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

8D8N2-210616-C-1080

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

pBL2121641317

8/4/2021

APPLICATION FOR AUTHORIZATION TO INJECT

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-2442

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: Zane Anderson Digitally signed by: Zane Anderson DN: CN = Zane Anderson email = zanderson@mewbourne.com C = US O = Mewbourne Oil Company Date: 2021.08.03 16:30:27 -07'00' DATE: 8/3/2021

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: **Boomerang 6 Fee SWD #1**

WELL LOCATION:	**2,650' FNL & 2,650' FWL**	**F**	**6**	**25S**	**28E**
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC *(See Attached)*

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: **26"**

Casing Size: **20" (94#) @ 450'**

Cement with: **715 sx (100% excess)**

Top of Cement: **Surface**

Intermediate Casing

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

Casing Size: **13 3/8" (54.5 & 61#) @ 2,340'**

Stage 1: **1120 sx (25% excess)**

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

Production Casing

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

Casing Size: **9 5/8" (40#) @ 9,200'**

Stage 1: **1435 sx (25% excess)**

Top of Cement: **DV Tool @ 2,415'**

Stage 2: **625 sx (25% excess)**

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

Production Liner

Hole Size: **8 3/4"**

Casing Size: **7 5/8" (33.7#)**
Top @ 9,000'
Bottom @ 13,970'

Cement with: **355 sx (25% excess)**

Top of Cement: **9,000'**
(Proposed: circulated to liner top)

TD @ 14,850'

Permitted Injection Interval 13,970'-14,850'

Side 2

INJECTION WELL DATA SHEET

Tubing Size: **7”** x **5 ½”** Lining Material: **Duoline**
7”, P110 UFJ GB to approximately 8,850’
5 1/2”, P110 UFJ GB to 13,890’

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

Packer Setting Depth: **+/- 13,890’**

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 (2,415’), Bone Spring (5,975’), Wolfcamp (9,190’), & Morrow (12,300’)**

   Underlying producing zone – **N/A**

BOOMERANG 6 FEE 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 30,000 bwpd.

2. Non-commercial SWD (closed system).

3. Proposed average injection pressure is unknown and the maximum injection pressure is approximately 2,794 psi (0.2 psi/ft x 13,970 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 13,970' to 14,850'. It is estimated that the base of the injection interval should be approximately 650' above the top of the Ellenburger.

Other Projected Formation Tops:

Mississippian	13,570'
Woodford	13,810'
Devonian	13,940'
EST TOTAL DEPTH	**14,850'**
Montoya	14,880'
Simpson	15,240'
Ellenburger	15,500'

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 70', the shallowest water at a depth of 35' and the average water depth at 52'. 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 8 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 7, Twp 25S, Rge 28E, 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
	BOOMERANG 6 FEE SWD	1

7 OGRID NO.	8 Operator Name	9 Elevation
	MEWBOURNE OIL COMPANY	3060'

10 Surface Location

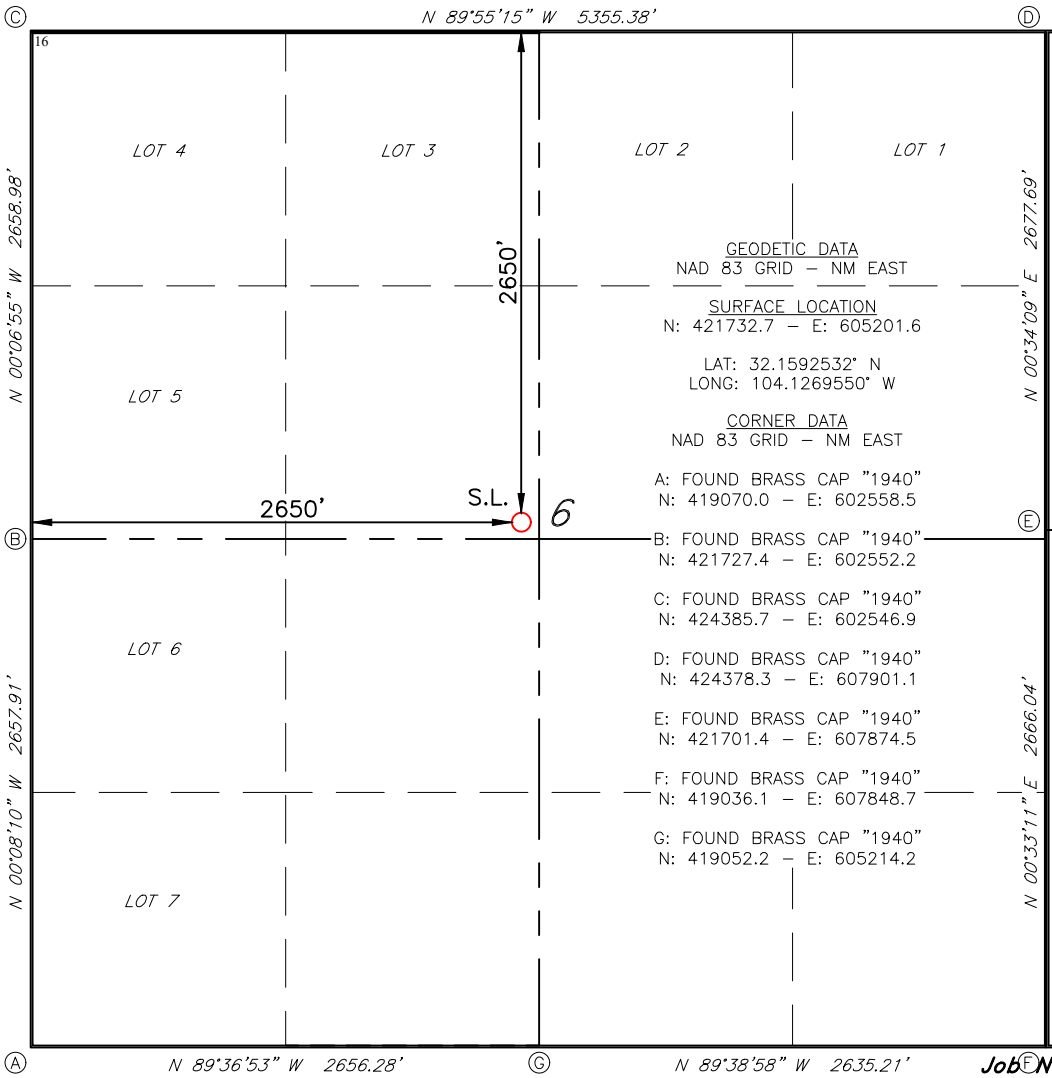
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
F	6	25S	28E		2650	NORTH	2650	WEST	EDDY

11 Bottom Hole Location If Different From Surface

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

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

No allowable will be assigned to this completion until all 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.

06-16-2021
Date of Survey

Signature and Seal of Professional Surveyor

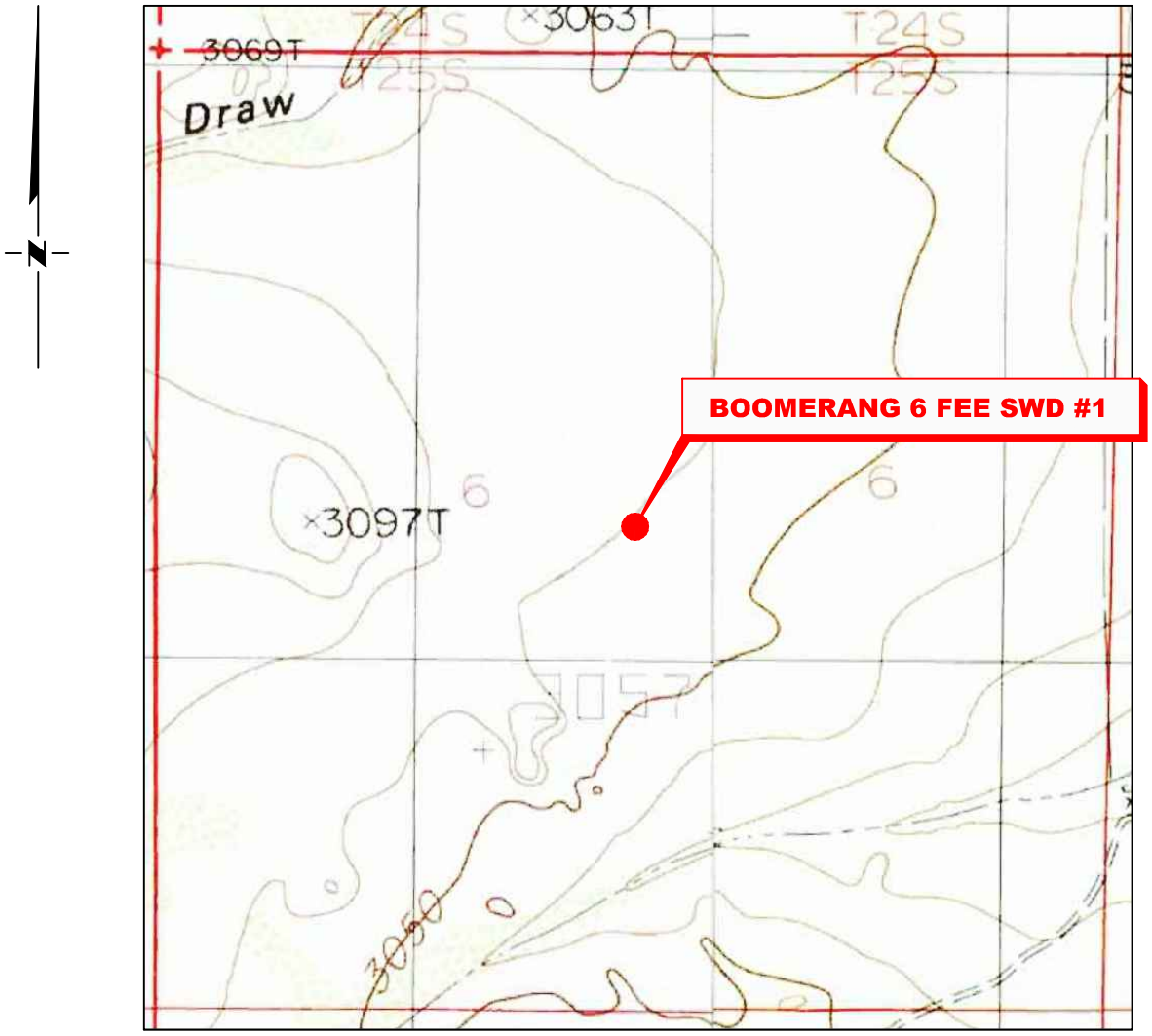
ROBERT M. HOWETT
NEW MEXICO
19680
PROFESSIONAL SURVEYOR

19680
Certificate Number

Job No.: LS21060602

LOCATION VERIFICATION MAP

NOT TO SCALE



SECTION 6, TWP. 25 SOUTH, RGE. 28 EAST,
N. M. P. M., EDDY CO., NEW MEXICO

OPERATOR: Mewbourne Oil Company
LEASE: Boomerang 6 Fee SWD
WELL NO.: 1
ELEVATION: 3060'

LOCATION: 2650' FNL & 2650' FWL
CONTOUR INTERVAL: 10'
USGS TOPO. SOURCE MAP:
Bond Draw, NM (1985)

NO.	REVISION	DATE

JOB NO.: LS21060602
DWG. NO.: 21060602-2

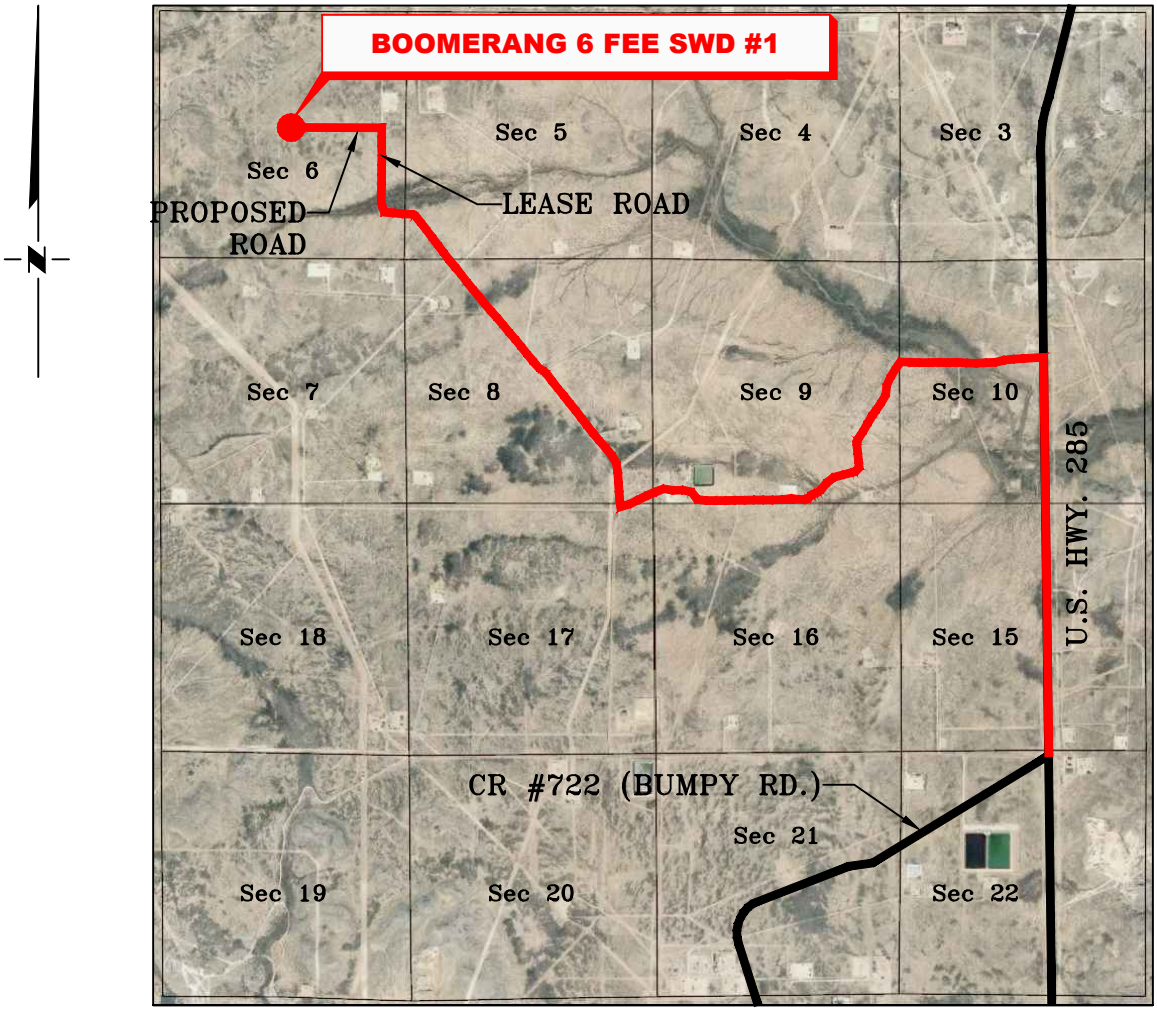
RRC

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

SCALE: N. T. S.
DATE: 06-14-2021
SURVEYED BY: ML/AG
DRAWN BY: BB
APPROVED BY: RMH
SHEET: 1 OF 1

VICINITY MAP

NOT TO SCALE



SECTION 6, TWP. 25 SOUTH, RGE. 28 EAST,
N. M. P. M., EDDY CO., NEW MEXICO

OPERATOR: Mewbourne Oil Company
LEASE: Boomerang 6 Fee SWD
WELL NO.: 1

LOCATION: 2650' FNL & 2650' FWL
ELEVATION: 3060'

NO.	REVISION	DATE

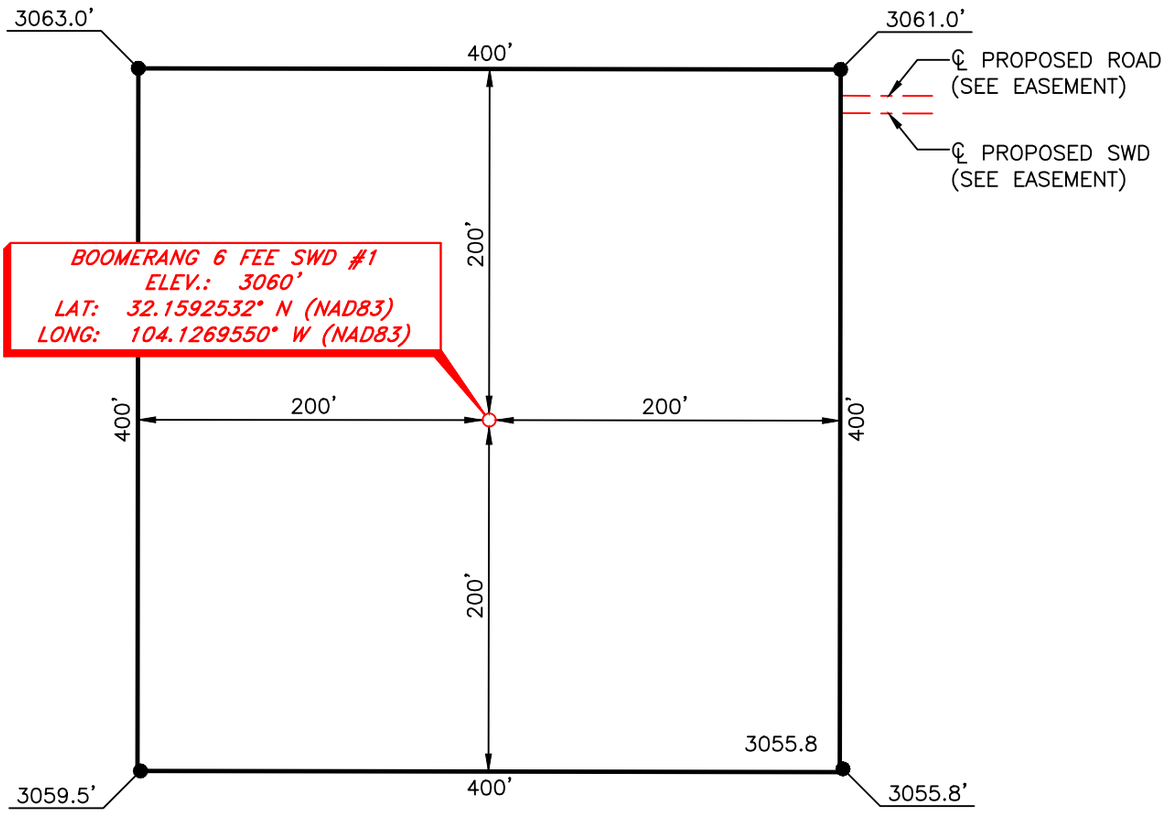
JOB NO.: LS21060602
DWG. NO.: 21060602-3

RRC

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

SCALE: N. T. S.
DATE: 06-14-2021
SURVEYED BY: ML/AG
DRAWN BY: BB
APPROVED BY: RMH
SHEET: 1 OF 1

MEWBOURNE OIL COMPANY
BOOMERANG 6 FEE SWD #1
(2650' FNL & 2650' FWL)
SECTION 6, T25S, R28E
N. M. P. M., EDDY CO., NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of U.S. Hwy. #285 & CR #722 (Bumpy Rd.);

Go North on U.S. Hwy. #285 approx. 1.6 miles to a lease road on the left;

Turn left and go West approx. 0.6 miles road curves left;

Continue Southwest for 0.5 miles to a lease road on the right;

Turn right and go West approx. 1.0 miles to a lease road on the right;

Turn right and go Northwest approx. 2.0 miles to a proposed road on the left;

Turn left and go West for approx. miles to location on the left.

SCALE: 1" = 100'
0 50 100

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

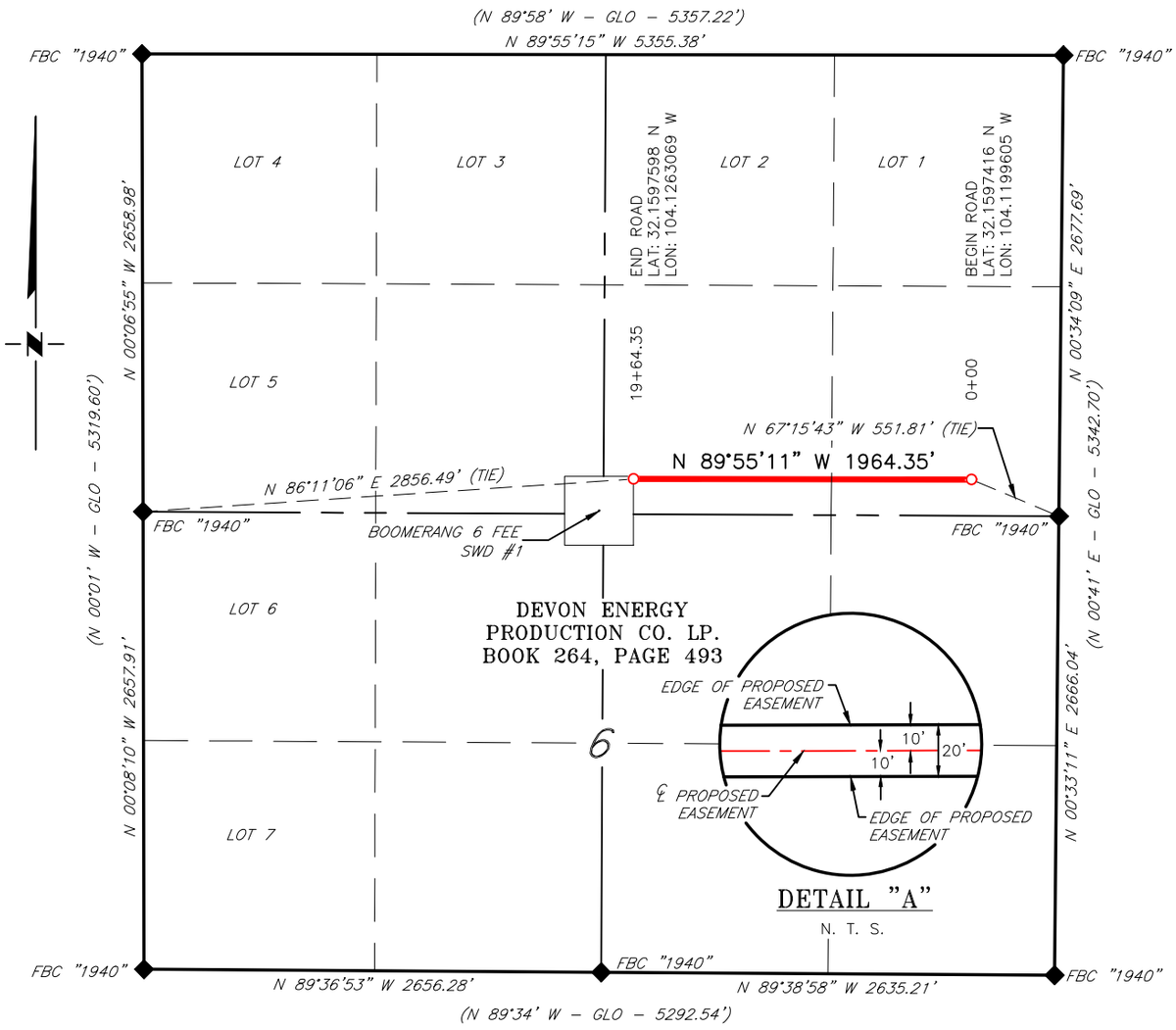
NO.	REVISION	DATE

JOB NO.: LS21060602
DWG. NO.: 21060602–4

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

SCALE: 1" = 100'
DATE: 06–14–2021
SURVEYED BY: ML/AG
DRAWN BY: BB
APPROVED BY: RMH
SHEET: 1 OF 1

MEWBOURNE OIL COMPANY
PROPOSED ACCESS ROAD FOR THE BOOMERANG FEE SWD #1
SECTION 6, T25S, R28E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

A strip of land 20 feet wide, being 1,964.35 feet or 119.051 rods in length, lying in Section 6, Township 25 South, Range 28 East, N. M. P. M., Eddy County, New Mexico, being 10 feet left and 10 feet right of the following described survey of a centerline across the lands of Devon Energy Production Co. LP., according to a deed filed for record in Book 264, Page 493, of the Deed Records of Eddy County, New Mexico:

BEGINNING at Engr. Sta. 0+00, a point in the Northeast quarter of Section 6, which bears, N 67°15'43" W 551.81 feet from a brass cap, stamped "1940", found for the East quarter corner of Section 6;

Thence N 89°55'11" W, 1,964.35 feet, to Engr. Sta. 19+64.35, the End of Survey, a point in the Northeast quarter of Section 6, which bears, N 86°11'06" E, 2,856.49 feet from a brass cap, stamped "1940", found for the West quarter corner of Section 6.

Said strip of land contains 0.902 acres, more or less, and is allocated by forties as follows:

SE 1/4 NE 1/4	813.32 Feet	49.292 Rods	0.373 Acres
SW 1/4 NE 1/4	1,151.03 Feet	69.759 Rods	0.529 Acres
TOATAL:	1,964.35 Feet	119.051 Rods	0.902 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 ACCESS 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
06/22/21
PROFESSIONAL SURVEYOR

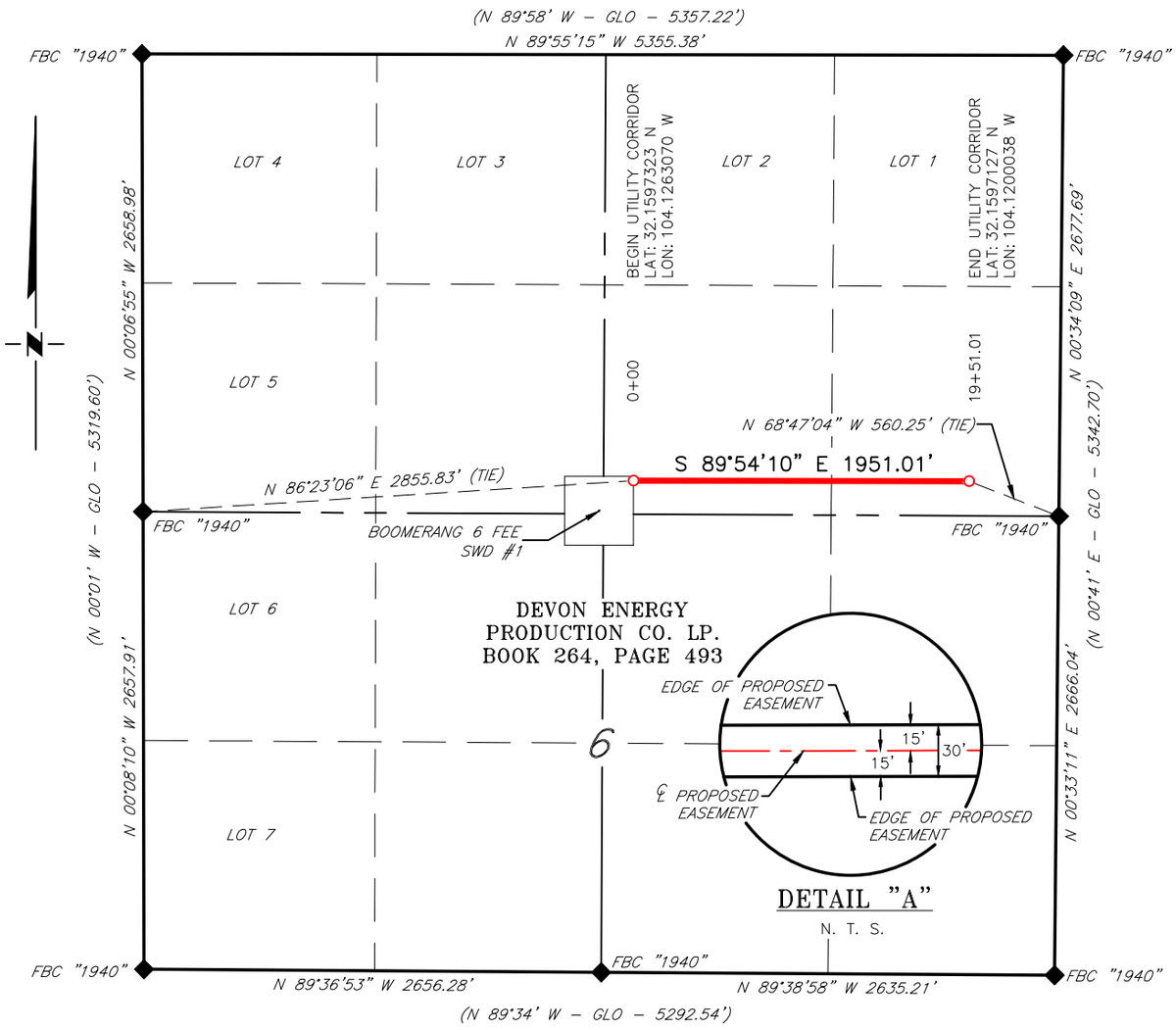
NO.	REVISION	DATE

JOB NO.: LS21060602
DWG. NO.: 21060602–5

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

SCALE: 1" = 1000'
DATE: 06–14–2021
SURVEYED BY: ML/AG
DRAWN BY: BB
APPROVED BY: RMH
SHEET: 1 OF 1

MEWBOURNE OIL COMPANY
PROPOSED UTILITEY CORRIDOR FOR THE BOOMERANG FEE SWD #1
SECTION 6, T25S, R28E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

A strip of land 30 feet wide, being 1,951.01 feet or 118.243 rods in length, lying in Section 6, Township 25 South, Range 28 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 the lands of Devon Energy Production Co. LP., according to a deed filed for record in Book 264, Page 493, of the Deed Records of Eddy County, New Mexico:

BEGINNING at Engr. Sta. 0+00, a point in the Northeast quarter of Section 6, which bears, N 86°23'06" E, 2,855.83 feet from a brass cap, stamped "1940", found for the West quarter corner of Section 6;

Thence S 89°54'10" E, 1,951.01 feet, to Engr. Sta. 19+51.01, the End of Survey, a point in the Northeast quarter of Section 6, which bears, N 68°47'04" W, 560.25 feet from a brass cap, stamped "1940", found for the East quarter corner of Section 6.

Said strip of land contains 1.344 acres, more or less, and is allocated by forties as follows:

SW 1/4 NE 1/4	1,150.96	Feet	69.755	Rods	0.793 Acres
SE 1/4 NE 1/4	800.05	Feet	48.488	Rods	0.551 Acres
TOTAL:	1,951.01	Feet	118.243	Rods	1.344 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 UTILITY CORRIDOR

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
06/22/21
PROFESSIONAL SURVEYOR

NO.	REVISION	DATE

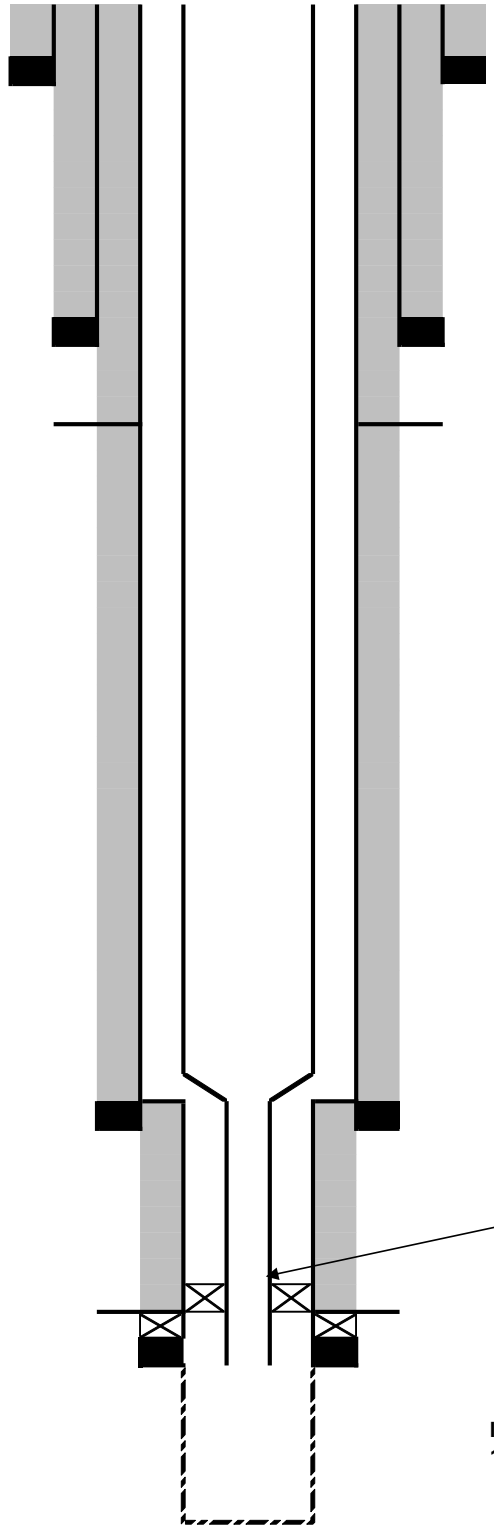
JOB NO.: LS21060602
DWG. NO.: 21060602–6

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

SCALE: 1" = 1000'
DATE: 06–14–2021
SURVEYED BY: ML/AG
DRAWN BY: BB
APPROVED BY: RMH
SHEET: 1 OF 1

Mewbourne Oil Company

Well Name: Boomerang 6 Fee SWD #1
Spud: 2021



20" 94# J-55 BTC
Set @ 450'
Cmt w/ 715 sx

13 3/8" 54.5 & 61# J55 & HCL80 STC
Set @ 2340'
Cmt w/ 1120 sx

ECP/DV Tool @ 2415'
Cmt 2nd stg w/ 625 sx

9 5/8" 40# HCL80 LTC
Set @ 9200'
Cmt 1st stg w/ 1435 sx

Injection String
7" P110 UFJ GB & 5 1/2" P110 UFJ GB
Nickel-Plated Pkr Set @ 13,890'

DV Tool @ 13,900'
External Csg Pkr Set @ 13,940'

7 5/8" 33.7# P-110 UFJ Liner
Set from 9000'-13,970'
Cmt w/ 355 sx

INJECTION ZONE: DEVONIAN
13970' - 14850'

6 1/8" Open Hole
TD @ 14,850'

Carlsbad Current Argus.
PART OF THE USA TODAY NETWORK

Affidavit of Publication

Ad # 0004826281

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 Kofott
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 Boomerang 6 Fee SWD #1 as a salt water disposal well.

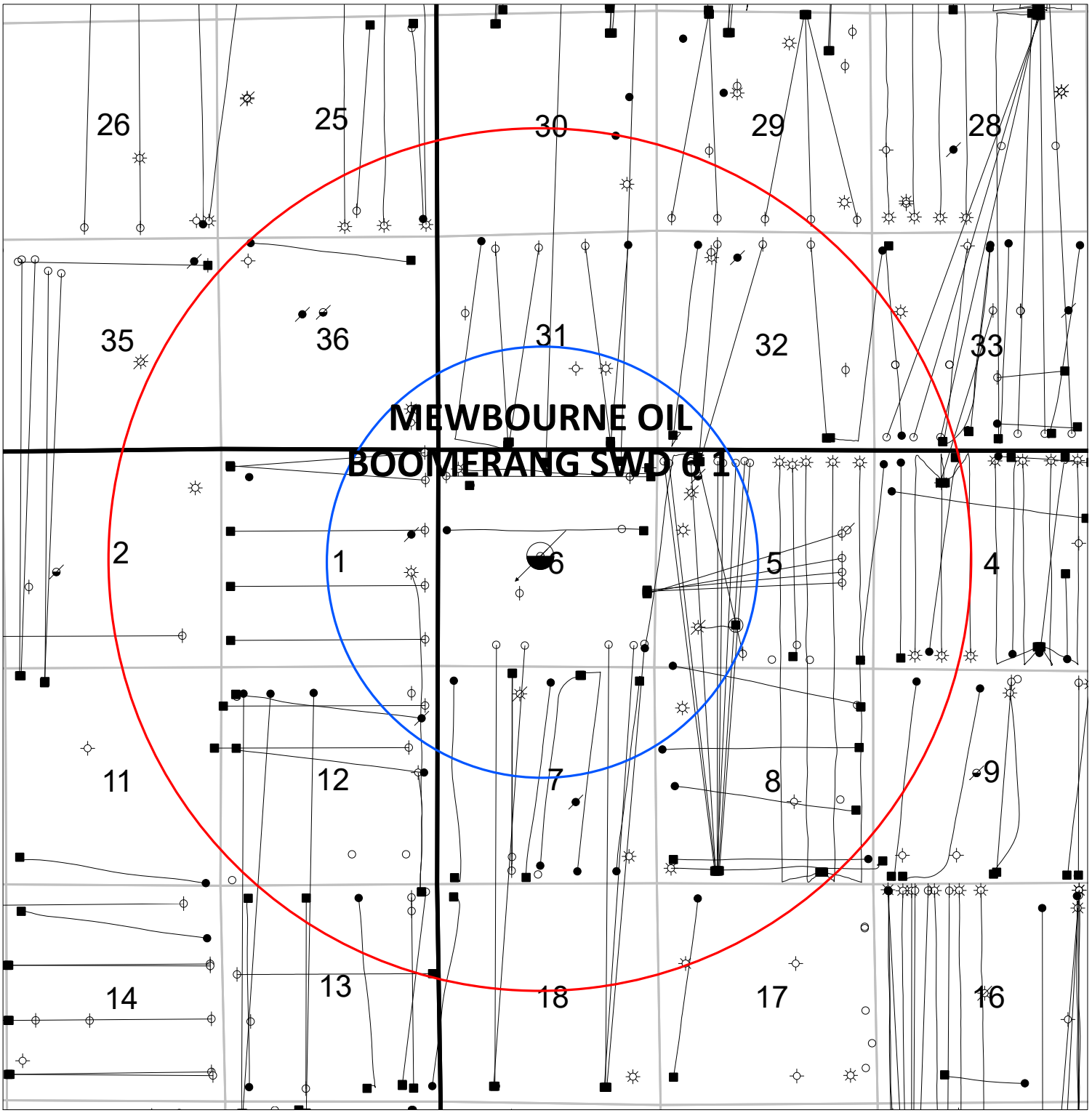
The Boomerang 6 Fee SWD #1 is located 2,650' FNL and 2,650' FWL, Unit Letter F, Section 6, Township 25 South, Range 28 East, NMPM, Eddy County, New Mexico. The well will dispose of water produced from nearby operated oil and gas wells into the Devonian formation into an open-hole interval from a depth of 13,970 feet to 14,850 feet. Expected maximum injection rates are 30,000 BWPD at a maximum injection pressure of 2,794 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 19 miles Southeast of Carlsbad, New Mexico.

#4826281, Current Argus, July 17, 2021

Ad # 0004826281
PO #:
# of Affidavits 1

This is not an invoice



1 MILE AREA OF REVIEW

2 MILE AREA OF REVIEW

Mewbourne Oil Company

BOOMERANG 6 FEE SWD #1
2650 FNL & 2650 FWL 6-25S-28E
EDDY CO., NEW MEXICO

Author: sd		Date: 16 July, 2021

Mewboure Oil Company
Boomerang 6 Fee SWD #1 C-108 Application

1 MILE AOR WELLS

ESTIMATED TOP OF DEVONIAN = 13,940'

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	Proj Depth	Proj Form	Permit License Date	Spud Date	Comp Date	Final Drill Date	Latitude	Longitude
30015348810000	OXY BENELLI	1	OCCIDENTAL PERMIAN LP	OCCIDENTAL PERMIAN LTD	25S 28E 8 S2 NW NW	990 FNL 660 FWL CONGRESS SECTION	SALT DRAW W	NM	EDDY	PERMIAN CONVENTIONAL	GAS PRODUCER	2021-04-05	12970	MORROW	13000	MORROW	2006-05-18	2006-06-14	2006-09-20	2006-07-28	32.14901482	-104.1157345
30015353420000	WINCHESTER 5 STATE	1	OGX RESOURCES LLC	OGX RESOURCES LLC	25S 28E 5 NE SE SW	1004 FSL 1986 FWL CONGRESS SECTION	SALT DRAW W	NM	EDDY	PERMIAN CONVENTIONAL	ABD-GW	2021-05-20	12910	MORROW	13000	MORROW	2006-01-05	2007-01-27	2007-05-18	2007-03-03	32.15458644	-104.1114974
30015353420001	WINCHESTER 5 STATE	1	OGX RESOURCES LLC	OGX RESOURCES LLC	25S 28E 5 NE SE SW	1004 FSL 1986 FWL CONGRESS SECTION	SALT DRAW W	NM	EDDY	PERMIAN CONVENTIONAL	D&AW	2021-05-20	12910	MORROW	12450	MORROW	2007-06-16	2007-06-26	2007-09-26		32.15458644	-104.1114974
30015353420100	WINCHESTER 5 STATE	1	OGX RESOURCES LLC	COG OPERATING LLC	25S 28E 5 NE SE SW	1004 FSL 1986 FWL CONGRESS SECTION	SALT DRAW W	NM	EDDY	PERMIAN CONVENTIONAL	ABD-GW	2021-05-20	12844	MORROW	13184	MORROW	2007-09-30	2007-10-10	2008-01-15	2007-11-07	32.15458644	-104.1114974
30015353460000	BUCKSHOT STATE COM	1	OGX RESOURCES LLC	COG OPERATING LLC	24S 28E 31 W2 NE SE	1980 FSL 1250 FEL CONGRESS SECTION	SALT DRAW W	NM	EDDY	PERMIAN CONVENTIONAL	GAS PRODUCER	2021-05-20	12848	MORROW	13000	MORROW	2007-01-09	2007-04-09	2007-08-10	2007-05-26	32.17187468	-104.1217408
30015355570000	COLT STATE	1	OGX RESOURCES LLC	COG OPERATING LLC	25S 28E 5 C SW NW	1980 FNL 660 FWL CONGRESS SECTION	SALT DRAW W	NM	EDDY	PERMIAN CONVENTIONAL	GAS PRODUCER	2021-04-01	12850	MORROW	12900	MORROW	2007-04-20	2007-08-24	2008-01-04	2007-09-29	32.1609791	-104.1156411
30015355580000	KIMBER STATE	001	OGX RESOURCES LLC	OWL SWD OPERATING LLC	25S 28E 7	660 FNL 1980 FWL CONGRESS SECTION	SALT DRAW W	NM	EDDY	PERMIAN CONVENTIONAL	ABD-GW	2021-05-20	12697	MORROW	12900	MORROW	2007-04-20	2007-05-21	2007-08-17	2007-07-09	32.14998014	-104.1285905
30015358380000	GURKHA BKG STATE COM	001	YATES PETROLEUM CORP	EOG RESOURCES INC	24S 27E 36 SE SE	990 FSL 660 FEL CONGRESS SECTION	SALT DRAW W	NM	EDDY	PERMIAN CONVENTIONAL	GAS PRODUCER	2021-05-28	12999	MORROW	13100	MORROW	2007-10-02	2007-11-23	2008-03-19	2008-01-25	32.16916323	-104.1371356
30015408620000	COLT STATE COM	2H	LEGEND NATURAL GAS III LP	COG OPERATING LLC	25S 28E 5	200 FNL 1000 FWL CONGRESS SECTION	WILLOW LAKE	NM	EDDY	BONE SPRING	OIL PRODUCER	2020-11-30	12613	BONE SPRING 2 /SD/	12300	BONE SPRING	2012-12-03	2013-10-11	2013-12-01	2013-10-25	32.16587188	-104.114474
30015408670000	STATE GQ COM	3H	LEGEND NATURAL GAS III LP	COG OPERATING LLC	25S 28E 7	330 FNL 380 FEL CONGRESS SECTION	HAY HOLLOW NORTH	NM	EDDY	BONE SPRING	OIL PRODUCER	2021-01-11	12462	BONE SPRING	12300	BONE SPRING	2012-12-05	2013-01-11	2013-02-28	2013-01-27	32.15082839	-104.1191195
30015409060000	FULL CHOKE COM	2H	LEGEND NATURAL GAS III LP	COG OPERATING LLC	24S 28E 32	330 FSL 380 FWL CONGRESS SECTION	WILLOW LAKE	NM	EDDY	BONE SPRING	OIL PRODUCER	2021-01-11	12696	BONE SPRING	12300	BONE SPRING	2012-12-13	2013-02-25	2013-05-26	2013-03-11	32.16737406	-104.1164432
30015410930000	BUCKSHOT STATE COM	2H	LEGEND NATURAL GAS III LP	COG OPERATING LLC	24S 28E 31	100 FSL 1140 FEL CONGRESS SECTION	WILLOW LAKE WEST	NM	EDDY	BONE SPRING	OIL PRODUCER	2018-09-26	12646	BONE SPRING 2 /SD/	12300	BONE SPRING	2013-02-13	2013-11-01	2013-12-24	2013-11-13	32.16670511	-104.1213841
30015410940000	BUCKSHOT STATE COM	3H	LEGEND NATURAL GAS III LP	COG OPERATING LLC	24S 28E 31	100 FSL 1700 FWL CONGRESS SECTION	WILLOW LAKE WEST	NM	EDDY	BONE SPRING	OIL PRODUCER	2020-11-30	12613	BONE SPRING	12300	BONE SPRING	2013-02-13	2013-08-20	2013-10-13	2013-09-10	32.16671463	-104.1295112
30015414010000	COLT STATE SWD	004	LEGEND NATURAL GAS III LP	COG OPERATING LLC	25S 28E 5	1066 FNL 850 FWL CONGRESS SECTION	SWD	NM	EDDY	N/A - SALT WATER DISPOSAL	ABD-SWD	2021-05-20	6007	DELAWARE	6000	DELAWARE	2013-05-24	2013-08-01	2013-09-06	2013-08-21	32.16349238	-104.1149931
30015414280000	STATE GQ	5H	LEGEND NATURAL GAS III LP	COG OPERATING LLC	25S 28E 7	200 FNL 1775 FEL CONGRESS SECTION	HAY HOLLOW NORTH	NM	EDDY	BONE SPRING	OIL PRODUCER	2021-05-20	12700	BONE SPRING	12700	BONE SPRING	2013-06-07	2013-07-23	2013-09-19	2013-08-11	32.15122446	-104.1237237
30015414290000	STATE GQ	4H	LEGEND NATURAL GAS III LP	COG OPERATING LLC	25S 28E 7	200 FNL 1805 FEL CONGRESS SECTION	HAY HOLLOW NORTH	NM	EDDY	BONE SPRING	OIL PRODUCER	2020-11-30	12590	BONE SPRING	12700	BONE SPRING	2013-06-07	2013-06-30	2013-09-19	2013-07-18	32.15122515	-104.1238206
30015429310000	DEVON `6` FEE	002H	OCCIDENTAL PERMIAN LTD	OCCIDENTAL PERMIAN LTD	25S 28E 6	1980 FNL 300 FEL CONGRESS SECTION	WILLOW LAKE	NM	EDDY	BONE SPRING	OIL PRODUCER	2021-06-09	12640	BONE SPRING	12626	BONE SPRING	2015-01-28	2015-02-19	2015-04-12	2015-03-07	32.160951	-104.1187683
30015436610000	DEVON 6 W2AD FEE	1H	MEWBOURNE OIL CO	MEWBOURNE OIL CO	25S 28E 6	440 FNL 185 FEL CONGRESS SECTION	SULPHATE DRAW	NM	EDDY	WOLFCAMP DELAWARE	GAS PRODUCER	2021-05-20	14735	WOLFCAMP	14893	WOLFCAMP	2016-03-03	2016-04-01	2016-07-25	2016-04-15	32.16518222	-104.1183367
30015469550000	SCOUT STATE COM	601H	COG OPERATING LLC	COG OPERATING LLC	25S 28E 6	280 FNL 876 FEL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-07-29			24892	WOLFCAMP	2020-04-03				32.16563005	-104.1205631
30015469560000	SCOUT STATE COM	602H	COG OPERATING LLC	COG OPERATING LLC	25S 28E 6	280 FNL 906 FEL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-07-29			24869	WOLFCAMP	2020-04-03				32.16563038	-104.12066
30015469570000	SCOUT STATE COM	603H	COG OPERATING LLC	COG OPERATING LLC	25S 28E 6	310 FNL 2635 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-07-29			24852	WOLFCAMP	2020-04-03				32.16556793	-104.1265095
30015469580000	SCOUT STATE COM	604H	COG OPERATING LLC	COG OPERATING LLC	25S 28E 6	310 FNL 2605 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-07-29			24821	WOLFCAMP	2020-04-03				32.16556828	-104.1266066
30015469590000	SCOUT STATE COM	605H	COG OPERATING LLC	COG OPERATING LLC	25S 28E 6	875 FNL 796 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL START	2021-04-13			24212	WOLFCAMP	2020-04-03	2021-04-12			32.16402767	-104.132452
30015469600000	SCOUT STATE COM	606H	COG OPERATING LLC	COG OPERATING LLC	25S 28E 6	875 FNL 766 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-07-29			24172	WOLFCAMP	2020-04-03				32.16402802	-104.1325489
30015486480000	SHERPA 12 STATE COM	711H	EOG RESOURCES INC	EOG RESOURCES INC	25S 27E 12	631 FNL 1284 FEL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	MISC PERMIAN BASIN	WELL PERMIT	2021-07-06			19644	WOLFCAMP	2021-07-02				32.150086	-104.139154
30015486990000	SHERPA 12 STATE COM	729H	EOG RESOURCES INC	EOG RESOURCES INC	25S 27E 12	631 FNL 1298 FEL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	MISC PERMIAN BASIN	WELL PERMIT	2021-07-06			19664	WOLFCAMP	2021-07-02				32.150086	-104.139202

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

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:**	Boomerang 6 Fed SWD#1
Analysis Performed by:	EPD	**API Well Number:**	
Client:	Mewbourne Oil Company	**Well Name:**	Produced Water
Reader Number:		**Test Number:**	Devon 6 W2AD Fee #1H
Water Lens Batch Number:	B41		

Metals

	Dilution Factor	mg/L	meq/L
Barium	10	**30**	**0**
Calcium	Calc	**5420**	**270.4**
Iron II (Fe^{2+})	100	**131.51**	**4.70**
Iron III (Fe^{3+})	Calc	**3.99**	**0.21**
Total Dissolved Iron	100	**135.50**	**7.29**
Magnesium	1,000	**Less than 400**	**Less than 33**
Sodium	Calc	**47000**	**2040**
Strontium	n/a	*Test Not Run*	-
Manganese	n/a	*Test Not Run*	-
Boron		*Test Not Run*	-
Potassium	100	**669**	**17.1**

Anions

	Dilution Factor	mg/L	meq/L
Chloride	100	**85,110**	**2,401**
Sulfate	1	**135**	**3**
Nitrate	n/a	*Test Not Run*	-
Phosphate	100	**45.19**	**1.43**
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	**131**	**2.1**
Acetates/Formates (as Acetate)	Calc	**181**	**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	**1.0**	mg/L
Turbidity	1	**282**	NTU's
Total Hardness	1,000.0	**16,550.00**	mg/L $CaCO_3$
Oxidation/Reduction Potential (ORP)		**-49**	millivolts
Temperature		**77**	Fahrenheit
Stiff & Davis Scaling Index (S&DSI)		**-1.04**	
Langelier Scaling Index (LSI)		**0.13**	
Larson-Skold Index		**1364.99**	
Skillman Index		**1.251**	
Barite Saturation Index		**1.46**	
Gypsum Saturation Index		**-0.60**	

	Dilution Factor		
ATP (picograms/mL)	Calc	*Test not run*	
Dissolved CO_2 (ppm)	Calc	**435**	
pH	n/a	**6.17**	
Total Alkalinity	1	**261**	mg/L $CaCO_3$
Total Dissolved Solids (TDS)	Calc	**139,500**	mg/L
Electrical Conductivity	Calc	**183,500**	uS/cm
Electrical Resistivity	Calc	**5.4**	Ohm*cm
Manganese/Iron Ratio		*Test Not Run*	
Specific Gravity		**1.0970**	

Comments

Wolfcamp

MEWBOURNE OIL COMPANY
BOOMERANG 6 FEE SWD #1 APPLICATION

BONE SPRINGS WATER ANALYSIS

Company	Mewbourne Oil NM
Lease	Oxbow 23/24
Well	B2MP Fed Com 1Y
Sample Location	Wellhead
Sample Date	12/11/2020
Date_Taken_To_Lab	12/16/2020
pH	6.57
Temperature	78.1
HCO3	34.2
CO3	0
O2	0
CO2	300
H2S	1.71
Acidized Bottle 1	
Acidized Bottle 2	Yes
Unique Code	WA-LKEPZM
Lab Measured Sample Temp	78.1
Lab H2S	1.71
Lab CO2	300
Lab Boron	35.32
Lab dissolved O2	0
Lab Calcium	7117
Lab_Magnesium	1088
Lab Sodium	63094
Lab Barium	0.818
Lab Manganese	0.515
Lab Strontium	312.4
Lab_Potassium	916.2
Lab Hydroxyl	0
Lab_Carbonate	0
Lab_Bicarbonate	34.2
Lab Sulfate	320
Lab Chloride	114200
Lab Total Iron	20.85
Lab Total Dissolved Solids	202124
Lab Total Hardness as CaCO3	0
Lab Conductivity MICROMHOS PER C	213647
Resistivity	4.68
Lab pH	6.57
Lab Specific Gravity 6060F	1.13
Lab CaSO4 Solubilty at 80F MEq per L	0
Lab Scaling Index 70 degrees	0

Lab Scaling Index 80 degrees	0
Lab Scaling Index 90 degrees	0
Lab Scaling Index 100 degrees	0
Lab Scaling Index 110 degrees	0
Lab Scaling Index 120 degrees	0
Lab Scaling Index 130 degrees	0
Lab Scaling Index 140 degrees	0
Lab Scaling Index 150 degrees	0
French Creek Lab Scaling Index 81.82	0.265
French Creek Lab Scaling Index 93.64	0.226
French Creek Lab Scaling Index 105.4	0.19
French Creek Lab Scaling Index 117.2	0.158
French Creek Lab Scaling Index 129.0	0.129
French Creek Lab Scaling Index 152.7	0.0828
French Creek Lab Scaling Index 164.5	0.0636
French Creek Lab Scaling Index 176.3	0.0494
French Creek Lab Scaling Index 188.1	0.038
French Creek Lab Scaling Index 200.0	0.029
Comments	

Mewbourne Oil Company
Boomerang 6 Fee SWD #1
C-108 Attachment
July 2021

STATEMENTS REGARDING SEISMICITY AND WELL SPACING

Historically, the area nearby our proposed Boomerang 6 Fee SWD #1 has not seen a significant amount of seismic activity. There has been one seismic event (per USGS database) in this area in 1974 (magnitude 3.9) that was located 10.5 miles north 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 1.64 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.

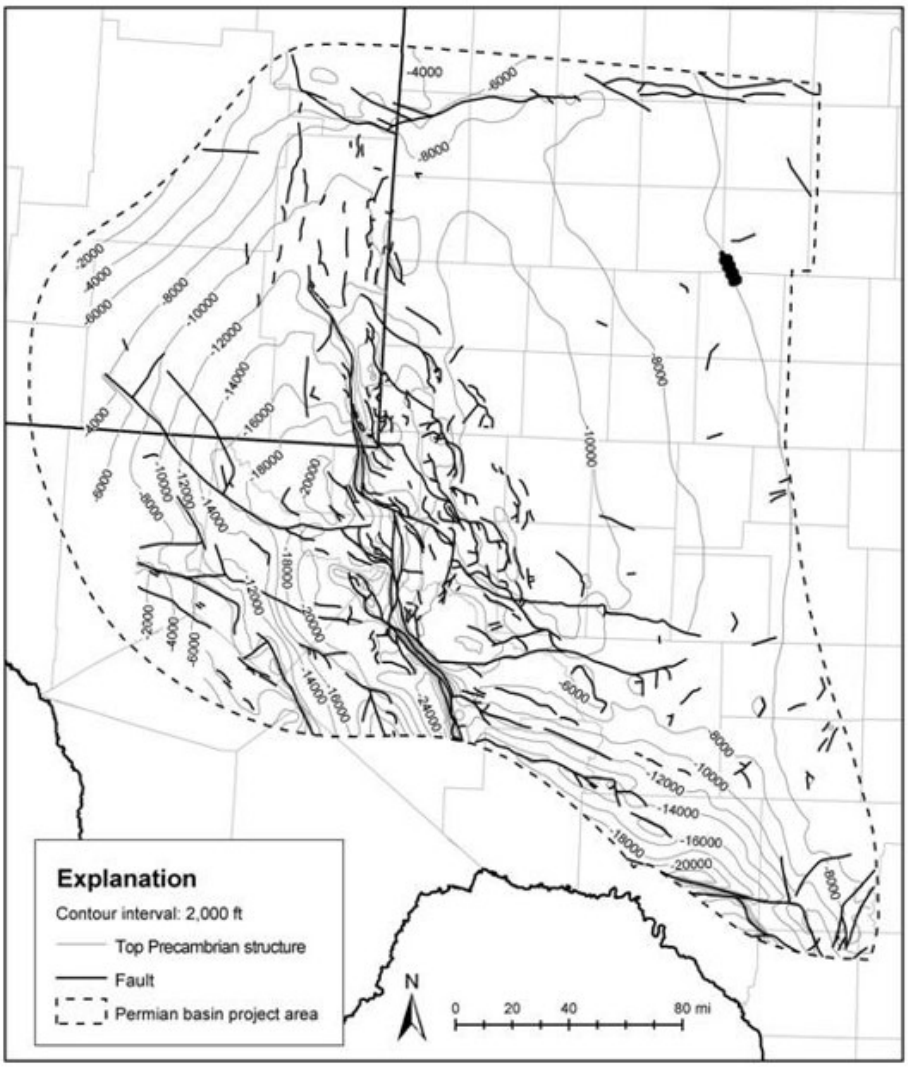
Figure 3 from the Snee and Zoback paper highlights additional faults in this area that trend more in a NE/SW direction. There is a high probability that these mapped faults are actually surface faults as the apparent source of these fault traces is from a Geological Map of New Mexico (see Figure 4).

The Boomerang 6 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 Boomerang (miles)
Delaware Energy	Bugs Bunny SWD #001	Permitted	1.51
Anthem Water Solutions	Elk 122527 St SWD #001	Application pending	2.1
Delaware Energy	Coyote SWD #002	Application pending	2.3

Zane Anderson

Engineer
zanderson@mewbourne.com
575-399-5905



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

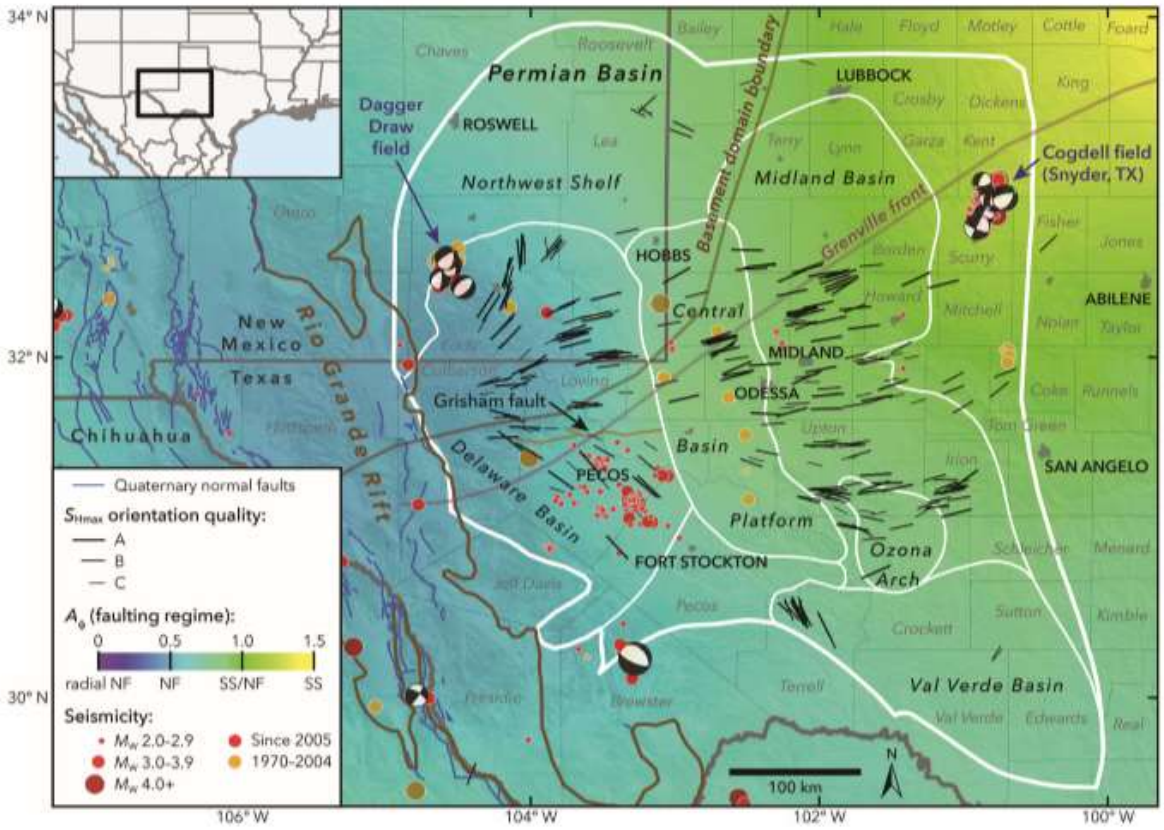


Figure 1. State of stress in the Permian Basin, Texas and New Mexico. Black lines are the measured orientations of S_{Hmax}, with line length scaled by data quality. The colored background is an interpolation of measured relative principal stress magnitudes (faulting regime) expressed using the A_ϕ parameter (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).

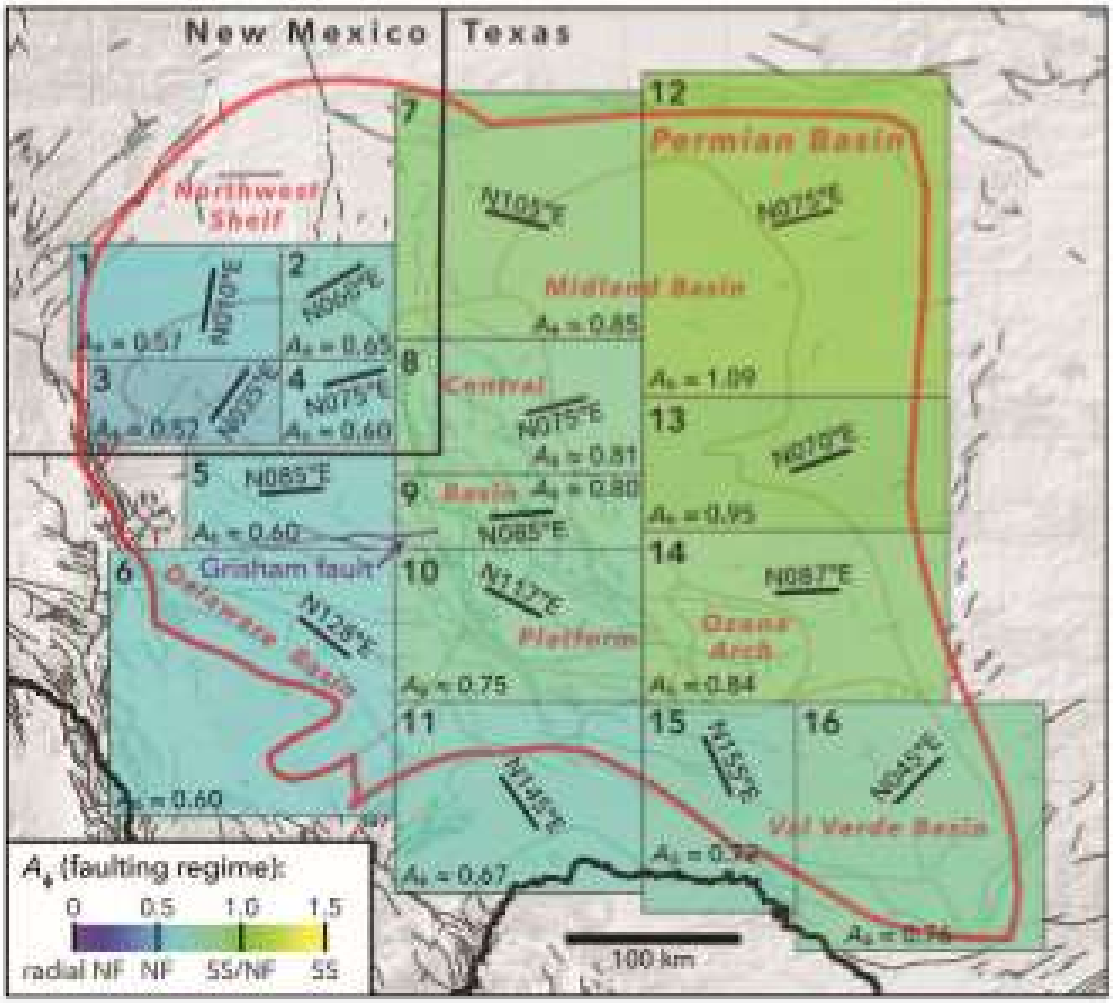


Figure 2. Map of study areas chosen for FSP analysis on the basis of broadly similar stress conditions. Text annotations indicate representative S_{Hmax} orientation and relative principal stress magnitudes (A_ϕ parameter) for each study area based on the data presented in Figure 1. Gray lines in the 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.

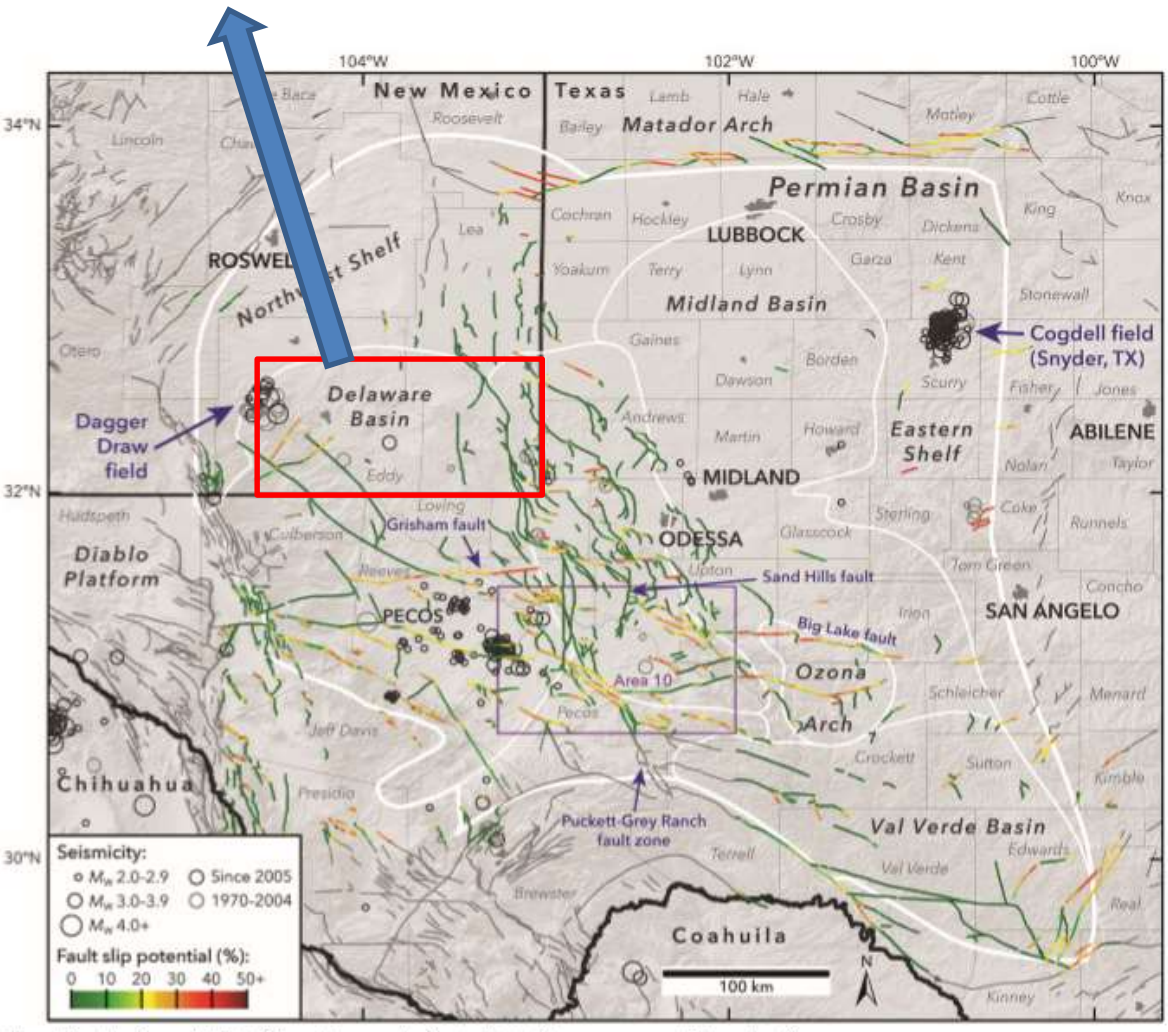


Figure 3. Results of our probabilistic FSP analysis across the Permian Basin. Data sources are as in Figures 1 and 2.

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
Boomerang 6 Fee 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.
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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: **Boomerang 6 Fee SWD #1**

WELL LOCATION:	**2,650' FNL & 2,650' FWL**	**F**	**6**	**25S**	**28E**
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC *(See Attached)*

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: **26"**

Casing Size: **20" (94#) @ 450'**

Cement with: **715 sx (100% excess)**

Top of Cement: **Surface**

Intermediate Casing

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

Casing Size: **13 3/8" (54.5 & 61#) @ 2,340'**

Stage 1: **1120 sx (25% excess)**

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

Production Casing

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

Casing Size: **9 5/8" (40#) @ 9,200'**

Stage 1: **1435 sx (25% excess)**

Top of Cement: **DV Tool @ 2,415'**

Stage 2: **625 sx (25% excess)**

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

Production Liner

Hole Size: **8 3/4"**

Casing Size: **7 5/8" (33.7#)**
Top @ 9,000'
Bottom @ 13,970'

Cement with: **355 sx (25% excess)**

Top of Cement: **9,000'**
(Proposed: circulated to liner top)

TD @ 14,850'

Permitted Injection Interval 13,970'-14,850'

Side 2

INJECTION WELL DATA SHEET

Tubing Size: **7”** x **5 ½”** Lining Material: **Duoline**
7”, P110 UFJ GB to approximately 8,850’
5 1/2”, P110 UFJ GB to 13,890’

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

Packer Setting Depth: **+/- 13,890’**

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 (2,415’), Bone Spring (5,975’), Wolfcamp (9,190’), & Morrow (12,300’)**

   Underlying producing zone – **N/A**

BOOMERANG 6 FEE 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 30,000 bwpd.

2. Non-commercial SWD (closed system).

3. Proposed average injection pressure is unknown and the maximum injection pressure is approximately 2,794 psi (0.2 psi/ft x 13,970 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 13,970' to 14,850'. It is estimated that the base of the injection interval should be approximately 650' above the top of the Ellenburger.

Other Projected Formation Tops:

Mississippian	13,570'
Woodford	13,810'
Devonian	13,940'
EST TOTAL DEPTH	**14,850'**
Montoya	14,880'
Simpson	15,240'
Ellenburger	15,500'

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 70', the shallowest water at a depth of 35' and the average water depth at 52'. 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.

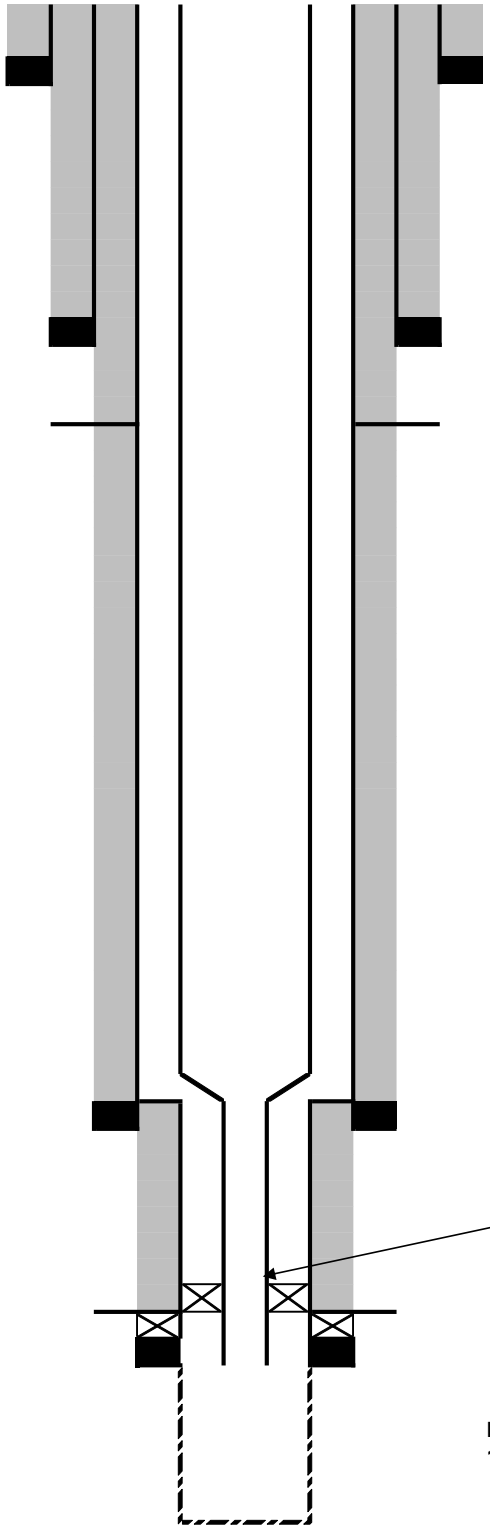
XI. There were 8 wells on record with the NM State Engineers Office within 2 miles of the proposed SWD. Many of these wells could not be located or were inaccessible. A fresh water sample taken from a well located in Section 7, Twp 25S, Rge 28E, and the analysis is attached.

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

Mewbourne Oil Company

Well Name: Boomerang 6 Fee SWD #1
Spud: 2021



20" 94# J-55 BTC
Set @ 450'
Cmt w/ 715 sx

13 3/8" 54.5 & 61# J55 & HCL80 STC
Set @ 2340'
Cmt w/ 1120 sx

ECP/DV Tool @ 2415'
Cmt 2nd stg w/ 625 sx

9 5/8" 40# HCL80 LTC
Set @ 9200'
Cmt 1st stg w/ 1435 sx

Injection String
7" P110 UFJ GB & 5 1/2" P110 UFJ GB
Nickel-Plated Pkr Set @ 13,890'

DV Tool @ 13,900'
External Csg Pkr Set @ 13,940'

7 5/8" 33.7# P-110 UFJ Liner
Set from 9000'-13,970'
Cmt w/ 355 sx

INJECTION ZONE: DEVONIAN
13970' - 14850'

6 1/8" Open Hole
TD @ 14,850'

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
	BOOMERANG 6 FEE SWD	1

7 OGRID NO.	8 Operator Name	9 Elevation
	MEWBOURNE OIL COMPANY	3060'

10 Surface Location

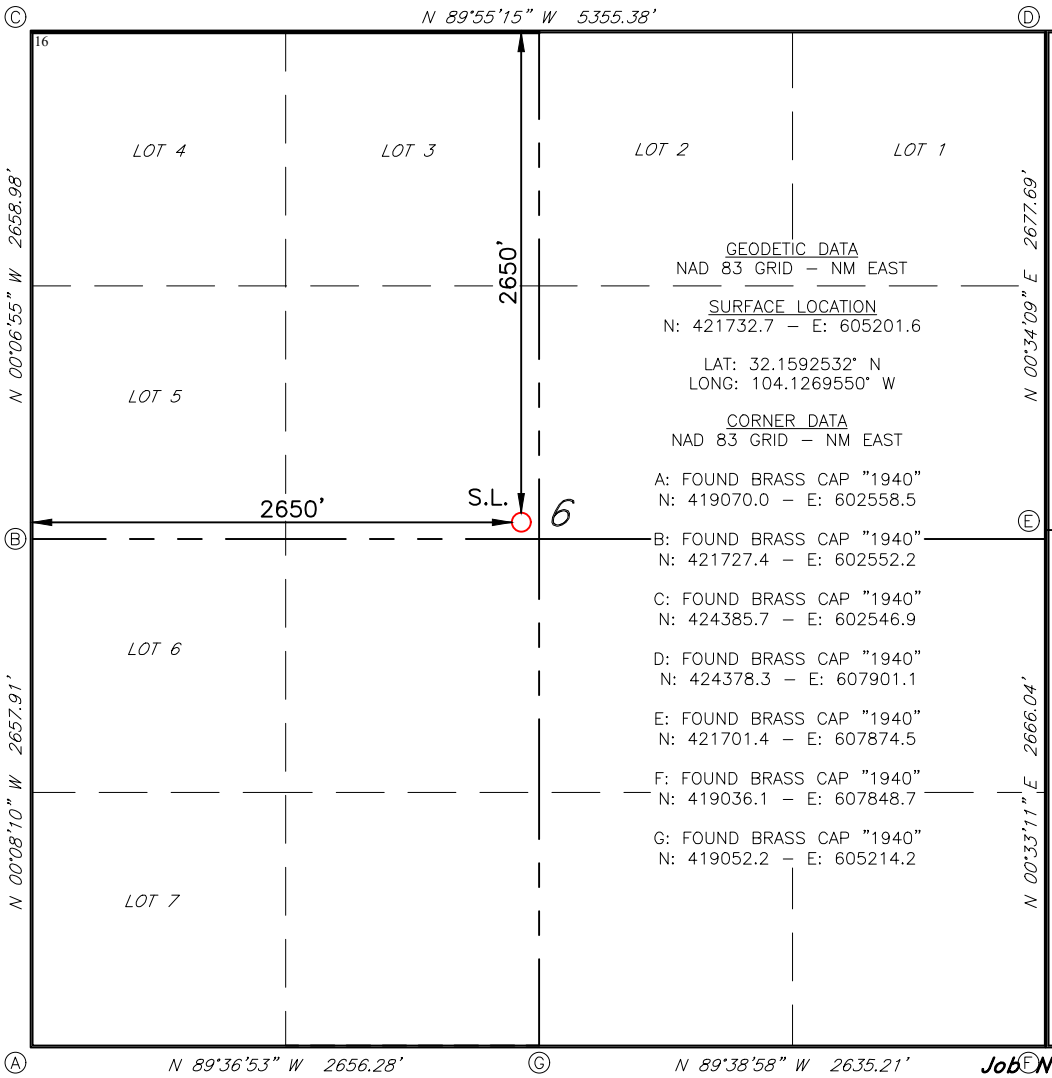
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
F	6	25S	28E		2650	NORTH	2650	WEST	EDDY

11 Bottom Hole Location If Different From Surface

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

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

No allowable will be assigned to this completion until all 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.

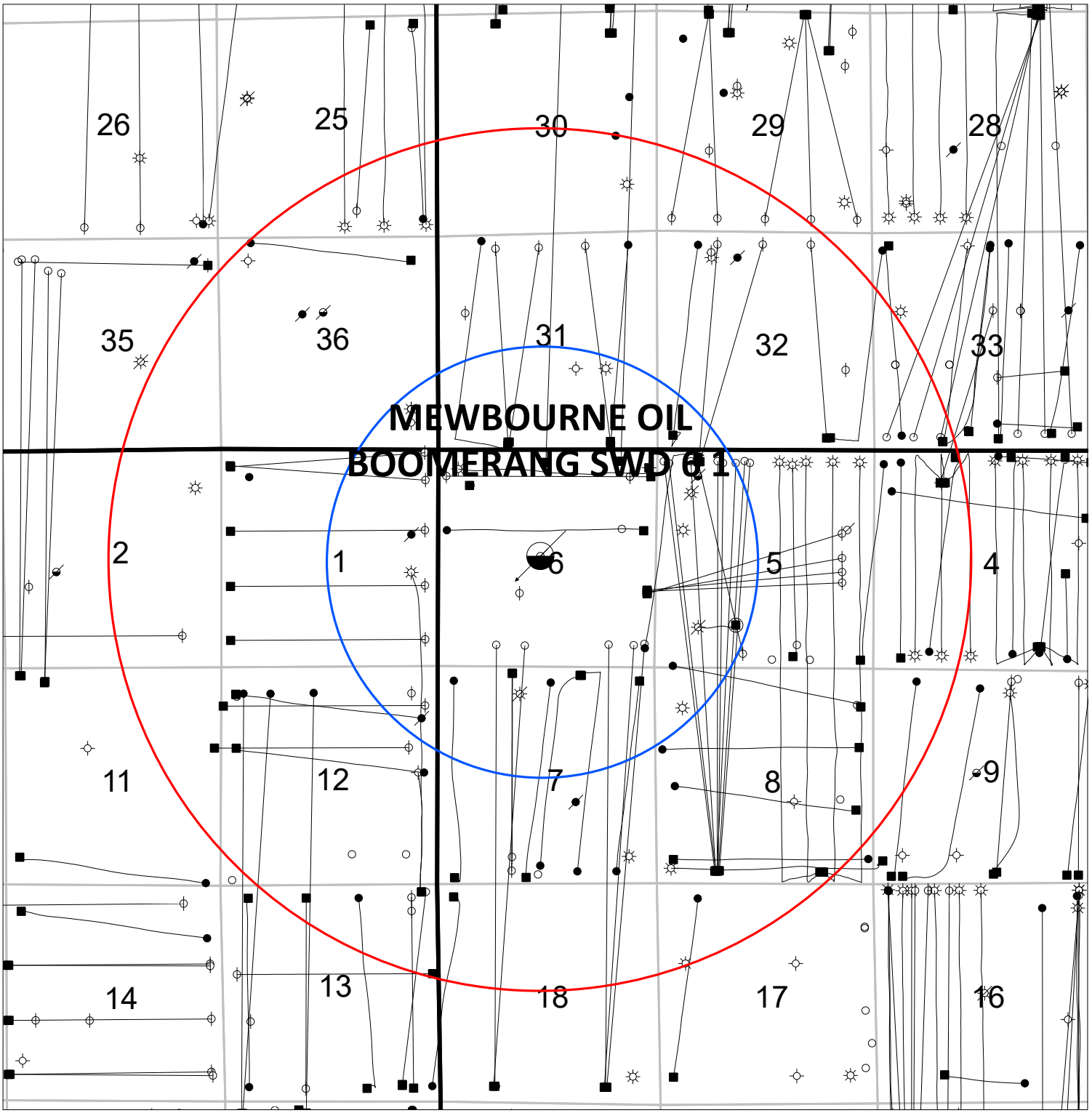
06-16-2021
Date of Survey

Signature and Seal of Professional Surveyor

ROBERT M. HOWETT
NEW MEXICO
19680
PROFESSIONAL SURVEYOR

19680
Certificate Number

Job No.: LS21060602



1 MILE AREA OF REVIEW

2 MILE AREA OF REVIEW

Mewbourne Oil Company

BOOMERANG 6 FEE SWD #1
2650 FNL & 2650 FWL 6-25S-28E
EDDY CO., NEW MEXICO

Author: sd		Date: 16 July, 2021

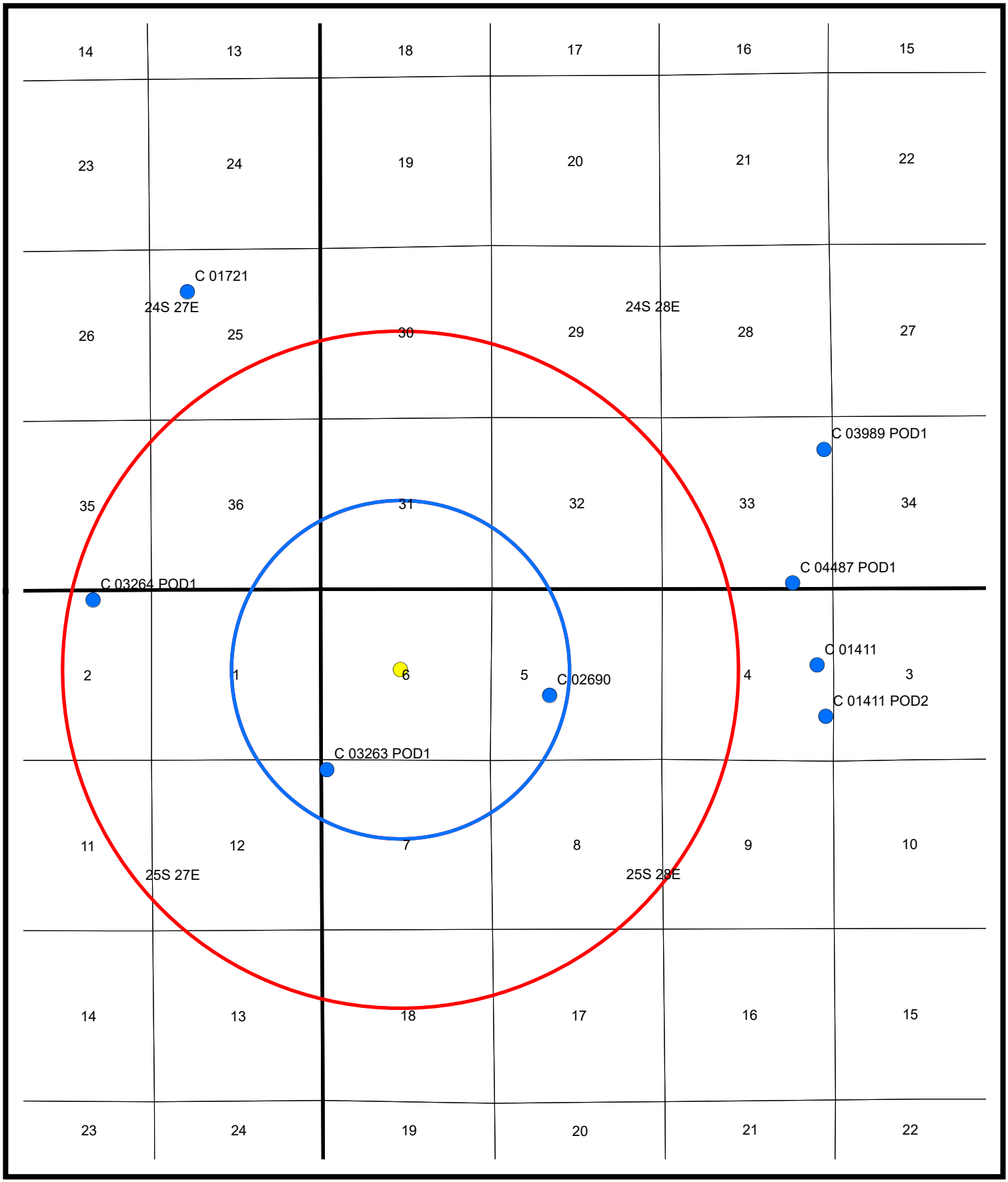
Mewboure Oil Company
Boomerang 6 Fee SWD #1 C-108 Application

1 MILE AOR WELLS

ESTIMATED TOP OF DEVONIAN = 13,940'

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	Proj Depth	Proj Form	Permit License Date	Spud Date	Comp Date	Final Drill Date	Latitude	Longitude
30015348810000	OXY BENELLI	1	OCCIDENTAL PERMIAN LP	OCCIDENTAL PERMIAN LTD	25S 28E 8 S2 NW NW	990 FNL 660 FWL CONGRESS SECTION	SALT DRAW W	NM	EDDY	PERMIAN CONVENTIONAL	GAS PRODUCER	2021-04-05	12970	MORROW	13000	MORROW	2006-05-18	2006-06-14	2006-09-20	2006-07-28	32.14901482	-104.1157345
30015353420000	WINCHESTER 5 STATE	1	OGX RESOURCES LLC	OGX RESOURCES LLC	25S 28E 5 NE SE SW	1004 FSL 1986 FWL CONGRESS SECTION	SALT DRAW W	NM	EDDY	PERMIAN CONVENTIONAL	ABD-GW	2021-05-20	12910	MORROW	13000	MORROW	2006-01-05	2007-01-27	2007-05-18	2007-03-03	32.15458644	-104.1114974
30015353420001	WINCHESTER 5 STATE	1	OGX RESOURCES LLC	OGX RESOURCES LLC	25S 28E 5 NE SE SW	1004 FSL 1986 FWL CONGRESS SECTION	SALT DRAW W	NM	EDDY	PERMIAN CONVENTIONAL	D&AW	2021-05-20	12910	MORROW	12450	MORROW	2007-06-16	2007-06-26	2007-09-26		32.15458644	-104.1114974
30015353420100	WINCHESTER 5 STATE	1	OGX RESOURCES LLC	COG OPERATING LLC	25S 28E 5 NE SE SW	1004 FSL 1986 FWL CONGRESS SECTION	SALT DRAW W	NM	EDDY	PERMIAN CONVENTIONAL	ABD-GW	2021-05-20	12844	MORROW	13184	MORROW	2007-09-30	2007-10-10	2008-01-15	2007-11-07	32.15458644	-104.1114974
30015353460000	BUCKSHOT STATE COM	1	OGX RESOURCES LLC	COG OPERATING LLC	24S 28E 31 W2 NE SE	1980 FSL 1250 FEL CONGRESS SECTION	SALT DRAW W	NM	EDDY	PERMIAN CONVENTIONAL	GAS PRODUCER	2021-05-20	12848	MORROW	13000	MORROW	2007-01-09	2007-04-09	2007-08-10	2007-05-26	32.17187468	-104.1217408
30015355570000	COLT STATE	1	OGX RESOURCES LLC	COG OPERATING LLC	25S 28E 5 C SW NW	1980 FNL 660 FWL CONGRESS SECTION	SALT DRAW W	NM	EDDY	PERMIAN CONVENTIONAL	GAS PRODUCER	2021-04-01	12850	MORROW	12900	MORROW	2007-04-20	2007-08-24	2008-01-04	2007-09-29	32.1609791	-104.1156411
30015355580000	KIMBER STATE	001	OGX RESOURCES LLC	OWL SWD OPERATING LLC	25S 28E 7	660 FNL 1980 FWL CONGRESS SECTION	SALT DRAW W	NM	EDDY	PERMIAN CONVENTIONAL	ABD-GW	2021-05-20	12697	MORROW	12900	MORROW	2007-04-20	2007-05-21	2007-08-17	2007-07-09	32.14998014	-104.1285905
30015358380000	GURKHA BKG STATE COM	001	YATES PETROLEUM CORP	EOG RESOURCES INC	24S 27E 36 SE SE	990 FSL 660 FEL CONGRESS SECTION	SALT DRAW W	NM	EDDY	PERMIAN CONVENTIONAL	GAS PRODUCER	2021-05-28	12999	MORROW	13100	MORROW	2007-10-02	2007-11-23	2008-03-19	2008-01-25	32.16916323	-104.1371356
30015408620000	COLT STATE COM	2H	LEGEND NATURAL GAS III LP	COG OPERATING LLC	25S 28E 5	200 FNL 1000 FWL CONGRESS SECTION	WILLOW LAKE	NM	EDDY	BONE SPRING	OIL PRODUCER	2020-11-30	12613	BONE SPRING 2 /SD/	12300	BONE SPRING	2012-12-03	2013-10-11	2013-12-01	2013-10-25	32.16587188	-104.114474
30015408670000	STATE GQ COM	3H	LEGEND NATURAL GAS III LP	COG OPERATING LLC	25S 28E 7	330 FNL 380 FEL CONGRESS SECTION	HAY HOLLOW NORTH	NM	EDDY	BONE SPRING	OIL PRODUCER	2021-01-11	12462	BONE SPRING	12300	BONE SPRING	2012-12-05	2013-01-11	2013-02-28	2013-01-27	32.15082839	-104.1191195
30015409060000	FULL CHOKE COM	2H	LEGEND NATURAL GAS III LP	COG OPERATING LLC	24S 28E 32	330 FSL 380 FWL CONGRESS SECTION	WILLOW LAKE	NM	EDDY	BONE SPRING	OIL PRODUCER	2021-01-11	12696	BONE SPRING	12300	BONE SPRING	2012-12-13	2013-02-25	2013-05-26	2013-03-11	32.16737406	-104.1164432
30015410930000	BUCKSHOT STATE COM	2H	LEGEND NATURAL GAS III LP	COG OPERATING LLC	24S 28E 31	100 FSL 1140 FEL CONGRESS SECTION	WILLOW LAKE WEST	NM	EDDY	BONE SPRING	OIL PRODUCER	2018-09-26	12646	BONE SPRING 2 /SD/	12300	BONE SPRING	2013-02-13	2013-11-01	2013-12-24	2013-11-13	32.16670511	-104.1213841
30015410940000	BUCKSHOT STATE COM	3H	LEGEND NATURAL GAS III LP	COG OPERATING LLC	24S 28E 31	100 FSL 1700 FWL CONGRESS SECTION	WILLOW LAKE WEST	NM	EDDY	BONE SPRING	OIL PRODUCER	2020-11-30	12613	BONE SPRING	12300	BONE SPRING	2013-02-13	2013-08-20	2013-10-13	2013-09-10	32.16671463	-104.1295112
30015414010000	COLT STATE SWD	004	LEGEND NATURAL GAS III LP	COG OPERATING LLC	25S 28E 5	1066 FNL 850 FWL CONGRESS SECTION	SWD	NM	EDDY	N/A - SALT WATER DISPOSAL	ABD-SWD	2021-05-20	6007	DELAWARE	6000	DELAWARE	2013-05-24	2013-08-01	2013-09-06	2013-08-21	32.16349238	-104.1149931
30015414280000	STATE GQ	5H	LEGEND NATURAL GAS III LP	COG OPERATING LLC	25S 28E 7	200 FNL 1775 FEL CONGRESS SECTION	HAY HOLLOW NORTH	NM	EDDY	BONE SPRING	OIL PRODUCER	2021-05-20	12700	BONE SPRING	12700	BONE SPRING	2013-06-07	2013-07-23	2013-09-19	2013-08-11	32.15122446	-104.1237237
30015414290000	STATE GQ	4H	LEGEND NATURAL GAS III LP	COG OPERATING LLC	25S 28E 7	200 FNL 1805 FEL CONGRESS SECTION	HAY HOLLOW NORTH	NM	EDDY	BONE SPRING	OIL PRODUCER	2020-11-30	12590	BONE SPRING	12700	BONE SPRING	2013-06-07	2013-06-30	2013-09-19	2013-07-18	32.15122515	-104.1238206
30015429310000	DEVON `6` FEE	002H	OCCIDENTAL PERMIAN LTD	OCCIDENTAL PERMIAN LTD	25S 28E 6	1980 FNL 300 FEL CONGRESS SECTION	WILLOW LAKE	NM	EDDY	BONE SPRING	OIL PRODUCER	2021-06-09	12640	BONE SPRING	12626	BONE SPRING	2015-01-28	2015-02-19	2015-04-12	2015-03-07	32.160951	-104.1187683
30015436610000	DEVON 6 W2AD FEE	1H	MEWBOURNE OIL CO	MEWBOURNE OIL CO	25S 28E 6	440 FNL 185 FEL CONGRESS SECTION	SULPHATE DRAW	NM	EDDY	WOLFCAMP DELAWARE	GAS PRODUCER	2021-05-20	14735	WOLFCAMP	14893	WOLFCAMP	2016-03-03	2016-04-01	2016-07-25	2016-04-15	32.16518222	-104.1183367
30015469550000	SCOUT STATE COM	601H	COG OPERATING LLC	COG OPERATING LLC	25S 28E 6	280 FNL 876 FEL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-07-29			24892	WOLFCAMP	2020-04-03				32.16563005	-104.1205631
30015469560000	SCOUT STATE COM	602H	COG OPERATING LLC	COG OPERATING LLC	25S 28E 6	280 FNL 906 FEL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-07-29			24869	WOLFCAMP	2020-04-03				32.16563038	-104.12066
30015469570000	SCOUT STATE COM	603H	COG OPERATING LLC	COG OPERATING LLC	25S 28E 6	310 FNL 2635 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-07-29			24852	WOLFCAMP	2020-04-03				32.16556793	-104.1265095
30015469580000	SCOUT STATE COM	604H	COG OPERATING LLC	COG OPERATING LLC	25S 28E 6	310 FNL 2605 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-07-29			24821	WOLFCAMP	2020-04-03				32.16556828	-104.1266066
30015469590000	SCOUT STATE COM	605H	COG OPERATING LLC	COG OPERATING LLC	25S 28E 6	875 FNL 796 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL START	2021-04-13			24212	WOLFCAMP	2020-04-03	2021-04-12			32.16402767	-104.132452
30015469600000	SCOUT STATE COM	606H	COG OPERATING LLC	COG OPERATING LLC	25S 28E 6	875 FNL 766 FWL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	WOLFCAMP DELAWARE	WELL PERMIT	2020-07-29			24172	WOLFCAMP	2020-04-03				32.16402802	-104.1325489
30015486480000	SHERPA 12 STATE COM	711H	EOG RESOURCES INC	EOG RESOURCES INC	25S 27E 12	631 FNL 1284 FEL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	MISC PERMIAN BASIN	WELL PERMIT	2021-07-06			19644	WOLFCAMP	2021-07-02				32.150086	-104.139154
30015486990000	SHERPA 12 STATE COM	729H	EOG RESOURCES INC	EOG RESOURCES INC	25S 27E 12	631 FNL 1298 FEL CONGRESS SECTION	PURPLE SAGE	NM	EDDY	MISC PERMIAN BASIN	WELL PERMIT	2021-07-06			19664	WOLFCAMP	2021-07-02				32.150086	-104.139202

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



WATER WELLS

BOOMERANG 6 SWD

INFORMATION COURTESY OF
THE NEW MEXICO STATE ENGINEER
NM WATER RIGHTS REPORTING SYSTEM

Mewbourne Oil Company

BOOMERANG 6 FEE SWD #1
2650 FNL & 2650 FWL 6-25S-28E
EDDY CO., NEW MEXICO

Author: sd		Date: 16 July, 2021

MEWBOURNE OIL COMPANY

BOOMERANG 6 FEE SWD #1 APPLICATION

LIST OF NEARBY WATER WELLS (2 MILE AOR)

POD Number	POD Subbasin	County	Source	q64	q16	q4	Sec	Tws	Rng	X	Y	Lat	Long	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller
C 01721	C	EDDY				NW	25	24S	27E	580271	3562033	32.19198	-104.148	01/02/1977	05/27/1977	06/01/1977	170		INGRAM, JACK L.
C 04487 POD1	CUB	EDDY		SW	SE	SE	33	24S	28E	586052	3559299	32.16689	-104.087						
C 03989 POD1	CUB	EDDY	Shallow	SE	NE	NE	33	24S	28E	586342	3560573	32.17836	-104.084	01/12/2017	01/13/2017	01/16/2017	100	70	MALEY, JASON
C 03264 POD1	CUB	EDDY		NE	NW	NE	2	25S	27E	579391	3559099	32.16557	-104.158						
C 01411	C	EDDY	Shallow	SE	SE	NE	04	25S	28E	586289	3558522	32.15986	-104.085	10/07/1969	10/15/1969	10/20/1969	69	35	WHITE, QUINCE L.
C 01411 POD2	C	EDDY	Shallow	SE	NE	SE	04	25S	28E	586374	3558036	32.15547	-104.084	02/09/2020	02/20/2020	02/21/2020	90	50	TAYLOR, CLINTON E.
C 02690	C	EDDY			NE	SE	05	25S	28E	583745	3558219	32.15732	-104.112						
C 03263 POD1	CUB	EDDY		NW	NW	NW	07	25S	28E	581628	3557501	32.151	-104.134						
																AVERAGE	107	52	

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:**	Boomerang 6 Fed SWD#1
Analysis Performed by:	EPD	**API Well Number:**	
Client:	Mewbourne Oil Company	**Well Name:**	Fresh Water
Reader Number:		**Test Number:**	C 03263-POD1
Water Lens Batch Number:	B41		

Metals

	Dilution Factor	mg/L	meq/L
Barium	1	**Less than 2**	**Less than 0.029**
Calcium	Calc	**381**	**19.02**
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	**74.00**	**6.08**
Sodium	Calc	**Less than 156**	**Less than 0.01**
Strontium	n/a	*Test Not Run*	-
Manganese	n/a	*Test Not Run*	-
Boron		*Test Not Run*	-
Potassium	10	**Less than 10**	**0.1**

Anions

	Dilution Factor	mg/L	meq/L
Chloride	1	**25**	**1**
Sulfate	10	**1,000**	**21**
Nitrate	n/a	*Test Not Run*	-
Phosphate	10	**5.42**	**0.17**
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	**68**	**1.1**
Acetates/Formates (as Acetate)	Calc	**16**	**0.3**
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	**1.0**	mg/L	**ATP (picograms/mL)**	Calc	*Test not run*	
Turbidity	1	**Less than 7**	NTU's	**Dissolved CO_2 (ppm)**	Calc	**10**	
Total Hardness	100.0	**1,257.00**	mg/L $CaCO_3$	**pH**	n/a	**7.56**	
Oxidation/Reduction Potential (ORP)		**-26**	millivolts	**Total Alkalinity**	1	**70**	mg/L $CaCO_3$
Temperature		**77**	Fahrenheit				
Stiff & Davis Scaling Index (S&DSI)		**-0.09**					
Langelier Scaling Index (LSI)		**0.28**		**Total Dissolved Solids (TDS)**	Calc	**1,560**	mg/L
Larson-Skold Index		**23.55**		**Electrical Conductivity**	Calc	**2,500**	uS/cm
Skillman Index		**1.251**		**Electrical Resistivity**	Calc	**400.0**	Ohm*cm
Barite Saturation Index		**2.19**		**Manganese/Iron Ratio**		*Test Not Run*	
Gypsum Saturation Index		**0.35**		**Specific Gravity**		**1.0011**	

Comments

Fresh Water

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:**	Boomerang 6 Fed SWD#1
Analysis Performed by:	EPD	**API Well Number:**	
Client:	Mewbourne Oil Company	**Well Name:**	Produced Water
Reader Number:		**Test Number:**	Devon 6 W2AD Fee #1H
Water Lens Batch Number:	B41		

Metals

	Dilution Factor	mg/L	meq/L
Barium	10	**30**	**0**
Calcium	Calc	**5420**	**270.4**
Iron II (Fe^{2+})	100	**131.51**	**4.70**
Iron III (Fe^{3+})	Calc	**3.99**	**0.21**
Total Dissolved Iron	100	**135.50**	**7.29**
Magnesium	1,000	**Less than 400**	**Less than 33**
Sodium	Calc	**47000**	**2040**
Strontium	n/a	*Test Not Run*	-
Manganese	n/a	*Test Not Run*	-
Boron		*Test Not Run*	-
Potassium	100	**669**	**17.1**

Anions

	Dilution Factor	mg/L	meq/L
Chloride	100	**85,110**	**2,401**
Sulfate	1	**135**	**3**
Nitrate	n/a	*Test Not Run*	-
Phosphate	100	**45.19**	**1.43**
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	**131**	**2.1**
Acetates/Formates (as Acetate)	Calc	**181**	**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	**1.0**	mg/L
Turbidity	1	**282**	NTU's
Total Hardness	1,000.0	**16,550.00**	mg/L $CaCO_3$
Oxidation/Reduction Potential (ORP)		**-49**	millivolts
Temperature		**77**	Fahrenheit
Stiff & Davis Scaling Index (S&DSI)		**-1.04**	
Langelier Scaling Index (LSI)		**0.13**	
Larson-Skold Index		**1364.99**	
Skillman Index		**1.251**	
Barite Saturation Index		**1.46**	
Gypsum Saturation Index		**-0.60**	

	Dilution Factor		
ATP (picograms/mL)	Calc	*Test not run*	
Dissolved CO_2 (ppm)	Calc	**435**	
pH	n/a	**6.17**	
Total Alkalinity	1	**261**	mg/L $CaCO_3$
Total Dissolved Solids (TDS)	Calc	**139,500**	mg/L
Electrical Conductivity	Calc	**183,500**	uS/cm
Electrical Resistivity	Calc	**5.4**	Ohm*cm
Manganese/Iron Ratio		*Test Not Run*	
Specific Gravity		**1.0970**	

Comments

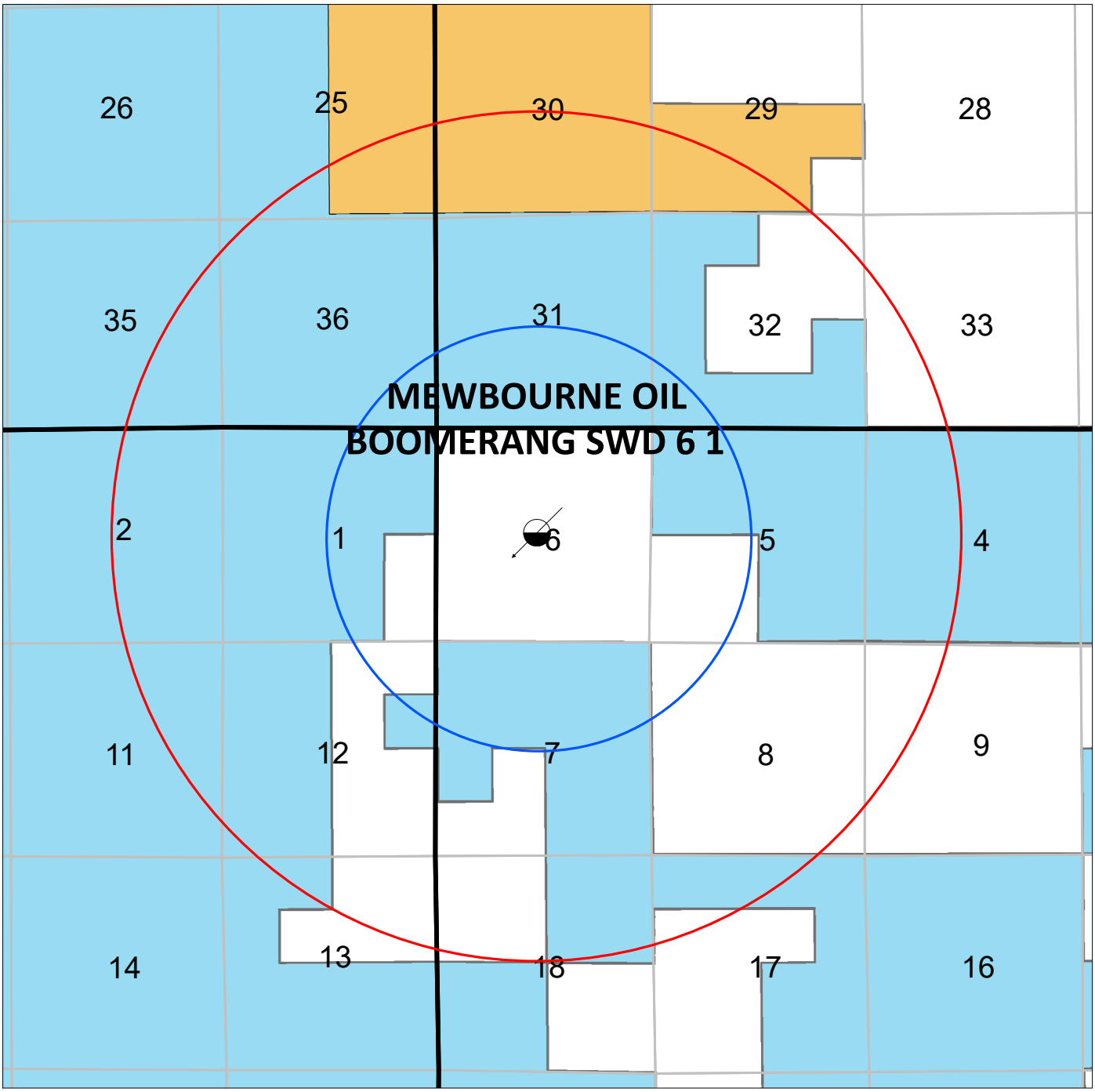
Wolfcamp

MEWBOURNE OIL COMPANY
BOOMERANG 6 FEE SWD #1 APPLICATION

BONE SPRINGS WATER ANALYSIS

Company	Mewbourne Oil NM
Lease	Oxbow 23/24
Well	B2MP Fed Com 1Y
Sample Location	Wellhead
Sample Date	12/11/2020
Date_Taken_To_Lab	12/16/2020
pH	6.57
Temperature	78.1
HCO3	34.2
CO3	0
O2	0
CO2	300
H2S	1.71
Acidized Bottle 1	
Acidized Bottle 2	Yes
Unique Code	WA-LKEPZM
Lab Measured Sample Temp	78.1
Lab H2S	1.71
Lab CO2	300
Lab Boron	35.32
Lab dissolved O2	0
Lab Calcium	7117
Lab_Magnesium	1088
Lab Sodium	63094
Lab Barium	0.818
Lab Manganese	0.515
Lab Strontium	312.4
Lab_Potassium	916.2
Lab Hydroxyl	0
Lab_Carbonate	0
Lab_Bicarbonate	34.2
Lab Sulfate	320
Lab Chloride	114200
Lab Total Iron	20.85
Lab Total Dissolved Solids	202124
Lab Total Hardness as CaCO3	0
Lab Conductivity MICROMHOS PER C	213647
Resistivity	4.68
Lab pH	6.57
Lab Specific Gravity 6060F	1.13
Lab CaSO4 Solubilty at 80F MEq per L	0
Lab Scaling Index 70 degrees	0

Lab Scaling Index 80 degrees	0
Lab Scaling Index 90 degrees	0
Lab Scaling Index 100 degrees	0
Lab Scaling Index 110 degrees	0
Lab Scaling Index 120 degrees	0
Lab Scaling Index 130 degrees	0
Lab Scaling Index 140 degrees	0
Lab Scaling Index 150 degrees	0
French Creek Lab Scaling Index 81.82	0.265
French Creek Lab Scaling Index 93.64	0.226
French Creek Lab Scaling Index 105.4	0.19
French Creek Lab Scaling Index 117.2	0.158
French Creek Lab Scaling Index 129.0	0.129
French Creek Lab Scaling Index 152.7	0.0828
French Creek Lab Scaling Index 164.5	0.0636
French Creek Lab Scaling Index 176.3	0.0494
French Creek Lab Scaling Index 188.1	0.038
French Creek Lab Scaling Index 200.0	0.029
Comments	



FEDERAL LANDS

STATE LANDS

PUBLIC LANDS

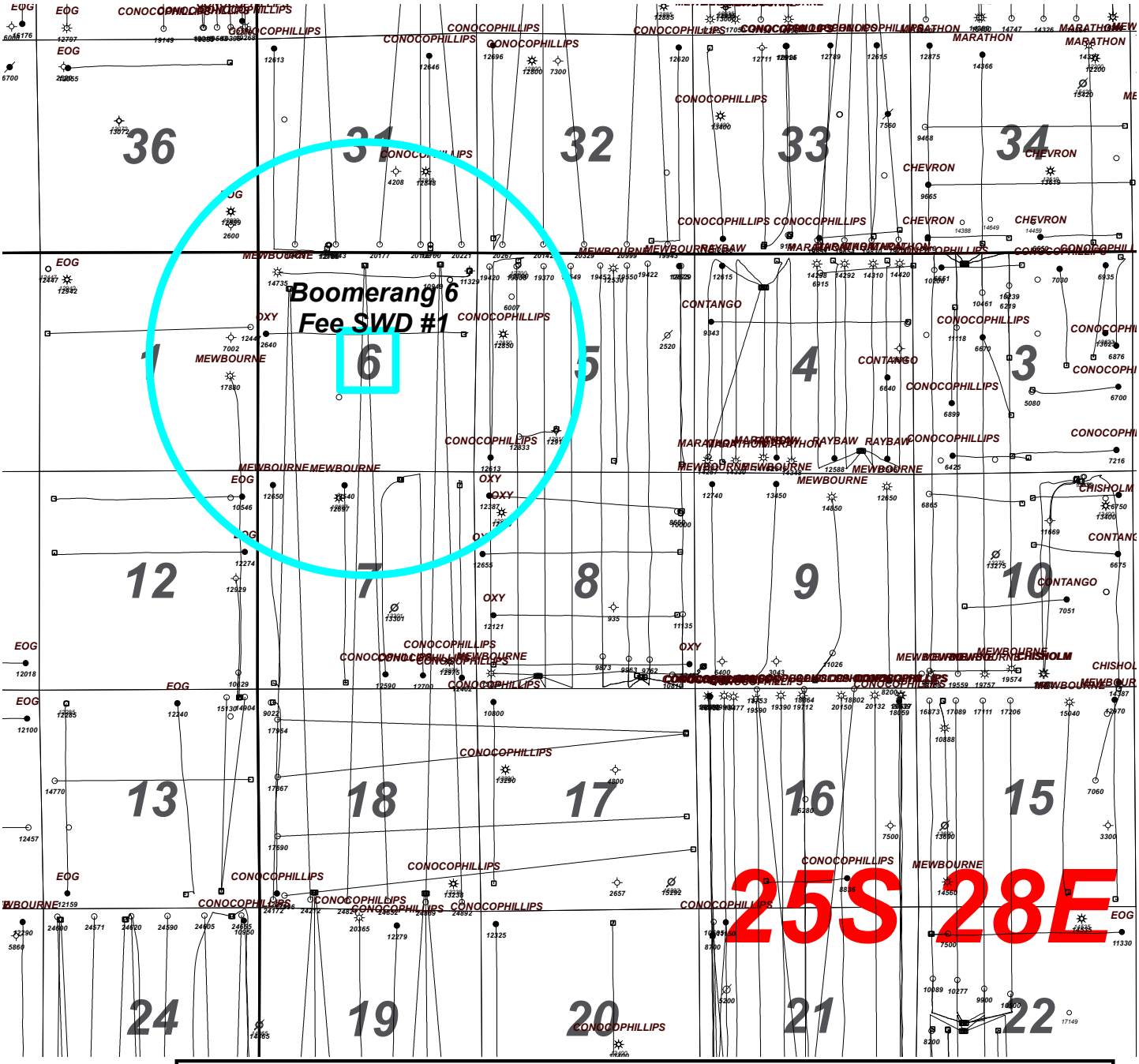
1 MILE AREA OF REVIEW

2 MILE AREA OF REVIEW

Mewbourne Oil Company

BOOMERANG 6 FEE SWD #1
2650 FNL & 2650 FWL
EDDY CO., NEW MEXICO

Author: sd		Date: 16 July, 2021



Mewbourne Oil Company

Boomerang 6 Fee SWD #1
Operator Map

7/1/2021	*Northern DLWR Basin*	*Texas/New Mexico*
		N.Cless

Listing of Notified Persons

Boomerang 6 Fee SWD #1 Application
2650' FNL, 2650' FWL
Section 6, 25S, 28E, Eddy County, NM

Surface Owner

New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe, NM 87504-1148

Devon Energy Production Company, LP
333 West Sheridan Ave
Oklahoma City, OK 73102-5015

Offsetting Operators Within 1 Mile AOR

Occidental Permian Ltd.;
OXY USA WTP Limited Partnership
5 Greenway Plaza, Suite 110
Houston, Texas 77046-0521

COG Operating, LLC
600 W. Illinois Avenue
Midland, Texas 79701

OWL SWD Operating, LLC
200 N. Loraine St., Suite 206
Midland, TX 79701

Purvis Operating Co.
3101 N Pecos St
Midland, TX, 79705-5341

Trinity River Energy, LLC
777 Main St #3600
Fort Worth, TX 76102

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

EOG Y Resources, Inc.

104 S 4TH ST
ARTESIA, NM 88210

Carlsbad Current Argus.
PART OF THE USA TODAY NETWORK

Affidavit of Publication

Ad # 0004826281

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 Kofott
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 Boomerang 6 Fee SWD #1 as a salt water disposal well.

The Boomerang 6 Fee SWD #1 is located 2,650' FNL and 2,650' FWL, Unit Letter F, Section 6, Township 25 South, Range 28 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 13,970 feet to 14,850 feet. Expected maximum injection rates are 30,000 BWPD at a maximum injection pressure of 2,794 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 19 miles Southeast of Carlsbad, New Mexico.

#4826281, Current Argus, July 17, 2021

Ad # 0004826281
PO #:
# of Affidavits 1

This is not an invoice

MEWBOURNE
OIL COMPANY

July 28, 2021

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

Re: Boomerang 6 Fee SWD #1
Sec 6, Twp 25S, Rge 28E
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
Boomerang 6 Fee SWD #1
C-108 Attachment
July 2021

STATEMENTS REGARDING SEISMICITY AND WELL SPACING

Historically, the area nearby our proposed Boomerang 6 Fee SWD #1 has not seen a significant amount of seismic activity. There has been one seismic event (per USGS database) in this area in 1974 (magnitude 3.9) that was located 10.5 miles north 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 1.64 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.

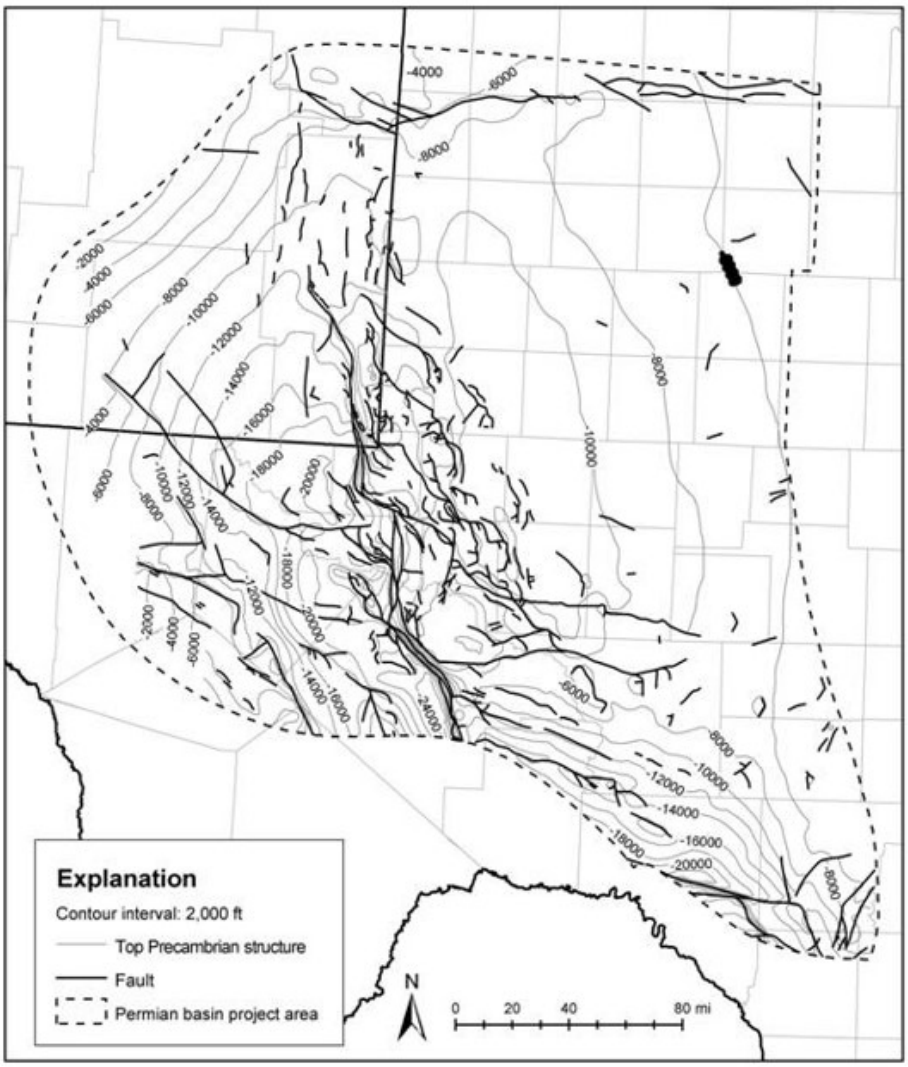
Figure 3 from the Snee and Zoback paper highlights additional faults in this area that trend more in a NE/SW direction. There is a high probability that these mapped faults are actually surface faults as the apparent source of these fault traces is from a Geological Map of New Mexico (see Figure 4).

The Boomerang 6 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 Boomerang (miles)
Delaware Energy	Bugs Bunny SWD #001	Permitted	1.51
Anthem Water Solutions	Elk 122527 St SWD #001	Application pending	2.1
Delaware Energy	Coyote SWD #002	Application pending	2.3

Zane Anderson

Engineer
zanderson@mewbourne.com
575-399-5905



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

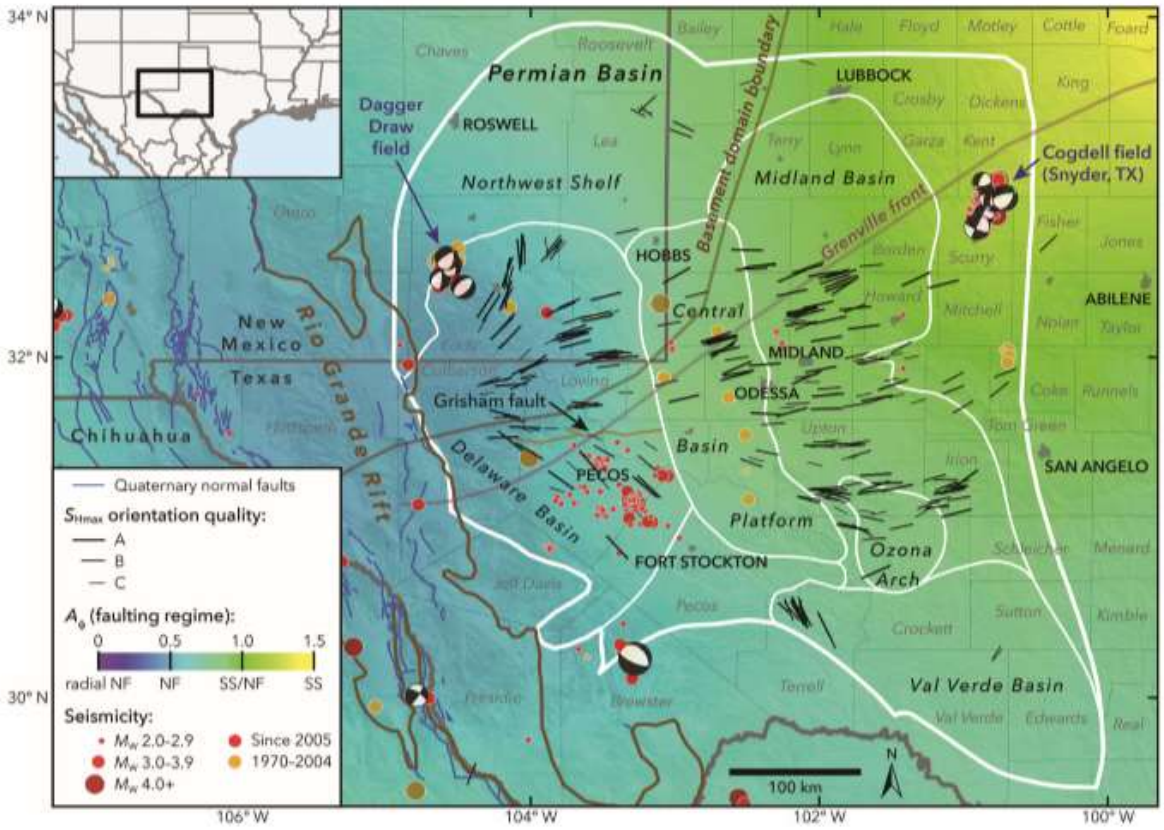


Figure 1. State of stress in the Permian Basin, Texas and New Mexico. Black lines are the measured orientations of S_{Hmax}, with line length scaled by data quality. The colored background is an interpolation of measured relative principal stress magnitudes (faulting regime) expressed using the A_ϕ parameter (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).

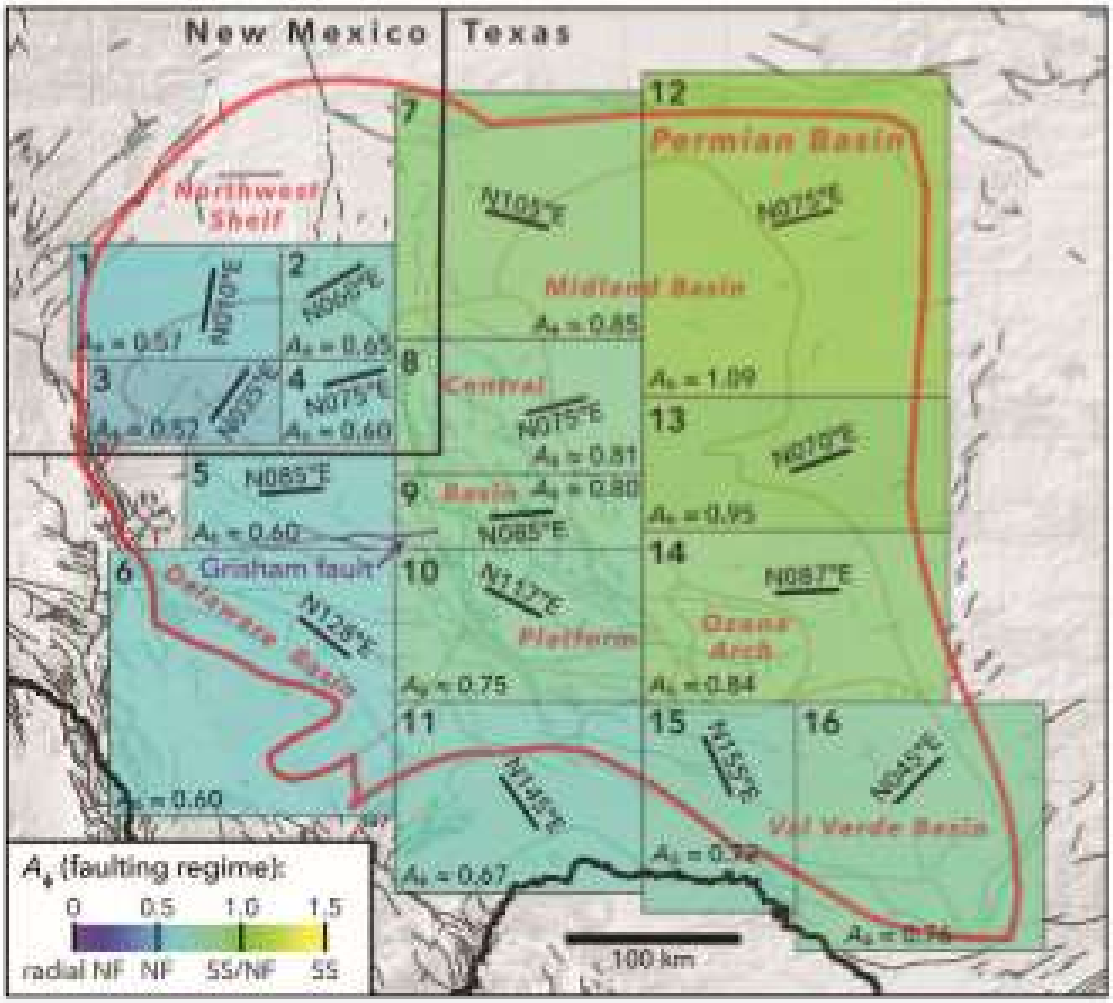


Figure 2. Map of study areas chosen for FSP analysis on the basis of broadly similar stress conditions. Text annotations indicate representative S_{Hmax} orientation and relative principal stress magnitudes (A_ϕ parameter) for each study area based on the data presented in Figure 1. Gray lines in the 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.

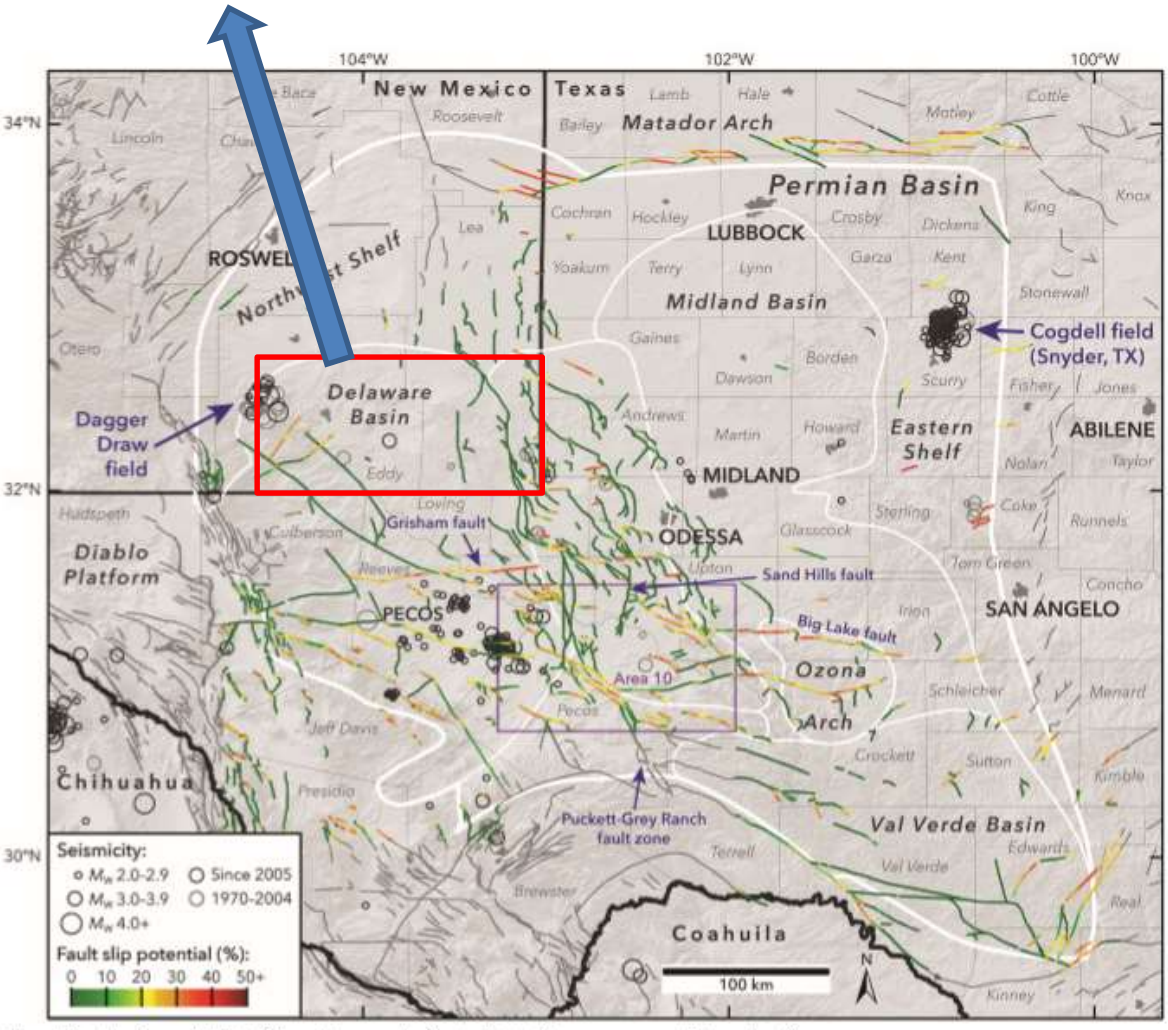


Figure 3. Results of our probabilistic FSP analysis across the Permian Basin. Data sources are as in Figures 1 and 2.

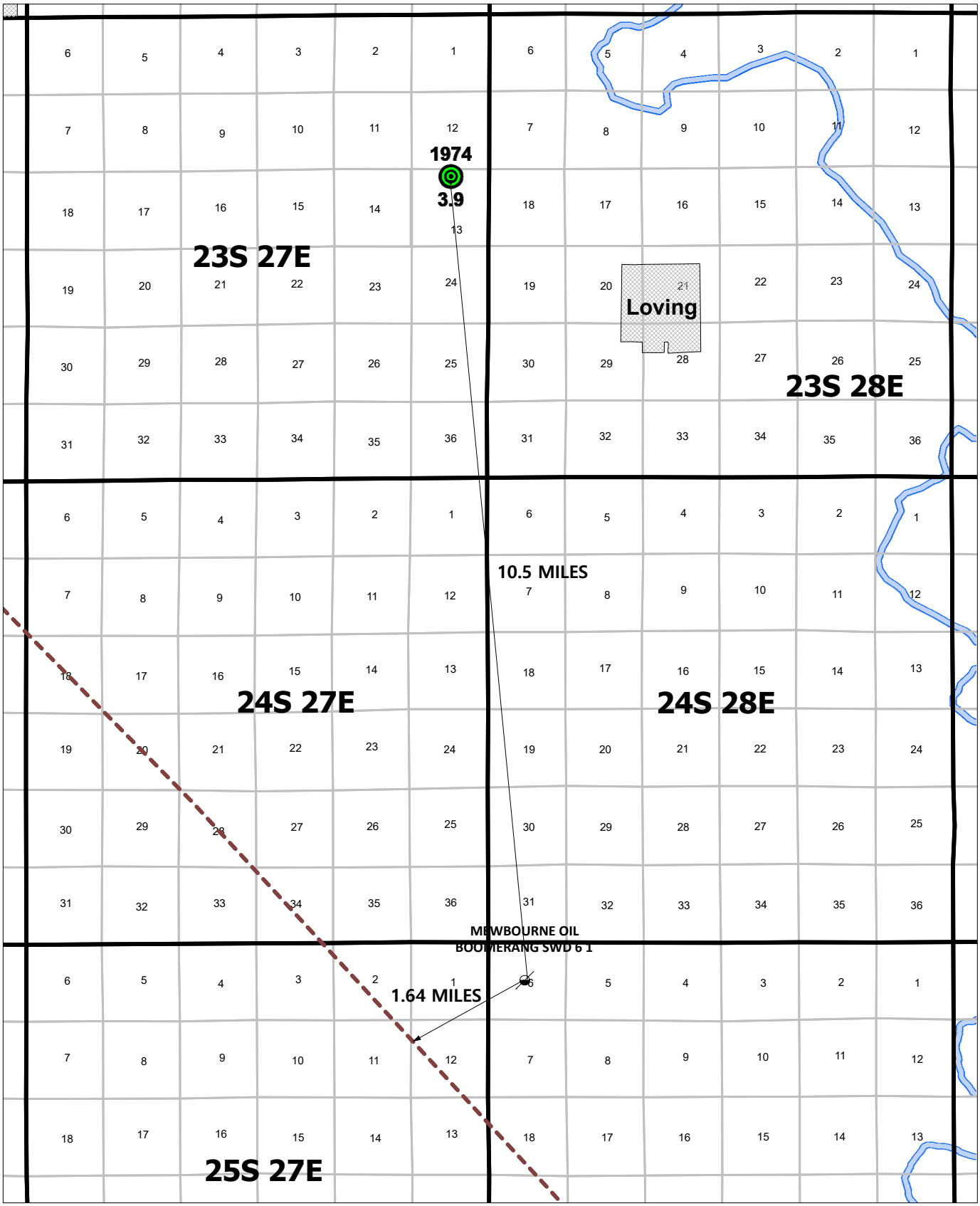
References

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.



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

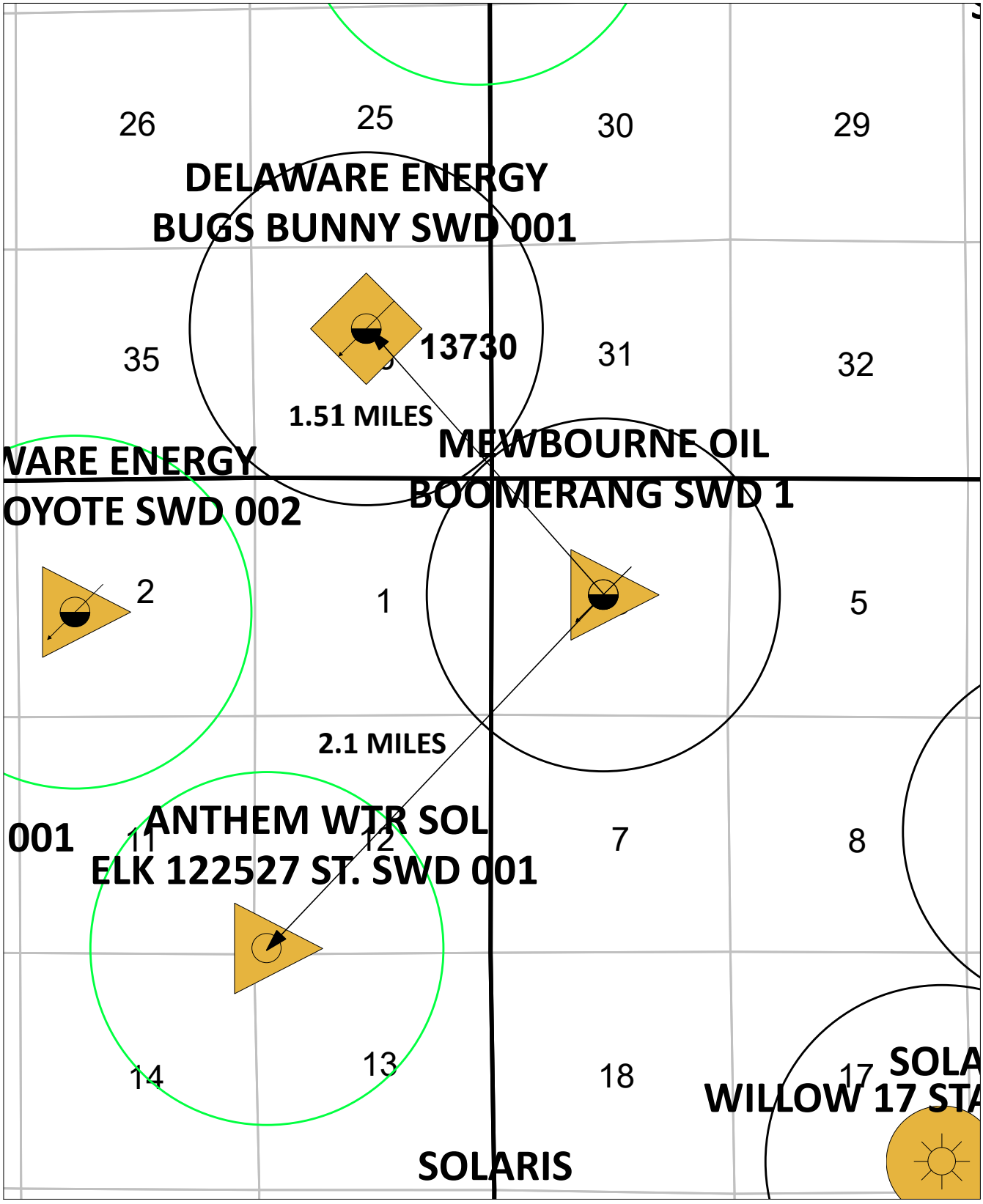
1974
3.9

EARTHQUAKE LOCATIONS PROVIDED BY USGS

Mewbourne Oil Company

BOMERANG 6 FEE SWD #1
2650 FNL & 2650 FWL 6-25S-28E
EDDY CO., NEW MEXICO

Author: sd		Date: 16 July, 2021



ACTIVE SWD WELL

SWD WELL APPLICATION PENDING

PERMITTED LOCATIONS

THREE QUARTER MILE RADIUS

Mewbourne Oil Company

BOOMERANG 6 FEE SWD
2650 FNL & 2650 FWL
EDDY CO., NEW MEXICO

Author: sd		Date: 16 July, 2021

A — **A'**

300154420200	3.4 miles	300154180600	2.8 miles	BOOMERANG 6 FEE SWD 1	4.5 miles	300154466600
CHEVRON DIGNITAS 26 STATE SWD 1 Reference=KB Datum=3108.00 1920 FSL & 200 FE TWP: - Range: - Sec.		COG OPERATING LLC WILLOW 17 STATE SWD 1 Reference=KB Datum=3038.00 660 FSL/660 FEL TWP: 25 S - Range: 28 E - Sec. 17		MOC BOOMERANG 6 FEE SWD 1 Reference=KB Datum=3088.00 2650 FN 2650 FW TWP: 25 S - Range: 28 E - Sec. 6		MEWBOURNE HOSS 11 SWD 1 Reference=KB Datum=2974.00 200 FN 215 FE TWP: - Range: - Sec.

26 I/25S/27E
10/24/19 DVNN SWD Completion
Open Hole Completion: 13945-15000
Inj Cum: 10 MMBWI
Still Active

17 P/25S/28E
5/23/14 DVNN SWD Completion
Open Hole Completion: 14292-15292
Inj Cum: 22 MMBWI
Still Active

6 F/25S/28E
Boomerang 6
Fee SWD #1

11 A/25S/28E
8/28/18 DVNN SWD Completion
Open Hole Completion: 14530-15650
Inj Cum: 21 MMBWI
Still Active

500

0

-500

Est Top Mississippian: 13570

MSSP 13537 | MSSP 13570 | MSSP 13875 | MSSP 14137

Est Top Woodford: 13810

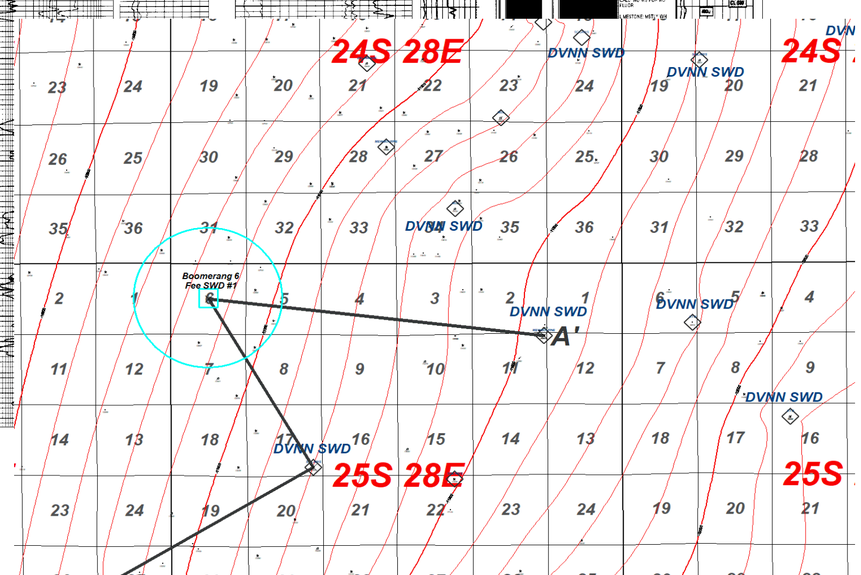
WDFD 13777 | WDFD 13810 | WDFD 14114 | WDFD 14365

Est Top Devonian: 13940

DVNN 13905 | DVNN 13940 | DVNN 14239 | DVNN 14505

Approved SWD Interval | ***Approved SWD Interval*** | ***Proposed SWD Interval*** | ***Approved SWD Interval***

TD=15292.00 | TD=14855.00 | TD=15649.00



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

Est Top Montoya: 14880
Est Top Simpson: 15240
Est Top Ellenburger: 15500

Boomerang 6 Fee SWD #1

MEWBOURNE OIL COMPANY
Boomerang 6 Fee 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.