Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. NMNM84711 **BUREAU OF LAND MANAGEMENT** APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. **✓** DRILL REENTER 1a. Type of work: Oil Well 1b. Type of Well: Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing ✓ Single Zone Multiple Zone PINTA 29/27 FED COM 2. Name of Operator 9. API Well No. MEWBOURNE OIL COMPANY 30-015-55452 10. Field and Pool, or Exploratory 3a. Address 3b. Phone No. (include area code) Avalon/BONE SPRING P O BOX 5270, HOBBS, NM 88241 (575) 393-5905 4. Location of Well (Report location clearly and in accordance with any State requirements.\*) 11. Sec., T. R. M. or Blk. and Survey or Area SEC 29/T20S/R27E/NMP At surface SWSW / 380 FSL / 205 FWL / LAT 32.5383998 / LONG -104.3114747 At proposed prod. zone SESE / 330 FSL / 100 FEL / LAT 32.5380361 / LONG -104.2608716 14. Distance in miles and direction from nearest town or post office\* 12. County or Parish 13. State **EDDY** NM 20 miles 15. Distance from proposed\* 16. No of acres in lease 17. Spacing Unit dedicated to this well 205 feet location to nearest property or lease line, ft. 480.0 (Also to nearest drig. unit line, if any) 18. Distance from proposed location\* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, 20 feet 6975 feet / 22098 feet FED: NM1693 applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start\* 23. Estimated duration 3209 feet 08/24/2024 60 days 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. SUPO must be filed with the appropriate Forest Service Office). 6. Such other site specific information and/or plans as may be requested by the Name (Printed/Typed) Date 25. Signature BRADLEY BISHOP / Ph: (575) 393-5905 06/26/2024 (Electronic Submission) Title Regulatory Approved by (Signature) Date Name (Printed/Typed) (Electronic Submission) CODY LAYTON / Ph: (575) 234-5959 09/18/2024 Title Office Assistant Field Manager Lands & Minerals Carlsbad Field Office Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

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.



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

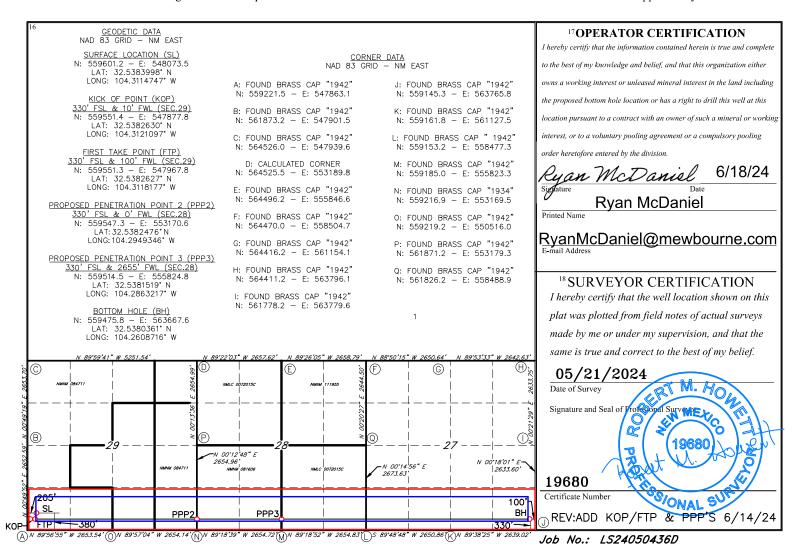
#### WELL LOCATION AND ACREAGE DEDICATION PLAT

| 1 API Number               | <sup>2</sup> Pool Code | <sup>3</sup> Pool Name<br><b>Avalon; Bone Spring</b> |                        |  |  |  |  |
|----------------------------|------------------------|--|------------------------|--|--|--|--|
| 30-015-55452               | <br>96381              | ng   |                        |  |  |  |  |
| <sup>4</sup> Property Code | 5 Pro                  | 6 Well Number  |                        |  |  |  |  |
| 336285                     | PINTA 29               | )/27 FED COM 528H                                    |                        |  |  |  |  |
| 7 OGRID NO.                | 8 Op                   | erator Name  | <sup>9</sup> Elevation |  |  |  |  |
| 14744                      | MEWBOURNE              | 3209'  |                        |  |  |  |  |

<sup>10</sup> Surface Location

|   |          |              |               |           | Burrace       | Location         |               |                |        |  |  |
|---|----------|--------------|---------------|-----------|---------------|------------------|---------------|----------------|--------|--|--|
| UL or lot no.                                     | Section  | Township     | Range         | Lot Idn   | Feet from the | North/South line | Feet From the | East/West line | County |  |  |
| M   | 29       | 20S          | 27E           |           | 380 SOUTH 205 |                  | 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 |  |  |
| P   | 27       | 20S          | 27E           |           | 330           | SOUTH            | 100           | EAST           | EDDY   |  |  |
| 12 Dedicated Acres                                | 13 Joint | or Infill 14 | Consolidation | Code 15 ( | Order No.     |                  |               |                |        |  |  |
| 480   |          |              |               |           |               |                  |               |                |        |  |  |

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.



Page 5

# State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

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

|   | N.  | ATURAL G                    | AS MANA(                        | GEMENT PI                  | LAN                        |  |
|---|---|-----------------------------|---------------------------------|----------------------------|----------------------------|--|
| This Natural Gas Mana                             | gement Plan m                                       | ust be submitted w          | ith each Applicat               | ion for Permit to I        | Orill (APD) for a          | new or recompleted well.   |
|   |   |                             | 1 – Plan Do<br>ffective May 25, |                            |                            |  |
| I. Operator: Mev                                  | wbourne C   | Oil Co.                     | OGRID:                          | 14744                      | Date:                      | 5/2/24   |
| II. Type: X Original                              | ☐ Amendment   | due to □ 19.15.27           | .9.D(6)(a) NMA(                 | C □ 19.15.27.9.D(          | 6)(b) NMAC 🗆 (             | Other.   |
| If Other, please describe                         | e:  |                             |                                 |                            |                            |  |
| III. Well(s): Provide the be recompleted from a s |   |                             |                                 |                            | wells proposed to          | be drilled or proposed to  |
| Well Name   | API   | ULSTR                       | Footages                        | Anticipated<br>Oil BBL/D   | Anticipated<br>Gas MCF/D   | Anticipated<br>Produced Water<br>BBL/D                                       |
| PINTA 29/27 FED COM 528H                          |   | M 29 20S 27E                | 380' FSL x 205' FW              | 2000                       | 3500                       | 3500   |
|   |   |                             |                                 | Y1: 400, Y2: 300, Y3: 200  | Y1: 1200, Y2: 800, Y3: 500 | Y1: 1500, Y2: 1000, Y3: 500  |
| IV. Central Delivery F                            | Point Name:   | PIN                         | TA 29/27 FED CO                 | OM 528H                    | [See 1                     | 9.15.27.9(D)(1) NMAC]  |
| V. Anticipated Schedu<br>proposed to be recompl   |   |                             |                                 |                            | vell or set of wells       | proposed to be drilled or  |
| Well Name   | API   | Spud Date                   | TD Reached<br>Date              | Completion<br>Commencement |                            |  |
| PINTA 29/27 FED COM 528H                          |   | 7/2/24                      | 8/2/24                          | 9/2/24                     | 9/17/2                     | 24 9/17/24   |
| VII. Operational Prac<br>Subsection A through F   | etices: 🖾 Attac<br>f of 19.15.27.8 int Practices: 5 | h a complete descr<br>NMAC. | ription of the act              | ions Operator wil          | I take to comply           | t to optimize gas capture. with the requirements of ices to minimize venting |

**Approval Date: 09/18/2024** 

# Section 2 — Enhanced Plan EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

X Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

#### IX. Anticipated Natural Gas Production:

| Well | API | Anticipated Average<br>Natural Gas Rate MCF/D | Anticipated Volume of Natural Gas for the First Year MCF |
|------|-----|---|--|
|      |     |   |  |
|      |     |   |  |
|      |     |   |  |

#### X. Natural Gas Gathering System (NGGS):

| Operator | System | ULSTR of Tie-in | Anticipated Gathering | Available Maximum Daily Capacity |
|----------|--------|-----------------|-----------------------|----------------------------------|
|          | •      |                 | Start Date            | of System Segment Tie-in         |
|          |        |                 |                       |                                  |
|          |        |                 |                       |                                  |

- **XI.** Map.  $\square$  Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.
- **XII.** Line Capacity. The natural gas gathering system  $\square$  will  $\square$  will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.
- **XIII.** Line Pressure. Operator  $\square$  does  $\square$  does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).
- ☐ Attach Operator's plan to manage production in response to the increased line pressure.
- **XIV.** Confidentiality: 

  Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

**Approval Date: 09/18/2024** 

# Section 3 - Certifications Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☑ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or
 ☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. If Operator checks this box, Operator will select one of the following:
 Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** □ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- **(b)** power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

# **Section 4 - Notices**

- 1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:
- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- (b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

**Approval Date: 09/18/2024** 

#### Page 8

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

| Signature:       | Bradley Bishop  |
|------------------|---|
| Printed Name:    | BRADLEY BISHOP  |
| Title:           | REGULATORY MANAGER                                    |
| E-mail Address:  | BBISHOP@MEWBOURNE.COM                                 |
| Date:            | 5/2/24  |
| Phone:           | 575-393-5905  |
| -                | OIL CONSERVATION DIVISION                             |
|                  | (Only applicable when submitted as a standalone form) |
| Approved By:     |   |
| Title:           |   |
| Approval Date:   |   |
| Conditions of Ap | proval:   |
|                  |   |
|                  |   |
|                  |   |
|                  |   |

#### Mewbourne Oil Company

#### Natural Gas Management Plan – Attachment

- VI. Separation equipment will be sized by construction engineering staff based on stated manufacturer daily throughput capacities and anticipated daily production rates to ensure adequate capacity. Closed vent system piping, compression needs, and VRUs will be sized utilizing ProMax modelling software to ensure adequate capacity for anticipated production volumes and conditions.
- VII. Mewbourne Oil Company (MOC) will take following actions to comply with the regulations listed in 19.15.27.8:
  - A. MOC will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. MOC will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas. If there is no adequate takeaway for the gas, well(s) will be shut in until the natural gas gathering system is available.
  - B. All drilling operations will be equipped with a rig flare located at least 100 ft from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency venting or flaring the volumes will be estimated and reported appropriately.
  - C. During completion operations any natural gas brought to surface will be flared. Immediately following the finish of completion operations, all well flow will be directed to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. It is not anticipated that gas will not meet pipeline standards. However, if natural gas does not meet gathering pipeline quality specifications, MOC will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner. MOC will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot. The gas sample will analyzed twice per week and the gas will be routed into a gathering system as soon as pipeline specifications are met.
  - D. Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D.(1) through (4). If there is no adequate takeaway for the separator gas, well(s) will be shut in until the natural gas gathering system is available with exception of emergency or malfunction situations. Venting and/or flaring volumes will be estimated and reported appropriately.
  - E. MOC will comply with the performance standards requirements and provisions listed in 19.15.27.8 E.(1) through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs in order to minimize the waste. Production storage tanks constructed after May 25, 2021 will be equipped with automatic gauging system. Flares constructed after May 25, 2021 will be equipped with automatic igniter or continuous pilot. Flares will be located at least 100' from the well and storage tanks unless otherwise approved by the division. MOC will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.
  - F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared or beneficially used during production operations, will be measured or estimated. MOC will install equipment to measure

the volume of natural gas flared from existing process piping or a flowline piped from equipment such as high pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by an APD issued after May 25, 2021 that has an average daily production greater than 60 Mcf/day. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, MOC will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

VIII. For maintenance activities involving production equipment and compression, venting will be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production and compression equipment the associated producing wells will be shut in to eliminate venting. For maintenance of VRUs all gas normally routed to the VRU will be routed to flare to eliminate venting.

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

# Drilling Plan Data Report

**APD ID**: 10400099267 **Submission Date**: 06/26/2024

**Operator Name: MEWBOURNE OIL COMPANY** 

Well Name: PINTA 29/27 FED COM Well Number: 528H

Well Type: OIL WELL Well Work Type: Drill

Highlighted data reflects the most recent changes

**Show Final Text** 

# **Section 1 - Geologic Formations**

| Formation ID | Formation Name  | Elevation | True Vertical | Measured<br>Depth | Lithologies                    | Mineral Resources | Producing<br>Formatio |
|--------------|-----------------|-----------|---------------|-------------------|--------------------------------|-------------------|-----------------------|
| 14161829     | UNKNOWN         | 3208      | 28            | 28                | OTHER : Topsoil                | NONE              | N                     |
| 14161842     | 14161842 YATES  |           | 100           | 100               | SANDSTONE                      | NATURAL GAS, OIL  | N                     |
| 14161850     | SEVEN RIVERS    | 2703      | 505           | 505               | DOLOMITE                       | NATURAL GAS, OIL  | N                     |
| 14161851     | QUEEN           | 2081      | 1127          | 1127              | DOLOMITE,<br>SANDSTONE         | NATURAL GAS, OIL  | N                     |
| 14161852     | GRAYBURG        | 1892      | 1316          | 1316              | DOLOMITE,<br>SANDSTONE         | NONE              | N                     |
| 14161835     | DELAWARE        | 958       | 2250          | 2250              | LIMESTONE                      | NATURAL GAS, OIL  | N                     |
| 14161854     | BONE SPRING     | -403      | 3611          | 3611              | LIMESTONE                      | NATURAL GAS, OIL  | N                     |
| 14161831     | BONE SPRING 1ST | -2357     | 5565          | 5565              | SANDSTONE                      | NATURAL GAS, OIL  | N                     |
| 14161832     | BONE SPRING 2ND | -3057     | 6265          | 6265              | SANDSTONE                      | NATURAL GAS, OIL  | N                     |
| 14161847     | BONE SPRING 3RD | -4328     | 7536          | 7536              | SANDSTONE                      | NATURAL GAS, OIL  | Y                     |
| 14161849     | WOLFCAMP        | -4718     | 7926          | 7926              | LIMESTONE,<br>SANDSTONE, SHALE | NATURAL GAS, OIL  | N                     |

### **Section 2 - Blowout Prevention**

Pressure Rating (PSI): 5M Rating Depth: 22098

**Equipment:** Annular, Pipe Rams, Blind Rams, Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Requesting Variance? YES

**Variance request:** A variance is requested for the use of a flexible choke line from the BOP to the choke manifold. See attached for hydrostatic test chart. Anchors are not required by manufacturer. Variance is requested to use a multi bowl wellhead. Variance is requested to perform break testing according to attached procedure. If a breaktesting variance is approved & incorporated, API Standard 53 will be incorporated and testing annular BOP to 70% of RWP or 100% of MASP, whichever is greater, will be performed.

Well Name: PINTA 29/27 FED COM Well Number: 528H

**Testing Procedure:** BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR Part 3172 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

#### **Choke Diagram Attachment:**

5M\_BOPE\_Choke\_Diagram\_20240624145524.pdf Flex\_Line\_Specs\_API\_16C\_20240829074714.pdf Multi\_Bowl\_WH\_20240829074714.pdf

#### **BOP Diagram Attachment:**

5M\_BOPE\_Schematic\_20240624145603.pdf

Mewbourne\_Break\_Testing\_Variance\_20240624145616.pdf

# **Section 3 - Casing**

| Casing ID | String Type      | Hole Size | Csg Size | Condition | Standard | Tapered String | Top Set MD | Bottom Set MD | Top Set TVD | Bottom Set TVD | Top Set MSL | Bottom Set MSL | Calculated casing<br>length MD | Grade     | Weight | Joint Type       | Collapse SF | Burst SF | Joint SF Type | Joint SF  | Body SF Type | Body SF   |
|-----------|------------------|-----------|----------|-----------|----------|----------------|------------|---------------|-------------|----------------|-------------|----------------|--------------------------------|-----------|--------|------------------|-------------|----------|---------------|-----------|--------------|-----------|
| 1         | SURFACE          | 17.5      | 13.375   | NEW       | API      | Υ              | 0          | 500           | 0           | 500            | 3209        | 2709           | 500                            | H-40      | 48     | ST&C             | 3.44        | 7.74     | DRY           | 13.4<br>2 | DRY          | 22.5<br>4 |
| 2         | INTERMED<br>IATE | 12.2<br>5 | 9,625    | NEW       | API      | Y              | 0          | 3600          | 0           | 3600           | 3713        | -391           | 3600                           | J-55      | 36     | LT&C             | 1.14        | 1.98     | DRY           | 3.5       | DRY          | 4.35      |
| 3         | PRODUCTI<br>ON   | 8.75      | 7.0      | NEW       | API      | Υ              | 0          | 5974          | 0           | 5902           | 3713        | -2693          | 5974                           | P-<br>110 | 26     | LT&C             | 2.14        | 3.41     | DRY           | 4.46      | DRY          | 5.34      |
| 4         | PRODUCTI<br>ON   | 8.5       | 5.5      | NEW       | API      | Υ              | 5974       | 22098         | 5902        | 6975           | -2693       | -3766          | 16124                          | P-<br>110 | 20     | OTHER -<br>Talon | 2.66        | 3.03     | DRY           | 1.24      | DRY          | 1.45      |

#### **Casing Attachments**

Well Name: PINTA 29/27 FED COM Well Number: 528H

#### **Casing Attachments**

Casing ID: 1

String

SURFACE

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Pinta\_29\_27\_Fed\_Com\_\_528H\_Tapered\_String\_20240624150200.pdf

Casing Design Assumptions and Worksheet(s):

Pinta\_29\_27\_Fed\_Com\_\_528H\_CsgAssumptions\_20240829085851.pdf

Casing ID: 2

String

INTERMEDIATE

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Pinta\_29\_27\_Fed\_Com\_\_528H\_Tapered\_String\_20240624150211.pdf

Casing Design Assumptions and Worksheet(s):

Pinta\_29\_27\_Fed\_Com\_\_528H\_CsgAssumptions\_20240829085904.pdf

Casing ID: 3

**String** 

**PRODUCTION** 

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Pinta\_29\_27\_Fed\_Com\_\_528H\_Tapered\_String\_20240624150047.pdf

Casing Design Assumptions and Worksheet(s):

Pinta\_29\_27\_Fed\_Com\_\_528H\_CsgAssumptions\_20240829085917.pdf

Well Name: PINTA 29/27 FED COM Well Number: 528H

#### **Casing Attachments**

Casing ID: 4

String

**PRODUCTION** 

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Pinta\_29\_27\_Fed\_Com\_\_528H\_Tapered\_String\_20240624150259.pdf

Casing Design Assumptions and Worksheet(s):

 $Pinta\_29\_27\_Fed\_Com\_\_528H\_CsgAssumptions\_20240829085928.pdf$ 

# **Section 4 - Cement**

| String Type | Lead/Tail | Stage Tool<br>Depth | Тор МD | Bottom MD | Quantity(sx) | Yield | Density | Cu Ft | Excess% | Cement type | Additives |
|-------------|-----------|---------------------|--------|-----------|--------------|-------|---------|-------|---------|-------------|-----------|
| PRODUCTION  | Lead      |                     | 0      | 0         | 0            | 0     | 0       | 0     | 0       | 0           | 0         |

| SURFACE      | Lead |   | 0         | 313       | 210  | 2.12 | 12.5 | 450  | 100 | Class C | Salt, Gel, Extender,<br>LCM           |
|--------------|------|---|-----------|-----------|------|------|------|------|-----|---------|---------------------------------------|
| SURFACE      | Tail |   | 313       | 500       | 200  | 1.34 | 14.8 | 268  | 100 | Class C | Retarder                              |
| INTERMEDIATE | Lead | 1 | 0         | 2920      | 540  | 2.12 | 12.5 | 1150 | 25  | Class C | Salt, Gel, Extender,<br>LCM           |
| INTERMEDIATE | Tail | 2 | 2920      | 3600      | 200  | 1.34 | 14.8 | 268  | 25  | Class C | Retarder                              |
| PRODUCTION   | Lead | 3 | 3400      | 1804<br>4 | 1890 | 2.12 | 12.5 | 4010 | 25  | Class C | Salt, Gel, Extender,<br>LCM, Defoamer |
| PRODUCTION   | Tail | 1 | 1804<br>4 | 2209<br>8 | 600  | 1.85 | 13.5 | 1110 | 25  | Class H | Retarder, Fluid Loss,<br>Defoamer     |

Well Name: PINTA 29/27 FED COM Well Number: 528H

# **Section 5 - Circulating Medium**

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Lost circulation material Sweeps Mud scavengers in surface hole

Describe the mud monitoring system utilized: Pason/PVT/Visual monitoring

# **Circulating Medium Table**

| Top Depth | Bottom Depth | Mud Type           | Min Weight (lbs/gal) | Max Weight (lbs/gal) | Density (lbs/cu ft) | Gel Strength (lbs/100 sqft) | Н | Viscosity (CP) | Salinity (ppm) | Filtration (cc) | Additional Characteristics |
|-----------|--------------|--------------------|----------------------|----------------------|---------------------|-----------------------------|---|----------------|----------------|-----------------|----------------------------|
| 5974      | 2209<br>8    | OIL-BASED<br>MUD   | 10                   | 11.5                 |                     | 3                           |   |                |                |                 |                            |
| 0         | 500          | SPUD MUD           | 8.4                  | 8.6                  | 1                   |                             |   |                |                |                 |                            |
| 500       | 3600         | WATER-BASED<br>MUD | 8.6                  | 9.5                  |                     |                             |   |                |                |                 |                            |
| 3600      | 5974         | SALT<br>SATURATED  | 8.6                  | 9.5                  |                     |                             |   |                |                |                 |                            |

# **Section 6 - Test, Logging, Coring**

List of production tests including testing procedures, equipment and safety measures:

No logs are planned based on well control or offset log information. Offset Well: Pinta 29/27 Fed Com #618H

List of open and cased hole logs run in the well:

DIRECTIONAL SURVEY, MEASUREMENT WHILE DRILLING, MUD LOG/GEOLOGIC LITHOLOGY LOG,

Coring operation description for the well:

None

Well Name: PINTA 29/27 FED COM Well Number: 528H

## **Section 7 - Pressure**

Anticipated Bottom Hole Pressure: 4171 Anticipated Surface Pressure: 2636

**Anticipated Bottom Hole Temperature(F): 140** 

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

H2S\_Plan\_20240624150919.pdf

#### **Section 8 - Other Information**

#### Proposed horizontal/directional/multi-lateral plan submission:

Pinta\_29\_27\_Fed\_Com\_528H\_MOC\_Dir\_Plan\_20240624150934.pdf Pinta\_29\_27\_Fed\_Com\_528H\_MOC\_Dir\_Plot\_20240624150938.pdf

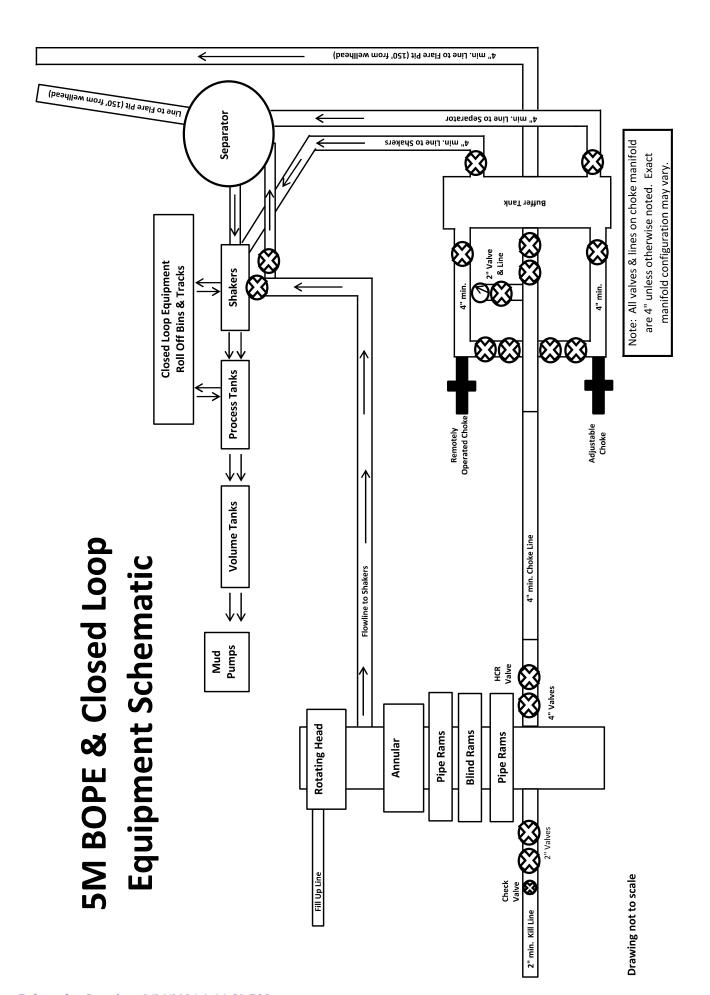
Other proposed operations facets description:

Other proposed operations facets attachment:

Pinta\_29\_27\_Fed\_Com\_\_528H\_AddInfo\_20240624150946.pdf
Pinta\_29\_27 Fed\_Com\_\_528H\_Drlg\_Program\_20240829085951.pdf

#### Other Variance attachment:

MOC\_Break\_Testing\_Variance\_20240508142507.pdf
MOC\_Offline\_Cementing\_Variance\_20240508142507.pdf





# LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD

## HYDROSTATIC TESTING REPORT

LTYY/QR-5.7.1-28

№: 230826015

| Product Name  | Cho                        | ke And Kill Hose                   |   | Standard          | I AP                | I Spec 16C 3 <sup>rd</sup> edition |  |  |  |
|---|----------------------------|------------------------------------|---|-------------------|---------------------|------------------------------------|--|--|--|
| Product Specification   | 3″×1000                    | 0psi×60ft(18.29m                   | 1)                                      | Serial Num        | ber                 | 7660144                            |  |  |  |
| Inspection Equipment  | MTU                        | J-BS-1600-3200-E                   |   | Test mediu        | ım                  | Water                              |  |  |  |
| Inspection Department   | Ç                          | .C. Department                     |   | Inspection I      | Date                | 2023.08.26                         |  |  |  |
|   |                            | Rate of le                         | ength chang                             | ge                | •                   |                                    |  |  |  |
| Standard requirements   | At working pre             | essure, the rate of le             | ength chang                             | ge should not m   | nore than $\pm 2$   | %                                  |  |  |  |
| Testing result 10000psi (69.0MPa) ,Rate of length change 0.7% |                            |                                    |   |                   |                     |                                    |  |  |  |
| Hydrostatic testing   |                            |                                    |   |                   |                     |                                    |  |  |  |
| Standard requirements   | ess than three minutes,    |                                    |   |                   |                     |                                    |  |  |  |
| Testing result  | 15000psi (103.             | .5MPa), 3 min for the              | he first tim                            | e, 60 min for th  | ne second time      | , no leakage                       |  |  |  |
| Graph of pressure testing:                                    |                            |                                    |   |                   |                     | Artes (ST                          |  |  |  |
| 100 - 95 - 66 - 75 - 75 - 75 - 75 - 75 - 75 - 7               |                            |                                    | 100<br>90<br>80<br>70<br>60<br>50<br>10 |                   |                     |                                    |  |  |  |
| 2154521 2154521 2154621 2154621 2154621 2                     | १५६५ ११५६४ ११५६४ ११५६४ ११५ | 021 229621 229621 229621 229621228 | 21:29:54 23                             | 3958 21×858 2159; | 58 00.09:58 00:19:5 | a 002958 003958 0053               |  |  |  |
| Conclusion  | The inspec                 | ted items meet stan                | dard requi                              | rements of API    | Spec 16C 3rd        | edition                            |  |  |  |
| Approver ]  | iaulong Chan               | Auditor                            | Hingi                                   | ng Dong           | Inspector           | Zhansheng Wang                     |  |  |  |



# LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD

# CERTIFICATE OF QUALITY

# LTYY/QR-5.7.1-19B

№: LT2023-126-002

| Customer Name         | A                         | ustin Hose      |                                      |
|-----------------------|---------------------------|-----------------|--------------------------------------|
| Product Name          | Chok                      | e And Kill Hose |                                      |
| Product Specification | 3"×10000psi×60ft (18.29m) | Quantity        | 2PCS                                 |
| Serial Number         | 7660143~7660144           | FSL             | FSL3                                 |
| Temperature Range     | -29°C∼+121°C              | Standard        | API Spec 16C 3 <sup>rd</sup> edition |
| Inspection Department | Q.C. Department           | Inspection date | 2023.08.26                           |

|                     | Inspection   | Items       |                    |       |   | Inspection resul  | ts                          |  |  |
|---------------------|--|-------------|--------------------|-------|---|-------------------|-----------------------------|--|--|
|                     | Appearance Ch  | necking     |                    |       | In accorda  | nce with API Spec | 16C 3 <sup>rd</sup> edition |  |  |
|                     | Size and Len   | ngths       |                    |       | In accorda  | nce with API Spec | 16C 3 <sup>rd</sup> edition |  |  |
| Γ                   | Dimensions and T   | Tolerance   | es                 |       | In accorda  | nce with API Spec | 16C 3 <sup>rd</sup> edition |  |  |
| End Connections: 4- | 1/16"×10000psi Inte  | egral flang | e for sour gas ser | vice  | In accorda  | nce with API Spec | 6A 21st edition             |  |  |
| End Connections: 4- | Connections: 4-1/16"×10000psi Integral flange for sour gas service |             |                    |       |   | nce with API Spec | 17D 3 <sup>rd</sup> edition |  |  |
|                     | Hydrostatic To   | esting      |                    |       | In accordance with API Spec 16C 3 <sup>rd</sup> edition |                   |                             |  |  |
|                     | product Mar  | king        |                    |       | In accorda  | nce with API Spec | 16C 3 <sup>rd</sup> edition |  |  |
| Inspection con      | nclusion   | Th          | e inspected ite    | ms me | eet standard require                                    | ments of API Spec | 16C 3 <sup>rd</sup> edition |  |  |
| Remark              | (S   |             |                    |       |   |                   |                             |  |  |
| Approver            | Approver Jian long Chan Auditor                                    |             |                    |       |   | Inspector         | Zhansheng Wang              |  |  |



# LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD

#### CERTIFICATE OF CONFORMANCE

№:LT230826016

Product Name: Choke And Kill Hose

Product Specification: 3"×10000psi×60ft (18.29m)

Serial Number: 7660143~7660144

End Connections: 4-1/16"×10000psi Integral flange for sour gas service

The Choke And Kill Hose assembly was produced by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD. in Aug 2023, and inspected by LUOHE LETONE HYDRAULICS TECHNOLOGY CO.,LTD. according to API Spec 16C 3<sup>rd</sup> edition on Aug 26, 2023. The overall condition is good. This is to certify that the Choke And Kill Hose complies with all current standards and specifications for API Spec 16C 3<sup>rd</sup> edition.

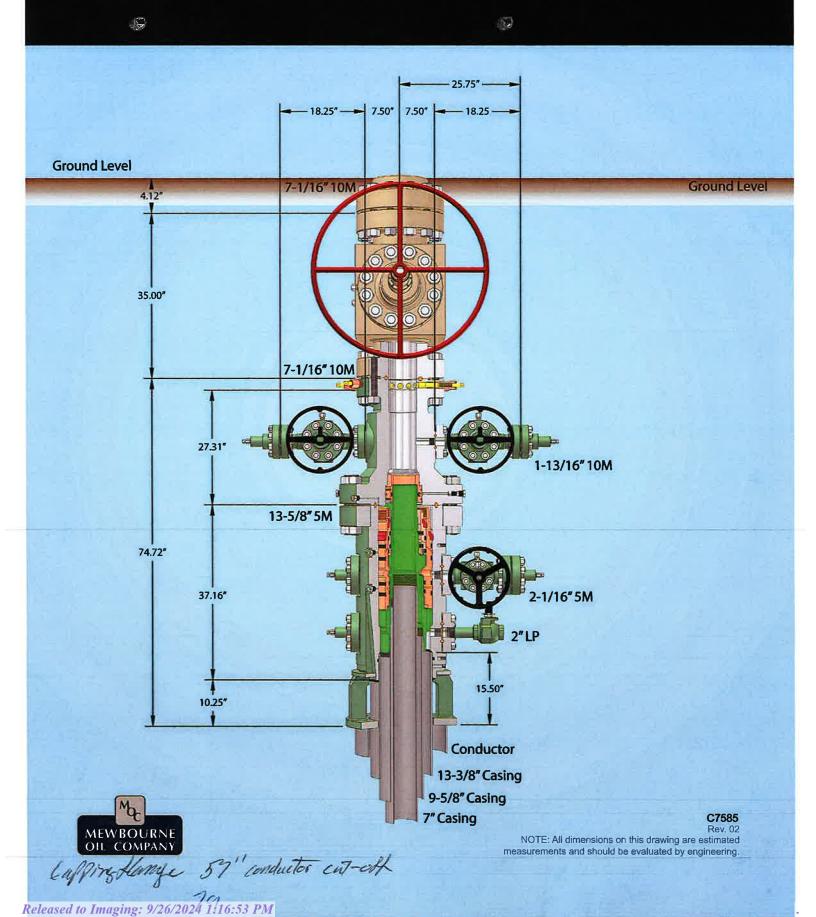
Jiaulong Chen

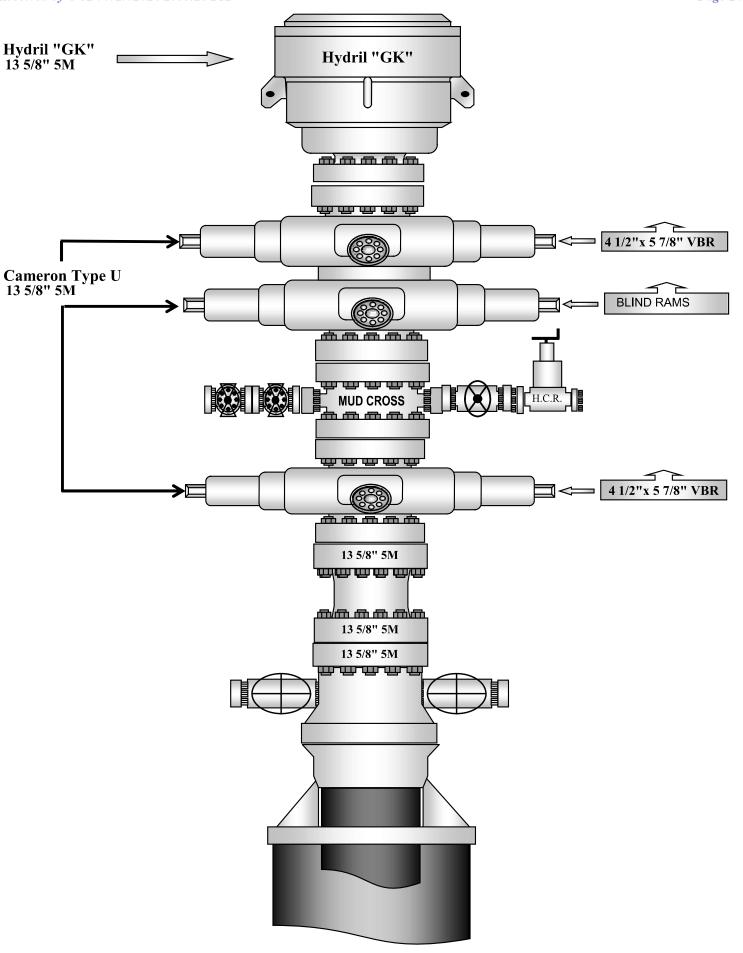
QC Manager:

Date: Aug 26, 2023



# 13-5/8" MN-DS Wellhead System







# Mewbourne Oil Co.

# **BOP Break Testing Variance**

Mewbourne Oil Company requests a variance from the minimum standards for well control equipment testing of 43 CFR 3172 to allow a testing schedule of the blow out preventer (BOP) and blow out prevention equipment (BOPE) along with batch drilling & offline cementing operations. Modern rig upgrades which facilitate pad drilling allow the BOP stack to be moved between wells on a multi-well pad without breaking any BOP stack components apart. Widespread use of these technologies has led to break testing BOPE being endorsed as safe and reliable. American Petroleum Institute (API) best practices are frequently used by regulators to develop their regulations. API Standard 53, *Well Control Equipment Systems for Drilling Wells* (5<sup>th</sup> Ed., Dec. 2018) Section 5.3.7.1 states "A pressure test of the pressure containing component shall be performed following the disconnection or repair, limited to the affected component."

# **Procedures**

- 1. Full BOPE test at first installation on the pad.
  - Full BOPE test at least every 21 days.
  - Function test BOP elements per 43 CFR 3172.
  - Contact the BLM if a well control event occurs.
- After the well section is secured and the well is confirmed to be static, the BOP will be disconnected from the wellhead and walked with the rig to another well on the pad. Two breaks on the BOPE will be made (Fig. 1).
  - Connection between the flex line and the HCR valve
  - Connection between the wellhead and the BOP quick connect (Fig. 5 & 6).
- 3. A capping flange will be installed after cementing per wellhead vendor procedure & casing pressure will be monitored via wellhead valve.
- 4. The BOP will be removed and carried by a hydraulic carrier (Fig. 3 & 4).
- 5. The rig will then walk to the next well.
- 6. Confirm that the well is static and remove the capping flange.
- 7. The connection between the flex line and HCR valve and the connection between the wellhead and the BOP quick connect will be reconnected.
- 8. Install a test plug into the wellhead.
- 9. A test will then be conducted against the upper pipe rams and choke, testing both breaks (Fig. 1 & 2).
- 10. The test will be held at 250 psi low and to the high value submitted in the APD, not to exceed 5000 psi.
- 11. The annular, blind rams and lower pipe rams will then be function tested.
- 12. If a pad consists of three or more wells, steps 4 through 11 will be repeated.



13. A break test will only be conducted if the intermediate section can be drilled and cased within 21 days of the last full BOPE test.

# **Barriers**

#### **Before Nipple Down:**

- Floats in casing
- Kill weight fluid in casing
- Kill weight fluid in annulus
- Solid body mandrel and/or packoff

#### **After Nipple Down:**

- Floats in casing
- Kill weight fluid in casing
- Kill weight fluid in annulus
- Solid body mandrel and/or packoff
- Offline cementing tool and/or cement head
- Capping flange after cementing

# Summary

A variance is requested to only test broken pressure seals on the BOPE when moving between wells on a multi-well pad if the following conditions are met:

- A full BOPE test is conducted on the first well on the pad. API Standard 53 requires testing annular BOP to 70% of RWP or 100% of MASP, whichever is greater.
- If the first well on the pad is not the well with the deepest intermediate section, a full BOPE test will also be performed when moving to a deeper well.
- The hole section being drilled has a MASP under 5000 psi.
- If a well control event occurs, Mewbourne will contact BLM for permission to continue break testing.
- If significant (>50%) losses occur, full BOPE testing will be required going forward.
- Full BOPE test will be required prior to drilling the production hole.

While walking the rig, the BOP stack will be secured via hydraulic winch or hydraulic carrier. A full BOPE test will be performed at least every 21 days.



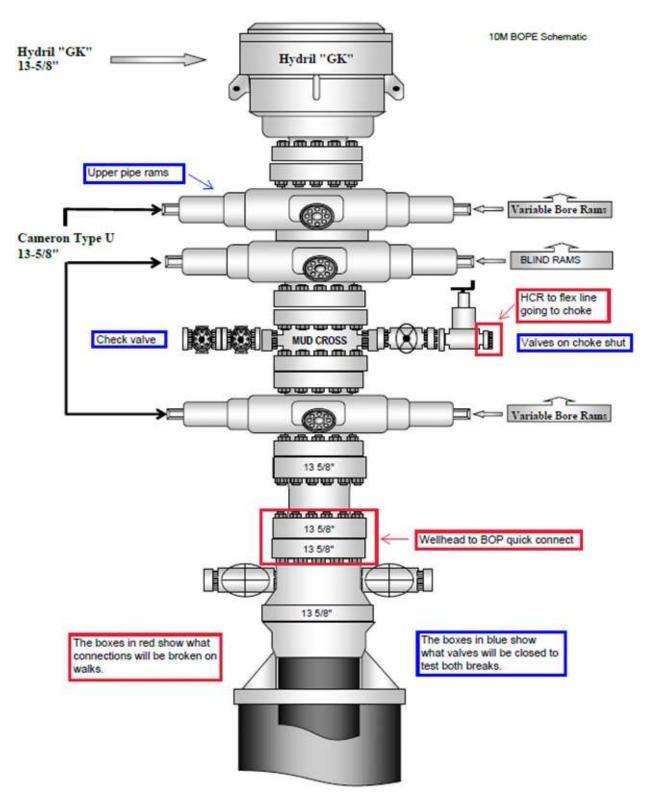


Figure 1. BOP diagram



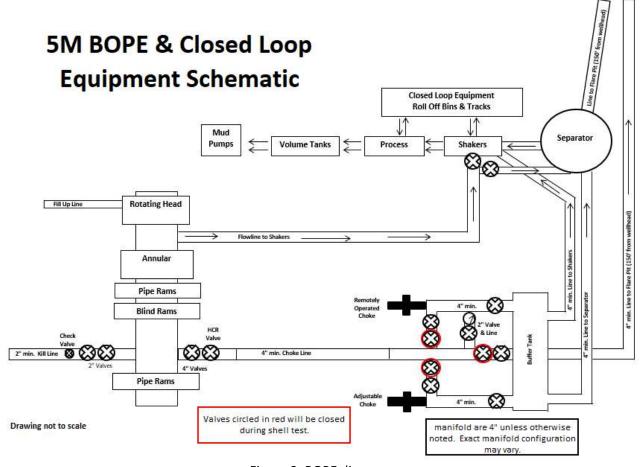


Figure 2. BOPE diagram





Figure 3. BOP handling system





Figure 4. BOP handling system



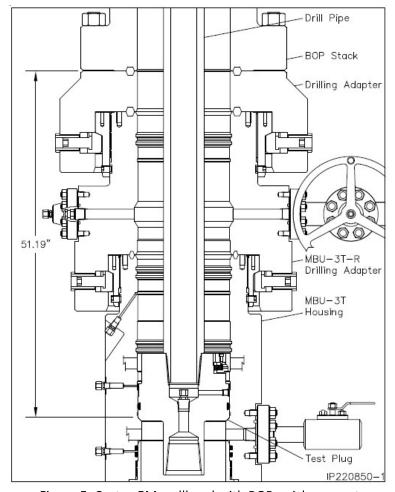


Figure 5. Cactus 5M wellhead with BOP quick connect

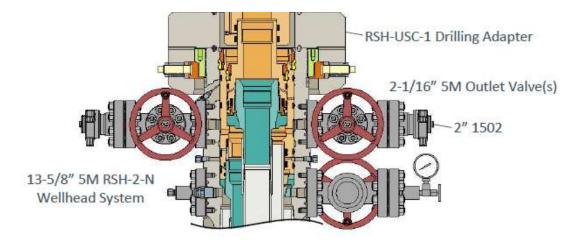


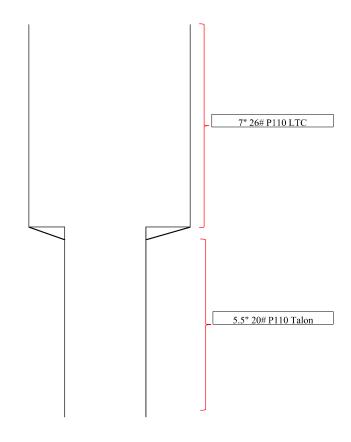
Figure 6. Vault 5M wellhead with BOP quick connect

Sec 29, T20S, R27E SHL: 380' FSL & 205' FWL (Sec 29) BHL: 330' FSL & 100' FEL (Sec 27)

#### Casing Design A

| Hole Size | From  | То     | Csg. Size | #/ft      | Grade    | Conn. | SF<br>Collapse | SF Burst | SF Jt<br>Tension | SF Body<br>Tension |
|-----------|-------|--------|-----------|-----------|----------|-------|----------------|----------|------------------|--------------------|
| 8.75      | 0'    | 5974'  |           | 7" 26# P  | 110 LTC  |       | 2.14           | 3.41     | 4.46             | 5.34               |
| 8.5       | 5974' | 22098' | 5         | .5" 20# P | 110 Talo | 1     | 2.66           | 3.03     | 1.24             | 1.45               |

| Hole Size | From  | То     | Csg. Size | #/ft      | Grade    | Conn. | SF<br>Collapse | SF Burst | SF Jt<br>Tension | SF Body<br>Tension |
|-----------|-------|--------|-----------|-----------|----------|-------|----------------|----------|------------------|--------------------|
| 8.75      | 0'    | 6875'  |           | 7" 26# P  | 110 LTC  |       | 1.93           | 3.08     | 3.88             | 4.64               |
| 8.5       | 6875' | 22098' | 5         | .5" 20# F | 110 Talo | n     | 2.66           | 3.03     | 1.24             | 1.45               |

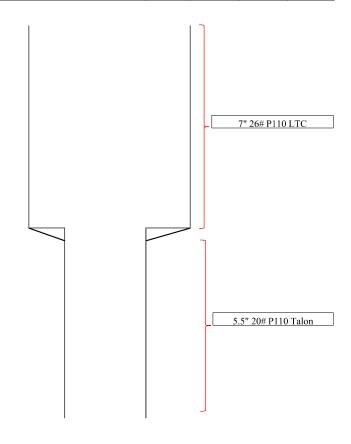


Sec 29, T20S, R27E SHL: 380' FSL & 205' FWL (Sec 29) BHL: 330' FSL & 100' FEL (Sec 27)

#### Casing Design A

| Hole Size | From  | То     | Csg. Size | #/ft      | Grade    | Conn. | SF<br>Collapse | SF Burst | SF Jt<br>Tension | SF Body<br>Tension |
|-----------|-------|--------|-----------|-----------|----------|-------|----------------|----------|------------------|--------------------|
| 8.75      | 0'    | 5974'  |           | 7" 26# P  | 110 LTC  |       | 2.14           | 3.41     | 4.46             | 5.34               |
| 8.5       | 5974' | 22098' | 5         | .5" 20# P | 110 Talo | 1     | 2.66           | 3.03     | 1.24             | 1.45               |

| Hole Size | From  | То     | Csg. Size | #/ft      | Grade    | Conn. | SF<br>Collapse | SF Burst | SF Jt<br>Tension | SF Body<br>Tension |
|-----------|-------|--------|-----------|-----------|----------|-------|----------------|----------|------------------|--------------------|
| 8.75      | 0'    | 6875'  |           | 7" 26# P  | 110 LTC  |       | 1.93           | 3.08     | 3.88             | 4.64               |
| 8.5       | 6875' | 22098' | 5         | .5" 20# F | 110 Talo | n     | 2.66           | 3.03     | 1.24             | 1.45               |

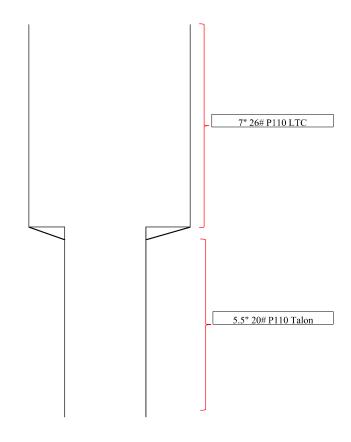


Sec 29, T20S, R27E SHL: 380' FSL & 205' FWL (Sec 29) BHL: 330' FSL & 100' FEL (Sec 27)

#### Casing Design A

| Hole Size | From  | То     | Csg. Size | #/ft      | Grade     | Conn. | SF<br>Collapse | SF Burst | SF Jt<br>Tension | SF Body<br>Tension |
|-----------|-------|--------|-----------|-----------|-----------|-------|----------------|----------|------------------|--------------------|
| 8.75      | 0'    | 5974'  |           | 7" 26# P  | 110 LTC   |       | 2.14           | 3.41     | 4.46             | 5.34               |
| 8.5       | 5974' | 22098' | 5         | .5" 20# P | 110 Taloi | 1     | 2.66           | 3.03     | 1.24             | 1.45               |

| Hole Size | From  | То     | Csg. Size | #/ft      | Grade    | Conn. | SF<br>Collapse | SF Burst | SF Jt<br>Tension | SF Body<br>Tension |
|-----------|-------|--------|-----------|-----------|----------|-------|----------------|----------|------------------|--------------------|
| 8.75      | 0'    | 6875'  |           | 7" 26# P  | 110 LTC  |       | 1.93           | 3.08     | 3.88             | 4.64               |
| 8.5       | 6875' | 22098' | 5         | .5" 20# F | 110 Talo | n     | 2.66           | 3.03     | 1.24             | 1.45               |

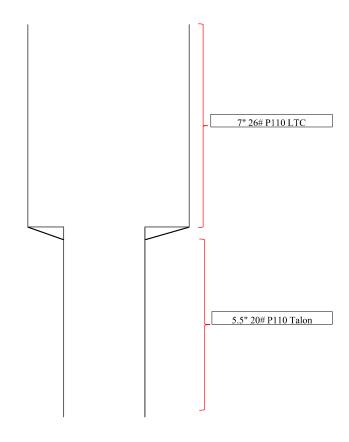


Sec 29, T20S, R27E SHL: 380' FSL & 205' FWL (Sec 29) BHL: 330' FSL & 100' FEL (Sec 27)

#### Casing Design A

| Но | le Size | From  | То     | Csg. Size | #/ft      | Grade     | Conn. | SF<br>Collapse | SF Burst | SF Jt<br>Tension | SF Body<br>Tension |
|----|---------|-------|--------|-----------|-----------|-----------|-------|----------------|----------|------------------|--------------------|
|    | 8.75    | 0'    | 5974'  |           | 7" 26# P  | 110 LTC   |       | 2.14           | 3.41     | 4.46             | 5.34               |
|    | 8.5     | 5974' | 22098' | 5         | .5" 20# P | 110 Taloi | 1     | 2.66           | 3.03     | 1.24             | 1.45               |

| Hole Size | From  | То     | Csg. Size | #/ft      | Grade    | Conn. | SF<br>Collapse | SF Burst | SF Jt<br>Tension | SF Body<br>Tension |
|-----------|-------|--------|-----------|-----------|----------|-------|----------------|----------|------------------|--------------------|
| 8.75      | 0'    | 6875'  |           | 7" 26# P  | 110 LTC  |       | 1.93           | 3.08     | 3.88             | 4.64               |
| 8.5       | 6875' | 22098' | 5         | .5" 20# F | 110 Talo | n     | 2.66           | 3.03     | 1.24             | 1.45               |



SHL: 380' FSL 205' FWL (Sec 29) BHL: 330' FSL 100' FEL (Sec 27)

|            |           | Casing Progr | ram Design A |        |         | BLM Minimum Safety<br>Factors | 1.125       | 1.0      | 1.6 Dry<br>1.8 Wet | 1.6 Dry<br>1.8 Wet |
|------------|-----------|--------------|--------------|--------|---------|-------------------------------|-------------|----------|--------------------|--------------------|
| String     | Hole Size | Top MD       | Top TVD      | Bot MD | Bot TVD | Csg. Size                     | SF Collapse | SF Burst | SF Jt Tension      | SF Body<br>Tension |
| Surface    | 17.5"     | 0'           | 0'           | 500'   | 500'    | 13.375" 48# H40 STC           | 3.44        | 7.74     | 13.42              | 22.54              |
| Int        | 12.25"    | 0'           | 0'           | 3600'  | 3600'   | 9.625" 36# J55 LTC            | 1.14        | 1.98     | 3.50               | 4.35               |
| Production | 8.75"     | 0'           | 0'           | 5974'  | 5902'   | 7" 26# P110 LTC               | 2.14        | 3.41     | 4.46               | 5.34               |
| Production | 8.5"      | 5974'        | 5902'        | 22098' | 6975'   | 5.5" 20# P110 Talon           | 2.66        | 3.03     | 1.24               | 1.45               |

Cement Program

| Casing        |      | # Sacks | Wt. lb/gal | Yield ft <sup>3</sup> /sack | TOC/BOC         | Volume ft <sup>3</sup> | % Excess | Slurry Description                          |
|---------------|------|---------|------------|-----------------------------|-----------------|------------------------|----------|---|
| 13.375 in     | LEAD | 210     | 12.5       | 2.12                        | 0' - 313'       | 450                    | 100%     | Class C: Salt, Gel, Extender, LCM           |
| 13.373 III    | TAIL | 200     | 14.8       | 1.34                        | 313' - 500'     | 268                    | 10070    | Class C: Retarder                           |
| 9,625 in      | LEAD | 540     | 12.5       | 2.12                        | 0' - 2920'      | 1150                   | 25%      | Class C: Salt, Gel, Extender, LCM           |
| 9.023 III     | TAIL | 200     | 14.8       | 1.34                        | 2920' - 3600'   | 268                    | 2370     | Class C: Retarder                           |
| a             | LEAD | 1890    | 12.5       | 2.12                        | 3400' - 18044'  | 4010                   | 950/     | Class C: Salt, Gel, Extender, LCM, Defoamer |
| 7 in - 5.5 in | TAIL | 600     | 13.5       | 1.85                        | 18044' - 22098' | 1110                   | 25%      | Class H: Retarder, Fluid Loss, Defoamer     |

Design A - Mud Program

| Depth          | Mud Wt     | Mud Type    |
|----------------|------------|-------------|
|                |            |             |
| 0' - 500'      | 8.4 - 8.6  | Fresh Water |
| 500' - 3600'   | 8.4 - 9.5  | Fresh Water |
| 3600' - 5974'  | 8.4 - 9.5  | Cut-Brine   |
| 5974' - 22098' | 8.4 - 11.5 | OBM         |

Geolog

| Geology      |                                  |                 |                     |                |                   |
|--------------|----------------------------------|-----------------|---------------------|----------------|-------------------|
| Formation    | Est. Top (TVD) Mineral Resources |                 | Formation           | Est. Top (TVD) | Mineral Resources |
| Rustler      |                                  |                 | Yeso                |                |                   |
| Castile      |                                  |                 | Delaware (Lamar)    | 2250'          | Oil/Natural Gas   |
| Salt Top     |                                  |                 | Bell Canyon         |                |                   |
| Salt Base    |                                  |                 | Cherry Canyon       |                |                   |
| Yates        | 100'                             | Oil/Natural Gas | Manzanita Marker    |                |                   |
| Seven Rivers | 505'                             | Oil/Natural Gas | Basal Brushy Canyon |                |                   |
| Queen        | 1127'                            | Oil/Natural Gas | Bone Spring         | 3611'          | Oil/Natural Gas   |
| Capitan      |                                  |                 | 1st Bone Spring     | 5565'          | Oil/Natural Gas   |
| Grayburg     | 1316'                            | None            | 2nd Bone Spring     | 6265'          | Oil/Natural Gas   |
| San Andres   |                                  |                 | 3rd Bone Spring     | 7536'          | Oil/Natural Gas   |
| Glorieta     |                                  |                 | Wolfcamp            |                |                   |

#### All casing strings will be tested in accordance with 43 CFR Part 3170 Subpart 3172. 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.   | N      |
|  |        |
| 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 $2^{nd}$ string set 100' to 600' below the base of salt?  |        |
| Is an open annulus used to satisfy R-111-Q? If yes, see cement design.   |        |
| Is an engineered weak point used to satisfy R-111-Q?   |        |
| If yes, at what depth is the weak point planned?   |        |
|  |        |
| Is well located in high Cave/Karst?  | Y      |
| If yes, are there two strings cemented to surface?   | Y      |
| (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 three strings cemented to surface?   |        |

# Mewbourne Oil Company, Pinta 29/27 Fed Com 528H Sec 29, T20S, R27E

SHL: 380' FSL 205' FWL (Sec 29) BHL: 330' FSL 100' FEL (Sec 27)

| Casing Program Design B |           |        |         |        |         | BLM Minimum Safety<br>Factors | 1.125       | 1.0      | 1.6 Dry<br>1.8 Wet | 1.6 Dry<br>1.8 Wet |
|-------------------------|-----------|--------|---------|--------|---------|-------------------------------|-------------|----------|--------------------|--------------------|
| String                  | Hole Size | Top MD | Top TVD | Bot MD | Bot TVD | Csg. Size                     | SF Collapse | SF Burst | SF Jt Tension      | SF Body<br>Tension |
| Surface                 | 17.5"     | 0'     | 0'      | 500'   | 500'    | 13.375" 48# H40 STC           | 3.44        | 7.74     | 13.42              | 22.54              |
| Int                     | 12.25"    | 0'     | 0'      | 3600'  | 3600'   | 9.625" 36# J55 LTC            | 1.14        | 1.98     | 3.50               | 4.35               |
| Production              | 8.75"     | 0'     | 0'      | 6875'  | 6537'   | 7" 26# P110 LTC               | 1.93        | 3.08     | 3.88               | 4.64               |
| Production              | 8.5"      | 68751  | 6537'   | 22098' | 6975'   | 5.5" 20# P110 Talon           | 2.66        | 3.03     | 1 24               | 1.45               |

Design B - Cement Program

| Casing          |      | # Sacks | Wt. lb/gal | Yield ft <sup>3</sup> /sack | тос/вос         | Volume ft <sup>3</sup> | % Excess | Slurry Description                          |
|-----------------|------|---------|------------|-----------------------------|-----------------|------------------------|----------|---|
| 13,375 in       | LEAD | 210     | 12.5       | 2.12                        | 0' - 313'       | 450                    | 100%     | Class C: Salt, Gel, Extender, LCM           |
| 13.575 III      | TAIL | 200     | 14.8       | 1.34                        | 313' - 500'     | 268                    | 10070    | Class C: Retarder                           |
| 9,625 in        | LEAD | 540     | 12.5       | 2.12                        | 0' - 2920'      | 1150                   | 25%      | Class C: Salt, Gel, Extender, LCM           |
| 9.025 III       | TAIL | 200     | 14.8       | 1.34                        | 2920' - 3600'   | 268                    | 2370     | Class C: Retarder                           |
| 7 in - 5.5 in   | LEAD | 1840    | 12.5       | 2.12                        | 3400' - 17964'  | 3910                   | 25%      | Class C: Salt, Gel, Extender, LCM, Defoamer |
| / iii = 5.5 iii | TAIL | 600     | 13.5       | 1.85                        | 17964' - 22098' | 1110                   | 2370     | Class H: Retarder, Fluid Loss, Defoamer     |

Design B - Mud Program

| Depth          | Mud Wt     | Mud Type    |
|----------------|------------|-------------|
|                |            |             |
| 0' - 500'      | 8.4 - 8.6  | Fresh Water |
| 500' - 3600'   | 8.4 - 9.5  | Fresh Water |
| 3600' - 6875'  | 8.4 - 9.5  | Cut-Brine   |
| 6875' - 22098' | 8.4 - 11.5 | OBM         |

Geolog

| Geology      |                |                   |                     |                |                   |
|--------------|----------------|-------------------|---------------------|----------------|-------------------|
| Formation    | Est. Top (TVD) | Mineral Resources | Formation           | Est. Top (TVD) | Mineral Resources |
| Rustler      |                |                   | Yeso                |                |                   |
| Castile      |                |                   | Delaware (Lamar)    | 2250'          | Oil/Natural Gas   |
| Salt Top     |                |                   | Bell Canyon         |                |                   |
| Salt Base    |                |                   | Cherry Canyon       |                |                   |
| Yates        | 100'           | Oil/Natural Gas   | Manzanita Marker    |                |                   |
| Seven Rivers | 505'           | Oil/Natural Gas   | Basal Brushy Canyon |                |                   |
| Queen        | 1127'          | Oil/Natural Gas   | Bone Spring         | 3611'          | Oil/Natural Gas   |
| Capitan      |                |                   | 1st Bone Spring     | 5565'          | Oil/Natural Gas   |
| Grayburg     | 1316'          | None              | 2nd Bone Spring     | 6265'          | Oil/Natural Gas   |
| San Andres   |                |                   | 3rd Bone Spring     | 7536'          | Oil/Natural Gas   |
| Glorieta     |                |                   | Wolfcamp            |                |                   |

#### $All \ casing \ strings \ will \ be \ tested \ in \ accordance \ with \ 43 \ CFR \ Part \ 3170 \ Subpart \ 3172. \ Must \ have \ table \ for \ contingency \ casing.$

|  | Y or N |
|--|--------|
| Is easing 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 we'll within the designated 4 string boundary.  | N      |
| Is well located in SOPA but not in R-111-P?  | N      |
| If yes, are the first 2 strings comented to surface and 3 <sup>rd</sup> string coment 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 an open annulus used to satisfy R-111-Q? If yes, see cement design.   |        |
| Is an engineered weak point used to satisfy R-111-Q?   |        |
| If yes, at what depth is the weak point planned?   |        |
| Is well located in high Cave/Karst?  | Y      |
| If yes, are there two strings cemented to surface?   | Y      |
| (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 three strings cemented to surface?   |        |

SHL: 380' FSL 205' FWL (Sec 29) BHL: 330' FSL 100' FEL (Sec 27)

|            | Casing Program Design A |        |         |        |         |                     | 1.125       | 1.0      | 1.6 Dry<br>1.8 Wet | 1.6 Dry<br>1.8 Wet |
|------------|-------------------------|--------|---------|--------|---------|---------------------|-------------|----------|--------------------|--------------------|
| String     | Hole Size               | Top MD | Top TVD | Bot MD | Bot TVD | Csg. Size           | SF Collapse | SF Burst | SF Jt Tension      | SF Body<br>Tension |
| Surface    | 17.5"                   | 0'     | 0'      | 500'   | 500'    | 13.375" 48# H40 STC | 3.44        | 7.74     | 13.42              | 22.54              |
| Int        | 12.25"                  | 0'     | 0'      | 3600'  | 3600'   | 9.625" 36# J55 LTC  | 1.14        | 1.98     | 3.50               | 4.35               |
| Production | 8.75"                   | 0'     | 0'      | 5974'  | 5902'   | 7" 26# P110 LTC     | 2.14        | 3.41     | 4.46               | 5.34               |
| Production | 8.5"                    | 5974'  | 5902'   | 22098' | 6975'   | 5.5" 20# P110 Talon | 2.66        | 3.03     | 1.24               | 1.45               |

#### Cement Program

| Casing        |      | # Sacks | Wt. lb/gal | Yield ft <sup>3</sup> /sack | TOC/BOC         | Volume ft <sup>3</sup> | % Excess | Slurry Description                          |
|---------------|------|---------|------------|-----------------------------|-----------------|------------------------|----------|---|
| 13.375 in     | LEAD | 210     | 12.5       | 2.12                        | 0' - 313'       | 450                    | 100%     | Class C: Salt, Gel, Extender, LCM           |
| 15.575 111    | TAIL | 200     | 14.8       | 1.34                        | 313' - 500'     | 268                    | 100%     | Class C: Retarder                           |
| 9,625 in      | LEAD | 540     | 12.5       | 2.12                        | 0' - 2920'      | 1150                   | 25%      | Class C: Salt, Gel, Extender, LCM           |
| 9.023 III     | TAIL | 200     | 14.8       | 1.34                        | 2920' - 3600'   | 268                    | 2370     | Class C: Retarder                           |
| a             | LEAD | 1890    | 12.5       | 2.12                        | 3400' - 18044'  | 4010                   | 9.507    | Class C: Salt, Gel, Extender, LCM, Defoamer |
| 7 in - 5.5 in | TAIL | 600     | 13.5       | 1.85                        | 18044' - 22098' | 1110                   | 25%      | Class H: Retarder, Fluid Loss, Defoamer     |

Design A - Mud Program

| Depth          | Mud Wt     | Mud Type    |
|----------------|------------|-------------|
|                |            |             |
| 0' - 500'      | 8.4 - 8.6  | Fresh Water |
| 500' - 3600'   | 8.4 - 9.5  | Fresh Water |
| 3600' - 5974'  | 8.4 - 9.5  | Cut-Brine   |
| 5974' - 22098' | 8.4 - 11.5 | OBM         |

Geolog

| Geology      |                |                   |                     |                |                   |
|--------------|----------------|-------------------|---------------------|----------------|-------------------|
| Formation    | Est. Top (TVD) | Mineral Resources | Formation           | Est. Top (TVD) | Mineral Resources |
| Rustler      |                |                   | Yeso                |                |                   |
| Castile      |                |                   | Delaware (Lamar)    | 2250'          | Oil/Natural Gas   |
| Salt Top     |                |                   | Bell Canyon         |                |                   |
| Salt Base    |                |                   | Cherry Canyon       |                |                   |
| Yates        | 100'           | Oil/Natural Gas   | Manzanita Marker    |                |                   |
| Seven Rivers | 505'           | Oil/Natural Gas   | Basal Brushy Canyon |                |                   |
| Queen        | 1127'          | Oil/Natural Gas   | Bone Spring         | 3611'          | Oil/Natural Gas   |
| Capitan      |                |                   | 1st Bone Spring     | 5565'          | Oil/Natural Gas   |
| Grayburg     | 1316'          | None              | 2nd Bone Spring     | 6265'          | Oil/Natural Gas   |
| San Andres   |                |                   | 3rd Bone Spring     | 7536'          | Oil/Natural Gas   |
| Glorieta     |                |                   | Wolfcamp            |                |                   |

#### $All \ casing \ strings \ will \ be \ tested \ in \ accordance \ with \ 43 \ CFR \ Part \ 3170 \ Subpart \ 3172. \ Must \ have \ table \ for \ contingency \ casing.$

|  | Y or N |
|--|--------|
| Is easing new? If used, attach certification as required in Onshore Order #1   | Y      |
| Is easing API approved? If no, attach easing 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.   | N      |
|  |        |
| 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 an open annulus used to satisfy R-111-Q? If yes, see cement design.   |        |
| Is an engineered weak point used to satisfy R-111-Q?   |        |
| If yes, at what depth is the weak point planned?   |        |
|  |        |
| Is well located in high Cave/Karst?  | Y      |
| If yes, are there two strings cemented to surface?   | Y      |
| (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 three strings cemented to surface?   |        |

BHL: 330' FSL 100' FEL (Sec 27)

| Casing Program Design B |           |        |         |        | BLM Minimum Safety<br>Factors | 1.125               | 1.0         | 1.6 Drv<br>1.8 Wet | 1.6 Dry<br>1.8 Wet |                    |
|-------------------------|-----------|--------|---------|--------|-------------------------------|---------------------|-------------|--------------------|--------------------|--------------------|
| String                  | Hole Size | Top MD | Top TVD | Bot MD | Bot TVD                       | Csg. Size           | SF Collapse | SF Burst           | SF Jt Tension      | SF Body<br>Tension |
| Surface                 | 17.5"     | 0'     | 0'      | 500'   | 500'                          | 13.375" 48# H40 STC | 3.44        | 7.74               | 13.42              | 22.54              |
| Int                     | 12.25"    | 0'     | 0'      | 3600'  | 3600'                         | 9.625" 36# J55 LTC  | 1.14        | 1.98               | 3.50               | 4.35               |
| Production              | 8.75"     | 0'     | 0'      | 6875'  | 6537'                         | 7" 26# P110 LTC     | 1.93        | 3.08               | 3.88               | 4.64               |
| Production              | 8.5"      | 6875'  | 6537'   | 22098' | 6975'                         | 5.5" 20# P110 Talon | 2.66        | 3.03               | 1 24               | 1.45               |

Design B - Cement Program

| Casing          |      | # Sacks | Wt. lb/gal | Yield ft <sup>3</sup> /sack | тос/вос         | Volume ft <sup>3</sup> | % Excess | Slurry Description                          |
|-----------------|------|---------|------------|-----------------------------|-----------------|------------------------|----------|---|
| 13,375 in       | LEAD | 210     | 12.5       | 2.12                        | 0' - 313'       | 450                    | 100%     | Class C: Salt, Gel, Extender, LCM           |
| 13.575 III      | TAIL | 200     | 14.8       | 1.34                        | 313' - 500'     | 268                    | 10070    | Class C: Retarder                           |
| 9,625 in        | LEAD | 540     | 12.5       | 2.12                        | 0' - 2920'      | 1150                   | 25%      | Class C: Salt, Gel, Extender, LCM           |
| 9.023 III       | TAIL | 200     | 14.8       | 1.34                        | 2920' - 3600'   | 268                    | 2370     | Class C: Retarder                           |
| 7 in - 5.5 in   | LEAD | 1840    | 12.5       | 2.12                        | 3400' - 17964'  | 3910                   | 25%      | Class C: Salt, Gel, Extender, LCM, Defoamer |
| / III = 5.5 III | TAIL | 600     | 13.5       | 1.85                        | 17964' - 22098' | 1110                   | 2370     | Class H: Retarder, Fluid Loss, Defoamer     |

Design B - Mud Program

| Depth          | Mud Wt     | Mud Type    |
|----------------|------------|-------------|
|                |            |             |
| 0' - 500'      | 8.4 - 8.6  | Fresh Water |
| 500' - 3600'   | 8.4 - 9.5  | Fresh Water |
| 3600' - 6875'  | 8.4 - 9.5  | Cut-Brine   |
| 6875' - 22098' | 8.4 - 11.5 | OBM         |

| Geology                  |       |                             |                     |                |                   |  |
|--------------------------|-------|-----------------------------|---------------------|----------------|-------------------|--|
| Formation Est. Top (TVD) |       | Mineral Resources Formation |                     | Est. Top (TVD) | Mineral Resources |  |
| Rustler                  |       |                             | Yeso                |                |                   |  |
| Castile                  |       |                             | Delaware (Lamar)    | 2250'          | Oil/Natural Gas   |  |
| Salt Top                 |       |                             | Bell Canyon         |                |                   |  |
| Salt Base                |       |                             | Cherry Canyon       |                |                   |  |
| Yates                    | 100'  | Oil/Natural Gas             | Manzanita Marker    |                |                   |  |
| Seven Rivers             | 505'  | Oil/Natural Gas             | Basal Brushy Canyon |                |                   |  |
| Queen                    | 1127' | Oil/Natural Gas             | Bone Spring         | 3611'          | Oil/Natural Gas   |  |
| Capitan                  |       |                             | 1st Bone Spring     | 5565'          | Oil/Natural Gas   |  |
| Grayburg                 | 1316' | None                        | 2nd Bone Spring     | 6265'          | Oil/Natural Gas   |  |
| San Andres               |       |                             | 3rd Bone Spring     | 7536'          | Oil/Natural Gas   |  |
| Glorieta                 |       |                             | Wolfcamp            |                |                   |  |

#### All casing strings will be tested in accordance with 43 CFR Part 3170 Subpart 3172. Must have table for contingency casing.

|  | Y or N |
|--|--------|
| Is easing 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 we'll within the designated 4 string boundary.  | N      |
| 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?                       | 11     |
|  |        |
| 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 an open annulus used to satisfy R-111-Q? If yes, see cement design.   |        |
| Is an engineered weak point used to satisfy R-111-Q?   |        |
| If yes, at what depth is the weak point planned?   |        |
| Is well located in high Cave/Karst?  | Y      |
| If yes, are there two strings cemented to surface?   | Y      |
| (For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?   |        |
| Is well located in critical Cave/Karst?  | N N    |
| If yes, are there three strings cemented to surface?   | - 11   |

SHL: 380' FSL 205' FWL (Sec 29) BHL: 330' FSL 100' FEL (Sec 27)

| Casing Program Design A |           |        |         |        | BLM Minimum Safety<br>Factors | 1.125               | 1.0         | 1.6 Dry<br>1.8 Wet | 1.6 Dry<br>1.8 Wet |                    |
|-------------------------|-----------|--------|---------|--------|-------------------------------|---------------------|-------------|--------------------|--------------------|--------------------|
| String                  | Hole Size | Top MD | Top TVD | Bot MD | Bot TVD                       | Csg. Size           | SF Collapse | SF Burst           | SF Jt Tension      | SF Body<br>Tension |
| Surface                 | 17.5"     | 0'     | 0'      | 500'   | 500'                          | 13.375" 48# H40 STC | 3.44        | 7.74               | 13.42              | 22.54              |
| Int                     | 12.25"    | 0'     | 0'      | 3600'  | 3600'                         | 9.625" 36# J55 LTC  | 1.14        | 1.98               | 3.50               | 4.35               |
| Production              | 8.75"     | 0'     | 0'      | 5974'  | 5902'                         | 7" 26# P110 LTC     | 2.14        | 3.41               | 4.46               | 5.34               |
| Production              | 8.5"      | 5974'  | 5902'   | 22098' | 6975'                         | 5.5" 20# P110 Talon | 2.66        | 3.03               | 1.24               | 1.45               |

Cement Program

| Casing        |      | # Sacks | Wt. lb/gal | Yield ft <sup>3</sup> /sack | TOC/BOC         | Volume ft <sup>3</sup> | % Excess | Slurry Description                          |
|---------------|------|---------|------------|-----------------------------|-----------------|------------------------|----------|---|
| 13.375 in     | LEAD | 210     | 12.5       | 2.12                        | 0' - 313'       | 450                    | 100%     | Class C: Salt, Gel, Extender, LCM           |
| 15.575 III    | TAIL | 200     | 14.8       | 1.34                        | 313' - 500'     | 268                    | 10070    | Class C: Retarder                           |
| 9,625 in      | LEAD | 540     | 12.5       | 2.12                        | 0' - 2920'      | 1150                   | 25%      | Class C: Salt, Gel, Extender, LCM           |
| 9.023 III     | TAIL | 200     | 14.8       | 1.34                        | 2920' - 3600'   | 268                    | 2370     | Class C: Retarder                           |
|               | LEAD | 1890    | 12.5       | 2.12                        | 3400' - 18044'  | 4010                   | 9.507    | Class C: Salt, Gel, Extender, LCM, Defoamer |
| 7 in - 5.5 in | TAIL | 600     | 13.5       | 1.85                        | 18044' - 22098' | 1110                   | 25%      | Class H: Retarder, Fluid Loss, Defoamer     |

Design A - Mud Program

| Depth          | Mud Wt     | Mud Type    |
|----------------|------------|-------------|
|                |            |             |
| 0' - 500'      | 8.4 - 8.6  | Fresh Water |
| 500' - 3600'   | 8.4 - 9.5  | Fresh Water |
| 3600' - 5974'  | 8.4 - 9.5  | Cut-Brine   |
| 5974' - 22098' | 8.4 - 11.5 | OBM         |

Geology

| Formation    | Est. Top (TVD) | Mineral Resources | Formation           | Est. Top (TVD) | Mineral Resources |
|--------------|----------------|-------------------|---------------------|----------------|-------------------|
| Rustler      |                |                   | Yeso                |                |                   |
| Castile      |                |                   | Delaware (Lamar)    | 2250'          | Oil/Natural Gas   |
| Salt Top     |                |                   | Bell Canyon         |                |                   |
| Salt Base    |                |                   | Cherry Canyon       |                |                   |
| Yates        | 100'           | Oil/Natural Gas   | Manzanita Marker    |                |                   |
| Seven Rivers | 505'           | Oil/Natural Gas   | Basal Brushy Canyon |                |                   |
| Queen        | 1127'          | Oil/Natural Gas   | Bone Spring         | 3611'          | Oil/Natural Gas   |
| Capitan      |                |                   | 1st Bone Spring     | 5565'          | Oil/Natural Gas   |
| Grayburg     | 1316'          | None              | 2nd Bone Spring     | 6265'          | Oil/Natural Gas   |
| San Andres   |                |                   | 3rd Bone Spring     | 7536'          | Oil/Natural Gas   |
| Glorieta     |                |                   | Wolfcamp            |                |                   |

#### $All \ casing \ strings \ will \ be \ tested \ in \ accordance \ with \ 43 \ CFR \ Part \ 3170 \ Subpart \ 3172. \ Must \ have \ table \ for \ contingency \ casing.$

|  | Y or N |
|--|--------|
| Is easing new? If used, attach certification as required in Onshore Order #1   | Y      |
| Is easing API approved? If no, attach easing 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 easing?                             | 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.   | N      |
|  |        |
| 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 an open annulus used to satisfy R-111-Q? If yes, see cement design.   |        |
| Is an engineered weak point used to satisfy R-111-Q?   |        |
| If yes, at what depth is the weak point planned?   |        |
|  |        |
| Is well located in high Cave/Karst?  | Y      |
| If yes, are there two strings cemented to surface?   | Y      |
| (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 three strings cemented to surface?   |        |

### Mewbourne Oil Company, Pinta 29/27 Fed Com 528H Sec 29, T20S, R27E

SHL: 380' FSL 205' FWL (Sec 29) BHL: 330' FSL 100' FEL (Sec 27)

| Casing Program Design B |           |        |         |        |         | BLM Minimum Safety<br>Factors | 1.125       | 1.0      | 1.6 Drv<br>1.8 Wet | 1.6 Dry<br>1.8 Wet |
|-------------------------|-----------|--------|---------|--------|---------|-------------------------------|-------------|----------|--------------------|--------------------|
| String                  | Hole Size | Top MD | Top TVD | Bot MD | Bot TVD | Csg. Size                     | SF Collapse | SF Burst | SF Jt Tension      | SF Body<br>Tension |
| Surface                 | 17.5"     | 0'     | 0'      | 500'   | 500'    | 13.375" 48# H40 STC           | 3.44        | 7.74     | 13.42              | 22.54              |
| Int                     | 12.25"    | 0'     | 0'      | 3600'  | 3600'   | 9.625" 36# J55 LTC            | 1.14        | 1.98     | 3.50               | 4.35               |
| Production              | 8.75"     | 0'     | 0'      | 6875'  | 6537'   | 7" 26# P110 LTC               | 1.93        | 3.08     | 3.88               | 4.64               |
| Production              | 8.5"      | 6875'  | 6537'   | 22098' | 6975'   | 5.5" 20# P110 Talon           | 2 66        | 3.03     | 1 24               | 1.45               |

Design B - Cement Program

| Casing          |      | # Sacks | Wt. lb/gal | Yield ft <sup>3</sup> /sack | тос/вос         | Volume ft <sup>3</sup> | % Excess | Slurry Description                          |
|-----------------|------|---------|------------|-----------------------------|-----------------|------------------------|----------|---|
| 13,375 in       | LEAD | 210     | 12.5       | 2.12                        | 0' - 313'       | 450                    | 100%     | Class C: Salt, Gel, Extender, LCM           |
| 13.373 III      | TAIL | 200     | 14.8       | 1.34                        | 313' - 500'     | 268                    | 10070    | Class C: Retarder                           |
| 9,625 in        | LEAD | 540     | 12.5       | 2.12                        | 0' - 2920'      | 1150                   | 25%      | Class C: Salt, Gel, Extender, LCM           |
| 9.023 III       | TAIL | 200     | 14.8       | 1.34                        | 2920' - 3600'   | 268                    | 2370     | Class C: Retarder                           |
| 7 in - 5.5 in   | LEAD | 1840    | 12.5       | 2.12                        | 3400' - 17964'  | 3910                   | 25%      | Class C: Salt, Gel, Extender, LCM, Defoamer |
| / III = 5.5 III | TAIL | 600     | 13.5       | 1.85                        | 17964' - 22098' | 1110                   | 25%      | Class H: Retarder, Fluid Loss, Defoamer     |

Design B - Mud Program

| Depth          | Mud Wt     | Mud Type    |
|----------------|------------|-------------|
|                |            |             |
| 0' - 500'      | 8.4 - 8.6  | Fresh Water |
| 500' - 3600'   | 8.4 - 9.5  | Fresh Water |
| 3600' - 6875'  | 8.4 - 9.5  | Cut-Brine   |
| 6875' - 22098' | 8.4 - 11.5 | OBM         |

| Geology      |                |                   |                     |                |                   |  |
|--------------|----------------|-------------------|---------------------|----------------|-------------------|--|
| Formation    | Est. Top (TVD) | Mineral Resources | Formation           | Est. Top (TVD) | Mineral Resources |  |
| Rustler      |                |                   | Yeso                |                |                   |  |
| Castile      |                |                   | Delaware (Lamar)    | 2250'          | Oil/Natural Gas   |  |
| Salt Top     |                |                   | Bell Canyon         |                |                   |  |
| Salt Base    |                |                   | Cherry Canyon       |                |                   |  |
| Yates        | 100'           | Oil/Natural Gas   | Manzanita Marker    |                |                   |  |
| Seven Rivers | 505'           | Oil/Natural Gas   | Basal Brushy Canyon |                |                   |  |
| Queen        | 1127'          | Oil/Natural Gas   | Bone Spring         | 3611'          | Oil/Natural Gas   |  |
| Capitan      |                |                   | 1st Bone Spring     | 5565'          | Oil/Natural Gas   |  |
| Grayburg     | 1316'          | None              | 2nd Bone Spring     | 6265'          | Oil/Natural Gas   |  |
| San Andres   |                |                   | 3rd Bone Spring     | 7536'          | Oil/Natural Gas   |  |
| Glorieta     |                |                   | Wolfcamp            |                |                   |  |

### All casing strings will be tested in accordance with 43 CFR Part 3170 Subpart 3172. Must have table for contingency casing.

|  | Y or N |
|--|--------|
| Is easing new? If used, attach certification as required in Onshore Order #1   | Y      |
| Is easing API approved? If no, attach easing 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 easing?                             | 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.   | N      |
|  |        |
| 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 an open annulus used to satisfy R-111-Q? If yes, see cement design.   |        |
| Is an engineered weak point used to satisfy R-111-Q?   |        |
| If yes, at what depth is the weak point planned?   |        |
|  |        |
| Is well located in high Cave/Karst?  | Y      |
| If yes, are there two strings cemented to surface?   | Y      |
| (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 three strings cemented to surface?   |        |

### Mewbourne Oil Company, Pinta 29/27 Fed Com 528H Sec 29, T20S, R27E SHL: 380' FSL 205' FWL (Sec 29)

SHL: 380' FSL 205' FWL (Sec 29) BHL: 330' FSL 100' FEL (Sec 27)

| Casing Program Design A |           |        |         |        |         | BLM Minimum Safety<br>Factors | 1.125       | 1.0      | 1.6 Dry<br>1.8 Wet | 1.6 Dry<br>1.8 Wet |
|-------------------------|-----------|--------|---------|--------|---------|-------------------------------|-------------|----------|--------------------|--------------------|
| String                  | Hole Size | Top MD | Top TVD | Bot MD | Bot TVD | Csg. Size                     | SF Collapse | SF Burst | SF Jt Tension      | SF Body<br>Tension |
| Surface                 | 17.5"     | 0'     | 0'      | 500'   | 500'    | 13.375" 48# H40 STC           | 3.44        | 7.74     | 13.42              | 22.54              |
| Int                     | 12.25"    | 0'     | 0'      | 3600'  | 3600'   | 9.625" 36# J55 LTC            | 1.14        | 1.98     | 3.50               | 4.35               |
| Production              | 8.75"     | 0'     | 0'      | 5974'  | 5902'   | 7" 26# P110 LTC               | 2.14        | 3.41     | 4.46               | 5.34               |
| Production              | 8.5"      | 5974'  | 5902'   | 22098' | 6975'   | 5.5" 20# P110 Talon           | 2.66        | 3.03     | 1.24               | 1.45               |

Cement Program

| Casing        |      | # Sacks | Wt. lb/gal | Yield ft <sup>3</sup> /sack | TOC/BOC         | Volume ft <sup>3</sup> | % Excess | Slurry Description                          |
|---------------|------|---------|------------|-----------------------------|-----------------|------------------------|----------|---|
| 13.375 in     | LEAD | 210     | 12.5       | 2.12                        | 0' - 313'       | 450                    | 100%     | Class C: Salt, Gel, Extender, LCM           |
| 15.575 III    | TAIL | 200     | 14.8       | 1.34                        | 313' - 500'     | 268                    | 10076    | Class C: Retarder                           |
| 9,625 in      | LEAD | 540     | 12.5       | 2.12                        | 0' - 2920'      | 1150                   | 25%      | Class C: Salt, Gel, Extender, LCM           |
| 9.023 III     | TAIL | 200     | 14.8       | 1.34                        | 2920' - 3600'   | 268                    | 2370     | Class C: Retarder                           |
| a             | LEAD | 1890    | 12.5       | 2.12                        | 3400' - 18044'  | 4010                   | 9.507    | Class C: Salt, Gel, Extender, LCM, Defoamer |
| 7 in - 5.5 in | TAIL | 600     | 13.5       | 1.85                        | 18044' - 22098' | 1110                   | 25%      | Class H: Retarder, Fluid Loss, Defoamer     |

Design A - Mud Program

| Depth          | Mud Wt     | Mud Type    |
|----------------|------------|-------------|
|                |            |             |
| 0' - 500'      | 8.4 - 8.6  | Fresh Water |
| 500' - 3600'   | 8.4 - 9.5  | Fresh Water |
| 3600' - 5974'  | 8.4 - 9.5  | Cut-Brine   |
| 5974' - 22098' | 8.4 - 11.5 | OBM         |

Geolog

| Geology      |                |                   |                     |                |                   |  |
|--------------|----------------|-------------------|---------------------|----------------|-------------------|--|
| Formation    | Est. Top (TVD) | Mineral Resources | Formation           | Est. Top (TVD) | Mineral Resources |  |
| Rustler      |                |                   | Yeso                |                |                   |  |
| Castile      |                |                   | Delaware (Lamar)    | 2250'          | Oil/Natural Gas   |  |
| Salt Top     |                |                   | Bell Canyon         |                |                   |  |
| Salt Base    |                |                   | Cherry Canyon       |                |                   |  |
| Yates        | 100'           | Oil/Natural Gas   | Manzanita Marker    |                |                   |  |
| Seven Rivers | 505'           | Oil/Natural Gas   | Basal Brushy Canyon |                |                   |  |
| Queen        | 1127'          | Oil/Natural Gas   | Bone Spring         | 3611'          | Oil/Natural Gas   |  |
| Capitan      |                |                   | 1st Bone Spring     | 5565'          | Oil/Natural Gas   |  |
| Grayburg     | 1316'          | None              | 2nd Bone Spring     | 6265'          | Oil/Natural Gas   |  |
| San Andres   |                |                   | 3rd Bone Spring     | 7536'          | Oil/Natural Gas   |  |
| Glorieta     |                |                   | Wolfcamp            |                |                   |  |

### All casing strings will be tested in accordance with 43 CFR Part 3170 Subpart 3172. Must have table for contingency casing.

|  | Y or N |
|--|--------|
| Is easing new? If used, attach certification as required in Onshore Order #1   | Y      |
| Is easing API approved? If no, attach easing 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.   | N      |
| 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 an open annulus used to satisfy R-111-Q? If yes, see cement design.   |        |
| Is an engineered weak point used to satisfy R-111-Q?   |        |
| If yes, at what depth is the weak point planned?   |        |
| Is well located in high Cave/Karst?  | Y      |
| If yes, are there two strings cemented to surface?   | Y      |
| (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 three strings cemented to surface?   |        |

### Mewbourne Oil Company, Pinta 29/27 Fed Com 528H Sec 29, T20S, R27E SHL: 380' FSL 205' FWL (Sec 29)

BHL: 330' FSL 100' FEL (Sec 27)

| Casing Program Design B |           |        |         |        |         | BLM Minimum Safety<br>Factors | 1.125       | 1.0      | 1.6 Dry<br>1.8 Wet | 1.6 Dry<br>1.8 Wet |
|-------------------------|-----------|--------|---------|--------|---------|-------------------------------|-------------|----------|--------------------|--------------------|
| String                  | Hole Size | Top MD | Top TVD | Bot MD | Bot TVD | Csg. Size                     | SF Collapse | SF Burst | SF Jt Tension      | SF Body<br>Tension |
| Surface                 | 17.5"     | 0'     | 0'      | 500'   | 500'    | 13.375" 48# H40 STC           | 3.44        | 7.74     | 13.42              | 22.54              |
| Int                     | 12.25"    | 0'     | 0'      | 3600'  | 3600'   | 9.625" 36# J55 LTC            | 1.14        | 1.98     | 3.50               | 4.35               |
| Production              | 8.75"     | 0'     | 0'      | 6875'  | 6537'   | 7" 26# P110 LTC               | 1.93        | 3.08     | 3.88               | 4.64               |
| Production              | 8.5"      | 68751  | 6537'   | 22098' | 6975'   | 5.5" 20# P110 Talon           | 2.66        | 3.03     | 1 24               | 1.45               |

Design B - Cement Program

| Casing          |      | # Sacks | Wt. lb/gal | Yield ft <sup>3</sup> /sack | тос/вос         | Volume ft <sup>3</sup> | % Excess | Slurry Description                          |
|-----------------|------|---------|------------|-----------------------------|-----------------|------------------------|----------|---|
| 13,375 in       | LEAD | 210     | 12.5       | 2.12                        | 0' - 313'       | 450                    | 100%     | Class C: Salt, Gel, Extender, LCM           |
| 13.373 III      | TAIL | 200     | 14.8       | 1.34                        | 313' - 500'     | 268                    | 10070    | Class C: Retarder                           |
| 9,625 in        | LEAD | 540     | 12.5       | 2.12                        | 0' - 2920'      | 1150                   | 25%      | Class C: Salt, Gel, Extender, LCM           |
| 9.025 III       | TAIL | 200     | 14.8       | 1.34                        | 2920' - 3600'   | 268                    | 2376     | Class C: Retarder                           |
| 7 in - 5.5 in   | LEAD | 1840    | 12.5       | 2.12                        | 3400' - 17964'  | 3910                   | 25%      | Class C: Salt, Gel, Extender, LCM, Defoamer |
| / iii = 5.5 iii | TAIL | 600     | 13.5       | 1.85                        | 17964' - 22098' | 1110                   | 25%      | Class H: Retarder, Fluid Loss, Defoamer     |

Design B - Mud Program

| Depth          | Mud Wt     | Mud Type    |
|----------------|------------|-------------|
|                |            |             |
| 0' - 500'      | 8.4 - 8.6  | Fresh Water |
| 500' - 3600'   | 8.4 - 9.5  | Fresh Water |
| 3600' - 6875'  | 8.4 - 9.5  | Cut-Brine   |
| 6875' - 22098' | 8.4 - 11.5 | OBM         |

| Geology      |                |                   |                     |                |                   |
|--------------|----------------|-------------------|---------------------|----------------|-------------------|
| Formation    | Est. Top (TVD) | Mineral Resources | Formation           | Est. Top (TVD) | Mineral Resources |
| Rustler      |                |                   | Yeso                |                |                   |
| Castile      |                |                   | Delaware (Lamar)    | 2250'          | Oil/Natural Gas   |
| Salt Top     |                |                   | Bell Canyon         |                |                   |
| Salt Base    |                |                   | Cherry Canyon       |                |                   |
| Yates        | 100'           | Oil/Natural Gas   | Manzanita Marker    |                |                   |
| Seven Rivers | 505'           | Oil/Natural Gas   | Basal Brushy Canyon |                |                   |
| Queen        | 1127'          | Oil/Natural Gas   | Bone Spring         | 3611'          | Oil/Natural Gas   |
| Capitan      |                |                   | 1st Bone Spring     | 5565'          | Oil/Natural Gas   |
| Grayburg     | 1316'          | None              | 2nd Bone Spring     | 6265'          | Oil/Natural Gas   |
| San Andres   |                |                   | 3rd Bone Spring     | 7536'          | Oil/Natural Gas   |
| Glorieta     |                |                   | Wolfcamp            |                |                   |

### All casing strings will be tested in accordance with 43 CFR Part 3170 Subpart 3172. Must have table for contingency casing.

|  | Y or N |
|--|--------|
| Is easing new? If used, attach certification as required in Onshore Order #1   | Y      |
| Is easing API approved? If no, attach easing 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 easing?                             | 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.   | N      |
|  |        |
| 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 an open annulus used to satisfy R-111-Q? If yes, see cement design.   |        |
| Is an engineered weak point used to satisfy R-111-Q?   |        |
| If yes, at what depth is the weak point planned?   |        |
|  |        |
| Is well located in high Cave/Karst?  | Y      |
| If yes, are there two strings cemented to surface?   | Y      |
| (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 three strings cemented to surface?   |        |

# **Mewbourne Oil Company**

Eddy County, New Mexico NAD 83 Pinta 29/27 Fed Com #528H Sec 29, T20S, R27E

SHL: 380' FSL & 205' FWL (Sec 29) BHL: 330' FSL & 100' FEL (Sec 27)

Plan: Design #1

# **Standard Planning Report**

18 June, 2024

Hobbs Database: Company: Mewbourne Oil Company Project: Eddy County, New Mexico NAD 83

Site: Pinta 29/27 Fed Com #528H Well: Sec 29, T20S, R27E Wellbore:

Design #1 Design:

BHL: 330' FSL & 100' FEL (Sec 27)

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Site Pinta 29/27 Fed Com #528H

WELL @ 3237.0usft (Original Well Elev) WELL @ 3237.0usft (Original Well Elev)

Minimum Curvature

Project Eddy County, New Mexico NAD 83

Map System: US State Plane 1983 North American Datum 1983 Geo Datum: New Mexico Eastern Zone Map Zone:

System Datum:

Ground Level

Pinta 29/27 Fed Com #528H Site

Northing: 559,601.20 usft 32.5383998 Site Position: Latitude: From: Мар Easting: 548,073.50 usft Longitude: -104.3114748

0.0 usft Slot Radius: 13-3/16 " **Position Uncertainty:** 

Well Sec 29, T20S, R27E

**Well Position** +N/-S 0.0 usft 559,601.20 usft Latitude: 32.5383998 Northing: +E/-W 0.0 usft Easting: 548,073.50 usft Longitude: -104.3114748 0.0 usft Wellhead Elevation: 3,237.0 usft Ground Level: 3,209.0 usft **Position Uncertainty** 

**Grid Convergence:** 0.01°

BHL: 330' FSL & 100' FEL (Sec 27) Wellbore

Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (°) (nT) (°) IGRF2010 12/31/2014 7.51 60.26 48,346.72144892

Design Design #1

**Audit Notes:** 

PROTOTYPE Version: Phase: Tie On Depth: 0.0

Depth From (TVD) +N/-S +E/-W Direction Vertical Section: (usft) (usft) (usft) (°) 90.46 0.0 0.0 0.0

6/18/2024 **Plan Survey Tool Program** Date

Depth From Depth To

(usft) (usft) Survey (Wellbore) **Tool Name** Remarks

0.0 22,097.8 Design #1 (BHL: 330' FSL & 100'

| Plan Sections               |                    |                |                             |                 |                 |                               |                              |                             |            |                       |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|------------------------------|-----------------------------|------------|-----------------------|
| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) | TFO<br>(°) | Target                |
| 0.0                         | 0.00               | 0.00           | 0.0                         | 0.0             | 0.0             | 0.00                          | 0.00                         | 0.00                        | 0.00       |                       |
| 3,800.0                     | 0.00               | 0.00           | 3,800.0                     | 0.0             | 0.0             | 0.00                          | 0.00                         | 0.00                        | 0.00       |                       |
| 4,111.0                     | 6.22               | 255.72         | 4,110.4                     | -4.2            | -16.3           | 2.00                          | 2.00                         | 0.00                        | 255.72     |                       |
| 5,663.3                     | 6.22               | 255.72         | 5,653.6                     | -45.6           | -179.4          | 0.00                          | 0.00                         | 0.00                        | 0.00       |                       |
| 5,974.4                     | 0.00               | 0.00           | 5,964.0                     | -49.8           | -195.7          | 2.00                          | -2.00                        | 0.00                        | 180.00     | KOP: 330' FSL & 10' I |
| 6,858.3                     | 88.35              | 90.27          | 6,537.0                     | -52.5           | 361.1           | 10.00                         | 10.00                        | 0.00                        | 90.27      |                       |
| 22,097.8                    | 88.35              | 90.27          | 6,975.0                     | -125.4          | 15,594.1        | 0.00                          | 0.00                         | 0.00                        | 0.00       | BHL: 330' FSL & 100'  |

Hobbs Database:

Company: Mewbourne Oil Company Eddy County, New Mexico NAD 83 Project:

Pinta 29/27 Fed Com #528H Site: Well: Sec 29, T20S, R27E

Wellbore: BHL: 330' FSL & 100' FEL (Sec 27)

Design: Design #1 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Site Pinta 29/27 Fed Com #528H WELL @ 3237.0usft (Original Well Elev) WELL @ 3237.0usft (Original Well Elev)

| ed Survey                   |                  |                  |                             |                 |                |                               |                               |                              |                             |
|-----------------------------|------------------|------------------|-----------------------------|-----------------|----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| Measured<br>Depth<br>(usft) | Inclination      | Azimuth          | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W          | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
| , ,                         | (°)              | (°)              |                             | ` ,             | (usft)         | , ,                           | ,                             | ,                            | ,                           |
| 0.0                         |                  | 0.00             | 0.0                         | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
|                             | FSL & 205' FWL ( | •                | 100.0                       | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 100.0                       |                  | 0.00             | 100.0                       | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 200.0                       |                  | 0.00             | 200.0                       | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 300.0                       |                  | 0.00             | 300.0                       | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 400.0                       | 0.00             | 0.00             | 400.0                       | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 500.0                       | 0.00             | 0.00             | 500.0                       | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 600.0                       |                  | 0.00             | 600.0                       | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 700.0                       |                  | 0.00             | 700.0                       | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 800.0                       |                  | 0.00             | 800.0                       | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 900.0                       |                  | 0.00             | 900.0                       | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 900.0                       |                  |                  | 900.0                       |                 | 0.0            | 0.0                           |                               |                              |                             |
| 1,000.0                     |                  | 0.00             | 1,000.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,100.0                     | 0.00             | 0.00             | 1,100.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,200.0                     | 0.00             | 0.00             | 1,200.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,300.0                     |                  | 0.00             | 1,300.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,400.0                     |                  | 0.00             | 1,400.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| ·                           |                  |                  | •                           |                 |                |                               |                               |                              |                             |
| 1,500.0                     |                  | 0.00             | 1,500.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,600.0                     |                  | 0.00             | 1,600.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,700.0                     |                  | 0.00             | 1,700.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,800.0                     |                  | 0.00             | 1,800.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 1,900.0                     | 0.00             | 0.00             | 1,900.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,000.0                     | 0.00             | 0.00             | 2,000.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,100.0                     |                  | 0.00             | 2,100.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,200.0                     |                  | 0.00             | 2,200.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,300.0                     |                  | 0.00             | 2,300.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,300.0                     |                  | 0.00             | 2,300.0<br>2,400.0          | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,400.0                     | 0.00             | 0.00             | 2,400.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,500.0                     | 0.00             | 0.00             | 2,500.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,600.0                     | 0.00             | 0.00             | 2,600.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,700.0                     | 0.00             | 0.00             | 2,700.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,800.0                     | 0.00             | 0.00             | 2,800.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,900.0                     | 0.00             | 0.00             | 2,900.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2 000 0                     | 0.00             | 0.00             | 2 000 0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,000.0                     |                  | 0.00             | 3,000.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,100.0                     |                  | 0.00             | 3,100.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,200.0                     |                  | 0.00             | 3,200.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,300.0                     |                  | 0.00             | 3,300.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,400.0                     | 0.00             | 0.00             | 3,400.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,500.0                     | 0.00             | 0.00             | 3,500.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,600.0                     |                  | 0.00             | 3,600.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,700.0                     |                  | 0.00             | 3,700.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,800.0                     |                  | 0.00             | 3,800.0                     | 0.0             | 0.0            | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,900.0                     |                  | 255.72           | 3,900.0                     | -0.4            | -1.7           | -1.7                          | 2.00                          | 2.00                         | 0.00                        |
|                             |                  |                  |                             |                 |                |                               |                               |                              |                             |
| 4,000.0                     |                  | 255.72           | 3,999.8                     | -1.7            | -6.8           | -6.7                          | 2.00                          | 2.00                         | 0.00                        |
| 4,100.0                     |                  | 255.72           | 4,099.5                     | -3.9            | -15.2          | -15.2                         | 2.00                          | 2.00                         | 0.00                        |
| 4,111.0                     |                  | 255.72           | 4,110.4                     | -4.2            | -16.3          | -16.3                         | 2.00                          | 2.00                         | 0.00                        |
| 4,200.0                     |                  | 255.72           | 4,198.9                     | -6.5            | -25.7          | -25.6                         | 0.00                          | 0.00                         | 0.00                        |
| 4,300.0                     | 6.22             | 255.72           | 4,298.3                     | -9.2            | -36.2          | -36.1                         | 0.00                          | 0.00                         | 0.00                        |
| 4,400.0                     | 6.22             | 255.72           | 4,397.7                     | -11.9           | -46.7          | -46.6                         | 0.00                          | 0.00                         | 0.00                        |
| 4,500.0                     |                  | 255.72           | 4,497.1                     | -14.6           | -57.2          | -40.0<br>-57.1                | 0.00                          | 0.00                         | 0.00                        |
| 4,600.0                     |                  | 255.72<br>255.72 | 4,596.5                     | -14.0<br>-17.2  | -57.2<br>-67.7 | -57.1<br>-67.6                | 0.00                          | 0.00                         | 0.00                        |
| 4,700.0                     |                  | 255.72<br>255.72 | 4,596.5<br>4,695.9          | -17.2<br>-19.9  | -67.7<br>-78.2 | -67.6<br>-78.0                | 0.00                          | 0.00                         | 0.00                        |
|                             |                  | 255.72<br>255.72 |                             |                 |                | -76.0<br>-88.5                |                               |                              |                             |
| 4,800.0                     | 6.22             | ∠55.7∠           | 4,795.3                     | -22.6           | -88.7          |                               | 0.00                          | 0.00                         | 0.00                        |
| 4,900.0                     |                  | 255.72           | 4,894.7                     | -25.2           | -99.2          | -99.0                         | 0.00                          | 0.00                         | 0.00                        |
| 5,000.0                     | 6.22             | 255.72           | 4,994.2                     | -27.9           | -109.7         | -109.5                        | 0.00                          | 0.00                         | 0.00                        |
| 5,100.0                     |                  | 255.72           | 5,093.6                     | -30.6           | -120.2         | -119.9                        | 0.00                          | 0.00                         | 0.00                        |

Database: Hobbs

Company: Mewbourne Oil Company
Project: Eddy County, New Mexico NAD 83
Site: Pinta 29/27 Fed Com #528H

BHL: 330' FSL & 100' FEL (Sec 27)

Well: Sec 29, T20S, R27E

Design: Design #1

Wellbore:

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Site Pinta 29/27 Fed Com #528H WELL @ 3237.0usft (Original Well Elev) WELL @ 3237.0usft (Original Well Elev)

Grid

| nned Survey        |                    |                |                    |                 |                    |                    |                     |                     |                     |
|--------------------|--------------------|----------------|--------------------|-----------------|--------------------|--------------------|---------------------|---------------------|---------------------|
| Measured           |                    |                | Vertical           |                 |                    | Vertical           | Dogleg              | Build               | Turn                |
| Depth<br>(usft)    | Inclination<br>(°) | Azimuth<br>(°) | Depth<br>(usft)    | +N/-S<br>(usft) | +E/-W<br>(usft)    | Section<br>(usft)  | Rate<br>(°/100usft) | Rate<br>(°/100usft) | Rate<br>(°/100usft) |
| 5,200.0            | 6.22               | 255.72         | 5,193.0            | -33.3           | -130.7             | -130.4             | 0.00                | 0.00                | 0.00                |
| 5,300.0            | 6.22               | 255.72         | 5,292.4            | -35.9           | -141.2             | -140.9             | 0.00                | 0.00                | 0.00                |
| 5,400.0            | 6.22               | 255.72         | 5,391.8            | -38.6           | -151.7             | -151.4             | 0.00                | 0.00                | 0.00                |
| 5,500.0            | 6.22               | 255.72         | 5,491.2            | -41.3           | -162.2             | -161.9             | 0.00                | 0.00                | 0.00                |
| 5,600.0            | 6.22               | 255.72         | 5,590.6            | -43.9           | -172.7             | -172.3             | 0.00                | 0.00                | 0.00                |
| 5,663.3            | 6.22               | 255.72         | 5,653.6            | -45.6           | -179.4             | -179.0             | 0.00                | 0.00                | 0.00                |
| 5,700.0            | 5.49               | 255.72         | 5,690.1            | -46.6           | -183.0             | -182.6             | 2.00                | -2.00               | 0.00                |
| 5,800.0            | 3.49               | 255.72         | 5,789.7            | -48.5           | -190.6             | -190.2             | 2.00                | -2.00               | 0.00                |
| 5,900.0            | 1.49               | 255.72         | 5,889.6            | -49.6           | -194.8             | -194.4             | 2.00                | -2.00               | 0.00                |
| 5,974.4            | 0.00               | 0.00           | 5,964.0            | -49.8           | -195.7             | -195.3             | 2.00                | <del>-</del> 2.00   | 0.00                |
|                    | SL & 10' FWL (Se   |                |                    |                 |                    |                    |                     |                     |                     |
| 6,000.0            | 2.56               | 90.27          | 5,989.6            | -49.8           | -195.1             | -194.7             | 10.00               | 10.00               | 0.00                |
| 6,050.0            | 7.56               | 90.27          | 6,039.4            | -49.8           | -190.7             | -190.3             | 10.00               | 10.00               | 0.00                |
| 6,100.0            | 12.56              | 90.27          | 6,088.6            | -49.9           | -182.0             | -181.6             | 10.00               | 10.00               | 0.00                |
| 6,150.0            | 17.56              | 90.27          | 6,136.9            | -49.9           | -169.0             | -168.6             | 10.00               | 10.00               | 0.00                |
| 6,200.0            | 22.55              | 90.27          | 6,183.9            | -50.0           | -151.9             | -151.5             | 10.00               | 10.00               | 0.00                |
| 6,250.0            | 27.55              | 90.27          | 6,229.1            | -50.1           | -130.7             | -130.3             | 10.00               | 10.00               | 0.00                |
| 6,299.9            | 32.54              | 90.27          | 6,272.4            | -50.2           | -105.7             | -105.3             | 10.00               | 10.00               | 0.00                |
| FTP: 330' FS       | L & 100' FWL (S    | Sec 29)        |                    |                 |                    |                    |                     |                     |                     |
| 6,300.0            | 32.55              | 90.27          | 6,272.4            | -50.2           | -105.7             | -105.3             | 10.00               | 10.00               | 0.00                |
| 6,350.0            | 37.55              | 90.27          | 6,313.3            | -50.4           | -77.0              | -76.6              | 10.00               | 10.00               | 0.00                |
| 6,400.0            | 42.54              | 90.27          | 6,351.6            | -50.5           | -44.8              | -44.4              | 10.00               | 10.00               | 0.00                |
| 6,450.0            | 47.54              | 90.27          | 6,386.9            | -50.7           | -9.4               | -9.0               | 10.00               | 10.00               | 0.00                |
| 6,500.0            | 52.54              | 90.27          | 6,419.0            | -50.9           | 28.9               | 29.3               | 10.00               | 10.00               | 0.00                |
| 6,550.0            | 57.54              | 90.27          | 6,447.7            | -51.1           | 69.8               | 70.2               | 10.00               | 10.00               | 0.00                |
| 6,600.0            | 62.53              | 90.27          | 6,472.6            | -51.3           | 113.1              | 113.5              | 10.00               | 10.00               | 0.00                |
| 6,650.0            | 67.53              | 90.27          | 6,493.7            | -51.5           | 158.5              | 158.9              | 10.00               | 10.00               | 0.00                |
| 6,700.0            | 72.53              | 90.27          | 6,510.8            | -51.7           | 205.4              | 205.8              | 10.00               | 10.00               | 0.00                |
| 6,750.0            | 77.53              | 90.27          | 6,523.7            | -52.0           | 253.7              | 254.1              | 10.00               | 10.00               | 0.00                |
| 6,800.0            | 82.52              | 90.27          | 6,532.4            | -52.2           | 302.9              | 303.4              | 10.00               | 10.00               | 0.00                |
| 6,850.0            | 87.52              | 90.27          | 6,536.7            | -52.4           | 352.7              | 353.1              | 10.00               | 10.00               | 0.00                |
| 6,858.3            | 88.35              | 90.27          | 6,537.0            | -52.5           | 361.1              | 361.5              | 10.00               | 10.00               | 0.00                |
| 6,875.1            | 88.35              | 90.27          | 6,537.5            | -52.5           | 377.8              | 378.2              | 0.00                | 0.00                | 0.00                |
|                    | . & 583' FWL (Se   | •              | 6 520 2            | 52.7            | 402.7              | 403.1              | 0.00                | 0.00                | 0.00                |
| 6,900.0            | 88.35              | 90.27          | 6,538.2            | -52.7           | 402.7              |                    |                     |                     | 0.00                |
| 7,000.0            | 88.35              | 90.27          | 6,541.1            | -53.1           | 502.7              | 503.1              | 0.00                | 0.00                | 0.00                |
| 7,100.0            | 88.35              | 90.27          | 6,543.9            | -53.6           | 602.6              | 603.0              | 0.00                | 0.00                | 0.00                |
| 7,200.0<br>7,300.0 | 88.35<br>88.35     | 90.27<br>90.27 | 6,546.8<br>6,549.7 | -54.1<br>-54.6  | 702.6<br>802.5     | 703.0<br>803.0     | 0.00<br>0.00        | 0.00<br>0.00        | 0.00<br>0.00        |
| 7,300.0<br>7,400.0 | 88.35              | 90.27<br>90.27 | 6,549.7<br>6,552.6 | -54.6<br>-55.1  | 902.5              | 902.9              | 0.00                | 0.00                | 0.00                |
| •                  |                    |                |                    |                 |                    |                    |                     |                     |                     |
| 7,500.0            | 88.35              | 90.27          | 6,555.4            | -55.5           | 1,002.5            | 1,002.9            | 0.00                | 0.00                | 0.00                |
| 7,600.0            | 88.35              | 90.27          | 6,558.3            | -56.0           | 1,102.4            | 1,102.8            | 0.00                | 0.00                | 0.00                |
| 7,700.0<br>7,800.0 | 88.35<br>88.35     | 90.27<br>90.27 | 6,561.2<br>6,564.1 | -56.5<br>-57.0  | 1,202.4<br>1,302.3 | 1,202.8<br>1,302.7 | 0.00<br>0.00        | 0.00<br>0.00        | 0.00<br>0.00        |
| 7,800.0<br>7,900.0 | 88.35              | 90.27          | 6,566.9            | -57.0<br>-57.5  | 1,302.3            | 1,302.7            | 0.00                | 0.00                | 0.00                |
|                    |                    |                |                    |                 |                    |                    |                     |                     |                     |
| 8,000.0            | 88.35              | 90.27          | 6,569.8            | -57.9           | 1,502.2            | 1,502.7            | 0.00                | 0.00                | 0.00                |
| 8,100.0            | 88.35              | 90.27          | 6,572.7            | -58.4           | 1,602.2            | 1,602.6            | 0.00                | 0.00                | 0.00                |
| 8,200.0            | 88.35              | 90.27          | 6,575.6            | -58.9           | 1,702.2            | 1,702.6            | 0.00                | 0.00                | 0.00                |
| 8,300.0<br>8,400.0 | 88.35<br>88.35     | 90.27<br>90.27 | 6,578.4<br>6,581.3 | -59.4<br>-59.8  | 1,802.1<br>1,902.1 | 1,802.5<br>1,902.5 | 0.00<br>0.00        | 0.00<br>0.00        | 0.00<br>0.00        |
|                    |                    |                |                    |                 |                    |                    |                     |                     |                     |
| 8,500.0            | 88.35              | 90.27          | 6,584.2            | -60.3           | 2,002.0            | 2,002.5            | 0.00                | 0.00                | 0.00                |
| 8,600.0            | 88.35              | 90.27          | 6,587.1            | -60.8           | 2,102.0            | 2,102.4            | 0.00                | 0.00                | 0.00                |

Database: Hobbs

Company: Mewbourne Oil Company
Project: Eddy County, New Mexico NAD 83
Site: Pinta 29/27 Fed Com #528H

Well: Sec 29, T20S, R27E
Wellbore: BHL: 330' FSL & 100' FEL (Sec 27)

Design: Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Site Pinta 29/27 Fed Com #528H WELL @ 3237.0usft (Original Well Elev) WELL @ 3237.0usft (Original Well Elev)

Grid

| Planned S | urvey           |                    |                |                 |                   |                 |                   |                     |                     |                     |
|-----------|-----------------|--------------------|----------------|-----------------|-------------------|-----------------|-------------------|---------------------|---------------------|---------------------|
| NA.       | leasured        |                    |                | Vertical        |                   |                 | Vertical          | Dogleg              | Build               | Turn                |
|           | Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Depth<br>(usft) | +N/-S<br>(usft)   | +E/-W<br>(usft) | Section<br>(usft) | Rate<br>(°/100usft) | Rate<br>(°/100usft) | Rate<br>(°/100usft) |
|           | 8,800.0         | 88.35              | 90.27          | 6,592.8         | -61.8             | 2,301.9         | 2,302.3           | 0.00                | 0.00                | 0.00                |
|           | 8,900.0         | 88.35              | 90.27          | 6,595.7         | -62.2             | 2,401.9         | 2,402.3           | 0.00                | 0.00                | 0.00                |
|           | 9,000.0         | 88.35              | 90.27          | 6,598.6         | -62.7             | 2,501.8         | 2,502.2           | 0.00                | 0.00                | 0.00                |
|           | 9,100.0         | 88.35              | 90.27          | 6,601.4         | -63.2             | 2,601.8         | 2,602.2           | 0.00                | 0.00                | 0.00                |
|           | 9,200.0         | 88.35              | 90.27          | 6,604.3         | -63.7             | 2,701.7         | 2,702.2           | 0.00                | 0.00                | 0.00                |
|           | 9,300.0         | 88.35              | 90.27          | 6,607.2         | -64.2             | 2,801.7         | 2,802.1           | 0.00                | 0.00                | 0.00                |
|           | 9,400.0         | 88.35              | 90.27          | 6,610.1         | -64.6             | 2,901.7         | 2,902.1           | 0.00                | 0.00                | 0.00                |
|           | 9,500.0         | 88.35              | 90.27          | 6,612.9         | -65.1             | 3,001.6         | 3,002.0           | 0.00                | 0.00                | 0.00                |
|           | 9,600.0         | 88.35              | 90.27          | 6,615.8         | -65.6             | 3,101.6         | 3,102.0           | 0.00                | 0.00                | 0.00                |
|           | 9,700.0         | 88.35              | 90.27          | 6,618.7         | -66.1             | 3,201.5         | 3,202.0           | 0.00                | 0.00                | 0.00                |
|           | 9,800.0         | 88.35              | 90.27          | 6,621.5         | -66.5             | 3,301.5         | 3,301.9           | 0.00                | 0.00                | 0.00                |
|           | 9,900.0         | 88.35              | 90.27          | 6,624.4         | -67.0             | 3,401.4         | 3,401.9           | 0.00                | 0.00                | 0.00                |
|           | 10,000.0        | 88.35              | 90.27          | 6,627.3         | -67.5             | 3,501.4         | 3,501.8           | 0.00                | 0.00                | 0.00                |
|           | 10,100.0        | 88.35              | 90.27          | 6,630.2         | -68.0             | 3,601.4         | 3,601.8           | 0.00                | 0.00                | 0.00                |
|           | 10,200.0        | 88.35              | 90.27          | 6,633.0         | -68.5             | 3,701.3         | 3,701.7           | 0.00                | 0.00                | 0.00                |
|           | 10,300.0        | 88.35              | 90.27          | 6,635.9         | -68.9             | 3,801.3         | 3,801.7           | 0.00                | 0.00                | 0.00                |
|           | 10,400.0        | 88.35              | 90.27          | 6,638.8         | -69.4             | 3,901.2         | 3,901.7           | 0.00                | 0.00                | 0.00                |
|           | 10,500.0        | 88.35              | 90.27          | 6,641.7         | -69.9             | 4,001.2         | 4,001.6           | 0.00                | 0.00                | 0.00                |
|           | 10,600.0        | 88.35              | 90.27          | 6,644.5         | -70.4             | 4,101.1         | 4,101.6           | 0.00                | 0.00                | 0.00                |
|           | 10,700.0        | 88.35              | 90.27          | 6,647.4         | -70.9             | 4,201.1         | 4,201.5           | 0.00                | 0.00                | 0.00                |
|           | 10,800.0        | 88.35              | 90.27          | 6,650.3         | -71.3             | 4,301.1         | 4,301.5           | 0.00                | 0.00                | 0.00                |
|           | 10,900.0        | 88.35              | 90.27          | 6,653.2         | -71.8             | 4,401.0         | 4,401.5           | 0.00                | 0.00                | 0.00                |
|           | 11,000.0        | 88.35              | 90.27          | 6,656.0         | -72.3             | 4,501.0         | 4,501.4           | 0.00                | 0.00                | 0.00                |
|           | 11,100.0        | 88.35              | 90.27          | 6,658.9         | -72.8             | 4,600.9         | 4,601.4           | 0.00                | 0.00                | 0.00                |
|           | 11,200.0        | 88.35              | 90.27          | 6,661.8         | -73.2             | 4,700.9         | 4,701.3           | 0.00                | 0.00                | 0.00                |
|           | 11,300.0        | 88.35              | 90.27          | 6,664.7         | -73.7             | 4,800.8         | 4,801.3           | 0.00                | 0.00                | 0.00                |
|           | 11,400.0        | 88.35              | 90.27          | 6,667.5         | -74.2             | 4,900.8         | 4,901.2           | 0.00                | 0.00                | 0.00                |
|           | 11,500.0        | 88.35              | 90.27          | 6,670.4         | -74.7             | 5,000.8         | 5,001.2           | 0.00                | 0.00                | 0.00                |
|           | 11,596.4        | 88.35              | 90.27          | 6,673.2         | -75.1             | 5,097.1         | 5,097.5           | 0.00                | 0.00                | 0.00                |
| F         |                 | SL & 0' FWL (Se    |                |                 |                   |                 |                   |                     |                     |                     |
|           | 11,600.0        | 88.35              | 90.27          | 6,673.3         | -75.2             | 5,100.7         | 5,101.2           | 0.00                | 0.00                | 0.00                |
|           | 11,700.0        | 88.35              | 90.27          | 6,676.2         | -75.6             | 5,200.7         | 5,201.1           | 0.00                | 0.00                | 0.00                |
|           | 11,800.0        | 88.35              | 90.27          | 6,679.0         | -76.1             | 5,300.6         | 5,301.1           | 0.00                | 0.00                | 0.00                |
|           | 11,900.0        | 88.35              | 90.27          | 6,681.9         | -76.6             | 5,400.6         | 5,401.0           | 0.00                | 0.00                | 0.00                |
|           | 12,000.0        | 88.35              | 90.27          | 6,684.8         | -77.1             | 5,500.6         | 5,501.0           | 0.00                | 0.00                | 0.00                |
|           | 12,100.0        | 88.35              | 90.27          | 6,687.7         | -77.6             | 5,600.5         | 5,601.0           | 0.00                | 0.00                | 0.00                |
|           | 12,200.0        | 88.35              | 90.27          | 6,690.5         | <del>-</del> 78.0 | 5,700.5         | 5,700.9           | 0.00                | 0.00                | 0.00                |
|           | 12,300.0        | 88.35              | 90.27          | 6,693.4         | -78.5             | 5,800.4         | 5,800.9           | 0.00                | 0.00                | 0.00                |
|           | 12,400.0        | 88.35              | 90.27          | 6,696.3         | -79.0             | 5,900.4         | 5,900.8           | 0.00                | 0.00                | 0.00                |
|           | 12,500.0        | 88.35              | 90.27          | 6,699.1         | -79.5             | 6,000.3         | 6,000.8           | 0.00                | 0.00                | 0.00                |
|           | 12,600.0        | 88.35              | 90.27          | 6,702.0         | -79.9             | 6,100.3         | 6,100.7           | 0.00                | 0.00                | 0.00                |
|           | 12,700.0        | 88.35              | 90.27          | 6,704.9         | -80.4             | 6,200.3         | 6,200.7           | 0.00                | 0.00                | 0.00                |
|           | 12,800.0        | 88.35              | 90.27          | 6,707.8         | -80.9             | 6,300.2         | 6,300.7           | 0.00                | 0.00                | 0.00                |
|           | 12,900.0        | 88.35              | 90.27          | 6,710.6         | -81.4             | 6,400.2         | 6,400.6           | 0.00                | 0.00                | 0.00                |
|           | 13,000.0        | 88.35              | 90.27          | 6,713.5         | -81.9             | 6,500.1         | 6,500.6           | 0.00                | 0.00                | 0.00                |
|           | 13,100.0        | 88.35              | 90.27          | 6,716.4         | -82.3             | 6,600.1         | 6,600.5           | 0.00                | 0.00                | 0.00                |
|           | 13,200.0        | 88.35              | 90.27          | 6,719.3         | -82.8             | 6,700.0         | 6,700.5           | 0.00                | 0.00                | 0.00                |
|           | 13,300.0        | 88.35              | 90.27          | 6,722.1         | -83.3             | 6,800.0         | 6,800.4           | 0.00                | 0.00                | 0.00                |
|           | 13,400.0        | 88.35              | 90.27          | 6,725.0         | -83.8             | 6,900.0         | 6,900.4           | 0.00                | 0.00                | 0.00                |
|           | 13,500.0        | 88.35              | 90.27          | 6,727.9         | -84.3             | 6,999.9         | 7,000.4           | 0.00                | 0.00                | 0.00                |
|           | 13,600.0        | 88.35              | 90.27          | 6,730.8         | -84.7             | 7,099.9         | 7,100.3           | 0.00                | 0.00                | 0.00                |
|           | 13,700.0        | 88.35              | 90.27          | 6,733.6         | -85.2             | 7,199.8         | 7,200.3           | 0.00                | 0.00                | 0.00                |
|           | 13,800.0        | 88.35              | 90.27          | 6,736.5         | -85.7             | 7,299.8         | 7,300.2           | 0.00                | 0.00                | 0.00                |

Database: Hobbs

Company: Mewbourne Oil Company
Project: Eddy County, New Mexico NAD 83
Site: Pinta 29/27 Fed Com #528H
Well: Sec 29, T20S, R27E

**Wellbore:** BHL: 330' FSL & 100' FEL (Sec 27)

Design: Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Site Pinta 29/27 Fed Com #528H WELL @ 3237.0usft (Original Well Elev) WELL @ 3237.0usft (Original Well Elev)

Grid

| anned Survey         |                          |                |                    |                  |                      |                      |                     |                     |                     |
|----------------------|--------------------------|----------------|--------------------|------------------|----------------------|----------------------|---------------------|---------------------|---------------------|
|                      |                          |                |                    |                  |                      |                      |                     |                     |                     |
| Measured             |                          |                | Vertical           |                  |                      | Vertical             | Dogleg              | Build               | Turn                |
| Depth<br>(usft)      | Inclination              | Azimuth        | Depth<br>(usft)    | +N/-S            | +E/-W                | Section<br>(usft)    | Rate<br>(°/100usft) | Rate<br>(°/100usft) | Rate<br>(°/100usft) |
| (usit)               | (°)                      | (°)            | (usit)             | (usft)           | (usft)               | (usit)               | (7100usit)          | ( / loousit)        | ( / loousit)        |
| 13,900.0             | 88.35                    | 90.27          | 6,739.4            | -86.2            | 7,399.7              | 7,400.2              | 0.00                | 0.00                | 0.00                |
| 14,000.0             | 88.35                    | 90.27          | 6,742.3            | -86.6            | 7,499.7              | 7,500.2              | 0.00                | 0.00                | 0.00                |
| 14,100.0             | 88.35                    | 90.27          | 6,745.1            | -87.1            | 7,599.7              | 7,600.1              | 0.00                | 0.00<br>0.00        | 0.00<br>0.00        |
| 14,200.0             | 88.35                    | 90.27          | 6,748.0            | -87.6<br>-87.8   | 7,699.6              | 7,700.1              | 0.00                |                     |                     |
| 14,251.7             | 88.35<br>FSL & 2655' FWL | 90.27          | 6,749.5            | -07.0            | 7,751.3              | 7,751.8              | 0.00                | 0.00                | 0.00                |
|                      |                          | , ,            |                    |                  |                      |                      |                     |                     |                     |
| 14,300.0             | 88.35                    | 90.27          | 6,750.9            | -88.1            | 7,799.6              | 7,800.0              | 0.00                | 0.00                | 0.00                |
| 14,400.0             | 88.35                    | 90.27          | 6,753.8            | -88.6            | 7,899.5              | 7,900.0              | 0.00                | 0.00                | 0.00                |
| 14,500.0             | 88.35                    | 90.27          | 6,756.6            | -89.0            | 7,999.5              | 7,999.9              | 0.00                | 0.00                | 0.00                |
| 14,600.0             | 88.35                    | 90.27          | 6,759.5            | -89.5            | 8,099.4              | 8,099.9              | 0.00                | 0.00                | 0.00                |
| 14,700.0             | 88.35                    | 90.27          | 6,762.4            | -90.0            | 8,199.4              | 8,199.9              | 0.00                | 0.00                | 0.00                |
| 14,800.0             | 88.35                    | 90.27          | 6,765.3            | -90.5            | 8,299.4              | 8,299.8              | 0.00                | 0.00                | 0.00                |
| 14,900.0             | 88.35                    | 90.27          | 6,768.1            | -91.0            | 8,399.3              | 8,399.8              | 0.00                | 0.00                | 0.00                |
| 15,000.0             | 88.35                    | 90.27          | 6,771.0            | <b>-</b> 91.4    | 8,499.3              | 8,499.7              | 0.00                | 0.00                | 0.00                |
| 15,100.0             | 88.35                    | 90.27          | 6,773.9            | -91.9            | 8,599.2              | 8,599.7              | 0.00                | 0.00                | 0.00                |
| 15,200.0             | 88.35                    | 90.27          | 6,776.7            | -92.4            | 8,699.2              | 8,699.7              | 0.00                | 0.00                | 0.00                |
| 15,300.0             | 88.35                    | 90.27          | 6,779.6            | -92.9            | 8,799.1              | 8,799.6              | 0.00                | 0.00                | 0.00                |
| 15,400.0             | 88.35                    | 90.27          | 6,782.5            | -93.3            | 8,899.1              | 8,899.6              | 0.00                | 0.00                | 0.00                |
| 15,500.0             | 88.35                    | 90.27          | 6,785.4            | -93.8            | 8,999.1              | 8,999.5              | 0.00                | 0.00                | 0.00                |
| 15,600.0             | 88.35                    | 90.27          | 6,788.2            | -94.3            | 9,099.0              | 9,099.5              | 0.00                | 0.00                | 0.00                |
| 15,700.0             | 88.35                    | 90.27          | 6,791.1            | -94.8            | 9,199.0              | 9,199.4              | 0.00                | 0.00                | 0.00                |
| 15,800.0             | 88.35                    | 90.27          | 6,794.0            | -95.3            | 9,298.9              | 9,299.4              | 0.00                | 0.00                | 0.00                |
| 15,900.0             | 88.35                    | 90.27          | 6,796.9            | -95.7            | 9,398.9              | 9,399.4              | 0.00                | 0.00                | 0.00                |
| 16,000.0             | 88.35                    | 90.27          | 6,799.7            | -96.2            | 9,498.9              | 9,499.3              | 0.00                | 0.00                | 0.00                |
| 16,100.0             | 88.35                    | 90.27          | 6,802.6            | -96.7            | 9,598.8              | 9,599.3              | 0.00                | 0.00                | 0.00                |
| 16,200.0             | 88.35                    | 90.27          | 6,805.5            | -97.2            | 9,698.8              | 9,699.2              | 0.00                | 0.00                | 0.00                |
| 16,300.0             | 88.35                    | 90.27          | 6,808.4            | -97.7            | 9,798.7              | 9,799.2              | 0.00                | 0.00                | 0.00                |
| 16,400.0             | 88.35                    | 90.27          | 6,811.2            | -98.1            | 9,898.7              | 9,899.2              | 0.00                | 0.00                | 0.00                |
| 16,500.0             | 88.35                    | 90.27          | 6,814.1            | -98.6            | 9,998.6              | 9,999.1              | 0.00                | 0.00                | 0.00                |
| 16,600.0             | 88.35                    | 90.27          | 6,817.0            | -99.1            | 10,098.6             | 10,099.1             | 0.00                | 0.00                | 0.00                |
| 16,700.0             | 88.35                    | 90.27          | 6,819.9            | -99.6            | 10,198.6             | 10,199.0             | 0.00                | 0.00                | 0.00                |
| 16,800.0             | 88.35                    | 90.27          | 6,822.7            | -100.0           | 10,298.5             | 10,299.0             | 0.00                | 0.00                | 0.00                |
| 16,900.0             | 88.35                    | 90.27          | 6,825.6            | -100.5           | 10,398.5             | 10,398.9             | 0.00                | 0.00                | 0.00                |
| 17,000.0             | 88.35                    | 90.27          | 6,828.5            | -101.0           | 10,498.4             | 10,498.9             | 0.00                | 0.00                | 0.00                |
| 17,100.0             | 88.35                    | 90.27          | 6,831.4            | -101.5           | 10,598.4             | 10,598.9             | 0.00                | 0.00                | 0.00                |
| 17,100.0             | 88.35                    | 90.27          | 6,834.2            | -102.0           | 10,698.3             | 10,698.8             | 0.00                | 0.00                | 0.00                |
|                      |                          |                |                    |                  | •                    | •                    |                     |                     |                     |
| 17,300.0             | 88.35                    | 90.27          | 6,837.1            | -102.4           | 10,798.3             | 10,798.8             | 0.00                | 0.00                | 0.00                |
| 17,400.0             | 88.35                    | 90.27          | 6,840.0            | -102.9           | 10,898.3             | 10,898.7             | 0.00                | 0.00                | 0.00                |
| 17,500.0             | 88.35                    | 90.27          | 6,842.9            | -103.4           | 10,998.2             | 10,998.7             | 0.00                | 0.00                | 0.00                |
| 17,600.0<br>17,700.0 | 88.35<br>88.35           | 90.27<br>90.27 | 6,845.7<br>6,848.6 | -103.9<br>-104.4 | 11,098.2<br>11,198.1 | 11,098.6<br>11,198.6 | 0.00<br>0.00        | 0.00<br>0.00        | 0.00<br>0.00        |
|                      |                          |                |                    |                  |                      |                      |                     |                     |                     |
| 17,800.0             | 88.35                    | 90.27          | 6,851.5            | -104.8           | 11,298.1             | 11,298.6             | 0.00                | 0.00                | 0.00                |
| 17,900.0             | 88.35                    | 90.27          | 6,854.3            | -105.3           | 11,398.0             | 11,398.5             | 0.00                | 0.00                | 0.00                |
| 18,000.0             | 88.35                    | 90.27          | 6,857.2            | -105.8           | 11,498.0             | 11,498.5             | 0.00                | 0.00                | 0.00                |
| 18,100.0             | 88.35                    | 90.27          | 6,860.1            | -106.3           | 11,598.0             | 11,598.4<br>11,698.4 | 0.00                | 0.00                | 0.00                |
| 18,200.0             | 88.35                    | 90.27          | 6,863.0            | -106.7           | 11,697.9             | ·                    | 0.00                | 0.00                | 0.00                |
| 18,300.0             | 88.35                    | 90.27          | 6,865.8            | -107.2           | 11,797.9             | 11,798.4             | 0.00                | 0.00                | 0.00                |
| 18,400.0             | 88.35                    | 90.27          | 6,868.7            | -107.7           | 11,897.8             | 11,898.3             | 0.00                | 0.00                | 0.00                |
| 18,500.0             | 88.35                    | 90.27          | 6,871.6            | -108.2           | 11,997.8             | 11,998.3             | 0.00                | 0.00                | 0.00                |
| 18,600.0             | 88.35                    | 90.27          | 6,874.5            | -108.7           | 12,097.7             | 12,098.2             | 0.00                | 0.00                | 0.00                |
| 18,700.0             | 88.35                    | 90.27          | 6,877.3            | -109.1           | 12,197.7             | 12,198.2             | 0.00                | 0.00                | 0.00                |
| 18,800.0             | 88.35                    | 90.27          | 6,880.2            | -109.6           | 12,297.7             | 12,298.1             | 0.00                | 0.00                | 0.00                |
| 18,900.0             | 88.35                    | 90.27          | 6,883.1            | -110.1           | 12,397.6             | 12,398.1             | 0.00                | 0.00                | 0.00                |
| 19,000.0             | 88.35                    | 90.27          | 6,886.0            | -110.6           | 12,497.6             | 12,498.1             | 0.00                | 0.00                | 0.00                |

Hobbs Database: Company:

Project:

Mewbourne Oil Company

Eddy County, New Mexico NAD 83 Pinta 29/27 Fed Com #528H

Site: Well: Sec 29, T20S, R27E

Wellbore: BHL: 330' FSL & 100' FEL (Sec 27) Design:

Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Site Pinta 29/27 Fed Com #528H

WELL @ 3237.0usft (Original Well Elev) WELL @ 3237.0usft (Original Well Elev)

| med Survey  Measured  Depth  (usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|-------------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 19,100.0                            | 88.35              | 90.27          | 6,888.8                     | -111.1          | 12,597.5        | 12,598.0                      | 0.00                          | 0.00                         | 0.00                        |
| 19,200.0                            | 88.35              | 90.27          | 6,891.7                     | -111.5          | 12,697.5        | 12,698.0                      | 0.00                          | 0.00                         | 0.00                        |
| 19,300.0                            | 88.35              | 90.27          | 6,894.6                     | -112.0          | 12,797.5        | 12,797.9                      | 0.00                          | 0.00                         | 0.00                        |
| 19,400.0                            | 88.35              | 90.27          | 6,897.5                     | -112.5          | 12,897.4        | 12,897.9                      | 0.00                          | 0.00                         | 0.00                        |
| 19,500.0                            | 88.35              | 90.27          | 6,900.3                     | -113.0          | 12,997.4        | 12,997.9                      | 0.00                          | 0.00                         | 0.00                        |
| 19,600.0                            | 88.35              | 90.27          | 6,903.2                     | -113.4          | 13,097.3        | 13,097.8                      | 0.00                          | 0.00                         | 0.00                        |
| 19,700.0                            | 88.35              | 90.27          | 6,906.1                     | -113.9          | 13,197.3        | 13,197.8                      | 0.00                          | 0.00                         | 0.00                        |
| 19,800.0                            | 88.35              | 90.27          | 6,909.0                     | -114.4          | 13,297.2        | 13,297.7                      | 0.00                          | 0.00                         | 0.00                        |
| 19,900.0                            | 88.35              | 90.27          | 6,911.8                     | -114.9          | 13,397.2        | 13,397.7                      | 0.00                          | 0.00                         | 0.00                        |
| 20,000.0                            | 88.35              | 90.27          | 6,914.7                     | -115.4          | 13,497.2        | 13,497.6                      | 0.00                          | 0.00                         | 0.00                        |
| 20,100.0                            | 88.35              | 90.27          | 6,917.6                     | -115.8          | 13,597.1        | 13,597.6                      | 0.00                          | 0.00                         | 0.00                        |
| 20,200.0                            | 88.35              | 90.27          | 6,920.5                     | -116.3          | 13,697.1        | 13,697.6                      | 0.00                          | 0.00                         | 0.00                        |
| 20,300.0                            | 88.35              | 90.27          | 6,923.3                     | -116.8          | 13,797.0        | 13,797.5                      | 0.00                          | 0.00                         | 0.00                        |
| 20,400.0                            | 88.35              | 90.27          | 6,926.2                     | -117.3          | 13,897.0        | 13,897.5                      | 0.00                          | 0.00                         | 0.00                        |
| 20,500.0                            | 88.35              | 90.27          | 6,929.1                     | -117.8          | 13,996.9        | 13,997.4                      | 0.00                          | 0.00                         | 0.00                        |
| 20,600.0                            | 88.35              | 90.27          | 6,932.0                     | -118.2          | 14,096.9        | 14,097.4                      | 0.00                          | 0.00                         | 0.00                        |
| 20,700.0                            | 88.35              | 90.27          | 6,934.8                     | -118.7          | 14,196.9        | 14,197.4                      | 0.00                          | 0.00                         | 0.00                        |
| 20,800.0                            | 88.35              | 90.27          | 6,937.7                     | -119.2          | 14,296.8        | 14,297.3                      | 0.00                          | 0.00                         | 0.00                        |
| 20,900.0                            | 88.35              | 90.27          | 6,940.6                     | -119.7          | 14,396.8        | 14,397.3                      | 0.00                          | 0.00                         | 0.00                        |
| 21,000.0                            | 88.35              | 90.27          | 6,943.4                     | -120.1          | 14,496.7        | 14,497.2                      | 0.00                          | 0.00                         | 0.00                        |
| 21,100.0                            | 88.35              | 90.27          | 6,946.3                     | -120.6          | 14,596.7        | 14,597.2                      | 0.00                          | 0.00                         | 0.00                        |
| 21,200.0                            | 88.35              | 90.27          | 6,949.2                     | -121.1          | 14,696.6        | 14,697.1                      | 0.00                          | 0.00                         | 0.00                        |
| 21,300.0                            | 88.35              | 90.27          | 6,952.1                     | -121.6          | 14,796.6        | 14,797.1                      | 0.00                          | 0.00                         | 0.00                        |
| 21,400.0                            | 88.35              | 90.27          | 6,954.9                     | -122.1          | 14,896.6        | 14,897.1                      | 0.00                          | 0.00                         | 0.00                        |
| 21,500.0                            | 88.35              | 90.27          | 6,957.8                     | -122.5          | 14,996.5        | 14,997.0                      | 0.00                          | 0.00                         | 0.00                        |
| 21,600.0                            | 88.35              | 90.27          | 6,960.7                     | -123.0          | 15,096.5        | 15,097.0                      | 0.00                          | 0.00                         | 0.00                        |
| 21,700.0                            | 88.35              | 90.27          | 6,963.6                     | -123.5          | 15,196.4        | 15,196.9                      | 0.00                          | 0.00                         | 0.00                        |
| 21,800.0                            | 88.35              | 90.27          | 6,966.4                     | -124.0          | 15,296.4        | 15,296.9                      | 0.00                          | 0.00                         | 0.00                        |
| 21,900.0                            | 88.35              | 90.27          | 6,969.3                     | -124.5          | 15,396.3        | 15,396.8                      | 0.00                          | 0.00                         | 0.00                        |
| 22,000.0                            | 88.35              | 90.27          | 6,972.2                     | -124.9          | 15,496.3        | 15,496.8                      | 0.00                          | 0.00                         | 0.00                        |
| 22,097.8                            | 88.35              | 90.27          | 6,975.0                     | -125.4          | 15,594.1        | 15,594.6                      | 0.00                          | 0.00                         | 0.00                        |

Database: Hobbs

Company: Mewbourne Oil Company

Project: Eddy County, New Mexico NAD 83
Site: Pinta 29/27 Fed Com #528H

 Well:
 Sec 29, T20S, R27E

 Wellbore:
 BHL: 330' FSL & 100' FEL (Sec 27)

Design: Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

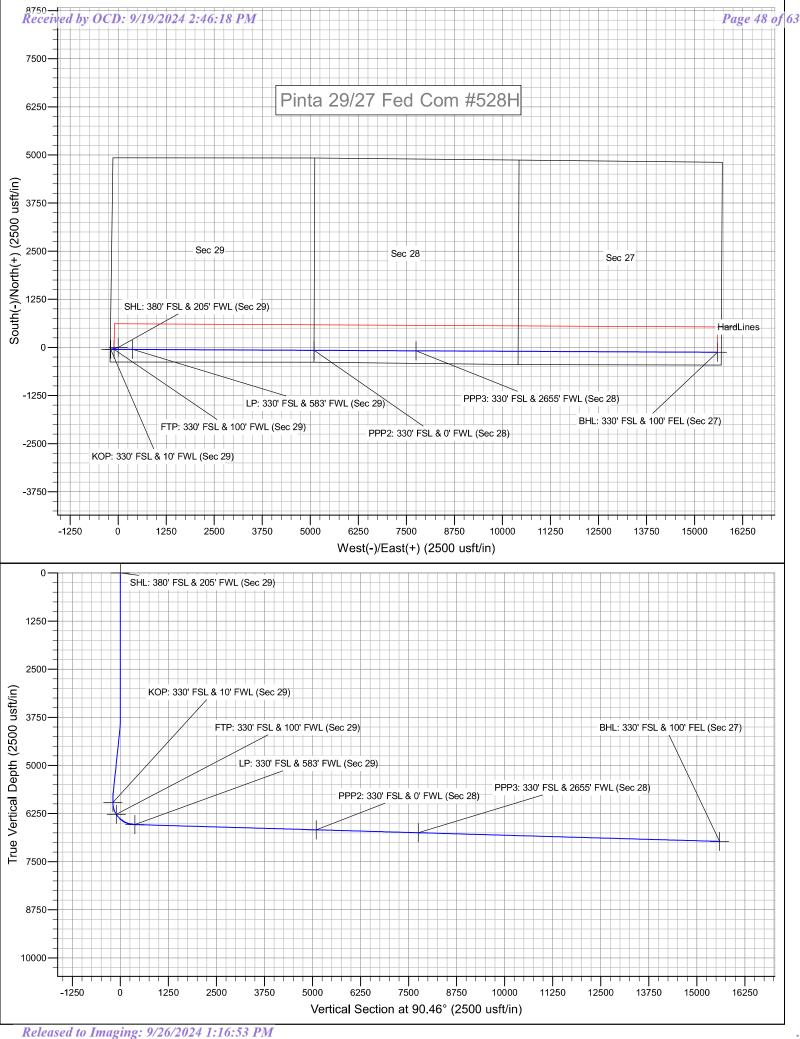
Survey Calculation Method:

Site Pinta 29/27 Fed Com #528H

WELL @ 3237.0usft (Original Well Elev) WELL @ 3237.0usft (Original Well Elev)

Grid

| Design Targets   |                  |                 |               |                 |                 |                    |                   |            |              |
|--|------------------|-----------------|---------------|-----------------|-----------------|--------------------|-------------------|------------|--------------|
| Target Name - hit/miss target - Shape                        | Dip Angle<br>(°) | Dip Dir.<br>(°) | TVD<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude   | Longitude    |
| SHL: 380' FSL & 205' FV<br>- plan hits target cen<br>- Point | 0.00<br>ter      | 0.00            | 0.0           | 0.0             | 0.0             | 559,601.20         | 548,073.50        | 32.5383998 | -104.3114748 |
| KOP: 330' FSL & 10' FW<br>- plan hits target cen<br>- Point  | 0.00<br>ter      | 0.00            | 5,964.0       | -49.8           | -195.7          | 559,551.40         | 547,877.80        | 32.5382630 | -104.3121098 |
| FTP: 330' FSL & 100' FV - plan hits target cen - Point       | 0.00<br>ter      | 0.00            | 6,272.4       | -50.2           | -105.7          | 559,550.97         | 547,967.80        | 32.5382617 | -104.3118178 |
| LP: 330' FSL & 583' FWI - plan hits target cen - Point       | 0.00<br>ter      | 0.00            | 6,537.5       | -52.5           | 377.8           | 559,548.66         | 548,451.30        | 32.5382551 | -104.3102488 |
| PPP2: 330' FSL & 0' FW - plan hits target cen - Point        | 0.00<br>ter      | 0.00            | 6,673.2       | <b>-</b> 75.1   | 5,097.1         | 559,526.06         | 553,170.60        | 32.5381892 | -104.2949346 |
| PPP3: 330' FSL & 2655' - plan hits target cen - Point        | 0.00<br>ter      | 0.00            | 6,749.5       | -87.8           | 7,751.3         | 559,513.35         | 555,824.80        | 32.5381514 | -104.2863216 |
| BHL: 330' FSL & 100' FE<br>- plan hits target cen<br>- Point | 0.00<br>ter      | 0.00            | 6,975.0       | -125.4          | 15,594.1        | 559,475.80         | 563,667.60        | 32.5380361 | -104.2608716 |



### Mewbourne Oil Company, Pinta 29/27 Fed Com 528H Sec 29, T20S, R27E

SHL: 380' FSL 205' FWL (Sec 29) BHL: 330' FSL 100' FEL (Sec 27)

| Operator Name:        | Property Name:      | Well Number |
|-----------------------|---------------------|-------------|
| Mewbourne Oil Company | Pinta 29/27 Fed Com | 528H        |

|  | it (KOP) |
|--|----------|
|  |          |

| UL        | Section | Township | Range | Lot | Feet         | From N/S | Feet | From E/W | County |
|-----------|---------|----------|-------|-----|--------------|----------|------|----------|--------|
| M         | 29      | 20       | 27    | -   | 330'         | FSL      | 10'  | FWL      | Eddy   |
|           |         | Latitude |       |     | Longitude    |          |      |          | NAD    |
| 32.538263 |         |          |       |     | -104.3121097 |          |      | 83       |        |

First Take Point (FTP)

| UL         | Section | Township | Range | Lot | Feet       | From N/S | Feet | From E/W | County |
|------------|---------|----------|-------|-----|------------|----------|------|----------|--------|
| M          | 29      | 20       | 27    | -   | 330'       | FSL      | 100' | FWL      | Eddy   |
|            |         | Latitude |       |     | Longitude  |          |      |          | NAD    |
| 32.5382627 |         |          |       |     | -104.31181 | .77      |      |          | 83     |

Last Take Point (LTP)

| East Take Tollit (ETT)  |         |          |       |     |      |          |      |          |        |
|-------------------------|---------|----------|-------|-----|------|----------|------|----------|--------|
| UL                      | Section | Township | Range | Lot | Feet | From N/S | Feet | From E/W | County |
| P                       | 27      | 20       | 27    | _   | 330' | FSL      | 100' | FEL      | Eddy   |
| Latitude Longitude      |         |          |       |     |      | NAD      |      |          |        |
| 32.5380361 -104.2608716 |         |          |       |     |      |          |      |          | 83     |

| 32.3380301   | [-104.2608716  | 8.5         |
|--|--|-------------|
| Is this well the defining well for the Horizontal Is this well an infill well? | Spacing Unit? Y  |             |
| If infill is yes please provide API if available, C<br>Spacing Unit.           | Operator Name and well number for Defining well for Horizontal |             |
| API#   |  |             |
| Operator Name:   | Property Name:   | Well Number |
|  |  |             |

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: MEWBOURNE OIL COMPANY
WELL NAME & NO.: PINTA 29/27 FED COM 528H
APD ID: 10400099267
LOCATION: Section 29, T.20 S., R.27 E. NMP.

COUNTY: Eddy County, New Mexico ▼

COA

| $H_2S$       | 0                     | No                          | •                                   | Yes                        |
|--------------|-----------------------|-----------------------------|-------------------------------------|----------------------------|
| Potash /     | None                  | O Secretary                 | O R-111-Q                           | ☐ Open Annulus             |
| WIPP         |                       |                             |                                     | □ WIPP                     |
| Cave / Karst | O Low                 | O Medium                    | • High                              | O Critical                 |
| Wellhead     | Conventional          | <ul><li>Multibowl</li></ul> | O Both                              | <ul><li>Diverter</li></ul> |
| Cementing    | ☐ Primary Squeeze     | ☐ Cont. Squeeze             | ☐ EchoMeter                         | ☐ DV Tool                  |
| Special Req  | ☐ Capitan Reef        | ☐ Water Disposal            | ✓ COM                               | ☐ Unit                     |
| Waste Prev.  | © Self-Certification  | • Waste Min. Plan           | ○ APD Submitted prior to 06/10/2024 |                            |
| Additional   | ✓ Flex Hose           | ☐ Casing Clearance          | ☐ Pilot Hole                        | Break Testing              |
| Language     | $\square$ Four-String | Offline Cementing           | ☐ Fluid-Filled                      |                            |

### A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan shall be activated **AT SPUD**. As a result, the Hydrogen Sulfide area must meet **43 CFR 3176** requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

### **B. CASING DESIGN**

### **Primary Casing Program**

**Note:** Surface casing set depth adjusted per BLM geologist's recommendation.

- 1. The 13-3/8 inch surface casing shall be set at approximately 350 ft. and cemented to the surface. Rustler is at surface; BLM accepts Tansill/Yates as competent bed for surface casing set point for this well.
  - 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 psi compressive strength, whichever is greater. (This is to include the lead cement)
- Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 psi 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 in a competent bed at approximately 3,600 ft. 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.

**Note:** Excess cement is below the BLM's recommendation of 25%. More cement might be needed.

- ❖ In High Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3<sup>rd</sup> casing string must come to surface.
- 3. Operator has proposed to set 7" X 5.5" tapered production casing at approximately 22,098 ft. (6,975 ft. TVD). (Pipe and hole size change at KOP). The minimum required fill of cement behind the 7" X 5.5" production casing is:
  - Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to Cave/Karst.

### **Alternate Casing Program**

**Note:** Surface casing set depth adjusted per BLM geologist's recommendation.

- 1. The 13-3/8 inch surface casing shall be set at approximately 350 ft. and cemented to the surface. Rustler is at surface; BLM accepts Tansill/Yates as competent bed for surface casing set point for this well.
  - 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 psi 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 psi 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 in a competent bed at approximately 3,600 ft. 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**.

**Note:** Excess cement is below the BLM's recommendation of 25%. More cement might be needed.

- ❖ In <u>High Cave/Karst Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3<sup>rd</sup> casing string must come to surface.
- 3. Operator has proposed to set 7" X 5.5" tapered production casing at approximately 22,098 ft. (6,975 ft. TVD). (Pipe and hole size change at landing point). The minimum required fill of cement behind the 7" X 5.5" production casing is:
  - Cement should tie-back **at least 200 feet** into previous casing string. Operator shall provide method of verification. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to **Cave/Karst**.

### **Offline Cementing**

Operator has been (**Approved**) to pump the proposed cement program offline in the **Surface and intermediate(s) intervals**. Offline cementing should commence within 24 hours of landing the casing for the interval. Notify the BLM 4hrs prior to the commencement of any offline cementing procedure at **Eddy County:** 575-361-2822.

### C. 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. 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 **5000 (5M)** psi. Before drilling the surface casing shoe out, the BOP/BOPE shall be pressure-tested in accordance with **title 43 CFR 3172 and API Standard 53**.

- 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 the **title** 43 CFR 3172.6(b)(9) must be followed.

### **BOPE Break Testing Variance**

- BOPE Break Testing is ONLY permitted for intervals utilizing a 5M BOPE or less. (Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per 43 CFR 3172.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

### D. SPECIAL REQUIREMENT (S)

### **Communitization Agreement**

• The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated

date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.

- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

### **GENERAL REQUIREMENTS**

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

### **Contact Eddy County Petroleum Engineering Inspection Staff:**

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220; **BLM\_NM\_CFO\_DrillingNotifications@BLM.GOV**; (575) 361-2822.

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - i. Notify the BLM when moving in and removing the Spudder Rig.
    - ii. Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2<sup>nd</sup> Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all

- times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the doghouse or stairway area.
- 3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

#### A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- **6.** On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the

- shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- **8.** Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

### **B. PRESSURE CONTROL**

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 43 CFR 3172.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- **3.** 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- **4.** If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. 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.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - v. 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.

- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (Only applies to single stage cement jobs, prior to the cement setting up.)
  - iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to 43 CFR **3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
  - iv. The test shall be run on a 5000-psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one-hour chart. A circular chart shall have a maximum 2-hour clock. If a twelve hour or twenty-fourhour chart is used, tester shall make a notation that it is run with a two hour clock.
  - v. The results of the test shall be reported to the appropriate BLM office.
  - vi. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
  - vii. The BOP/BOPE test shall include a low-pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per 43 CFR 3172.

#### C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

### D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crewintensive operations.

SA 09/03/2024

### Hydrogen Sulfide Drilling Operations Plan Mewbourne Oil Company

### 1. General Requirements

Rule 118 does not apply to this well because MOC has researched this area and no high concentrations of H2S were found. MOC will have on location and working all H2S safety equipment before the Delaware formation for purposes of safety and insurance requirements.

### 2. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

- 1. The hazards and characteristics of hydrogen sulfide gas.
- 2. The proper use of personal protective equipment and life support systems.
- 3. The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
- 4. The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

- The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
- 2 Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
- The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a know hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

### 3. Hydrogen Sulfide Safety Equipment and Systems

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the 9 5/8" intermediate casing.

#### 1. Well Control Equipment

- A. Choke manifold with minimum of one adjustable choke/remote choke.
- B. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- C. Auxiliary equipment including annular type blowout preventer.
- 2. <u>Protective Equipment for Essential Personnel</u>

Thirty minute self contained work unit located in the dog house and at briefing areas.

Additionally: If H2S is encountered in concentrations less than 10 ppm, fans will be placed in work areas to prevent the accumulation of hazardous amounts of poisonous gas. If higher concentrations of H2S are detected the well will be shut in and a rotating head, mud/gas separator, remote choke and flare line with igniter will be installed.

### 3. <u>Hydrogen Sulfide Protection and Monitoring Equipment</u>

Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 PPM.

### 4. Visual Warning Systems

- A. Wind direction indicators as indicated on the wellsite diagram.
- B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

### 4. Mud Program

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

### 5. Metallurgy

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

### 6. Communications

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and toolpushers are either two way radios or cellular phones.

### 7. Well Testing

Drill stem testing is not an anticipated requirement for evaluation of this well. If a drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

### 8. Emergency Phone Numbers

| <b>Eddy County Sheriff's Office</b>                       | 911 or 575-887-7551      |
|---|--------------------------|
| Ambulance Service   | 911 or 575-885-2111      |
| Carlsbad Fire Dept  | 911 or 575-885-2111      |
| Loco Hills Volunteer Fire Dept.                           | 911 or 575-677-3266      |
| <b>Closest Medical Facility - Columbia Medical Center</b> | of Carlsbad 575-492-5000 |

| Mewbourne Oil Company          | Hobbs District Office<br>Fax<br>2 <sup>nd</sup> Fax | 575-393-5905<br>575-397-6252<br>575-393-7259 |
|--------------------------------|---|--|
| District Manager               | <b>Robin Terrell</b>                                | 575-390-4816                                 |
| <b>Drilling Superintendent</b> | Frosty Lathan                                       | 575-390-4103                                 |
| 2                              | <b>Bradley Bishop</b>                               | 575-390-6838                                 |
| <b>Drilling Foreman</b>        | Wesley Noseff                                       | 575-441-0729                                 |

**Operator Name: MEWBOURNE OIL COMPANY** 

Well Name: PINTA 29/27 FED COM Well Number: 528H

Waste type: GARBAGE

Waste content description: Garbage & trash

Amount of waste: 1500 pounds

Waste disposal frequency: One Time Only

Safe containment description: Enclosed trash trailer

Safe containment attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: PRIVATE

**FACILITY** 

Disposal type description:

**Disposal location description:** Waste Management facility in Carlsbad.

### **Reserve Pit**

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) Reserve pit width (ft.)

Reserve pit depth (ft.) Reserve pit volume (cu. yd.)

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

### **Cuttings Area**

Cuttings Area being used? NO

Are you storing cuttings on location? N

**Description of cuttings location** 

Cuttings area length (ft.) Cuttings area width (ft.)

Cuttings area depth (ft.) Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

**Operator Name: MEWBOURNE OIL COMPANY** 

Well Name: PINTA 29/27 FED COM Well Number: 528H

### **Section 8 - Ancillary**

Are you requesting any Ancillary Facilities?: N

**Ancillary Facilities** 

Comments:

**Section 9 - Well Site** 

Well Site Layout Diagram:

pinta29 27fedcom 528H wellsitelayout 20240829073635.pdf

Comments: NONE

**Section 10 - Plans for Surface Reclamation** 

Type of disturbance: New Surface Disturbance Multiple Well Pad Name: Pinta 528H & 618H

Multiple Well Pad Number: 2

Recontouring

Drainage/Erosion control construction: None Drainage/Erosion control reclamation: None

Well pad proposed disturbance

(acres): 5.78

Road proposed disturbance (acres):

0.21

Powerline proposed disturbance

(acres): 0

Pipeline proposed disturbance

(acres): 0

Other proposed disturbance (acres): 0 Other interim reclamation (acres): 0

Road interim reclamation (acres): 0

Well pad interim reclamation (acres): Well pad long term disturbance

(acres): 4.85

Road long term disturbance (acres): 0

Powerline interim reclamation (acres): Powerline long term disturbance

(acres): 0

Pipeline interim reclamation (acres): 0 Pipeline long term disturbance

(acres): 0

Other long term disturbance (acres): 0

Total proposed disturbance: 5.99 Total interim reclamation: 0.82 Total long term disturbance: 4.85

**Disturbance Comments:** In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils. Contaminated soil will not be stockpiled, but properly treated and handled prior to topsoil salvaging.

Reconstruction method: The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

Topsoil redistribution: Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used.

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 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 385228

### **CONDITIONS**

| Operator:                        | OGRID:   |
|----------------------------------|--|
| MEWBOURNE OIL CO                 | 14744  |
| P.O. Box 5270<br>Hobbs, NM 88241 | Action Number: 385228  |
|                                  | Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3) |

#### CONDITIONS

| Created By  | Condition  | Condition<br>Date |
|-------------|--|-------------------|
| ward.rikala | Notify OCD 24 hours prior to casing & cement   | 9/26/2024         |
| ward.rikala | Will require a File As Drilled C-102 and a Directional Survey with the C-104   | 9/26/2024         |
| ward.rikala | Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string | 9/26/2024         |
| ward.rikala | Cement is required to circulate on both surface and intermediate1 strings of casing  | 9/26/2024         |
| ward.rikala | If cement does not circulate on any string, a CBL is required for that string of casing  | 9/26/2024         |
| ward.rikala | Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system                  | 9/26/2024         |