U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Sundry Print Report

Well Name: ZACH 17 W0MD FED Well Location: T26S / R33E / SEC 17 /

SWSW / 32.0370135 / -103.5986299

County or Parish/State: LEA /

NM

Well Number: 2H

Type of Well: CONVENTIONAL GAS

WELL

Allottee or Tribe Name:

Lease Number: NMNM0160973

Unit or CA Name:

**Unit or CA Number:** 

**US Well Number: 3002547530** 

Well Status: Approved Application for

Permit to Drill

Operator: MEWBOURNE OIL

COMPANY

# **Notice of Intent**

Type of Submission: Notice of Intent

Type of Action Casing

Date Sundry Submitted: 01/22/2021

Time Sundry Submitted: 09:24

Date proposed operation will begin: 01/22/2021

**Procedure Description:** Mewbourne Oil Co. is requesting to run 7 5/8" 39# P110 HDL as the production string in place of 7" 29# HCP110 LTC. See attachment for casing & cement programs.

#### **Surface Disturbance**

Is any additional surface disturbance proposed?: No

## **NOI Attachments**

#### **Procedure Description**

Zach\_17\_8\_W0MD\_Fed\_Com\_2H\_Technical\_Data\_Sheet\_VAM\_HDL\_7.625\_x\_39\_P110\_20210122092213.p df

 $Zach\_17\_8\_W0MD\_Fed\_Com\_2H\_Csg\_\_cmt\_program\_20210122092048.pdf$ 

# **Conditions of Approval**

#### **Specialist Review**

ZACH\_17\_W0MD\_FED\_2H\_Sundry\_Drilling\_COA\_OTA\_20210124122336.pdf

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Operator: MEWBOURNE OIL

Signed on: JAN 22, 2021 09:22 AM

COMPANY

# **Operator Certification**

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: BISHOP

Name: MEWBOURNE OIL COMPANY

Title: Regulatory

Street Address: P O BOX 5270

City: HOBBS State: NM

Phone: (505) 393-5905

Email address: NOT ENTERED

## Field Representative

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

#### **BLM Point of Contact**

BLM POC Name: AJIBOLA OLABODE BLM POC Title: Engineer

BLM POC Phone: 5752342231 BLM POC Email Address: OAJIBOLAEIT@BLM.GOV

**Disposition:** Approved **Disposition Date:** 01/24/2021

Signature: Olabode Thomas Ajibola

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
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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. Sr. 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

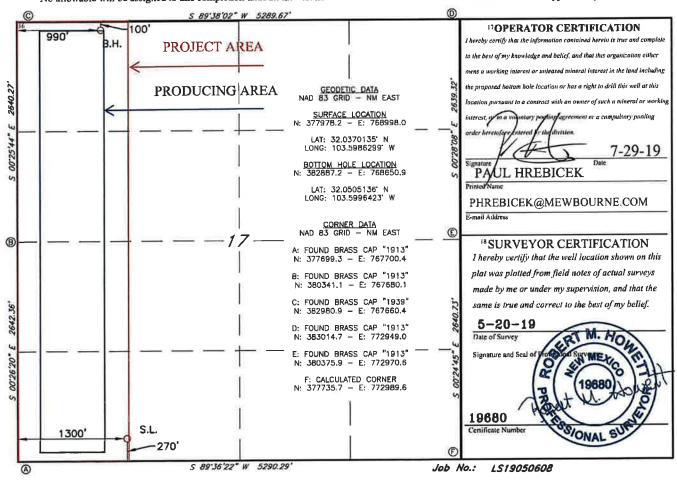
WELL LOCATION AND ACREAGE DEDICATION PLAT

| l API Number               | <sup>2</sup> Pool Code<br>98097 | SANDERS TANK;             | UPPER WOLFCAMP                     |
|----------------------------|---------------------------------|---------------------------|------------------------------------|
| <sup>4</sup> Property Code |                                 | WOMD FED                  | 6 Well Number<br>2H                |
| 70GRID NO.<br>14744        |                                 | erator Name C OIL COMPANY | <sup>9</sup> Elevation <b>3267</b> |

Surface Location Feet From the East/West line County Range Lot Idn Feet from the North/South line UL or lot no. Section Township 270 SOUTH 1300 WEST LEA 17 **26S** 33E M 11 Bottom Hole Location If Different From Surface

East/West line Feet from the County Lot Idn Feet from the North/South line UL or lot no. Section Township Range WEST NORTH 990 LEA **26S** 33E 100 17 D 15 Order No. 14 Consolidation Code 13 Joint or Infill 12 Dedicated Acres 160

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.



# Mewbourne Oil Company, Zach 17/8 W0MD Fed Com #2H Sec 17, T26S, R33E

SL: 270' FSL & 1300' FWL (Sec 17) BHL: 100' FNL & 990' FWL (Sec 8)

# **Casing Program**

| Hole   | Casing  | g Interval | Csg.    | Weight  | Grade      | Conn.    | SF       | SF    | SF Jt   | SF Body |
|--------|---------|------------|---------|---------|------------|----------|----------|-------|---------|---------|
| Size   | From    | To         | Size    | (lbs)   |            |          | Collapse | Burst | Tension | Tension |
| 17.5"  | 0'      | 815'       | 13.375" | 48      | H40        | STC      | 2.06     | 4.64  | 8.23    | 13.83   |
| 12.25" | 0'      | 4393'      | 9.625"  | 40      | J55        | LTC      | 1.13     | 1.73  | 2.96    | 3.58    |
| 12.25" | 4393'   | 4760'      | 9.625"  | 40      | N80        | LTC      | 1.25     | 2.32  | 50.23   | 62.43   |
| 8.75"  | 0'      | 11,704'    | 7.625"  | 39      | HCP110     | FJ       | 2.00     | 2.08  | 1.61    | 2.70    |
| 6.125" | 11,500' | 22,481'    | 4.5"    | 13.5    | P110       | LTC      | 1.29     | 1.50  | 2.32    | 2.90    |
|        |         | 1          |         | BLM Min | imum Safet | y Factor | 1.125    | 1     | 1.6 Dry | 1.6 Dry |
|        |         |            |         |         |            | -        |          |       | 1.8 Wet | 1.8 Wet |

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

# Must have table for contingency casing

|  | Y or N |
|--|--------|
| Is casing new? If used, attach certification as required in Onshore Order #1   | Y      |
| Is casing API approved? If no, attach casing specification sheet.  | Y      |
| Is premium or uncommon casing planned? If yes attach casing specification sheet.   | N      |
| Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria). | Y      |
| Will the pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?                             | Y      |
| Is well located within Capitan Reef?   | N      |
| If yes, does production casing cement tie back a minimum of 50' above the Reef?  |        |
| Is well within the designated 4 string boundary.   |        |
|  | ) T    |
| Is well located in SOPA but not in R-111-P?  | N      |
| If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?                       |        |
| Is well located in R-111-P and SOPA?   | N      |
| If yes, are the first three strings cemented to surface?   |        |
| Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?   |        |
| Is well located in high Cave/Karst?  | N      |
| If yes, are there two strings cemented to surface?   |        |
| (For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?   |        |
| Is well located in critical Cave/Karst?  | N      |
| If yes, are there strings cemented to surface?   |        |

# Mewbourne Oil Company, Zach 17/8 W0MD Fed Com #2H Sec 17, T26S, R33E

SL: 270' FSL & 1300' FWL (Sec 17) BHL: 100' FNL & 990' FWL (Sec 8)

# **Cementing Program**

| Casing         | # Sks | Wt.<br>lb/<br>gal | Yld<br>ft3/<br>sack | H <sub>2</sub> 0<br>gal/<br>sk | 500#<br>Comp.<br>Strength<br>(hours) | Slurry Description   |
|----------------|-------|-------------------|---------------------|--------------------------------|--------------------------------------|--|
| Surf.          | 415   | 12.5              | 2.12                | 11                             | 10                                   | Lead: Class C + Salt + Gel + Extender + LCM  |
|                | 200   | 14.8              | 1.34                | 6.3                            | 8                                    | Tail: Class C + Retarder   |
| Inter.         | 790   | 12.5              | 2.12                | 11                             | 10                                   | Lead: Class C + Salt + Gel + Extender + LCM  |
|                | 200   | 14.8              | 1.34                | 6.3                            | 8                                    | Tail: Class C + Retarder   |
| Prod.<br>Stg 1 | 115   | 12.5              | 2.12                | 11                             | 9                                    | Lead: Class C + Gel + Retarder + Defoamer + Extender                                       |
|                | 400   | 15.6              | 1.18                | 5.2                            | 10                                   | Tail: Class H + Retarder + Fluid Loss + Defoamer   |
|                |       |                   |                     |                                | ECP/DV T                             | ool @ 6120'  |
| Prod.          | 50    | 12.5              | 2.12                | 11                             | 10                                   | Lead: Class C + Salt + Gel + Extender + LCM  |
| Stg 2          | 100   | 14.8              | 1.34                | 6.3                            | 8                                    | Tail: Class C + Retarder   |
| Liner          | 440   | 11.2              | 2.97                | 18                             | 16                                   | Class C + Salt + Gel + Fluid Loss + Retarder + Dispersant + Defoamer + Anti-Settling Agent |

A copy of cement test will be available on location at time of cement job providing pump times & compressive strengths.

| Casing String | TOC     | % Excess |  |
|---------------|---------|----------|--|
| Surface       | 0'      | 100%     |  |
| Intermediate  | 0'      | 25%      |  |
| Production    | 4560'   | 25%      |  |
| Liner         | 11,500' | 25%      |  |

# **Technical Specifications**

| Connection Type:<br>HD-L Casing<br>STANDARD | •  | <b>/eight (Wall):</b><br>9.00 lb/ft (0.5 in) | <b>Grade:</b><br>P-110 |
|---|--|--|------------------------|
|   | Material                                 |  |                        |
| P-110                                       | Grade                                    |  |                        |
| 110,000                                     | Minimum Yield Strength (psi.)            |  | 1/2                    |
| 125,000                                     | Minimum Ultimate Strength (psi.)         |  | USA                    |
|   | Pipe Dimensions                          | VAM USA                                      |                        |
| 7.625                                       | Nominal Pipe Body O.D. (in.)             | 4424 W. Sam Hou<br>Houston, TX 7704          | ston Pkwy. Suite 150   |
| 6.625                                       | Nominal Pipe Body I.D. (in.)             | Phone: 713-479-32                            | 200                    |
| 0.500                                       | Nominal Wall Thickness (in.)             | Fax: 713-479-3234                            | ales@vam-usa.com       |
| 39.00                                       | Nominal Weight (lbs./ft.)                | E mail. Trimouris                            |                        |
| 38.08                                       | Plain End Weight (lbs./ft.)              |  |                        |
| 11.192                                      | Nominal Pipe Body Area (sq. in.)         |  |                        |
|   | Pipe Body Performance Properties         |  |                        |
| 1,231,000                                   | Minimum Pipe Body Yield Strength (lbs.   | )  |                        |
| 11,080                                      | Minimum Collapse Pressure (psi.)         | 1 181  |                        |
| 12,620                                      | Minimum Internal Yield Pressure (psi.)   | 1 8  |                        |
| 11,500                                      | Hydrostatic Test Pressure (psi.)         | [ ]  |                        |
|   | Connection Dimensions                    | <b>├</b>                                     |                        |
| 7.625                                       | Connection O.D. (in.)                    |  | 1                      |
| 6.551                                       | Connection I.D. (in.)                    |  |                        |
| 6.500                                       | Connection Drift Diameter (in.)          |  |                        |
| 4.51  | Make-up Loss (in.)                       |  |                        |
| 6.939                                       | Critical Area (sq. in.)                  |  |                        |
| 62.0  | Joint Efficiency (%)                     |  |                        |
|   | Connection Performance Properties        |  |                        |
| 763,000 (                                   | 1) Joint Strength (lbs.)                 |  |                        |
| 867,000 (                                   | 2) Reference Minimum Parting Load (lbs.) |  |                        |
| 14,310                                      | Reference String Length (ft) 1.4 Design  | Factor                                       |                        |
| 763,000                                     | Compression Rating (lbs.)                |  |                        |
| 11,080                                      | Collapse Pressure Rating (psi.)          |  |                        |
| 12,620                                      | Internal Pressure Rating (psi.)          |  |                        |
| 41.0  | Maximum Uniaxial Bend Rating [degree     | s/100 ft]                                    |                        |
|   | Recommended Torque Values                |  |                        |
| 8,500 (                                     | 3) Minimum Final Torque (ftlbs.)         |  |                        |

9,800 (3) Maximum Final Torque (ft.-lbs.)

Connection specifications within the control of VAM USA were correct as of the date printed. Specifications are subject to change without notice. Certain connection specifications are dependent on the mechanical properties of the pipe. Mechanical properties of mill proprietary pipe grades were obtained from mill publications and are subject to change. Properties of mill proprietary grades should be confirmed with the mill. Users are advised to obtain current connection specifications and verify pipe mechanical properties for each application.

All information is provided by VAM USA or its affiliates at user's sole risk, without liability for loss, damage or injury resulting from the use thereof; and on an "AS IS" basis without warranty or representation of any kind, whether express or implied, including without limitation any

Joint strength is the elastic limit or yield strength of the connection.
 Reference minimum parting load is the ultimate strength or parting load of the connection.
 Torque values are recommended and can be affected by field conditions.

# **Technical Specifications**

Page 2 of 2

warranty of merchantability, fitness for purpose or completeness. This document and its contents are subject to change without notice. In no event shall VAM USA or its affiliates be responsible for any indirect, special, incidental, punitive, exemplary or consequential loss or damage (including without limitation, loss of use, loss of bargain, loss of revenue, profit or anticipated profit) however caused or arising, and whether such losses or damages were foreseeable or VAM USA or its affiliates was advised of the possibility of such damages.

11/28/2018 3:33 PM

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: | Mewbourne Oil Company

**LEASE NO.: | NMNM0160973** 

WELL NAME & NO.: | ZACH 17 W0MD FED #2H

**SURFACE HOLE FOOTAGE:** 270'/S & 1330'/W **BOTTOM HOLE FOOTAGE** 100'/N & 1650'/W

LOCATION: Section 17, T.26 S., R.33 E., NMP

COUNTY: Lea County, New Mexico

## COA

| H2S                  | ← Yes                          | ● No                        |              |
|----------------------|--------------------------------|-----------------------------|--------------|
| Potash               | None                           | ○ Secretary                 | ← R-111-P    |
| Cave/Karst Potential | CLow                           | Medium                      | ← High       |
| Cave/Karst Potential | Critical                       |                             |              |
| Variance             | ○ None                         | Flex Hose                   | ○ Other      |
| Wellhead             | <ul><li>Conventional</li></ul> | <ul><li>Multibowl</li></ul> | ○ Both       |
| Other                | ☐ 4 String Area                | ☐ Capitan Reef              |              |
| Other                | ☐ Fluid Filled                 | ☐ Cement Squeeze            | ☐ Pilot Hole |
| Special Requirements | ☐ Water Disposal               | Г СОМ                       | □ Unit       |

# All Previous COAs Still Apply.

#### A. CASING

# Casing Design:

- 1. The 13-3/8 inch surface casing shall be set at approximately 860 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8** hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength,

- whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The 9-5/8 inch intermediate casing shall be set at approximately 4760 feet. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
  - Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
  - ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- 3. The minimum required fill of cement behind the 7-5/8 inch production casing is:

## Option 1 (Single Stage):

Cement should tie-back at least 200 feet into previous casing string.
 Operator shall provide method of verification.
 Excess cement calculates to -1%, additional cement might be required.

# Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- b. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- c. Second stage above DV tool:
  - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.
- 4. The minimum required fill of cement behind the 4-1/2 inch production liner is:
  - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.

#### B. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

## Option 1:

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.

# Option 2:

- 1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
  - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

# OTA0122021

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

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1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

# **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 15591

#### **CONDITIONS OF APPROVAL**

| Operator:        |               |                | OGRID: | Action Number: | Action Type: |
|------------------|---------------|----------------|--------|----------------|--------------|
| MEWBOURNE OIL CO | P.O. Box 5270 | Hobbs, NM88241 | 14744  | 15591          | C-103A       |

| OCD Reviewer | Condition |
|--------------|-----------|
| pkautz       | None      |