

Well Name: CANAL 20/19 FED COM	Well Location: T21S / R27E / SEC 20 / NENE / 32.4699902 / -104.2047141	County or Parish/State: EDDY / NM
Well Number: 712H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM0354232	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001556328	Operator: MEWBOURNE OIL COMPANY	

Notice of Intent

Sundry ID: 2862150

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 07/09/2025	Time Sundry Submitted: 07:06
Date proposed operation will begin: 07/09/2025	

**Procedure Description:** Mewbourne Oil Company requests that the following change be made to the Canal 20/19 Fed Com #712H (30-015-56328): • MOC request to change the BHL f/ 830 FNL & 330 FWL (19) to 2150 FNL & 330 FWL (19). • Attached Dir Plan/Plot, Drlg Program, & C102 reflecting requested changes.

NOI Attachments

Procedure Description

Canal\_20\_19\_Fed\_Com\_712H\_BHL\_Sundry\_20250709070545.pdf

Conditions of Approval

Additional

CANAL\_20\_19\_FED\_COM\_712H\_Sundry\_2862150\_COA\_20250709122223.pdf

Received by OCD: 7/9/2025 1:38:00 PMPage 2 of 30

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US Well Number: 3001556328	Operator: MEWBOURNE OIL COMPANY	

Operator

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

Operator Electronic Signature: RYAN MCDANIEL	Signed on: JUL 09, 2025 07:06 AM
Name: MEWBOURNE OIL COMPANY	
Title: Engineer	
Street Address: 4801 BUSINESS PARK BLVD	
City: HOBBS	State: NM
Phone: (575) 393-5905	
Email address: RYANMCDANIEL@MEWBOURNE.COM	

Field

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752342234	BLM POC Email Address: cwalls@blm.gov
Disposition: Approved	Disposition Date: 07/09/2025
Signature: Chris Walls	

Form 3160-5 (June 2019)	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT	FORM APPROVED OMB No. 1004-0137 Expires: October 31, 2021
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> <i>Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.</i>		5. Lease Serial No.
		6. If Indian, Allottee or Tribe Name

<b>SUBMIT IN TRIPLICATE - Other instructions on page 2</b>		7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No.
2. Name of Operator		9. API Well No.
3a. Address	3b. Phone No. (include area code)	10. Field and Pool or Exploratory Area
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		11. Country or Parish, State

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA				
TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

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

<b>THE SPACE FOR FEDERAL OR STATE OFFICE USE</b>		
Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

## GENERAL INSTRUCTIONS

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

## SPECIFIC INSTRUCTIONS

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

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

## NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land 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: NENE / 1020 FNL / 355 FEL / TWSP: 21S / RANGE: 27E / SECTION: 20 / LAT: 32.4699902 / LONG: -104.2047141 ( TVD: 0 feet, MD: 0 feet )

PPP: NENE / 830 FNL / 330 FEL / TWSP: 21S / RANGE: 27E / SECTION: 20 / LAT: 32.4704888 / LONG: -104.2046327 ( TVD: 8898 feet, MD: 9036 feet )

PPP: NENW / 830 FNL / 2625 FWL / TWSP: 21S / RANGE: 27E / SECTION: 20 / LAT: 32.470396 / LONG: -104.2121054 ( TVD: 8926 feet, MD: 11350 feet )

BHL: NWNW / 830 FNL / 330 FWL / TWSP: 21S / RANGE: 27E / SECTION: 19 / LAT: 32.470091 / LONG: -104.2364115 ( TVD: 8814 feet, MD: 18848 feet )

CONFIDENTIAL

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	MEWBOURNE OIL COMPANY
<b>WELL NAME &amp; NO.:</b>	CANAL 20/19 FED COM 712H
<b>APD ID:</b>	10400097610
<b>LOCATION:</b>	Section 20, T21S, R27E. NMP.
<b>COUNTY:</b>	Eddy County, New Mexico ▼

*Changes approved through engineering via **Sundry 2862150** on 7/9/2025. Any previous COAs not addressed within the updated COAs still apply.*

COA

H <sub>2</sub> S	<input type="radio"/> No		<input checked="" type="radio"/> Yes	
Potash / WIPP	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-Q	<input type="checkbox"/> Open Annulus <input type="checkbox"/> WIPP
Cave / Karst	<input type="radio"/> Low	<input checked="" type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
Cementing	<input type="checkbox"/> Primary Squeeze	<input type="checkbox"/> Cont. Squeeze	<input type="checkbox"/> EchoMeter	<input checked="" type="checkbox"/> DV Tool
Special Req	<input checked="" type="checkbox"/> Capitan Reef	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit
Waste Prev.	<input type="radio"/> Self-Certification	<input type="radio"/> Waste Min. Plan	<input checked="" type="radio"/> APD Submitted prior to 06/10/2024	
Additional Language	<input checked="" type="checkbox"/> Flex Hose	<input type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input checked="" type="checkbox"/> Break Testing
	<input type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing	<input type="checkbox"/> Fluid-Filled	

**SEE ORIGINAL COA FOR ALL OTHER REQUIREMENTS.**

### A. CASING

Note: Conductor pipe shall be set at approximately 225 ft. and cemented to surface.

#### Primary Casing Program

1. The **13-3/8** inch surface casing shall be set at approximately **950** ft. and cemented to the surface. Rustler is at the surface. BLM accepts Tansill/Yates formations for surface casing set depth. **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 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

**Note:** The intermediate casing set depth was adjusted per BLM geologist's recommendation. The Capitan reef protection string shall be set 150 ft. above the base of Capitan.

- 2. The 9-5/8 inch 1<sup>st</sup> intermediate casing shall be set in a competent bed at approximately **2,553 ft.** The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:

**Option 1 (Single Stage): Cement to surface.** If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to **cave/karst, and Capitan Reef.**

**Option 2 (Two-Stage):** The operator has proposed to utilize a DV tool. *DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe.* Operator may adjust depth of DV tool if needed, adjust cement volumes accordingly. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. **First stage to DV tool:** Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. **Second stage above DV tool: Cement to surface.** If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to **cave/karst, and Capitan Reef.**

**Note:** Excess cement for the 2<sup>nd</sup> stage is less than 25%. More cement might be needed.

- ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3<sup>rd</sup> casing string must come to surface.
- ❖ In Capitan Reef Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3<sup>rd</sup> casing string must come to surface.
- ❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:
  - Switch to freshwater mud to protect the Capitan Reef and use freshwater mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
  - Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being



issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

3. Operator has proposed to set 7" production casing at approximately **8,534 ft.** (8,409 ft. TVD). The minimum required fill of cement behind the 7 inch production casing is:

**Option 1 (Single Stage):** Cement should tie-back at least **50 feet** above the Capitan Reef top or **200 feet** into the previous casing, whichever is greater. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, and Capitan Reef.

**Option 2 (Two-Stage):** The operator has proposed to utilize a DV tool. *DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe.* Operator may adjust depth of DV tool if needed, adjust cement volumes accordingly. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. **First stage to DV tool:** Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. **Second stage above DV tool:** Cement should tie-back at least **50 feet** above the Capitan Reef top or **200 feet** into the previous casing, whichever is greater. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, and Capitan Reef.

**Note:** Excess cement for the 2<sup>nd</sup> stage is less than 25%. More cement might be needed.

4. The minimum required fill of cement behind the **4-1/2 inch** production liner is:
  - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.

### Alternate Casing Program

1. The **13-3/8 inch** surface casing shall be set at approximately **950 ft.** and cemented to the surface. Rustler is at the surface. BLM accepts Tansill/Yates formations for surface casing set depth. **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 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

**Note:** The intermediate casing set depth was adjusted per BLM geologist's recommendation. The Capitan reef protection string shall be set 150 ft. above the base of Capitan.

2. The 9-5/8 inch 1<sup>st</sup> intermediate casing shall be set in a competent bed at approximately **2,553 ft.** The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:

**Option 1 (Single Stage): Cement to surface.** If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to **cave/karst, and Capitan Reef.**

**Option 2 (Two-Stage):** The operator has proposed to utilize a DV tool. *DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe.* Operator may adjust depth of DV tool if needed, adjust cement volumes accordingly. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. **First stage to DV tool:** Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. **Second stage above DV tool: Cement to surface.** If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to **cave/karst, and Capitan Reef.**

**Note:** Excess cement for the 2<sup>nd</sup> stage is less than 25%. More cement might be needed.

- ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3<sup>rd</sup> casing string must come to surface.
- ❖ In Capitan Reef Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3<sup>rd</sup> casing string must come to surface.
- ❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:
  - Switch to freshwater mud to protect the Capitan Reef and use freshwater mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
  - Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already

planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

3. Operator has proposed to set 7" production casing at approximately **9,460 ft.** (8,961 ft. TVD). The minimum required fill of cement behind the **7 inch** production casing is:

**Option 1 (Single Stage):** Cement should tie-back at least **50 feet** above the Capitan Reef top or **200 feet** into the previous casing, whichever is greater. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, and Capitan Reef.

**Option 2 (Two-Stage):** The operator has proposed to utilize a DV tool. *DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe.* Operator may adjust depth of DV tool if needed, adjust cement volumes accordingly. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. **First stage to DV tool:** Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. **Second stage above DV tool:** Cement should tie-back at least **50 feet** above the Capitan Reef top or **200 feet** into the previous casing, whichever is greater. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, and Capitan Reef.

**Note:** Excess cement for the 2<sup>nd</sup> stage is less than 25%. More cement might be needed.

4. The minimum required fill of cement behind the **4-1/2 inch** production liner is:
  - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification.

### Offline Cementing

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

## GENERAL REQUIREMENTS

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

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

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

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - i. Notify the BLM when moving in and removing the Spudder Rig.
    - ii. Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2<sup>nd</sup> Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the doghouse or stairway area.
3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

**A. CASING**

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

## **B. PRESSURE CONTROL**

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

- i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - v. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (Only applies to single stage cement jobs, prior to the cement setting up.)
  - iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
  - iv. The test shall be run on a 5000-psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one-hour chart. A circular chart shall have a maximum 2-hour clock. If a twelve hour or twenty-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 07/09/2025**



# Mewbourne Oil Company

## Sundry Request:

Mewbourne Oil Company requests that the following change be made to the Canal 20/19 Fed Com #712H (30-015-56328):

- MOC request to change the BHL f/ 830 FNL & 330 FWL (19) to 2150 FNL & 330 FWL (19).
- Attached Dir Plan/Plot, Drlg Program, & C102 reflecting requested changes.



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:	<input type="checkbox"/> Initial Submittal		
		<input checked="" type="checkbox"/> Amended Report		
		<input type="checkbox"/> As Drilled		

## WELL LOCATION INFORMATION

API Number <b>30-015-56328</b>	Pool Code <b>74160</b>	Pool Name <b>CARLSBAD EAST WOLFCAMP GAS</b>
Property Code	Property Name <b>CANAL 20/19 FED COM</b>	Well Number <b>712H</b>
OGRID No. <b>14744</b>	Operator Name <b>MEWBOURNE OIL COMPANY</b>	Ground Level Elevation <b>3207'</b>
Surface Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

## Surface Location

UL <b>A</b>	Section <b>20</b>	Township <b>21S</b>	Range <b>27E</b>	Lot	Ft. from N/S <b>1020 FNL</b>	Ft. from E/W <b>355 FEL</b>	Latitude <b>32.4699902°N</b>	Longitude <b>104.2047141°W</b>	County <b>EDDY</b>
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## Bottom Hole Location

UL <b>E</b>	Section <b>19</b>	Township <b>21S</b>	Range <b>27E</b>	Lot	Ft. from N/S <b>2150 FNL</b>	Ft. from E/W <b>100 FWL</b>	Latitude <b>32.4664365°N</b>	Longitude <b>104.2371602°W</b>	County <b>EDDY</b>
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Dedicated Acres <b>1269.92</b>	Infill or Defining Well <b>DEFINING WELL</b>	Defining Well API	Overlapping Spacing Unit (Y/N) <b>Y</b>	Consolidation Code <b>COM</b>
Order Numbers.			Well setbacks are under Common Ownership: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

## Kick Off Point (KOP)

UL <b>H</b>	Section <b>20</b>	Township <b>21S</b>	Range <b>27E</b>	Lot	Ft. from N/S <b>2150 FNL</b>	Ft. from E/W <b>10 FEL</b>	Latitude <b>32.4668746°N</b>	Longitude <b>104.2035990°W</b>	County <b>EDDY</b>
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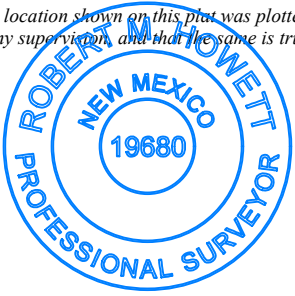
## First Take Point (FTP)

UL <b>H</b>	Section <b>20</b>	Township <b>21S</b>	Range <b>27E</b>	Lot	Ft. from N/S <b>2150 FNL</b>	Ft. from E/W <b>100 FEL</b>	Latitude <b>32.4668773°N</b>	Longitude <b>104.2038908°W</b>	County <b>EDDY</b>
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## Last Take Point (LTP)

UL <b>E</b>	Section <b>19</b>	Township <b>21S</b>	Range <b>27E</b>	Lot	Ft. from N/S <b>2150 FNL</b>	Ft. from E/W <b>100 FWL</b>	Latitude <b>32.4664365 N</b>	Longitude <b>104.2371602 W</b>	County <b>Eddy</b>
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Unitized Area or Area of Uniform Interest	Spacing Unit Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation: <b>3234</b>
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<b>OPERATOR CERTIFICATIONS</b>  <i>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.</i>  <i>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.</i>  <b>Ryan McDaniel</b> <b>3/18/25</b>		<b>SURVEYOR CERTIFICATIONS</b>  <i>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.</i>  	
Signature <b>Ryan McDaniel</b>		Signature and Seal of Professional Surveyor <b>Robert M. Howett</b>	
Printed Name <b>RyanMcDaniel@Mewbourne.com</b>		Certificate Number <b>19680</b>	Date of Survey <b>02/22/2024</b>
Email Address			

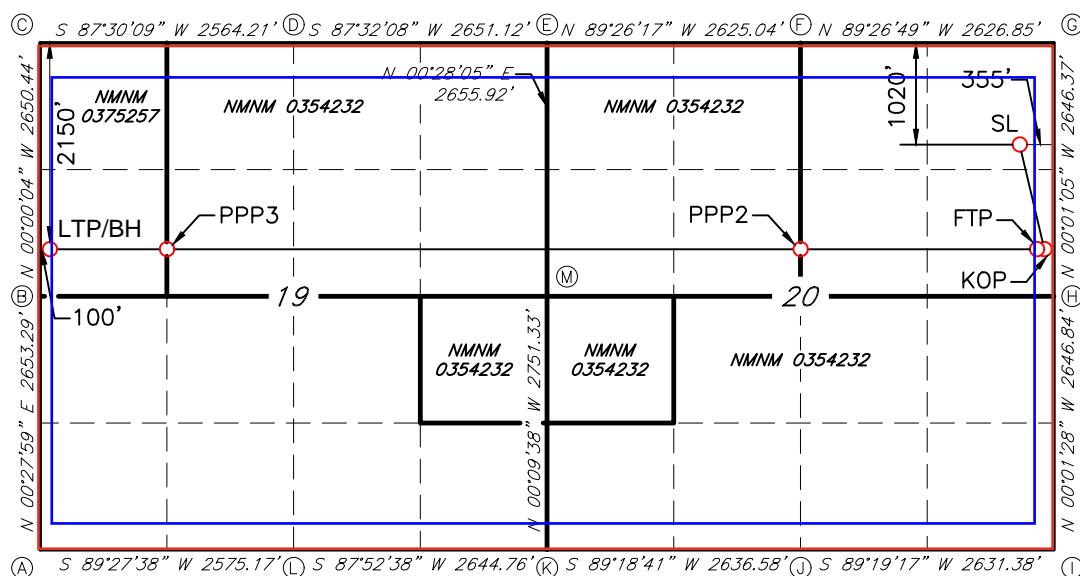
Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

## 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.

## CANAL 20/19 FED COM #712H



## GEODETIC DATA

NAD 83 GRID - NM EAST

## SURFACE LOCATION (SL)

N: 534737.2 - E: 581003.2

LAT: 32.4699902° N  
LONG: 104.2047141° W

## KICK OFF POINT (KOP)

N: 533604.2 - E: 581348.5

LAT: 32.4668746° N  
LONG: 104.2035990° W

## FIRST TAKE POINT (FTP)

N: 533605.1 - E: 581258.5

LAT: 32.4668773° N  
LONG: 104.2038908° W

## PROPOSED PENETRATION POINT 2 (PPP2)

2217' FNL - 2629' FEL (SEC.20)

N: 533562.9 - E: 578730.6

LAT: 32.4667695° N  
LONG: 104.2120877° W

## PROPOSED PENETRATION POINT 3 (PPP3)

2181' FNL - 1234' FWL (SEC.19)

N: 533452.7 - E: 572130.6

LAT: 32.4664856° N  
LONG: 104.2334882° W

## LTP/BOTTOM HOLE (BH)

N: 533433.8 - E: 570998.1

LAT: 32.4664365° N  
LONG: 104.2371602° W

## CORNER DATA

NAD 83 GRID - NM EAST

A: FOUND BRASS CAP "1943"

N: 530276.6 - E: 570876.7

B: FOUND BRASS CAP "1943"

N: 532929.2 - E: 570898.3

C: FOUND 1/2" IRON ROD

N: 535579.0 - E: 570898.2

D: FOUND BRASS CAP "1943"

N: 535690.7 - E: 573459.4

E: CALCULATED CORNER

N: 535804.7 - E: 576107.4

F: FOUND BRASS CAP "1943"

N: 535778.9 - E: 578731.7

G: FOUND BRASS CAP "1943"

N: 535753.6 - E: 581357.8

H: FOUND BRASS CAP "1943"

N: 533107.8 - E: 581358.6

I: FOUND BRASS CAP "1943"

N: 530461.6 - E: 581359.8

J: FOUND BRASS CAP "1943"

N: 530430.5 - E: 578729.2

K: FOUND BRASS CAP "1943"

N: 530398.8 - E: 576093.4

L: CALCULATED CORNER

N: 530300.8 - E: 573451.1

M: FOUND BRASS CAP "1943"

N: 533149.5 - E: 576085.7

JOB #: LS24020159D2

Mewbourne Oil Company, Canal 20/19 Fed Com 712H  
Sec 20, T21S, R27E  
SHL: 1020' FNL 355' FEL (Sec 20)  
BHL: 2150' FNL 330' FWL (Sec 19)

Well Location GL: 3206'

Point	Calls	Leases	Aliquot	Section	Township	Range	County	Lat	Long	TVD	MD
SHL	SHL: 1020' FNL & 355' FEL (Sec 20)	Fee	NENE	20	21S	27E	Eddy	32.4699902	104.2047141	0'	0'
KOP	KOP: 2150' FNL & 10' FEL (Sec 20)	Fee	SENE	20	21S	27E	Eddy	32.4668730	104.2035990	8,388'	8,534'
FTP	FTP: 2150' FNL & 330' FEL (Sec 20)	Fee	SENE	20	21S	27E	Eddy	32.4668602	104.2046369	8,902'	9,200'
PPP2	PPP2: 2150' FNL & 2625' FWL (Sec 20)	NMNM0354232	SENW	20	21S	27E	Eddy	32.4667671	104.2121518	8,931'	11,600'
PPP3	PPP3: 2150' FNL & 1282' FWL (Sec 19)	NMNM0375257	SWNW	19	21S	27E	Eddy	32.4665021	104.2333513	8,837'	18,200'
BHL	BHL: 2150' FNL & 330' FWL (Sec 19)	NMNM0375257	SWNW	19	21S	27E	Eddy	32.4664634	104.2364153	8,823'	19,234'

GEOLOGY

Formation	Est. Top (TVD)	Lithology	Mineral Resources	Formation	Est. Top (TVD)	Lithology	Mineral Resources
Rustler				Yeso			
Castile				Delaware (Lamar)	2703'	Limestone/Dolomite	Oil/Natural Gas
Salt Top	275'	Salt	None	Bell Canyon			
Salt Base	590'	Salt	None	Cherry Canyon			
Yates	740'	Sandstone	Oil/Natural Gas	Manzanita Marker			
Seven Rivers				Basal Brushy Canyon			
Queen				Bone Spring	5105'	Limestone	Oil/Natural Gas
Capitan	1090'	Limestone/Dolomite	Usable Water	1st Bone Spring	6462'	Sandstone	Oil/Natural Gas
Grayburg				2nd Bone Spring	7165'	Sandstone	Oil/Natural Gas
San Andres				3rd Bone Spring	8500'	Sandstone	Oil/Natural Gas
Glorietta				Wolfcamp	8832'	Shale/Sandstone/Limestone	Oil/Natural Gas

Casing Program Design A						BLM Minimum Safety Factors	1.125	1.0	1.6 Dry	1.6 Dry
String	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	1.8 Wet	1.8 Wet
Surface	17.5'	0'	0'	950'	950'	13.375" 48# H40 STC	1.69	3.81	SF Jt Tension	SF Body Tension
Int	12.25'	0'	0'	2650'	2650'	9.625" 36# J55 LTC	1.70	2.97	7.06	11.86
Production	8.75'	0'	0'	8534'	8409'	7" 26# P110 LTC	1.38	2.20	4.75	5.91
Liner	6.125'	8334'	8211'	19234'	8961'	4.5" 13.5# P110 LTC	1.64	1.90	3.12	3.74
									2.30	2.87

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?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	Y
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	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, Canal 20/19 Fed Com 712H  
Sec 20, T21S, R27E  
SHL: 1020' FNL 355' FEL (Sec 20)  
BHL: 2150' FNL 330' FWL (Sec 19)

Design A - Cement Program

Csg. Size		# Sacks	Wt., lb/gal	Yield, ft³/sack	TOC/BOC	Volume, ft³	% Excess	Slurry Description
13.375 in	LEAD	350	12.5	2.12	0' - 700'	750	50%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	700' - 950'	268		Class C: Retarder
1st Stg 9.625 in	LEAD	170	12.5	2.12	1065' - 1984'	370	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	1984' - 2650'	268		Class C: Retarder
9 5/8" DV Tool @ 1065'								
2nd Stg 9.625 in	LEAD	130	12.5	2.12	0' - 720'	280	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	100	14.8	1.34	720' - 1065'	0		Class C: Retarder
1st Stg 7 in	LEAD	100	12.5	2.12	5000' - 6124'	220	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	400	15.6	1.18	6124' - 8534'	472		Class H: Retarder, Fluid Loss, Defoamer
7" DV Tool @ 5000'								
2nd Stg 7 in	LEAD	280	12.5	2.12	1040' - 4277'	600	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	100	14.8	1.34	4277' - 5000'	134		Class C: Retarder, Fluid Loss, Defoamer
4.5 in	LEAD	700	13.5	1.85	8334' - 19234'	1300	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-
4.5 in	LEAD	700	13.5	1.85	8334' - 19234'	1300	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#	19,234'
		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., lb/gal	Mud Type
0' - 950'	9.2 - 8.6	Brine
950' - 2650'	8.6 - 8.6	Fresh Water
2650' - 8534'	9.5 - 10.2	Cut-Brine
8534' - 19234'	10 - 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
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Mewbourne Oil Company, Canal 20/19 Fed Com 712H  
Sec 20, T21S, R27E  
SHL: 1020' FNL 355' FEL (Sec 20)  
BHL: 2150' FNL 330' FWL (Sec 19)

Logging and Testing Procedures

Logging, Coring and Testing.	
N	Will run GR/CNL from KOP (8534') 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: Canal 20/19 Fed Com #851H
N	Coring? If yes, explain:

Open & Cased Hole Logs Run In the Well

<input type="checkbox"/> Caliper	<input type="checkbox"/> Cement Bond Log	<input type="checkbox"/> CNL/FDC
<input type="checkbox"/> Compensated Densilog	<input type="checkbox"/> Compensated Neutron Log	<input type="checkbox"/> Computer Generated Log
<input type="checkbox"/> Dip Meter Log	<input checked="" type="checkbox"/> Directional Survey	<input type="checkbox"/> Dual Induction/Microresistivity
<input type="checkbox"/> Dual Lateral Log/Microspherically Focused	<input type="checkbox"/> Electric Log	<input type="checkbox"/> Formation Density Compensated Log
<input type="checkbox"/> Gamma Ray Log	<input checked="" type="checkbox"/> Measurement While Drilling	<input type="checkbox"/> Mud Log/Geological Lithology Log
<input type="checkbox"/> Other	<input type="checkbox"/> Porosity-Resistivity Log	<input type="checkbox"/> Sidewall Neutron Log
<input type="checkbox"/> Sonic Log	<input type="checkbox"/> Spontaneous Potential Log	<input type="checkbox"/> Temperature Log

Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	5359 psi
BH Temperature	165
Abnormal Temp, Pressure, or Geologic Hazards	No

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

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

	H2S is present
X	H2S Plan attached

Mewbourne Oil Company, Canal 20/19 Fed Com 712H  
Sec 20, T21S, R27E  
SHL: 1020' FNL 355' FEL (Sec 20)  
BHL: 2150' FNL 330' FWL (Sec 19)

Other facets of operation

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

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

Casing Program Design B						BLM Minimum Safety Factors	1.125	1.0	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet
String	Hole Size	Top MD	Top TVD	Bot MD	Bot TVD	Csg. Size	SF Collapse	SF Burst	SF Jt	SF Body
Surface	17.5'	0'	0'	950'	950'	13.375" 48# H40 STC	1.69	3.81	7.06	11.86
Int 2	12.25'	0'	0'	2650'	2650'	9.625" 36# J55 LTC	1.70	2.97	4.75	5.91
Production	8.75'	0'	0'	9460'	8961'	7" 26# P110 LTC	1.24	1.98	2.82	3.37
Liner	6.125'	8534'	8409'	19234'	8961'	4.5" 13.5# P110 LTC	1.67	1.94	2.34	2.92

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?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	Y
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is an open annulus used to satisfy R-111-Q? If yes, see cement design.	
Is an engineered weak point used to satisfy R-111-Q?	
If yes, at what depth is the weak point planned?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Design B - Cement Program

Csg. Size		# Sacks	Wt., lb/gal	Yield, ft³/sack	TOC/BOC	Volume, ft³	% Excess	Slurry Description
13.375 in	LEAD	350	12.5	2.12	0' - 700'	750	50%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	700' - 950'	268		Class C: Retarder
1st Stg 9.625 in	LEAD	170	12.5	2.12	1065' - 1984'	370	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	200	14.8	1.34	1984' - 2650'	268		Class C: Retarder
9 5/8" DV Tool @ 1065'								
2nd Stg 9.625 in	LEAD	130	12.5	2.12	0' - 720'	280	25%	Class C: Salt, Gel, Extender, LCM
	TAIL	100	14.8	1.34	720' - 1065'	0		Class C: Retarder
1st Stg 7 in	LEAD	180	12.5	2.12	5000' - 7018'	390	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	400	15.6	1.18	7018' - 9460'	472		Class H: Retarder, Fluid Loss, Defoamer
7" DV Tool @ 5000'								
2nd Stg 7 in	LEAD	280	12.5	2.12	1040' - 4277'	600	25%	Class C: Salt, Gel, Extender, LCM, Defoamer
	TAIL	100	14.8	1.34	4277' - 5000'	134		Class C: Retarder, Fluid Loss, Defoamer
4.5 in	LEAD	680	13.5	1.85	8534' - 19234'	1260	25%	Class H: Salt, Gel, Fluid Loss, Retarder, Dispersant, Defoamer, Anti-

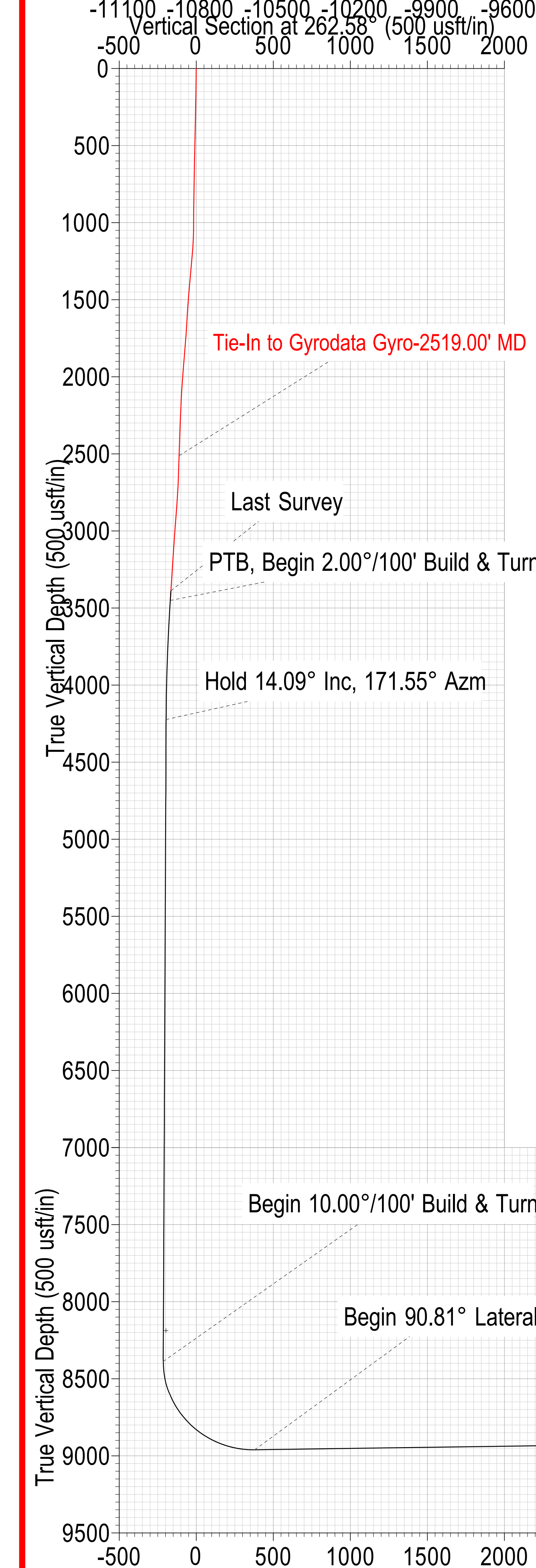
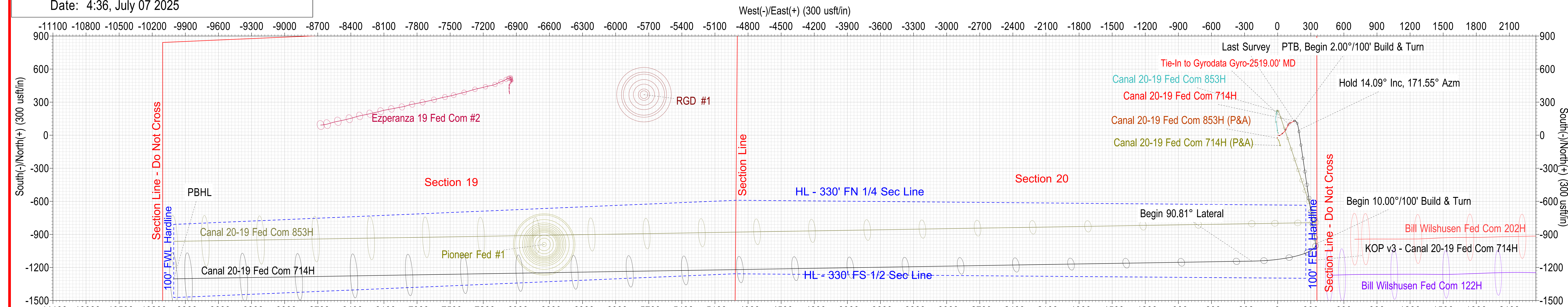




ANNOTATIONS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	V Sect	Departure	Annotation
3397.00	3.85	65.18	3388.22	127.51	149.15	-164.37	0.00	Last Survey
3460.00	3.85	65.18	3451.08	129.29	152.99	-168.41	4.23	PTB, Begin 2.00°/100' Build & Turn
4240.58	14.09	171.55	4223.81	45.77	190.98	-195.29	104.57	Hold 14.09° Inc, 171.55° Azm
8533.86	14.09	171.55	8387.89	-988.23	344.66	-214.11	1149.93	Begin 10.00°/100' Build & Turn
9459.95	90.81	269.06	8961.03	-1142.52	-233.40	379.04	1775.10	Begin 90.81° Lateral
19233.95	90.81	269.06	8823.00	-1303.40	-10005.10	10089.64	11548.13	PBHL

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
KOP v3 - Canal 20-19 Fed Com 714H	8188.10	-1133.00	345.30	533604.20	581348.50	32.466875	-104.203599
PBHL v3 - Canal 20-19 Fed Com 714H	8823.00	-1303.40	-10005.10	533433.80	570998.10	32.466436	-104.237160

Canal 20-19 Fed Com 712H  
SHL: 1020 FNL & 355 FEL  
PBHL: 500' FSL & 100' FWL



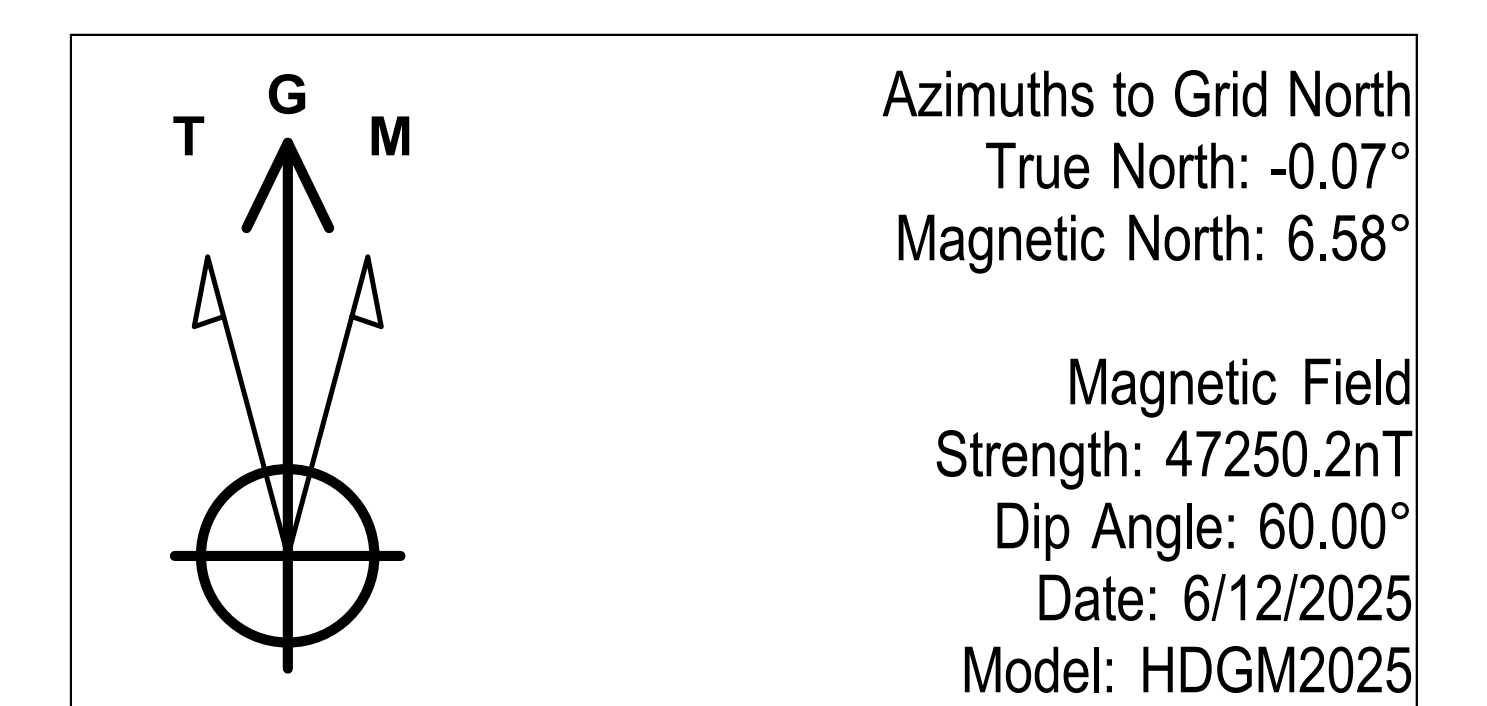
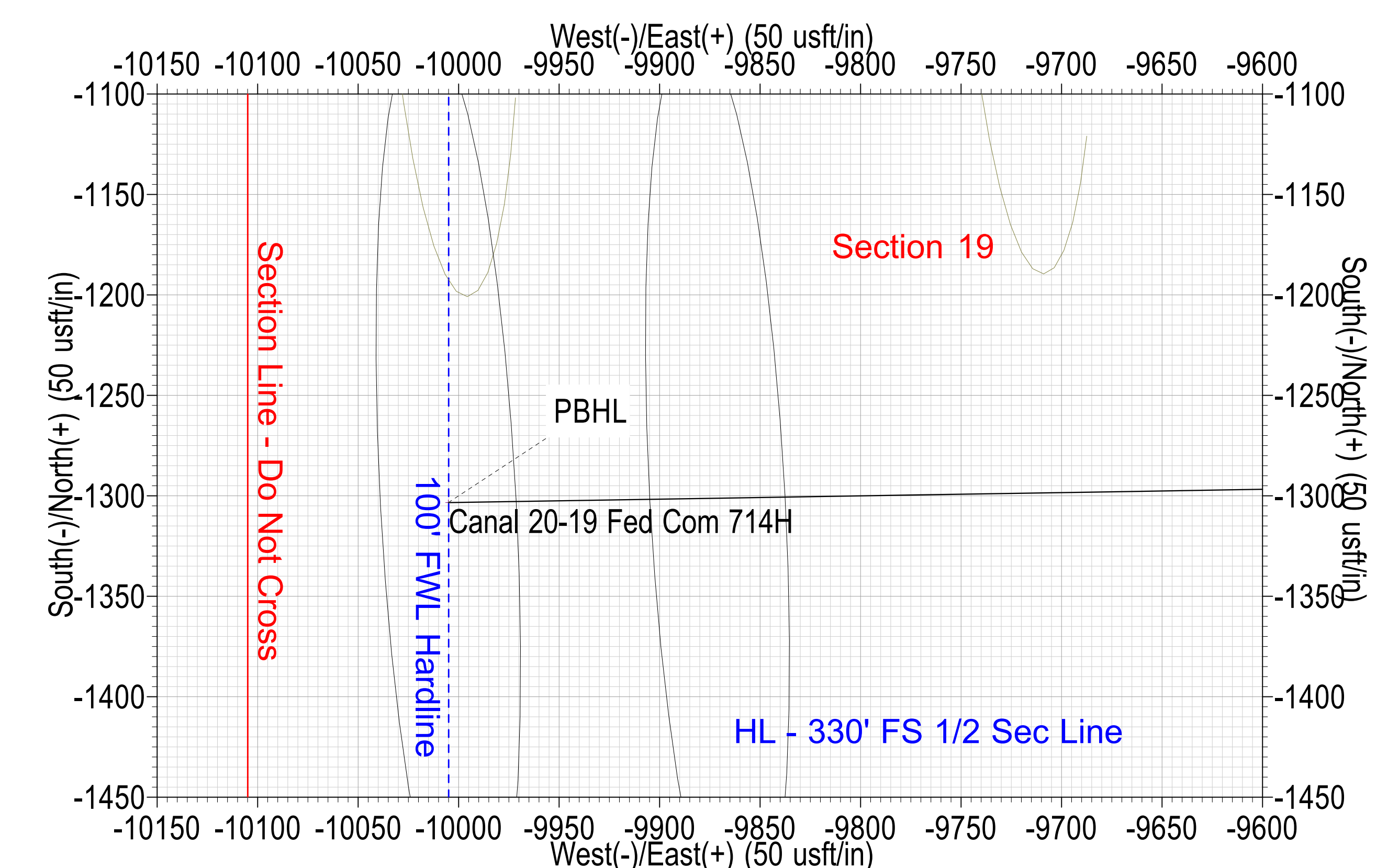
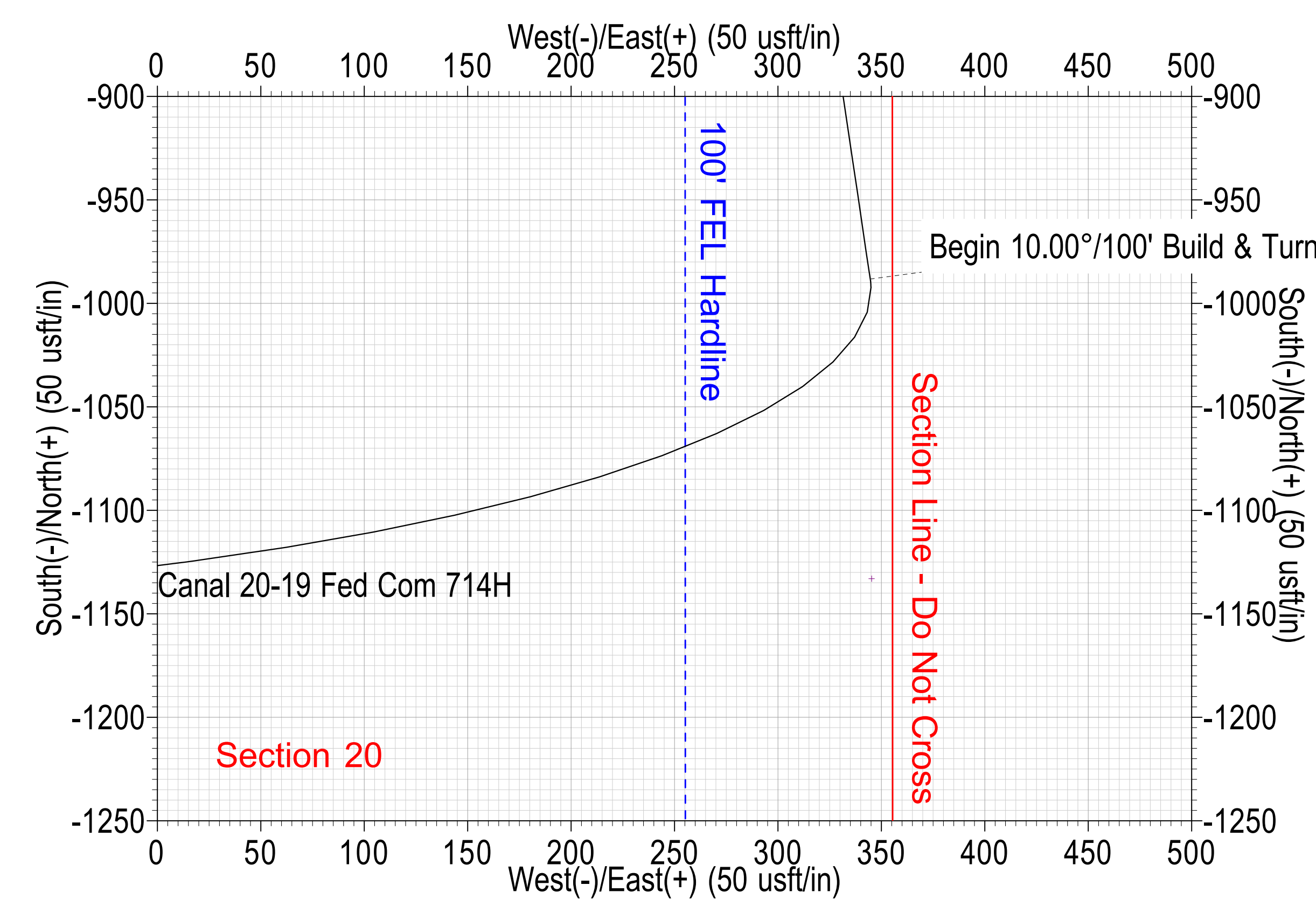
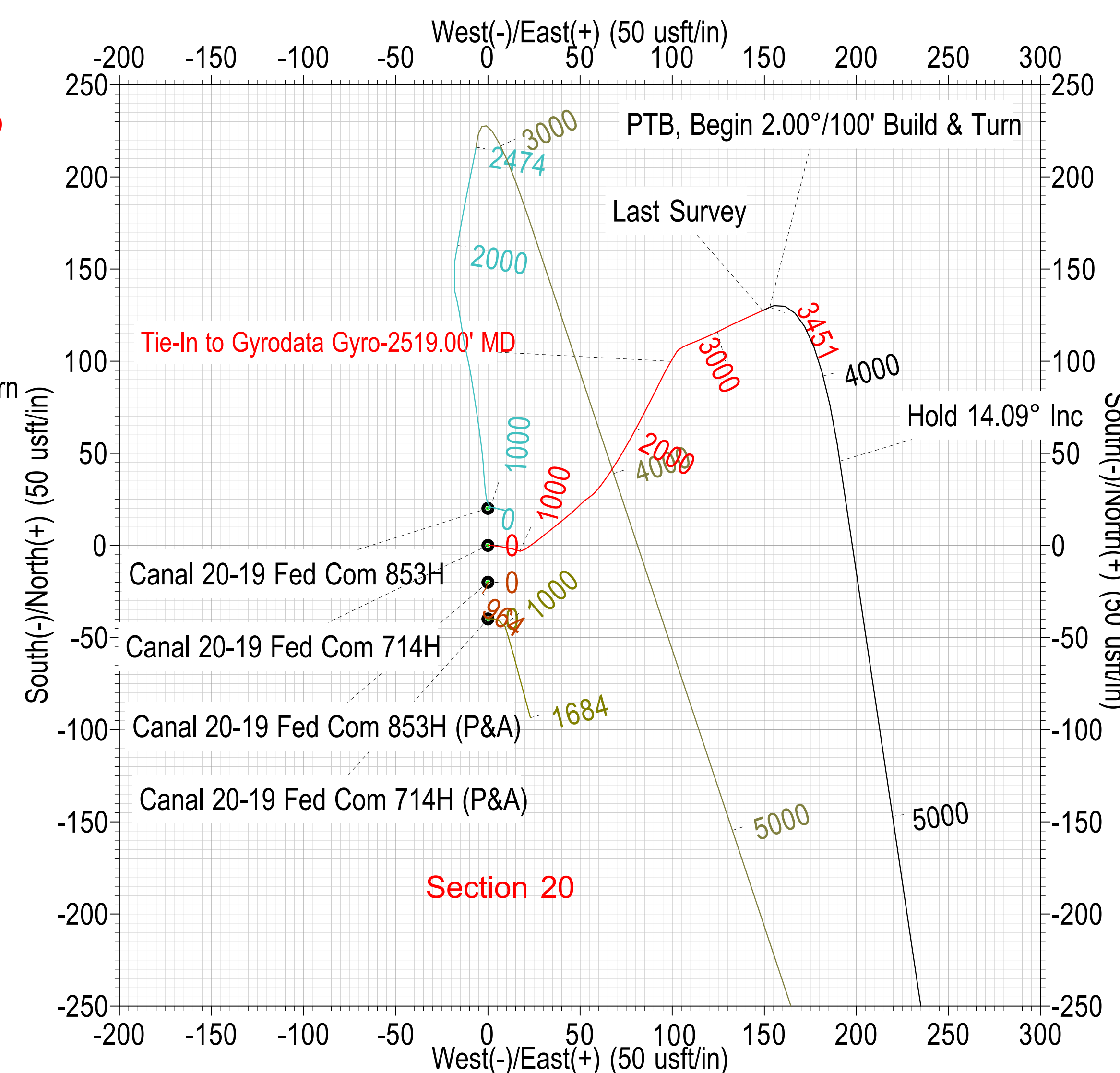
Depth From	Depth To	Survey/Plan	Tool
91.00	2519.00	Gyrodata Gyro (Wellbore #1)	GYRO-NS
2638.00	3397.00	MS MWD (Wellbore #1)	MWD+HRGM
3397.00	19233.95	Design #5 (Wellbore #1)	MWD+HRGM

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone  
System Datum: Mean Sea Level

To convert a Magnetic Direction to a Grid Direction, Add  $6.581^{\circ}$   
 To convert a Magnetic Direction to a True Direction, Add  $6.650^{\circ}$  East  
 To convert a True Direction to a Grid Direction, Subtract  $0.069^{\circ}$

WELL DETAILS: Canal 20-19 Fed Com 714H

		GL @ 3206.00	Well @ 3234.00uoft (Patterson 557)		
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	534737.20	581003.20	32.469990	-104.204714



330' FN 1/4 Sec Line  
330' FS 1/2 Sec Line  
100' FWL Hardline  
100' FEL Hardline







# **Mewbourne Oil Company**

**Eddy County, New Mexico (NAD 83)**

**Canal 20-19 (714H,853H)**

**Canal 20-19 Fed Com 712H**

**Wellbore #1**

**Plan: Design #5**

## **Standard Planning Report**

**07 July, 2025**



# MS Directional Planning Report



<b>Database:</b>	TRG_EDMConroe	<b>Local Co-ordinate Reference:</b>	Well Canal 20-19 Fed Com 712H
<b>Company:</b>	Mewbourne Oil Company	<b>TVD Reference:</b>	Well @ 3234.00usft (Patterson 557)
<b>Project:</b>	Eddy County, New Mexico (NAD 83)	<b>MD Reference:</b>	Well @ 3234.00usft (Patterson 557)
<b>Site:</b>	Canal 20-19 (714H,853H)	<b>North Reference:</b>	Grid
<b>Well:</b>	Canal 20-19 Fed Com 712H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #5		

<b>Project</b>	Eddy County, New Mexico (NAD 83)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

<b>Site</b>	Canal 20-19 (712H,853H)		
<b>Site Position:</b>		<b>Northing:</b>	534,737.20 usft
<b>From:</b>	Map	<b>Easting:</b>	581,003.20 usft
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	32.469990
		<b>Longitude:</b>	-104.204714

<b>Well</b>	Canal 20-19 Fed Com 712H		
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b> 534,737.20 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b> 581,003.20 usft
<b>Position Uncertainty</b>	0.00 usft	<b>Wellhead Elevation:</b>	usft
<b>Grid Convergence:</b>	0.069 °	<b>Ground Level:</b>	3,206.00 usft

<b>Wellbore</b>	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2025	5/5/2025	6.667	60.000	47,262.800
	HDGM2025	6/12/2025	6.650	60.000	47,250.200

<b>Design</b>	Design #5			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	3,397.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	262.58

Plan Survey Tool Program		Date 7/7/2025			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	91.00	2,519.00	Gyrodata Gyro (Wellbore #1)	GYRO-NS	
			OWSG Gyrocompass Gyro		
2	2,638.00	3,397.00	MS MWD (Wellbore #1)	MWD+HRGM	
			OWSG MWD + HRGM		
3	3,397.00	19,233.95	Design #5 (Wellbore #1)	MWD+HRGM	
			OWSG MWD + HRGM		



# MS Directional Planning Report



<b>Database:</b>	TRG_EDMConroe	<b>Local Co-ordinate Reference:</b>	Well Canal 20-19 Fed Com 712H
<b>Company:</b>	Mewbourne Oil Company	<b>TVD Reference:</b>	Well @ 3234.00usft (Patterson 557)
<b>Project:</b>	Eddy County, New Mexico (NAD 83)	<b>MD Reference:</b>	Well @ 3234.00usft (Patterson 557)
<b>Site:</b>	Canal 20-19 (714H,853H)	<b>North Reference:</b>	Grid
<b>Well:</b>	Canal 20-19 Fed Com 712H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #5		

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
3,397.00	3.85	65.18	3,388.22	127.51	149.15	0.00	0.00	0.00	0.000	
3,460.00	3.85	65.18	3,451.08	129.29	152.99	0.00	0.00	0.00	0.000	
4,240.58	14.09	171.55	4,223.81	45.77	190.98	2.00	1.31	13.63	119.760	
8,533.86	14.09	171.55	8,387.89	-988.23	344.66	0.00	0.00	0.00	0.000	
9,459.95	90.81	269.06	8,961.03	-1,142.52	-233.40	10.00	8.28	10.53	97.091	
19,233.95	90.81	269.06	8,823.00	-1,303.40	-10,005.10	0.00	0.00	0.00	0.000	PBHL v3 - Canal 20



# MS Directional Planning Report



<b>Database:</b>	TRG_EDMConroe	<b>Local Co-ordinate Reference:</b>	Well Canal 20-19 Fed Com 712H
<b>Company:</b>	Mewbourne Oil Company	<b>TVD Reference:</b>	Well @ 3234.00usft (Patterson 557)
<b>Project:</b>	Eddy County, New Mexico (NAD 83)	<b>MD Reference:</b>	Well @ 3234.00usft (Patterson 557)
<b>Site:</b>	Canal 20-19 (714H,853H)	<b>North Reference:</b>	Grid
<b>Well:</b>	Canal 20-19 Fed Com 712H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #5		

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)
3,397.00	3.85	65.18	3,388.22	127.51	149.15	-164.37	0.03	-0.03	-0.26
<b>Last Survey</b>									
3,400.00	3.85	65.18	3,391.21	127.60	149.33	-164.57	0.00	0.00	0.00
3,460.00	3.85	65.18	3,451.08	129.29	152.99	-168.41	0.00	0.00	0.00
<b>PTB, Begin 2.00°/100' Build &amp; Turn</b>									
3,500.00	3.52	76.56	3,490.99	130.14	155.40	-170.91	2.00	-0.82	28.45
3,600.00	3.46	109.87	3,590.82	129.83	161.23	-176.65	2.00	-0.06	33.31
3,700.00	4.41	135.86	3,690.59	126.04	166.74	-181.63	2.00	0.96	25.99
3,800.00	5.92	150.71	3,790.18	118.78	171.95	-185.85	2.00	1.50	14.85
3,900.00	7.65	159.23	3,889.48	108.06	176.83	-189.31	2.00	1.73	8.52
4,000.00	9.49	164.55	3,988.36	93.89	181.39	-192.00	2.00	1.84	5.32
4,100.00	11.38	168.14	4,086.71	76.28	185.61	-193.91	2.00	1.89	3.58
4,200.00	13.31	170.70	4,184.39	55.27	189.50	-195.05	2.00	1.92	2.57
4,240.58	14.09	171.55	4,223.81	45.77	190.98	-195.29	2.00	1.94	2.08
<b>Hold 14.09° Inc, 171.55° Azm</b>									
4,300.00	14.09	171.55	4,281.45	31.46	193.11	-195.55	0.00	0.00	0.00
4,400.00	14.09	171.55	4,378.44	7.38	196.69	-195.99	0.00	0.00	0.00
4,500.00	14.09	171.55	4,475.43	-16.71	200.27	-196.43	0.00	0.00	0.00
4,600.00	14.09	171.55	4,572.42	-40.79	203.85	-196.87	0.00	0.00	0.00
4,700.00	14.09	171.55	4,669.41	-64.87	207.43	-197.31	0.00	0.00	0.00
4,800.00	14.09	171.55	4,766.40	-88.96	211.00	-197.75	0.00	0.00	0.00
4,900.00	14.09	171.55	4,863.39	-113.04	214.58	-198.18	0.00	0.00	0.00
5,000.00	14.09	171.55	4,960.38	-137.13	218.16	-198.62	0.00	0.00	0.00
5,100.00	14.09	171.55	5,057.37	-161.21	221.74	-199.06	0.00	0.00	0.00
5,200.00	14.09	171.55	5,154.36	-185.29	225.32	-199.50	0.00	0.00	0.00
5,300.00	14.09	171.55	5,251.35	-209.38	228.90	-199.94	0.00	0.00	0.00
5,400.00	14.09	171.55	5,348.34	-233.46	232.48	-200.37	0.00	0.00	0.00
5,500.00	14.09	171.55	5,445.33	-257.55	236.06	-200.81	0.00	0.00	0.00
5,600.00	14.09	171.55	5,542.32	-281.63	239.64	-201.25	0.00	0.00	0.00
5,700.00	14.09	171.55	5,639.31	-305.72	243.22	-201.69	0.00	0.00	0.00
5,800.00	14.09	171.55	5,736.30	-329.80	246.80	-202.13	0.00	0.00	0.00
5,900.00	14.09	171.55	5,833.29	-353.88	250.38	-202.57	0.00	0.00	0.00
6,000.00	14.09	171.55	5,930.28	-377.97	253.96	-203.00	0.00	0.00	0.00
6,100.00	14.09	171.55	6,027.27	-402.05	257.54	-203.44	0.00	0.00	0.00
6,200.00	14.09	171.55	6,124.26	-426.14	261.12	-203.88	0.00	0.00	0.00
6,300.00	14.09	171.55	6,221.26	-450.22	264.70	-204.32	0.00	0.00	0.00
6,400.00	14.09	171.55	6,318.25	-474.31	268.28	-204.76	0.00	0.00	0.00
6,500.00	14.09	171.55	6,415.24	-498.39	271.85	-205.19	0.00	0.00	0.00
6,600.00	14.09	171.55	6,512.23	-522.47	275.43	-205.63	0.00	0.00	0.00
6,700.00	14.09	171.55	6,609.22	-546.56	279.01	-206.07	0.00	0.00	0.00
6,800.00	14.09	171.55	6,706.21	-570.64	282.59	-206.51	0.00	0.00	0.00
6,900.00	14.09	171.55	6,803.20	-594.73	286.17	-206.95	0.00	0.00	0.00
7,000.00	14.09	171.55	6,900.19	-618.81	289.75	-207.38	0.00	0.00	0.00
7,100.00	14.09	171.55	6,997.18	-642.90	293.33	-207.82	0.00	0.00	0.00
7,200.00	14.09	171.55	7,094.17	-666.98	296.91	-208.26	0.00	0.00	0.00
7,300.00	14.09	171.55	7,191.16	-691.06	300.49	-208.70	0.00	0.00	0.00
7,400.00	14.09	171.55	7,288.15	-715.15	304.07	-209.14	0.00	0.00	0.00
7,500.00	14.09	171.55	7,385.14	-739.23	307.65	-209.58	0.00	0.00	0.00
7,600.00	14.09	171.55	7,482.13	-763.32	311.23	-210.01	0.00	0.00	0.00
7,700.00	14.09	171.55	7,579.12	-787.40	314.81	-210.45	0.00	0.00	0.00
7,800.00	14.09	171.55	7,676.11	-811.49	318.39	-210.89	0.00	0.00	0.00
7,900.00	14.09	171.55	7,773.10	-835.57	321.97	-211.33	0.00	0.00	0.00
8,000.00	14.09	171.55	7,870.09	-859.65	325.55	-211.77	0.00	0.00	0.00

# MS Directional Planning Report



<b>Database:</b>	TRG_EDMConroe	<b>Local Co-ordinate Reference:</b>	Well Canal 20-19 Fed Com 712H
<b>Company:</b>	Mewbourne Oil Company	<b>TVD Reference:</b>	Well @ 3234.00usft (Patterson 557)
<b>Project:</b>	Eddy County, New Mexico (NAD 83)	<b>MD Reference:</b>	Well @ 3234.00usft (Patterson 557)
<b>Site:</b>	Canal 20-19 (714H,853H)	<b>North Reference:</b>	Grid
<b>Well:</b>	Canal 20-19 Fed Com 712H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #5		

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)
8,100.00	14.09	171.55	7,967.08	-883.74	329.13	-212.20	0.00	0.00	0.00
8,200.00	14.09	171.55	8,064.07	-907.82	332.71	-212.64	0.00	0.00	0.00
8,300.00	14.09	171.55	8,161.06	-931.91	336.28	-213.08	0.00	0.00	0.00
8,400.00	14.09	171.55	8,258.05	-955.99	339.86	-213.52	0.00	0.00	0.00
8,500.00	14.09	171.55	8,355.04	-980.07	343.44	-213.96	0.00	0.00	0.00
8,533.86	14.09	171.55	8,387.89	-988.23	344.66	-214.11	0.00	0.00	0.00
<b>Begin 10.00°/100' Build &amp; Turn</b>									
8,550.00	13.98	178.19	8,403.54	-992.12	345.01	-213.95	10.00	-0.68	41.15
8,600.00	14.78	198.16	8,452.01	-1,004.23	343.21	-210.60	10.00	1.59	39.95
8,650.00	17.04	214.52	8,500.11	-1,016.33	337.06	-202.95	10.00	4.52	32.72
8,700.00	20.28	226.49	8,547.50	-1,028.34	326.62	-191.04	10.00	6.48	23.93
8,750.00	24.11	235.04	8,593.79	-1,040.17	311.96	-174.97	10.00	7.65	17.11
8,800.00	28.28	241.29	8,638.66	-1,051.71	293.19	-154.87	10.00	8.35	12.49
8,850.00	32.68	246.01	8,681.74	-1,062.90	270.45	-130.88	10.00	8.78	9.44
8,900.00	37.21	249.71	8,722.72	-1,073.64	243.92	-103.18	10.00	9.06	7.40
8,950.00	41.83	252.70	8,761.29	-1,083.84	213.80	-72.00	10.00	9.25	5.99
9,000.00	46.52	255.20	8,797.14	-1,093.44	180.32	-37.56	10.00	9.38	4.99
9,050.00	51.26	257.33	8,830.01	-1,102.36	143.74	-0.13	10.00	9.47	4.26
9,100.00	56.03	259.20	8,859.64	-1,110.52	104.32	40.01	10.00	9.54	3.73
9,150.00	60.82	260.86	8,885.82	-1,117.88	62.38	82.55	10.00	9.59	3.33
9,200.00	65.63	262.38	8,908.34	-1,124.37	18.23	127.17	10.00	9.63	3.03
9,250.00	70.46	263.79	8,927.02	-1,129.95	-27.79	173.53	10.00	9.65	2.81
9,300.00	75.30	265.11	8,941.74	-1,134.56	-75.34	221.27	10.00	9.67	2.65
9,350.00	80.14	266.38	8,952.37	-1,138.18	-124.04	270.04	10.00	9.69	2.53
9,400.00	84.99	267.60	8,958.84	-1,140.78	-173.54	319.45	10.00	9.70	2.46
9,450.00	89.84	268.82	8,961.09	-1,142.34	-223.45	369.15	10.00	9.70	2.42
9,459.95	90.81	269.06	8,961.03	-1,142.52	-233.40	379.04	10.00	9.70	2.42
<b>Begin 90.81° Lateral</b>									
9,500.00	90.81	269.06	8,960.47	-1,143.18	-273.44	418.82	0.00	0.00	0.00
9,600.00	90.81	269.06	8,959.05	-1,144.83	-373.41	518.18	0.00	0.00	0.00
9,700.00	90.81	269.06	8,957.64	-1,146.48	-473.39	617.53	0.00	0.00	0.00
9,800.00	90.81	269.06	8,956.23	-1,148.12	-573.37	716.88	0.00	0.00	0.00
9,900.00	90.81	269.06	8,954.82	-1,149.77	-673.34	816.23	0.00	0.00	0.00
10,000.00	90.81	269.06	8,953.41	-1,151.41	-773.32	915.58	0.00	0.00	0.00
10,100.00	90.81	269.06	8,951.99	-1,153.06	-873.30	1,014.93	0.00	0.00	0.00
10,200.00	90.81	269.06	8,950.58	-1,154.71	-973.27	1,114.28	0.00	0.00	0.00
10,300.00	90.81	269.06	8,949.17	-1,156.35	-1,073.25	1,213.64	0.00	0.00	0.00
10,400.00	90.81	269.06	8,947.76	-1,158.00	-1,173.22	1,312.99	0.00	0.00	0.00
10,500.00	90.81	269.06	8,946.34	-1,159.64	-1,273.20	1,412.34	0.00	0.00	0.00
10,600.00	90.81	269.06	8,944.93	-1,161.29	-1,373.18	1,511.69	0.00	0.00	0.00
10,700.00	90.81	269.06	8,943.52	-1,162.93	-1,473.15	1,611.04	0.00	0.00	0.00
10,800.00	90.81	269.06	8,942.11	-1,164.58	-1,573.13	1,710.39	0.00	0.00	0.00
10,900.00	90.81	269.06	8,940.70	-1,166.23	-1,673.11	1,809.74	0.00	0.00	0.00
11,000.00	90.81	269.06	8,939.28	-1,167.87	-1,773.08	1,909.09	0.00	0.00	0.00
11,100.00	90.81	269.06	8,937.87	-1,169.52	-1,873.06	2,008.45	0.00	0.00	0.00
11,200.00	90.81	269.06	8,936.46	-1,171.16	-1,973.04	2,107.80	0.00	0.00	0.00
11,300.00	90.81	269.06	8,935.05	-1,172.81	-2,073.01	2,207.15	0.00	0.00	0.00
11,400.00	90.81	269.06	8,933.63	-1,174.46	-2,172.99	2,306.50	0.00	0.00	0.00
11,500.00	90.81	269.06	8,932.22	-1,176.10	-2,272.97	2,405.85	0.00	0.00	0.00
11,600.00	90.81	269.06	8,930.81	-1,177.75	-2,372.94	2,505.20	0.00	0.00	0.00
11,700.00	90.81	269.06	8,929.40	-1,179.39	-2,472.92	2,604.55	0.00	0.00	0.00
11,800.00	90.81	269.06	8,927.99	-1,181.04	-2,572.90	2,703.91	0.00	0.00	0.00
11,900.00	90.81	269.06	8,926.57	-1,182.69	-2,672.87	2,803.26	0.00	0.00	0.00
12,000.00	90.81	269.06	8,925.16	-1,184.33	-2,772.85	2,902.61	0.00	0.00	0.00

# MS Directional Planning Report



<b>Database:</b>	TRG_EDMConroe	<b>Local Co-ordinate Reference:</b>	Well Canal 20-19 Fed Com 712H
<b>Company:</b>	Mewbourne Oil Company	<b>TVD Reference:</b>	Well @ 3234.00usft (Patterson 557)
<b>Project:</b>	Eddy County, New Mexico (NAD 83)	<b>MD Reference:</b>	Well @ 3234.00usft (Patterson 557)
<b>Site:</b>	Canal 20-19 (714H,853H)	<b>North Reference:</b>	Grid
<b>Well:</b>	Canal 20-19 Fed Com 712H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #5		

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)
12,100.00	90.81	269.06	8,923.75	-1,185.98	-2,872.82	3,001.96	0.00	0.00	0.00
12,200.00	90.81	269.06	8,922.34	-1,187.62	-2,972.80	3,101.31	0.00	0.00	0.00
12,300.00	90.81	269.06	8,920.92	-1,189.27	-3,072.78	3,200.66	0.00	0.00	0.00
12,400.00	90.81	269.06	8,919.51	-1,190.92	-3,172.75	3,300.01	0.00	0.00	0.00
12,500.00	90.81	269.06	8,918.10	-1,192.56	-3,272.73	3,399.37	0.00	0.00	0.00
12,600.00	90.81	269.06	8,916.69	-1,194.21	-3,372.71	3,498.72	0.00	0.00	0.00
12,700.00	90.81	269.06	8,915.28	-1,195.85	-3,472.68	3,598.07	0.00	0.00	0.00
12,800.00	90.81	269.06	8,913.86	-1,197.50	-3,572.66	3,697.42	0.00	0.00	0.00
12,900.00	90.81	269.06	8,912.45	-1,199.15	-3,672.64	3,796.77	0.00	0.00	0.00
13,000.00	90.81	269.06	8,911.04	-1,200.79	-3,772.61	3,896.12	0.00	0.00	0.00
13,100.00	90.81	269.06	8,909.63	-1,202.44	-3,872.59	3,995.47	0.00	0.00	0.00
13,200.00	90.81	269.06	8,908.21	-1,204.08	-3,972.57	4,094.83	0.00	0.00	0.00
13,300.00	90.81	269.06	8,906.80	-1,205.73	-4,072.54	4,194.18	0.00	0.00	0.00
13,400.00	90.81	269.06	8,905.39	-1,207.38	-4,172.52	4,293.53	0.00	0.00	0.00
13,500.00	90.81	269.06	8,903.98	-1,209.02	-4,272.50	4,392.88	0.00	0.00	0.00
13,600.00	90.81	269.06	8,902.57	-1,210.67	-4,372.47	4,492.23	0.00	0.00	0.00
13,700.00	90.81	269.06	8,901.15	-1,212.31	-4,472.45	4,591.58	0.00	0.00	0.00
13,800.00	90.81	269.06	8,899.74	-1,213.96	-4,572.43	4,690.93	0.00	0.00	0.00
13,900.00	90.81	269.06	8,898.33	-1,215.61	-4,672.40	4,790.29	0.00	0.00	0.00
14,000.00	90.81	269.06	8,896.92	-1,217.25	-4,772.38	4,889.64	0.00	0.00	0.00
14,100.00	90.81	269.06	8,895.50	-1,218.90	-4,872.35	4,988.99	0.00	0.00	0.00
14,200.00	90.81	269.06	8,894.09	-1,220.54	-4,972.33	5,088.34	0.00	0.00	0.00
14,300.00	90.81	269.06	8,892.68	-1,222.19	-5,072.31	5,187.69	0.00	0.00	0.00
14,400.00	90.81	269.06	8,891.27	-1,223.84	-5,172.28	5,287.04	0.00	0.00	0.00
14,500.00	90.81	269.06	8,889.85	-1,225.48	-5,272.26	5,386.39	0.00	0.00	0.00
14,600.00	90.81	269.06	8,888.44	-1,227.13	-5,372.24	5,485.75	0.00	0.00	0.00
14,700.00	90.81	269.06	8,887.03	-1,228.77	-5,472.21	5,585.10	0.00	0.00	0.00
14,800.00	90.81	269.06	8,885.62	-1,230.42	-5,572.19	5,684.45	0.00	0.00	0.00
14,900.00	90.81	269.06	8,884.21	-1,232.07	-5,672.17	5,783.80	0.00	0.00	0.00
15,000.00	90.81	269.06	8,882.79	-1,233.71	-5,772.14	5,883.15	0.00	0.00	0.00
15,100.00	90.81	269.06	8,881.38	-1,235.36	-5,872.12	5,982.50	0.00	0.00	0.00
15,200.00	90.81	269.06	8,879.97	-1,237.00	-5,972.10	6,081.85	0.00	0.00	0.00
15,300.00	90.81	269.06	8,878.56	-1,238.65	-6,072.07	6,181.21	0.00	0.00	0.00
15,400.00	90.81	269.06	8,877.14	-1,240.29	-6,172.05	6,280.56	0.00	0.00	0.00
15,500.00	90.81	269.06	8,875.73	-1,241.94	-6,272.03	6,379.91	0.00	0.00	0.00
15,600.00	90.81	269.06	8,874.32	-1,243.59	-6,372.00	6,479.26	0.00	0.00	0.00
15,700.00	90.81	269.06	8,872.91	-1,245.23	-6,471.98	6,578.61	0.00	0.00	0.00
15,800.00	90.81	269.06	8,871.50	-1,246.88	-6,571.95	6,677.96	0.00	0.00	0.00
15,900.00	90.81	269.06	8,870.08	-1,248.52	-6,671.93	6,777.31	0.00	0.00	0.00
16,000.00	90.81	269.06	8,868.67	-1,250.17	-6,771.91	6,876.66	0.00	0.00	0.00
16,100.00	90.81	269.06	8,867.26	-1,251.82	-6,871.88	6,976.02	0.00	0.00	0.00
16,200.00	90.81	269.06	8,865.85	-1,253.46	-6,971.86	7,075.37	0.00	0.00	0.00
16,300.00	90.81	269.06	8,864.43	-1,255.11	-7,071.84	7,174.72	0.00	0.00	0.00
16,400.00	90.81	269.06	8,863.02	-1,256.75	-7,171.81	7,274.07	0.00	0.00	0.00
16,500.00	90.81	269.06	8,861.61	-1,258.40	-7,271.79	7,373.42	0.00	0.00	0.00
16,600.00	90.81	269.06	8,860.20	-1,260.05	-7,371.77	7,472.77	0.00	0.00	0.00
16,700.00	90.81	269.06	8,858.79	-1,261.69	-7,471.74	7,572.12	0.00	0.00	0.00
16,800.00	90.81	269.06	8,857.37	-1,263.34	-7,571.72	7,671.48	0.00	0.00	0.00
16,900.00	90.81	269.06	8,855.96	-1,264.98	-7,671.70	7,770.83	0.00	0.00	0.00
17,000.00	90.81	269.06	8,854.55	-1,266.63	-7,771.67	7,870.18	0.00	0.00	0.00
17,100.00	90.81	269.06	8,853.14	-1,268.28	-7,871.65	7,969.53	0.00	0.00	0.00
17,200.00	90.81	269.06	8,851.72	-1,269.92	-7,971.63	8,068.88	0.00	0.00	0.00
17,300.00	90.81	269.06	8,850.31	-1,271.57	-8,071.60	8,168.23	0.00	0.00	0.00
17,400.00	90.81	269.06	8,848.90	-1,273.21	-8,171.58	8,267.58	0.00	0.00	0.00



# MS Directional Planning Report



<b>Database:</b>	TRG_EDMConroe	<b>Local Co-ordinate Reference:</b>	Well Canal 20-19 Fed Com 712H
<b>Company:</b>	Mewbourne Oil Company	<b>TVD Reference:</b>	Well @ 3234.00usft (Patterson 557)
<b>Project:</b>	Eddy County, New Mexico (NAD 83)	<b>MD Reference:</b>	Well @ 3234.00usft (Patterson 557)
<b>Site:</b>	Canal 20-19 (714H,853H)	<b>North Reference:</b>	Grid
<b>Well:</b>	Canal 20-19 Fed Com 712H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #5		

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)
17,500.00	90.81	269.06	8,847.49	-1,274.86	-8,271.55	8,366.94	0.00	0.00	0.00
17,600.00	90.81	269.06	8,846.08	-1,276.51	-8,371.53	8,466.29	0.00	0.00	0.00
17,700.00	90.81	269.06	8,844.66	-1,278.15	-8,471.51	8,565.64	0.00	0.00	0.00
17,800.00	90.81	269.06	8,843.25	-1,279.80	-8,571.48	8,664.99	0.00	0.00	0.00
17,900.00	90.81	269.06	8,841.84	-1,281.44	-8,671.46	8,764.34	0.00	0.00	0.00
18,000.00	90.81	269.06	8,840.43	-1,283.09	-8,771.44	8,863.69	0.00	0.00	0.00
18,100.00	90.81	269.06	8,839.01	-1,284.74	-8,871.41	8,963.04	0.00	0.00	0.00
18,200.00	90.81	269.06	8,837.60	-1,286.38	-8,971.39	9,062.40	0.00	0.00	0.00
18,300.00	90.81	269.06	8,836.19	-1,288.03	-9,071.37	9,161.75	0.00	0.00	0.00
18,400.00	90.81	269.06	8,834.78	-1,289.67	-9,171.34	9,261.10	0.00	0.00	0.00
18,500.00	90.81	269.06	8,833.37	-1,291.32	-9,271.32	9,360.45	0.00	0.00	0.00
18,600.00	90.81	269.06	8,831.95	-1,292.97	-9,371.30	9,459.80	0.00	0.00	0.00
18,700.00	90.81	269.06	8,830.54	-1,294.61	-9,471.27	9,559.15	0.00	0.00	0.00
18,800.00	90.81	269.06	8,829.13	-1,296.26	-9,571.25	9,658.50	0.00	0.00	0.00
18,900.00	90.81	269.06	8,827.72	-1,297.90	-9,671.23	9,757.86	0.00	0.00	0.00
19,000.00	90.81	269.06	8,826.30	-1,299.55	-9,771.20	9,857.21	0.00	0.00	0.00
19,100.00	90.81	269.06	8,824.89	-1,301.20	-9,871.18	9,956.56	0.00	0.00	0.00
19,200.00	90.81	269.06	8,823.48	-1,302.84	-9,971.16	10,055.91	0.00	0.00	0.00
19,233.95	90.81	269.06	8,823.00	-1,303.40	-10,005.10	10,089.64	0.00	0.00	0.00
PBHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP v3 - Canal 20-19	0.00	0.00	8,188.10	-1,133.00	345.30	533,604.20	581,348.50	32.466875	-104.203599
- hit/miss target									
- plan misses target center by 188.76usft at 8374.98usft MD (8233.78 TVD, -949.96 N, 338.97 E)									
- Shape									
- Point									
PBHL v3 - Canal 20-1	0.00	0.00	8,823.00	-1,303.40	-10,005.10	533,433.80	570,998.10	32.466436	-104.237161
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
3,397.00	3,388.22	127.51	149.15	Last Survey
3,460.00	3,451.08	129.29	152.99	PTB, Begin 2.00°/100' Build & Turn
4,240.58	4,223.81	45.77	190.98	Hold 14.09° Inc, 171.55° Azm
8,533.86	8,387.89	-988.23	344.66	Begin 10.00°/100' Build & Turn
9,459.95	8,961.03	-1,142.52	-233.40	Begin 90.81° Lateral
19,233.95	8,823.00	-1,303.40	-10,005.10	PBHL



Sante Fe Main Office  
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General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/oed/contact-us>

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

CONDITIONS

Action 483257

CONDITIONS

Operator: MEWBOURNE OIL CO P.O. Box 5270 Hobbs, NM 88241	OGRID: 14744
	Action Number: 483257
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Work was performed without OCD approval.	11/10/2025