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

Sundry Print Report

05/28/2024

Well Name: LITTLE RASCALS 17/18 W0PM FED COM

Well Location: T22S / R28E / SEC 17 / SESE / 32.3878689 / -104.1019991

County or Parish/State: EDDY / NM

Well Number: 1H

Type of Well: CONVENTIONAL GAS WELL

Allottee or Tribe Name:

Lease Number: NMNM415688A

Unit or CA Name:

Unit or CA Number:

US Well Number:

Operator: MEWBOURNE OIL COMPANY

Notice of Intent

Sundry ID: 2790442

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 05/15/2024

Time Sundry Submitted: 08:07

Date proposed operation will begin: 05/15/2024

Procedure Description: Mewbourne Oil Company requests that the following changes be made to the approved APD for the Little Rascals 17/18 W0PM Fed Com #1H (APD#10400085718)… Change well name from Little Rascals 17/18 W0PM Fed Com #1H to Old Indian Draw Unit Com #4H. Change SHL From 910’ FSL & 205’ FEL (Sec 17) to 930’ FSL & 205’ FEL (Sec 17) Change BHL From 440’ FSL & 330’ FEL (Sec 18) to 880’ FSL & 100’ FWL (Sec 18) Change Federal lease name from NMNM0415688A to NMNM415688A Change 7” casing set depth from 9573’ to 8873’ Change 4.5” liner set depth from 19167’ to 19340’ Request permission for offline cementing and BOP break testing. Please see new C102, casing assumptions, drilling program, Dir plot & plan, add info, and variance request that detail these requests.

NOI Attachments

Procedure Description

Old_Indian_Draw_Unit_Com__4H_MOC_Dir_Plan_20240515080721.pdf

Old_Indian_Draw_Unit_Com__4H_MOC_Dir_Plot_20240515080722.pdf

OLD_INDIAN_DRAW_UNIT_COM__4H_20240515080715.pdf

Old_Indian_Draw_Unit_Com___4H_CsgAssumptions_20240515080714.pdf

Old_Indian_Draw_Unit_Com___4H_Drlg_Program_20240515080714.pdf

MOC_Offline_Cementing_Variance_20240515080714.pdf

MOC_Break_Testing_Variance_20240515080714.pdf

Well Name: LITTLE RASCALS 17/18 W0PM FED COM	**Well Location:** T22S / R28E / SEC 17 / SESE / 32.3878689 / -104.1019991	**County or Parish/State:** EDDY / NM
Well Number: 1H	**Type of Well:** CONVENTIONAL GAS WELL	**Allottee or Tribe Name:**
Lease Number: NMNM415688A	**Unit or CA Name:**	**Unit or CA Number:**
US Well Number:	**Operator:** MEWBOURNE OIL COMPANY	

Old_Indian_Draw_Unit_Com___4H_AddInfo_20240515080714.pdf

Conditions of Approval

Additional

Old_Indian_Draw_Unit_Com_4H_Eng_COA_20240524135754.pdf

Operator

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

Operator Electronic Signature: CARTER CROOK **Signed on:** MAY 15, 2024 08:07 AM

Name: MEWBOURNE OIL COMPANY

Title: Engineer

Street Address: 4801 BUSINESS PARK BLVD

City: HOBBS **State:** NM

Phone: (580) 754-3849

Email address: CCROOK@MEWBOURNE.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS **BLM POC Title:** Petroleum Engineer

BLM POC Phone: 5752342234 **BLM POC Email Address:** cwalls@blm.gov

Disposition: Approved **Disposition Date:** 05/25/2024

Signature: Chris Walls

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool or Exploratory Area

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*

11. Country or Parish, State

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

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.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.
PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.
ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.
EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.
Response to this request is mandatory.
The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect ofthis form to U.S. Department ofthe Interior, Bureau ofLand Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: SESE / 910 FSL / 205 FEL / TWSP: 22S / RANGE: 28E / SECTION: 17 / LAT: 32.3878689 / LONG: -104.1019991 (TVD: 0 feet, MD: 0 feet)

PPP: SESE / 440 FSL / 330 FEL / TWSP: 22S / RANGE: 28E / SECTION: 17 / LAT: 32.3865827 / LONG: -104.1024073 (TVD: 9414 feet, MD: 9573 feet)

BHL: SWSW / 440 FSL / 330 FWL / TWSP: 22S / RANGE: 28E / SECTION: 18 / LAT: 32.386735 / LONG: -104.1334763 (TVD: 9326 feet, MD: 19168 feet)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MEWBOURNE OIL COMPANY
WELL NAME & NO.:	OLD INDIAN DRAW UNIT COM 4H
APD ID	10400085718
SURFACE HOLE FOOTAGE:	930'/S & 205'/E
BOTTOM HOLE FOOTAGE	880'/S & 100'/W
SURFACE LOCATION:	Section 17, T.22 S., R.28 E. NMP.
COUNTY:	Eddy County, New Mexico

COA

H_2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	( ) Low	(•) Medium	( ) High
Cave/Karst Potential	( ) Critical		
Variance	( ) None	(•) Flex Hose	( ) Other
Wellhead	( ) Conventional	(•) Multibowl	( ) Both
Other	[ ] 4 String	[ ] Capitan Reef	[ ] WIPP
Other	[ ] Fluid Filled	[ ] Pilot Hole	[ ] Open Annulus
Other Variances	[x] Offline cementing	[ ] Squeeze cement	[x] Break testing
Special Requirements	[ ] Water Disposal	[x] COM	[x] Unit

SEE ORIGINAL COA FOR ALL OTHER REQUIREMENTS.

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H_2S) 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 Design

1. The **13-3/8** inch surface casing shall be set at approximately **300 ft.** (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 ft. above the salt.**
    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 **2,425 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**. Excess cement is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. Operator has proposed to set **7 in. 26# N-80** production casing at approximately **8,873 ft.** (8,871 ft. TVD). The minimum required fill of cement behind the **7 in.** production casing is:

Option 1 (Single Stage): Cement should tie-back **at least 200 feet** into previous casing string. Operator shall provide method of verification. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to **cave/karst**.

Option 2 (Two-stage): Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. **First stage to DV tool:** Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
b. **Second stage above DV tool:** Cement should tie-back **at least 200 feet** into previous casing string. Operator shall provide method of verification. If cement does not circulate, contact the appropriate BLM office. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to **cave/karst**.

4. The minimum required fill of cement behind the **4-1/2 in.** production liner is:

- Cement should tie-back **at least 100 feet** into previous casing string. Operator shall provide method of verification.

Alternate Casing Design

1. The **13-3/8** inch surface casing shall be set at approximately **300 ft.** (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 ft. above the salt.**
    e. 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.
    f. 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)
    g. 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.
    h. 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 **2,425 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**. Excess cement is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

    ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. Operator has proposed to set **7 in. 26# HCP-110** production casing at approximately **9,764 ft.** (9,444 ft. TVD). The minimum required fill of cement behind the **7 in.** production casing is:

    Option 1 (Single Stage): Cement should tie-back **at least 200 feet** into previous casing string. Operator shall provide method of verification. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to **cave/karst**.

    Option 2 (Two-stage): Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.
    c. **First stage to DV tool:** Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

d. **Second stage above DV tool:** Cement should tie-back **at least 200 feet** into previous casing string. Operator shall provide method of verification. If cement does not circulate, contact the appropriate BLM office. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to **cave/karst**.

4. The minimum required fill of cement behind the **4-1/2 in.** production liner is:

- Cement should tie-back **at least 100 feet** into previous casing string. Operator shall provide method of verification.

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 and annular preventer 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 (Note: For a minimum 5M BOPE or less (Utilizing a 10M BOPE system)

- BOPE Break Testing is ONLY permitted for 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 title **43 CFR 3172**.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

Offline Cementing

Offline cementing variance is approved for surface and intermediate casings only. Contact the BLM prior to the commencement of any offline cementing procedure.

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.

Unit Wells

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

Commercial Well Determination

A commercial well determination shall be submitted after production has been established for at least six months. (This is not necessary for secondary recovery unit wells)

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)

☒ Eddy County
EMAIL or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
BLM_NM_CFO_DrillingNotifications@BLM.GOV
(575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

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
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.

- BOP/BOPE test to be conducted per **title 43 CFR 3172**
- as soon as 2nd 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 dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

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, 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-P 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 the **title 43 CFR 3172** and **API STD 53 Sec. 5.3**.

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:

    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. Whenever any seal subject to test pressure is broken, all the tests in the **title 43 CFR 3172.6(b)(9)** must be followed.
e. 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.

a. 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).

b. 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.)

c. 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 water basin (8 hours) or potash (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).

d. 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-four-hour chart is used, tester shall make a notation that it is run with a two-hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. 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.

g. 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.

h. 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 crew-intensive operations.

SA 05/24/2024

Mewbourne Oil Company

Eddy County, New Mexico NAD 83
Old Indian Draw Unit Com #4H
Sec 17, T22S, R28E
SHL: 930' FSL & 205' FEL (Sec 17)
BHL: 880' FSL & 100' FWL (Sec 18)

Plan: Design #1

Standard Planning Report

28 March, 2024

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Old Indian Draw Unit Com #4H
Company:	Mewbourne Oil Company	**TVD Reference:**	Well @ 3109.0usft (Original Well)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	Well @ 3109.0usft (Original Well)
Site:	Old Indian Draw Unit Com #4H	**North Reference:**	Grid
Well:	Sec 17, T22S, R28E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 880' FSL & 100' FWL (Sec 18)		
Design:	Design #1		

Project	Eddy County, New Mexico NAD 83		
Map System:	US State Plane 1983	**System Datum:**	Ground Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Old Indian Draw Unit Com #4H				
Site Position:		**Northing:**	504,935.60 usft	**Latitude:**	32.3879245
From:	Map	**Easting:**	612,744.80 usft	**Longitude:**	-104.1019993
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "		

Well	Sec 17, T22S, R28E					
Well Position	**+N/-S**	0.0 usft	**Northing:**	504,935.60 usft	**Latitude:**	32.3879245
	+E/-W	0.0 usft	**Easting:**	612,744.80 usft	**Longitude:**	-104.1019993
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	3,109.0 usft	**Ground Level:**	3,081.0 usft
Grid Convergence:		0.12 °				

Wellbore	BHL: 880' FSL & 100' FWL (Sec 18)				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	12/31/2014	7.41	60.16	48,280.56123313

Design	Design #1				
Audit Notes:					
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	269.98	

Plan Survey Tool Program **Date** 3/28/2024

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	19,340.4	Design #1 (BHL: 880' FSL & 100'		

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
350.0	0.00	0.00	350.0	0.0	0.0	0.00	0.00	0.00	0.00	
418.2	1.36	104.19	418.1	-0.2	0.8	2.00	2.00	0.00	104.19	
8,805.2	1.36	104.19	8,802.9	-49.1	194.2	0.00	0.00	0.00	0.00	
8,873.4	0.00	0.00	8,871.0	-49.3	195.0	2.00	-2.00	0.00	180.00	KOP: 880' FSL & 10' I
9,780.2	90.67	270.26	9,444.0	-46.7	-384.7	10.00	10.00	0.00	-89.74	
19,340.4	90.67	270.26	9,333.0	-4.1	-9,944.2	0.00	0.00	0.00	0.00	BHL: 880' FSL & 100'

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Old Indian Draw Unit Com #4H
Company:	Mewbourne Oil Company	**TVD Reference:**	Well @ 3109.0usft (Original Well)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	Well @ 3109.0usft (Original Well)
Site:	Old Indian Draw Unit Com #4H	**North Reference:**	Grid
Well:	Sec 17, T22S, R28E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 880' FSL & 100' FWL (Sec 18)		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL: 930' FSL & 205' FEL (Sec 17)									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
350.0	0.00	0.00	350.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	1.00	104.19	400.0	-0.1	0.4	-0.4	2.00	2.00	0.00
418.2	1.36	104.19	418.1	-0.2	0.8	-0.8	2.00	2.00	0.00
500.0	1.36	104.19	500.0	-0.7	2.7	-2.7	0.00	0.00	0.00
600.0	1.36	104.19	599.9	-1.3	5.0	-5.0	0.00	0.00	0.00
700.0	1.36	104.19	699.9	-1.8	7.3	-7.3	0.00	0.00	0.00
800.0	1.36	104.19	799.9	-2.4	9.6	-9.6	0.00	0.00	0.00
900.0	1.36	104.19	899.9	-3.0	11.9	-11.9	0.00	0.00	0.00
1,000.0	1.36	104.19	999.8	-3.6	14.2	-14.2	0.00	0.00	0.00
1,100.0	1.36	104.19	1,099.8	-4.2	16.5	-16.5	0.00	0.00	0.00
1,200.0	1.36	104.19	1,199.8	-4.8	18.8	-18.8	0.00	0.00	0.00
1,300.0	1.36	104.19	1,299.7	-5.3	21.1	-21.1	0.00	0.00	0.00
1,400.0	1.36	104.19	1,399.7	-5.9	23.4	-23.4	0.00	0.00	0.00
1,500.0	1.36	104.19	1,499.7	-6.5	25.7	-25.7	0.00	0.00	0.00
1,600.0	1.36	104.19	1,599.7	-7.1	28.0	-28.0	0.00	0.00	0.00
1,700.0	1.36	104.19	1,699.6	-7.7	30.3	-30.3	0.00	0.00	0.00
1,800.0	1.36	104.19	1,799.6	-8.3	32.7	-32.7	0.00	0.00	0.00
1,900.0	1.36	104.19	1,899.6	-8.8	35.0	-35.0	0.00	0.00	0.00
2,000.0	1.36	104.19	1,999.5	-9.4	37.3	-37.3	0.00	0.00	0.00
2,100.0	1.36	104.19	2,099.5	-10.0	39.6	-39.6	0.00	0.00	0.00
2,200.0	1.36	104.19	2,199.5	-10.6	41.9	-41.9	0.00	0.00	0.00
2,300.0	1.36	104.19	2,299.5	-11.2	44.2	-44.2	0.00	0.00	0.00
2,400.0	1.36	104.19	2,399.4	-11.8	46.5	-46.5	0.00	0.00	0.00
2,500.0	1.36	104.19	2,499.4	-12.3	48.8	-48.8	0.00	0.00	0.00
2,600.0	1.36	104.19	2,599.4	-12.9	51.1	-51.1	0.00	0.00	0.00
2,700.0	1.36	104.19	2,699.3	-13.5	53.4	-53.4	0.00	0.00	0.00
2,800.0	1.36	104.19	2,799.3	-14.1	55.7	-55.7	0.00	0.00	0.00
2,900.0	1.36	104.19	2,899.3	-14.7	58.0	-58.0	0.00	0.00	0.00
3,000.0	1.36	104.19	2,999.3	-15.3	60.3	-60.3	0.00	0.00	0.00
3,100.0	1.36	104.19	3,099.2	-15.8	62.6	-62.6	0.00	0.00	0.00
3,200.0	1.36	104.19	3,199.2	-16.4	64.9	-64.9	0.00	0.00	0.00
3,300.0	1.36	104.19	3,299.2	-17.0	67.2	-67.2	0.00	0.00	0.00
3,400.0	1.36	104.19	3,399.1	-17.6	69.6	-69.5	0.00	0.00	0.00
3,500.0	1.36	104.19	3,499.1	-18.2	71.9	-71.9	0.00	0.00	0.00
3,600.0	1.36	104.19	3,599.1	-18.8	74.2	-74.2	0.00	0.00	0.00
3,700.0	1.36	104.19	3,699.1	-19.3	76.5	-76.5	0.00	0.00	0.00
3,800.0	1.36	104.19	3,799.0	-19.9	78.8	-78.8	0.00	0.00	0.00
3,900.0	1.36	104.19	3,899.0	-20.5	81.1	-81.1	0.00	0.00	0.00
4,000.0	1.36	104.19	3,999.0	-21.1	83.4	-83.4	0.00	0.00	0.00
4,100.0	1.36	104.19	4,099.0	-21.7	85.7	-85.7	0.00	0.00	0.00
4,200.0	1.36	104.19	4,198.9	-22.2	88.0	-88.0	0.00	0.00	0.00
4,300.0	1.36	104.19	4,298.9	-22.8	90.3	-90.3	0.00	0.00	0.00
4,400.0	1.36	104.19	4,398.9	-23.4	92.6	-92.6	0.00	0.00	0.00
4,500.0	1.36	104.19	4,498.8	-24.0	94.9	-94.9	0.00	0.00	0.00
4,600.0	1.36	104.19	4,598.8	-24.6	97.2	-97.2	0.00	0.00	0.00
4,700.0	1.36	104.19	4,698.8	-25.2	99.5	-99.5	0.00	0.00	0.00
4,800.0	1.36	104.19	4,798.8	-25.7	101.8	-101.8	0.00	0.00	0.00
4,900.0	1.36	104.19	4,898.7	-26.3	104.1	-104.1	0.00	0.00	0.00
5,000.0	1.36	104.19	4,998.7	-26.9	106.5	-106.4	0.00	0.00	0.00

Planning Report

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Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	Well @ 3109.0usft (Original Well)
Site:	Old Indian Draw Unit Com #4H	**North Reference:**	Grid
Well:	Sec 17, T22S, R28E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 880' FSL & 100' FWL (Sec 18)		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,100.0	1.36	104.19	5,098.7	-27.5	108.8	-108.8	0.00	0.00	0.00
5,200.0	1.36	104.19	5,198.6	-28.1	111.1	-111.1	0.00	0.00	0.00
5,300.0	1.36	104.19	5,298.6	-28.7	113.4	-113.4	0.00	0.00	0.00
5,400.0	1.36	104.19	5,398.6	-29.2	115.7	-115.7	0.00	0.00	0.00
5,500.0	1.36	104.19	5,498.6	-29.8	118.0	-118.0	0.00	0.00	0.00
5,600.0	1.36	104.19	5,598.5	-30.4	120.3	-120.3	0.00	0.00	0.00
5,700.0	1.36	104.19	5,698.5	-31.0	122.6	-122.6	0.00	0.00	0.00
5,800.0	1.36	104.19	5,798.5	-31.6	124.9	-124.9	0.00	0.00	0.00
5,900.0	1.36	104.19	5,898.4	-32.2	127.2	-127.2	0.00	0.00	0.00
6,000.0	1.36	104.19	5,998.4	-32.7	129.5	-129.5	0.00	0.00	0.00
6,100.0	1.36	104.19	6,098.4	-33.3	131.8	-131.8	0.00	0.00	0.00
6,200.0	1.36	104.19	6,198.4	-33.9	134.1	-134.1	0.00	0.00	0.00
6,300.0	1.36	104.19	6,298.3	-34.5	136.4	-136.4	0.00	0.00	0.00
6,400.0	1.36	104.19	6,398.3	-35.1	138.7	-138.7	0.00	0.00	0.00
6,500.0	1.36	104.19	6,498.3	-35.7	141.0	-141.0	0.00	0.00	0.00
6,600.0	1.36	104.19	6,598.2	-36.2	143.4	-143.3	0.00	0.00	0.00
6,700.0	1.36	104.19	6,698.2	-36.8	145.7	-145.6	0.00	0.00	0.00
6,800.0	1.36	104.19	6,798.2	-37.4	148.0	-148.0	0.00	0.00	0.00
6,900.0	1.36	104.19	6,898.2	-38.0	150.3	-150.3	0.00	0.00	0.00
7,000.0	1.36	104.19	6,998.1	-38.6	152.6	-152.6	0.00	0.00	0.00
7,100.0	1.36	104.19	7,098.1	-39.2	154.9	-154.9	0.00	0.00	0.00
7,200.0	1.36	104.19	7,198.1	-39.7	157.2	-157.2	0.00	0.00	0.00
7,300.0	1.36	104.19	7,298.0	-40.3	159.5	-159.5	0.00	0.00	0.00
7,400.0	1.36	104.19	7,398.0	-40.9	161.8	-161.8	0.00	0.00	0.00
7,500.0	1.36	104.19	7,498.0	-41.5	164.1	-164.1	0.00	0.00	0.00
7,600.0	1.36	104.19	7,598.0	-42.1	166.4	-166.4	0.00	0.00	0.00
7,700.0	1.36	104.19	7,697.9	-42.7	168.7	-168.7	0.00	0.00	0.00
7,800.0	1.36	104.19	7,797.9	-43.2	171.0	-171.0	0.00	0.00	0.00
7,900.0	1.36	104.19	7,897.9	-43.8	173.3	-173.3	0.00	0.00	0.00
8,000.0	1.36	104.19	7,997.8	-44.4	175.6	-175.6	0.00	0.00	0.00
8,100.0	1.36	104.19	8,097.8	-45.0	177.9	-177.9	0.00	0.00	0.00
8,200.0	1.36	104.19	8,197.8	-45.6	180.3	-180.2	0.00	0.00	0.00
8,300.0	1.36	104.19	8,297.8	-46.2	182.6	-182.5	0.00	0.00	0.00
8,400.0	1.36	104.19	8,397.7	-46.7	184.9	-184.8	0.00	0.00	0.00
8,500.0	1.36	104.19	8,497.7	-47.3	187.2	-187.2	0.00	0.00	0.00
8,600.0	1.36	104.19	8,597.7	-47.9	189.5	-189.5	0.00	0.00	0.00
8,700.0	1.36	104.19	8,697.6	-48.5	191.8	-191.8	0.00	0.00	0.00
8,805.2	1.36	104.19	8,802.9	-49.1	194.2	-194.2	0.00	0.00	0.00
8,873.4	0.00	0.00	8,871.0	-49.3	195.0	-195.0	2.00	-2.00	0.00
KOP: 880' FSL & 10' FEL (Sec 17)									
8,900.0	2.66	270.26	8,897.6	-49.3	194.4	-194.4	10.00	10.00	0.00
8,950.0	7.66	270.26	8,947.4	-49.3	189.9	-189.9	10.00	10.00	0.00
9,000.0	12.66	270.26	8,996.6	-49.2	181.1	-181.0	10.00	10.00	0.00
9,050.0	17.66	270.26	9,044.8	-49.2	168.0	-168.0	10.00	10.00	0.00
9,100.0	22.66	270.26	9,091.8	-49.1	150.8	-150.8	10.00	10.00	0.00
9,150.0	27.66	270.26	9,137.0	-49.0	129.5	-129.5	10.00	10.00	0.00
9,198.9	32.55	270.26	9,179.3	-48.9	105.0	-105.0	10.00	10.00	0.00
FTP: 880' FSL & 100' FEL (Sec 17)									
9,200.0	32.66	270.26	9,180.2	-48.9	104.4	-104.4	10.00	10.00	0.00
9,250.0	37.66	270.26	9,221.1	-48.8	75.6	-75.6	10.00	10.00	0.00
9,300.0	42.66	270.26	9,259.3	-48.6	43.4	-43.4	10.00	10.00	0.00
9,350.0	47.65	270.26	9,294.5	-48.5	8.0	-7.9	10.00	10.00	0.00
9,400.0	52.65	270.26	9,326.6	-48.3	-30.4	30.4	10.00	10.00	0.00
9,450.0	57.65	270.26	9,355.1	-48.1	-71.4	71.5	10.00	10.00	0.00

Planning Report

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Well:	Sec 17, T22S, R28E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 880' FSL & 100' FWL (Sec 18)		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,500.0	62.65	270.26	9,380.0	-47.9	-114.8	114.8	10.00	10.00	0.00
9,550.0	67.65	270.26	9,401.0	-47.7	-160.1	160.2	10.00	10.00	0.00
9,600.0	72.65	270.26	9,418.0	-47.5	-207.2	207.2	10.00	10.00	0.00
9,650.0	77.65	270.26	9,430.8	-47.3	-255.5	255.5	10.00	10.00	0.00
9,700.0	82.65	270.26	9,439.3	-47.1	-304.7	304.7	10.00	10.00	0.00
9,750.0	87.65	270.26	9,443.6	-46.9	-354.5	354.5	10.00	10.00	0.00
9,763.5	89.00	270.26	9,444.0	-46.8	-368.0	368.0	10.00	10.00	0.00
LP: 880' FSL & 583' FEL (Sec 17)									
9,780.2	90.67	270.26	9,444.0	-46.7	-384.7	384.7	10.00	10.00	0.00
9,800.0	90.67	270.26	9,443.8	-46.6	-404.5	404.5	0.00	0.00	0.00
9,900.0	90.67	270.26	9,442.6	-46.2	-504.5	504.5	0.00	0.00	0.00
10,000.0	90.67	270.26	9,441.4	-45.7	-604.5	604.5	0.00	0.00	0.00
10,100.0	90.67	270.26	9,440.3	-45.3	-704.5	704.5	0.00	0.00	0.00
10,200.0	90.67	270.26	9,439.1	-44.8	-804.5	804.5	0.00	0.00	0.00
10,300.0	90.67	270.26	9,438.0	-44.4	-904.5	904.5	0.00	0.00	0.00
10,400.0	90.67	270.26	9,436.8	-44.0	-1,004.5	1,004.5	0.00	0.00	0.00
10,500.0	90.67	270.26	9,435.6	-43.5	-1,104.5	1,104.5	0.00	0.00	0.00
10,600.0	90.67	270.26	9,434.5	-43.1	-1,204.5	1,204.5	0.00	0.00	0.00
10,700.0	90.67	270.26	9,433.3	-42.6	-1,304.4	1,304.5	0.00	0.00	0.00
10,800.0	90.67	270.26	9,432.2	-42.2	-1,404.4	1,404.5	0.00	0.00	0.00
10,900.0	90.67	270.26	9,431.0	-41.7	-1,504.4	1,504.4	0.00	0.00	0.00
11,000.0	90.67	270.26	9,429.8	-41.3	-1,604.4	1,604.4	0.00	0.00	0.00
11,100.0	90.67	270.26	9,428.7	-40.8	-1,704.4	1,704.4	0.00	0.00	0.00
11,200.0	90.67	270.26	9,427.5	-40.4	-1,804.4	1,804.4	0.00	0.00	0.00
11,300.0	90.67	270.26	9,426.4	-39.9	-1,904.4	1,904.4	0.00	0.00	0.00
11,400.0	90.67	270.26	9,425.2	-39.5	-2,004.4	2,004.4	0.00	0.00	0.00
11,500.0	90.67	270.26	9,424.0	-39.0	-2,104.4	2,104.4	0.00	0.00	0.00
11,600.0	90.67	270.26	9,422.9	-38.6	-2,204.4	2,204.4	0.00	0.00	0.00
11,700.0	90.67	270.26	9,421.7	-38.2	-2,304.4	2,304.4	0.00	0.00	0.00
11,800.0	90.67	270.26	9,420.5	-37.7	-2,404.4	2,404.4	0.00	0.00	0.00
11,900.0	90.67	270.26	9,419.4	-37.3	-2,504.4	2,504.4	0.00	0.00	0.00
12,000.0	90.67	270.26	9,418.2	-36.8	-2,604.3	2,604.4	0.00	0.00	0.00
12,100.0	90.67	270.26	9,417.1	-36.4	-2,704.3	2,704.4	0.00	0.00	0.00
12,200.0	90.67	270.26	9,415.9	-35.9	-2,804.3	2,804.3	0.00	0.00	0.00
12,300.0	90.67	270.26	9,414.7	-35.5	-2,904.3	2,904.3	0.00	0.00	0.00
12,400.0	90.67	270.26	9,413.6	-35.0	-3,004.3	3,004.3	0.00	0.00	0.00
12,500.0	90.67	270.26	9,412.4	-34.6	-3,104.3	3,104.3	0.00	0.00	0.00
12,600.0	90.67	270.26	9,411.3	-34.1	-3,204.3	3,204.3	0.00	0.00	0.00
12,700.0	90.67	270.26	9,410.1	-33.7	-3,304.3	3,304.3	0.00	0.00	0.00
12,800.0	90.67	270.26	9,408.9	-33.3	-3,404.3	3,404.3	0.00	0.00	0.00
12,900.0	90.67	270.26	9,407.8	-32.8	-3,504.3	3,504.3	0.00	0.00	0.00
13,000.0	90.67	270.26	9,406.6	-32.4	-3,604.3	3,604.3	0.00	0.00	0.00
13,100.0	90.67	270.26	9,405.5	-31.9	-3,704.3	3,704.3	0.00	0.00	0.00
13,200.0	90.67	270.26	9,404.3	-31.5	-3,804.3	3,804.3	0.00	0.00	0.00
13,300.0	90.67	270.26	9,403.1	-31.0	-3,904.2	3,904.3	0.00	0.00	0.00
13,400.0	90.67	270.26	9,402.0	-30.6	-4,004.2	4,004.3	0.00	0.00	0.00
13,500.0	90.67	270.26	9,400.8	-30.1	-4,104.2	4,104.2	0.00	0.00	0.00
13,600.0	90.67	270.26	9,399.6	-29.7	-4,204.2	4,204.2	0.00	0.00	0.00
13,700.0	90.67	270.26	9,398.5	-29.2	-4,304.2	4,304.2	0.00	0.00	0.00
13,800.0	90.67	270.26	9,397.3	-28.8	-4,404.2	4,404.2	0.00	0.00	0.00
13,900.0	90.67	270.26	9,396.2	-28.4	-4,504.2	4,504.2	0.00	0.00	0.00
14,000.0	90.67	270.26	9,395.0	-27.9	-4,604.2	4,604.2	0.00	0.00	0.00
14,100.0	90.67	270.26	9,393.8	-27.5	-4,704.2	4,704.2	0.00	0.00	0.00

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Old Indian Draw Unit Com #4H
Company:	Mewbourne Oil Company	**TVD Reference:**	Well @ 3109.0usft (Original Well)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	Well @ 3109.0usft (Original Well)
Site:	Old Indian Draw Unit Com #4H	**North Reference:**	Grid
Well:	Sec 17, T22S, R28E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 880' FSL & 100' FWL (Sec 18)		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,200.0	90.67	270.26	9,392.7	-27.0	-4,804.2	4,804.2	0.00	0.00	0.00
14,300.0	90.67	270.26	9,391.5	-26.6	-4,904.2	4,904.2	0.00	0.00	0.00
14,400.0	90.67	270.26	9,390.4	-26.1	-5,004.2	5,004.2	0.00	0.00	0.00
14,500.0	90.67	270.26	9,389.2	-25.7	-5,104.2	5,104.2	0.00	0.00	0.00
14,600.0	90.67	270.26	9,388.0	-25.2	-5,204.1	5,204.2	0.00	0.00	0.00
14,700.0	90.67	270.26	9,386.9	-24.8	-5,304.1	5,304.1	0.00	0.00	0.00
14,800.0	90.67	270.26	9,385.7	-24.3	-5,404.1	5,404.1	0.00	0.00	0.00
14,900.0	90.67	270.26	9,384.6	-23.9	-5,504.1	5,504.1	0.00	0.00	0.00
15,000.0	90.67	270.26	9,383.4	-23.4	-5,604.1	5,604.1	0.00	0.00	0.00
15,100.0	90.67	270.26	9,382.2	-23.0	-5,704.1	5,704.1	0.00	0.00	0.00
15,200.0	90.67	270.26	9,381.1	-22.6	-5,804.1	5,804.1	0.00	0.00	0.00
15,300.0	90.67	270.26	9,379.9	-22.1	-5,904.1	5,904.1	0.00	0.00	0.00
15,400.0	90.67	270.26	9,378.8	-21.7	-6,004.1	6,004.1	0.00	0.00	0.00
15,500.0	90.67	270.26	9,377.6	-21.2	-6,104.1	6,104.1	0.00	0.00	0.00
15,600.0	90.67	270.26	9,376.4	-20.8	-6,204.1	6,204.1	0.00	0.00	0.00
15,700.0	90.67	270.26	9,375.3	-20.3	-6,304.1	6,304.1	0.00	0.00	0.00
15,800.0	90.67	270.26	9,374.1	-19.9	-6,404.1	6,404.1	0.00	0.00	0.00
15,900.0	90.67	270.26	9,372.9	-19.4	-6,504.0	6,504.1	0.00	0.00	0.00
16,000.0	90.67	270.26	9,371.8	-19.0	-6,604.0	6,604.0	0.00	0.00	0.00
16,100.0	90.67	270.26	9,370.6	-18.5	-6,704.0	6,704.0	0.00	0.00	0.00
16,200.0	90.67	270.26	9,369.5	-18.1	-6,804.0	6,804.0	0.00	0.00	0.00
16,300.0	90.67	270.26	9,368.3	-17.7	-6,904.0	6,904.0	0.00	0.00	0.00
16,400.0	90.67	270.26	9,367.1	-17.2	-7,004.0	7,004.0	0.00	0.00	0.00
16,500.0	90.67	270.26	9,366.0	-16.8	-7,104.0	7,104.0	0.00	0.00	0.00
16,600.0	90.67	270.26	9,364.8	-16.3	-7,204.0	7,204.0	0.00	0.00	0.00
16,700.0	90.67	270.26	9,363.7	-15.9	-7,304.0	7,304.0	0.00	0.00	0.00
16,800.0	90.67	270.26	9,362.5	-15.4	-7,404.0	7,404.0	0.00	0.00	0.00
16,900.0	90.67	270.26	9,361.3	-15.0	-7,504.0	7,504.0	0.00	0.00	0.00
17,000.0	90.67	270.26	9,360.2	-14.5	-7,604.0	7,604.0	0.00	0.00	0.00
17,100.0	90.67	270.26	9,359.0	-14.1	-7,704.0	7,704.0	0.00	0.00	0.00
17,200.0	90.67	270.26	9,357.9	-13.6	-7,803.9	7,804.0	0.00	0.00	0.00
17,300.0	90.67	270.26	9,356.7	-13.2	-7,903.9	7,903.9	0.00	0.00	0.00
17,400.0	90.67	270.26	9,355.5	-12.7	-8,003.9	8,003.9	0.00	0.00	0.00
17,500.0	90.67	270.26	9,354.4	-12.3	-8,103.9	8,103.9	0.00	0.00	0.00
17,600.0	90.67	270.26	9,353.2	-11.9	-8,203.9	8,203.9	0.00	0.00	0.00
17,700.0	90.67	270.26	9,352.0	-11.4	-8,303.9	8,303.9	0.00	0.00	0.00
17,800.0	90.67	270.26	9,350.9	-11.0	-8,403.9	8,403.9	0.00	0.00	0.00
17,900.0	90.67	270.26	9,349.7	-10.5	-8,503.9	8,503.9	0.00	0.00	0.00
18,000.0	90.67	270.26	9,348.6	-10.1	-8,603.9	8,603.9	0.00	0.00	0.00
18,100.0	90.67	270.26	9,347.4	-9.6	-8,703.9	8,703.9	0.00	0.00	0.00
18,200.0	90.67	270.26	9,346.2	-9.2	-8,803.9	8,803.9	0.00	0.00	0.00
18,300.0	90.67	270.26	9,345.1	-8.7	-8,903.9	8,903.9	0.00	0.00	0.00
18,400.0	90.67	270.26	9,343.9	-8.3	-9,003.9	9,003.9	0.00	0.00	0.00
18,500.0	90.67	270.26	9,342.8	-7.8	-9,103.8	9,103.8	0.00	0.00	0.00
18,600.0	90.67	270.26	9,341.6	-7.4	-9,203.8	9,203.8	0.00	0.00	0.00
18,700.0	90.67	270.26	9,340.4	-7.0	-9,303.8	9,303.8	0.00	0.00	0.00
18,800.0	90.67	270.26	9,339.3	-6.5	-9,403.8	9,403.8	0.00	0.00	0.00
18,900.0	90.67	270.26	9,338.1	-6.1	-9,503.8	9,503.8	0.00	0.00	0.00
19,000.0	90.67	270.26	9,337.0	-5.6	-9,603.8	9,603.8	0.00	0.00	0.00
19,100.0	90.67	270.26	9,335.8	-5.2	-9,703.8	9,703.8	0.00	0.00	0.00
19,200.0	90.67	270.26	9,334.6	-4.7	-9,803.8	9,803.8	0.00	0.00	0.00
19,300.0	90.67	270.26	9,333.5	-4.3	-9,903.8	9,903.8	0.00	0.00	0.00
19,340.4	90.67	270.26	9,333.0	-4.1	-9,944.2	9,944.2	0.00	0.00	0.00

BHL: 880' FSL & 100' FWL (Sec 18)

Planning Report

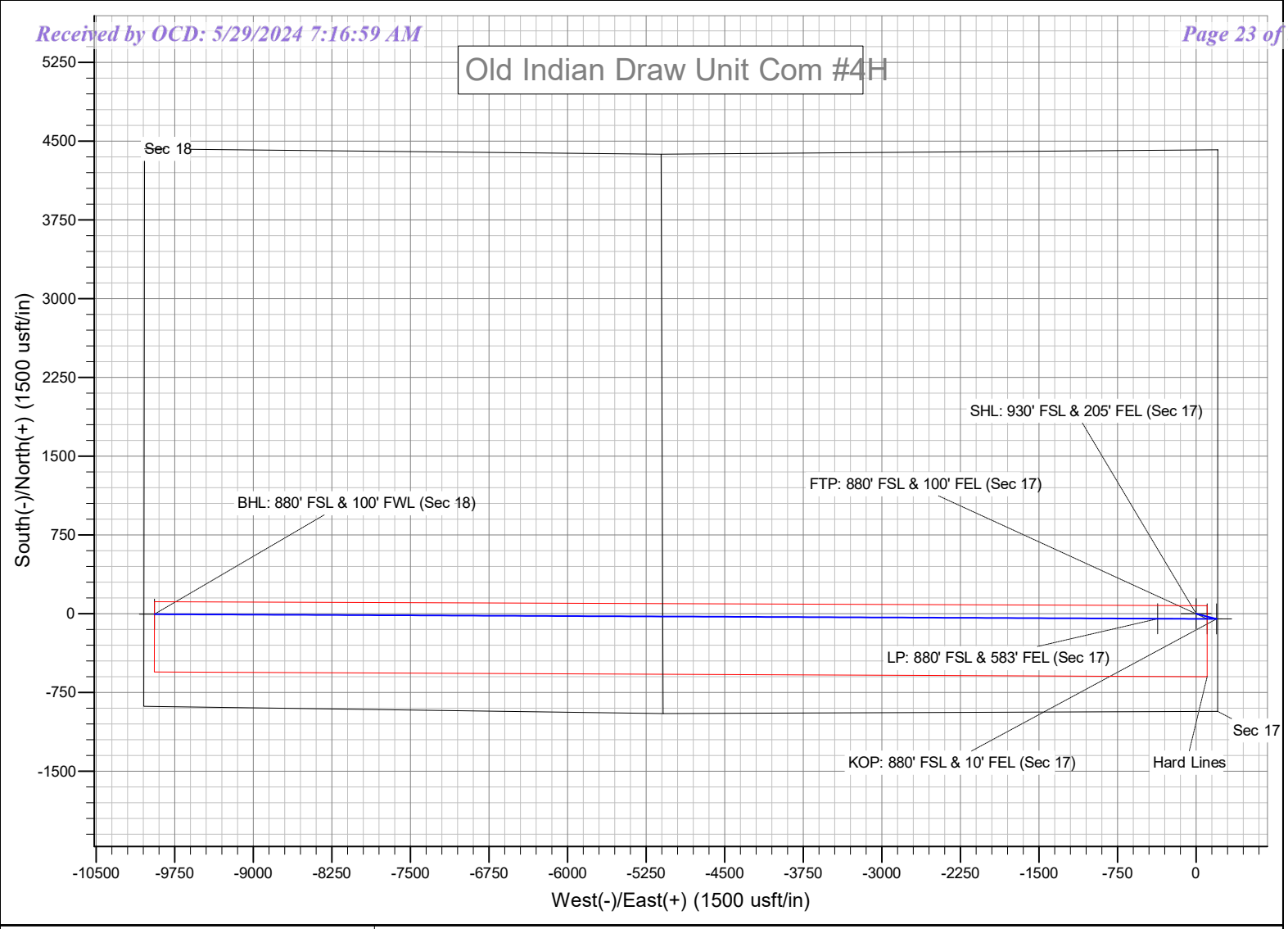
Database:	Hobbs	**Local Co-ordinate Reference:**	Site Old Indian Draw Unit Com #4H
Company:	Mewbourne Oil Company	**TVD Reference:**	Well @ 3109.0usft (Original Well)
Project:	Eddy County, New Mexico NAD 83	**MD Reference:**	Well @ 3109.0usft (Original Well)
Site:	Old Indian Draw Unit Com #4H	**North Reference:**	Grid
Well:	Sec 17, T22S, R28E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 880' FSL & 100' FWL (Sec 18)		
Design:	Design #1		

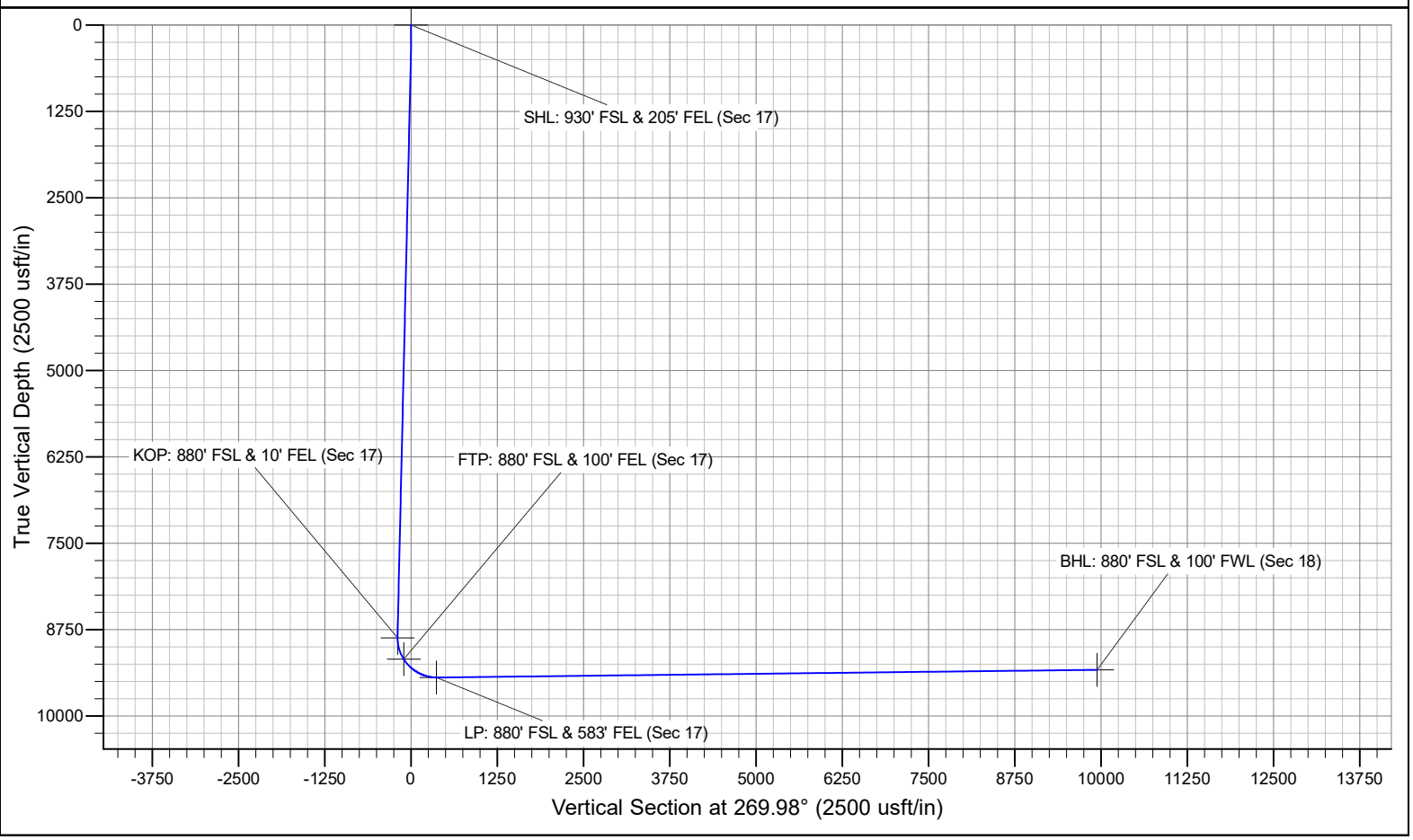
Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL: 930' FSL & 205' FE - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	504,935.60	612,744.80	32.3879245	-104.1019993
KOP: 880' FSL & 10' FEI - plan hits target center - Point	0.00	0.00	8,871.0	-49.3	195.0	504,886.30	612,939.80	32.3877878	-104.1013679
FTP: 880' FSL & 100' FE - plan hits target center - Point	0.00	0.00	9,179.3	-48.9	105.0	504,886.70	612,849.80	32.3877894	-104.1016595
BHL: 880' FSL & 100' FV - plan hits target center - Point	0.00	0.00	9,333.0	-4.1	-9,944.2	504,931.50	602,800.60	32.3879682	-104.1342148
LP: 880' FSL & 583' FEL - plan hits target center - Point	0.00	0.00	9,444.0	-46.8	-368.0	504,888.81	612,376.80	32.3877980	-104.1031918


Old Indian Draw Unit Com #4H
Sec 18
SHL: 930' FSL & 205' FEL (Sec 17)
FTP: 880' FSL & 100' FEL (Sec 17)
BHL: 880' FSL & 100' FWL (Sec 18)
LP: 880' FSL & 583' FEL (Sec 17)
Sec 17
KOP: 880' FSL & 10' FEL (Sec 17)
Hard Lines
South(-)/North(+) (1500 usft/in)
West(-)/East(+) (1500 usft/in)
5250
4500
3750
3000
2250
1500
750
0
-750
-1500
-10500
-9750
-9000
-8250
-7500
-6750
-6000
-5250
-4500
-3750
-3000
-2250
-1500
-750
0


SHL: 930' FSL & 205' FEL (Sec 17)
KOP: 880' FSL & 10' FEL (Sec 17)
FTP: 880' FSL & 100' FEL (Sec 17)
BHL: 880' FSL & 100' FWL (Sec 18)
LP: 880' FSL & 583' FEL (Sec 17)
True Vertical Depth (2500 usft/in)
Vertical Section at 269.98° (2500 usft/in)
0
1250
2500
3750
5000
6250
7500
8750
10000
-3750
-2500
-1250
0
1250
2500
3750
5000
6250
7500
8750
10000
11250
12500
13750

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
	98220	PURPLE SAGE; WOLFCAMP

4 Property Code	5 Property Name	6 Well Number
	OLD INDIAN DRAW UNIT COM	4H

7 OGRID NO.	8 Operator Name	9 Elevation
14744	MEWBOURNE OIL COMPANY	3078'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
P	17	22S	28E		930	SOUTH	205	EAST	EDDY

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
12	18	22S	28E		880	SOUTH	100	WEST	EDDY

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

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

16

GEODETIC DATA
NAD 83 GRID – NM EAST

SURFACE LOCATION
N: 504935.4 – E: 612744.9

LAT: 32.3879238° N
LONG: 104.1019991° W

BOTTOM HOLE
N: 504930.9 – E: 602800.6

LAT: 32.3879664° N
LONG: 104.1342149° W

CORNER DATA
NAD 83 GRID – NM EAST

A: FOUND BRASS CAP "1916"
N: 504054.4 – E: 602698.6

B: FOUND BRASS CAP "1916"
N: 506707.9 – E: 602704.7

C: FOUND BRASS CAP "1916"
N: 509363.5 – E: 602706.8

D: FOUND BRASS CAP "1943"
N: 509311.6 – E: 607636.8

E: FOUND BRASS CAP "1943"
N: 509316.0 – E: 610289.4

F: FOUND BRASS CAP "1943"
N: 509353.8 – E: 612951.3

G: FOUND BRASS CAP "1943"
N: 506679.8 – E: 612950.3

H: FOUND BRASS CAP "1943"
N: 504006.3 – E: 612949.6

I: FOUND BRASS CAP "1943"
N: 503997.0 – E: 610302.1

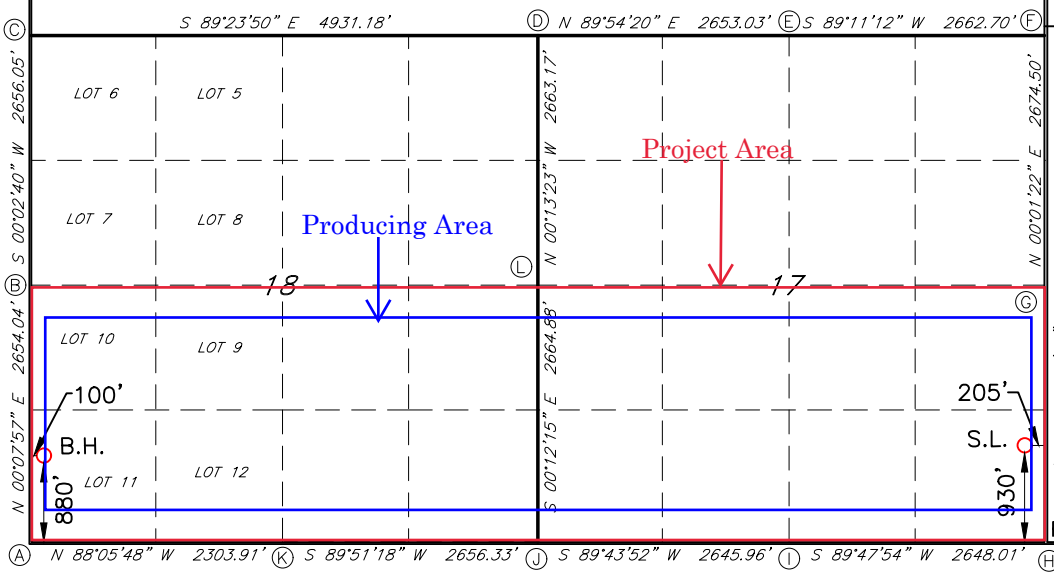
J: FOUND BRASS CAP "1943"
N: 503984.6 – E: 607656.7

K: FOUND BRASS CAP "1943"
N: 503977.8 – E: 605000.8

L: FOUND BRASS CAP "1943"
N: 506648.9 – E: 607647.2

LOT ACREAGE

LOT 5: 36.06 AC.
LOT 6: 34.85 AC.
LOT 7: 35.81 AC.
LOT 8: 36.98 AC.
LOT 9: 37.77 AC.
LOT 10: 36.69 AC.
LOT 11: 37.61 AC.
LOT 12: 38.66 AC



17 OPERATOR CERTIFICATION

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

Carter Crook 5/13/2024
Signature Date

Carter Crook
Printed Name

ccrook@mewbourne.com
E-mail Address

18 SURVEYOR CERTIFICATION

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

05/17/2019
Date of Survey

Signature and Seal of Professional Surveyor

ROBERT M. HOWETT NEW MEXICO 19680 PROFESSIONAL SURVEYOR

19680
Certificate Number

REV: SH/BH MOVE, NAME CHANGE 3/20/24

Job No: LS19050600D

LOCATION VERIFICATION MAP

NOT TO SCALE

SECTION 17, TWP. 22 SOUTH, RGE. 28 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO

OPERATOR: Mewbourne Oil Company
LEASE: Old Indian Draw Unit Com
WELL NO.: 4H
ELEVATION: 3078'

LOCATION: 930' FSL & 205' FEL
CONTOUR INTERVAL: 10'
USGS TOPO. SOURCE MAP:
Indian Flats, NM (P. E. 1985)

NO.	REVISION	DATE
1	SH MOVE & NAME CHANGE	3/20/24

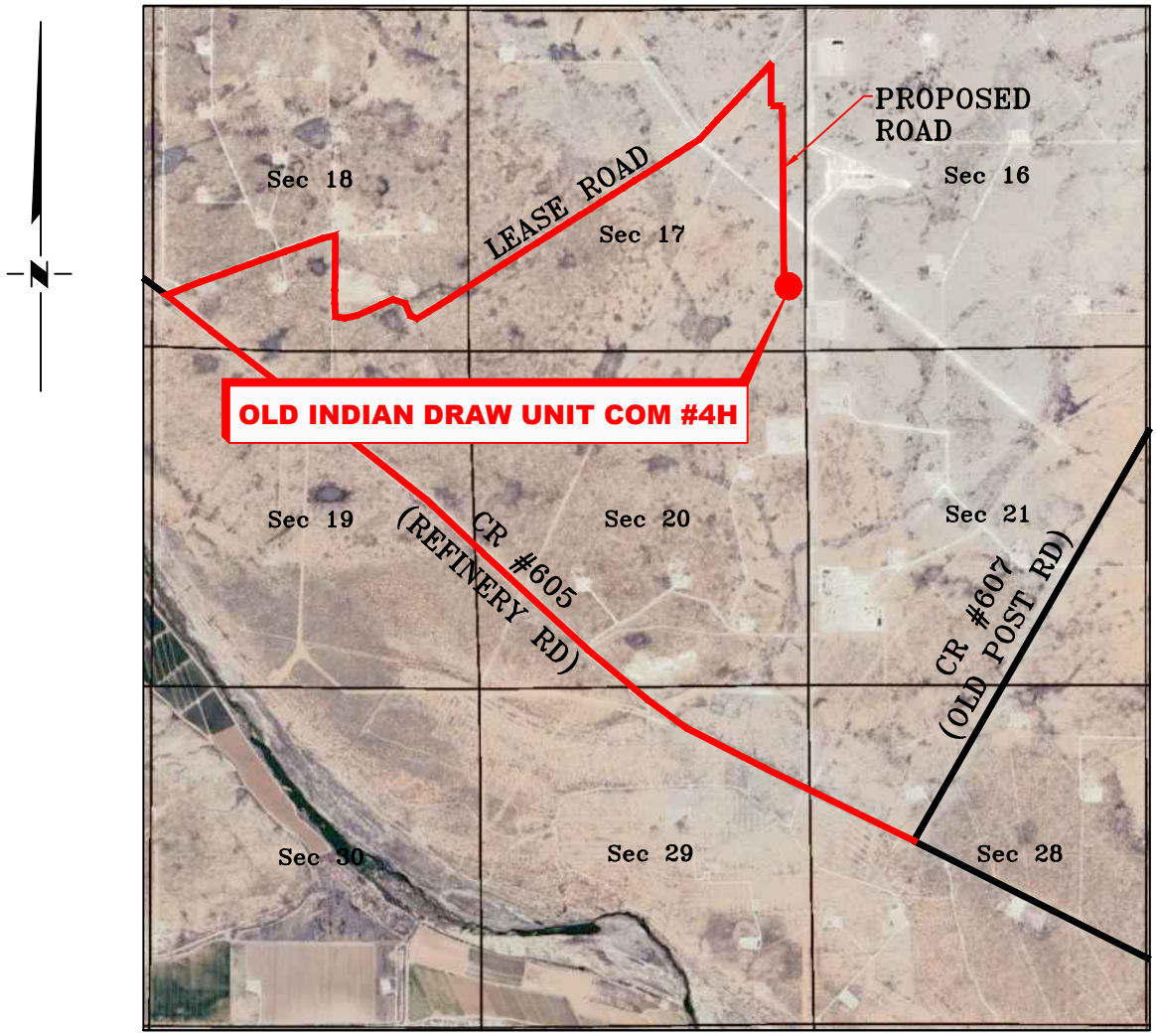
JOB NO.: LS19050600D
DWG. NO.: 19050600D-2

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: N. T. S.
DATE: 05/17/2019
SURVEYED BY: ML/JC
DRAWN BY: KAKN
APPROVED BY: RMH
SHEET: 1 OF 1

VICINITY MAP

NOT TO SCALE



SECTION 17, TWP. 22 SOUTH, RGE. 28 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO

OPERATOR: Mewbourne Oil Company
LOCATION: 930' FSL & 205' FEL
LEASE: Old Indian Draw Unit Com
ELEVATION: 3078'
WELL NO.: 4H

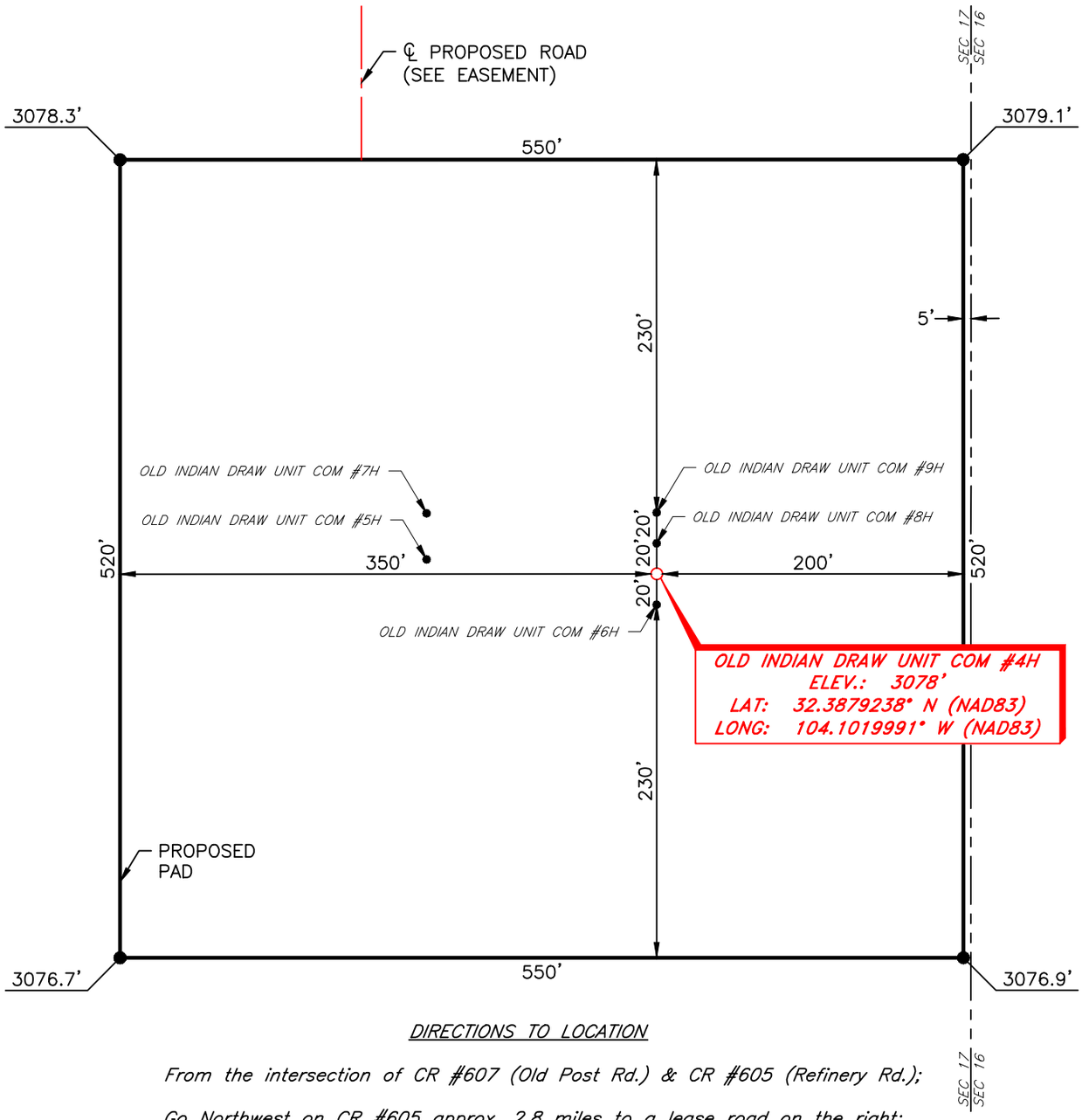
NO.	REVISION	DATE
1	SH MOVE & NAME CHANGE	3/20/24

JOB NO.: LS19050600D
DWG. NO.: 19050600D-3

RRC ENERGY SERVICES, LLC.
701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: N. T. S.
DATE: 05/17/2019
SURVEYED BY: ML/JC
DRAWN BY: KAKN
APPROVED BY: RMH
SHEET: 1 OF 1

MEWBOURNE OIL COMPANY
OLD INDIAN DRAW UNIT COM #4H
(930' FSL & 205' FEL)
SECTION 17, T22S, R28E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of CR #607 (Old Post Rd.) & CR #605 (Refinery Rd.);

Go Northwest on CR #605 approx. 2.8 miles to a lease road on the right;

Turn right and go Northeast approx. 0.5 miles to a lease road on the right;

Turn right and go South approx. 0.2 miles to a lease road on the left;

Turn left and go Northeast approx. 1.6 miles to a proposed road on the right;

Turn right and go South approx. 0.7 miles to location on the left.

THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY.

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

Robert M. Howett
Robert M. Howett NM PS 19680

ROBERT M. HOWETT NEW MEXICO 19680 03/26/24 PROFESSIONAL SURVEYOR

SCALE: 1" = 100'
0 50 100

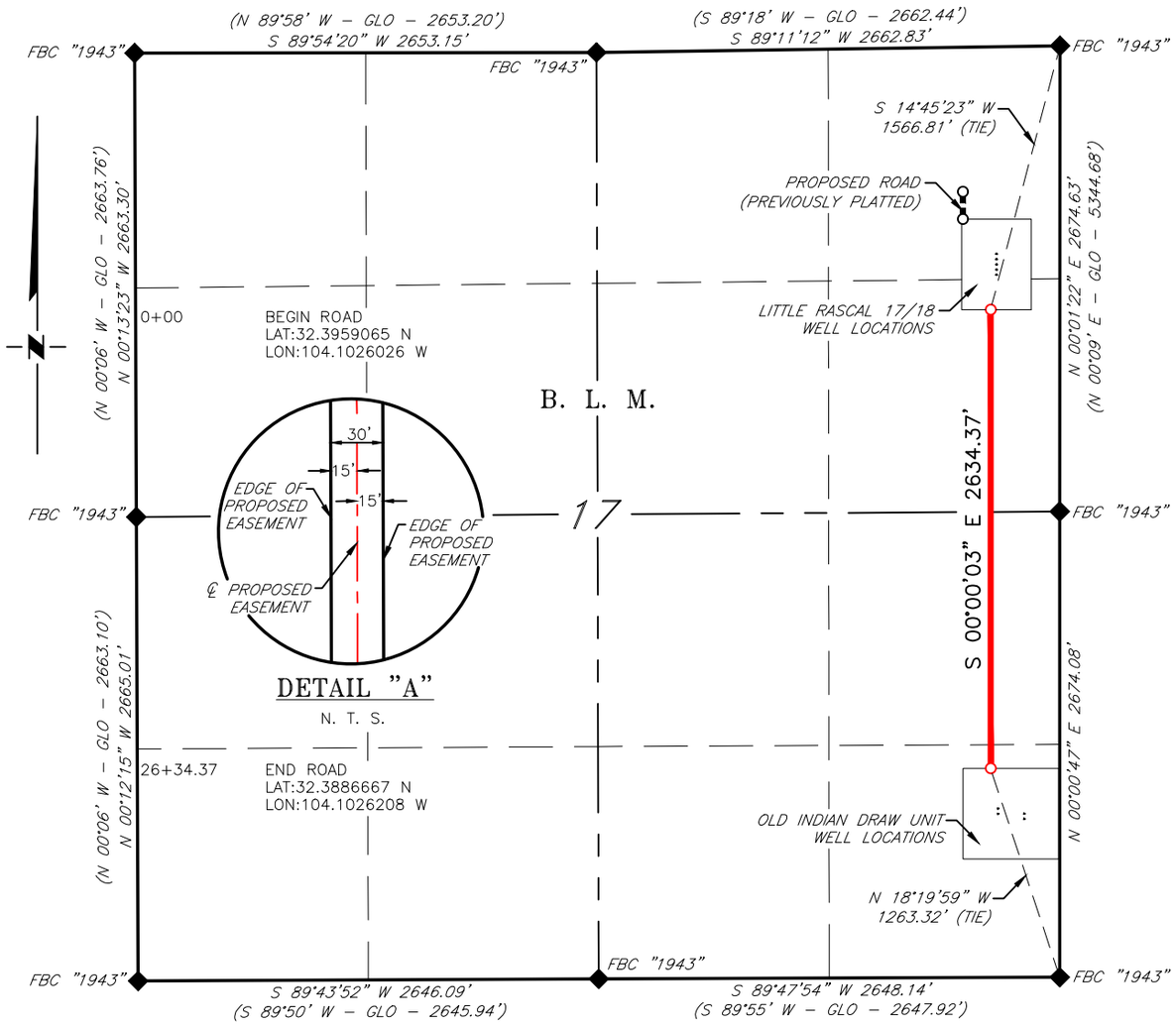
BEARINGS ARE NAD 83 GRID – NM EAST DISTANCES ARE GROUND.

NO.	REVISION	DATE
1	SH MOVE & NAME CHANGE	3/20/24
JOB NO.: LS19050600D		
DWG. NO.: 19050600D–4		

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

SCALE: 1" = 100'	
DATE: 03/04/2024	
SURVEYED BY: ML/JH	
DRAWN BY: AR	
APPROVED BY: RMH	
SHEET: 1 OF 1	

MEWBOURNE OIL COMPANY
ACCESS ROAD FOR THE OLD INDIAN DRAW UNIT WELL LOCATIONS
SECTION 17, T22S, R28E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

A strip of land 30 feet wide, being 2,634.37 feet or 159.659 rods in length, lying in Section 17, Township 22 South, Range 28 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across B. L. M. land:

BEGINNING at Engr. Sta. 0+00, a point in the Northeast quarter of Section 17, which bears, S 14°45'23" W, 1,566.81 feet from a brass cap, stamped "1943", found for the Northeast corner of Section 17;

Thence S 00°00'03" E, 2,634.37 feet, to Engr. Sta. 26+34.37, the End of Survey, a point in the Southeast quarter of Section 17, which bears, N 18°19'59" W, 1,263.32 feet from a brass cap, stamped "1943", found for the Southeast corner of Section 17.

Said strip of land contains 1.814 acres, more or less, and is allocated by forties as follows:

SE 1/4 NE 1/4	1,161.81 Feet	70.413 Rods	0.800 Acres
NE 1/4 SE 1/4	1,336.58 Feet	81.005 Rods	0.920 Acres
SE 1/4 SE 1/4	135.98 Feet	8.241 Rods	0.094 Acres

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

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

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

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

Robert M. Howett
Robert M. Howett NM PS 19680

ROBERT M. HOWETT
NEW MEXICO
19680
03/15/24
PROFESSIONAL SURVEYOR

NO.	REVISION	DATE

JOB NO.: LS24030184
DWG. NO.: 24030184–5

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

SCALE: 1" = 1000'
DATE: 03/04/2024
SURVEYED BY: ML/JH
DRAWN BY: AR
APPROVED BY: RMH
SHEET: 1 OF 1

Mewbourne Oil Company, Old Indian Draw Unit Com #4H
Sec 17, T22S, R28E
SHL: 930' FSL 205' FEL (Sec 17)
BHL: 880' FSL 100' FWL (Sec 18)

Casing Program Design A						BLM Minimum Safety Factors	1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 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 Tension**
Surface	17.5'	0'	0'	300'	300'	13.375" 48# H40 STC	5.88	13.20	22.36	37.57
Int	12.25'	0'	0'	2425'	2425'	9.625" 36# J55 LTC	1.78	3.10	5.19	6.46
Production	8.75'	0'	0'	8873'	8871'	7" 26# N-80 LTC	1.17	1.57	2.25	2.62
Liner	6.125'	8673'	8672'	19340'	9444'	4.5" 13.5# P110 LTC	1.89	2.20	2.35	2.93

Cement Program

Casing		# Sacks	Wt. lb/gal	Yield ft^3/sack	TOC/BOC	Volume ft^3	% Excess	Slurry Description
13.375 in	LEAD	80	12.5	2.12	0' - 116'	170	100%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	116' - 300'	268		Class C: Retarder
1st Stg 9.625 in	LEAD	50	12.5	2.12	2500' - 2478'	110	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	2478' - 2425'	268		Class C: Retarder
9 5/8" DV Tool @ 2500'								
2nd Stg 9.625 in	LEAD	400	12.5	2.12	0' - 2160'	850	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	100	14.8	1.34	2160' - 2500'	0		Class C: Retarder
1st Stg 7 in	LEAD	260	12.5	2.12	3450' - 6393'	560	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	400	15.6	1.18	6393' - 8873'	472		Class H: Retarder, Fluid Loss, Defoamer
7" DV Tool @ 3450'								
2nd Stg 7 in	LEAD	50	12.5	2.12	2225' - 2777'	110	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	100	14.8	1.34	2777' - 3450'	134		Class C: Retarder, Fluid Loss, Defoamer
4.5 in	LEAD	680	13.5	1.85	8673' - 19340'	1260	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-

Design A - Mud Program

Depth	Mud Wt	Mud Type
0' - 300'	8.4	Fresh Water
300' - 2425'	9	Brine
2425' - 8873'	10	Cut-Brine
8873' - 19340'	11.5	OBM

Geology

Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler	239'	Usable Water	Yeso		
Castile			Delaware (Lamar)	2494'	Oil/Natural Gas
Salt Top	439'	None	Bell Canyon	2533'	Oil/Natural Gas
Salt Base	2241'	None	Cherry Canyon	3368'	Oil/Natural Gas
Yates			Manzanita Marker	3525'	Oil/Natural Gas
Seven Rivers			Basal Brushy Canyon	5746'	Oil/Natural Gas
Queen			Bone Spring	5988'	Oil/Natural Gas
Capitan			1st Bone Spring	7034'	Oil/Natural Gas
Grayburg			2nd Bone Spring	7734'	Oil/Natural Gas
San Andres			3rd Bone Spring	9050'	Oil/Natural Gas
Glorieta			Wolfcamp	9326'	Oil/Natural Gas

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 3rd 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 2nd 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?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Mewbourne Oil Company, Old Indian Draw Unit Com #4H
Sec 17, T22S, R28E
SHL: 930' FSL 205' FEL (Sec 17)
BHL: 880' FSL 100' FWL (Sec 18)

Casing Program Design B						BLM Minimum Safety Factors	1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 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 Tension
Surface	17.5'	0'	0'	300'	300'	13.375" 48# H40 STC	5.88	13.20	22.36	37.57
Int 2	12.25'	0'	0'	2425'	2425'	9.625" 36# J55 LTC	1.78	3.10	5.19	6.46
Production	8.75'	0'	0'	9764'	9444'	7" 26# HCP110 LTC	1.59	2.03	2.73	3.27
Liner	6.125'	8873'	8871'	19340'	9444'	4.5" 13.5# P110 LTC	1.89	2.20	2.39	2.99

Design B - Cement Program

Casing		# Sacks	Wt. lb/gal	Yield ft^3/sack	TOC/BOC	Volume ft^3	% Excess	Slurry Description
13.375 in	LEAD	80	12.5	2.12	0' - 116'	170	100%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	116' - 300'	268		Class C: Retarder
1st Stg 9.625 in	LEAD	50	12.5	2.12	2500' - 3187'	110	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	3187' - 2425'	268		Class C: Retarder
9 5/8" DV Tool @ 2500'								
2nd Stg 9.625 in	LEAD	590	12.5	2.12	0' - 3164'	1260	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	100	14.8	1.34	3164' - 3500'	0		Class C: Retarder
1st Stg 7 in	LEAD	340	12.5	2.12	3450' - 7285'	730	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	400	15.6	1.18	7285' - 9764'	472		Class H: Retarder, Fluid Loss, Defoamer
7" DV Tool @ 3450'								
2nd Stg 7 in	LEAD	50	12.5	2.12	2225' - 2777'	110	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	100	14.8	1.34	2777' - 3450'	134		Class C: Retarder, Fluid Loss, Defoamer
4.5 in	LEAD	660	13.5	1.85	8873' - 19340'	1230	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-

Design B - Mud Program

Depth	Mud Wt	Mud Type
0' - 300'	8.4	Fresh Water
300' - 2425'	9	Brine
2425' - 9764'	10	Cut-Brine
9764' - 19340'	11.5	OBM

Geology

Formation	Est. Top (TVD)	Mineral Resources	Formation	Est. Top (TVD)	Mineral Resources
Rustler	239'	Usable Water	Yeso		
Castile			Delaware (Lamar)	2494'	Oil/Natural Gas
Salt Top	439'	None	Bell Canyon	2533'	Oil/Natural Gas
Salt Base	2241'	None	Cherry Canyon	3368'	Oil/Natural Gas
Yates			Manzanita Marker	3525'	Oil/Natural Gas
Seven Rivers			Basal Brushy Canyon	5746'	Oil/Natural Gas
Queen			Bone Spring	5988'	Oil/Natural Gas
Capitan			1st Bone Spring	7034'	Oil/Natural Gas
Grayburg			2nd Bone Spring	7734'	Oil/Natural Gas
San Andres			3rd Bone Spring	9050'	Oil/Natural Gas
Glorieta			Wolfcamp	9326'	Oil/Natural Gas

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 3rd 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 2nd 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?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Mewbourne Oil Company, Old Indian Draw Unit Com #4H
Sec 17, T22S, R28E
SHL: 930' FSL 205' FEL (Sec 17)
BHL: 880' FSL 100' FWL (Sec 18)

Well Location **GL: 3081'**

Point	Calls	Leases	Aliquot	Section	Township	Range	County	Lat	Long	TVD	MD
SHL	SHL: 930' FSL & 205' FEL (Sec 17)	NMNM0415688A	SESE	17	22S	28E	Eddy	32.3879245	104.1019993	0'	0'
KOP	KOP: 880' FSL & 10' FEL (Sec 17)	NMNM0415688A	SESE	17	22S	28E	Eddy	32.3877878	104.1013679	8,871'	8,873'
FTP	FTP: 880' FSL & 100' FEL (Sec 17)	NMNM0415688A	SESE	17	22S	28E	Eddy	32.3877894	104.1016595	9,177'	9,199'
BHL	BHL: 880' FSL & 100' FWL (Sec 18)	NMNM0415688A	SWSW	18	22S	28E	Eddy	32.3879682	104.1342148	9,333'	19,340'

GEOLOGY

Formation	Est. Top (TVD)	Lithology	Mineral Resources	Formation	Est. Top (TVD)	Lithology	Mineral Resources
Rustler	239'	Dolomite/Anhydrite	Usable Water	Yeso			
Castile				Delaware (Lamar)	2494'	Limestone/Dolomite	Oil/Natural Gas
Salt Top	439'	Salt	None	Bell Canyon	2533'	Sandstone	Oil/Natural Gas
Salt Base	2241'	Salt	None	Cherry Canyon	3368'	Sandstone	Oil/Natural Gas
Yates				Manzanita Marker	3525'	Limestone	Oil/Natural Gas
Seven Rivers				Basal Brushy Canyon	5746'	Sandstone	Oil/Natural Gas
Queen				Bone Spring	5988'	Limestone	Oil/Natural Gas
Capitan				1st Bone Spring	7034'	Sandstone	Oil/Natural Gas
Grayburg				2nd Bone Spring	7734'	Sandstone	Oil/Natural Gas
San Andres				3rd Bone Spring	9050'	Sandstone	Oil/Natural Gas
Glorietta				**Wolfcamp**	**9326'**	**Shale/Sandstone/Limestone**	**Oil/Natural Gas**

Casing Program Design A						BLM Minimum Safety Factors	1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 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 Tension**
Surface	17.5'	0'	0'	300'	300'	13.375" 48# H40 STC	5.88	13.20	22.36	37.57
Int	12.25'	0'	0'	2425'	2425'	9.625" 36# J55 LTC	1.78	3.10	5.19	6.46
Production	8.75'	0'	0'	8873'	8871'	7" 26# N-80 LTC	1.17	1.57	2.25	2.62
Liner	6.125'	8673'	8672'	19340'	9444'	4.5" 13.5# P110 LTC	1.89	2.20	2.35	2.93

All casing strings will be tested in accordance with 43 CFR Part 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 3rd 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 2nd 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?	**N**
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	**N**
If yes, are there three strings cemented to surface?	

Mewbourne Oil Company, Old Indian Draw Unit Com #4H
Sec 17, T22S, R28E
SHL: 930' FSL 205' FEL (Sec 17)
BHL: 880' FSL 100' FWL (Sec 18)

Design A - Cement Program

Csg. Size		# Sacks	Wt., lb/gal	Yield, ft^3/sack	TOC/BOC	Volume, ft^3	% Excess	Slurry Description
13.375 in	LEAD	80	12.5	2.12	0' - 116'	170	100%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	116' - 300'	268		Class C: Retarder
1st Stg 9.625 in	LEAD	50	12.5	2.12	2500' - 2478'	110	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	2478' - 2425'	268		Class C: Retarder
9 5/8" DV Tool @ 2500'								
2nd Stg 9.625 in	LEAD	400	12.5	2.12	0' - 2160'	850	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	100	14.8	1.34	2160' - 2500'	0		Class C: Retarder
1st Stg 7 in	LEAD	260	12.5	2.12	3450' - 6393'	560	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	400	15.6	1.18	6393' - 8873'	472		Class H: Retarder, Fluid Loss, Defoamer
7" DV Tool @ 3450'								
2nd Stg 7 in	LEAD	50	12.5	2.12	2225' - 2777'	110	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	100	14.8	1.34	2777' - 3450'	134		Class C: Retarder, Fluid Loss, Defoamer
4.5 in	LEAD	680	13.5	1.85	8673' - 19340'	1260	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-

Pressure Control Equipment

BOP installed and tested before drilling hole, in:	Size, in	System Rated WP	Type		Tested to:	Rating Depth
12.25	13.375	5M	Annular	X	2500#	19,340'
		5M	Blind Ram	X	5000#	
			Pipe Ram	X		
			Double Ram			
			Other*			

*Specify if additional ram is utilized.

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.

Variance Request: A variance is requested for the use of a variable 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.

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.

Y	Formation integrity test will be performed per 43 CFR Part 3172. On Exploratory wells or 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. Will be tested in accordance with 43 CFR Part 3172.
N	Mewbourne Oil Company request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack.

Mud Program

Depth (MD)	Mud Wt., lb/gal	Mud Type
	8.4	Fresh Water
0' - 300'	8.4	Fresh Water
300' - 2425'	9	Brine
2425' - 8873'	10	Cut-Brine
8873' - 19340'	11.5	OBM

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	Pason/PVT/Visual Monitoring

Mewbourne Oil Company, Old Indian Draw Unit Com #4H
Sec 17, T22S, R28E
SHL: 930' FSL 205' FEL (Sec 17)
BHL: 880' FSL 100' FWL (Sec 18)

Logging and Testing Procedures

Logging, Coring and Testing.	
Y	Will run GR/CNL from KOP (8873') to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
N	No logs are planned based on well control or offset log information. Offset Well:
N	Coring? If yes, explain:

Open & Cased Hole Logs Run In the Well

☐	Caliper	☐	Cement Bond Log	☐	CNL/FDC
☐	Compensated Densilog	☑	**Compensated Neutron Log**	☐	Computer Generated Log
☐	Dip Meter Log	☑	**Directional Survey**	☐	Dual Induction/Microresistivity
☐	Dual Lateral Log/Microspherically Focused	☐	Electric Log	☐	Formation Density Compensated Log
☑	**Gamma Ray Log**	☑	**Measurement While Drilling**	☐	Mud Log/Geological Lithology Log
☐	Other	☐	Porosity-Resistivity Log	☐	Sidewall Neutron Log
☐	Sonic Log	☐	Spontaneous Potential Log	☐	Temperature Log

Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	5648 psi
BH Temperature	165
Abnormal Temp, Pressure, or Geologic Hazards	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers in surface hole. Weighted mud for possible over-pressure in Wolfcamp formation.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

	H2S is present
X	H2S Plan attached

Mewbourne Oil Company, Old Indian Draw Unit Com #4H
Sec 17, T22S, R28E
SHL: 930' FSL 205' FEL (Sec 17)
BHL: 880' FSL 100' FWL (Sec 18)

Other facets of operation

Mewbourne Oil Company also requests approval to implement Design B as described below. BLM will be notified of elected design.

Offline Cementing Variance: Variance is request to perform offline cementing according to the attached procedure.

Casing Program Design B						BLM Minimum Safety Factors	1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet
String	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt	SF Body
Surface	17.5'	0'	0'	300'	300'	13.375" 48# H40 STC	5.88	13.20	22.36	37.57
Int 2	12.25'	0'	0'	2425'	2425'	9.625" 36# J55 LTC	1.78	3.10	5.19	6.46
Production	8.75'	0'	0'	9764'	9444'	7" 26# HCP110 LTC	1.59	2.03	2.73	3.27
Liner	6.125'	8873'	8871'	19340'	9444'	4.5" 13.5# P110 LTC	1.89	2.20	2.39	2.99

All casing strings will be tested in accordance with 43 CFR Part 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 3rd 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 2nd 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?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Design B - Cement Program

Csg. Size		# Sacks	Wt., lb/gal	Yield, ft³/sack	TOC/BOC	Volume, ft³	% Excess	Slurry Description
13.375 in	LEAD	80	12.5	2.12	0' - 116'	170	100%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	116' - 300'	268		Class C: Retarder
1st Stg 9.625 in	LEAD	50	12.5	2.12	2500' - 3187'	110	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	3187' - 2425'	268		Class C: Retarder
9 5/8" DV Tool @ 2500'								
2nd Stg 9.625 in	LEAD	590	12.5	2.12	0' - 3164'	1260	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	100	14.8	1.34	3164' - 3500'	0		Class C: Retarder
1st Stg 7 in	LEAD	340	12.5	2.12	3450' - 7285'	730	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	400	15.6	1.18	7285' - 9764'	472		Class H: Retarder, Fluid Loss, Defoamer
7" DV Tool @ 3450'								
2nd Stg 7 in	LEAD	50	12.5	2.12	2225' - 2777'	110	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	100	14.8	1.34	2777' - 3450'	134		Class C: Retarder, Fluid Loss, Defoamer
4.5 in	LEAD	660	13.5	1.85	8873' - 19340'	1230	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-

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Surface & Intermediate Offline Cementing Variance

Mewbourne Oil Company requests a variance to perform offline cementing for surface and intermediate casing strings with the following conditions:

- Offline cementing will not be performed on production casing.
- Offline cementing will not be performed on a hole section with MASP > 5000 psi.
- Offline cementing will not be performed concurrently with offset drilling.

Surface Casing Order of Operations:

1. Run 13 3/8" surface casing as per normal operations (TPGS and float collar).
2. Perform negative pressure test to confirm integrity of float equipment while running casing.
3. Confirm well is static.
4. Make up 13 ⅝" wellhead or wellhead landing ring assembly and land on 20" conductor.
5. Fill pipe, circulate casing capacity and confirm float(s) are still holding.
6. Confirm well is static.
7. Back out landing joint and pull to rig floor. Lay down landing joint.
8. Walk rig to next well on pad with cement crew standing by to rig up.
9. Make up offline cement tool with forklift per wellhead manufacturer (Fig. 1 & 2).
10. Make up cement head on top of offline cement tool with forklift.
11. Commence cement operations.
12. If cement circulates, confirm well is static and proceed to step 16.
13. If cement does not circulate, notify the appropriate BLM office, wait a minimum of six hours, and run a temperature survey to determine the top of cement.
14. Use 1" pipe for remedial cement job until the surface casing is cemented to surface.
15. Confirm well is static.
16. Once cement job is complete, the cement head and offline cementing tool are removed. The wellhead technician returns to cellar to install wellhead/valves.
17. Install wellhead capping flange.

Barriers

Before Walk:

- Float(s) in casing
- Kill weight fluid in casing
- Kill weight fluid in annulus

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After Walk:

- Float(s) in casing
- Kill weight fluid in casing
- Kill weight fluid in annulus
- Offline cementing tool tested to 5000 psi and cement head
- Capping flange after cementing

20” Surface Casing Order of Operations (4 string area):

1. Run 20" surface casing as per normal operations (TPGS and float collar).
2. Perform negative pressure test to confirm integrity of float equipment while running casing.
3. Fill pipe, circulate casing capacity and confirm float(s) are still holding.
4. Confirm well is static.
5. Back out landing joint and pull to rig floor. Lay down landing joint.
6. Make up cement head.
7. Walk rig to next well on pad with cement crew standing by to rig up.
8. Commence cement operations.
9. If cement circulates, confirm well is static and proceed to step 13.
10. If cement does not circulate, notify the appropriate BLM office, wait a minimum of six hours, and run a temperature survey to determine the top of cement.
11. Use 1" pipe for remedial cement job until the surface casing is cemented to surface.
12. Confirm well is static.
13. Once cement job is complete, remove cement head and install cap.

Barriers

Before Walk:

- Float(s) in casing
- Kill weight fluid in casing
- Kill weight fluid in annulus
- Cement Head

After Walk:

- Float(s) in casing
- Kill weight fluid in casing
- Kill weight fluid in annulus
- Cement head
- Capping flange after cementing

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Intermediate Casing Order of Operations:

1. Run casing as per normal operations (float shoe and float collar).
2. Perform negative pressure test to confirm integrity of float equipment while running casing.
3. Confirm well is static (if running SBM).
4. Land casing.
5. Fill pipe, circulate casing capacity and confirm floats are still holding.
6. Confirm well is static.
7. Back out landing joint and pull to rig floor. Lay down landing joint. Install packoff & test.
8. Nipple down BOP.
9. Walk rig to next well on pad with cement crew standing by to rig up.
10. Make up offline cement tool using forklift per wellhead manufacturer (Fig. 3 - 8).
11. Make up cement head on top of offline cement tool.
12. Commence cement operations.
13. If cement circulates, confirm well is static and proceed to step 16.
14. If cement does not circulate (when required), notify the appropriate BLM office, wait a minimum of six hours, and run a temperature survey to determine the top of cement.
15. Pump remedial cement job if required.
16. Confirm well is static.
17. Remove cement head and offline cementing tool.
18. Install wellhead capping flange and 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 tested to 5000 psi and cement head
- Capping flange after cementing

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Risks:

- Pressure build up in annulus before cementing
  - Contact BLM if a well control event occurs.
  - Rig up 3rd party pump or rig pumps to pump down casing and kill well.
  - Returns will be taken through the wellhead valves to a choke manifold (Fig 9 & 10).
  - Well could also be killed through the wellhead valves down the annulus.

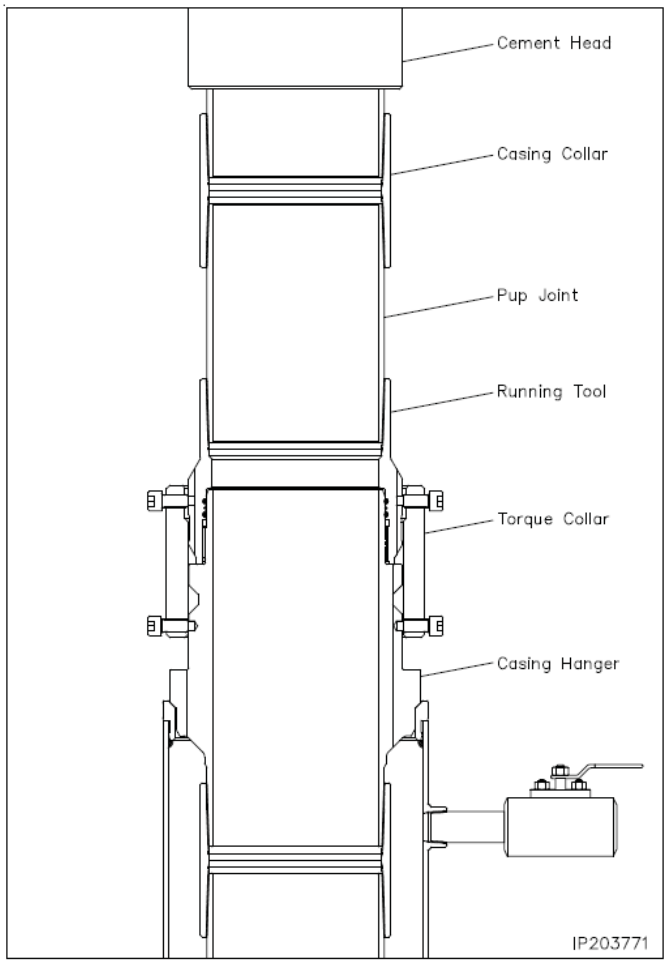

Figure 1. Cactus 13 3/8" 5M offline cementing tool. Pressure rating limited by the lesser of 5M tool rating or the 13 3/8" pup joint and casing.

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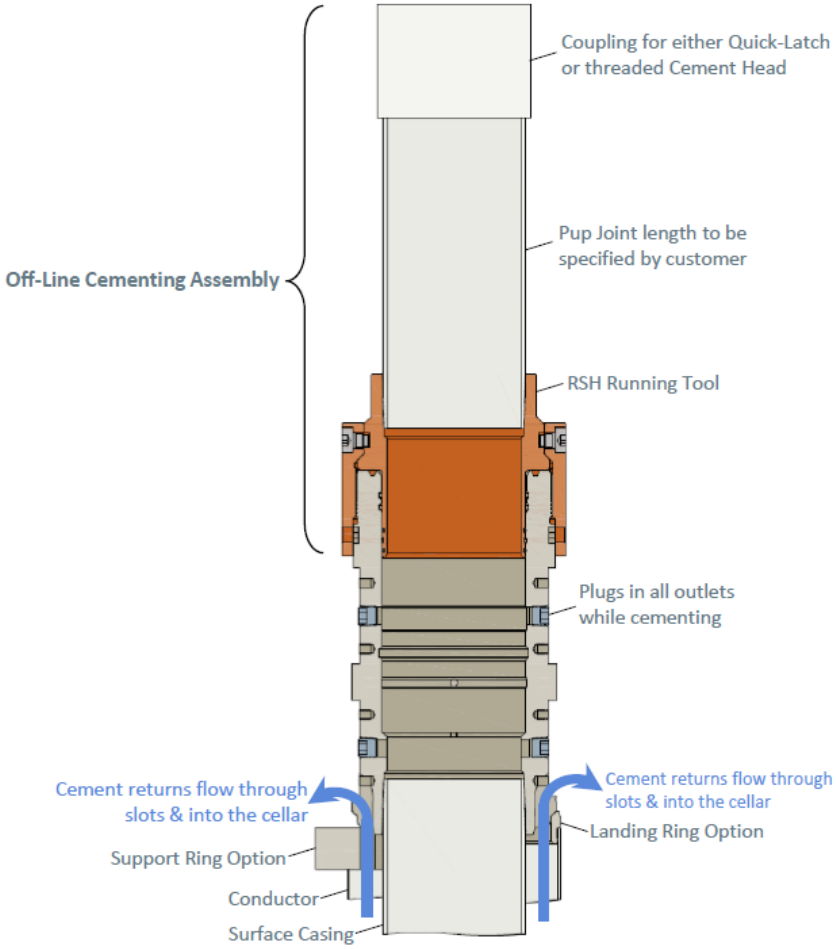

Figure 2. Vault 13 3/8” 5M offline cementing tool. Pressure rating limited by the lesser of 5M tool rating or the 13 3/8” pup joint and casing.

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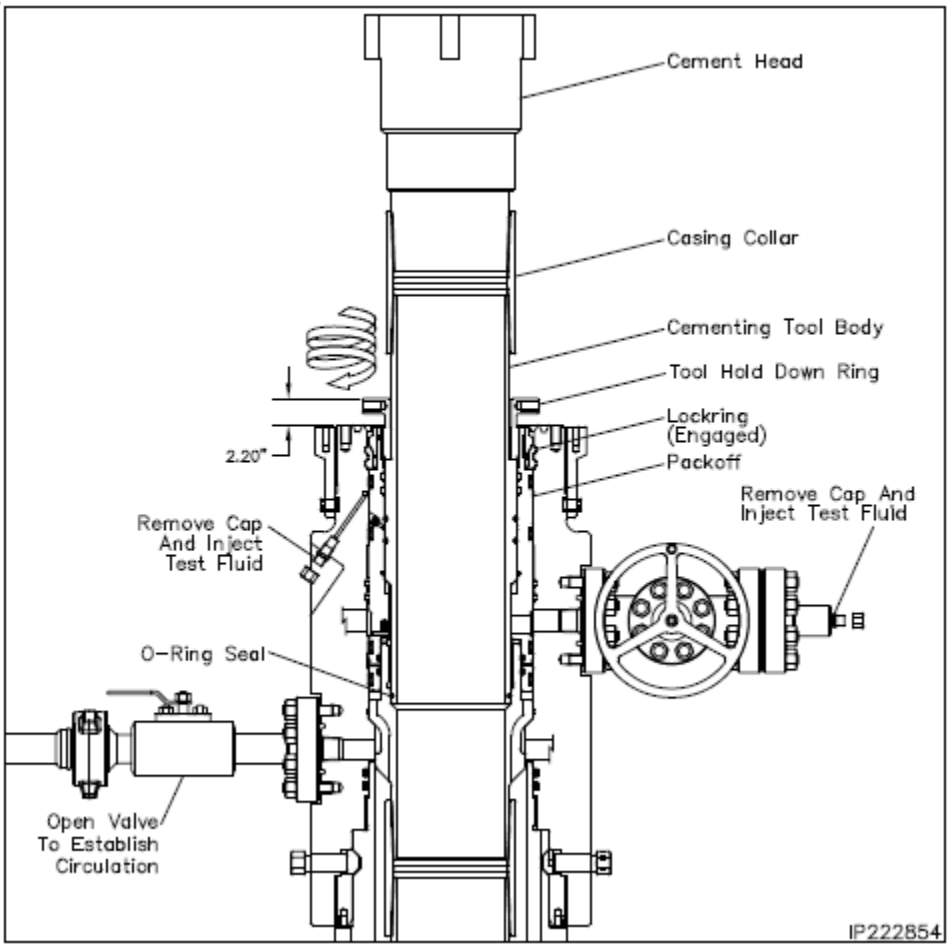

Figure 3. Cactus 9 5/8" 5M offline cementing tool. Pressure rating limited by the lesser of 5M tool rating or the 9 5/8" pup joint and casing.

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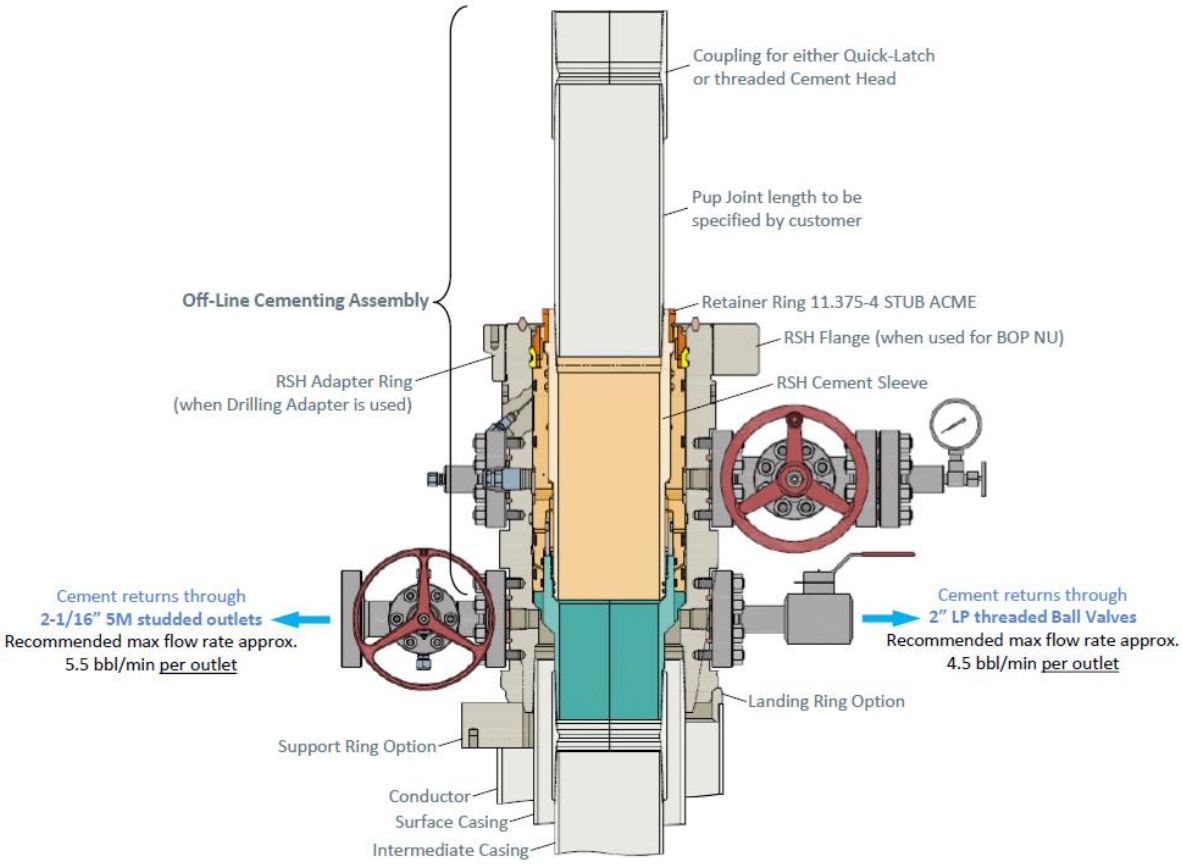

Figure 4. Vault 9 5/8" 5M offline cementing tool. Pressure rating limited by the lesser of 5M tool rating or the 9 5/8" pup joint and casing.

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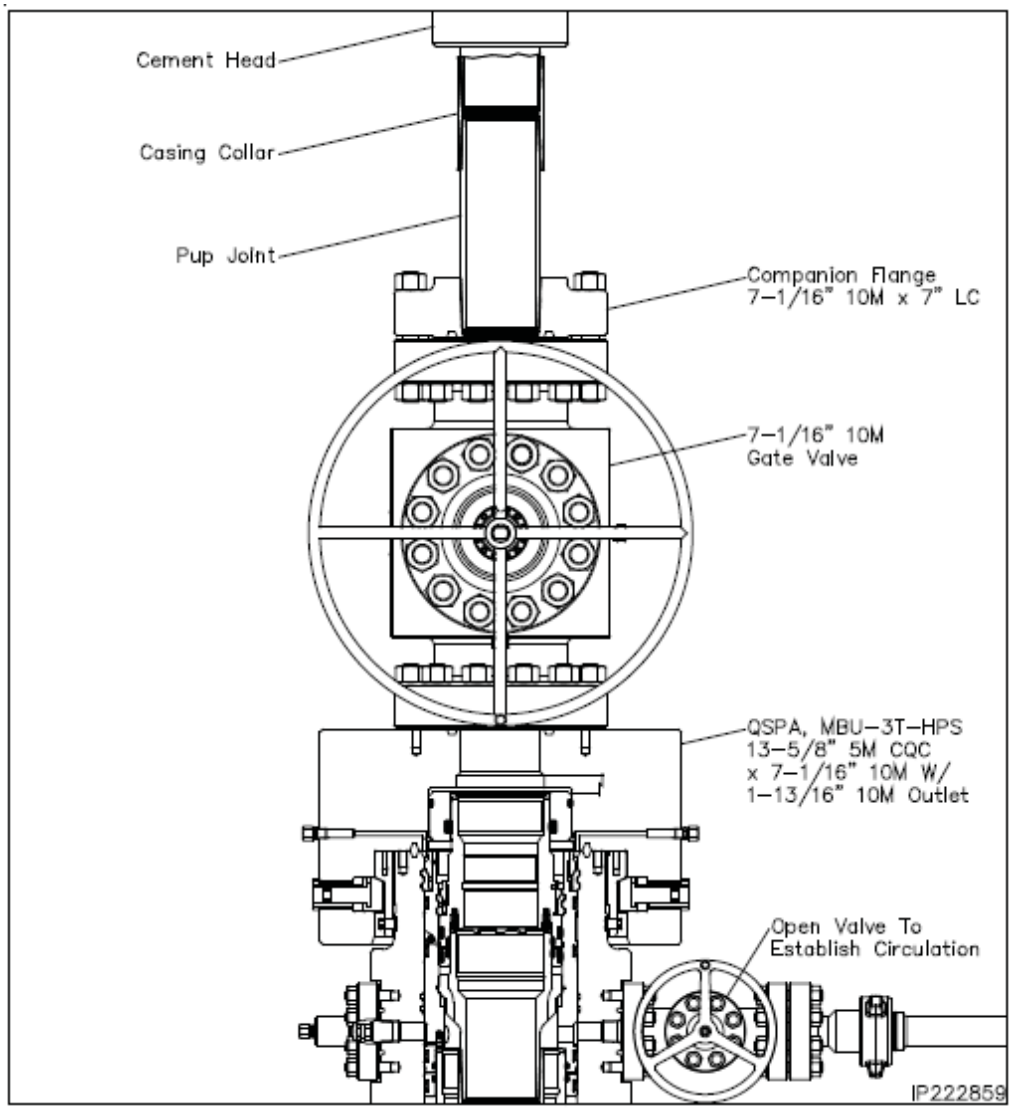

Figure 5. Cactus 7" 5M offline cementing tool. Pressure rating limited by the lesser of 5M tool rating or the 7" pup joint and casing.

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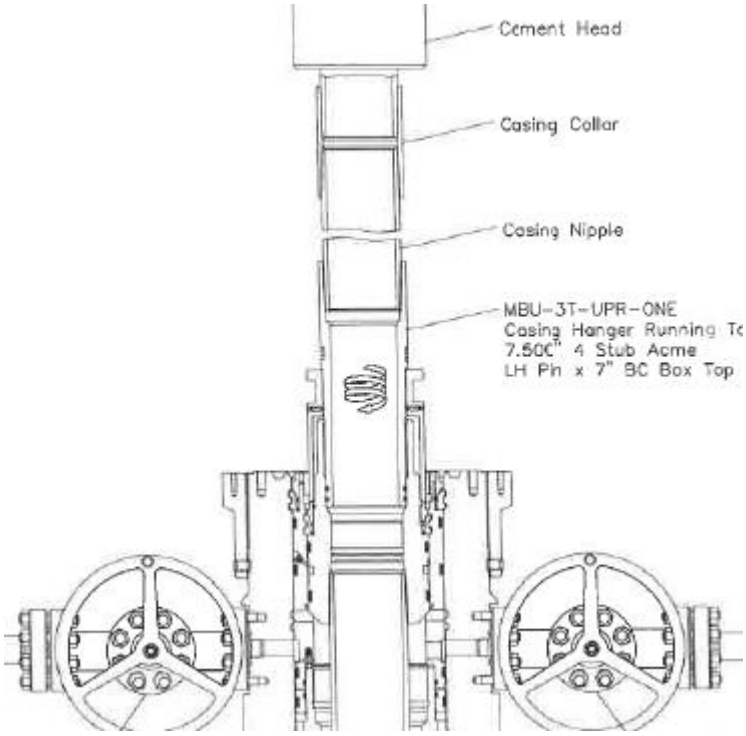

Figure 6. Cactus 7” 5M offline cementing tool. Pressure rating limited by the lesser of 5M tool rating or the 7” pup joint and casing.

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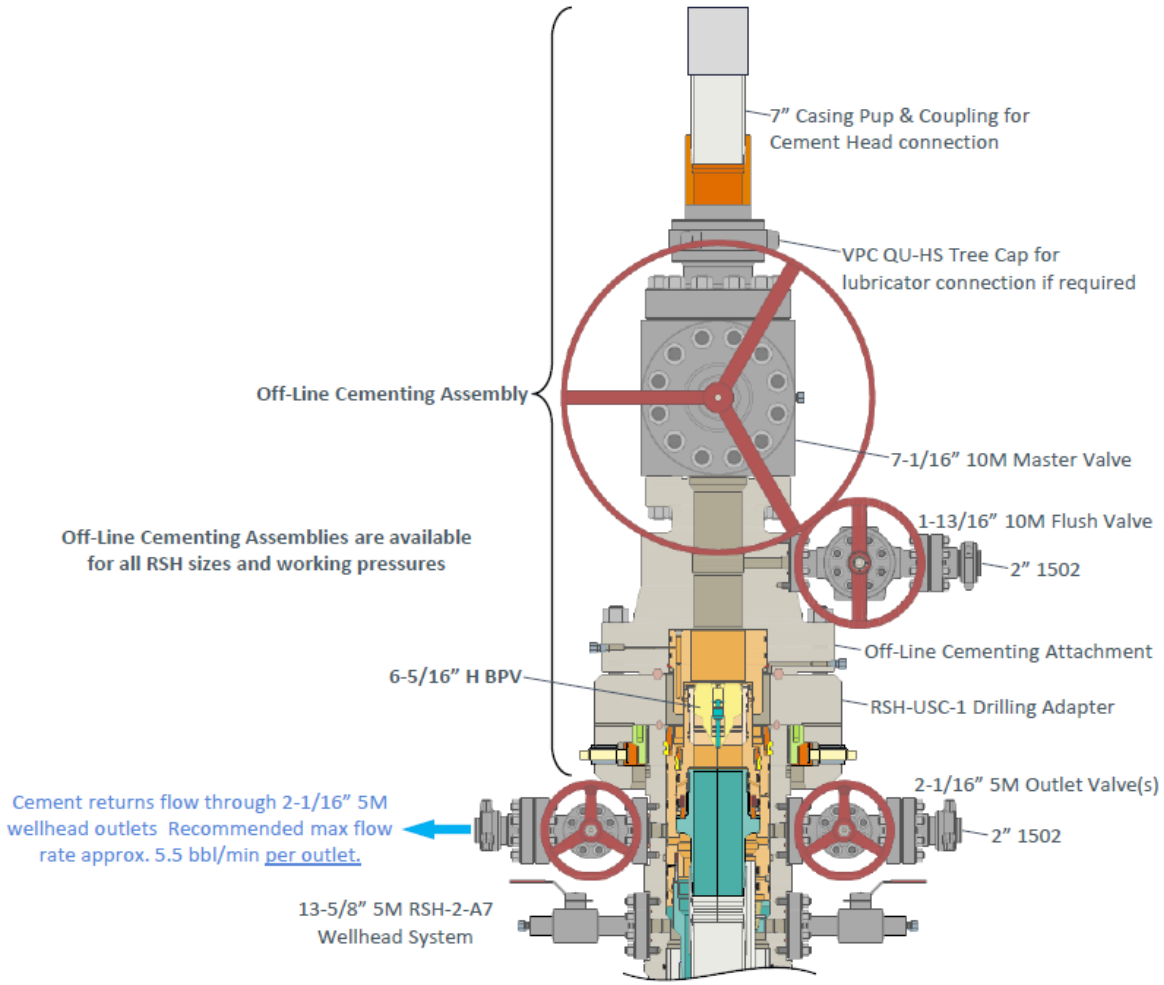

Figure 7. Vault 7" 5M offline cementing tool. Pressure rating limited by the lesser of 5M tool rating or the 7" pup joint and casing.

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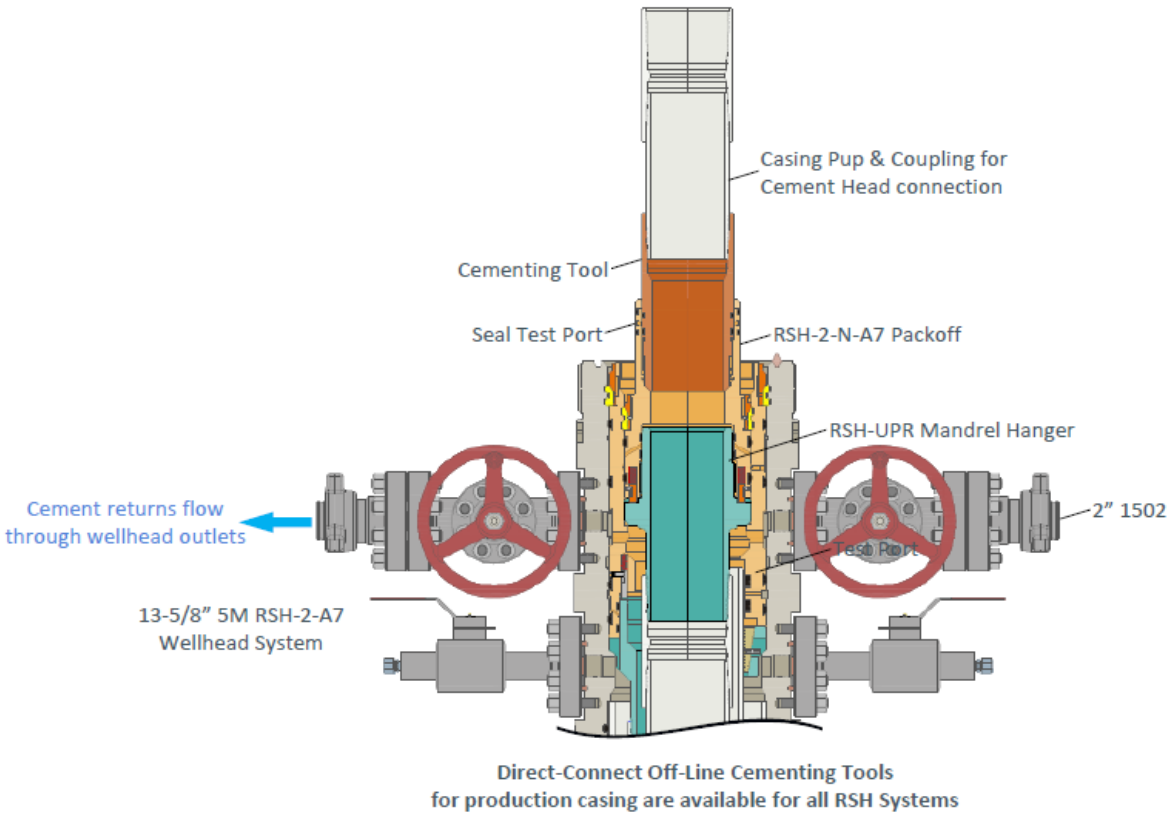

Figure 8. Vault 7" 5M offline cementing tool. Pressure rating limited by the lesser of 5M tool rating or the 7" pup joint and casing.

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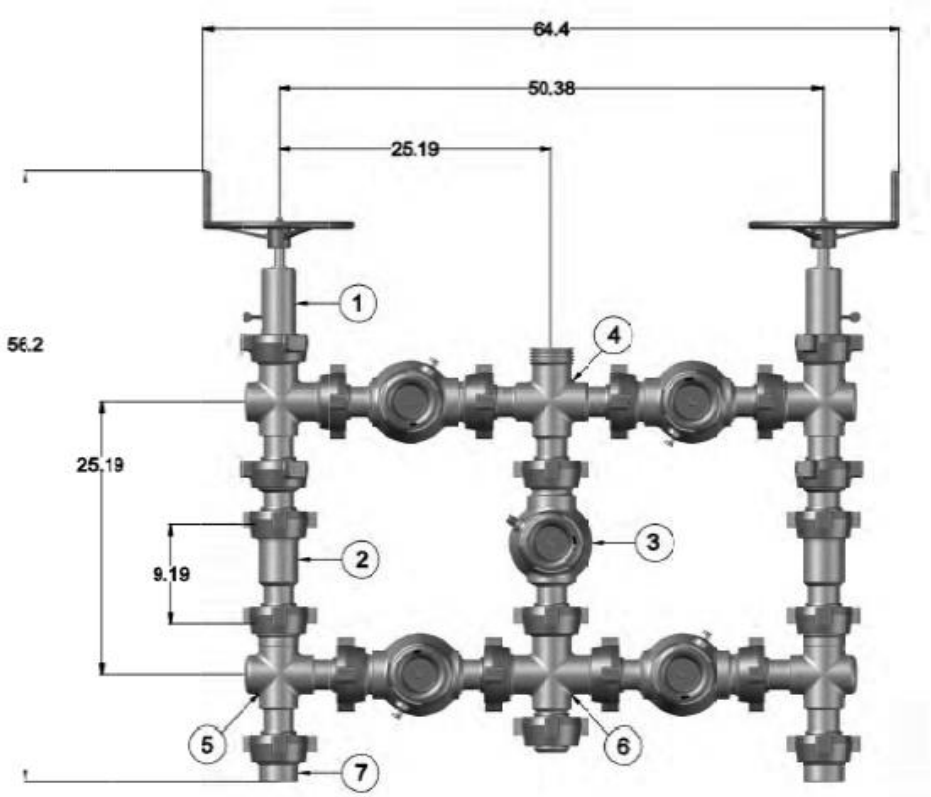

Figure 9. Five valve 15k choke manifold.

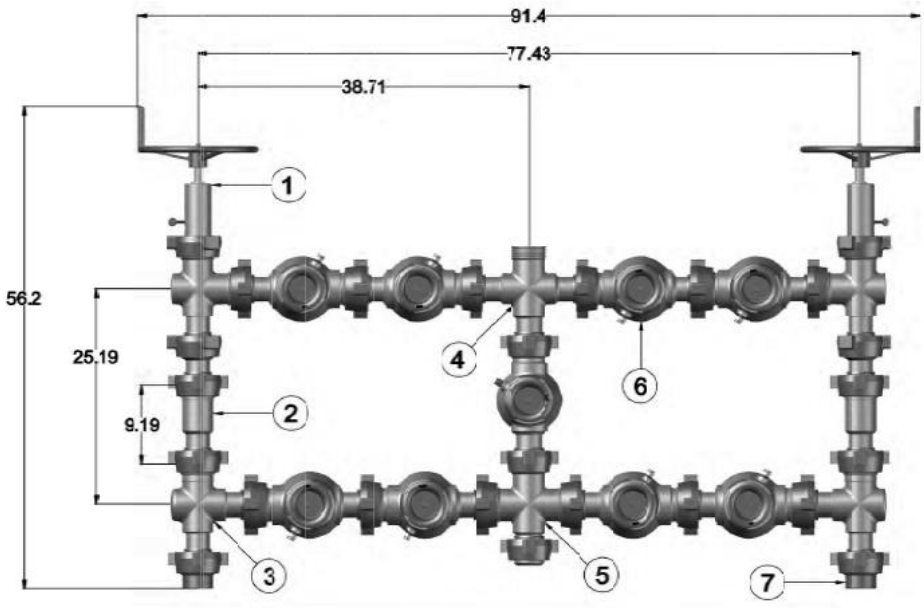

Figure 10. Nine valve 15k choke manifold.

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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* (5th 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.
2. 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.

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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.

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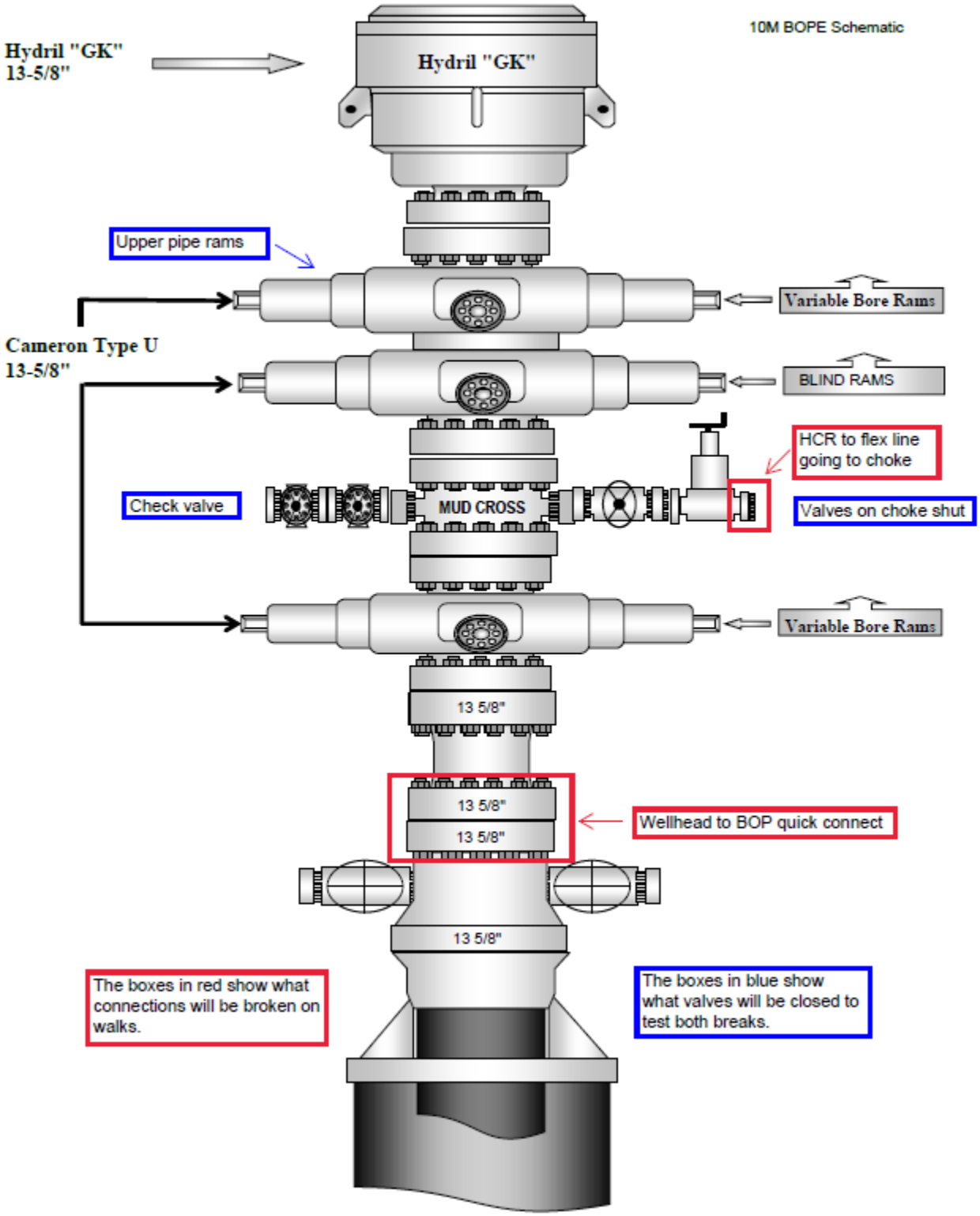

Figure 1. BOP diagram

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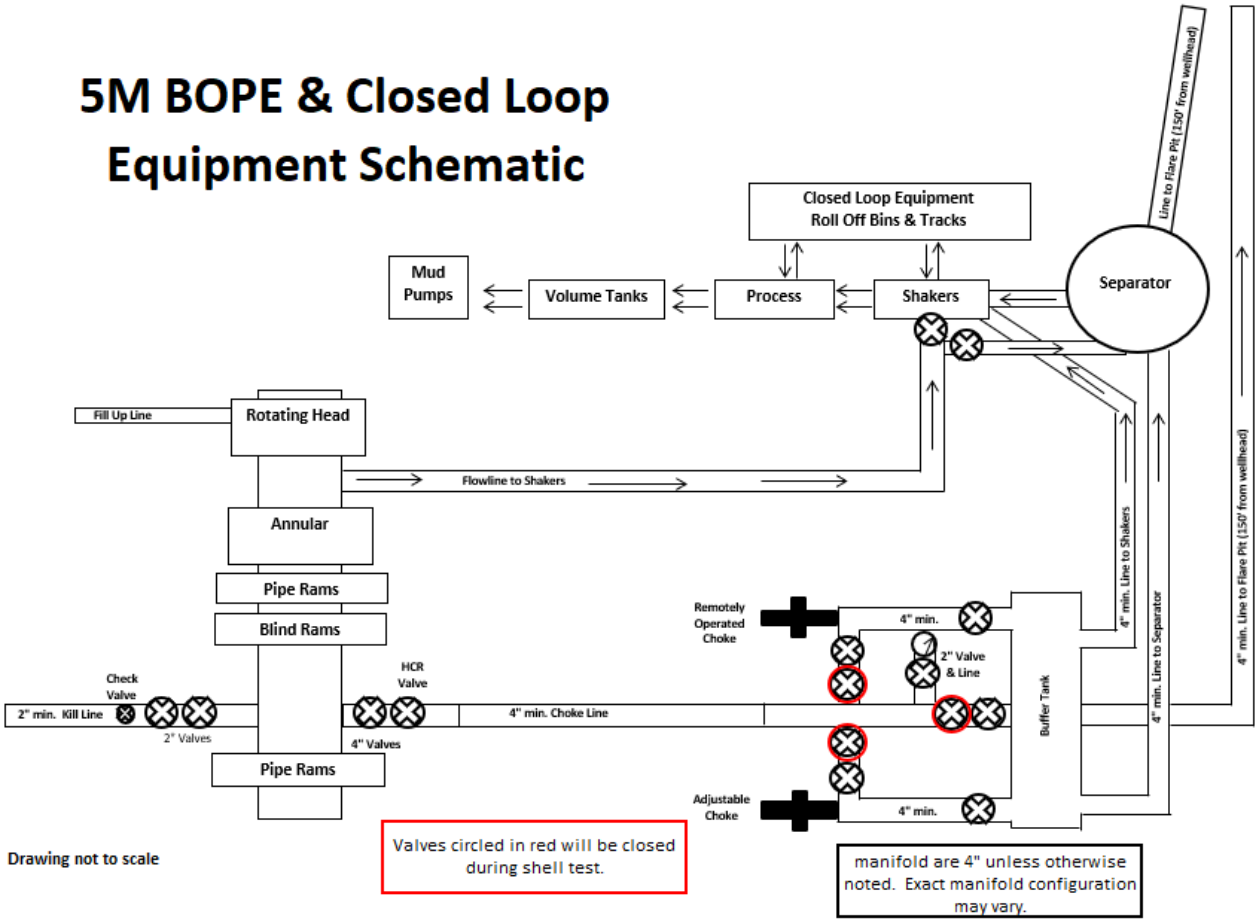

Figure 2. BOPE diagram

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Figure 3. BOP handling system

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Figure 4. BOP handling system

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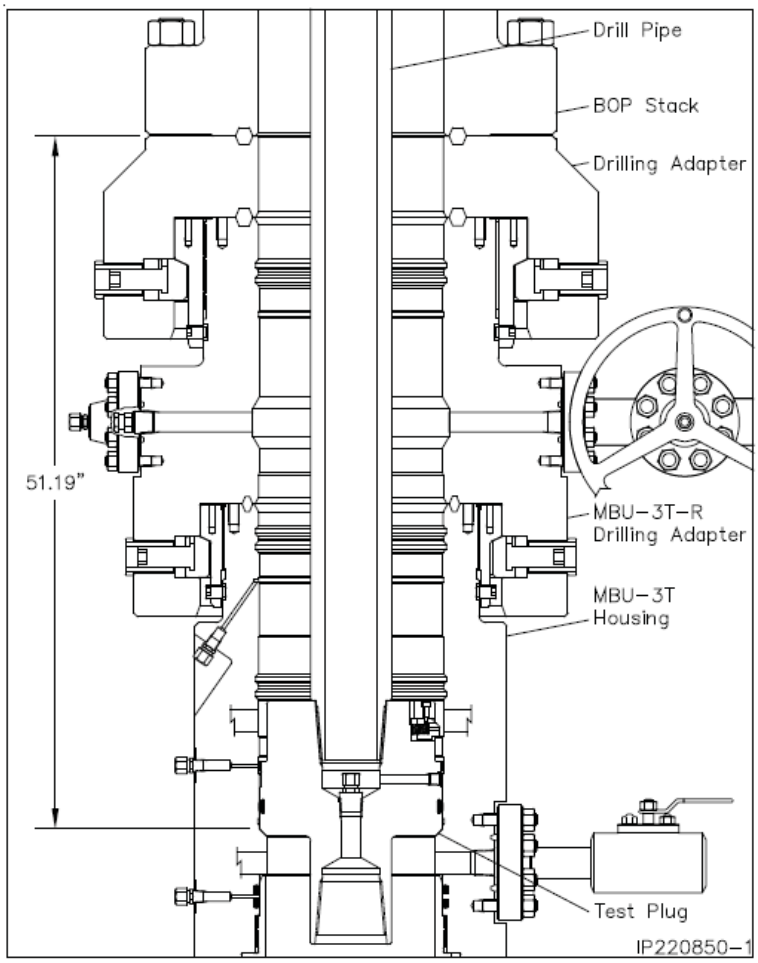

Figure 5. Cactus 5M wellhead with BOP quick connect

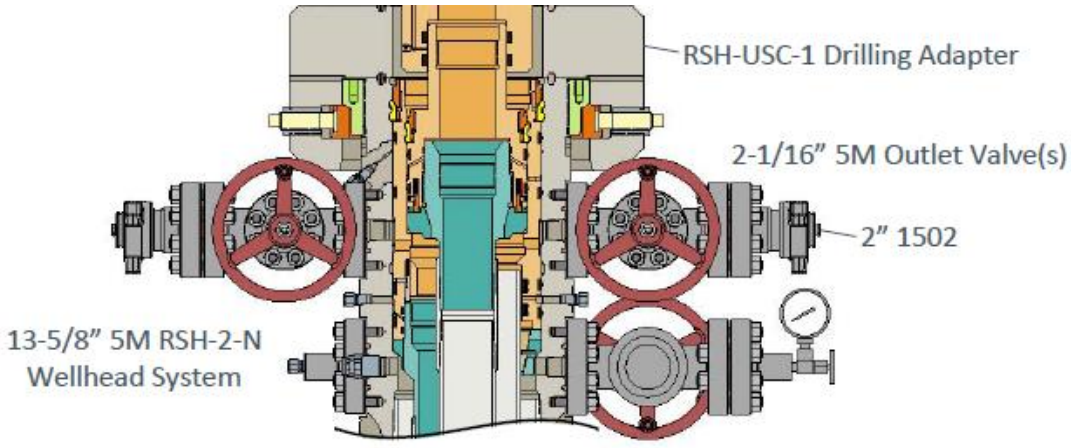

Figure 6. Vault 5M wellhead with BOP quick connect

Mewbourne Oil Company, Old Indian Draw Unit Com #4H
Sec 17, T22S, R28E
SHL: 930' FSL 205' FEL (Sec 17)
BHL: 880' FSL 100' FWL (Sec 18)

Operator Name:	Property Name:	Well Number
Mewbourne Oil Company	Old Indian Draw Unit Com	#4H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
P	17	22	28	-	880'	FSL	10'	FEL	Eddy
Latitude					Longitude				NAD
32.3877878					-104.1013679				83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
P	17	22	28	-	880'	FSL	100'	FEL	Eddy
Latitude					Longitude				NAD
32.3877894					-104.1016595				83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	18	22	28	-	880'	FSL	100'	FWL	Eddy
Latitude					Longitude				NAD
32.3879682					-104.1342148				83

Is this well the defining well for the Horizontal Spacing Unit? Y
Is this well an infill well? N

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number

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
District IV
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 348647

CONDITIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 348647
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required.	6/21/2024