Form 3160-5
(October 2024)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0220
Expires: October 31, 2027

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. NMNM31375

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.
CAPER 20/29 FED COM/455H

2. Name of Operator MEWBOURNE OIL COMPANY

9. API Well No.

3a. Address P O BOX 5270, HOBBS, NM 88241

3b. Phone No. *(include area code)* (575) 393-5905

10. Field and Pool or Exploratory Area
BILBERY BASIN/Bone Spring

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
SEC 17/T21S/R32E/NMP

11. Country or Parish, State
LEA/NM

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.)

Mewbourne Oil Company requests approval to make the following changes to the approved APD (30-025-55177, 10400098179):

1) Change SHL from 300' FSL & 1475' FWL, Sec 17, T21S, R32E to 360' FSL & 2397' FEL, Sec 17, T21S, R32E
2) Change BHL from 100' FSL & 2200' FEL, Sec 29, T21S, R32E to 100' FSL & 2120' FEL, Sec 29, T21S, R32E
3) Adjust casing & cement design as detailed in the attachment.

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
ANDY TAYLOR / Ph: (575) 393-5905

Title Engineer

Signature (Electronic Submission)

Date 10/07/2025

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by
CHRISTOPHER WALLS / Ph: (575) 234-2234 / Approved

Title Petroleum Engineer

Date 01/28/2026

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 CARLSBAD

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: SESW / 300 FSL / 1475 FWL / TWSP: 21S / RANGE: 32E / SECTION: 17 / LAT: 32.4722447 / LONG: -103.700655 (TVD: 0 feet, MD: 0 feet)

PPP: NWSE / 2641 FSL / 2200 FEL / TWSP: 21S / RANGE: 32E / SECTION: 20 / LAT: 32.46418 / LONG: -103.6954117 (TVD: 9861 feet, MD: 10388 feet)

PPP: NWNE / 100 FNL / 2200 FEL / TWSP: 21S / RANGE: 32E / SECTION: 20 / LAT: 32.4711645 / LONG: -103.6954082 (TVD: 9861 feet, MD: 10388 feet)

BHL: SWSE / 100 FSL / 2200 FEL / TWSP: 21S / RANGE: 32E / SECTION: 29 / LAT: 32.4426753 / LONG: -103.6954205 (TVD: 9911 feet, MD: 20753 feet)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MEWBOURNE OIL COMPANY
WELL NAME & NO.:	CAPER 20/29 FED COM 455H
APD ID:	10400098179
LOCATION:	Section 17, T.21 S., R.32 E. NMP.
COUNTY:	Lea County, New Mexico

COA

H_2S	○ No		◉ Yes	
Potash / WIPP	○ None	○ Secretary	◉ R-111-Q	☑ Open Annulus
	3-String Design: Open Production Casing Annulus			☐ WIPP
Cave / Karst	◉ Low	○ Medium	○ High	○ Critical
Wellhead	○ Conventional	◉ Multibowl	○ Both	○ Diverter
Cementing	☑ Primary Squeeze	☐ Cont. Squeeze	☐ EchoMeter	☐ DV Tool
Special Req	☐ Capitan Reef	☐ Water Disposal	☑ COM	☐ Unit
Waste Prev.	○ Self-Certification	◉ Waste Min. Plan	○ APD Submitted prior to 06/10/2024	
Additional Language	☑ Flex Hose	☐ Casing Clearance	☐ Pilot Hole	☑ Break Testing
	☐ Four-String	☑ Offline Cementing	☑ Fluid-Filled	

SEE ORIGINAL COA FOR ALL OTHER REQUIREMENTS.

APD is within the R-111-Q defined boundary. Operator must follow all applicable procedures and requirements listed within the order R-111-Q.

A. CASING DESIGN

Casing Design A

1. The **13-3/8** inch surface casing shall be set at approximately **1,100 ft.** (a minimum of 25 feet (Lea 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 in.** intermediate casing shall be set at approximately **4,450 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 Potash.

   Note: The intermediate casing must be kept fluid-filled to meet minimum safety factor requirement against collapse.

3. Operator has proposed to set **7 in.** production casing at approximately **9,295 ft.** (9,288 ft. TVD). The minimum required fill of cement behind the **7 in.** production casing is:

   - Operator has proposed to cement the production casing in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage within 180 days after well completion in accordance with the R-111-Q guidelines.

     a. First stage: Operator will cement production casing with intent to bring cement to top of Brushy Canyon formation.

     b. Second stage: Operator will perform bradenhead squeeze within 180 days after completion per R-111-Q requirements. Cement shall be tie-back **at least 500 ft. into the intermediate casing and below the Marker Bed 126.** If cement does not circulate, the appropriate BLM office shall be notified.

   ❖ Operator has proposed an open annulus completion in R-111-Q. Operator shall provide a method of verification pre-completion top of cement. **Submit results to the BLM.**

   ❖ Operator must verify top of cement per R-111-Q requirements. Submit results to the BLM. If cement does not circulate, contact the appropriate BLM office. If cement does not tie-back at least 500 ft. into the previous casing shoe, the appropriate BLM office shall be notified.

   ❖ A monitored open annulus will be incorporated during completion by leaving the Intermediate Casing x Production Casing annulus un-cemented and monitored. Operator must follow **all** monitoring requirements listed within R-111-Q. Tieback shall be met within **180 days.**

- ❖ **In the event of a casing failure during completion,** the operator must contact the BLM engineer at (575-706-2779) and inspection staff (575-393-3612 Lea County).

- ❖ Pressure monitoring device and Pressure Safety Valves must be installed at surface on the open annulus for the life of the well.

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.

Casing Design B

1. The **13-3/8** inch surface casing shall be set at approximately **1,100 ft.** (a minimum of 25 feet (Lea 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 in.** intermediate casing shall be set at approximately **4,450 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 Potash.

   Note: 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.

   Note: The intermediate casing must be kept fluid-filled to meet minimum safety factor requirement against collapse.

3. Operator has proposed to set **7 in.** production casing at approximately **10,195 ft.** (9,861 ft. TVD). The minimum required fill of cement behind the **7 in.** production casing is:

- Operator has proposed to cement the production casing in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage within 180 days after well completion in accordance with the R-111-Q guidelines.

  a. First stage: Operator will cement production casing with intent to bring cement to top of Brushy Canyon formation.

  b. Second stage: Operator will perform bradenhead squeeze within 180 days after completion per R-111-Q requirements. Cement shall be tie-back **at least 500 ft. into the intermediate casing and below the Marker Bed 126.** If cement does not circulate, the appropriate BLM office shall be notified.

❖ Operator has proposed an open annulus completion in R-111-Q. Operator shall provide a method of verification pre-completion top of cement. **Submit results to the BLM.**

❖ Operator must verify top of cement per R-111-Q requirements. Submit results to the BLM. If cement does not circulate, contact the appropriate BLM office. If cement does not tie-back at least 500 ft. into the previous casing shoe, the appropriate BLM office shall be notified.

❖ A monitored open annulus will be incorporated during completion by leaving the Intermediate Casing x Production Casing annulus un-cemented and monitored. Operator must follow **all** monitoring requirements listed within R-111-Q. Tieback shall be met within **180 days.**

❖ **In the event of a casing failure during completion,** the operator must contact the BLM engineer at (575-706-2779) and inspection staff (575-393-3612 Lea County).

❖ Pressure monitoring device and Pressure Safety Valves must be installed at surface on the open annulus for the life of the well.

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.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:
a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

Contact Lea County Petroleum Engineering Inspection Staff:
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
      i. Notify the BLM when moving in and removing the Spudder Rig.
      ii. 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.
      iii. BOP/BOPE test to be conducted per **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 doghouse or stairway area.
3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

A. CASING & CEMENTING

1. The current acceptable methods of cement verification are as follows:
   i. Observing cement circulated to surface,
   ii. Cement Bond Log (CBL),
   iii. Temperature log within 8-10 hours after completing the cement job,
   iv. Echometer (if a second-stage bradenhead is being utilized and operator was granted approval prior to operations.)

2. 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.

3. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the

following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. 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.
5. 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.
6. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
7. 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.
8. 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.
9. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR 3172**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for

review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
    i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    iii. Manufacturer representative shall install the test plug for the initial BOP test.
    iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
    v. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
    i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
    ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (Only applies to single stage cement jobs, prior to the cement setting up.)
    iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with

the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

iv. The test shall be run on a 5000-psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one-hour chart. A circular chart shall have a maximum 2-hour clock. If a twelve hour or twenty-four-hour chart is used, tester shall make a notation that it is run with a two hour clock.

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

vi. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

vii. The BOP/BOPE test shall include a low-pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

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

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

SA 01/07/2026

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024 Submittal Type: ☐ Initial Submittal ☑ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-025-55177	5695	BILBREY BASIN; BONE SPRING

Property Code	Property Name	Well Number
336069	CAPER 20/29 FED COM	455H

OGRID No.	Operator Name	Ground Level Elevation
14744	MEWBOURNE OIL COMPANY	3638'

Surface Owner: ☐ State ☐ Fee ☐ Tribal ☑ Federal | Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☑ Federal

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
O	17	21S	32E		360 FSL	2397 FEL	32.4724262°N	103.6960444°W	LEA

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
O	29	21S	32E		100 FSL	2120 FEL	32.4426763°N	103.6951612°W	LEA

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
640	INFILL	~~30-025-50028~~	N	C

Order Numbers. N/A | Well setbacks are under Common Ownership: ☑ Yes ☐ No

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
O	17	21S	32E		473 FSL	2120 FEL	32.4727399°N	103.6951464°W	LEA

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
B	20	21S	32E		100 FNL	2120 FEL	32.4711653°N	103.6951465°W	LEA

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
O	29	21S	32E		100 FSL	2120 FEL	32.4426763°N	103.6951612°W	LEA

Unitized Area or Area of Uniform Interest	Spacing Unit Type ☑ Horizontal ☐ Vertical	Ground Floor Elevation:
N/A		3638'

OPERATOR CERTIFICATIONS

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and , if the well is a vertical or directional well, 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 a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Andrew W Taylor — 10/6/2025

Signature — Date

Andrew Taylor

Printed Name

ataylor@mewbourne.com

Email Address

SURVEYOR CERTIFICATIONS

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

ROBERT M. HOWETT NEW MEXICO 19680 PROFESSIONAL SURVEYOR

Signature and Seal of Professional Surveyor

Robert M. Howett

Certificate Number	Date of Survey
19680	09/16/2025

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

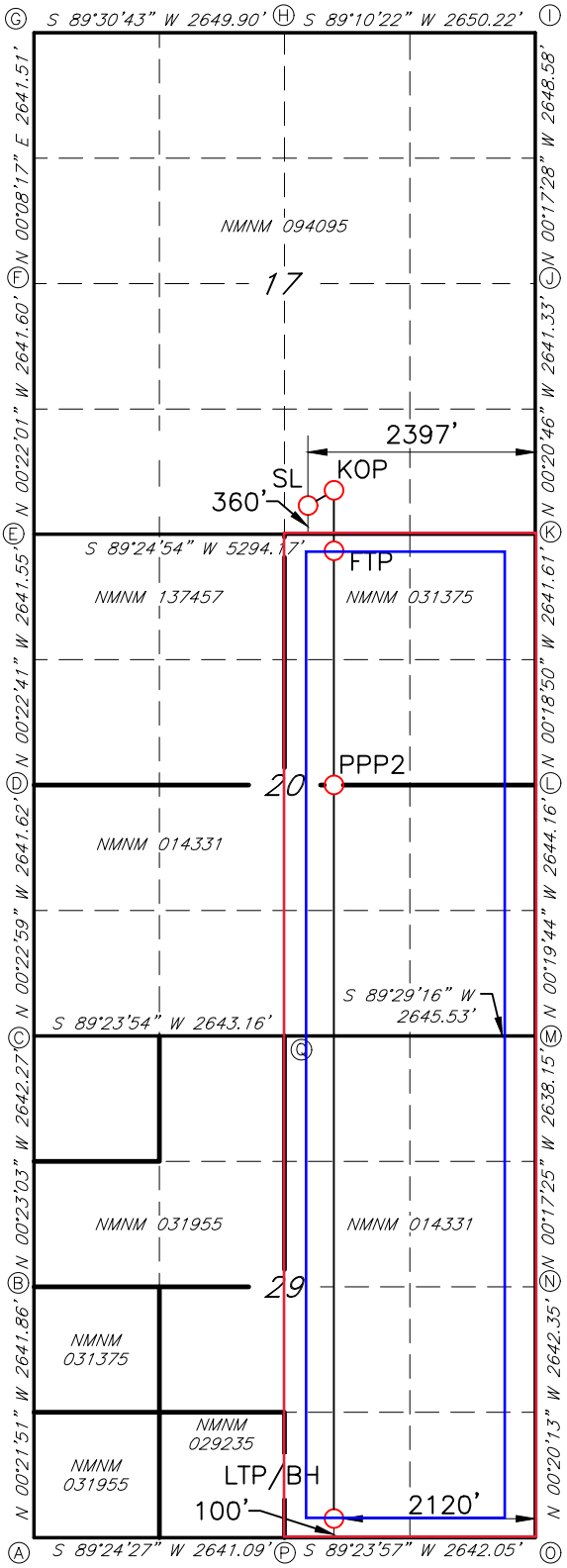
JOB #: LS25060540R1

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is a directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.

CAPER 20/29 FED COM #455H



GEODETIC DATA
NAD 83 GRID – NM EAST

SURFACE LOCATION (SL)
360' FSL & 2397' FEL (SEC.17)
N: 536186.4 – E: 737871.5

LAT: 32.4724262° N
LONG: 103.6960444° W

KICK OFF POINT (KOP)
473' FSL & 2120' FEL (SEC.17)
N: 536302.2 – E: 738147.8

LAT: 32.4727399° N
LONG: 103.6951464° W

FIRST TAKE POINT (FTP)
100' FNL & 2120' FEL (SEC.20)
N: 535729.3 – E: 738151.2

LAT: 32.4711653° N
LONG: 103.6951465° W

PROPOSED PENETRATION POINT 2 (PPP2)
2642' FNL & 2120' FEL (SEC.20)
N: 533188.3 – E: 738165.3

LAT: 32.4641808° N
LONG: 103.6951501° W

LAST TAKE POINT/BOTTOM HOLE (LTP/BH)
100' FSL & 2120' FEL (SEC.29)
N: 525364.9 – E: 738208.6

LAT: 32.4426763° N
LONG: 103.6951612° W

CORNER DATA
NAD 83 GRID – NM EAST

A: FOUND BRASS CAP "1916"
N: 525232.1 – E: 735046.9

B: FOUND BRASS CAP "1916"
N: 527873.3 – E: 735030.1

C: FOUND BRASS CAP "1916"
N: 530515.0 – E: 735012.4

D: FOUND BRASS CAP "1916"
N: 533156.0 – E: 734994.8

E: FOUND BRASS CAP "1916"
N: 535796.9 – E: 734977.4

F: FOUND BRASS CAP "1916"
N: 538437.8 – E: 734960.4

G: CALCULATED CORNER
N: 541078.8 – E: 734942.1

H: FOUND BRASS CAP "1916"
N: 541101.3 – E: 737591.3

I: FOUND BRASS CAP "1916"
N: 541139.6 – E: 740240.7

J: FOUND BRASS CAP "1916"
N: 538491.6 – E: 740254.1

K: FOUND BRASS CAP "1916"
N: 535850.9 – E: 740270.1

L: FOUND BRASS CAP "1916"
N: 533209.9 – E: 740284.5

M: FOUND BRASS CAP "1916"
N: 530566.4 – E: 740299.7

N: FOUND BRASS CAP "1916"
N: 527928.8 – E: 740313.1

O: FOUND BRASS CAP "1916"
N: 525287.1 – E: 740328.6

P: FOUND BRASS CAP "1916"
N: 525259.4 – E: 737687.3

Q: FOUND BRASS CAP "1916"
N: 530542.7 – E: 737654.9

Mewbourne Oil Company

Lea County, New Mexico NAD 83
Caper 20/29 Fed Com #455H
Sec 17, T21S, R32E
SHL: 360' FSL & 2397' FEL, Sec 17
BHL: 100' FSL & 2120' FEL, Sec 29

Plan: Design #1

Standard Planning Report

06 October, 2025

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Caper 20/29 Fed Com #455H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3666.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	**MD Reference:**	WELL @ 3666.0usft (Original Well Elev)
Site:	Caper 20/29 Fed Com #455H	**North Reference:**	Grid
Well:	Sec 17, T21S, R32E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FSL & 2120' FEL, Sec 29		
Design:	Design #1		

Project Lea County, New Mexico NAD 83

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Caper 20/29 Fed Com #455H

Site Position:		**Northing:**	536,186.40 usft	**Latitude:**	32.4724263
From:	Map	**Easting:**	737,871.50 usft	**Longitude:**	-103.6960445
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "		

Well Sec 17, T21S, R32E

Well Position	**+N/-S**	0.0 usft	**Northing:**	536,186.40 usft	**Latitude:**	32.4724263
	+E/-W	0.0 usft	**Easting:**	737,871.50 usft	**Longitude:**	-103.6960445
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	3,666.0 usft	**Ground Level:**	3,638.0 usft
Grid Convergence:		0.34 °				

Wellbore BHL: 100' FSL & 2120' FEL, Sec 29

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/31/2014	7.22	60.31	48,396.40815608

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	178.22

Plan Survey Tool Program **Date** 10/6/2025

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	20,559.3	Design #1 (BHL: 100' FSL & 2120		

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	
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,526.9	2.54	67.26	2,526.8	1.1	2.6	2.00	2.00	0.00	67.26	
9,167.8	2.54	67.26	9,161.2	114.7	273.7	0.00	0.00	0.00	0.00	
9,294.6	0.00	0.00	9,288.0	115.8	276.3	2.00	-2.00	0.00	180.00	KOP: 473' FSL & 212(
10,191.9	89.72	179.68	9,861.0	-454.4	279.5	10.00	10.00	0.00	179.68	
20,559.3	89.72	179.68	9,911.0	-10,821.5	337.1	0.00	0.00	0.00	0.00	BHL: 100' FSL & 212(

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Caper 20/29 Fed Com #455H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3666.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	**MD Reference:**	WELL @ 3666.0usft (Original Well Elev)
Site:	Caper 20/29 Fed Com #455H	**North Reference:**	Grid
Well:	Sec 17, T21S, R32E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FSL & 2120' FEL, Sec 29		
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: 360' FSL & 2397' FEL (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
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	2.00	67.26	2,500.0	0.7	1.6	-0.6	2.00	2.00	0.00
2,526.9	2.54	67.26	2,526.8	1.1	2.6	-1.0	2.00	2.00	0.00
2,600.0	2.54	67.26	2,599.9	2.3	5.6	-2.2	0.00	0.00	0.00
2,700.0	2.54	67.26	2,699.8	4.0	9.7	-3.7	0.00	0.00	0.00
2,800.0	2.54	67.26	2,799.7	5.8	13.7	-5.3	0.00	0.00	0.00
2,900.0	2.54	67.26	2,899.6	7.5	17.8	-6.9	0.00	0.00	0.00
3,000.0	2.54	67.26	2,999.5	9.2	21.9	-8.5	0.00	0.00	0.00
3,100.0	2.54	67.26	3,099.4	10.9	26.0	-10.1	0.00	0.00	0.00
3,200.0	2.54	67.26	3,199.3	12.6	30.1	-11.7	0.00	0.00	0.00
3,300.0	2.54	67.26	3,299.2	14.3	34.2	-13.2	0.00	0.00	0.00
3,400.0	2.54	67.26	3,399.1	16.0	38.2	-14.8	0.00	0.00	0.00
3,500.0	2.54	67.26	3,499.0	17.7	42.3	-16.4	0.00	0.00	0.00
3,600.0	2.54	67.26	3,598.9	19.4	46.4	-18.0	0.00	0.00	0.00
3,700.0	2.54	67.26	3,698.8	21.2	50.5	-19.6	0.00	0.00	0.00
3,800.0	2.54	67.26	3,798.7	22.9	54.6	-21.2	0.00	0.00	0.00
3,900.0	2.54	67.26	3,898.6	24.6	58.6	-22.7	0.00	0.00	0.00
4,000.0	2.54	67.26	3,998.5	26.3	62.7	-24.3	0.00	0.00	0.00
4,100.0	2.54	67.26	4,098.4	28.0	66.8	-25.9	0.00	0.00	0.00
4,200.0	2.54	67.26	4,198.3	29.7	70.9	-27.5	0.00	0.00	0.00
4,300.0	2.54	67.26	4,298.2	31.4	75.0	-29.1	0.00	0.00	0.00
4,400.0	2.54	67.26	4,398.1	33.1	79.1	-30.7	0.00	0.00	0.00
4,500.0	2.54	67.26	4,498.0	34.8	83.1	-32.2	0.00	0.00	0.00
4,600.0	2.54	67.26	4,597.9	36.6	87.2	-33.8	0.00	0.00	0.00
4,700.0	2.54	67.26	4,697.8	38.3	91.3	-35.4	0.00	0.00	0.00
4,800.0	2.54	67.26	4,797.7	40.0	95.4	-37.0	0.00	0.00	0.00
4,900.0	2.54	67.26	4,897.6	41.7	99.5	-38.6	0.00	0.00	0.00
5,000.0	2.54	67.26	4,997.5	43.4	103.6	-40.2	0.00	0.00	0.00
5,100.0	2.54	67.26	5,097.4	45.1	107.6	-41.7	0.00	0.00	0.00

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Caper 20/29 Fed Com #455H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3666.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	**MD Reference:**	WELL @ 3666.0usft (Original Well Elev)
Site:	Caper 20/29 Fed Com #455H	**North Reference:**	Grid
Well:	Sec 17, T21S, R32E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FSL & 2120' FEL, Sec 29		
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)
5,200.0	2.54	67.26	5,197.3	46.8	111.7	-43.3	0.00	0.00	0.00
5,300.0	2.54	67.26	5,297.2	48.5	115.8	-44.9	0.00	0.00	0.00
5,400.0	2.54	67.26	5,397.1	50.2	119.9	-46.5	0.00	0.00	0.00
5,500.0	2.54	67.26	5,497.0	52.0	124.0	-48.1	0.00	0.00	0.00
5,600.0	2.54	67.26	5,596.9	53.7	128.1	-49.7	0.00	0.00	0.00
5,700.0	2.54	67.26	5,696.8	55.4	132.1	-51.2	0.00	0.00	0.00
5,800.0	2.54	67.26	5,796.8	57.1	136.2	-52.8	0.00	0.00	0.00
5,900.0	2.54	67.26	5,896.7	58.8	140.3	-54.4	0.00	0.00	0.00
6,000.0	2.54	67.26	5,996.6	60.5	144.4	-56.0	0.00	0.00	0.00
6,100.0	2.54	67.26	6,096.5	62.2	148.5	-57.6	0.00	0.00	0.00
6,200.0	2.54	67.26	6,196.4	63.9	152.5	-59.2	0.00	0.00	0.00
6,300.0	2.54	67.26	6,296.3	65.6	156.6	-60.7	0.00	0.00	0.00
6,400.0	2.54	67.26	6,396.2	67.4	160.7	-62.3	0.00	0.00	0.00
6,500.0	2.54	67.26	6,496.1	69.1	164.8	-63.9	0.00	0.00	0.00
6,600.0	2.54	67.26	6,596.0	70.8	168.9	-65.5	0.00	0.00	0.00
6,700.0	2.54	67.26	6,695.9	72.5	173.0	-67.1	0.00	0.00	0.00
6,800.0	2.54	67.26	6,795.8	74.2	177.0	-68.7	0.00	0.00	0.00
6,900.0	2.54	67.26	6,895.7	75.9	181.1	-70.2	0.00	0.00	0.00
7,000.0	2.54	67.26	6,995.6	77.6	185.2	-71.8	0.00	0.00	0.00
7,100.0	2.54	67.26	7,095.5	79.3	189.3	-73.4	0.00	0.00	0.00
7,200.0	2.54	67.26	7,195.4	81.0	193.4	-75.0	0.00	0.00	0.00
7,300.0	2.54	67.26	7,295.3	82.8	197.5	-76.6	0.00	0.00	0.00
7,400.0	2.54	67.26	7,395.2	84.5	201.5	-78.2	0.00	0.00	0.00
7,500.0	2.54	67.26	7,495.1	86.2	205.6	-79.7	0.00	0.00	0.00
7,600.0	2.54	67.26	7,595.0	87.9	209.7	-81.3	0.00	0.00	0.00
7,700.0	2.54	67.26	7,694.9	89.6	213.8	-82.9	0.00	0.00	0.00
7,800.0	2.54	67.26	7,794.8	91.3	217.9	-84.5	0.00	0.00	0.00
7,900.0	2.54	67.26	7,894.7	93.0	222.0	-86.1	0.00	0.00	0.00
8,000.0	2.54	67.26	7,994.6	94.7	226.0	-87.6	0.00	0.00	0.00
8,100.0	2.54	67.26	8,094.5	96.4	230.1	-89.2	0.00	0.00	0.00
8,200.0	2.54	67.26	8,194.4	98.2	234.2	-90.8	0.00	0.00	0.00
8,300.0	2.54	67.26	8,294.3	99.9	238.3	-92.4	0.00	0.00	0.00
8,400.0	2.54	67.26	8,394.2	101.6	242.4	-94.0	0.00	0.00	0.00
8,500.0	2.54	67.26	8,494.1	103.3	246.4	-95.6	0.00	0.00	0.00
8,600.0	2.54	67.26	8,594.0	105.0	250.5	-97.1	0.00	0.00	0.00
8,700.0	2.54	67.26	8,693.9	106.7	254.6	-98.7	0.00	0.00	0.00
8,800.0	2.54	67.26	8,793.8	108.4	258.7	-100.3	0.00	0.00	0.00
8,900.0	2.54	67.26	8,893.7	110.1	262.8	-101.9	0.00	0.00	0.00
9,000.0	2.54	67.26	8,993.6	111.8	266.9	-103.5	0.00	0.00	0.00
9,100.0	2.54	67.26	9,093.5	113.6	270.9	-105.1	0.00	0.00	0.00
9,167.8	2.54	67.26	9,161.2	114.7	273.7	-106.1	0.00	0.00	0.00
9,200.0	1.89	67.26	9,193.4	115.2	274.9	-106.6	2.00	-2.00	0.00
9,294.6	0.00	0.00	9,288.0	115.8	276.3	-107.1	2.00	-2.00	0.00
KOP: 473' FSL & 2120' FEL (17)									
9,300.0	0.54	179.68	9,293.4	115.8	276.3	-107.1	10.00	10.00	0.00
9,350.0	5.54	179.68	9,343.3	113.1	276.3	-104.5	10.00	10.00	0.00
9,400.0	10.54	179.68	9,392.8	106.1	276.4	-97.5	10.00	10.00	0.00
9,450.0	15.54	179.68	9,441.5	94.9	276.4	-86.2	10.00	10.00	0.00
9,500.0	20.54	179.68	9,489.0	79.4	276.5	-70.7	10.00	10.00	0.00
9,550.0	25.54	179.68	9,535.0	59.8	276.6	-51.2	10.00	10.00	0.00
9,600.0	30.54	179.68	9,579.2	36.3	276.7	-27.7	10.00	10.00	0.00
9,650.0	35.54	179.68	9,621.1	9.1	276.9	-0.5	10.00	10.00	0.00
9,700.0	40.54	179.68	9,660.4	-21.7	277.1	30.3	10.00	10.00	0.00

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Caper 20/29 Fed Com #455H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3666.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	**MD Reference:**	WELL @ 3666.0usft (Original Well Elev)
Site:	Caper 20/29 Fed Com #455H	**North Reference:**	Grid
Well:	Sec 17, T21S, R32E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FSL & 2120' FEL, Sec 29		
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)
9,750.0	45.54	179.68	9,697.0	-55.8	277.3	64.4	10.00	10.00	0.00
9,800.0	50.54	179.68	9,730.4	-93.0	277.5	101.6	10.00	10.00	0.00
9,850.0	55.54	179.68	9,760.4	-132.9	277.7	141.5	10.00	10.00	0.00
9,900.0	60.54	179.68	9,786.9	-175.3	277.9	183.9	10.00	10.00	0.00
9,950.0	65.54	179.68	9,809.6	-219.9	278.2	228.4	10.00	10.00	0.00
10,000.0	70.54	179.68	9,828.3	-266.2	278.4	274.8	10.00	10.00	0.00
10,050.0	75.54	179.68	9,842.8	-314.0	278.7	322.6	10.00	10.00	0.00
10,100.0	80.54	179.68	9,853.2	-362.9	279.0	371.5	10.00	10.00	0.00
10,150.0	85.54	179.68	9,859.3	-412.6	279.2	421.1	10.00	10.00	0.00
10,191.9	89.72	179.68	9,861.0	-454.4	279.5	462.9	10.00	10.00	0.00
10,194.6	89.72	179.68	9,861.0	-457.1	279.5	465.6	0.00	0.00	0.00
FTP/LP: 100' FNL & 2120' FEL (20)									
10,200.0	89.72	179.68	9,861.0	-462.5	279.5	471.0	0.00	0.00	0.00
10,300.0	89.72	179.68	9,861.5	-562.5	280.1	571.0	0.00	0.00	0.00
10,400.0	89.72	179.68	9,862.0	-662.5	280.6	670.9	0.00	0.00	0.00
10,500.0	89.72	179.68	9,862.5	-762.5	281.2	770.9	0.00	0.00	0.00
10,600.0	89.72	179.68	9,863.0	-862.5	281.7	870.9	0.00	0.00	0.00
10,700.0	89.72	179.68	9,863.5	-962.5	282.3	970.8	0.00	0.00	0.00
10,800.0	89.72	179.68	9,863.9	-1,062.5	282.9	1,070.8	0.00	0.00	0.00
10,900.0	89.72	179.68	9,864.4	-1,162.5	283.4	1,170.8	0.00	0.00	0.00
11,000.0	89.72	179.68	9,864.9	-1,262.5	284.0	1,270.7	0.00	0.00	0.00
11,100.0	89.72	179.68	9,865.4	-1,362.5	284.5	1,370.7	0.00	0.00	0.00
11,200.0	89.72	179.68	9,865.9	-1,462.5	285.1	1,470.7	0.00	0.00	0.00
11,300.0	89.72	179.68	9,866.3	-1,562.5	285.6	1,570.6	0.00	0.00	0.00
11,400.0	89.72	179.68	9,866.8	-1,662.5	286.2	1,670.6	0.00	0.00	0.00
11,500.0	89.72	179.68	9,867.3	-1,762.5	286.7	1,770.5	0.00	0.00	0.00
11,600.0	89.72	179.68	9,867.8	-1,862.5	287.3	1,870.5	0.00	0.00	0.00
11,700.0	89.72	179.68	9,868.3	-1,962.5	287.9	1,970.5	0.00	0.00	0.00
11,800.0	89.72	179.68	9,868.8	-2,062.5	288.4	2,070.4	0.00	0.00	0.00
11,900.0	89.72	179.68	9,869.2	-2,162.5	289.0	2,170.4	0.00	0.00	0.00
12,000.0	89.72	179.68	9,869.7	-2,262.5	289.5	2,270.4	0.00	0.00	0.00
12,100.0	89.72	179.68	9,870.2	-2,362.5	290.1	2,370.3	0.00	0.00	0.00
12,200.0	89.72	179.68	9,870.7	-2,462.5	290.6	2,470.3	0.00	0.00	0.00
12,300.0	89.72	179.68	9,871.2	-2,562.5	291.2	2,570.3	0.00	0.00	0.00
12,400.0	89.72	179.68	9,871.6	-2,662.5	291.7	2,670.2	0.00	0.00	0.00
12,500.0	89.72	179.68	9,872.1	-2,762.4	292.3	2,770.2	0.00	0.00	0.00
12,600.0	89.72	179.68	9,872.6	-2,862.4	292.9	2,870.2	0.00	0.00	0.00
12,700.0	89.72	179.68	9,873.1	-2,962.4	293.4	2,970.1	0.00	0.00	0.00
12,735.7	89.72	179.68	9,873.3	-2,998.1	293.6	3,005.8	0.00	0.00	0.00
PPP2: 2642' FNL & 2120' FEL (20)									
12,800.0	89.72	179.68	9,873.6	-3,062.4	294.0	3,070.1	0.00	0.00	0.00
12,900.0	89.72	179.68	9,874.1	-3,162.4	294.5	3,170.1	0.00	0.00	0.00
13,000.0	89.72	179.68	9,874.5	-3,262.4	295.1	3,270.0	0.00	0.00	0.00
13,100.0	89.72	179.68	9,875.0	-3,362.4	295.6	3,370.0	0.00	0.00	0.00
13,200.0	89.72	179.68	9,875.5	-3,462.4	296.2	3,470.0	0.00	0.00	0.00
13,300.0	89.72	179.68	9,876.0	-3,562.4	296.7	3,569.9	0.00	0.00	0.00
13,400.0	89.72	179.68	9,876.5	-3,662.4	297.3	3,669.9	0.00	0.00	0.00
13,500.0	89.72	179.68	9,877.0	-3,762.4	297.9	3,769.9	0.00	0.00	0.00
13,600.0	89.72	179.68	9,877.4	-3,862.4	298.4	3,869.8	0.00	0.00	0.00
13,700.0	89.72	179.68	9,877.9	-3,962.4	299.0	3,969.8	0.00	0.00	0.00
13,800.0	89.72	179.68	9,878.4	-4,062.4	299.5	4,069.8	0.00	0.00	0.00
13,900.0	89.72	179.68	9,878.9	-4,162.4	300.1	4,169.7	0.00	0.00	0.00
14,000.0	89.72	179.68	9,879.4	-4,262.4	300.6	4,269.7	0.00	0.00	0.00
14,100.0	89.72	179.68	9,879.8	-4,362.4	301.2	4,369.7	0.00	0.00	0.00

Planning Report

Database:	Hobbs	**Local Co-ordinate Reference:**	Site Caper 20/29 Fed Com #455H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3666.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	**MD Reference:**	WELL @ 3666.0usft (Original Well Elev)
Site:	Caper 20/29 Fed Com #455H	**North Reference:**	Grid
Well:	Sec 17, T21S, R32E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FSL & 2120' FEL, Sec 29		
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	89.72	179.68	9,880.3	-4,462.4	301.8	4,469.6	0.00	0.00	0.00
14,300.0	89.72	179.68	9,880.8	-4,562.4	302.3	4,569.6	0.00	0.00	0.00
14,400.0	89.72	179.68	9,881.3	-4,662.4	302.9	4,669.6	0.00	0.00	0.00
14,500.0	89.72	179.68	9,881.8	-4,762.4	303.4	4,769.5	0.00	0.00	0.00
14,600.0	89.72	179.68	9,882.3	-4,862.4	304.0	4,869.5	0.00	0.00	0.00
14,700.0	89.72	179.68	9,882.7	-4,962.4	304.5	4,969.5	0.00	0.00	0.00
14,800.0	89.72	179.68	9,883.2	-5,062.4	305.1	5,069.4	0.00	0.00	0.00
14,900.0	89.72	179.68	9,883.7	-5,162.4	305.6	5,169.4	0.00	0.00	0.00
15,000.0	89.72	179.68	9,884.2	-5,262.4	306.2	5,269.4	0.00	0.00	0.00
15,100.0	89.72	179.68	9,884.7	-5,362.4	306.8	5,369.3	0.00	0.00	0.00
15,200.0	89.72	179.68	9,885.2	-5,462.4	307.3	5,469.3	0.00	0.00	0.00
15,300.0	89.72	179.68	9,885.6	-5,562.4	307.9	5,569.3	0.00	0.00	0.00
15,400.0	89.72	179.68	9,886.1	-5,662.4	308.4	5,669.2	0.00	0.00	0.00
15,500.0	89.72	179.68	9,886.6	-5,762.4	309.0	5,769.2	0.00	0.00	0.00
15,600.0	89.72	179.68	9,887.1	-5,862.4	309.5	5,869.2	0.00	0.00	0.00
15,700.0	89.72	179.68	9,887.6	-5,962.4	310.1	5,969.1	0.00	0.00	0.00
15,800.0	89.72	179.68	9,888.0	-6,062.4	310.6	6,069.1	0.00	0.00	0.00
15,900.0	89.72	179.68	9,888.5	-6,162.4	311.2	6,169.1	0.00	0.00	0.00
16,000.0	89.72	179.68	9,889.0	-6,262.4	311.8	6,269.0	0.00	0.00	0.00
16,100.0	89.72	179.68	9,889.5	-6,362.4	312.3	6,369.0	0.00	0.00	0.00
16,200.0	89.72	179.68	9,890.0	-6,462.3	312.9	6,469.0	0.00	0.00	0.00
16,300.0	89.72	179.68	9,890.5	-6,562.3	313.4	6,568.9	0.00	0.00	0.00
16,400.0	89.72	179.68	9,890.9	-6,662.3	314.0	6,668.9	0.00	0.00	0.00
16,500.0	89.72	179.68	9,891.4	-6,762.3	314.5	6,768.9	0.00	0.00	0.00
16,600.0	89.72	179.68	9,891.9	-6,862.3	315.1	6,868.8	0.00	0.00	0.00
16,700.0	89.72	179.68	9,892.4	-6,962.3	315.6	6,968.8	0.00	0.00	0.00
16,800.0	89.72	179.68	9,892.9	-7,062.3	316.2	7,068.8	0.00	0.00	0.00
16,900.0	89.72	179.68	9,893.4	-7,162.3	316.8	7,168.7	0.00	0.00	0.00
17,000.0	89.72	179.68	9,893.8	-7,262.3	317.3	7,268.7	0.00	0.00	0.00
17,100.0	89.72	179.68	9,894.3	-7,362.3	317.9	7,368.7	0.00	0.00	0.00
17,200.0	89.72	179.68	9,894.8	-7,462.3	318.4	7,468.6	0.00	0.00	0.00
17,300.0	89.72	179.68	9,895.3	-7,562.3	319.0	7,568.6	0.00	0.00	0.00
17,400.0	89.72	179.68	9,895.8	-7,662.3	319.5	7,668.6	0.00	0.00	0.00
17,500.0	89.72	179.68	9,896.2	-7,762.3	320.1	7,768.5	0.00	0.00	0.00
17,600.0	89.72	179.68	9,896.7	-7,862.3	320.6	7,868.5	0.00	0.00	0.00
17,700.0	89.72	179.68	9,897.2	-7,962.3	321.2	7,968.4	0.00	0.00	0.00
17,800.0	89.72	179.68	9,897.7	-8,062.3	321.8	8,068.4	0.00	0.00	0.00
17,900.0	89.72	179.68	9,898.2	-8,162.3	322.3	8,168.4	0.00	0.00	0.00
18,000.0	89.72	179.68	9,898.7	-8,262.3	322.9	8,268.3	0.00	0.00	0.00
18,100.0	89.72	179.68	9,899.1	-8,362.3	323.4	8,368.3	0.00	0.00	0.00
18,200.0	89.72	179.68	9,899.6	-8,462.3	324.0	8,468.3	0.00	0.00	0.00
18,300.0	89.72	179.68	9,900.1	-8,562.3	324.5	8,568.2	0.00	0.00	0.00
18,400.0	89.72	179.68	9,900.6	-8,662.3	325.1	8,668.2	0.00	0.00	0.00
18,500.0	89.72	179.68	9,901.1	-8,762.3	325.7	8,768.2	0.00	0.00	0.00
18,600.0	89.72	179.68	9,901.6	-8,862.3	326.2	8,868.1	0.00	0.00	0.00
18,700.0	89.72	179.68	9,902.0	-8,962.3	326.8	8,968.1	0.00	0.00	0.00
18,800.0	89.72	179.68	9,902.5	-9,062.3	327.3	9,068.1	0.00	0.00	0.00
18,900.0	89.72	179.68	9,903.0	-9,162.3	327.9	9,168.0	0.00	0.00	0.00
19,000.0	89.72	179.68	9,903.5	-9,262.3	328.4	9,268.0	0.00	0.00	0.00
19,100.0	89.72	179.68	9,904.0	-9,362.3	329.0	9,368.0	0.00	0.00	0.00
19,200.0	89.72	179.68	9,904.4	-9,462.3	329.5	9,467.9	0.00	0.00	0.00
19,300.0	89.72	179.68	9,904.9	-9,562.3	330.1	9,567.9	0.00	0.00	0.00
19,400.0	89.72	179.68	9,905.4	-9,662.3	330.7	9,667.9	0.00	0.00	0.00
19,500.0	89.72	179.68	9,905.9	-9,762.3	331.2	9,767.8	0.00	0.00	0.00

Planning Report

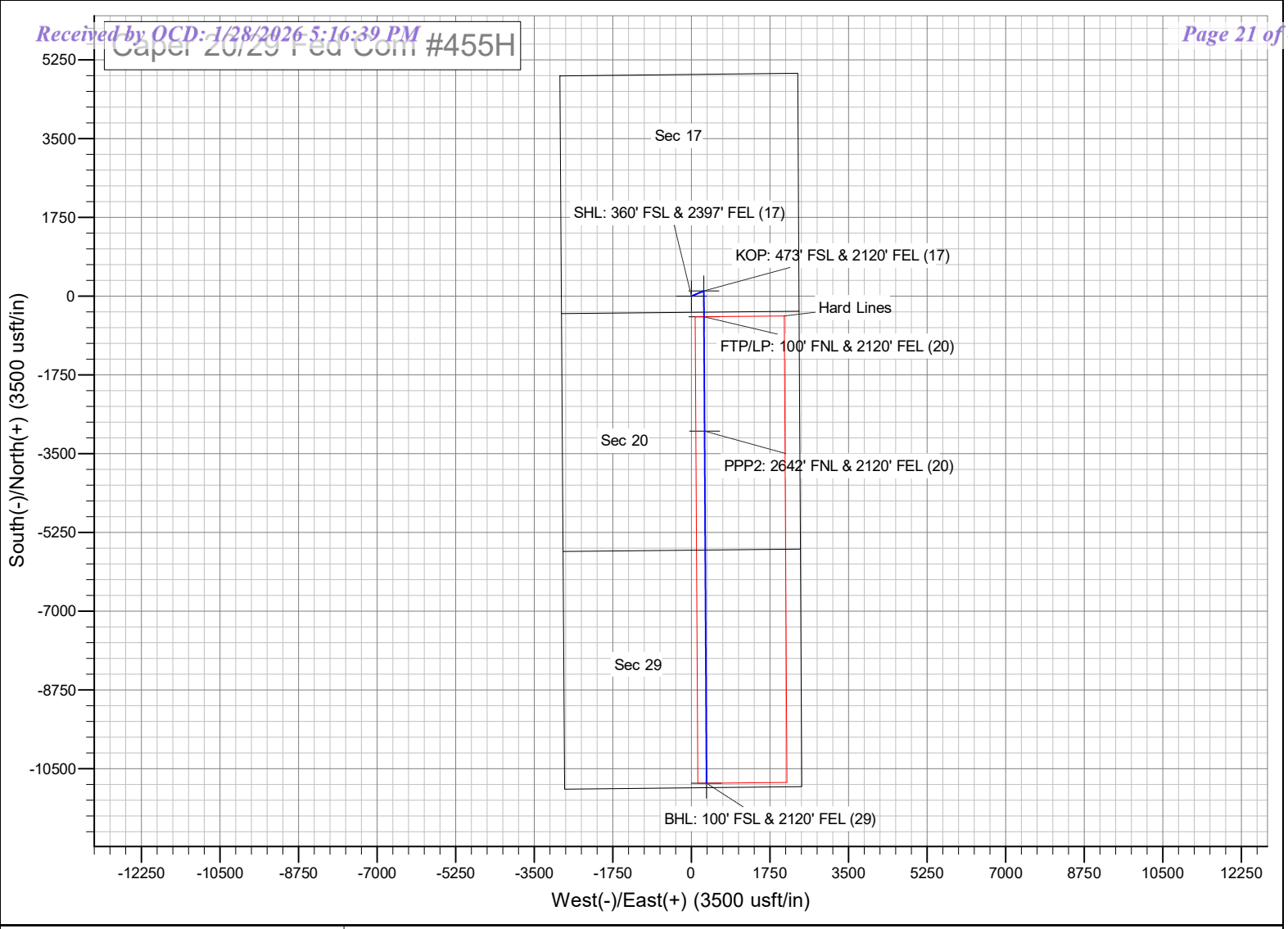
Database:	Hobbs	**Local Co-ordinate Reference:**	Site Caper 20/29 Fed Com #455H
Company:	Mewbourne Oil Company	**TVD Reference:**	WELL @ 3666.0usft (Original Well Elev)
Project:	Lea County, New Mexico NAD 83	**MD Reference:**	WELL @ 3666.0usft (Original Well Elev)
Site:	Caper 20/29 Fed Com #455H	**North Reference:**	Grid
Well:	Sec 17, T21S, R32E	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	BHL: 100' FSL & 2120' FEL, Sec 29		
Design:	Design #1		

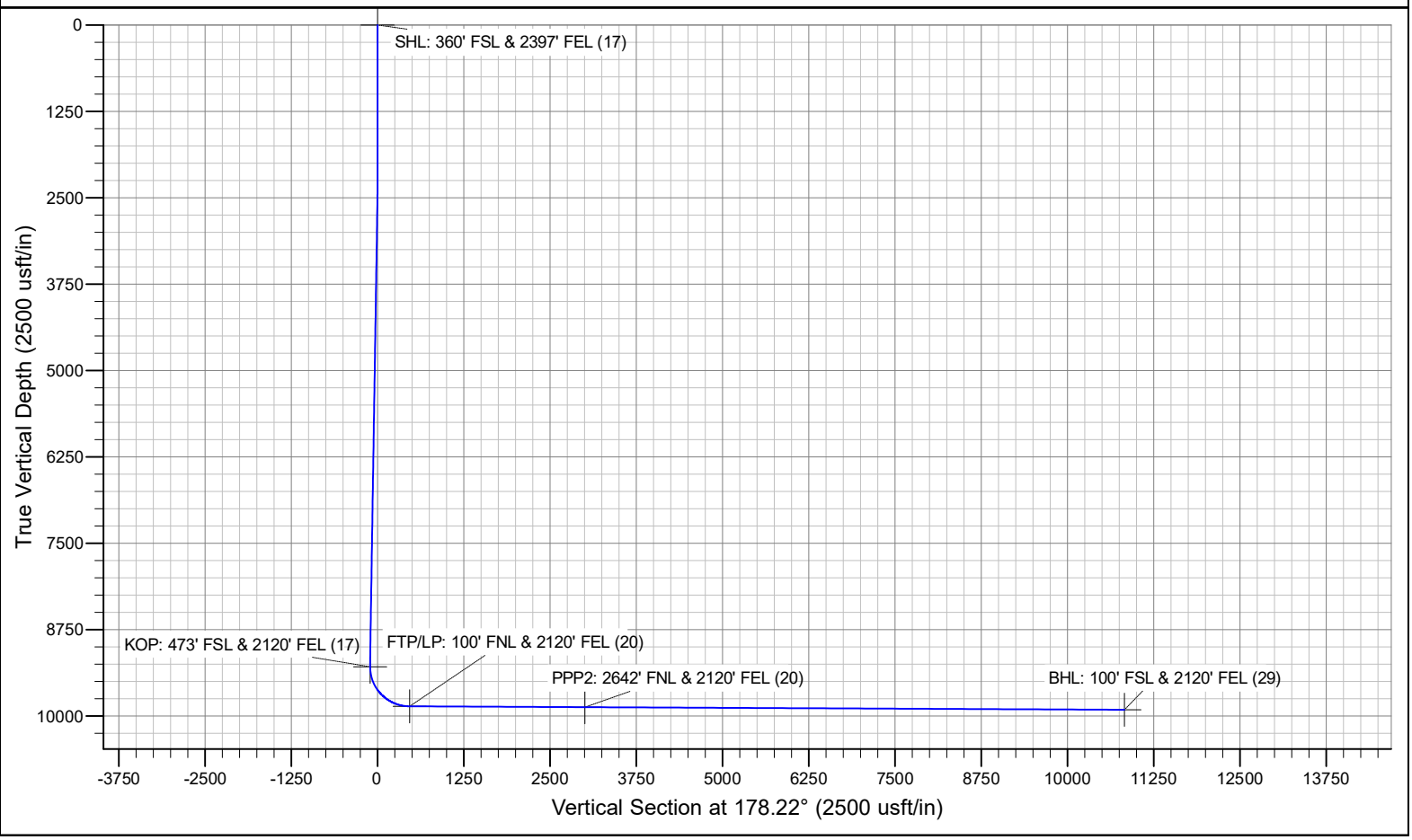
Planned Survey

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)
19,600.0	89.72	179.68	9,906.4	-9,862.3	331.8	9,867.8	0.00	0.00	0.00
19,700.0	89.72	179.68	9,906.9	-9,962.3	332.3	9,967.8	0.00	0.00	0.00
19,800.0	89.72	179.68	9,907.3	-10,062.3	332.9	10,067.7	0.00	0.00	0.00
19,900.0	89.72	179.68	9,907.8	-10,162.2	333.4	10,167.7	0.00	0.00	0.00
20,000.0	89.72	179.68	9,908.3	-10,262.2	334.0	10,267.7	0.00	0.00	0.00
20,100.0	89.72	179.68	9,908.8	-10,362.2	334.5	10,367.6	0.00	0.00	0.00
20,200.0	89.72	179.68	9,909.3	-10,462.2	335.1	10,467.6	0.00	0.00	0.00
20,300.0	89.72	179.68	9,909.7	-10,562.2	335.7	10,567.6	0.00	0.00	0.00
20,400.0	89.72	179.68	9,910.2	-10,662.2	336.2	10,667.5	0.00	0.00	0.00
20,500.0	89.72	179.68	9,910.7	-10,762.2	336.8	10,767.5	0.00	0.00	0.00
20,559.3	89.72	179.68	9,911.0	-10,821.5	337.1	10,826.7	0.00	0.00	0.00
BHL: 100' FSL & 2120' FEL (29)									

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: 360' FSL & 2397' F - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	536,186.40	737,871.50	32.4724263	-103.6960445
KOP: 473' FSL & 2120' I - plan hits target center - Point	0.00	0.00	9,288.0	115.8	276.3	536,302.20	738,147.80	32.4727401	-103.6951464
FTP/LP: 100' FNL & 212 - plan hits target center - Point	0.00	0.00	9,861.0	-457.1	279.5	535,729.30	738,150.98	32.4711653	-103.6951472
PPP2: 2642' FNL & 212(- plan hits target center - Point	0.00	0.00	9,873.3	-2,998.1	293.6	533,188.30	738,165.11	32.4641808	-103.6951507
BHL: 100' FSL & 2120' F - plan hits target center - Point	0.00	0.00	9,911.0	-10,821.5	337.1	525,364.90	738,208.60	32.4426764	-103.6951613


Caper 20/29 Fed Com #455H
Sec 17
SHL: 360' FSL & 2397' FEL (17)
KOP: 473' FSL & 2120' FEL (17)
Hard Lines
FTP/LP: 100' FNL & 2120' FEL (20)
Sec 20
PPP2: 2642' FNL & 2120' FEL (20)
Sec 29
BHL: 100' FSL & 2120' FEL (29)
South(-)/North(+) (3500 usft/in)
West(-)/East(+) (3500 usft/in)


SHL: 360' FSL & 2397' FEL (17)
KOP: 473' FSL & 2120' FEL (17)
FTP/LP: 100' FNL & 2120' FEL (20)
PPP2: 2642' FNL & 2120' FEL (20)
BHL: 100' FSL & 2120' FEL (29)
True Vertical Depth (2500 usft/in)
Vertical Section at 178.22° (2500 usft/in)

Mewbourne Oil Company, Caper 20/29 Fed Com 455H
Sec 17, T21S, R32E
SHL: 360' FSL 2397' FEL (Sec 17)
BHL: 100' FSL 2120' FEL (Sec 29)

Well Location **GL: 3638'**

Point	Calls	Leases	Aliquot	Section	Township	Range	County	Lat	Long	TVD	MD
SHL	SHL: 360' FSL & 2397' FEL (Sec 17)	NMNM 094095	SWSE	17	21S	32E	Lea	32.4724262	- 103.6960444	0'	0'
KOP	KOP: 473' FSL & 2120' FEL (Sec 17)	NMNM 094095	SWSE	17	21S	32E	Lea	32.4727399	- 103.6951464	9,288'	9,295'
FTP	FTP/LP: 100' FNL & 2120' FEL (Sec 20)	NMNM 031375	NWNE	20	21S	32E	Lea	32.4711653	- 103.6951465	9,861'	10,195'
PPP2	PPP2: 2642' FNL & 2120' FEL (Sec 20)	NMNM 014331	NWSE	20	21S	32E	Lea	32.4641808	- 103.6951507	9,873'	12,736'
BHL	BHL: 100' FSL & 2120' FEL (Sec 29)	NMNM 014331	SWSE	29	21S	32E	Lea	32.4426763	- 103.6951612	9,911'	20,560'

GEOLOGY

Formation	Est. Top (TVD)	Lithology	Mineral Resources	Formation	Est. Top (TVD)	Lithology	Mineral Resources
Rustler	1015'	Dolomite/Anhydrite	Usable Water	Delaware (Lamar)	4530'	Limestone	Oil/Natural Gas
Castile				Bell Canyon	4575'	Sandstone	Oil/Natural Gas
Salt Top	1155'	Salt	None	Cherry Canyon			
Marker Bed 126	2220'	Salt	None	Manzanita Marker	5698'	Limestone	Oil/Natural Gas
Salt Base	4180'	Salt	None	Basal Brushy Canyon	6700'	Sandstone	Oil/Natural Gas
Yates				Bone Spring	8440'	Limestone/Shale	Oil/Natural Gas
Seven Rivers				1st Bone Spring Carbonate			
Queen				1st Bone Spring Sand	**9490'**	Sandstone	Oil/Natural Gas
Capitan				2nd Bone Spring Carbonate			
Grayburg				2nd Bone Spring Sand	10140'	Sandstone	Oil/Natural Gas
San Andres				3rd Bone Spring Carbonate			
Glorietta				3rd Bone Spring Sand			
Yeso				Wolfcamp			

Casing Program Design A						BLM Minimum Safety Factors	1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet
Casing String	Hole Diameter (in)	Top MD	Top TVD	Bottom MD	Bottom TVD	Casing Description	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
Surface	17.5"	0'	0'	1100'	1100'	13.375" 48# H40 STC	1.57	3.52	6.10	10.25
Intermediate	12.25"	0'	0'	3385'	3385'	9.625" 36# J55 LTC	1.13	1.96	2.75	3.43
Intermediate	12.25"	3385'	3385'	4307'	4307'	9.625" 40# J55 LTC	1.13	1.73	12.21	14.79
Intermediate	12.25"	4307'	4307'	4450'	4450'	9.625" 40# L80 LTC	1.31	2.44	128.85	160.14
Production	8.75"	0'	0'	9295'	9288'	7" 26# HCP110 LTC	1.66	2.12	2.87	3.43
Liner	6.125"	9095'	9020'	20560'	9911'	4.5" 13.5# P110 LTC	1.80	2.09	2.18	2.73

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-Q?	**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-Q and SOPA?	**Y**
If yes, are the first three strings cemented to surface?	**N**
Is 2nd string set 100' to 600' below the base of salt?	**Y**
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	**Y**
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, Caper 20/29 Fed Com 455H
Sec 17, T21S, R32E
SHL: 360' FSL 2397' FEL (Sec 17)
BHL: 100' FSL 2120' FEL (Sec 29)

Design A - Cement Program

Casing	Cement Stage	# sx	Density (ppg)	Yield (ft^3/sack)	Depth (MD)	Volume (ft^3)	% Excess	Slurry Description
13.375 in	LEAD	600	12.5	2.12	0' - 910'	1280	100%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	910' - 1100'	268		Class C: Retarder
9.625 in	LEAD	740	12.5	2.12	0' - 3801'	1570	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	3801' - 4450'	268		Class C: Retarder
7 in	LEAD	120	12.5	2.12	5450' - 7110'	260	0%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	290	15.6	1.18	7110' - 9295'	342		Class H: Retarder, Fluid Loss, Defoamer
4.5 in	LEAD	740	13.5	1.85	9095' - 20560'	1370	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-settling Agent

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#/3500#	20,560'
		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 flexible choke line from the BOP to the choke manifold. See attached for hydrostatic test chart. Anchors are not required by manufacturer. Variance is requested to use a multi bowl wellhead. Variance is requested to perform break testing according to attached procedure. If a breaktesting variance is approved & incorporated, API Standard 53 will be incorporated and testing annular BOP to 70% of RWP or 100% of MASP, whichever is greater, will be performed.

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 (ppg)	Mud Type
0' - 1100'	8.4 - 8.6	Fresh Water
1100' - 4450'	10.0 - 10.2	Brine
4450' - 9295'	8.6 - 9.7	Cut-Brine
9295' - 20560'	10.0 - 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, Caper 20/29 Fed Com 455H
Sec 17, T21S, R32E
SHL: 360' FSL 2397' FEL (Sec 17)
BHL: 100' FSL 2120' FEL (Sec 29)

Logging and Testing Procedures

	Logging, Coring and Testing.
N	Will run GR/CNL from KOP (9295') to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
Y	No logs are planned based on well control or offset log information. Offset Well: Caper 20/29 W2CN Fed Com #1H
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	X	**Directional Survey**	_	Dual Induction/Microresistivity
_	Dual Lateral Log/Microspherically Focused	_	Electric Log	_	Formation Density Compensated Log
_	Gamma Ray Log	X	**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	5927 psi
BH Temperature	140
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, Caper 20/29 Fed Com 455H
Sec 17, T21S, R32E
SHL: 360' FSL 2397' FEL (Sec 17)
BHL: 100' FSL 2120' FEL (Sec 29)

Other facets of operation

Mewbourne Oil Company requests approval to implement additional designs as described below &/or in other attachments. BLM will be notified of elected design. Mewbourne Oil Company will not introduce any additives that contain PFAS chemicals in the completion or recompletion of the well.

Offline Cementing Variance: Variance is requested to perform offline cementing according to the attached procedure. **R-111Q:** Mewbourne proposes performing Open Hole Cementing per R-111Q Guidelines if well is in Potash.

Casing Program Design B						BLM Minimum Safety Factors	1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet
Casing String	Hole Diameter (in)	Top MD	Top TVD	Bottom MD	Bottom TVD	Casing Description	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
Surface	17.5"	0'	0'	1100'	1100'	13.375" 48# H40 STC	1.57	3.52	6.10	10.25
Intermediate	12.25"	0'	0'	3385'	3385'	9.625" 36# J55 LTC	1.13	1.96	2.75	3.43
Intermediate	12.25"	3385'	3385'	4307'	4307'	9.625" 40# J55 LTC	1.13	1.73	12.21	14.79
Intermediate	12.25"	4307'	4307'	4450'	4450'	9.625" 40# L80 LTC	1.31	2.44	128.85	160.14
Production	8.75"	0'	0'	10195'	9861'	7" 26# HCP110 LTC	1.57	2.00	2.61	3.13
Liner	6.125"	9295'	9288'	20560'	9911'	4.5" 13.5# P110 LTC	1.80	2.09	2.22	2.77

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-Q?	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-Q and SOPA?	Y
If yes, are the first three strings cemented to surface?	N
Is 2nd string set 100' to 600' below the base of salt?	Y
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	Y
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

Casing	Cement Stage	# sx	Density (ppg)	Yield (ft^3/sack)	Depth (MD)	Volume (ft^3)	% Excess	Slurry Description
13.375 in	LEAD	600	12.5	2.12	0' - 910'	1280	100%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	910' - 1100'	268		Class C: Retarder
9.625 in	LEAD	740	12.5	2.12	0' - 3801'	1570	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	3801' - 4450'	268		Class C: Retarder
7 in	LEAD	140	12.5	2.12	5450' - 7383'	300	0%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	370	15.6	1.18	7383' - 10195'	437		Class H: Retarder, Fluid Loss, Defoamer
4.5 in	LEAD	730	13.5	1.85	9295' - 20560'	1360	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-settling Agent

Mewbourne Oil Company
R-111Q Procedure

Mewbourne Oil Company request permission to perform Open Hole Annulus procedure per R-111Q guidelines to be implemented as follows:

Production String

a) The Production string shall consist new oil field casing in good condition that meets API specifications, rated for the loads expected over the lifecycle of the well.

b) For wells within the KPLA where a 2nd intermediate string will not be utilized resulting in a 3 String Design (Surface, Salt or Salt/Capitan Reef, Production), the following safeguard shall apply to safely divert flow of wellbore fluids away from the Salt Interval in the event of a catastrophic production casing failure. The Surface Equipment utilized during stimulation operations should be designed to relieve pressure from the production x intermediate casing annulus below the burst threshold of the casing string components.

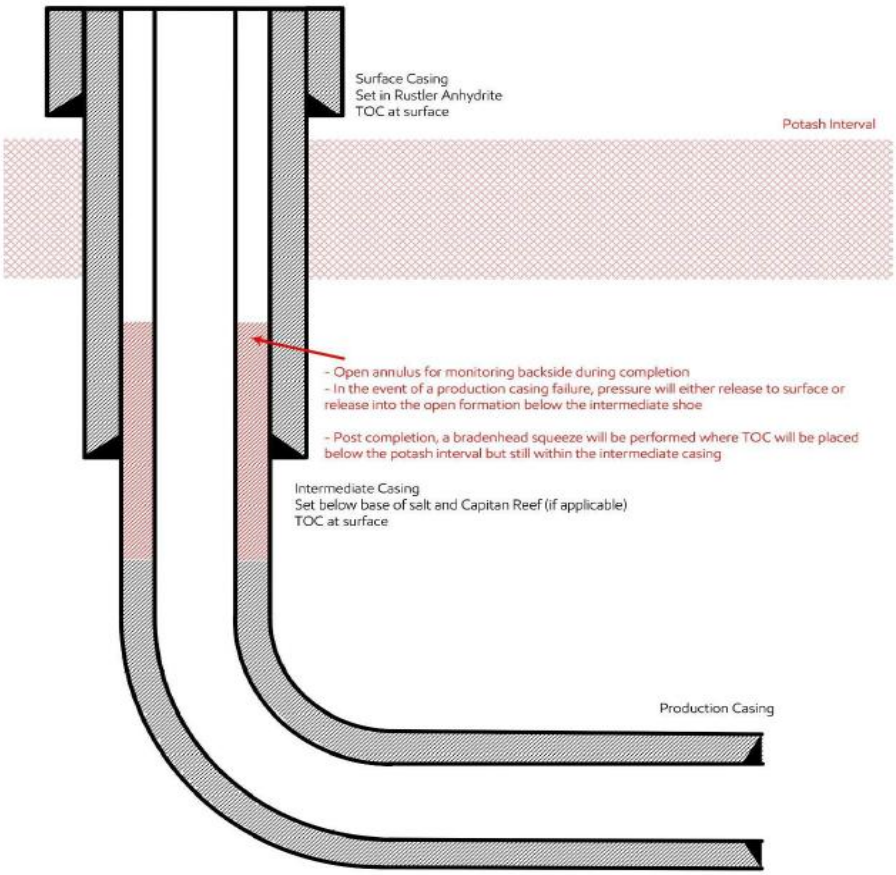
i. A monitored open annulus will be incorporated during completion by leaving the 1st Intermediate Casing x Production Casing annulus un-cemented and monitored inside the 1st Intermediate String. Reference wellbore diagram.

i.The top of cement in the Production Casing x 1st Intermediate Casing Annulus shall stand uncemented at least 500’ below the 1st Intermediate Casing Shoe. Zero percent excess shall be pumped on the Production Cementing Slurry to ensure no tie-back into the 1st Intermediate Casing Shoe.

ii.After Stimulation Operations have been concluded and no longer than 180 days after the well is brought online, the operator will be responsible for Bradenheading cement to ensure at least a 500’ tie back has been established inside the 1st Intermediate (Salt String / Capitan String) but not higher than Marker Bed No. 126 (base of the Potash mining interval).

iii.The top of cement may be estimated through pumped displacement volumes or with the use of a fluid shot tool prior to filling backside with fluid.

3-String Design – Open Production Casing Annulus



Mewbourne Oil Company, Caper 20/29 Fed Com 455H
Sec 17, T21S, R32E
SHL: 360' FSL 2397' FEL (Sec 17)
BHL: 100' FSL 2120' FEL (Sec 29)

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'	1100'	1100'	13.375" 48# H40 STC	1.57	3.52	6.10	10.25
Intermediate	12.25"	0'	0'	3385'	3385'	9.625" 36# J55 LTC	1.13	1.96	2.75	3.43
Intermediate	12.25"	3385'	3385'	4307'	4307'	9.625" 40# J55 LTC	1.13	1.73	12.21	14.79
Intermediate	12.25"	4307'	4307'	4450'	4450'	9.625" 40# L80 LTC	1.31	2.44	128.85	160.14
Production	8.75"	0'	0'	9295'	9288'	7" 26# HCP110 LTC	1.66	2.12	2.87	3.43
Liner	6.125"	9095'	9020'	20560'	9911'	4.5" 13.5# P110 LTC	1.80	2.09	2.18	2.73

Cement Program

Casing		# Sacks	Wt. lb/gal	Yield ft^3/sack	TOC/BOC	Volume ft^3	% Excess	Slurry Description
13.375 in	LEAD	600	12.5	2.12	0' - 910'	1280	100%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	910' - 1100'	268		Class C: Retarder
9.625 in	LEAD	740	12.5	2.12	0' - 3801'	1570	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	3801' - 4450'	268		Class C: Retarder
7 in	LEAD	120	12.5	2.12	5450' - 7110'	260	0%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	290	15.6	1.18	7110' - 9295'	342		Class H: Retarder, Fluid Loss, Defoamer
7'' TOC @ 5450', BHS TOC @ 3950'								
Braden Head Sqz	LEAD	210	14.8	1.34	3950' - 5450'	290	25%	Class C
4.5 in	LEAD	730	13.5	1.85	9095' - 20560'	1360	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-settling Agent

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'	1100'	1100'	13.375" 48# H40 STC	1.57	3.52	6.10	10.25
Intermediate	12.25"	0'	0'	3385'	3385'	9.625" 36# J55 LTC	1.13	1.96	2.75	3.43
Intermediate	12.25"	3385'	3385'	4307'	4307'	9.625" 40# J55 LTC	1.13	1.73	12.21	14.79
Intermediate	12.25"	4307'	4307'	4450'	4450'	9.625" 40# L80 LTC	1.31	2.44	128.85	160.14
Production	8.75"	0'	0'	10195'	9861'	7" 26# HCP110 LTC	1.57	2.00	2.61	3.13
Liner	6.125"	9295'	9288'	20560'	9911'	4.5" 13.5# P110 LTC	1.80	2.09	2.22	2.77

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	600	12.5	2.12	0' - 910'	1280	100%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	910' - 1100'	268		Class C: Retarder
1st Stg 9.625 in	LEAD	690	12.5	2.12	0' - 3764'	1470	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	3764' - 4450'	268		Class C: Retarder
7 in	LEAD	140	12.5	2.12	5450' - 7383'	300	0%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	370	15.6	1.18	7383' - 10195'	437		Class H: Retarder, Fluid Loss, Defoamer
7'' TOC @ 5450', BHS TOC @ 3950'								
Braden Head Sqz	LEAD	210	14.8	1.34	3950' - 5450'	290	25%	Class C
4.5 in	LEAD	720	13.5	1.85	9295' - 20560'	1340	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-settling Agent

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME: MEWBOURNE OIL COMPANY
Lease Number: NMNM94095
Lea County, New Mexico

COUSIN EDDY FED UNIT COM 33H

Surface Hole Location: 360 feet FSL and 2307 feet FEL, Section 17, T. 21 S., R. 32 E.

Bottom Hole Location: 3860 feet FSL and 660 feet FEL, Section 5, T. 21 S, R 32 E.

COUSIN EDDY FED UNIT COM 34H

Surface Hole Location: 360 feet FSL and 2343 feet FEL, Section 17, T. 21 S., R. 32 E.

Bottom Hole Location: 3861 feet FSL and 1510 feet FEL, Section 5, T. 21 S, R 32 E.

COUSIN EDDY FED UNIT COM 35H

Surface Hole Location: 360 feet FSL and 2415 feet FEL, Section 17, T. 21 S., R. 32 E.

Bottom Hole Location: 3862 feet FSL and 2360 feet FEL, Section 5, T. 21 S, R 32 E.

COUSIN EDDY FED UNIT COM 36H

Surface Hole Location: 360 feet FSL and 2271 feet FEL, Section 17, T. 21 S., R. 32 E.

Bottom Hole Location: 3859 feet FSL and 330 feet FEL, Section 5, T. 21 S, R 32 E.

COUSIN EDDY FED UNIT COM 37H

Surface Hole Location: 360 feet FSL and 2379 feet FEL, Section 17, T. 21 S., R. 32 E.

Bottom Hole Location: 3861 feet FSL and 1650 feet FEL, Section 5, T. 21 S, R 32 E.

CAPER 20/29 FED COM 316H

Surface Hole Location: 360 feet FSL and 2361 feet FEL, Section 17, T. 21 S., R. 32 E.

Bottom Hole Location: 100 feet FSL and 1650 feet FEL, Section 29, T. 21 S, R 32 E.

CAPER 20/29 FED COM 318H

Surface Hole Location: 360 feet FSL and 2289 feet FEL, Section 17, T. 21 S., R. 32 E.

Bottom Hole Location: 100 feet FSL and 330 feet FEL, Section 29, T. 21 S, R 32 E.

CAPER 20/29 FED COM 417H

Surface Hole Location: 360 feet FSL and 2325 feet FEL, Section 17, T. 21 S., R. 32 E.

Bottom Hole Location: 100 feet FSL and 800 feet FEL, Section 29, T. 21 S, R 32 E.

CAPER 20/29 FED COM 455H

Surface Hole Location: 360 feet FSL and 2397 feet FEL, Section 17, T. 21 S., R. 32 E.

Bottom Hole Location: 100 feet FSL and 2120 feet FEL, Section 29, T. 21 S, R 32 E.

TABLE OF CONTENTS

1. GENERAL PROVISIONS

The failure of the operator to comply with these requirements may result in the assessment of liquidated damages or penalties pursuant to 43 CFR 3163.1 or 3163.2. A copy of these conditions of approval shall be present on the location during construction, drilling and reclamation activity. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

1.1. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural resource (historic or prehistoric site or object) discovered by the operator, or any person working on the operator's behalf, on the public or federal land shall be immediately reported to the Authorized Officer. The operator shall suspend all operations in the immediate area (within 100ft) of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer, in conjunction with a BLM Cultural Resource Specialist, to determine appropriate actions to prevent the loss of significant scientific values. The operator shall be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the operator.

Traditional Cultural Properties (TCPs) are protected by NHPA as codified in 36 CFR 800 for possessing traditional, religious, and cultural significance tied to a certain group of individuals. Though there are currently no designated TCPs within the project area or within a mile of the project area, but it is possible for a TCP to be designated after the approval of this project. **If a TCP is designated in the project area after the project's approval, the BLM Authorized Officer will notify the operator of the following conditions and the duration for which these conditions are required.**

1. Temporary halting of all construction, drilling, and production activities to lower noise.
2. Temporary shut-off of all artificial lights at night.

The operator is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA), specifically NAGPRA Subpart B regarding discoveries, to protect human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered during project work. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and a BLM-CFO Authorized Officer will be notified immediately. The BLM will then be required to be notified, in writing, within 24 hours of the discovery. The written notification should include the geographic location by county and state, the contents of the discovery, and the steps taken to protect said discovery. You must also include any potential threats to the discovery and a conformation that all activity within 100ft of the discovery has ceased and work will not resume until written certification is issued. All work on the entire project must halt for a minimum of 3 days and work cannot resume until an Authorized Officer grants permission to do so.

Any paleontological resource discovered by the operator, or any person working on the operator's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. The operator will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the operator.

1.2. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA, New Mexico Department of Agriculture, and BLM requirements and policies.

1.3.1 African Rue (Peganum harmala)

Spraying: The spraying of African Rue must be completed by a licensed or certified applicator. In order to attempt to kill or remove African Rue the proper mix of chemical is needed. The mix consists of 2% Arsenal (Imazapyr) and 2% Roundup (Glyphosate) along with a nonionic surfactant. Any other chemicals or combinations shall be approved by the BLM Noxious Weeds Coordinator prior to treatment. African Rue shall be sprayed in connection to any dirt working activities or disturbances to the site being sprayed. Spraying of African Rue shall be done on immature plants at initial growth through flowering and mature plants between budding and flowering stages. Spraying shall not be conducted after flowering when plant is fruiting. This will ensure optimal intake of chemical and decrease chances of developing herbicide resistance. After spraying, the operator or necessary parties must contact the Carlsbad Field Office to inspect the effectiveness of the application treatment to the plant species. No ground disturbing activities can take place until the inspection by the authorized officer is complete. The operator may contact the Environmental Protection Department or the BLM Noxious Weed Coordinator at (575) 234-5972 or BLM_NM_CFO_NoxiousWeeds@blm.gov.

Management Practices: In addition to spraying for African Rue, good management practices should be followed. All equipment should be washed off using a power washer in a designated containment area. The containment area shall be bermed to allow for containment of the seed to prevent it from entering any open areas of the nearby landscape. The containment area shall be excavated near or adjacent to the well pad at a depth of three feet and just large enough to get equipment inside it to be washed off. This will allow all seeds to be in a centrally located area that can be treated at a later date if the need arises.

1.3. LIGHT POLLUTION

1.3.1. **Downfacing**

All permanent lighting will be pointed straight down at the ground in order to prevent light spill beyond the edge of approved surface disturbance.

1.3.2. **Shielding**

All permanent lighting will use full cutoff luminaires, which are fully shielded (i.e., not emitting direct or indirect light above an imaginary horizontal plane passing through the lowest part of the light source).

1.3.3. **Lighting Color**

Lighting shall be 3,500 Kelvin or less (Warm White) except during drilling, completion, and workover operations. No bluish-white lighting shall be used in permanent outdoor lighting.

2. SPECIAL REQUIREMENTS

2.1. WATERSHED

The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The topsoil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid

collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

2.1.1. **Buried/Surface Line(s)**

When crossing ephemeral drainages, the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons must be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences must be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars must be placed within the corridor to divert and dissipate surface runoff. A pipeline access road is not permitted to cross ephemeral drainages. Traffic must be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

2.1.2. **Electric Line(s)**

Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole must not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that does not promote further erosion.

2.2. WILDLIFE

2.2.1 **Lesser Prairie Chicken**

2.2.1.1 Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

2.2.1.2 Timing Limitation Exceptions:

The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

2.2.1.3 Ground-level Abandoned Well Marker to avoid raptor perching:

Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at BLM_NM_CFO_Construction_Reclamation@blm.gov.

POTASH RESOURCES

Lessees must comply with the 2012Secretarial Potash Order. The Order is designed to manage the efficient development of oil, gas, and potash resources. Section 6 of the Order provides general provisions which must be followed to minimize conflict between the industries and ensure the safety of operations.

To minimize impacts to potash resources, the proposed well is confined within the boundaries of the established Capers Drill Island.

3. CONSTRUCTION REQUIRENMENTS

3.1 CONSTRCUTION NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at BLM_NM_CFO_Construction_Reclamation@blm.gov at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and COAs on the well site and they shall be made available upon request by the Authorized Officer.

3.2 TOPSOIL

The operator shall strip the topsoil (the A horizon) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. No more than the top 6 inches of topsoil shall be removed. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (the B horizon and below) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

3.3 CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No reserve pits will be used for drill cuttings. The operator shall properly dispose of drilling contents at an authorized disposal site.

3.4 FEDERAL MINERAL PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

3.5 WELL PAD & SURFACING

Any surfacing material used to surface the well pad will be removed at the time of interim and final reclamation.

3.6 EXCLOSURE FENCING (CELLARS & PITS)

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the well cellar is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

The operator will also install and maintain mesh netting for all open well cellars to prevent access to smaller wildlife before and after drilling operations until the well cellar is free of fluids and the operator. Use a maximum netting mesh size of 1 ½ inches. The netting must not have holes or gaps.

3.7 ON LEASE ACESS ROAD

3.7.1 **Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

3.7.2 **Surfacing**

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements will be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

3.7.3 **Crowning**

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

3.7.4 **Ditching**

Ditching shall be required on both sides of the road.

3.7.5 **Turnouts**

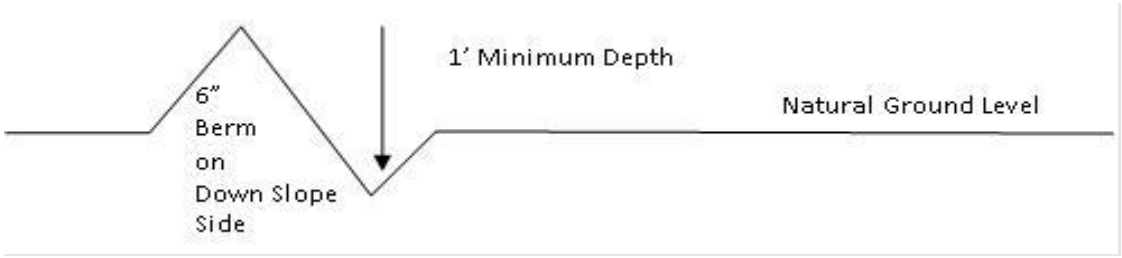
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

3.7.6 **Drainage**

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, leadoff ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4} + 100' = 200' \text{ lead-off ditch interval}$$

3.7.7 **Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

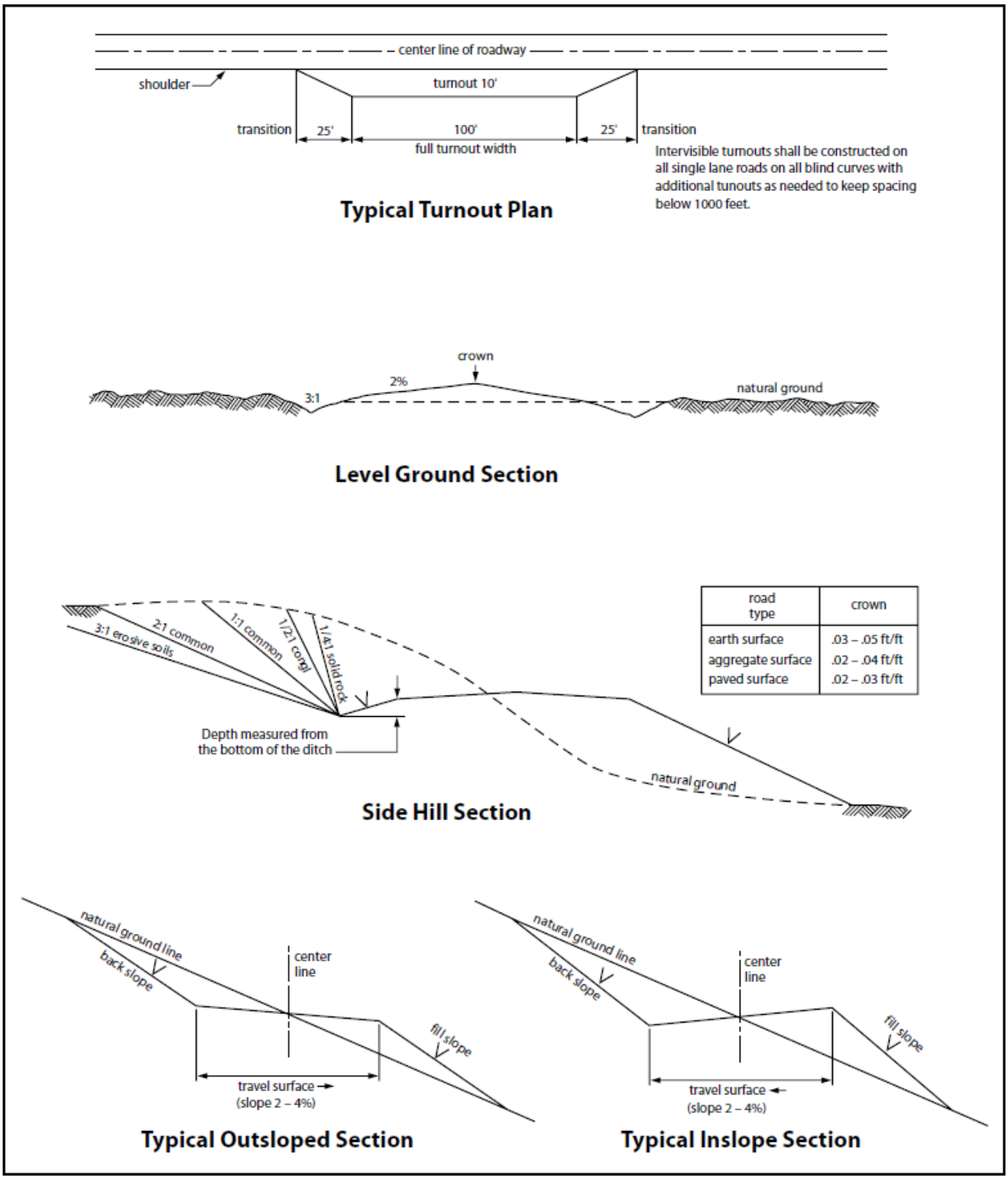


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

4. PIPELINES

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

4.1 BURIED PIPELINES

A copy of the application (APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request a copy of your permit during construction to ensure compliance with all stipulations.

Operator agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Operator shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this APD.

2. The Operator shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the operator shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the pipeline corridor or on facilities authorized under this APD. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The operator agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Pipeline corridor (unless the release or threatened release is wholly unrelated to the operator's activity on the pipeline corridor), or resulting from the activity of the Operator on the pipeline corridor. This agreement applies without regard to whether a release is caused by the operator, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant is discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant,

wherever found, shall be the responsibility of operator, regardless of fault. Upon failure of operator to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the operator. Such action by the Authorized Officer shall not relieve operator of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized pipeline corridor.

6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this pipeline corridor will be 30 feet:

   - Blading of vegetation within the pipeline corridor will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation*.)

   - Clearing of brush species within the pipeline corridor will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)

   - The remaining area of the pipeline corridor (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The operator shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this pipeline corridor and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire pipeline corridor shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted, and a 6-inch berm will be left over the ditch line to allow for settling back to grade.

10. The pipeline will be identified by signs at the point of origin and completion of the pipeline corridor and at all road crossings. At a minimum, signs will state the operator's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

11. The operator shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the operator before maintenance begins. The operator will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the operator to construct temporary deterrence structures.

12. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the

establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

13. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:
    a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them alive at least 100 yards from the trench.
    b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30-degree slope and spaced no more than 500 feet apart) shall be placed in the trench. Before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them alive at least 100 yards from the trench.

5. OVERHEAD ELECTRIC LINES

A copy of the APD and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Operator agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The operator shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this APD.
2. The operator shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the operator shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the powerline corridor or on facilities authorized under this powerline corridor. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The operator agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Powerline corridor(unless the release or threatened release is wholly unrelated to the operator's activity on the powerline corridor), or resulting from the activity of the Operator on the powerline corridor. This agreement applies without regard to whether a release is caused by the operator, its agent, or unrelated third parties.
4. There will be no clearing or blading of the powerline corridor unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The operator shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this powerline corridor, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the operator without liability or expense to the United States.
6. Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.
7. The operator shall minimize disturbance to existing fences and other improvements on public lands. The operator is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The operator will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
8. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.
9. Upon cancellation, relinquishment, or expiration of this APD, the operator shall comply with those abandonment procedures as prescribed by the Authorized Officer.
10. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this APD, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.
11. Special Stipulations:
    - For reclamation remove poles, lines, transformer, etc. and dispose of properly. Fill in any holes from the poles removed.
12. Karst stipulations for overhead electric lines
    - Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Larger powerlines will adjust their pole spacing to avoid cave and karst features.
    - The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction.
    - No further construction will be done until clearance has been issued by the Authorized Officer.
    - Special restoration stipulations or realignment may be required.

6. PRODUCTION (POST DRILLING)

5.1 WELL STRUCTURES & FACILITIES

5.1.1 **Placement of Production Facilities**

Production facilities must be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

5.1.2 **Exclosure Netting (Open-top Tanks)**

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

5.1.3. Chemical and Fuel Secondary Containment and Exclosure Screening

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

5.1.4. Open-Vent Exhaust Stack Exclosures

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone*.) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

5.1.5. Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

7. RECLAMATION

Stipulations required by the Authorized Officer on specific actions may differ from the following general guidelines

6.1 ROAD AND SITE RECLAMATION

Any roads constructed during the life of the well will have the caliche removed or linear burial. If contaminants are indicated then testing will be required for chlorides and applicable contaminate anomalies for final disposal determination (disposed of in a manner approved by the Authorized Officer within Federal, State and Local statutes, regulations, and ordinances) and seeded to the specifications in sections 6.5 and 6.6.

6.2 EROSION CONTROL

Install erosion control berms, windrows, and hummocks. Windrows must be level and constructed perpendicular to down-slope drainage; steeper slopes will require greater windrow density. Topsoil between windrows must be ripped to a depth of at least 12”, unless bedrock is encountered. Any large boulders pulled up during ripping must be deep-buried on location. Ripping must be perpendicular to down-slope. The surface must be left rough in order to catch and contain rainfall on-site. Any trenches resulting from erosion cause by run-off shall be addressed immediately.

6.3 INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations must undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators must work with BLM surface protection specialists (BLM_NM_CFO_Construction_Reclamation@blm.gov) to devise the best strategies to reduce the size of the location. Interim reclamation must allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche and any other surface material is required. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided in section 6.6.

Upon completion of interim reclamation, the operator shall submit a Sundry Notice, Subsequent Report of Reclamation (Form 3160-5).

6.4 FINAL ABANDONMENT & RECLAMATION

Prior to surface abandonment, the operator shall submit a Notice of Intent Sundry Notice and reclamation plan.

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding will be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM. After earthwork and seeding is completed, the operator is required to submit a Sundry Notice, Subsequent Report of Reclamation.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (BLM_NM_CFO_Construction_Reclamation@blm.gov).

6.5 SEEDING TECHNIQUES

Seeds shall be hydro-seeded, mechanically drilled, or broadcast, with the broadcast-seeded area raked, ripped or dragged to aid in covering the seed. The seed mixture shall be evenly and uniformly planted over the disturbed area.

6.6 SOIL SPECIFIC SEED MIXTURE

The lessee/permitee shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed land application will be accomplished by mechanical planting using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area. Smaller/heavier seeds tend to drop the bottom of the drill and are planted first; the operator shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory BLM or Soil Conservation

District stand is established as determined by the Authorized Officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding or until several months of precipitation have occurred, enabling a full four months of growth, with one or more seed generations being established.

Seed Mixture #5 for LPC Sand/Shinnery Sites

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

COMMENTS

Action 547839

COMMENTS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 547839
	Action Type: [C-103] NOI Change of Plans (C-103A)

COMMENTS

Created By	Comment	Comment Date
matthew.gomez	Invalid defining well reported on C-102.	2/4/2026

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Operator:	OGRID:
MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	14744
	Action Number: 547839
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
matthew.gomez	The C-103 NOI was not approved or rejected; however, the work requested in the C-103 NOI was performed and completed without NMOCD approval. This action will result in review for potential compliance actions.	2/4/2026
matthew.gomez	Administrative order required for non-standard spacing unit prior to production.	2/4/2026
matthew.gomez	Must report casing design decision within casing and cementing sundry.	2/4/2026
matthew.gomez	If cement does not circulate to surface on any string, a Cement Bond Log (CBL) is required for that string of casing. If a CBL is unable to indicate sufficient cement coverage due to a lighter cement, a USIT log may also be required. If strata isolation is not achieved, remediation will be required before further operations may commence.	2/4/2026
matthew.gomez	Cement must be in place for at least eight hours and achieve a minimum compressive strength of 500 PSI before performing any further operations on the well.	2/4/2026
matthew.gomez	All previous COA's still apply.	2/4/2026