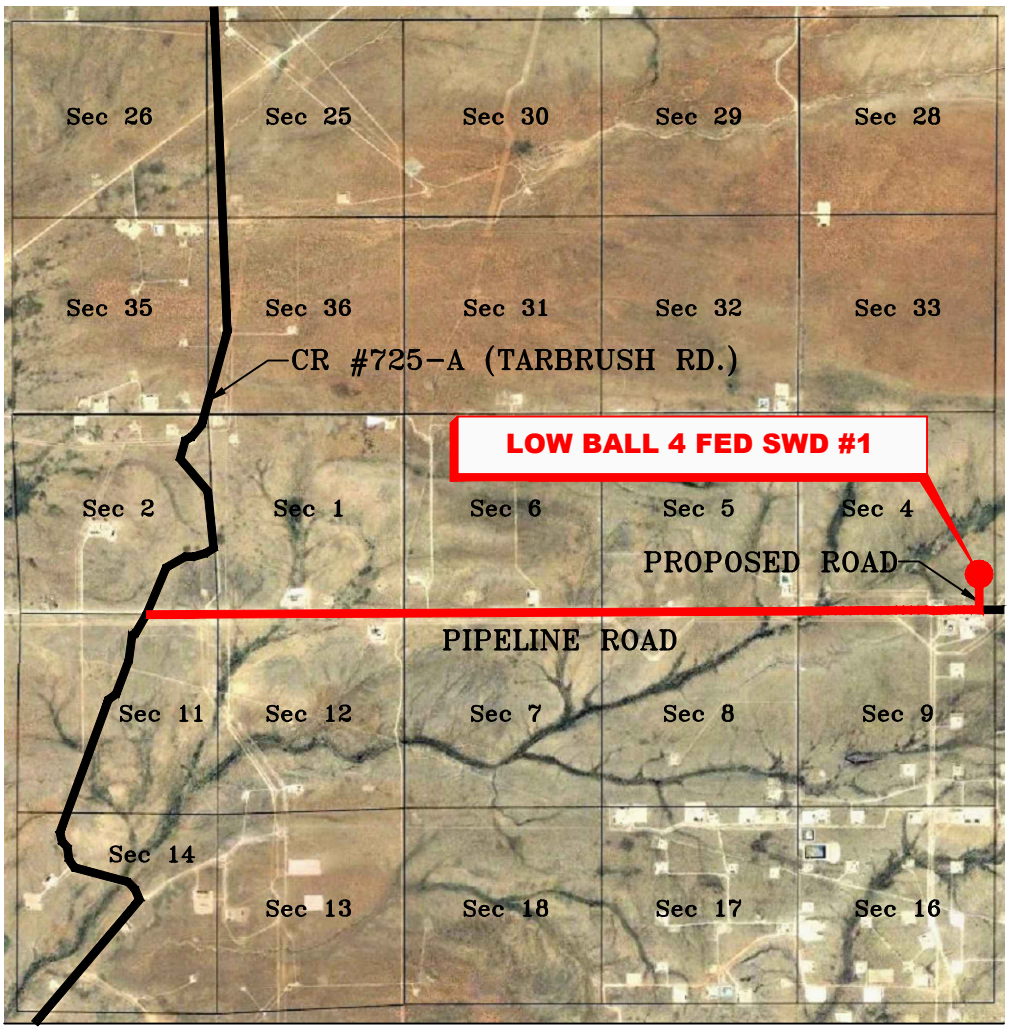
RRC

701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: N. T. S.
DATE: 06-07-2021
SURVEYED BY: ML/JC
DRAWN BY: BB
APPROVED BY: RMH
SHEET: 1 OF 1

VICINITY MAP

NOT TO SCALE



SECTION 4, TWP. 26 SOUTH, RGE. 30 EAST,
N. M. P. M., EDDY CO., NEW MEXICO

OPERATOR: Mewbourne Oil Company
LEASE: Low Ball 4 Fed SWD
WELL NO.: 1

LOCATION: 830' FSL & 200' FEL
ELEVATION: 3158'

NO.	REVISION	DATE

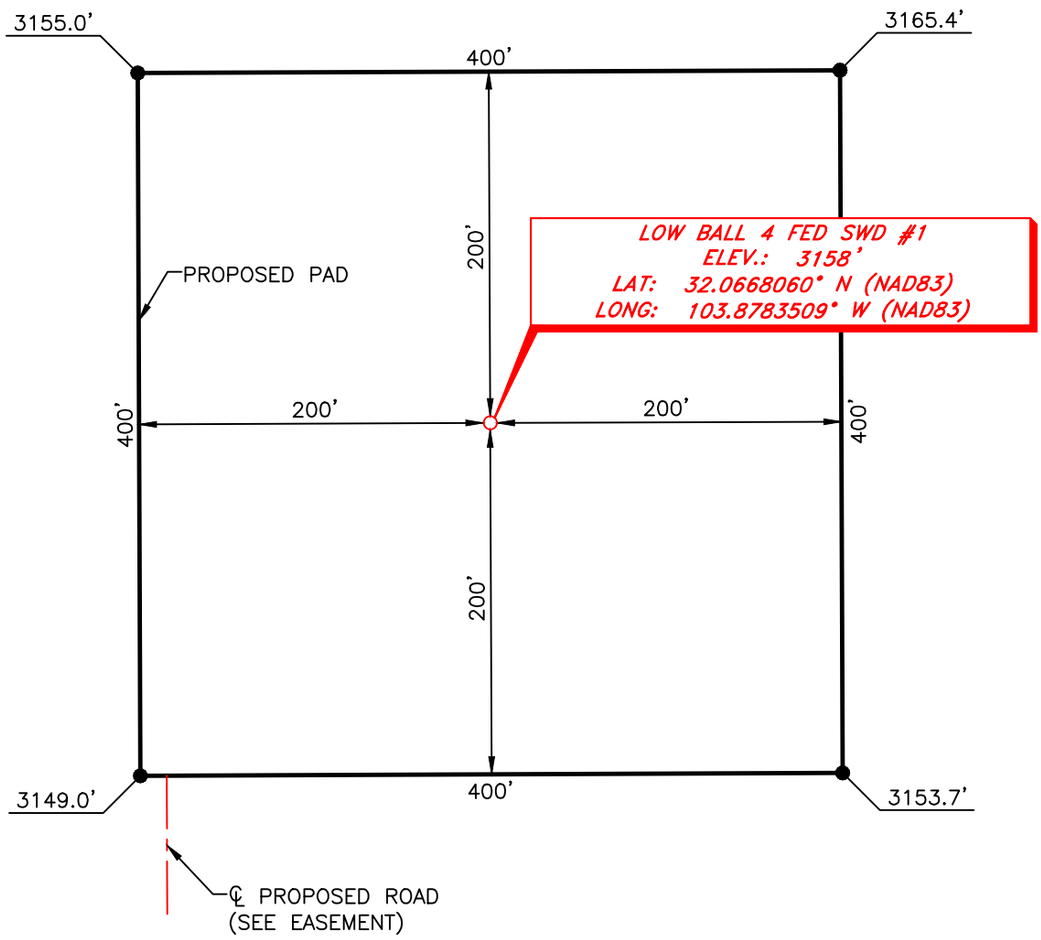
JOB NO.: LS21060599
DWG. NO.: 21060599-3

RRC

701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: N. T. S.
DATE: 06-07-2021
SURVEYED BY: ML/JC
DRAWN BY: BB
APPROVED BY: RMH
SHEET: 1 OF 1

MEWBOURNE OIL COMPANY
LOW BALL 4 FED SWD #1
(830' FSL & 200' FEL)
SECTION 4, T26S, R30E
N. M. P. M., EDDY CO., NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of CR #725-A (Tarbrush Rd.) & Pipeline Rd.;

Go East on Pipeline Rd. approx. 4.2 miles to a proposed road on the left;

Turn left and go North approx. 845 feet to location on the right.

SCALE: 1" = 100'
0 50 100

BEARINGS ARE NAD 83 GRID - NM EAST DISTANCES ARE GROUND.

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this unclassified survey of a well location from an actual survey made on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

Robert M. Howett
Robert M. Howett NM PS 19680

ROBERT M. HOWETT
NEW MEXICO
19680
06/11/21
PROFESSIONAL SURVEYOR

NO.	REVISION	DATE

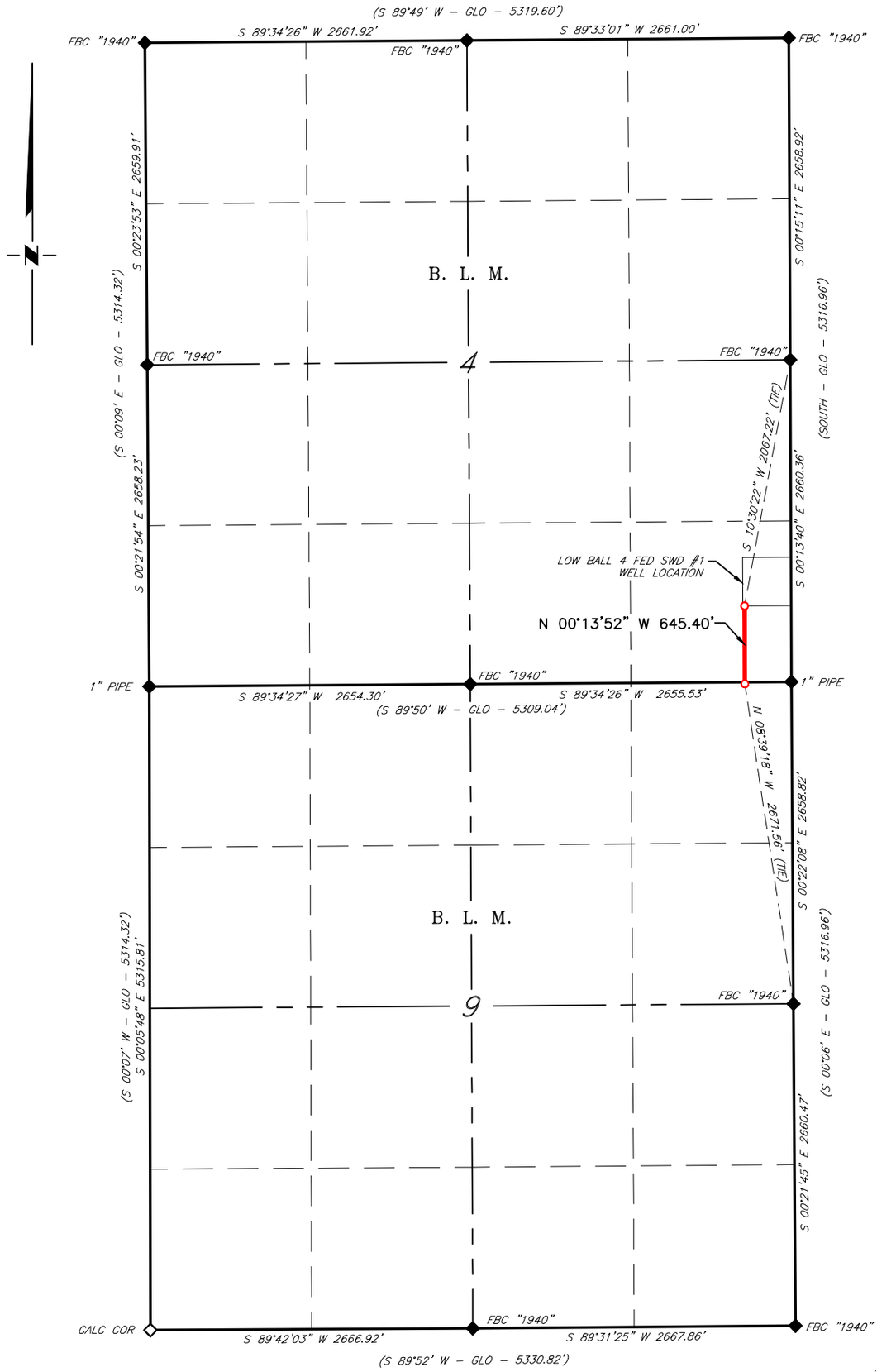
JOB NO.: LS21060599
DWG. NO.: 21060599-4

RRC

701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE:	1" = 100'
DATE:	06-07-2021
SURVEYED BY:	ML/JC
DRAWN BY:	BB
APPROVED BY:	RMH
SHEET:	1 OF 1

MEWBOURNE OIL COMPANY
PROPOSED ACCESS ROAD FOR THE LOW BALL 4 FED SWD #1
SECTION 4 & 9, T26S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



SCALE: 1" = 1200'
0 600' 1200'

BEARINGS ARE GRID NAD 83 NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND
( ) RECORD DATA - GLO
◆ FOUND MONUMENT AS NOTED
◇ CALCULATED CORNER
PROPOSED ROAD

NO.	REVISION	DATE

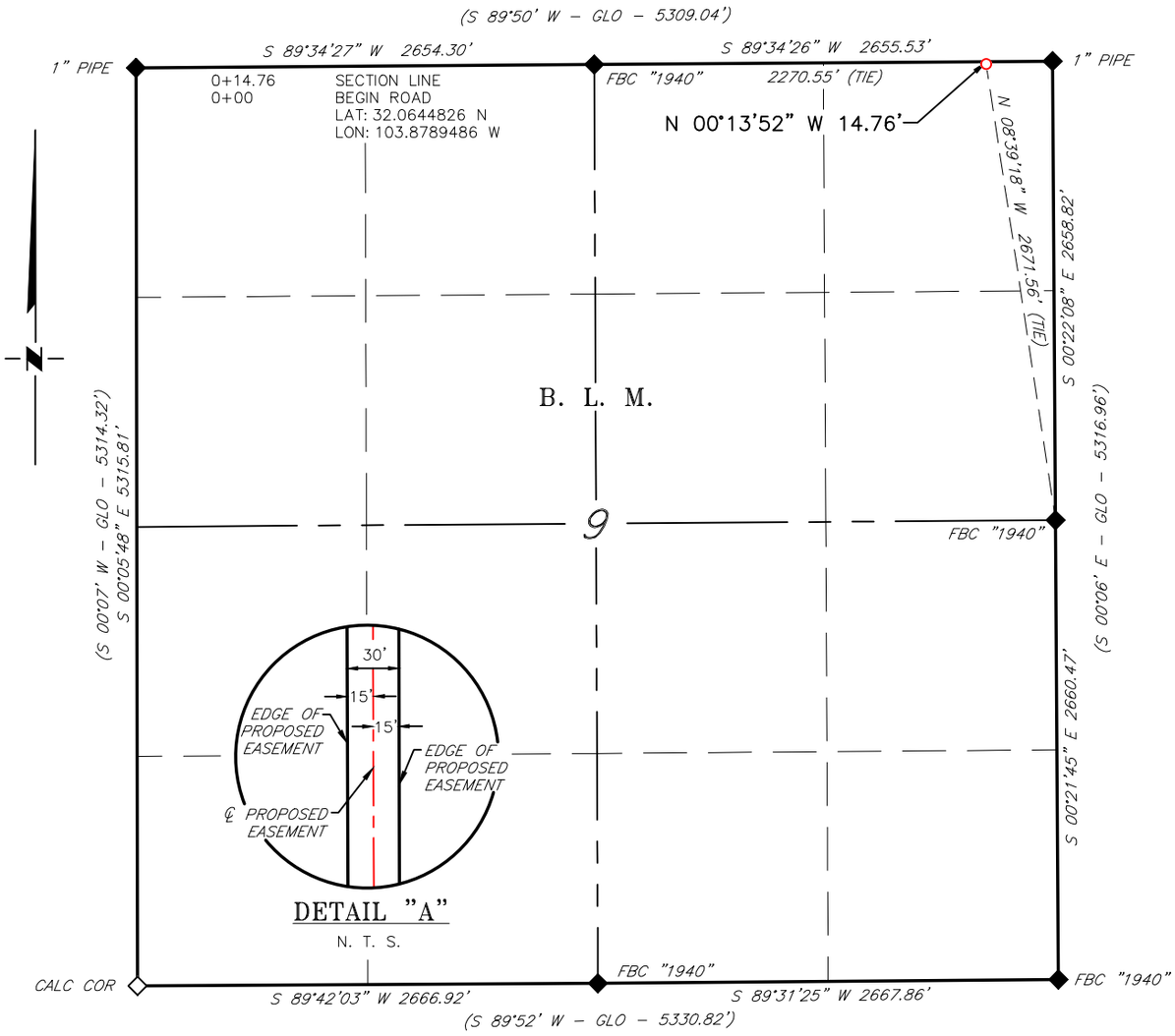
JOB NO.: LS21060599
DWG. NO.: 21060599-5

RRC

701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1200'
DATE: 06-07-2021
SURVEYED BY: ML/JC
DRAWN BY: BB
APPROVED BY: RMH
SHEET: 1 OF 1

MEWBOURNE OIL COMPANY
PROPOSED ACCESS ROAD FOR THE LOW BALL 4 FED SWD #1
SECTION 9, T26S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

A strip of land 30 feet wide, being 14.76 feet or 0.894 rods in length, lying in Section 9, Township 26 South, Range 30 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across B. L. M. land:

BEGINNING at Engr. Sta. 0+00, a point in the Northeast quarter of Section 9, which bears, N 08°39'18" W, 2,671.56 feet from a brass cap, stamped "1940", found for the East quarter corner of Section 9;

Thence N 00°13'52" W, 14.76 feet, to Engr. Sta. 0+14.76, a point on the North line of Section 9, which bears, N 89°34'26" E, 2,270.55 feet from a brass cap, stamped "1940", found for the North quarter corner of Section 9.

Said strip of land contains 0.010 acres, more or less, and is allocated by forties as follows:

NE 1/4 NE 1/4	0.894 Rods	0.010 Acres

SCALE: 1" = 1000'
0 500' 1000'

BEARINGS ARE GRID NAD 83 NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND
( ) *RECORD DATA – GLO*
◆ *FOUND MONUMENT AS NOTED*
◇ *CALCULATED CORNER*
PROPOSED ROAD

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat from an actual survey made on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

Robert M. Howett
Robert M. Howett NM PS 19680

ROBERT M. HOWETT NEW MEXICO 19680 06/11/21 PROFESSIONAL SURVEYOR

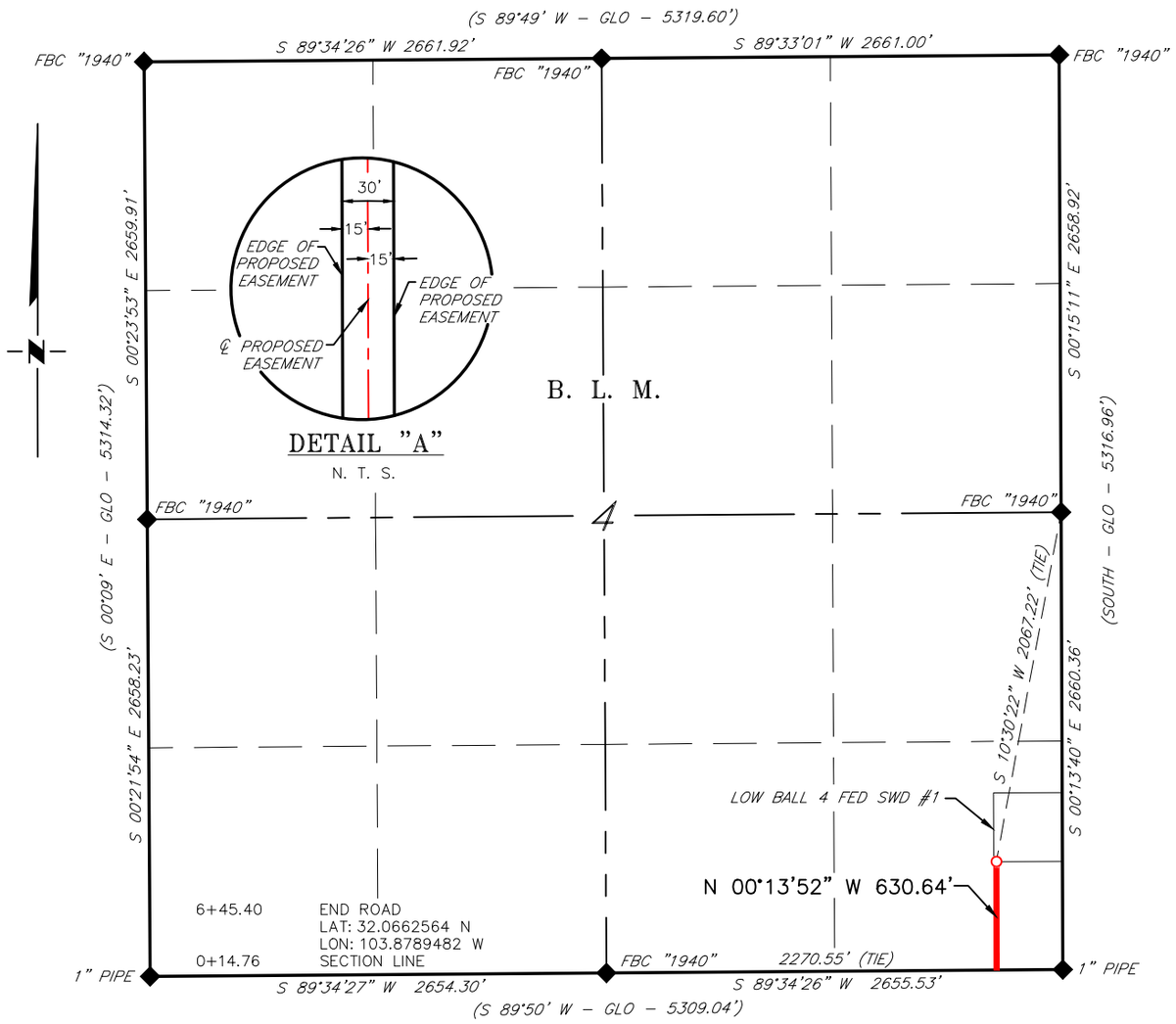
NO.	REVISION	DATE

JOB NO.: LS21060599
DWG. NO.: 21060599–6

RRC
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 1000'
DATE: 06–07–2021
SURVEYED BY: ML/JC
DRAWN BY: BB
APPROVED BY: RMH
SHEET: 1 OF 1

MEWBOURNE OIL COMPANY
PROPOSED ACCESS ROAD FOR THE LOW BALL 4 FED SWD #1
SECTION 4, T26S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

A strip of land 30 feet wide, being 630.64 feet or 38.221 rods in length, lying in Section 4, Township 26 South, Range 30 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across B. L. M. land:

BEGINNING at Engr. Sta. 0+14.76, a point on the South line of Section 4, which bears, N 89°34'26" E, 2,270.55 from a brass cap, stamped "1940", found for the South quarter corner of Section 4;

Thence N 00°13'52" W, 630.64 feet, to Engr. Sta. 6+45.40, the End of Survey, a point in the Southeast quarter of Section 4, which bears, S 10°30'22" W, 2,067.22 feet from a brass cap, stamped "1940", found for the East quarter corner of Section 4.

Said strip of land contains 0.434 acres, more or less, and is allocated by forties as follows:

SE 1/4 SE 1/4	38.221	Rods	0.434 Acres

SCALE: 1" = 1000'
0 500' 1000'

BEARINGS ARE GRID NAD 83 NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND
( ) RECORD DATA – GLO
◆ FOUND MONUMENT AS NOTED
PROPOSED ROAD

I, R. M. Howett, a N. M. Professional Surveyor, hereby certify that I prepared this plat from an actual survey made on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

Robert M. Howett
Robert M. Howett NM PS 19680

ROBERT M. HOWETT NEW MEXICO 19680 06/11/21 PROFESSIONAL SURVEYOR

NO.	REVISION	DATE

JOB NO.: LS21060599
DWG. NO.: 21060599–7

RRC
701 S. CECIL ST., HOBBS, NM 88240 (575) 964–8200

SCALE: 1" = 1000'
DATE: 06–07–2021
SURVEYED BY: ML/JC
DRAWN BY: BB
APPROVED BY: RMH
SHEET: 1 OF 1

Mewbourne Oil Company

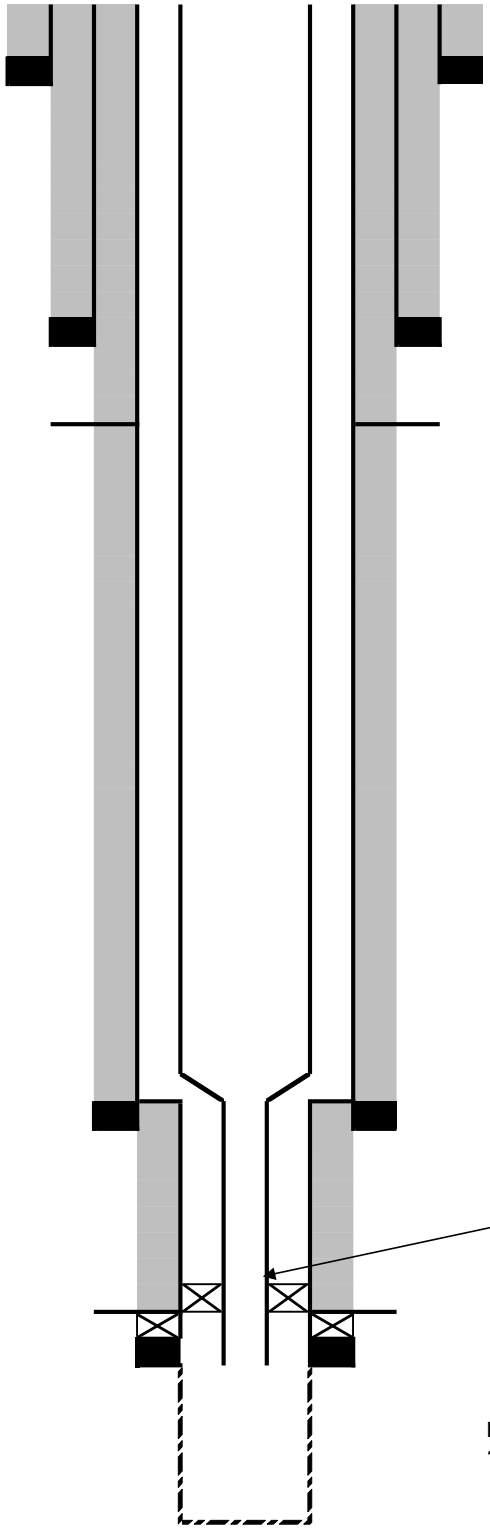
Well Name: Low Ball 4 Fed SWD #1
Spud: 2021

20" 94 & 106.5# J-55 BTC
Set @ 1,325'
Cmt w/ 1950 sx

13 3/8" 54.5 & 61# J55 & HCL80 STC
Set @ 3,600'
Cmt w/ 1800 sx

ECP/DV Tool @ 4900'
Cmt 2nd stg w/ 1115 sx

9 5/8" 40# HCL80 LTC
Set @ 10,775'
Cmt 1st stg w/ 1265 sx



Injection String
7" P110 UFJ GB & 5 1/2" P110 UFJ GB
Nickel-Plated Pkr Set @ 16,270'

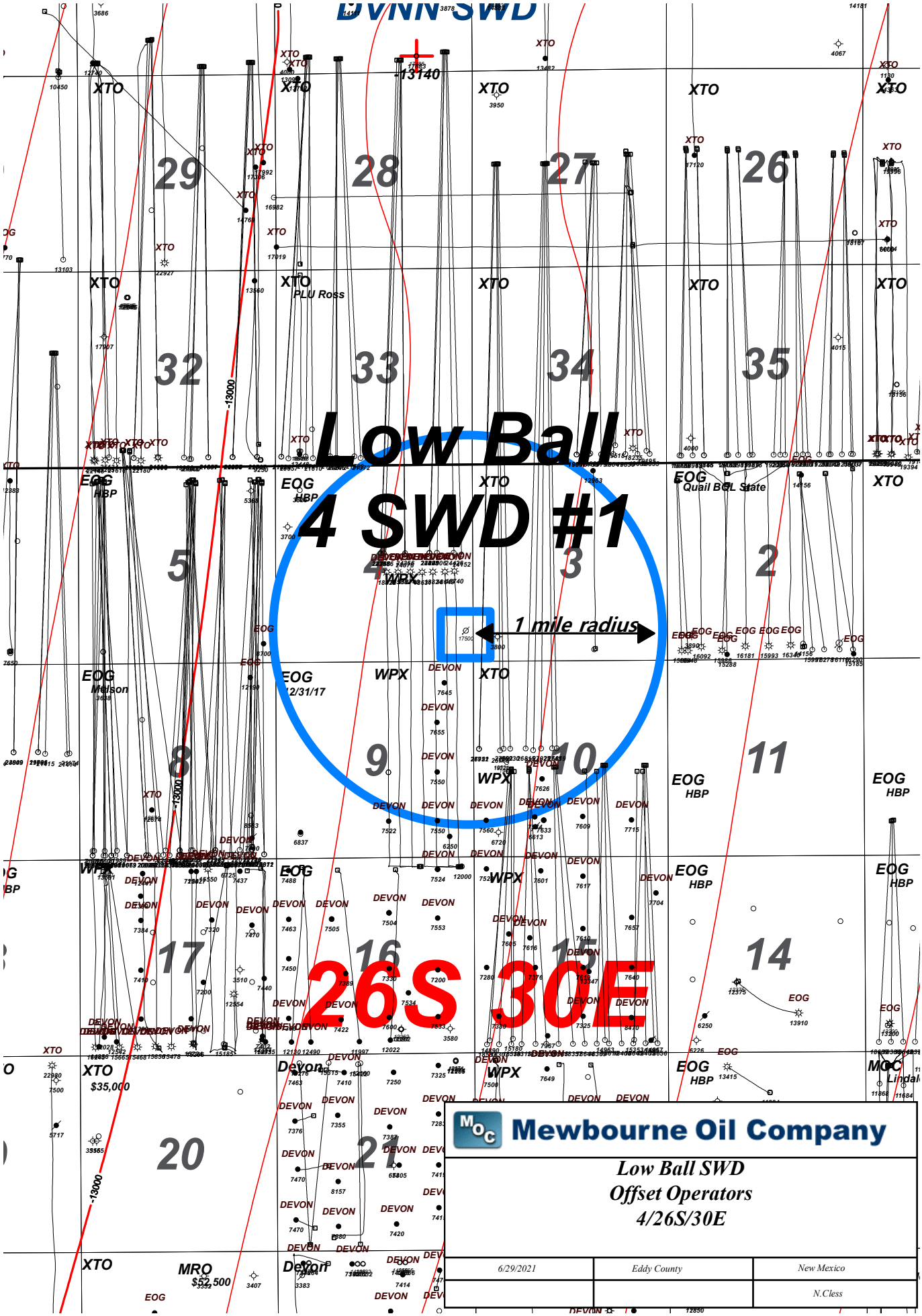
t

DV Tool @ 16,280'
External Csg Pkr Set @ 16,320'

7 5/8" 39# P-110 UFJ Liner
Set from 10,575'-16,350'
Cmt w/ 320 sx

INJECTION ZONE: DEVONIAN
16350' 17500'

6 1/8" Open Hole
TD @ 17,500'


Low Ball
4 SWD #1
1 mile radius
26S 30E
Mewbourne Oil Company
Low Ball SWD
Offset Operators
4/26S/30E
6/29/2021
Eddy County
New Mexico
N.Cless

Mewboure Oil Company
Low Ball 4 Fed SWD #1 C-108 Application

1 MILE AOR WELLS

ESTIMATED TOP OF DEVONIAN = 16,330'

Regulatory API	Lease Name	Well Num	Operator Name	Current Operator	Location	Footage	Field Name	State	County Name	Play Name	Final Status	Last Activity Date	Driller Td	Form at TD Name	Formation Producing N	Proj Depth	Proj Form	Permit License I	Spud Date	Comp Date	Final Drill Date	Latitude	Longitude
3001536210	RDX 10	1	RKI EXPLORATION & PRODUCTION LLC	WPX ENERGY PERMIAN LLC	26S 30E 10 NW SW SW	990 FSL 330 FWL CONGRESS SECTION	BRUSHY DRAW	NM	EDDY	DELAWARE	OIL PRODUCER	2021-06-07	7560	BONE SPRING	BRUSHY CANYON	7576	DELAWARE	2008-03-07	2008-06-16	2008-09-25	2008-07-02	32.05250892	-103.8761132
3001536211	RDX 9	1	RKI EXPLORATION & PRODUCTION LLC	WPX ENERGY PERMIAN LLC	26S 30E 9 NW SE SE	990 FSL 990 FEL CONGRESS SECTION	BRUSHY DRAW EAST	NM	EDDY	DELAWARE	OIL PRODUCER	2021-05-20	7550	BONE SPRING	DELAWARE	8370	DELAWARE	2008-03-07	2008-04-18	2008-06-28	2008-05-10	32.05249631	-103.8803011
3001539932	PLU PHANTOM BANKS 3-26-30 USA	1H	CHESAPEAKE OPERATING INC	XTO PERMIAN OPERATING LLC	26S 30E 3 SW SE	300 FSL 1980 FEL CONGRESS SECTION	UNNAMED	NM	EDDY	BONE SPRING	OIL PRODUCER	2021-06-03	12963	BONE SPRING	BONE SPRING	13066	BONE SPRING	2012-02-01	2012-03-25	2012-05-12	2012-04-13	32.06525467	-103.8663962
3001540178	RDX `9` FEDERAL	2	RKI EXPLORATION & PRODUCTION LLC	WPX ENERGY PERMIAN LLC	26S 30E 9 NE SE	2310 FSL 990 FEL CONGRESS SECTION	BRUSHY DRAW	NM	EDDY	DELAWARE	OIL PRODUCER	2021-05-20	7550	BONE SPRING	DELAWARE	7550	DELAWARE	2012-04-10	2012-10-21	2012-12-30	2012-11-02	32.05612885	-103.8803817
3001540878	RDX FEDERAL 10	4	RKI EXPLORATION & PRODUCTION LLC	WPX ENERGY PERMIAN LLC	26S 30E 10 NE SW	2110 FSL 1850 FWL CONGRESS SECTION	BRUSHY DRAW EAST	NM	EDDY	DELAWARE	OIL PRODUCER	2021-05-20	7626	BRUSHY CANYON	DELAWARE	7500	DELAWARE	2012-12-05	2013-06-15	2013-09-23	2013-06-27	32.05557851	-103.8711351
3001541087	RDX FEDERAL COM 10	005H	RKI EXPLORATION & PRODUCTION LLC	WPX ENERGY PERMIAN LLC	26S 30E 10 NW SE	2310 FSL 2310 FEL CONGRESS SECTION	CORRAL CANYON	NM	EDDY	BONE SPRING	ABD-OW	2021-06-11	13347	BONE SPRING	BONE SPRING	15002	BONE SPRING	2013-02-05	2013-03-15	2013-05-19	2013-04-06	32.05615731	-103.8674329
3001541257	RDX FEDERAL 9	6	RKI EXPLORATION & PRODUCTION LLC	WPX ENERGY PERMIAN LLC	26S 30E 9 NE NE	580 FNL 790 FEL CONGRESS SECTION	BRUSHY DRAW EAST	NM	EDDY	DELAWARE	OIL PRODUCER	2021-05-20	7645	BONE SPRING	DELAWARE	7550	DELAWARE	2013-04-05	2015-05-15	2015-06-30	2015-05-23	32.06280024	-103.8797491
3001541630	RDX FEDERAL 9	5	RKI EXPLORATION & PRODUCTION LLC	WPX ENERGY PERMIAN LLC	26S 30E 9	1650 FNL 990 FEL CONGRESS SECTION	BRUSHY DRAW EAST	NM	EDDY	DELAWARE	OIL PRODUCER	2021-05-20	7655	DELAWARE	DELAWARE	7550	DELAWARE	2013-08-22	2015-02-10	2015-03-28	2015-02-19	32.05982073	-103.8803014
3001547653	ROSEMARY 10 FED COM	727H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 SW	2420 FSL 2260 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-11-17				18644	WOLFCAMP	2020-09-25				32.056453	-103.869912
3001547654	ROSEMARY 10 FED COM	729H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 SW	2420 FSL 2194 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-11-17				18565	WOLFCAMP	2020-09-25				32.056453	-103.870125
3001547655	ROSEMARY 10 FED COM	731H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NE SW	2344 FSL 1522 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-11-17				18551	WOLFCAMP	2020-09-25				32.05624023	-103.8722721
3001547656	ROSEMARY 10 FED COM	733H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NW SW	2312 FSL 1042 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-11-17				18539	WOLFCAMP	2020-09-25				32.05614881	-103.8738216
3001547657	ROSEMARY 10 FED COM	735H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NW SW	2378 FSL 1042 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-11-17				18583	WOLFCAMP	2020-09-25				32.05633028	-103.8738219
3001547658	ROSEMARY 10 FED COM	710H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 SW	2377 FSL 1522 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-11-17				18338	WOLFCAMP	2020-09-25				32.056329	-103.872292
3001547659	ROSEMARY 10 FED COM	708H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 SW	2420 FSL 2227 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-11-17				18357	WOLFCAMP	2020-09-25				32.056453	-103.870019
3001547678	ROSEMARY 10 FED COM	712H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 SW	2311 FSL 1522 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-12-11				18313	WOLFCAMP	2020-09-25				32.056148	-103.872292
3001547681	ROSEMARY 10 FED COM	706H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 SE	2460 FSL 1810 FEL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-12-11				18369	WOLFCAMP	2020-09-25				32.056572	-103.865822
3001547703	ROSEMARY 10 FED COM	714H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NW SW	2345 FSL 1042 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-11-25				18307	WOLFCAMP	2020-09-25				32.05623954	-103.8738217
3001548340	ROSEMARY 10 FED COM	766H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NE SW	2542 FSL 1403 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2021-06-03				19222	WOLFCAMP	2021-05-10				32.056782	-103.87268
3001548341	ROSEMARY 10 FED COM	767H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NW SW	2558 FSL 923 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2021-06-03				19217	WOLFCAMP	2021-05-10				32.056822	-103.87423
3001548342	ROSEMARY 10 FED COM	765H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NE SW	2587 FSL 1403 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2021-06-03				19269	WOLFCAMP	2021-05-10				32.056906	-103.87268
3001548343	ROSEMARY 10 FED COM	804H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NE SW	2572 FSL 1403 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2021-06-03				19740	WOLFCAMP	2021-05-10				32.056865	-103.87268
3001548344	ROSEMARY 10 FED COM	803H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NE SW	2539 FSL 2440 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2021-06-03				19768	WOLFCAMP	2021-05-10				32.056784	-103.869332
3001548358	ROSEMARY 10 FED COM	776H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NE SW	2557 FSL 1403 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2021-06-03				19511	WOLFCAMP	2021-05-10				32.05682501	-103.8726574
3001548359	ROSEMARY 10 FED COM	774H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NE SW	2359 FSL 2470 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2021-06-03				19570	WOLFCAMP	2021-05-10				32.0562882	-103.8692116
3001548362	ROSEMARY 10 FED COM	764H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NE SW	2539 FSL 2455 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2021-06-03				19257	WOLFCAMP	2021-05-10				32.05678299	-103.869261

THERE AR NO WELLS WITHIN THE 1 MILE RADIUS AREA OF REVIEW (AOR) THAT PENETRATE THE DEVONIAN FORMATION

MEWBOURNE
OIL COMPANY

July 20, 2021

Engineering and Geological Services Bureau, Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505
Attn: Mr. Phillip Goetze

Re: Low Ball 4 Fed SWD #1
Sec 4, Twp 26S, Rge 30E
Eddy County, NM

Mr. Goetze,

In accordance with item XII on Mewbourne Oil Company's C-108 filed for the captioned salt water disposal well, Mewbourne Oil Company has examined geologic and engineering data and has found that there is no evidence of faulting or any other hydrologic connection between the proposed disposal zone and any underground sources of drinking water.

Should you have any questions, please email me at zanderson@mewbourne.com or call me at (575) 393-5905.

Sincerely,

MEWBOURNE OIL COMPANY

Zane Anderson
Engineer
zanderson@mewbourne.com

Water Lens

Powered by: Water Lens™

Sample Information

Date of Sample Analysis:	2021/07/06	**Technician Name:**	vfuentes
Date Sample was Taken:	07/01/2021	**Sample Name:**	Low Ball 4 Fed SWD#1
Analysis Performed by:	EPD	**API Well Number:**	
Client:	Mewbourne Oil Company	**Well Name:**	Fresh Water
Reader Number:		**Test Number:**	C-03483-POD3
Water Lens Batch Number:	B41		

Metals

	Dilution Factor	mg/L	meq/L
Barium	1	**5**	**0**
Calcium	Calc	**499**	**24.9**
Iron II (Fe^{2+})	1	**Less than 0.03**	**Less than 0.0016**
Iron III (Fe^{3+})	Calc	**Less than 0.03**	**Less than 0.0016**
Total Dissolved Iron	1	**Less than 0.03**	**Less than 0.0016**
Magnesium	100	**59.40**	**4.88**
Sodium	Calc	**Greater than 530**	**Greater than 23**
Strontium	n/a	*Test Not Run*	-
Manganese	n/a	*Test Not Run*	-
Boron		*Test Not Run*	-
Potassium	10	**17**	**0.4**

Anions

	Dilution Factor	mg/L	meq/L
Chloride	1	**665**	**19**
Sulfate	10	**Greater than 1600**	**Greater than 33**
Nitrate	n/a	*Test Not Run*	-
Phosphate	10	**3.97**	**0.13**
Unfiltered Phosphate	n/a	*Test not run*	*Test not run*
Filtered Phosphate	n/a	*Test not run*	*Test not run*
Delta Phosphate		*Test Not Run*	-
Carbonate (as CO_3^{2-})	Calc	-	-
Bicarbonate (as HCO_3^-)	Calc	**Less than 22**	-
Acetates/Formates (as Acetate)	Calc	**58**	**1.0**
Hydroxide (as OH^-)	Calc	**0**	**0**
Sulfide (Total)	n/a	*Test not run*	**Test not run**

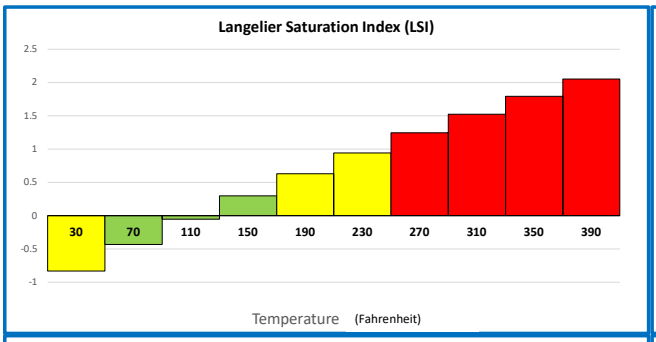
Other

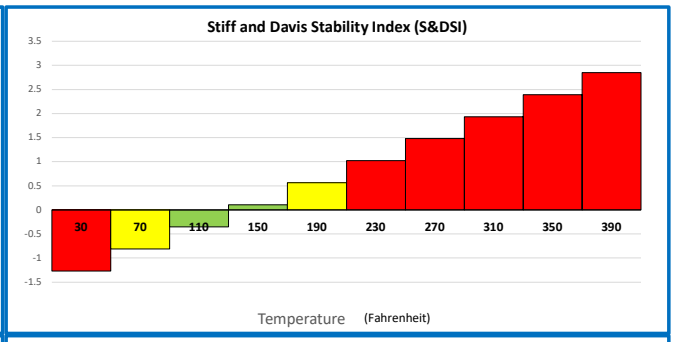
	Dilution Factor		
Hydrogen Sulfide (H_2S)	Calc	**1.0**	mg/L
Turbidity	1	**9**	NTU's
Total Hardness	100.0	**1,494.00**	mg/L $CaCO_3$
Oxidation/Reduction Potential (ORP)		**70**	millivolts
Temperature		**77**	Fahrenheit
Stiff & Davis Scaling Index (S&DSI)		**-0.79**	
Langelier Scaling Index (LSI)		**-0.34**	
Larson-Skold Index		**290.51**	
Skillman Index		**1.251**	
Barite Saturation Index		**2.94**	
Gypsum Saturation Index		**0.53**	

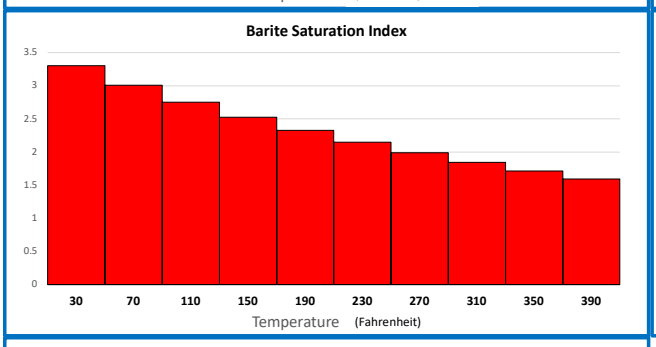
	Dilution Factor		
ATP (picograms/mL)	Calc	*Test not run*	
Dissolved CO_2 (ppm)	Calc	**10**	
pH	n/a	**7.57**	
Total Alkalinity	1	**49**	mg/L $CaCO_3$
Total Dissolved Solids (TDS)	Calc	**3,430**	mg/L
Electrical Conductivity	Calc	**Greater than 5290**	uS/cm
Electrical Resistivity	Calc	**Less than 189.15**	Ohm*cm
Manganese/Iron Ratio		*Test Not Run*	
Specific Gravity		**1.0024**	

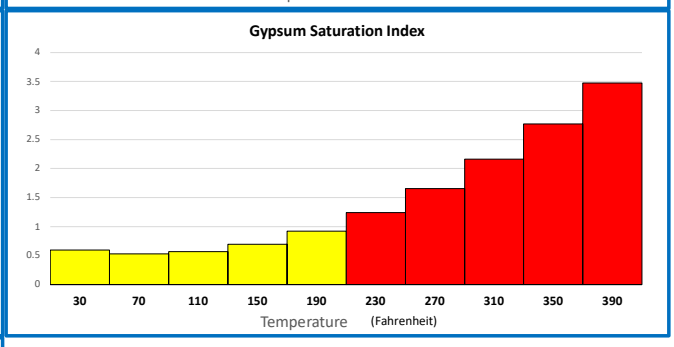
Comments

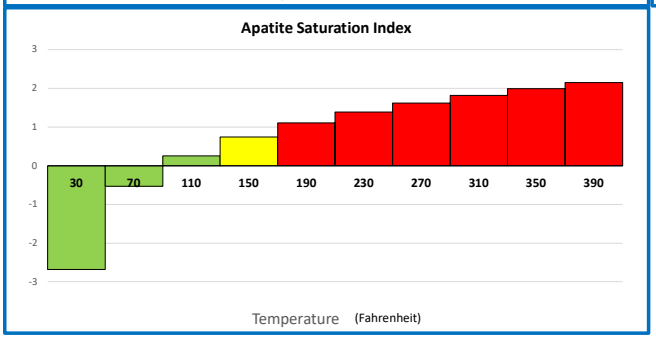
Scaling Index Graphs



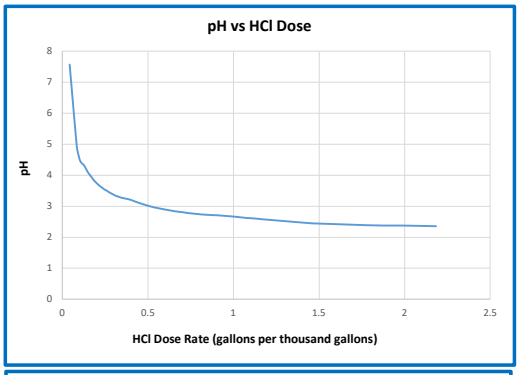




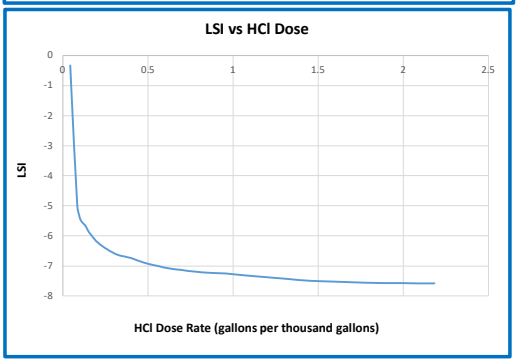




Scale Control Graphs



Target pH:	7
Req'd 15% HCl dose rate (gpt)	0.000



Target LSI:	0.5
Req'd 15% HCl dose rate: (gpt)	0.000

Water Lens

Powered by: Water Lens™

Sample Information

Date of Sample Analysis:	2021/06	**Technician Name:**	vfuentes
Date Sample was Taken:	07/01/2021	**Sample Name:**	Low Ball 4 Fed SWD#1
Analysis Performed by:	EPD	**API Well Number:**	
Client:	Mewbourne Oil Company	**Well Name:**	Produced Water
Reader Number:		**Test Number:**	Buffalo Trace 1/36 W1PA Fed Com #2H
Water Lens Batch Number:	B41		

Metals

	Dilution Factor	mg/L	meq/L
Barium	1	**8**	**0**
Calcium	Calc	**3660**	**182.6**
Iron II (Fe^{2+})	1	**Less than 0.03**	**Less than 0.0016**
Iron III (Fe^{3+})	Calc	**Less than 0.03**	**Less than 0.0016**
Total Dissolved Iron	1	**Less than 0.03**	**Less than 0.0016**
Magnesium	1,000	**571.00**	**47.00**
Sodium	Calc	**37000**	**1610**
Strontium	n/a	*Test Not Run*	-
Manganese	n/a	*Test Not Run*	-
Boron		*Test Not Run*	-
Potassium	100	**1,021**	**26.1**

Anions

	Dilution Factor	mg/L	meq/L
Chloride	100	**65,000**	**1,834**
Sulfate	10	**330**	**7**
Nitrate	n/a	*Test Not Run*	-
Phosphate	100	**54.88**	**1.73**
Unfiltered Phosphate	n/a	*Test not run*	*Test not run*
Filtered Phosphate	n/a	*Test not run*	*Test not run*
Delta Phosphate		*Test Not Run*	-
Carbonate (as CO_3^{2-})	Calc	-	-
Bicarbonate (as HCO_3^-)	Calc	**148**	**2.4**
Acetates/Formates (as Acetate)	Calc	**185**	**3.1**
Hydroxide (as OH^-)	Calc	**0**	**0**
Sulfide (Total)	n/a	*Test not run*	**Test not run**

Other

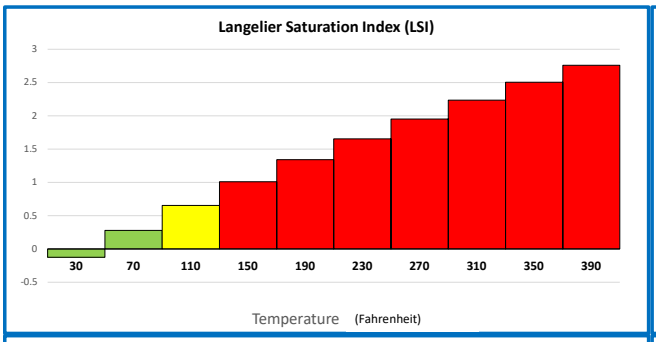
	Dilution Factor		
Hydrogen Sulfide (H_2S)	Calc	**0.5**	mg/L
Turbidity	1	**85**	NTU's
Total Hardness	1,000.0	**11,500.00**	mg/L $CaCO_3$
Oxidation/Reduction Potential (ORP)		**89**	millivolts
Temperature		**77**	Fahrenheit
Stiff & Davis Scaling Index (S&DSI)		**-0.84**	
Langelier Scaling Index (LSI)		**0.37**	
Larson-Skold Index		**925.10**	
Skillman Index		**1.251**	
Barite Saturation Index		**1.37**	
Gypsum Saturation Index		**-0.29**	

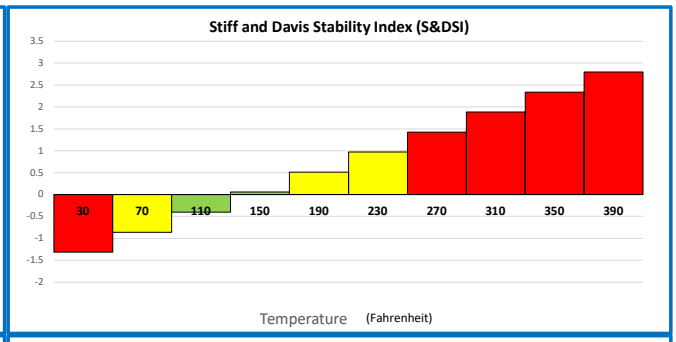
	Dilution Factor		
ATP (picograms/mL)	Calc	*Test not run*	
Dissolved CO_2 (ppm)	Calc	**170**	
pH	n/a	**6.52**	
Total Alkalinity	1	**278**	mg/L $CaCO_3$
Total Dissolved Solids (TDS)	Calc	**107,900**	mg/L
Electrical Conductivity	Calc	**144,100**	uS/cm
Electrical Resistivity	Calc	**6.9**	Ohm*cm
Manganese/Iron Ratio		*Test Not Run*	
Specific Gravity		**1.0750**	

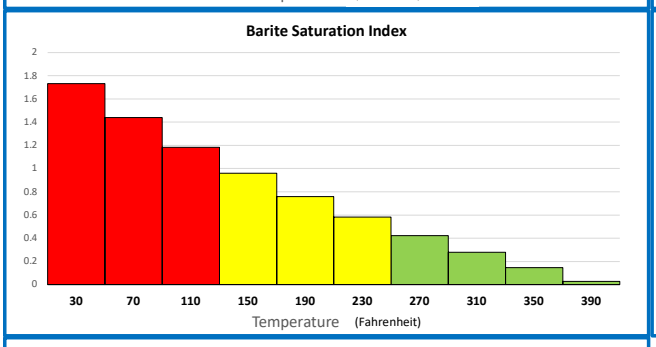
Comments

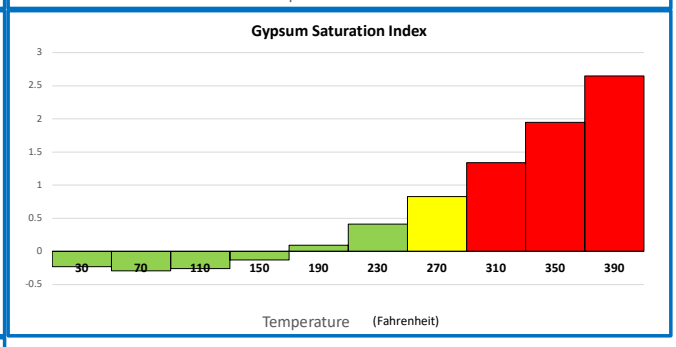
Wolfcamp

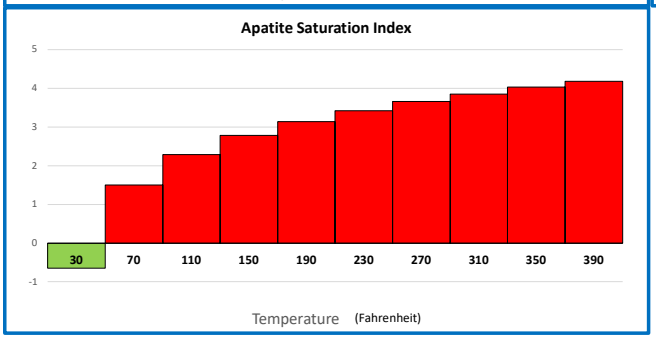
Scaling Index Graphs



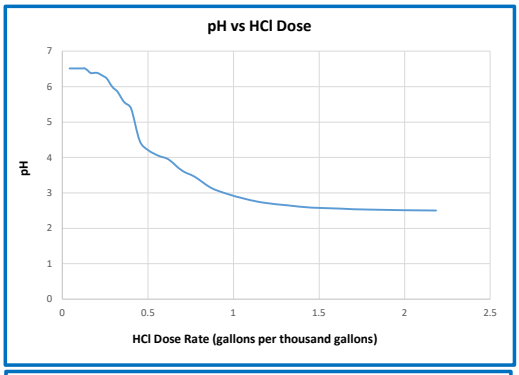




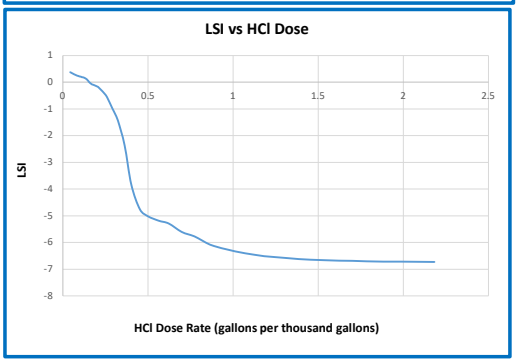




Scale Control Graphs



Target pH:	7
Req'd 15% HCl dose rate (gpt)	0.000



Target LSI:	0.5
Req'd 15% HCl dose rate: (gpt)	0.000

Mewbourne Oil Company
Low Ball 4 Fed SWD #1
C-108 Attachment
July 20, 2021

STATEMENTS REGARDING SEISMICITY AND WELL SPACING

Historically, the area nearby our proposed Low Ball 4 Fed SWD #1 has not seen a significant amount of seismic activity. The closest seismic event (per USGS database) in this area in 2020 (magnitude 2.5) was located 6.22 miles southeast of our proposed SWD.

Mewbourne Oil Company does not own 2D or 3D seismic data near our proposed SWD therefore our fault interpretation is based on subsurface mapping and data obtained from public technical sources. Our publicly sourced faults data is from a 2005 paper by Ruppel etal. (map attached). Based off our subsurface mapping of the deep formations, Mewbourne has not interpreted any faults in the immediate area. The closest known mapped "deep" fault, that is documented in public data, is approximately 9.32 miles southwest of our proposed SWD.

A very recent technical paper written by Snee and Zoback , "State of Stress in the Permian, Basin, Texas and New Mexico: Implications for induced seismicity", that was published in the February 2018 edition of The Leading Edge, evaluates the strike-slip probability, using probabilistic FSP analysis, of known Permian Basin faults. This study predicts that the Precambrian fault located on our map has less than a 10% probability of being critically stressed so as to create an induced seismicity event. The main reason for this low probability is due to the relationship of the strike of this fault to the regional Shmax orientation in study area 3 (see Figure #2) is approximately N 35 deg in this area.

The Low Ball 4 Fed SWD #1 is located over 1.5 miles away from any active, permitted or pending Devonian SWD application (see map), to meet current OCD and industry recommended practices.

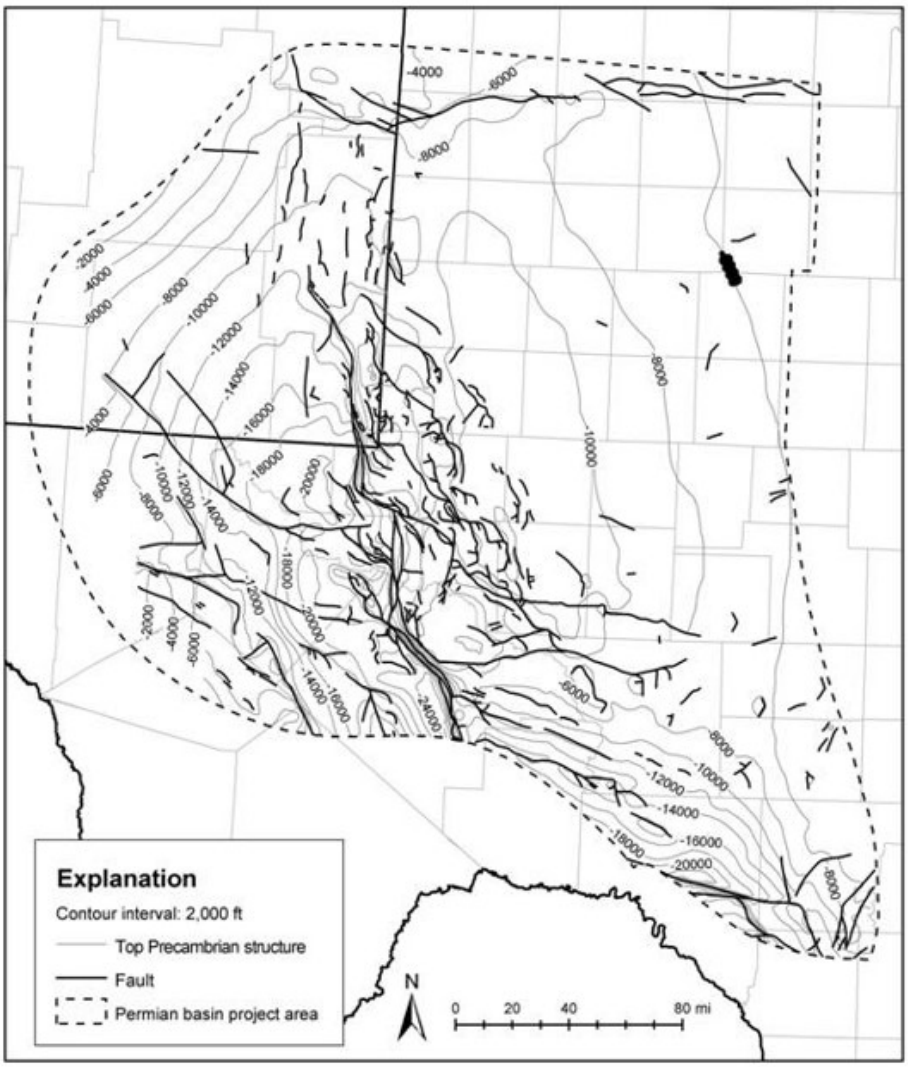
Operator	Well Name	Status	Distance from Low Ball 4 Fed SWD #1 (miles)
Delaware Energy	Echo SWD #1	Pending Application	1.8
XTO Permian Operating LLC.	Poker Lake Unit 2 TD State SWD #001	Active	1.98
Permian Oilfield Partners LLC.	Abyss Fed SWD #001	Permitted	2.02

Zane Anderson

Engineer

zanderson@mewbourne.com

575-393-5905



Precambrian Structure Map In the Permian Basin (Ruppel etal.)

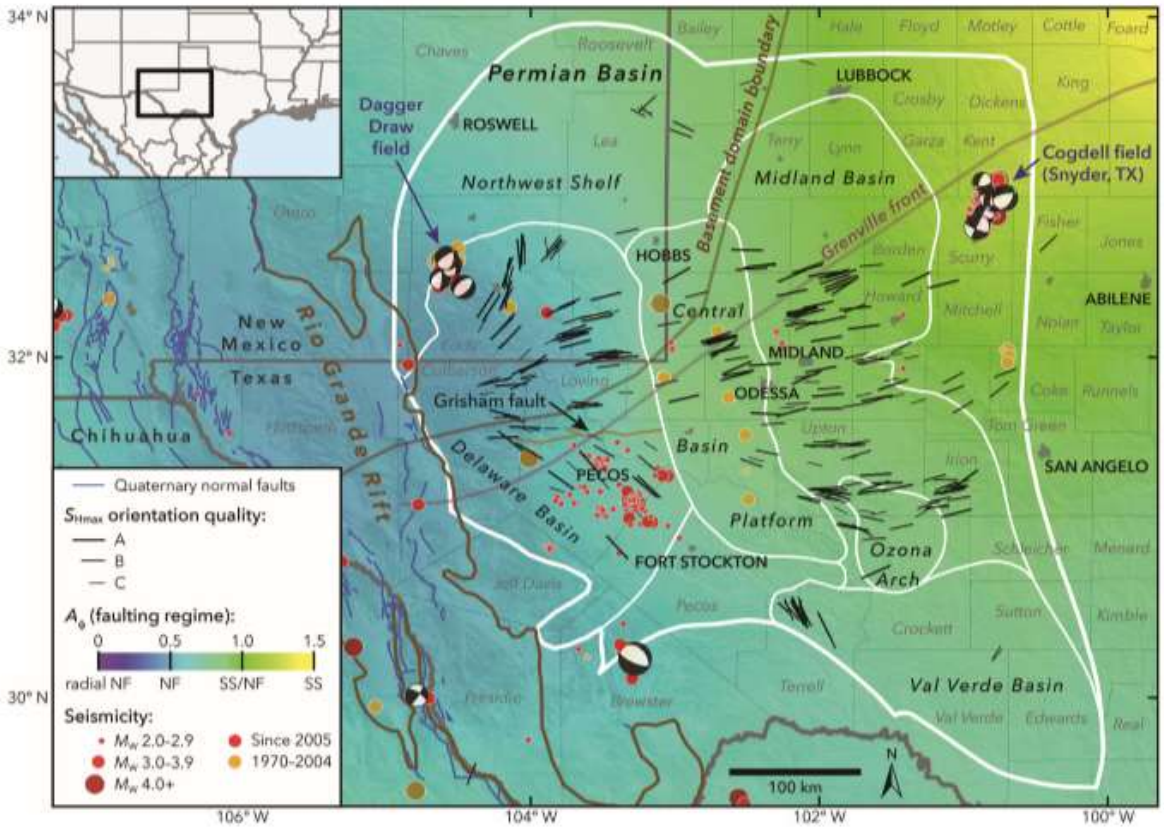


Figure 1. State of stress in the Permian Basin, Texas and New Mexico. Black lines are the measured orientations of S_{Hmax}, with line length scaled by data quality. The colored background is an interpolation of measured relative principal stress magnitudes (faulting regime) expressed using the A_ϕ parameter (see text for details) of Simpson (1997). Blue lines are fault traces known to have experienced normal-sense offset within the past 1.6 Ma, from the USGS Quaternary Faults and Folds Database (Crone and Wheeler, 2000). The boundary between the Shawnee and Mazatzal basement domains is from Lund et al. (2015), and the Precambrian Grenville Front is from Thomas (2006). The Permian Basin boundary is from the U.S. Energy Information Administration, and the subbasin boundaries are from the Texas Bureau of Economic Geology Permian Basin Geological Synthesis Project. Earthquakes are from the USGS National Earthquake Information Center, the TexNet Seismic Monitoring Program, and Gan and Frohlich (2013). Focal mechanisms are from Saint Louis University (Herrmann et al., 2011).

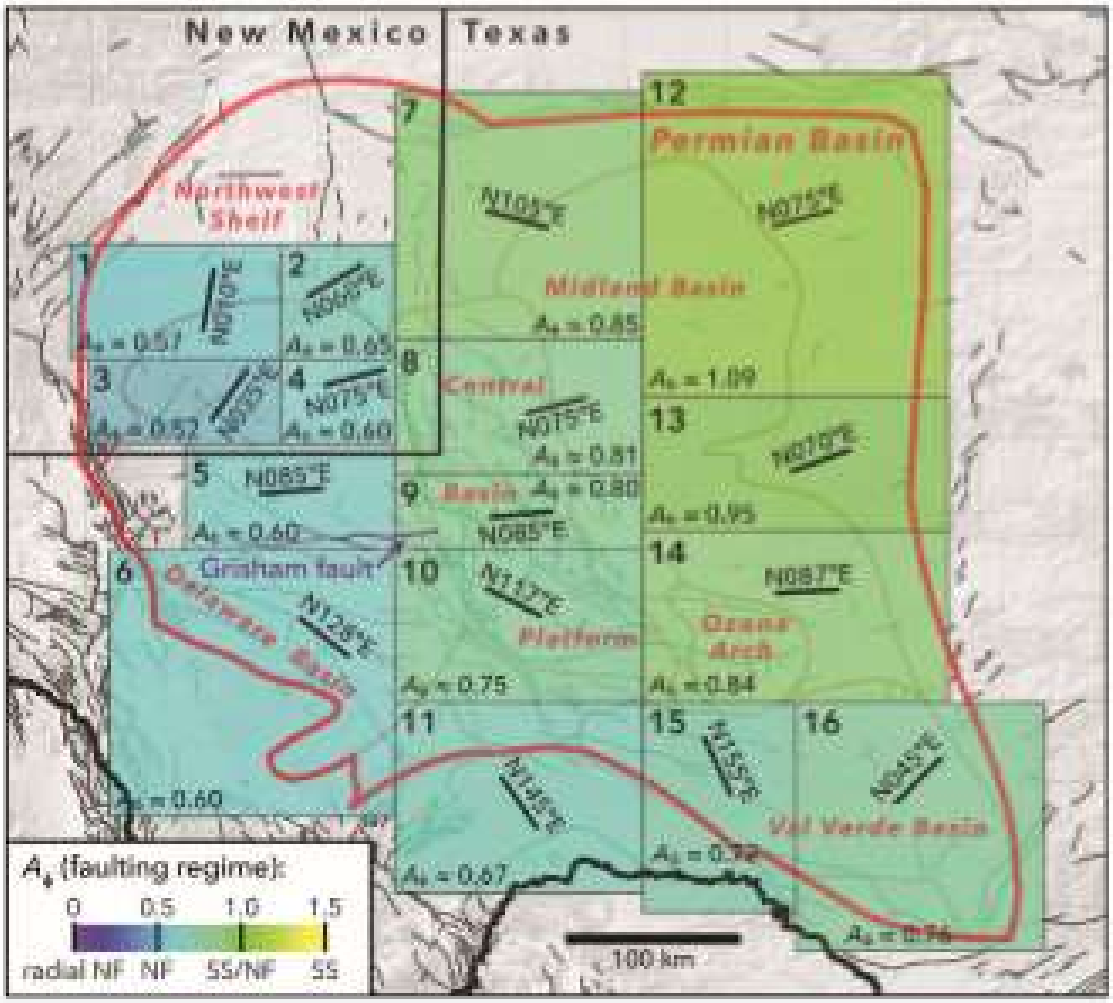


Figure 2. Map of study areas chosen for FSP analysis on the basis of broadly similar stress conditions. Text annotations indicate representative S_{Hmax} orientation and relative principal stress magnitudes (A_ϕ parameter) for each study area based on the data presented in Figure 1. Gray lines in the background indicate fault traces compiled from Ewing et al. (1990), Green and Jones (1997), Ruppel et al. (2005), and the USGS Quaternary Faults and Folds Database (Crone and Wheeler, 2000), to which we apply FSP analysis.

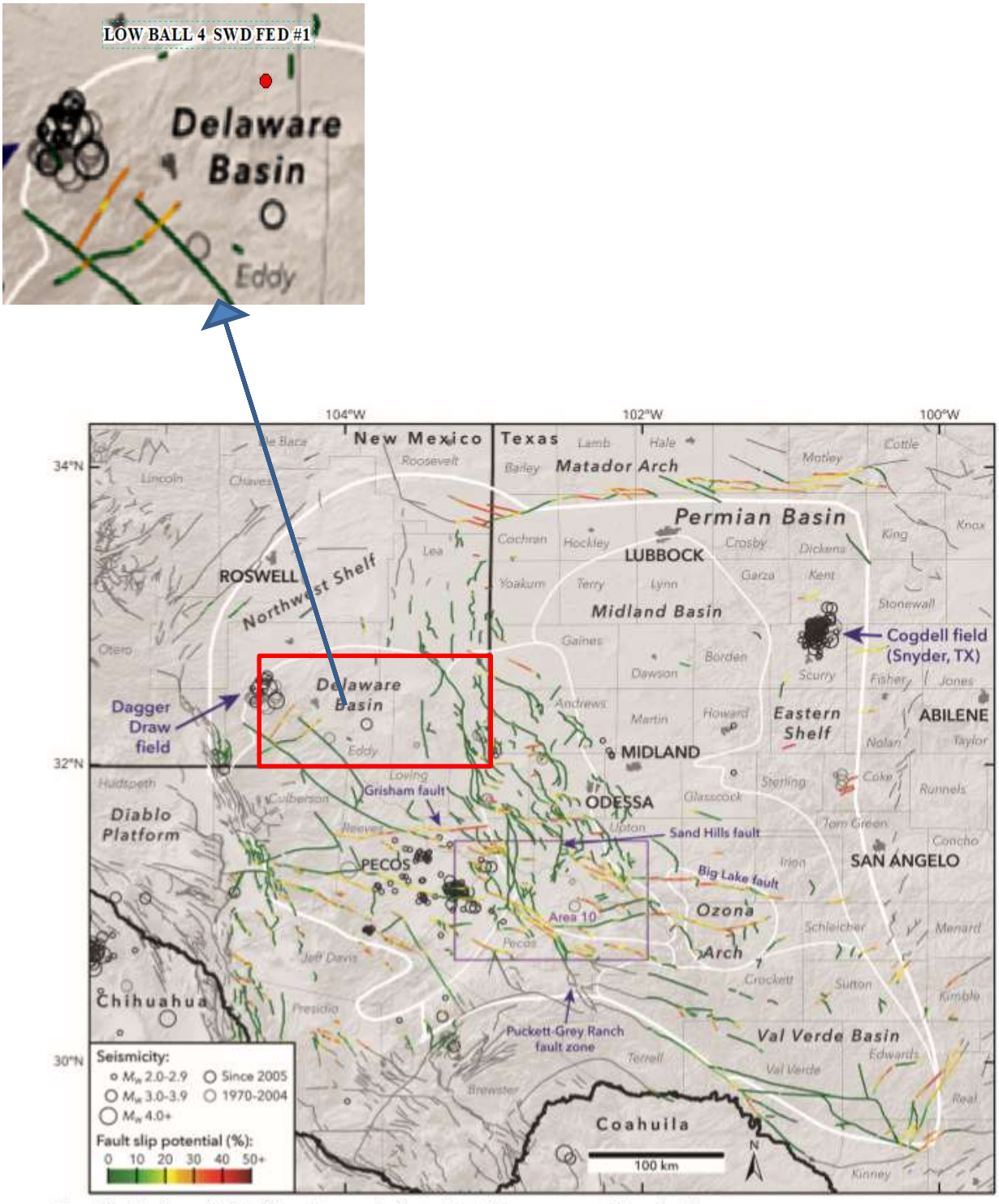


Figure 3. Results of our probabilistic FSP analysis across the Permian Basin. Data sources are as in Figures 1 and 2.

References

Ewing, T.E., R.T. Budnik, J.T. Ames, and D.M. Ridner, 1990, Tectonic Map of Texas: Bureau of Economic Geology, University of Texas at Austin.

Green, G.N., and G.E. Jones, 1997, The digital geologic map of New Mexico in ARC/INFO format: U.S. Geological Survey Open-File Report.

Jens-Erik Lund Snee and Mark D. Zoback, 2018, State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity: The Leading Edge, February 2018.

Ruppel, S.C., R.H. Jones, C.L. Breton, and J.A. Kane, 2005 Preparation of maps depicting geothermal gradient and Precambrian structure in the Permian Basin: Bureau of Economic Geology, Jackson School of Geosciences, The University of Texas at Austin, Austin, TX.

Carlsbad Current Argus.
PART OF THE USA TODAY NETWORK

Affidavit of Publication

Ad # 0004826323

This is not an invoice

MEWBOURNE OIL COMPAN Y
3901 S BROADWAY AVE

TYLER, TX 75701

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

07/17/2021

Amy Kohott
Legal Clerk

Subscribed and sworn before me this July 17, 2021:

Kathleen Allen
State of WI, County of Brown
NOTARY PUBLIC

1-7-25
My commission expires

KATHLEEN ALLEN
Notary Public
State of Wisconsin

NOTICE

Mewbourne Oil Company has filed a form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval to drill and complete the Low Ball 4 Fed SWD #1 as a salt water disposal well.

The Low Ball 4 Fed SWD #1 is located 830' FSL and 200' FEL, Unit Letter P, Section 4, Township 26 South, Range 30 East, NMPM, Eddy County, New Mexico. The well will dispose of water produced from nearby operated oil and gas wells into the Devonian formation into an open-hole interval from a depth of 16,350 feet to 17,500 feet. Expected maximum injection rates are 40,000 BWPD at a maximum injection pressure of 3,270 psi.

Interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, within 15 days. The name and address of the contact party for the applicant is Zane Anderson, Mewbourne Oil Company, 4801 Business Park Blvd, Hobbs, New Mexico 88240, (575)-393-5905. The well is located approximately 30 miles Southeast of Carlsbad, New Mexico.

#4826323, Current Argus, July 17, 2021

Ad # 0004826323
PO #:
# of Affidavits 1

This is not an invoice

MEWBOURNE OIL COMPANY
Low Ball 4 Fed SWD #1

PLUGGING RISK ASSESSMENT

5 ½" Flush Joint Injection Tubing Inside of 7 ⅝" Casing

Specs

5 ½" 17# P110 Flush Joint Tubing	OD (in)	ID (in)	Drift (in)	LINED ID (in)	FLARE DRIFT (in)
Coupling	N/A	N/A	N/A	N/A	N/A
Body	5.500	4.892	4.767	4.520	4.275
7 ⅝" 39# P110 Casing	**OD (in)**	**ID (in)**	**Drift (in)**	**Wall Thickness (in)**	**5 ½" Flush Jt. Clearance (in)**
	7.625	6.625	6.500	0.500	0.562

*All fishing procedures are subject to well conditions. Determinations are made onsite on a case by case scenario.

Overshot Fishing Procedure

A 6.625" O.D. Bowen Series 150 overshot (Assembly 8625) with a spiral grapple will be utilized to perform this overshot operation. *NOTE: (The 6.625" O.D. will be turned down to 6.500" O.D. prior to commencing operation). Details on the overshot are noted below.

Series 150 Overshots

Tools are listed in order of maximum catch size.

The following table shows only a partial listing of available NOV Dowhole Bowen® overshots.

NOTE: Nitralloy Grapples are available upon request.

Bowen Series 150 Releasing and Circulation Overshots
Maximum Catch Size 4¾" to 5½" Inclusive

Maximum Catch Size (Spiral)		4¾	4⅝	4¾	4¾	5	5	5½
Maximum Catch Size (Basket)		3⅞	4⅛	4¼	4¼	4¼	4¼	4⅞
Overshot O.D.		5⅝	5⅝	5⅝	5¾	5⅞	6⅝	6⅝
Type		F.S.	S.H.	S.H.	S.F.S.	S.H.	F.S.	S.H.
Complete Assembly	Part No.	5896	5698	C-5168	8975	C-5171	C-4825	8625
(Dressed Spiral Parts)	Weight	130	130	133	138	140	192	165
Replacement Parts								
Top Sub	Part No.	5897	5699	A-5169	8976	A-5172	B-4826	8626
Bowl	Part No.	5898	5700	B-5170	8977	B-5173	B-4827	8617
Packer	Part No.	169	1140	B-2199	6114	L-5950	L-4505	8618
Spiral Grapple	Part No.	165	1135	B-2201	6112	B-4389	M-1071	8619
Spiral Grapple Control	Part No.	186	1137	B-2202	6113	B-4370	M-1072	8620
Standard Guide	Part No.	187	1143	B-2203	6121	B-4371	L-1074	8621
Basket Parts								
Basket Grapple	Part No.	165	1135	B-2201	6112	B-4389	M-1071	8619
Basket Grapple Control	Part No.	186	1137	B-2202	6113	B-4370	M-1072	8620
Mill Control Packer	Part No.	169-R	1140-R	B-2199-R	6114-R	L-5950-R	M-4505	L-8618-R

In the Event of a Connection Break

1. If dressing is needed, trip in hole with a mill and mill connection to allow for (above listed) turned-down overshot to be latched onto the body of the tubing. If no milling is required, trip in hole with (above listed) turned-down overshot and latch onto fish.
2. Once latched onto fish, pick up string weight and straight pull to release Model R packer.
3. Once packer is released, trip out of hole with fish.

In the Event of a Body Break

1. If dressing is needed, trip in hole with a mill and mill tubing to allow for (above listed) turned-down overshot to be latched onto the body of the tubing. If no milling is required, trip in hole with (above listed) turned-down overshot and latch onto fish.
2. Once latched onto fish, pick up string weight and straight pull to release Model R packer.
3. Once packer is released, trip out of hole with fish.

*NOTE: (Wash pipe with a mill may be substituted for dressing off a break instead of a standard mill to ensure pipe stabilization and to ensure that the casing is not damaged due to milling.)

In the Event a Mill Cannot be Used

If an inadequate fishing neck is looking up and a mill cannot be used to dress the fish, a cutting tool may be utilized to cut off the damaged portion of tubing and a spear used to retrieve the cut-off piece. Once the cut-off piece is retrieved, the (above listed) turned-down overshot may be utilized to retrieve the fish and release the packer.

Spear Fishing Procedure

In the event the (above listed) turned-down overshot cannot be used or the fishing neck is inadequate, a spear may be used to spear into the fish. In the case of insert lined pipe, a smaller spear will be utilized to go inside the insert liner and pull out the lining. Once the lining has been removed, trip out of hole with insert liner. Pick up the proper sized spear for the pipe ID. Trip in hole with tubing spear, spear the fish, pick up string weight and straight pull to release the packer. Trip out of hole with fish and packer assembly.

7” Flush Joint Injection Tubing Inside of 9 ⅝” Casing

Specs

7” 26# HCP110 Flush Joint Tubing	OD (in)	ID (in)	Drift (in)	LINED ID (in)	FLARE DRIFT (in)
Coupling	N/A	N/A	N/A	N/A	N/A
Body	7.000	6.276	6.151	6.080	5.815
9 ⅝” 43.5# HCL80 Casing	**OD (in)**	**ID (in)**	**Drift (in)**	**Wall Thickness (in)**	**7” Flush Jt. Clearance (in)**
	9.625	8.755	8.599	0.435	0.877

*All fishing procedures are subject to well conditions. Determinations are made onsite on a case by case scenario.

Overshot Fishing Procedure

A Bowen Series 150 overshot (Assembly 9217) with a spiral grapple will be utilized to perform this overshot operation. Details on the overshot are noted below.

Bowen Series 150 Releasing and Circulation Overshots

Maximum Catch Size 6⅝" to 7¼" Inclusive

Maximum Catch Size (Spiral)		6⅝	6¾	7	7¼
Maximum Catch Size (Basket)		5⅞	6⅛	6⅜	6⅝
Overshot O.D.		8¼	7⅞	8⅛	8⅜
Type		F.S.	S.H.	S.H.	S.H.
Complete Assembly	Part No.	C-3032	C-5222	9217	C-5354
(Dressed Spiral Parts)	Weight	280	243	251	260
Replacement Parts					
Top Sub	Part No.	A-3033	A-5223	9218	A-5355
Bowl	Part No.	B-3034	B-5224	9219	B-5356
Packer	Part No.	A-1814	B-5225	9224	B-5357
Spiral Grapple	Part No.	N-84	B-5227	9222	B-5359
Spiral Grapple Control	Part No.	M-89	A-5228	9223	B-5360
Standard Guide	Part No.	A-1818	A-5229	9226	A-5361
Basket Parts					
Basket Grapple	Part No.	N-84	B-5227	9222	B-5359
Basket Grapple Control	Part No.	M-89	A-5228	9223	B-5360
Mill Control Packer	Part No.	A-1814-R	B-5225-R	9224-R	B-5357-R

In the Event of a Connection Break

1. If dressing is needed, trip in hole with a mill and mill connection to allow for (above listed) overshot to be latched onto the body of the tubing. If no milling is required, trip in hole with (above listed) overshot and latch onto fish.
2. Once latched onto fish, pick up string weight and straight pull to release Model R packer.
3. Once packer is released, trip out of hole with fish.

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Abandonment Procedure in-the-Event that Injection Tubing Cannot be Fished

The operator will need to ensure that geological formations are properly isolated to prevent future fluid communication. The operator will first insure that the injection tubing I.D. is open and clear. Once injection tubing I.D. is confirmed to be open and clear, run in hole with a wireline set profile plug and set plug inside of the packer assembly. This plug would allow for cement to fill both the I.D. of the injection tubing and the tubing-to-casing annulus to provide isolation between the different geological formations. Next, run in hole with wireline conveyed perforating guns and shoot perforations at the deepest depth that the injection tubing is still in the wellbore. Trip in hole with a workstring and latch onto the injection tubing with an overshot, spear, cement retainer or any other tool that would ensure a work string-to-injection tubing seal and allow the operator to pump cement down the remaining injection tubing. Rig up cement truck and cement the annulus between the injection tubing and casing to surface.

III. WELL DATA

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

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

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

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

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

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

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

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

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

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

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

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

XIV. PROOF OF NOTICE

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

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

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

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

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

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

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

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

INJECTION WELL DATA SHEET

OPERATOR: **Mewbourne Oil Company**

WELL NAME & NUMBER: **Low Ball 4 Fed SWD #1**

WELL LOCATION:	**830' FSL & 200' FEL**	**P**	**4**	**26S**	**30E**
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC *(See Attached)*

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: **26"**

Casing Size: **20" (94 & 106.5 #) @ 1,325'**

Cement with: **1950 sx (100% excess)**

Top of Cement: **Surface**

Intermediate Casing

Hole Size: **17 1/2"**

Casing Size: **13 3/8" (54.5 & 61#) @ 3,600'**

Stage 1: **1800 sx (25% excess)**

Top of Cement: **Surface (Calculated)**

Production Casing

Hole Size: **12 1/4"**

Casing Size: **9 5/8" (40#) @ 10,775'**

Stage 1: **1265 sx**

Top of Cement: **Surface (Calculated)**

Stage 2: **1115 sx**

DV Tool @4,900'

Top of Cement: **Surface (Calculated)**

Production Liner

Hole Size: **8 1/2"**

Casing Size: 7 5/8**" (39#)**
Top @ 10,575'
Bottom @ 16,350'

Cement with: **320 sx (25% excess)**

Top of Cement: **10,575'**
(Proposed: circulated to liner top)

TD @ 17,500'

Permitted Injection Interval 16,350'-17,500'

Side 2

INJECTION WELL DATA SHEET

Tubing Size: **7”** x **5 ½”** Lining Material: **Duoline**
7”, P110 UFJ GB to approximately 10,450’
5 1/2”, P110 UFJ GB to 16,270’

Type of Packer: **3 ½” x 7 5/8” Model R Packer (Inconel)**

Packer Setting Depth: **+/- 16,270’**

Other Type of Tubing/Casing Seal (if applicable): **N/A**

Additional Data

1. Is this a new well drilled for injection? **Yes**

   If no, for what purpose was the well originally drilled? **NA**

2. Name of the Injection Formation: **Devonian - Open Hole Completion**

3. Name of Field or Pool (if applicable): **96101 SWD; Devonian**

4. Has the well ever been perforated in any other zone(s)? **No.**

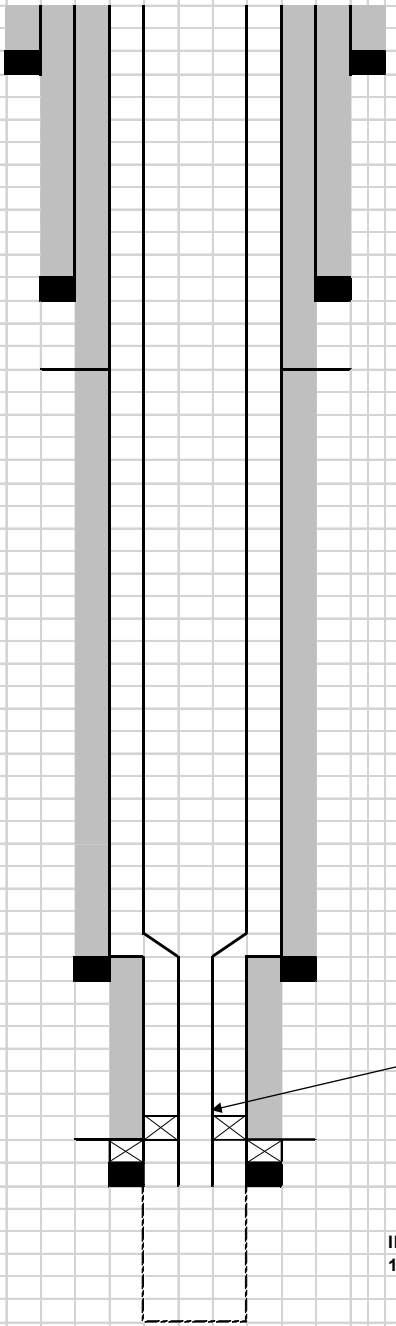
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   Overlying potentially productive zone tops – **Delaware (3,675’), Bone Spring (7,500’), Wolfcamp (10,750’), & Morrow (13,900’)**

   Underlying producing zone – **N/A**

Mewbourne Oil Company

Well Name: Low Ball 4 Fed SWD #1
Spud: 2021



20" 94 & 106.5# J-55 BTC
Set @ 1,325'
Cmt w / 1950 sx

13 3/8" 54.5 & 61# J55 & HCL80 STC
Set @ 3,600'
Cmt w / 1800 sx

ECP/DV Tool @ 4900'
Cmt 2nd stg w / 1115 sx

9 5/8" 40# HCL80 LTC
Set @ 10,775'
Cmt 1st stg w / 1265 sx

Injection String
7" P110 UFJ GB & 5 1/2" P110 UFJ GB
Nickel-Plated Pkr Set @ 16,270'

DV Tool @ 16,280'
External Csg Pkr Set @ 16,320'

7 5/8" 39# P-110 UFJ Liner
Set from 10,575'-16,350'
Cmt w / 320 sx

INJECTION ZONE: DEVONIAN
16350' 17500'

6 1/8" Open Hole
TD @ 17,500'

LOW BALL 4 FED SWD #1
Additional Details

VI. There are no wells penetrating the disposal formation within the area of review.

VII. 1. Proposed average rate of 20,000 bwpd and maximum rate of 40,000 bwpd.

2. Non-commercial SWD (closed system).

3. Proposed average injection pressure is unknown and the maximum injection pressure is approximately 3,270 psi (0.2 psi/ft x 16,350 ft).

4. This well is being permitted as a private SWD, therefore all the injected fluid will be formation water from Mewbourne Oil Company operated wells currently producing or planned in the area. Representative water samples from the Wolfcamp and Bone Spring formations are attached.

5. We will be injecting into the Devonian formation. Devonian formation water is known to be compatible with the formation water of the Bone Spring and Wolfcamp. No Devonian water analysis are available within the immediate area. The following data is the closest produced water analysis that is available on the USGS

IDUSGS	IDORIG	IDDB	SOURCE	LATITUDE	LONGITUDE	API	COUNTY	FIELD	WELLNAME	TOWNRANGE
35292	30000310	USGSBREIT	Pan American Petroleum Corporation	32.183	-103.7766	30015108590000	Eddy	Poker Lake South	Poker Lake Unit #36	S 24 E 31 28

DATESAMPLE	METHOD	FORMATION	DEPTHUPPER	DEPTHLOWER	SG	SPGRAV	RESIS	RESIST	PH	TDSUSGS	TDS
1967-04-06	Separator	Devonian	16578	16660	1.086	1.086	0.067	77	6.6	120326	120326

VIII. 1. The proposed injection interval is within the Devonian formation which is a porous dolomitic limestone from 16,350' to 17,500'. It is estimated that the base of the injection interval should be approximately 1,030' above the top of the Ellenburger.

Other Projected Formation Tops:

Mississippian	15,915'
Woodford	16,200'
Devonian	16,330'
EST TOTAL DEPTH	**17,500'**
Montoya	17,530'
Simpson	17,930'
Ellenburger	18,530'

2. The underground fresh water aquifers (unnamed) are present at shallow depths (per revue of well records, within 2 miles of the proposed SWD, on the NM Office of the State Engineers website) with the deepest water being encountered at a depth of 320', the shallowest water at a depth of 173' and the average water depth at 220'. There are no known fresh water intervals underlying the injecting formation.

IX. The proposed stimulation is an open-hole acid treatment of 30,000 gallons of 15% HCL.

X. A gamma-ray / neutron log will be run from TD to surface upon the drilling and completion of proposed well.

XI. There were 9 wells on record with the NM State Engineers Office within 2 miles of the proposed SWD. Many of these wells could not be located or were inaccessible. A fresh water sample taken from a well located in Section 4, Twp 26S, Rge 30E, and the analysis is attached.

XII. Mewbourne Oil Company has examined geologic and engineering data and has found that there is no evidence of faulting between the proposed disposal zone and any underground sources of drinking water. A signed affidavit is attached.

XIII. See attached Proof of Notice

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name

4 Property Code	5 Property Name	6 Well Number
	LOW BALL 4 FED SWD	1

7 OGRID NO.	8 Operator Name	9 Elevation
	MEWBOURNE OIL COMPANY	3158'

10 Surface Location

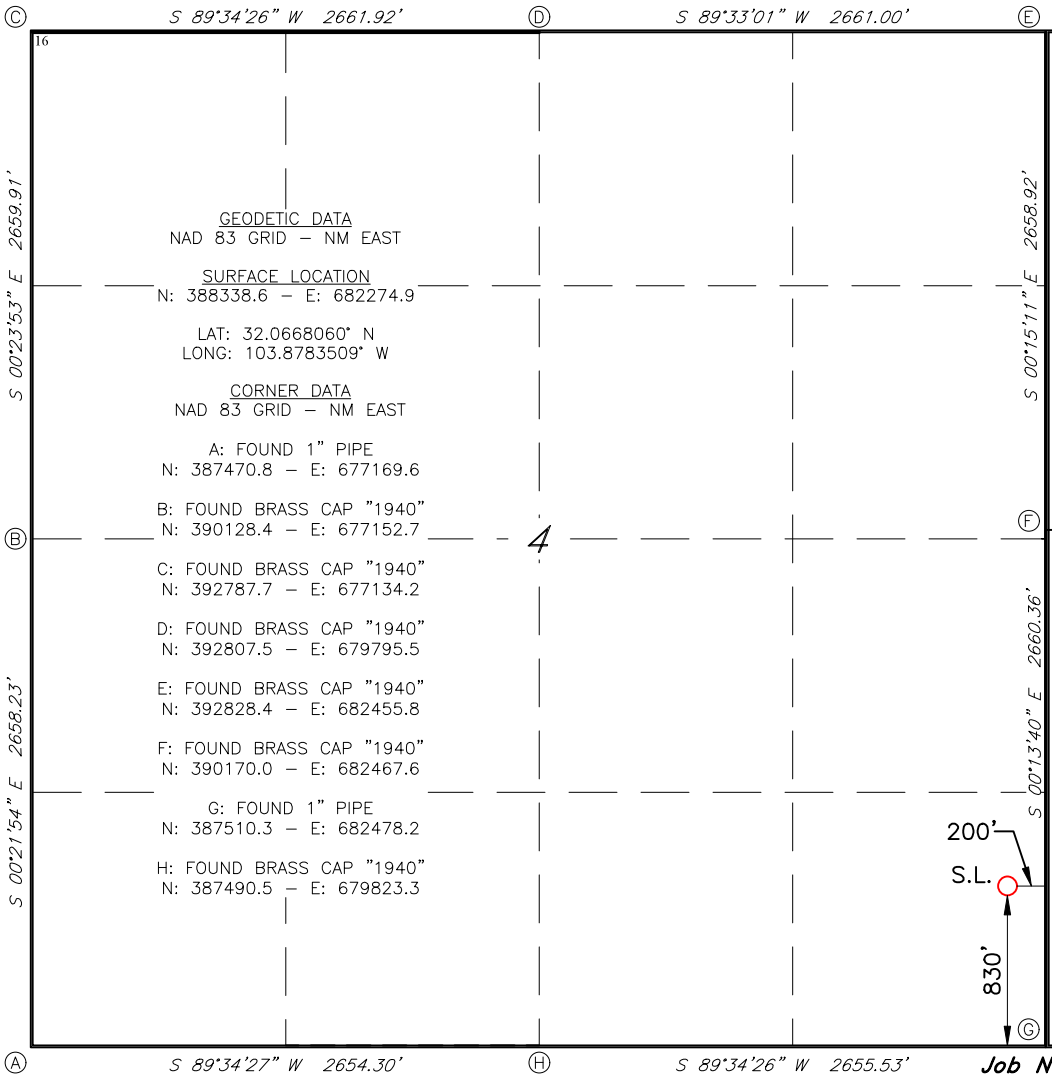
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
P	4	26S	30E		830	SOUTH	200	EAST	EDDY

11 Bottom Hole Location If Different From Surface

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

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

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



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Date

Printed Name

E-mail Address

18 SURVEYOR CERTIFICATION

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

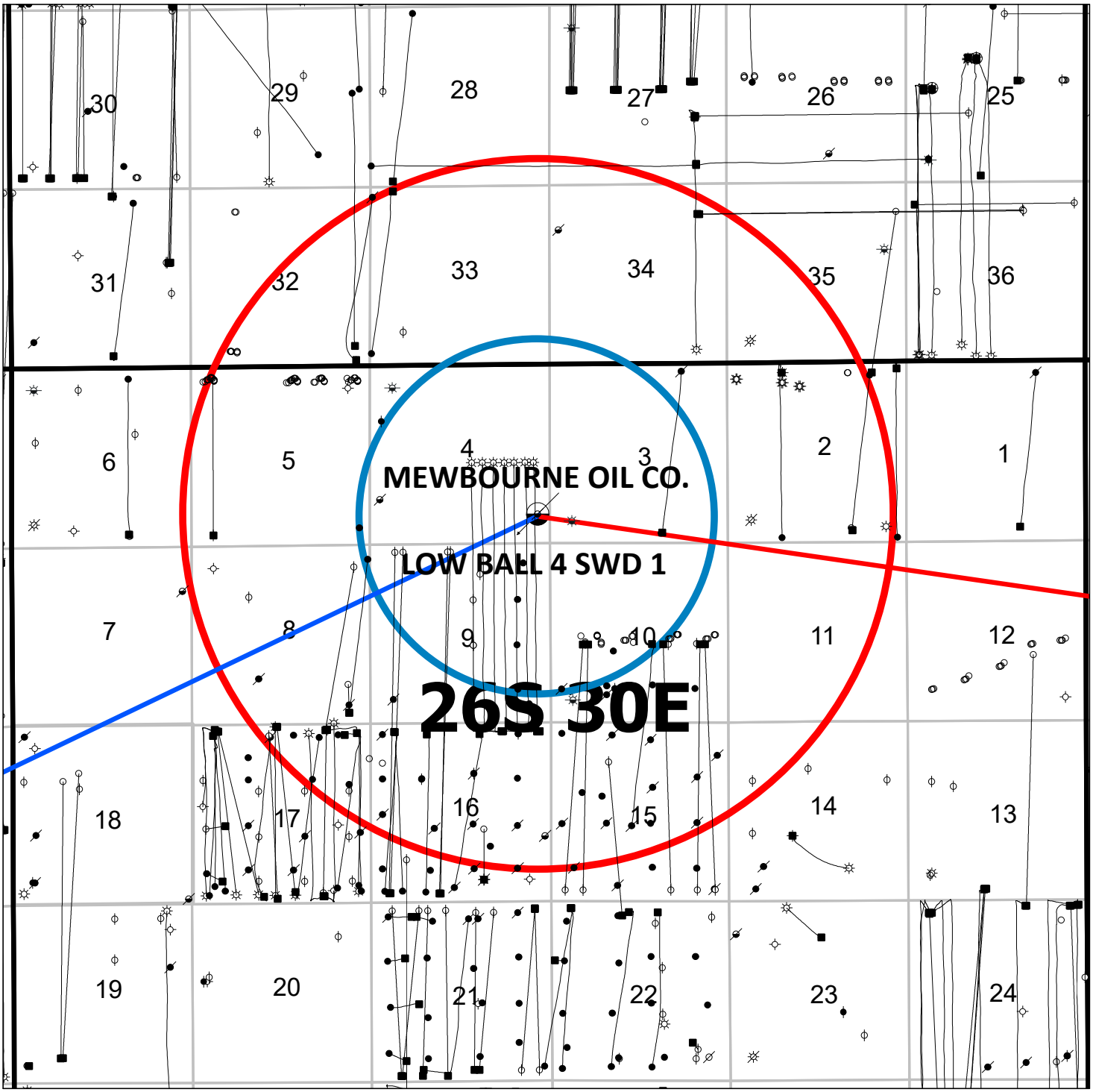
06-07-2021
Date of Survey

Signature and Seal of Professional Surveyor

ROBERT M. HOWETT
NEW MEXICO
19680
PROFESSIONAL SURVEYOR

19680
Certificate Number

Job No.: LS21060599



1 MILE AREA OF REVIEW

2 MILE AREA OF REVIEW

Mewbourne Oil Company

LOW BALL 4 SWD #1

450 FSL & 100 FEL SECTION 4 26S 30E

EDDY CO., NEW MEXICO

Author:		Date:
jd		23 June, 2021

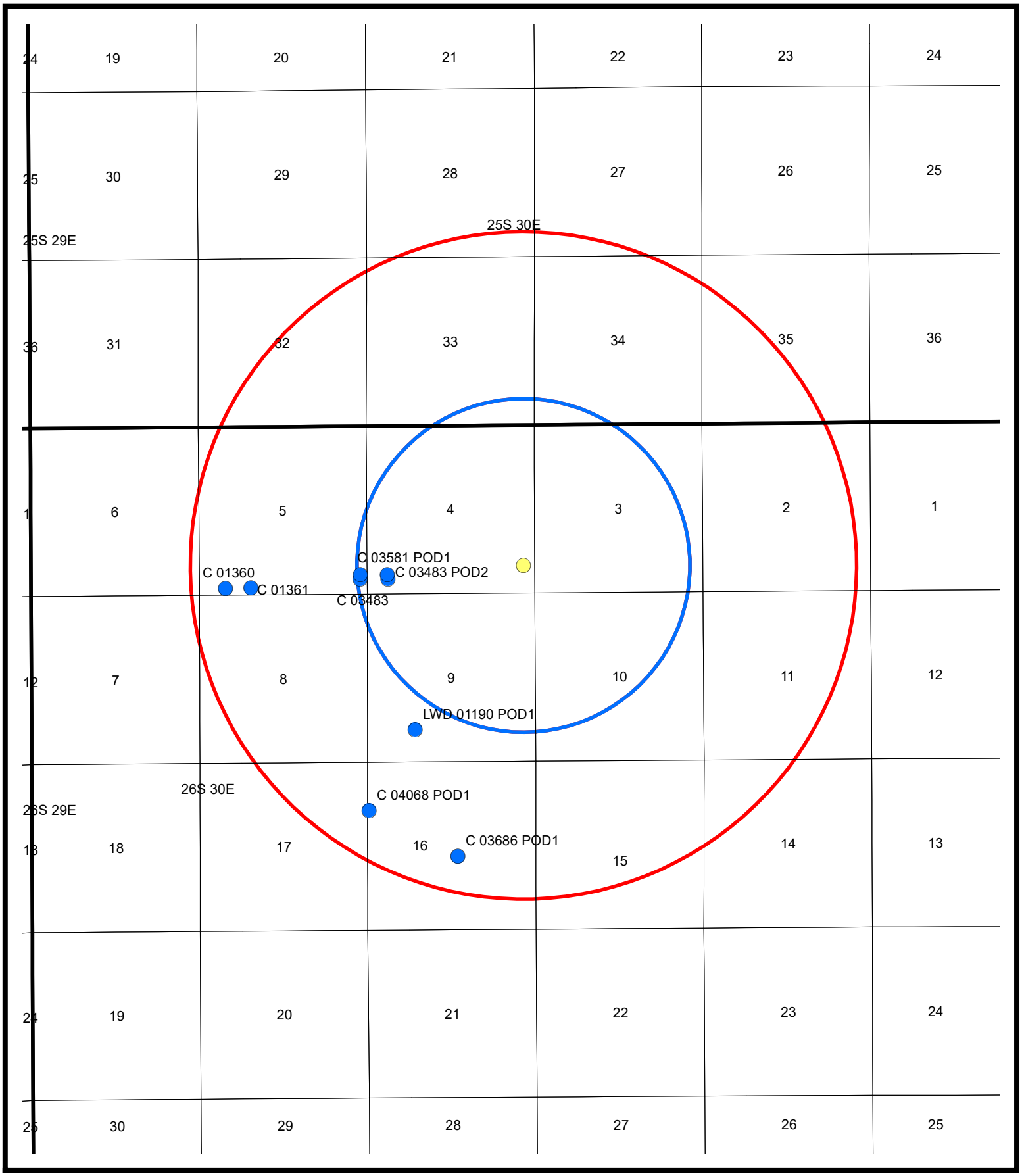
Mewboure Oil Company
Low Ball 4 Fed SWD #1 C-108 Application

1 MILE AOR WELLS

ESTIMATED TOP OF DEVONIAN = 16,330'

Regulatory API	Lease Name	Well Num	Operator Name	Current Operator	Location	Footage	Field Name	State	County Name	Play Name	Final Status	Last Activity Date	Driller Td	Form at TD Name	Formation Producing N	Proj Depth	Proj Form	Permit License I	Spud Date	Comp Date	Final Drill Date	Latitude	Longitude
3001536210	RDX 10	1	RKI EXPLORATION & PRODUCTION LLC	WPX ENERGY PERMIAN LLC	26S 30E 10 NW SW SW	990 FSL 330 FWL CONGRESS SECTION	BRUSHY DRAW	NM	EDDY	DELAWARE	OIL PRODUCER	2021-06-07	7560	BONE SPRING	BRUSHY CANYON	7576	DELAWARE	2008-03-07	2008-06-16	2008-09-25	2008-07-02	32.05250892	-103.8761132
3001536211	RDX 9	1	RKI EXPLORATION & PRODUCTION LLC	WPX ENERGY PERMIAN LLC	26S 30E 9 NW SE SE	990 FSL 990 FEL CONGRESS SECTION	BRUSHY DRAW EAST	NM	EDDY	DELAWARE	OIL PRODUCER	2021-05-20	7550	BONE SPRING	DELAWARE	8370	DELAWARE	2008-03-07	2008-04-18	2008-06-28	2008-05-10	32.05249631	-103.8803011
3001539932	PLU PHANTOM BANKS 3-26-30 USA	1H	CHESAPEAKE OPERATING INC	XTO PERMIAN OPERATING LLC	26S 30E 3 SW SE	300 FSL 1980 FEL CONGRESS SECTION	UNNAMED	NM	EDDY	BONE SPRING	OIL PRODUCER	2021-06-03	12963	BONE SPRING	BONE SPRING	13066	BONE SPRING	2012-02-01	2012-03-25	2012-05-12	2012-04-13	32.06525467	-103.8663962
3001540178	RDX `9` FEDERAL	2	RKI EXPLORATION & PRODUCTION LLC	WPX ENERGY PERMIAN LLC	26S 30E 9 NE SE	2310 FSL 990 FEL CONGRESS SECTION	BRUSHY DRAW	NM	EDDY	DELAWARE	OIL PRODUCER	2021-05-20	7550	BONE SPRING	DELAWARE	7550	DELAWARE	2012-04-10	2012-10-21	2012-12-30	2012-11-02	32.05612885	-103.8803817
3001540878	RDX FEDERAL 10	4	RKI EXPLORATION & PRODUCTION LLC	WPX ENERGY PERMIAN LLC	26S 30E 10 NE SW	2110 FSL 1850 FWL CONGRESS SECTION	BRUSHY DRAW EAST	NM	EDDY	DELAWARE	OIL PRODUCER	2021-05-20	7626	BRUSHY CANYON	DELAWARE	7500	DELAWARE	2012-12-05	2013-06-15	2013-09-23	2013-06-27	32.05557851	-103.8711351
3001541087	RDX FEDERAL COM 10	005H	RKI EXPLORATION & PRODUCTION LLC	WPX ENERGY PERMIAN LLC	26S 30E 10 NW SE	2310 FSL 2310 FEL CONGRESS SECTION	CORRAL CANYON	NM	EDDY	BONE SPRING	ABD-OW	2021-06-11	13347	BONE SPRING	BONE SPRING	15002	BONE SPRING	2013-02-05	2013-03-15	2013-05-19	2013-04-06	32.05615731	-103.8674329
3001541257	RDX FEDERAL 9	6	RKI EXPLORATION & PRODUCTION LLC	WPX ENERGY PERMIAN LLC	26S 30E 9 NE NE	580 FNL 790 FEL CONGRESS SECTION	BRUSHY DRAW EAST	NM	EDDY	DELAWARE	OIL PRODUCER	2021-05-20	7645	BONE SPRING	DELAWARE	7550	DELAWARE	2013-04-05	2015-05-15	2015-06-30	2015-05-23	32.06280024	-103.8797491
3001541630	RDX FEDERAL 9	5	RKI EXPLORATION & PRODUCTION LLC	WPX ENERGY PERMIAN LLC	26S 30E 9	1650 FNL 990 FEL CONGRESS SECTION	BRUSHY DRAW EAST	NM	EDDY	DELAWARE	OIL PRODUCER	2021-05-20	7655	DELAWARE	DELAWARE	7550	DELAWARE	2013-08-22	2015-02-10	2015-03-28	2015-02-19	32.05982073	-103.8803014
3001547653	ROSEMARY 10 FED COM	727H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 SW	2420 FSL 2260 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-11-17				18644	WOLFCAMP	2020-09-25				32.056453	-103.869912
3001547654	ROSEMARY 10 FED COM	729H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 SW	2420 FSL 2194 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-11-17				18565	WOLFCAMP	2020-09-25				32.056453	-103.870125
3001547655	ROSEMARY 10 FED COM	731H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NE SW	2344 FSL 1522 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-11-17				18551	WOLFCAMP	2020-09-25				32.05624023	-103.8722721
3001547656	ROSEMARY 10 FED COM	733H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NW SW	2312 FSL 1042 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-11-17				18539	WOLFCAMP	2020-09-25				32.05614881	-103.8738216
3001547657	ROSEMARY 10 FED COM	735H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NW SW	2378 FSL 1042 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-11-17				18583	WOLFCAMP	2020-09-25				32.05633028	-103.8738219
3001547658	ROSEMARY 10 FED COM	710H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 SW	2377 FSL 1522 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-11-17				18338	WOLFCAMP	2020-09-25				32.056329	-103.872292
3001547659	ROSEMARY 10 FED COM	708H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 SW	2420 FSL 2227 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-11-17				18357	WOLFCAMP	2020-09-25				32.056453	-103.870019
3001547678	ROSEMARY 10 FED COM	712H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 SW	2311 FSL 1522 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-12-11				18313	WOLFCAMP	2020-09-25				32.056148	-103.872292
3001547681	ROSEMARY 10 FED COM	706H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 SE	2460 FSL 1810 FEL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-12-11				18369	WOLFCAMP	2020-09-25				32.056572	-103.865822
3001547703	ROSEMARY 10 FED COM	714H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NW SW	2345 FSL 1042 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-11-25				18307	WOLFCAMP	2020-09-25				32.05623954	-103.8738217
3001548340	ROSEMARY 10 FED COM	766H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NE SW	2542 FSL 1403 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2021-06-03				19222	WOLFCAMP	2021-05-10				32.056782	-103.87268
3001548341	ROSEMARY 10 FED COM	767H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NW SW	2558 FSL 923 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2021-06-03				19217	WOLFCAMP	2021-05-10				32.056822	-103.87423
3001548342	ROSEMARY 10 FED COM	765H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NE SW	2587 FSL 1403 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2021-06-03				19269	WOLFCAMP	2021-05-10				32.056906	-103.87268
3001548343	ROSEMARY 10 FED COM	804H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NE SW	2572 FSL 1403 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2021-06-03				19740	WOLFCAMP	2021-05-10				32.056865	-103.87268
3001548344	ROSEMARY 10 FED COM	803H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NE SW	2539 FSL 2440 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2021-06-03				19768	WOLFCAMP	2021-05-10				32.056784	-103.869332
3001548358	ROSEMARY 10 FED COM	776H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NE SW	2557 FSL 1403 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2021-06-03				19511	WOLFCAMP	2021-05-10				32.05682501	-103.8726574
3001548359	ROSEMARY 10 FED COM	774H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NE SW	2359 FSL 2470 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2021-06-03				19570	WOLFCAMP	2021-05-10				32.0562882	-103.8692116
3001548362	ROSEMARY 10 FED COM	764H	EOG RESOURCES INC	EOG RESOURCES INC	26S 30E 10 NE SW	2539 FSL 2455 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2021-06-03				19257	WOLFCAMP	2021-05-10				32.05678299	-103.869261

THERE AR NO WELLS WITHIN THE 1 MILE RADIUS AREA OF REVIEW (AOR) THAT PENETRATE THE DEVONIAN FORMATION



WATER WELLS

LOW BALL 4 SWD

Mewbourne Oil Company

LOW BALL 4 SWD #1
830 FSL & 200 FEL SECTION 4 26S 30E
EDDY CO., NEW MEXICO

Author: sd		Date: 23 June, 2021

MEWBOURNE OIL COMPANY

LOW BALL 4 FED SWD #1 APPLICATION

LIST OF NEARBY WATER WELLS (2 MILE AOR)

POD Number	POD Subbasin	County	Source	q64	q16	q4	Sec	Twp	Rng	X	Y	Lat	Long	Start Date	Finish Date	Log File Date	Depth Well	Depth Water
C 03483 POD2	C	EDDY			SW	SW	4	26S	30E	604566	3548253	32.065689	-103.8922					
C 03483 POD3	C	EDDY		SE	SW	SW	4	26S	30E	604558	3548291	32.066027	-103.892281					
C 01360	CUB	EDDY	Shallow	SE	SW	SW	5	26S	30E	602997	3548152	32.064917	-103.908833	04/26/1952	05/15/1952	11/17/1953	770	173
C 01361	CUB	EDDY	Shallow	SW	SE	SW	5	26S	30E	603240	3548157	32.064944	-103.90625	05/16/1952	06/01/1952	11/17/1953	775	184
C 03483	C	EDDY	Shallow	SE	SE	SE	5	26S	30E	604296	3548251	32.065694	-103.895055	06/03/2011	06/08/2011	07/14/2011	700	200
C 03581 POD1	CUB	EDDY	Shallow	SE	SE	SE	5	26S	30E	604298	3548291	32.066059	-103.895031	11/01/2012	11/09/2012	11/13/2012	800	320
LWD 01190 POD1	CUB	EDDY		NW	SE	SW	9	26S	30E	604838	3546802	32.052571	-103.889475					
C 04068 POD1	CUB	EDDY		NW	SE	NW	16	26S	30E	604397	3546018	32.045541	-103.894231	05/11/2017	05/12/2017	05/17/2017		
C 03686 POD1	CUB	EDDY		NW	NW	SE	16	26S	30E	605257	3545585	32.041556	-103.885166					

Water Lens

Powered by: Water Lens™

Sample Information

Date of Sample Analysis:	2021/07/06	**Technician Name:**	vfuentes
Date Sample was Taken:	07/01/2021	**Sample Name:**	Low Ball 4 Fed SWD#1
Analysis Performed by:	EPD	**API Well Number:**	
Client:	Mewbourne Oil Company	**Well Name:**	Fresh Water
Reader Number:		**Test Number:**	C-03483-POD3
Water Lens Batch Number:	B41		

Metals

	Dilution Factor	mg/L	meq/L
Barium	1	**5**	**0**
Calcium	Calc	**499**	**24.9**
Iron II (Fe^{2+})	1	**Less than 0.03**	**Less than 0.0016**
Iron III (Fe^{3+})	Calc	**Less than 0.03**	**Less than 0.0016**
Total Dissolved Iron	1	**Less than 0.03**	**Less than 0.0016**
Magnesium	100	**59.40**	**4.88**
Sodium	Calc	**Greater than 530**	**Greater than 23**
Strontium	n/a	*Test Not Run*	-
Manganese	n/a	*Test Not Run*	-
Boron		*Test Not Run*	-
Potassium	10	**17**	**0.4**

Anions

	Dilution Factor	mg/L	meq/L
Chloride	1	**665**	**19**
Sulfate	10	**Greater than 1600**	**Greater than 33**
Nitrate	n/a	*Test Not Run*	-
Phosphate	10	**3.97**	**0.13**
Unfiltered Phosphate	n/a	*Test not run*	*Test not run*
Filtered Phosphate	n/a	*Test not run*	*Test not run*
Delta Phosphate		*Test Not Run*	-
Carbonate (as CO_3^{2-})	Calc	-	-
Bicarbonate (as HCO_3^-)	Calc	**Less than 22**	-
Acetates/Formates (as Acetate)	Calc	**58**	**1.0**
Hydroxide (as OH^-)	Calc	**0**	**0**
Sulfide (Total)	n/a	*Test not run*	**Test not run**

Other

	Dilution Factor		
Hydrogen Sulfide (H_2S)	Calc	**1.0**	mg/L
Turbidity	1	**9**	NTU's
Total Hardness	100.0	**1,494.00**	mg/L $CaCO_3$
Oxidation/Reduction Potential (ORP)		**70**	millivolts
Temperature		**77**	Fahrenheit
Stiff & Davis Scaling Index (S&DSI)		**-0.79**	
Langelier Scaling Index (LSI)		**-0.34**	
Larson-Skold Index		**290.51**	
Skillman Index		**1.251**	
Barite Saturation Index		**2.94**	
Gypsum Saturation Index		**0.53**	

	Dilution Factor		
ATP (picograms/mL)	Calc	*Test not run*	
Dissolved CO_2 (ppm)	Calc	**10**	
pH	n/a	**7.57**	
Total Alkalinity	1	**49**	mg/L $CaCO_3$
Total Dissolved Solids (TDS)	Calc	**3,430**	mg/L
Electrical Conductivity	Calc	**Greater than 5290**	uS/cm
Electrical Resistivity	Calc	**Less than 189.15**	Ohm*cm
Manganese/Iron Ratio		*Test Not Run*	
Specific Gravity		**1.0024**	

Comments

Water Lens

Powered by: Water Lens™

Sample Information

Date of Sample Analysis:	2021/06	**Technician Name:**	vfuentes
Date Sample was Taken:	07/01/2021	**Sample Name:**	Low Ball 4 Fed SWD#1
Analysis Performed by:	EPD	**API Well Number:**	
Client:	Mewbourne Oil Company	**Well Name:**	Produced Water
Reader Number:		**Test Number:**	Buffalo Trace 1/36 W1PA Fed Com #2H
Water Lens Batch Number:	B41		

Metals

	Dilution Factor	mg/L	meq/L
Barium	1	**8**	**0**
Calcium	Calc	**3660**	**182.6**
Iron II (Fe^{2+})	1	**Less than 0.03**	**Less than 0.0016**
Iron III (Fe^{3+})	Calc	**Less than 0.03**	**Less than 0.0016**
Total Dissolved Iron	1	**Less than 0.03**	**Less than 0.0016**
Magnesium	1,000	**571.00**	**47.00**
Sodium	Calc	**37000**	**1610**
Strontium	n/a	*Test Not Run*	-
Manganese	n/a	*Test Not Run*	-
Boron		*Test Not Run*	-
Potassium	100	**1,021**	**26.1**

Anions

	Dilution Factor	mg/L	meq/L
Chloride	100	**65,000**	**1,834**
Sulfate	10	**330**	**7**
Nitrate	n/a	*Test Not Run*	-
Phosphate	100	**54.88**	**1.73**
Unfiltered Phosphate	n/a	*Test not run*	*Test not run*
Filtered Phosphate	n/a	*Test not run*	*Test not run*
Delta Phosphate		*Test Not Run*	-
Carbonate (as CO_3^{2-})	Calc	-	-
Bicarbonate (as HCO_3^-)	Calc	**148**	**2.4**
Acetates/Formates (as Acetate)	Calc	**185**	**3.1**
Hydroxide (as OH^-)	Calc	**0**	**0**
Sulfide (Total)	n/a	*Test not run*	**Test not run**

Other

	Dilution Factor				Dilution Factor		
Hydrogen Sulfide (H_2S)	Calc	**0.5**	mg/L	**ATP (picograms/mL)**	Calc	*Test not run*	
Turbidity	1	**85**	NTU's	**Dissolved CO_2 (ppm)**	Calc	**170**	
Total Hardness	1,000.0	**11,500.00**	mg/L $CaCO_3$	**pH**	n/a	**6.52**	
Oxidation/Reduction Potential (ORP)		**89**	millivolts	**Total Alkalinity**	1	**278**	mg/L $CaCO_3$
Temperature		**77**	Fahrenheit				
Stiff & Davis Scaling Index (S&DSI)		**-0.84**					
Langelier Scaling Index (LSI)		**0.37**		**Total Dissolved Solids (TDS)**	Calc	**107,900**	mg/L
Larson-Skold Index		**925.10**		**Electrical Conductivity**	Calc	**144,100**	uS/cm
Skillman Index		**1.251**		**Electrical Resistivity**	Calc	**6.9**	Ohm*cm
Barite Saturation Index		**1.37**		**Manganese/Iron Ratio**		*Test Not Run*	
Gypsum Saturation Index		**-0.29**		**Specific Gravity**		**1.0750**	

Comments

MEWBOURNE OIL COMPANY

LOW BALL 4 FED SWD #1 PERMIT APPLICATION

TABULATION OF PRODUCED WATER ANALYSIS

Avalon Shale

Brushy Draw 1 Fed #1H

NOV 2 2011 **Water analysis from 11/01/11:** SG @ 1.165, Temp 70EF, pH 6.58, Na 74713, Ca 3600, Mg 480, Fe 10, CL 122000, SO_4 250, HCO_3 454 (all in Mg/L).

Second Bone Spring Formation

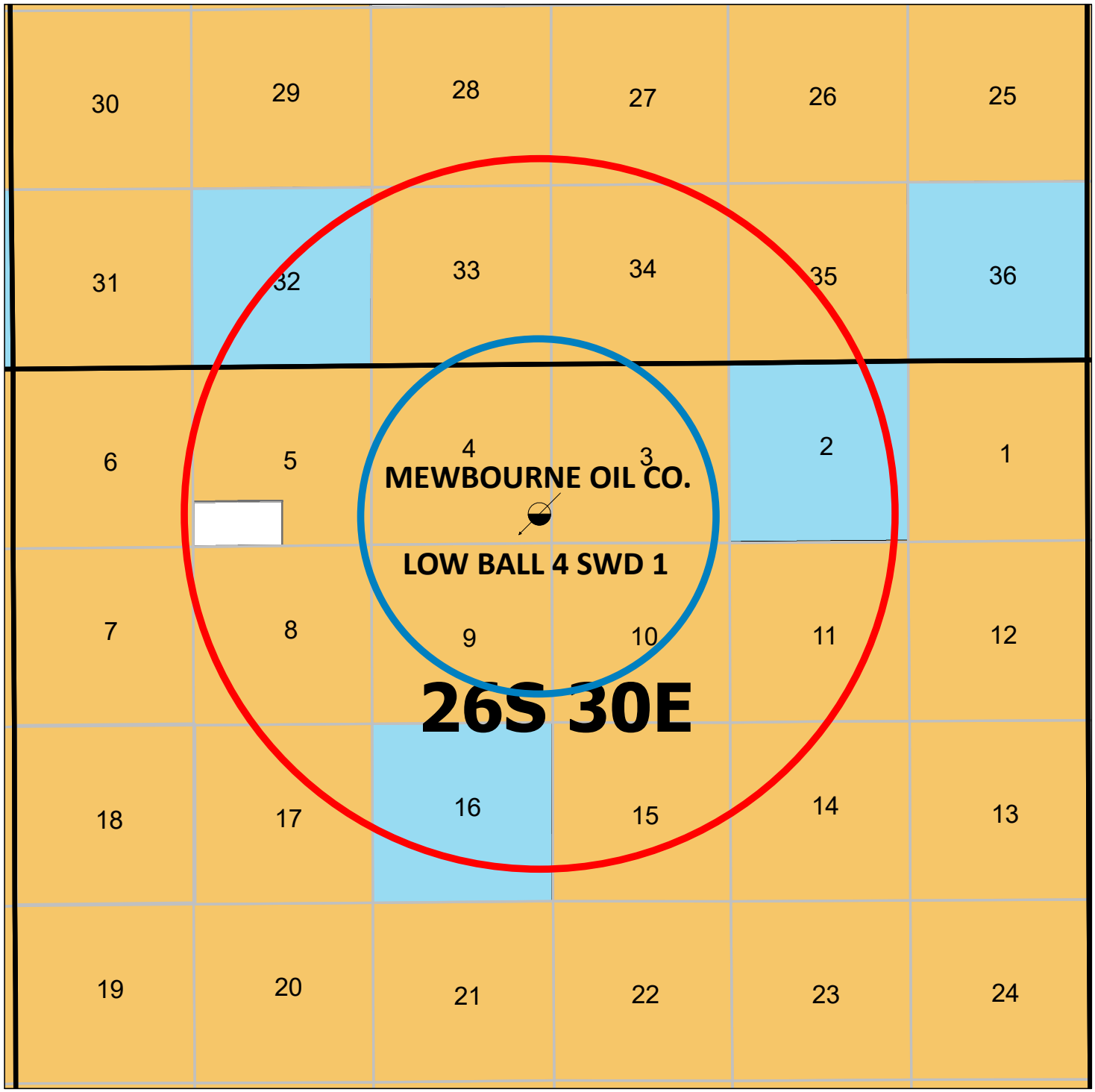
Zuma 3 B201AP – 42-301-32591

JUN 10 2016 **Water analysis from 04/22/16:** SG @ 1.063, Temp 60°, pH 6.30, Na 6900, Ca 8860, Mg 12037, Fe 14.0, CL 61700, SO4 25, HCO3 464 (all in Mg/L).

Wolfcamp Formation

Zuma 3 W201AP – 42-301-32200

JUN 10 2016 **Water analysis from 04/22/16:** SG @ 1.111, Temp 60°, pH 6.23, Na 31878, Ca 2146, Mg 18204, Fe 32.0, CL 106650, SO4 200, HCO3 244 (all in Mg/L)



FEDERAL LANDS

STATE LANDS

PUBLIC LANDS

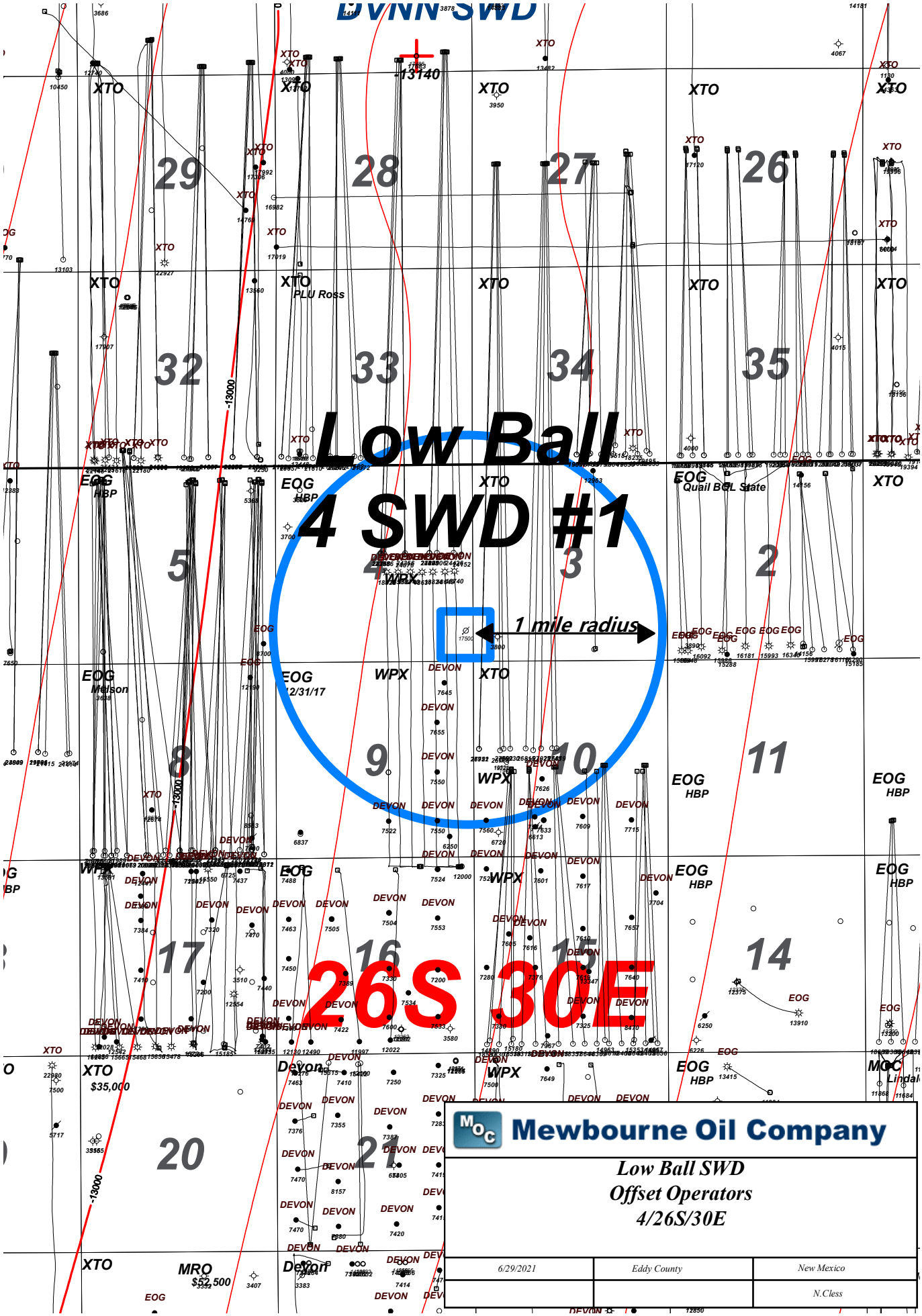
1 MILE AREA OF REVIEW

2 MILE AREA OF REVIEW

Mewbourne Oil Company

LOW BALL 4 SWD #1

EDDY CO., NEW MEXICO


Low Ball
4 SWD #1
1 mile radius
26S 30E
Mewbourne Oil Company
Low Ball SWD
Offset Operators
4/26S/30E
6/29/2021
Eddy County
New Mexico
N.Cless

Listing of Notified Persons

Low Ball 4 Fed SWD #1 Application
830' FSL, 200' FEL
Section 4, 26S, 30E, Eddy County, NM

Surface Owner

Surface:Bureau of Land Management
620 E. Greene St.
Carlsbad, NM 88220

Offsetting Operators Within 1 Mile AOR

Sec 33, T25S, R30E Units (All)

Operator: XTO Permian Operating LLC.
6401 Holiday Hill Rd
Midland, TX 79707

Operator: Chevron USA Inc.
6301 Deauville
Midland, TX 79706

Sec 34, T25S, R30E Units (All)

Operator: XTO Permian Operating LLC.
6401 Holiday Hill Rd
Midland, TX 79707

Operator: Chevron USA Inc.
6301 Deauville
Midland, TX 79706

Sec 3, T26S, R30E Units (All)

Operator: XTO Permian Operating LLC.
6401 Holiday Hill Rd
Midland, TX 79707

Operator: Chevron USA Inc.
6301 Deauville
Midland, TX 79706

Sec 4, T26S, R30E Units (All)

Operator: XTO Permian Operating LLC. .
6401 Holiday Hill Rd
Midland, TX 79707

Operator: WPX Energy Permian, LLC.
3500 One Williams CTR
Tulsa, OK 74172

Operator: EOG Resources, Inc
5509 Champions Drive
Midland, TX 79706

Operator: Novo Oil & Gas, LLC.
105 N Hudson Ave, STE 500
Oklahoma City, OK 73102

Sec 5, T26S, R30E Units (All)

Operator: EOG Resources, Inc
5509 Champions Drive
Midland, TX 79706

Operator: Novo Oil & Gas, LLC.
105 N Hudson Ave, STE 500
Oklahoma City, OK 73102

Sec 8, T26S, R30E Units (All)

Operator: XTO Holdings, LLC.
22777 Springwoods Village Pkwy
Spring, Tx 77389

Operator: Oxy Y-1 Company
5 Greenway Plaza Suite #110
Houston, TX 77046

Operator: EOG Resources, Inc.
5509 Champions Drive
Midland, TX 79706

Operator: Chevron USA Holdings, Inc.
11111 S Wilcrest
Houston, TX 77099

Sec 9, T26S, R30E Units (All)

Operator: EOG Resources, Inc
5509 Champions Drive
Midland, TX 79706

Operator: WPX Energy Permian, LLC.
3500 One Williams CTR
Tulsa, OK 74172

Sec 10, T26S, R30E Units (All)

Operator: XTO Permian Basin LLC.
6401 Holiday Hill Rd
Midland, TX 79707

Operator: Chevron USA Inc.
6301 Deauville
Midland, TX 79706

Operator: EOG Resources, Inc
5509 Champions Drive
Midland, TX 79706

Operator: WPX Energy Permian, LLC.
3500 One Williams CTR
Tulsa, OK 74172

Carlsbad Current Argus.
PART OF THE USA TODAY NETWORK

Affidavit of Publication

Ad # 0004826323

This is not an invoice

MEWBOURNE OIL COMPAN Y
3901 S BROADWAY AVE

TYLER, TX 75701

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

07/17/2021

Amy Kohott
Legal Clerk

Subscribed and sworn before me this July 17, 2021:

Kathleen Allen
State of WI, County of Brown
NOTARY PUBLIC

1-7-25
My commission expires

KATHLEEN ALLEN
Notary Public
State of Wisconsin

NOTICE

Mewbourne Oil Company has filed a form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval to drill and complete the Low Ball 4 Fed SWD #1 as a salt water disposal well.

The Low Ball 4 Fed SWD #1 is located 830' FSL and 200' FEL, Unit Letter P, Section 4, Township 26 South, Range 30 East, NMPM, Eddy County, New Mexico. The well will dispose of water produced from nearby operated oil and gas wells into the Devonian formation into an open-hole interval from a depth of 16,350 feet to 17,500 feet. Expected maximum injection rates are 40,000 BWPD at a maximum injection pressure of 3,270 psi.

Interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, within 15 days. The name and address of the contact party for the applicant is Zane Anderson, Mewbourne Oil Company, 4801 Business Park Blvd, Hobbs, New Mexico 88240, (575)-393-5905. The well is located approximately 30 miles Southeast of Carlsbad, New Mexico.

#4826323, Current Argus, July 17, 2021

Ad # 0004826323
PO #:
# of Affidavits 1

This is not an invoice

MEWBOURNE
OIL COMPANY

July 20, 2021

Engineering and Geological Services Bureau, Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505
Attn: Mr. Phillip Goetze

Re: Low Ball 4 Fed SWD #1
Sec 4, Twp 26S, Rge 30E
Eddy County, NM

Mr. Goetze,

In accordance with item XII on Mewbourne Oil Company's C-108 filed for the captioned salt water disposal well, Mewbourne Oil Company has examined geologic and engineering data and has found that there is no evidence of faulting or any other hydrologic connection between the proposed disposal zone and any underground sources of drinking water.

Should you have any questions, please email me at zanderson@mewbourne.com or call me at (575) 393-5905.

Sincerely,

MEWBOURNE OIL COMPANY

Zane Anderson
Engineer
zanderson@mewbourne.com

Mewbourne Oil Company
Low Ball 4 Fed SWD #1
C-108 Attachment
July 20, 2021

STATEMENTS REGARDING SEISMICITY AND WELL SPACING

Historically, the area nearby our proposed Low Ball 4 Fed SWD #1 has not seen a significant amount of seismic activity. The closest seismic event (per USGS database) in this area in 2020 (magnitude 2.5) was located 6.22 miles southeast of our proposed SWD.

Mewbourne Oil Company does not own 2D or 3D seismic data near our proposed SWD therefore our fault interpretation is based on subsurface mapping and data obtained from public technical sources. Our publicly sourced faults data is from a 2005 paper by Ruppel etal. (map attached). Based off our subsurface mapping of the deep formations, Mewbourne has not interpreted any faults in the immediate area. The closest known mapped "deep" fault, that is documented in public data, is approximately 9.32 miles southwest of our proposed SWD.

A very recent technical paper written by Snee and Zoback , "State of Stress in the Permian, Basin, Texas and New Mexico: Implications for induced seismicity", that was published in the February 2018 edition of The Leading Edge, evaluates the strike-slip probability, using probabilistic FSP analysis, of known Permian Basin faults. This study predicts that the Precambrian fault located on our map has less than a 10% probability of being critically stressed so as to create an induced seismicity event. The main reason for this low probability is due to the relationship of the strike of this fault to the regional Shmax orientation in study area 3 (see Figure #2) is approximately N 35 deg in this area.

The Low Ball 4 Fed SWD #1 is located over 1.5 miles away from any active, permitted or pending Devonian SWD application (see map), to meet current OCD and industry recommended practices.

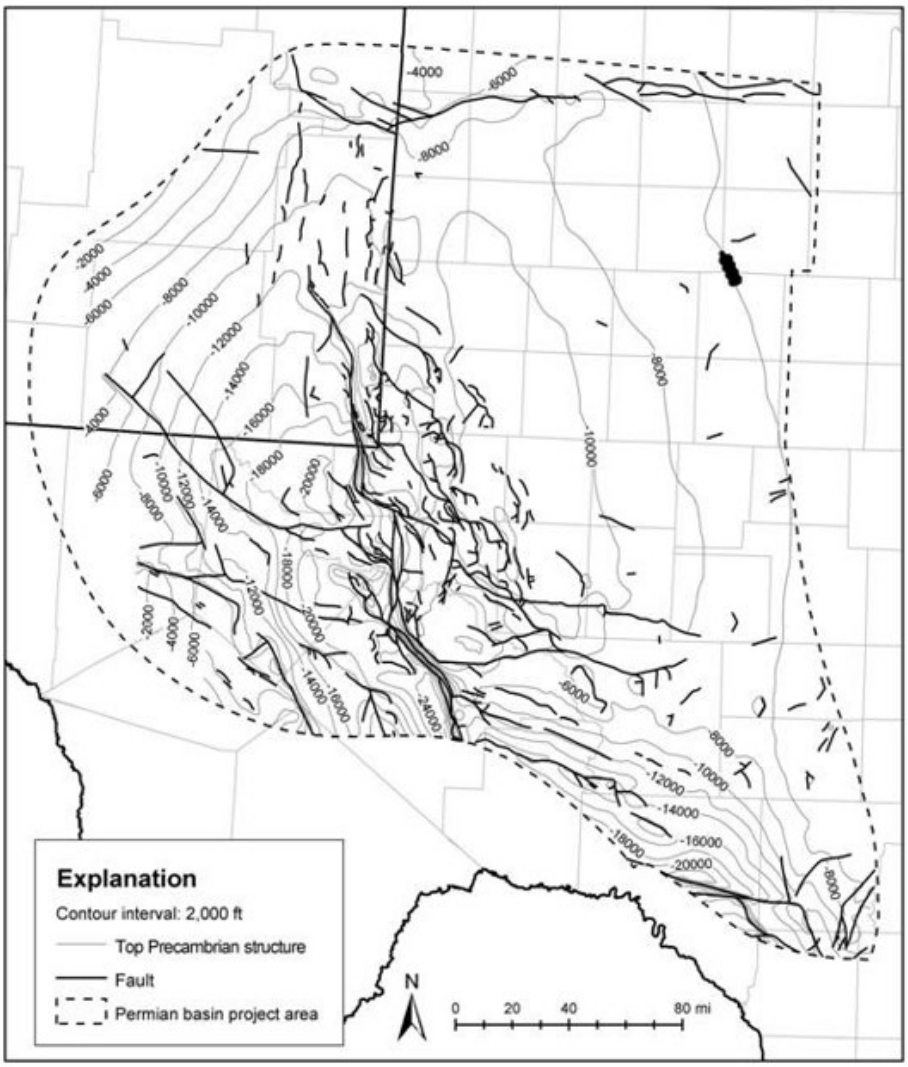
Operator	Well Name	Status	Distance from Low Ball 4 Fed SWD #1 (miles)
Delaware Energy	Echo SWD #1	Pending Application	1.8
XTO Permian Operating LLC.	Poker Lake Unit 2 TD State SWD #001	Active	1.98
Permian Oilfield Partners LLC.	Abyss Fed SWD #001	Permitted	2.02

Zane Anderson

Engineer

zanderson@mewbourne.com

575-393-5905



Precambrian Structure Map In the Permian Basin (Ruppel etal.)

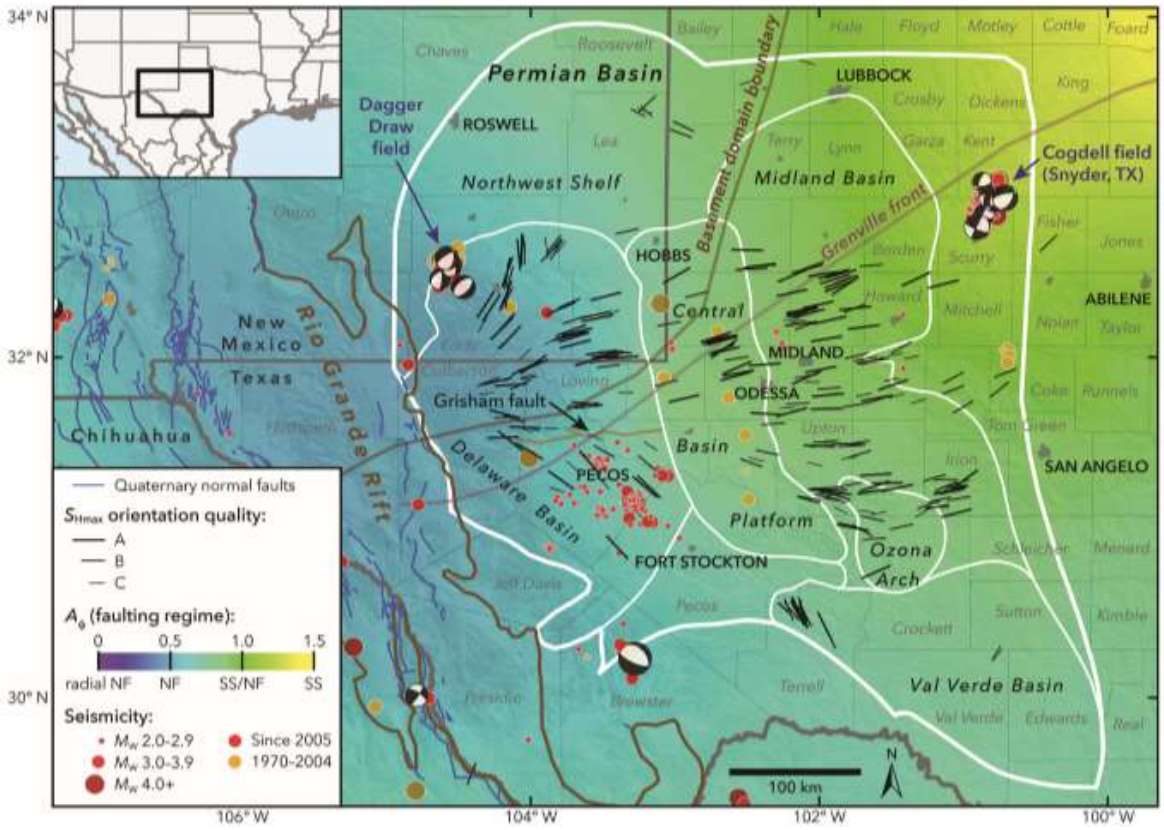


Figure 1. State of stress in the Permian Basin, Texas and New Mexico. Black lines are the measured orientations of S_{Hmax}, with line length scaled by data quality. The colored background is an interpolation of measured relative principal stress magnitudes (faulting regime) expressed using the A_ϕ parameter (see text for details) of Simpson (1997). Blue lines are fault traces known to have experienced normal-sense offset within the past 1.6 Ma, from the USGS Quaternary Faults and Folds Database (Crone and Wheeler, 2000). The boundary between the Shawnee and Mazatzal basement domains is from Lund et al. (2015), and the Precambrian Grenville Front is from Thomas (2006). The Permian Basin boundary is from the U.S. Energy Information Administration, and the subbasin boundaries are from the Texas Bureau of Economic Geology Permian Basin Geological Synthesis Project. Earthquakes are from the USGS National Earthquake Information Center, the TexNet Seismic Monitoring Program, and Gan and Frohlich (2013). Focal mechanisms are from Saint Louis University (Herrmann et al., 2011).

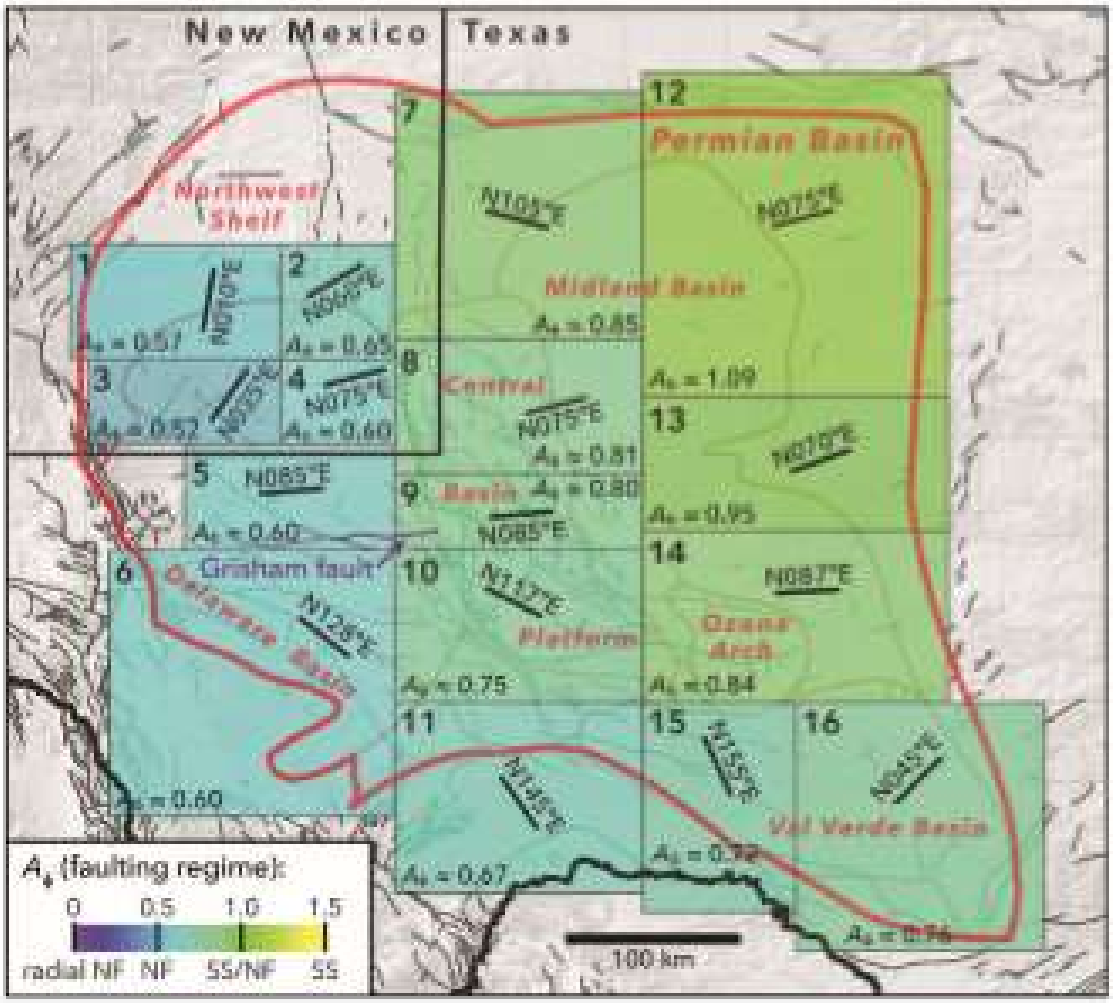


Figure 2. Map of study areas chosen for FSP analysis on the basis of broadly similar stress conditions. Text annotations indicate representative S_{Hmax} orientation and relative principal stress magnitudes (A_ϕ parameter) for each study area based on the data presented in Figure 1. Gray lines in the background indicate fault traces compiled from Ewing et al. (1990), Green and Jones (1997), Ruppel et al. (2005), and the USGS Quaternary Faults and Folds Database (Crone and Wheeler, 2000), to which we apply FSP analysis.

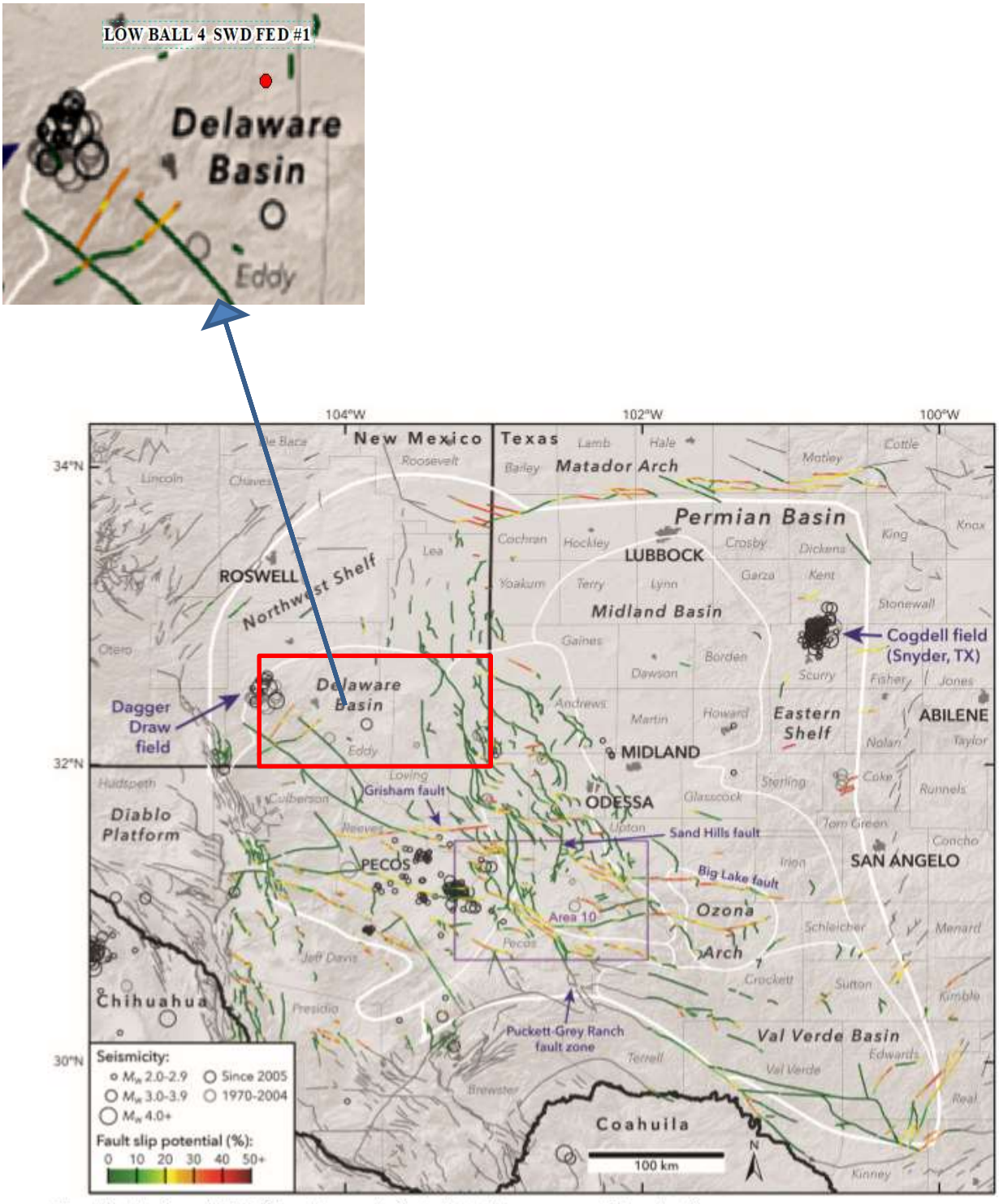


Figure 3. Results of our probabilistic FSP analysis across the Permian Basin. Data sources are as in Figures 1 and 2.

References

Ewing, T.E., R.T. Budnik, J.T. Ames, and D.M. Ridner, 1990, Tectonic Map of Texas: Bureau of Economic Geology, University of Texas at Austin.

Green, G.N., and G.E. Jones, 1997, The digital geologic map of New Mexico in ARC/INFO format: U.S. Geological Survey Open-File Report.

Jens-Erik Lund Snee and Mark D. Zoback, 2018, State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity: The Leading Edge, February 2018.

Ruppel, S.C., R.H. Jones, C.L. Breton, and J.A. Kane, 2005 Preparation of maps depicting geothermal gradient and Precambrian structure in the Permian Basin: Bureau of Economic Geology, Jackson School of Geosciences, The University of Texas at Austin, Austin, TX.

Mewbourne Oil Company

LOW BALL 4 SWD #1
830 FSL & 200 FEL SECTION 4 26S 30E
EDDY CO., NEW MEXICO

Author: sd		Date: 23 June, 2021

2021 1.8 EARTHQUAKE LOCATIONS PROVIDED BY USGS

FAULT LOCATIONS SOURCED FROM THE UNIVERSITY OF TEXAS BUREAU OF ECONOMIC GEOLOGY

25S 30E

25S 31E

MEWBOURNE OIL CO.

LOW BALL 4 SWD 1

26S 29E

26S 30E

26S 31E

9.32 MILES

6.22 MILES

2020 2.6

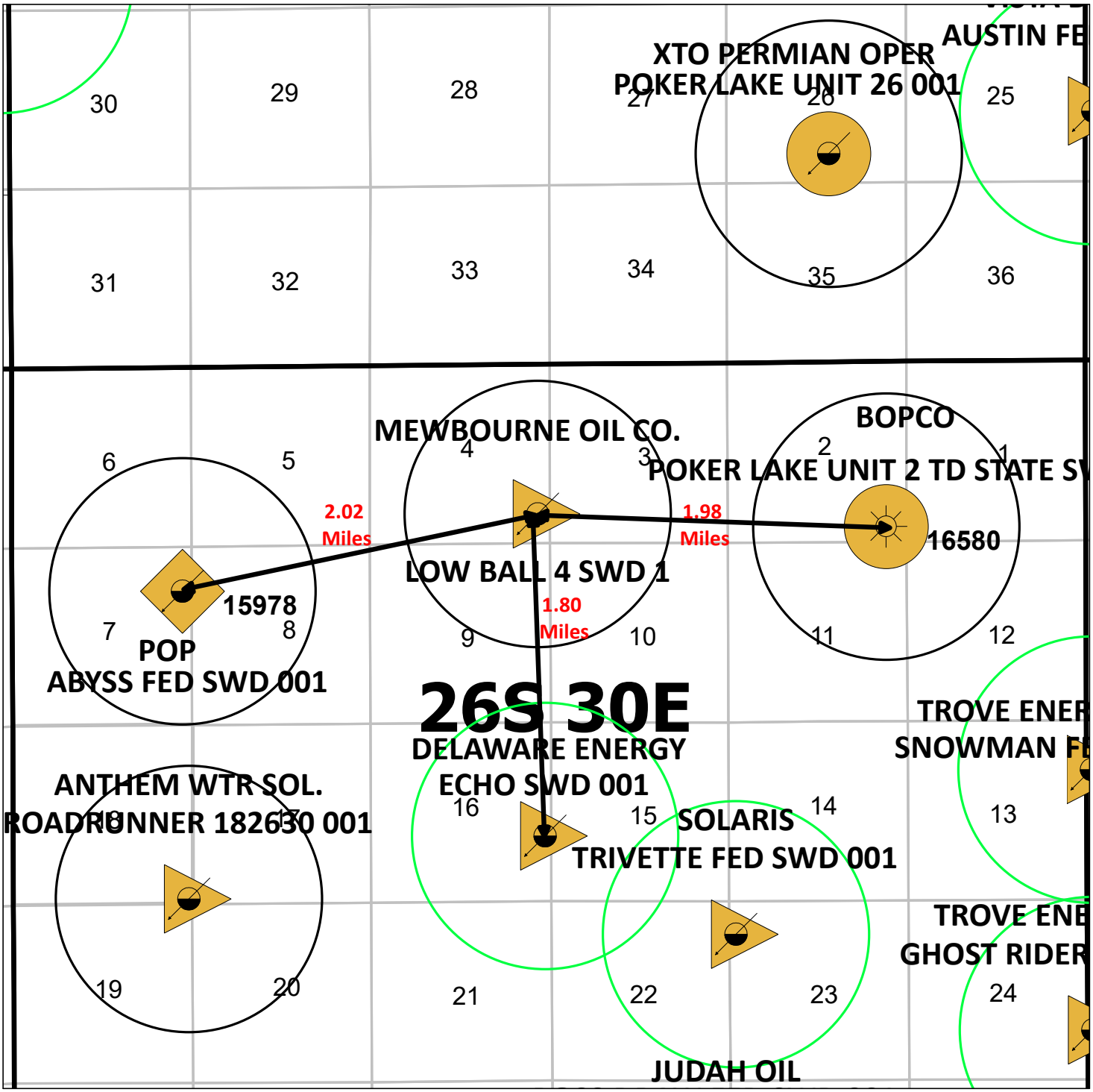
2021 2.2

2020 2.6

2020 2.5

2021 1.8

2021 2.7



ACTIVE SWD WELL

SWD WELL APPLICATION PENDING

PERMITTED LOCATIONS

THREE QUARTER
MILE RADIUS

Mewbourne Oil Company

LOW BALL 4 SWD #1
450 FSL & 100 FEL SECTION 4 26S 30E
EDDY CO., NEW MEXICO

Author:		Date:
jd		23 June, 2021

A — **A'**

300154363000	2.0 miles	300154400100	5.1 miles	300154744800	3.0 miles	LOW BALL 4 SWD 1	3.8 miles	300152187700
MEWBOURNE FULLER 14 FED SWD 1H Reference=KB Datum=2962.00 2301 FSL & 2533 FEL TWP: - Range: - Sec.		SOLARIS SOLARIS EDDY STATE 2 Reference=KB Datum=3052.00 2267 FSL/2469 FWL TWP: 26 S - Range: 29 E - Sec. 2		XTO POKER LAKE UNIT 21 LINCOLN FEE SWD 1 Reference=EKB Datum=3286.00 370 FSL/1355 FEL TWP: 25 S - Range: 30 E - Sec. 21		MOC LOW BALL 4 SWD 1 Reference=KB Datum=3186.00 830 FS 200 FE TWP: 26 S - Range: 30 E - Sec. 0		BAXTER D B INC ROSS DRAW UNIT 5 Reference=KB Datum=3025.00 1980 FSL/1980 FWL TWP: 26 S - Range: 30 E - Sec. 27

14 J/26S/29E
7/2/16 DVNN SWD Comp
Open Hole Comp: 15625-16540
Inj Cum: 30 MMBWI
Still Active

2 K/26S/29E
4/29/18 DVNN SWD Comp
Pf: 15663-15647
Open Hole Comp: 15657-16876
Inj Cum: 20 MMBWI
Still Active

21 O/25S/30E
Pending DVNN SWD

4 P/26S/30E
Proposed Low Ball
4 SWD #1

27 K/26S/30E
Completion reported DVNN with water.

Est Top MSSP: 15915

Est Top WDFD: 16200

Est Top DVNN: 16330

MSSP

WDFD

DVNN

500

0

-500

-1000

Approved Injection Interval

Approved Injection Interval

Potential Injection Interval

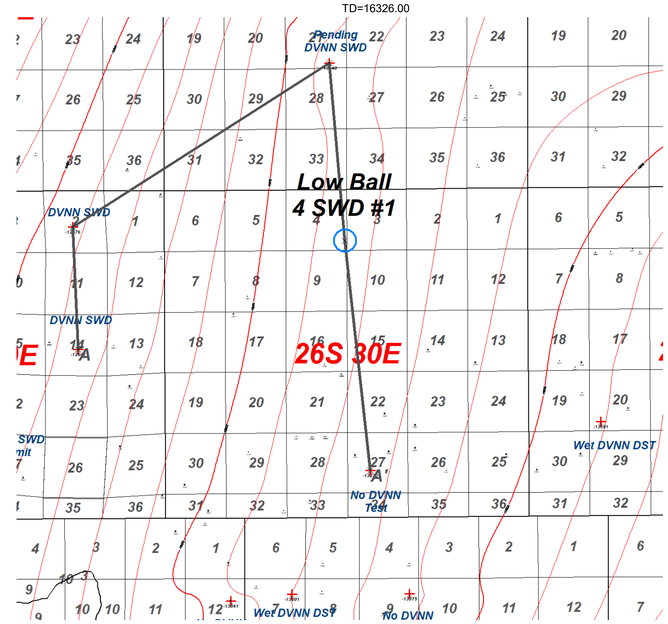
TD=16540.00

TD=16876.00

TD=17486.00

TD=17500.00

TD=16326.00



Structure Map Top of Devonian (C.I. 100')

Est Top Montoya: 17530
Est Top Simpson: 17930
Est Top Ellenburger: 18530

Low Ball
4 SWD #1

MEWBOURNE OIL COMPANY
Low Ball 4 Fed SWD #1

PLUGGING RISK ASSESSMENT

5 ½" Flush Joint Injection Tubing Inside of 7 ⅝" Casing

Specs

5 ½" 17# P110 Flush Joint Tubing	OD (in)	ID (in)	Drift (in)	LINED ID (in)	FLARE DRIFT (in)
Coupling	N/A	N/A	N/A	N/A	N/A
Body	5.500	4.892	4.767	4.520	4.275
7 ⅝" 39# P110 Casing	**OD (in)**	**ID (in)**	**Drift (in)**	**Wall Thickness (in)**	**5 ½" Flush Jt. Clearance (in)**
	7.625	6.625	6.500	0.500	0.562

*All fishing procedures are subject to well conditions. Determinations are made onsite on a case by case scenario.

Overshot Fishing Procedure

A 6.625" O.D. Bowen Series 150 overshot (Assembly 8625) with a spiral grapple will be utilized to perform this overshot operation. *NOTE: (The 6.625" O.D. will be turned down to 6.500" O.D. prior to commencing operation). Details on the overshot are noted below.

Series 150 Overshots

Tools are listed in order of maximum catch size.

The following table shows only a partial listing of available NOV Dowhole Bowen® overshots.

NOTE: Nitralloy Grapples are available upon request.

Bowen Series 150 Releasing and Circulation Overshots
Maximum Catch Size 4¾" to 5½" Inclusive

Maximum Catch Size (Spiral)		4¾	4⅝	4¾	4¾	5	5	5½
Maximum Catch Size (Basket)		3⅞	4⅛	4¼	4¼	4¼	4¼	4⅞
Overshot O.D.		5⅝	5⅝	5⅝	5¾	5⅞	6⅝	6⅝
Type		F.S.	S.H.	S.H.	S.F.S.	S.H.	F.S.	S.H.
Complete Assembly	Part No.	5896	5698	C-5168	8975	C-5171	C-4825	8625
(Dressed Spiral Parts)	Weight	130	130	133	138	140	192	165
Replacement Parts								
Top Sub	Part No.	5897	5699	A-5169	8976	A-5172	B-4826	8626
Bowl	Part No.	5898	5700	B-5170	8977	B-5173	B-4827	8617
Packer	Part No.	169	1140	B-2199	6114	L-5950	L-4505	8618
Spiral Grapple	Part No.	165	1135	B-2201	6112	B-4389	M-1071	8619
Spiral Grapple Control	Part No.	186	1137	B-2202	6113	B-4370	M-1072	8620
Standard Guide	Part No.	187	1143	B-2203	6121	B-4371	L-1074	8621
Basket Parts								
Basket Grapple	Part No.	165	1135	B-2201	6112	B-4389	M-1071	8619
Basket Grapple Control	Part No.	186	1137	B-2202	6113	B-4370	M-1072	8620
Mill Control Packer	Part No.	169-R	1140-R	B-2199-R	6114-R	L-5950-R	M-4505	L-8618-R

In the Event of a Connection Break

1. If dressing is needed, trip in hole with a mill and mill connection to allow for (above listed) turned-down overshot to be latched onto the body of the tubing. If no milling is required, trip in hole with (above listed) turned-down overshot and latch onto fish.
2. Once latched onto fish, pick up string weight and straight pull to release Model R packer.
3. Once packer is released, trip out of hole with fish.

In the Event of a Body Break

1. If dressing is needed, trip in hole with a mill and mill tubing to allow for (above listed) turned-down overshot to be latched onto the body of the tubing. If no milling is required, trip in hole with (above listed) turned-down overshot and latch onto fish.
2. Once latched onto fish, pick up string weight and straight pull to release Model R packer.
3. Once packer is released, trip out of hole with fish.

*NOTE: (Wash pipe with a mill may be substituted for dressing off a break instead of a standard mill to ensure pipe stabilization and to ensure that the casing is not damaged due to milling.)

In the Event a Mill Cannot be Used

If an inadequate fishing neck is looking up and a mill cannot be used to dress the fish, a cutting tool may be utilized to cut off the damaged portion of tubing and a spear used to retrieve the cut-off piece. Once the cut-off piece is retrieved, the (above listed) turned-down overshot may be utilized to retrieve the fish and release the packer.

Spear Fishing Procedure

In the event the (above listed) turned-down overshot cannot be used or the fishing neck is inadequate, a spear may be used to spear into the fish. In the case of insert lined pipe, a smaller spear will be utilized to go inside the insert liner and pull out the lining. Once the lining has been removed, trip out of hole with insert liner. Pick up the proper sized spear for the pipe ID. Trip in hole with tubing spear, spear the fish, pick up string weight and straight pull to release the packer. Trip out of hole with fish and packer assembly.

7” Flush Joint Injection Tubing Inside of 9 ⅝” Casing

Specs

7” 26# HCP110 Flush Joint Tubing	OD (in)	ID (in)	Drift (in)	LINED ID (in)	FLARE DRIFT (in)
Coupling	N/A	N/A	N/A	N/A	N/A
Body	7.000	6.276	6.151	6.080	5.815
9 ⅝” 43.5# HCL80 Casing	**OD (in)**	**ID (in)**	**Drift (in)**	**Wall Thickness (in)**	**7” Flush Jt. Clearance (in)**
	9.625	8.755	8.599	0.435	0.877

*All fishing procedures are subject to well conditions. Determinations are made onsite on a case by case scenario.

Overshot Fishing Procedure

A Bowen Series 150 overshot (Assembly 9217) with a spiral grapple will be utilized to perform this overshot operation. Details on the overshot are noted below.

Bowen Series 150 Releasing and Circulation Overshots

Maximum Catch Size 6⅝" to 7¼" Inclusive

Maximum Catch Size (Spiral)		6⅝	6¾	7	7¼
Maximum Catch Size (Basket)		5⅞	6⅛	6⅜	6⅝
Overshot O.D.		8¼	7⅞	8⅛	8⅜
Type		F.S.	S.H.	S.H.	S.H.
Complete Assembly	Part No.	C-3032	C-5222	9217	C-5354
(Dressed Spiral Parts)	Weight	280	243	251	260
Replacement Parts					
Top Sub	Part No.	A-3033	A-5223	9218	A-5355
Bowl	Part No.	B-3034	B-5224	9219	B-5356
Packer	Part No.	A-1814	B-5225	9224	B-5357
Spiral Grapple	Part No.	N-84	B-5227	9222	B-5359
Spiral Grapple Control	Part No.	M-89	A-5228	9223	B-5360
Standard Guide	Part No.	A-1818	A-5229	9226	A-5361
Basket Parts					
Basket Grapple	Part No.	N-84	B-5227	9222	B-5359
Basket Grapple Control	Part No.	M-89	A-5228	9223	B-5360
Mill Control Packer	Part No.	A-1814-R	B-5225-R	9224-R	B-5357-R

In the Event of a Connection Break

1. If dressing is needed, trip in hole with a mill and mill connection to allow for (above listed) overshot to be latched onto the body of the tubing. If no milling is required, trip in hole with (above listed) overshot and latch onto fish.
2. Once latched onto fish, pick up string weight and straight pull to release Model R packer.
3. Once packer is released, trip out of hole with fish.

In the Event of a Body Break

1. If dressing is needed, trip in hole with a mill and mill tubing to allow for (above listed) overshot to be latched onto the body of the tubing. If no milling is required, trip in hole with (above listed) overshot and latch onto fish.
2. Once latched onto fish, pick up string weight and straight pull to release Model R packer.
3. Once packer is released, trip out of hole with fish.

*NOTE: (Wash pipe with a mill may be substituted for dressing off a break instead of a standard mill to ensure pipe stabilization and to ensure that the casing is not damaged due to milling.)

In the Event a Mill Cannot be Used

If an inadequate fishing neck is looking up and a mill cannot be used to dress the fish, a cutting tool may be utilized to cut off the damaged portion of tubing and a spear used to retrieve the cut-off piece. Once the cut-off piece is retrieved, the (above listed) overshot may be utilized to retrieve the fish and release the packer.

Spear Fishing Procedure

In the event the (above listed) overshot cannot be used or the fishing neck is inadequate, a spear may be used to spear into the fish. In the case of insert lined pipe, a smaller spear will be utilized to go inside the insert liner and pull out the lining. Once the lining has been removed, trip out of hole with insert liner. Pick up the proper sized spear for the pipe ID. Trip in hole with tubing spear, spear the fish, pick up string weight and straight pull to release the packer. Trip out of hole with fish and packer assembly.

Abandonment Procedure in-the-Event that Injection Tubing Cannot be Fished

The operator will need to ensure that geological formations are properly isolated to prevent future fluid communication. The operator will first insure that the injection tubing I.D. is open and clear. Once injection tubing I.D. is confirmed to be open and clear, run in hole with a wireline set profile plug and set plug inside of the packer assembly. This plug would allow for cement to fill both the I.D. of the injection tubing and the tubing-to-casing annulus to provide isolation between the different geological formations. Next, run in hole with wireline conveyed perforating guns and shoot perforations at the deepest depth that the injection tubing is still in the wellbore. Trip in hole with a workstring and latch onto the injection tubing with an overshot, spear, cement retainer or any other tool that would ensure a work string-to-injection tubing seal and allow the operator to pump cement down the remaining injection tubing. Rig up cement truck and cement the annulus between the injection tubing and casing to surface.