

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING CALLED  
BY THE OIL CONSERVATION DIVISION FOR  
THE PURPOSE OF CONSIDERING:**

**APPLICATION OF MEWBOURNE OIL  
COMPANY FOR COMPULSORY POOLING  
AND AN UNORTHODOX WELL LOCATION,  
EDDY COUNTY, NEW MEXICO.**

**Case No. 15,274**

**VERIFIED STATEMENT OF JASON LODGE**

COUNTY OF MIDLAND                    )  
                                              ) ss.  
STATE OF TEXAS                        )

Jason Lodge, being duly sworn upon his oath, deposes and states:

1. I am over the age of 18, and have personal knowledge of the matters stated herein.
2. I am a geologist for Mewbourne Oil Company ("Mewbourne"), and I am familiar with the geological matters involved in this case
3. I have been previously qualified as an expert petroleum geologist by the Division.
4. The geological plats attached hereto show the following:
  - (a) Attachment A is a structure map on top of the Wolfcamp formation. It shows other Wolfcamp producers in the immediate area, and shows the location of cross section line A-A', explained in attachment B. The proposed horizontal well is highlighted in red.
  - (b) Attachment B is a north-south cross section A-A'. The horizontal target is notated on each log. The Wolfcamp pay zone is continuous across the well unit.
5. I conclude from the maps that the project area is justified from a geologic standpoint.
6. There is no faulting or other geologic impediment which would adversely affect the drilling of the subject well.

7. The beginning of the producing interval of the well will be at an orthodox location, but the terminus is unorthodox. The unorthodox location is requested because the Wolfcamp formation is tight, and the additional producing interval will make the well more economic. Due to the tight reservoir, offsets will not be harmed by the unorthodox location.

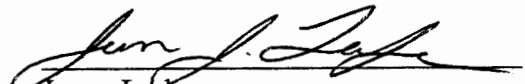
8. Attachment C contains production information from other Wolfcamp wells drilled in this area. It shows that horizontal wells are preferable to vertical wells. Also, Mewbourne prefers to drill a standup well because the offset standup well to the northeast has had good results.

9. Attachment D is the proposed horizontal well plan. The well will have approximately 20 completion stages using approximately 7,000,000 gallons of fluid and 7,000,000 pounds of sand. The beginning of the producing interval will be approximately 753 from the north line and 990 feet from the west line of Section 3.

VERIFICATION

STATE OF TEXAS                    )  
                                          ) ss.  
COUNTY OF MIDLAND            )

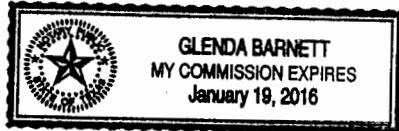
Jason Lodge, being duly sworn upon his oath, deposes and states that: He is a geologist for Mewbourne Oil Company; he is authorized to make this verification on its behalf; he has read the foregoing statement, and knows the contents thereof; and the same is true and correct to the best of his knowledge, information, and belief.

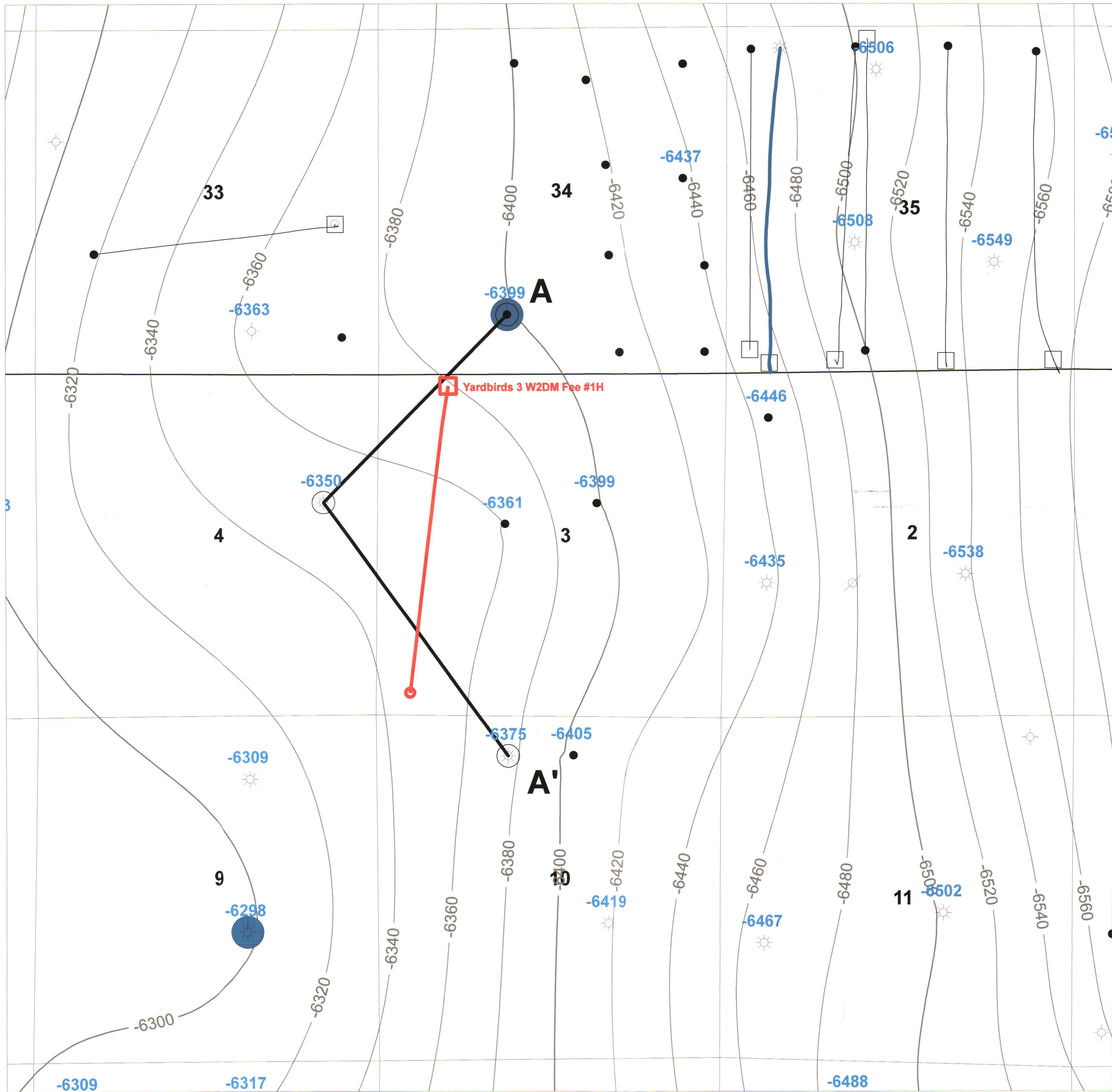
  
Jason Lodge

SUBSCRIBED AND SWORN TO before me this 9<sup>th</sup> day of March, 2015 by Jason Lodge.

My Commission Expires: 1-19-2016

  
Notary Public





1400 0 1400 2800 4200 ft

1 inch = 1000 feet

Top of Wolfcamp  
Subsea

Wolfcamp Producer



Mewbourne Oil Company

Attachment A

Yardbirds 3 W2DM Fee #1H Base Map

Top of Wolfcamp Structure

Author:

< J. Lodge

Date:

March 9, 2015

Scale:

1 in = 1000 ft.

A

300152387900  
HALLWOOD PETRLM INC  
FATE 34' 1"  
910 FSL/1980 FWL  
TWP: 23 S - Range: 28 E - Sec. 34  
Reference=KB  
Datum=3058.00

34N

4031 ft

300152349700  
HNG OIL COMPANY  
VASQUEZ 4/ COM 1  
1980 FNL/870 FWL  
TWP: 24 S - Range: 28 E - Sec. 4  
Reference=KB  
Datum=3058.00

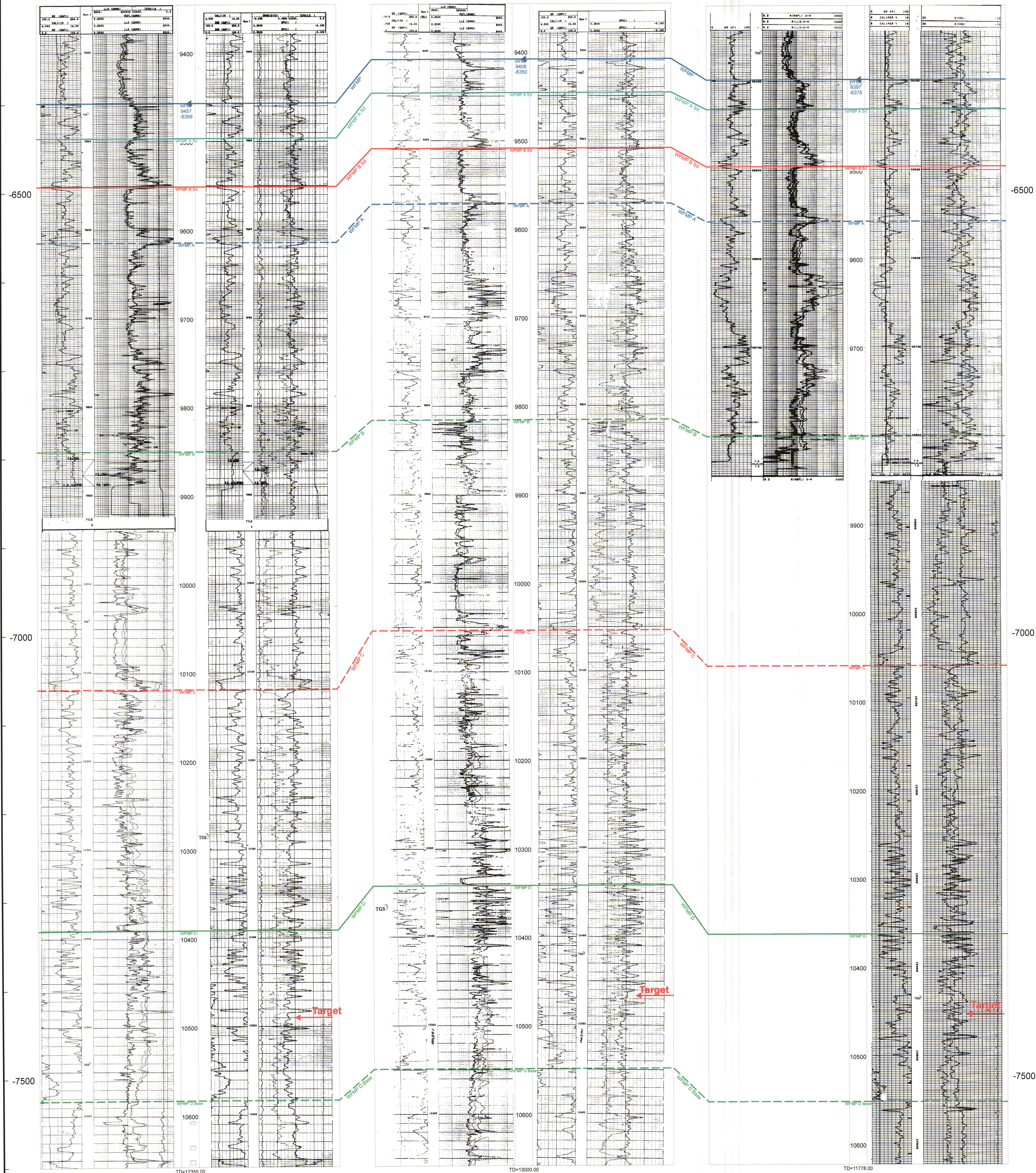
4H

4819 ft

300152379700  
DINERO OPERATING CO  
VASQUEZ COM 1  
860 FNL/1980 FWL  
TWP: 24 S - Range: 28 E - Sec. 10  
Reference=KB  
Datum=3022.00

10C

A'



Yardbirds 3 W2DM Fee #1H Production Table

3/9/2015

| Well Name      |  | Well ID | Surface Location                           | PBHL                                      | Operator          | Vert/Horiz | Cum Oil (MBO) | Cum Water (MBW) | Cum Gas (MMCF) | First Production |
|----------------|--|---------|--------------------------------------------|-------------------------------------------|-------------------|------------|---------------|-----------------|----------------|------------------|
| Fate 34 #1     |  | 34N     | 910 FSL & 1980 FWL<br>T23S - R28E, Sec. 34 | NA                                        | BK<br>Exploration | V          | 8             | 14              | 390            | June-86          |
|                |  | 35MD    | 150 FSL & 660 FWL<br>T23S - R28E, Sec. 35  | 343 FNL & 829 FWL<br>T23S - R28E, Sec. 35 | Mewbourne         | H          | 53            | 141             | 527            | March-14         |
| Woods 9 Com #1 |  | 9J      | 1980 FSL & 2000 FEL<br>T24S - R28E, Sec. 9 | NA                                        | Chevron           | V          | 1             | 53              | 468            | May-95           |

Attachment C

# **Mewbourne Oil Company**

**Eddy County, New Mexico**

**Yardbirds 3 W2DM Fee 1H Revised**

**Sec 3, T24S, R28E**

**SL: 185' FNL & 1070' FWL**

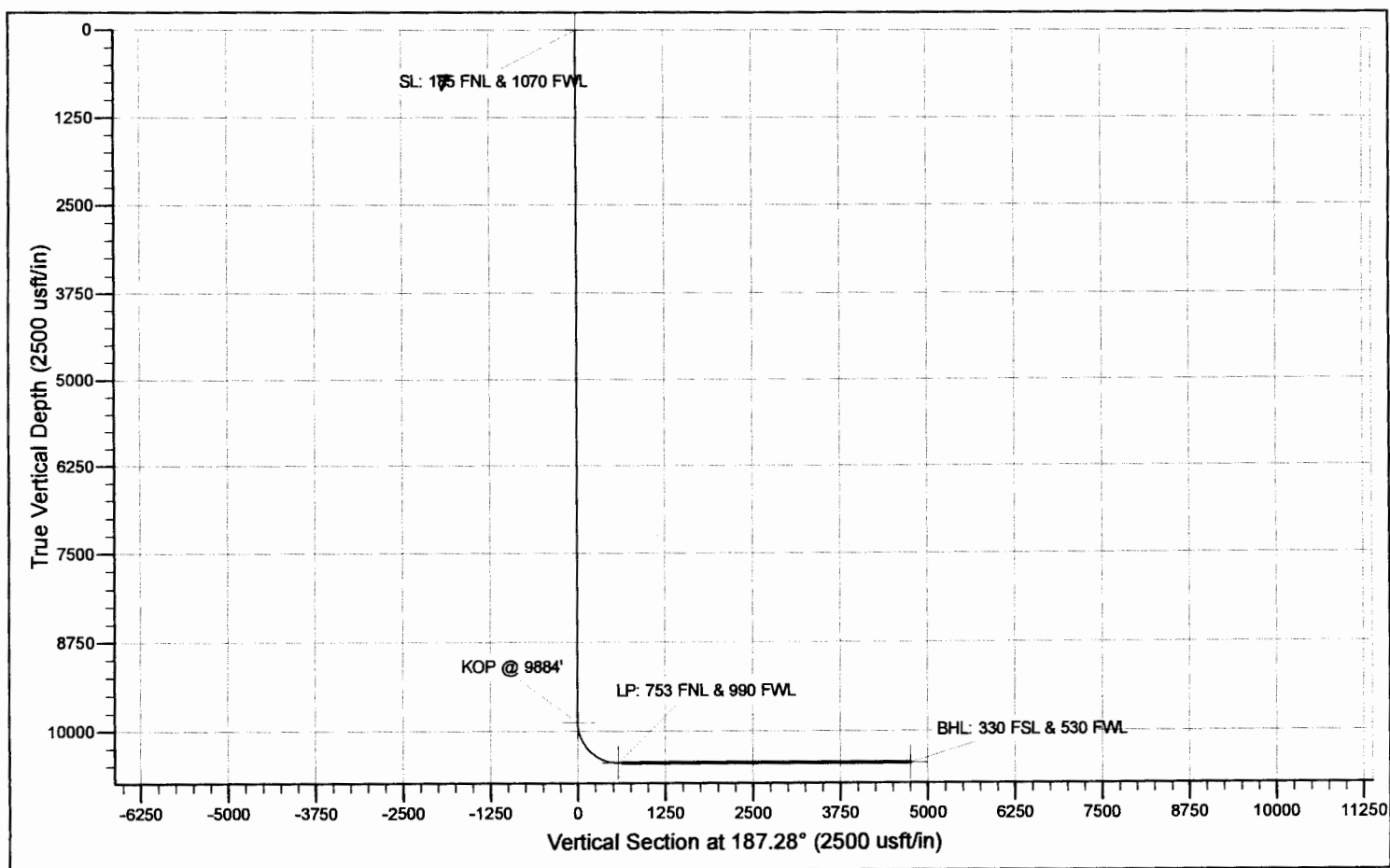
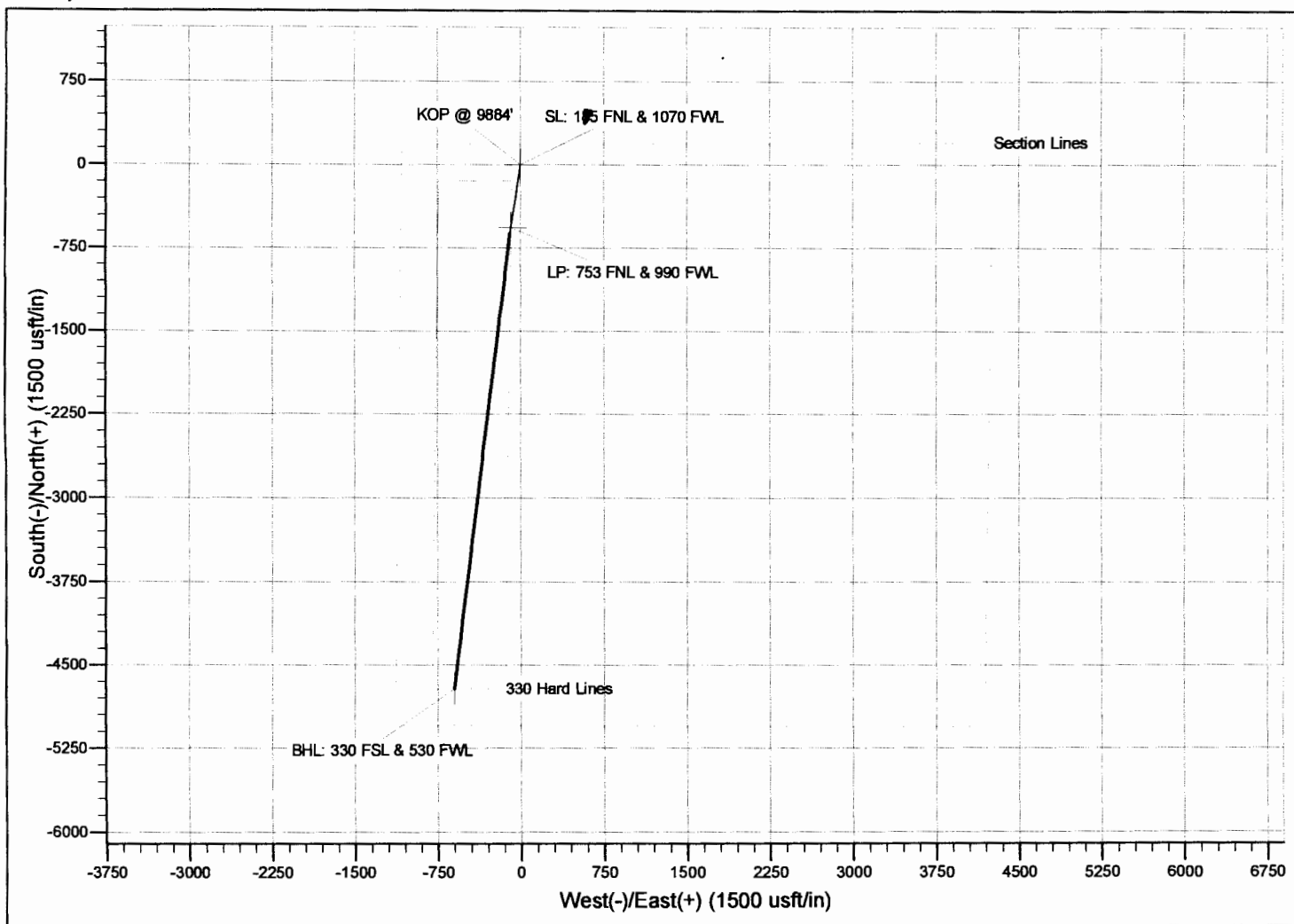
**BHL: 330' FSL & 530' FWL**

**Plan: Design #1**

## **Standard Planning Report**

**06 March, 2015**

Attachment **D**



# Planning Report

**Database:** Hobbs  
**Company:** Mewbourne Oil Company  
**Project:** Eddy County, New Mexico  
**Site:** Yardbirds 3 W2DM Fee 1H Revised  
**Well:** Sec 3, T24S, R28E  
**Wellbore:** BHL: 330' FSL & 530' FWL  
**Design:** Design #1

**Local Co-ordinate Reference:** Site Yardbirds 3 W2DM Fee 1H Revised  
**TVD Reference:** WELL @ 3062.0usft (Original Well Elev)  
**MD Reference:** WELL @ 3062.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project</b>     | Eddy County, New Mexico              |                      |                |
| <b>Map System:</b> | US State Plane 1927 (Exact solution) | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)              |                      |                |
| <b>Map Zone:</b>   | New Mexico East 3001                 |                      |                |

|                       |          |                                 |                 |                   |                  |
|-----------------------|----------|---------------------------------|-----------------|-------------------|------------------|
| Site                  |          | Yardbirds 3 W2DM Fee 1H Revised |                 |                   |                  |
| Site Position:        |          | Northing:                       | 456,077.69 usft | Latitude:         | 32° 15' 13.034 N |
| From:                 | Map      | Easting:                        | 578,333.47 usft | Longitude:        | 104° 4' 47.787 W |
| Position Uncertainty: | 0.0 usft | Slot Radius:                    | 13-3/16 "       | Grid Convergence: | 0.14 °           |

|                      |                   |          |                     |                 |               |                  |
|----------------------|-------------------|----------|---------------------|-----------------|---------------|------------------|
| Well                 | Sec 3, T24S, R28E |          |                     |                 |               |                  |
| Well Position        | +N/-S             | 0.0 usft | Northing:           | 456,077.69 usft | Latitude:     | 32° 15' 13.034 N |
|                      | +E/-W             | 0.0 usft | Easting:            | 578,333.47 usft | Longitude:    | 104° 4' 47.787 W |
| Position Uncertainty |                   | 0.0 usft | Wellhead Elevation: | 3,062.0 usft    | Ground Level: | 3,042.0 usft     |

|                  |                          |                    |                           |                         |                               |
|------------------|--------------------------|--------------------|---------------------------|-------------------------|-------------------------------|
| <b>Wellbore</b>  | BHL: 330' FSL & 530' FWL |                    |                           |                         |                               |
| <b>Magnetics</b> | <b>Model Name</b>        | <b>Sample Date</b> | <b>Declination</b><br>(°) | <b>Dip Angle</b><br>(°) | <b>Field Strength</b><br>(nT) |
|                  | IGRF200510               | 12/31/2009         | 7.98                      | 60.18                   | 48,756                        |

|                          |                                   |                        |                        |                         |
|--------------------------|-----------------------------------|------------------------|------------------------|-------------------------|
| <b>Design</b>            | Design #1                         |                        |                        |                         |
| <b>Audit Notes:</b>      |                                   |                        |                        |                         |
| <b>Version:</b>          | <b>Phase:</b>                     | PROTOTYPE              | <b>Tie On Depth:</b>   | 0.0                     |
| <b>Vertical Section:</b> | <b>Depth From (TVD)</b><br>(usft) | <b>+N/-S</b><br>(usft) | <b>+E/-W</b><br>(usft) | <b>Direction</b><br>(°) |
|                          | 0.0                               | 0.0                    | 0.0                    | 187.28                  |

| Plan Sections               |                    |                |                             |                 |                 |                               |                              |                             |            |                      |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|------------------------------|-----------------------------|------------|----------------------|
| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) | TFO<br>(°) | Target               |
| 0.0                         | 0.00               | 0.00           | 0.0                         | 0.0             | 0.0             | 0.00                          | 0.00                         | 0.00                        | 0.00       |                      |
| 9,884.0                     | 0.00               | 0.00           | 9,884.0                     | 0.0             | 0.0             | 0.00                          | 0.00                         | 0.00                        | 0.00       |                      |
| 10,784.1                    | 90.00              | 188.79         | 10,457.0                    | -566.3          | -87.5           | 10.00                         | 10.00                        | 0.00                        | -171.21    | LP: 753 FNL & 990 FV |
| 10,841.6                    | 90.00              | 187.06         | 10,457.0                    | -623.2          | -95.5           | 3.00                          | 0.00                         | -3.00                       | -89.99     | BHL: 330 FSL & 530 I |
| 14,964.1                    | 90.00              | 187.06         | 10,457.0                    | -4,714.5        | -602.4          | 0.00                          | 0.00                         | 0.00                        | 0.00       | BHL: 330 FSL & 530 I |

# Planning Report

**Database:** Hobbs  
**Company:** Mewbourne Oil Company  
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**Well:** Sec 3, T24S, R28E  
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**MD Reference:** WELL @ 3062.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

## Planned Survey

| Measured<br>Depth<br>(usft)       | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|-----------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 0.0                               | 0.00               | 0.00           | 0.0                         | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| <b>SL: 185 FNL &amp; 1070 FWL</b> |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 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                           | 0.00               | 0.00           | 2,500.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,600.0                           | 0.00               | 0.00           | 2,600.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,700.0                           | 0.00               | 0.00           | 2,700.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,800.0                           | 0.00               | 0.00           | 2,800.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 2,900.0                           | 0.00               | 0.00           | 2,900.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,000.0                           | 0.00               | 0.00           | 3,000.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,100.0                           | 0.00               | 0.00           | 3,100.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,200.0                           | 0.00               | 0.00           | 3,200.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,300.0                           | 0.00               | 0.00           | 3,300.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,400.0                           | 0.00               | 0.00           | 3,400.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,500.0                           | 0.00               | 0.00           | 3,500.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,600.0                           | 0.00               | 0.00           | 3,600.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,700.0                           | 0.00               | 0.00           | 3,700.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,800.0                           | 0.00               | 0.00           | 3,800.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 3,900.0                           | 0.00               | 0.00           | 3,900.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,000.0                           | 0.00               | 0.00           | 4,000.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,100.0                           | 0.00               | 0.00           | 4,100.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,200.0                           | 0.00               | 0.00           | 4,200.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,300.0                           | 0.00               | 0.00           | 4,300.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,400.0                           | 0.00               | 0.00           | 4,400.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,500.0                           | 0.00               | 0.00           | 4,500.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,600.0                           | 0.00               | 0.00           | 4,600.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,700.0                           | 0.00               | 0.00           | 4,700.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,800.0                           | 0.00               | 0.00           | 4,800.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 4,900.0                           | 0.00               | 0.00           | 4,900.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 5,000.0                           | 0.00               | 0.00           | 5,000.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 5,100.0                           | 0.00               | 0.00           | 5,100.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 5,200.0                           | 0.00               | 0.00           | 5,200.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |

# Planning Report

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**MD Reference:** WELL @ 3062.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

## Planned Survey

| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 5,300.0                     | 0.00               | 0.00           | 5,300.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 5,400.0                     | 0.00               | 0.00           | 5,400.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 5,500.0                     | 0.00               | 0.00           | 5,500.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 5,600.0                     | 0.00               | 0.00           | 5,600.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 5,700.0                     | 0.00               | 0.00           | 5,700.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 5,800.0                     | 0.00               | 0.00           | 5,800.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 5,900.0                     | 0.00               | 0.00           | 5,900.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 6,000.0                     | 0.00               | 0.00           | 6,000.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 6,100.0                     | 0.00               | 0.00           | 6,100.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 6,200.0                     | 0.00               | 0.00           | 6,200.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 6,300.0                     | 0.00               | 0.00           | 6,300.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 6,400.0                     | 0.00               | 0.00           | 6,400.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 6,500.0                     | 0.00               | 0.00           | 6,500.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 6,600.0                     | 0.00               | 0.00           | 6,600.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 6,700.0                     | 0.00               | 0.00           | 6,700.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 6,800.0                     | 0.00               | 0.00           | 6,800.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 6,900.0                     | 0.00               | 0.00           | 6,900.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 7,000.0                     | 0.00               | 0.00           | 7,000.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 7,100.0                     | 0.00               | 0.00           | 7,100.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 7,200.0                     | 0.00               | 0.00           | 7,200.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 7,300.0                     | 0.00               | 0.00           | 7,300.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 7,400.0                     | 0.00               | 0.00           | 7,400.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 7,500.0                     | 0.00               | 0.00           | 7,500.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 7,600.0                     | 0.00               | 0.00           | 7,600.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 7,700.0                     | 0.00               | 0.00           | 7,700.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 7,800.0                     | 0.00               | 0.00           | 7,800.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 7,900.0                     | 0.00               | 0.00           | 7,900.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 8,000.0                     | 0.00               | 0.00           | 8,000.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 8,100.0                     | 0.00               | 0.00           | 8,100.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 8,200.0                     | 0.00               | 0.00           | 8,200.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 8,300.0                     | 0.00               | 0.00           | 8,300.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 8,400.0                     | 0.00               | 0.00           | 8,400.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 8,500.0                     | 0.00               | 0.00           | 8,500.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 8,600.0                     | 0.00               | 0.00           | 8,600.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 8,700.0                     | 0.00               | 0.00           | 8,700.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 8,800.0                     | 0.00               | 0.00           | 8,800.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 8,900.0                     | 0.00               | 0.00           | 8,900.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 9,000.0                     | 0.00               | 0.00           | 9,000.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 9,100.0                     | 0.00               | 0.00           | 9,100.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 9,200.0                     | 0.00               | 0.00           | 9,200.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 9,300.0                     | 0.00               | 0.00           | 9,300.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 9,400.0                     | 0.00               | 0.00           | 9,400.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 9,500.0                     | 0.00               | 0.00           | 9,500.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 9,600.0                     | 0.00               | 0.00           | 9,600.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 9,700.0                     | 0.00               | 0.00           | 9,700.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 9,800.0                     | 0.00               | 0.00           | 9,800.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| 9,884.0                     | 0.00               | 0.00           | 9,884.0                     | 0.0             | 0.0             | 0.0                           | 0.00                          | 0.00                         | 0.00                        |
| <b>KOP @ 9884'</b>          |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 9,900.0                     | 1.60               | 188.79         | 9,900.0                     | -0.2            | 0.0             | 0.2                           | 10.00                         | 10.00                        | 0.00                        |
| 10,000.0                    | 11.60              | 188.79         | 9,999.2                     | -11.6           | -1.8            | 11.7                          | 10.00                         | 10.00                        | 0.00                        |
| 10,100.0                    | 21.60              | 188.79         | 10,094.9                    | -39.8           | -6.1            | 40.2                          | 10.00                         | 10.00                        | 0.00                        |
| 10,200.0                    | 31.60              | 188.79         | 10,184.2                    | -84.0           | -13.0           | 84.9                          | 10.00                         | 10.00                        | 0.00                        |
| 10,300.0                    | 41.60              | 188.79         | 10,264.4                    | -142.8          | -22.1           | 144.4                         | 10.00                         | 10.00                        | 0.00                        |

# Planning Report

**Database:** Hobbs  
**Company:** Mewbourne Oil Company  
**Project:** Eddy County, New Mexico  
**Site:** Yardbirds 3 W2DM Fee 1H Revised  
**Well:** Sec 3, T24S, R28E  
**Wellbore:** BHL: 330' FSL & 530' FWL  
**Design:** Design #1

**Local Co-ordinate Reference:** Site Yardbirds 3 W2DM Fee 1H Revised  
**TVD Reference:** WELL @ 3062.0usft (Original Well Elev)  
**MD Reference:** WELL @ 3062.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

## Planned Survey

| Measured<br>Depth<br>(usft)       | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Vertical<br>Section<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) |
|-----------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|-------------------------------|------------------------------|-----------------------------|
| 10,400.0                          | 51.60              | 188.79         | 10,333.0                    | -214.5          | -33.2           | 217.0                         | 10.00                         | 10.00                        | 0.00                        |
| 10,500.0                          | 61.60              | 188.79         | 10,388.0                    | -296.9          | -45.9           | 300.3                         | 10.00                         | 10.00                        | 0.00                        |
| 10,600.0                          | 71.59              | 188.79         | 10,427.7                    | -387.5          | -59.9           | 391.9                         | 10.00                         | 10.00                        | 0.00                        |
| 10,700.0                          | 81.59              | 188.79         | 10,450.8                    | -483.5          | -74.8           | 489.1                         | 10.00                         | 10.00                        | 0.00                        |
| 10,784.1                          | 90.00              | 188.79         | 10,457.0                    | -566.3          | -87.5           | 572.8                         | 10.00                         | 10.00                        | 0.00                        |
| <b>LP: 753 FNL &amp; 990 FWL</b>  |                    |                |                             |                 |                 |                               |                               |                              |                             |
| 10,800.0                          | 90.00              | 188.31         | 10,457.0                    | -582.0          | -89.9           | 588.7                         | 3.00                          | 0.00                         | -3.00                       |
| 10,841.6                          | 90.00              | 187.06         | 10,457.0                    | -623.2          | -95.5           | 630.3                         | 3.00                          | 0.00                         | -3.00                       |
| 10,900.0                          | 90.00              | 187.06         | 10,457.0                    | -681.2          | -102.7          | 688.7                         | 0.00                          | 0.00                         | 0.00                        |
| 11,000.0                          | 90.00              | 187.06         | 10,457.0                    | -780.5          | -115.0          | 788.7                         | 0.00                          | 0.00                         | 0.00                        |
| 11,100.0                          | 90.00              | 187.06         | 10,457.0                    | -879.7          | -127.3          | 888.7                         | 0.00                          | 0.00                         | 0.00                        |
| 11,200.0                          | 90.00              | 187.06         | 10,457.0                    | -978.9          | -139.6          | 988.7                         | 0.00                          | 0.00                         | 0.00                        |
| 11,300.0                          | 90.00              | 187.06         | 10,457.0                    | -1,078.2        | -151.9          | 1,088.7                       | 0.00                          | 0.00                         | 0.00                        |
| 11,400.0                          | 90.00              | 187.06         | 10,457.0                    | -1,177.4        | -164.1          | 1,188.7                       | 0.00                          | 0.00                         | 0.00                        |
| 11,500.0                          | 90.00              | 187.06         | 10,457.0                    | -1,276.7        | -176.4          | 1,288.7                       | 0.00                          | 0.00                         | 0.00                        |
| 11,600.0                          | 90.00              | 187.06         | 10,457.0                    | -1,375.9        | -188.7          | 1,388.7                       | 0.00                          | 0.00                         | 0.00                        |
| 11,700.0                          | 90.00              | 187.06         | 10,457.0                    | -1,475.1        | -201.0          | 1,488.7                       | 0.00                          | 0.00                         | 0.00                        |
| 11,800.0                          | 90.00              | 187.06         | 10,457.0                    | -1,574.4        | -213.3          | 1,588.7                       | 0.00                          | 0.00                         | 0.00                        |
| 11,900.0                          | 90.00              | 187.06         | 10,457.0                    | -1,673.6        | -225.6          | 1,688.7                       | 0.00                          | 0.00                         | 0.00                        |
| 12,000.0                          | 90.00              | 187.06         | 10,457.0                    | -1,772.9        | -237.9          | 1,788.7                       | 0.00                          | 0.00                         | 0.00                        |
| 12,100.0                          | 90.00              | 187.06         | 10,457.0                    | -1,872.1        | -250.2          | 1,888.7                       | 0.00                          | 0.00                         | 0.00                        |
| 12,200.0                          | 90.00              | 187.06         | 10,457.0                    | -1,971.3        | -262.5          | 1,988.7                       | 0.00                          | 0.00                         | 0.00                        |
| 12,300.0                          | 90.00              | 187.06         | 10,457.0                    | -2,070.6        | -274.8          | 2,088.7                       | 0.00                          | 0.00                         | 0.00                        |
| 12,400.0                          | 90.00              | 187.06         | 10,457.0                    | -2,169.8        | -287.1          | 2,188.7                       | 0.00                          | 0.00                         | 0.00                        |
| 12,500.0                          | 90.00              | 187.06         | 10,457.0                    | -2,269.1        | -299.4          | 2,288.7                       | 0.00                          | 0.00                         | 0.00                        |
| 12,600.0                          | 90.00              | 187.06         | 10,457.0                    | -2,368.3        | -311.7          | 2,388.7                       | 0.00                          | 0.00                         | 0.00                        |
| 12,700.0                          | 90.00              | 187.06         | 10,457.0                    | -2,467.6        | -324.0          | 2,488.7                       | 0.00                          | 0.00                         | 0.00                        |
| 12,800.0                          | 90.00              | 187.06         | 10,457.0                    | -2,566.8        | -336.3          | 2,588.7                       | 0.00                          | 0.00                         | 0.00                        |
| 12,900.0                          | 90.00              | 187.06         | 10,457.0                    | -2,666.0        | -348.6          | 2,688.7                       | 0.00                          | 0.00                         | 0.00                        |
| 13,000.0                          | 90.00              | 187.06         | 10,457.0                    | -2,765.3        | -360.9          | 2,788.7                       | 0.00                          | 0.00                         | 0.00                        |
| 13,100.0                          | 90.00              | 187.06         | 10,457.0                    | -2,864.5        | -373.2          | 2,888.7                       | 0.00                          | 0.00                         | 0.00                        |
| 13,200.0                          | 90.00              | 187.06         | 10,457.0                    | -2,963.8        | -385.5          | 2,988.7                       | 0.00                          | 0.00                         | 0.00                        |
| 13,300.0                          | 90.00              | 187.06         | 10,457.0                    | -3,063.0        | -397.8          | 3,088.7                       | 0.00                          | 0.00                         | 0.00                        |
| 13,400.0                          | 90.00              | 187.06         | 10,457.0                    | -3,162.2        | -410.1          | 3,188.7                       | 0.00                          | 0.00                         | 0.00                        |
| 13,500.0                          | 90.00              | 187.06         | 10,457.0                    | -3,261.5        | -422.4          | 3,288.7                       | 0.00                          | 0.00                         | 0.00                        |
| 13,600.0                          | 90.00              | 187.06         | 10,457.0                    | -3,360.7        | -434.7          | 3,388.7                       | 0.00                          | 0.00                         | 0.00                        |
| 13,700.0                          | 90.00              | 187.06         | 10,457.0                    | -3,460.0        | -447.0          | 3,488.7                       | 0.00                          | 0.00                         | 0.00                        |
| 13,800.0                          | 90.00              | 187.06         | 10,457.0                    | -3,559.2        | -459.3          | 3,588.7                       | 0.00                          | 0.00                         | 0.00                        |
| 13,900.0                          | 90.00              | 187.06         | 10,457.0                    | -3,658.4        | -471.6          | 3,688.7                       | 0.00                          | 0.00                         | 0.00                        |
| 14,000.0                          | 90.00              | 187.06         | 10,457.0                    | -3,757.7        | -483.9          | 3,788.7                       | 0.00                          | 0.00                         | 0.00                        |
| 14,100.0                          | 90.00              | 187.06         | 10,457.0                    | -3,856.9        | -496.2          | 3,888.7                       | 0.00                          | 0.00                         | 0.00                        |
| 14,200.0                          | 90.00              | 187.06         | 10,457.0                    | -3,956.2        | -508.5          | 3,988.7                       | 0.00                          | 0.00                         | 0.00                        |
| 14,300.0                          | 90.00              | 187.06         | 10,457.0                    | -4,055.4        | -520.7          | 4,088.7                       | 0.00                          | 0.00                         | 0.00                        |
| 14,400.0                          | 90.00              | 187.06         | 10,457.0                    | -4,154.6        | -533.0          | 4,188.7                       | 0.00                          | 0.00                         | 0.00                        |
| 14,500.0                          | 90.00              | 187.06         | 10,457.0                    | -4,253.9        | -545.3          | 4,288.7                       | 0.00                          | 0.00                         | 0.00                        |
| 14,600.0                          | 90.00              | 187.06         | 10,457.0                    | -4,353.1        | -557.6          | 4,388.7                       | 0.00                          | 0.00                         | 0.00                        |
| 14,700.0                          | 90.00              | 187.06         | 10,457.0                    | -4,452.4        | -569.9          | 4,488.7                       | 0.00                          | 0.00                         | 0.00                        |
| 14,800.0                          | 90.00              | 187.06         | 10,457.0                    | -4,551.6        | -582.2          | 4,588.7                       | 0.00                          | 0.00                         | 0.00                        |
| 14,900.0                          | 90.00              | 187.06         | 10,457.0                    | -4,650.9        | -594.5          | 4,688.7                       | 0.00                          | 0.00                         | 0.00                        |
| 14,964.1                          | 90.00              | 187.06         | 10,457.0                    | -4,714.5        | -602.4          | 4,752.8                       | 0.00                          | 0.00                         | 0.00                        |
| <b>BHL: 330 FSL &amp; 530 FWL</b> |                    |                |                             |                 |                 |                               |                               |                              |                             |

# Planning Report

**Database:** Hobbs  
**Company:** Mewbourne Oil Company  
**Project:** Eddy County, New Mexico  
**Site:** Yardbirds 3 W2DM Fee 1H Revised  
**Well:** Sec 3, T24S, R28E  
**Wellbore:** BHL: 330' FSL & 530' FWL  
**Design:** Design #1

**Local Co-ordinate Reference:** Site Yardbirds 3 W2DM Fee 1H Revised  
**TVD Reference:** WELL @ 3062.0usft (Original Well Elev)  
**MD Reference:** WELL @ 3062.0usft (Original Well Elev)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

## Design Targets

| Target Name<br>- hit/miss target<br>- Shape                   | Dip Angle<br>(°) | Dip Dir.<br>(°) | TVD<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude         | Longitude        |
|---------------------------------------------------------------|------------------|-----------------|---------------|-----------------|-----------------|--------------------|-------------------|------------------|------------------|
| SL: 185 FNL & 1070 FW<br>- plan hits target center<br>- Point | 0.00             | 0.00            | 0.0           | 0.0             | 0.0             | 456,077.69         | 578,333.47        | 32° 15' 13.034 N | 104° 4' 47.787 W |
| KOP @ 9884'<br>- plan hits target center<br>- Point           | 0.00             | 0.00            | 9,884.0       | 0.0             | 0.0             | 456,077.69         | 578,333.47        | 32° 15' 13.034 N | 104° 4' 47.787 W |
| BHL: 330 FSL & 530 FW<br>- plan hits target center<br>- Point | 0.00             | 0.00            | 10,457.0      | -4,714.5        | -602.4          | 451,363.22         | 577,731.06        | 32° 14' 26.392 N | 104° 4' 54.931 W |
| LP: 753 FNL & 990 FWL<br>- plan hits target center<br>- Point | 0.00             | 0.00            | 10,457.0      | -566.3          | -87.5           | 455,511.42         | 578,245.92        | 32° 15' 7.432 N  | 104° 4' 48.822 W |