

Form 3160-3  
(March 2012)

OCD Hobbs

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014**NORTHODOX  
LOCATION**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

|                                                                                                                                                                                                                        |  |                                                                                                                                                     |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER                                                                                                                           |  | 5. Lease Serial No.<br>NM-9022, NM-94975, NM-59044 <b>5H</b>                                                                                        |  |
| 1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone |  | 6. If Indian, Allottee or Tribe Name                                                                                                                |  |
| 2. Name of Operator Mewbourne Oil Company <b>&lt;14744&gt;</b>                                                                                                                                                         |  | 7. If Unit or CA Agreement, Name and No.                                                                                                            |  |
| 3a. Address PO Box 5270<br>Hobbs, NM 88241                                                                                                                                                                             |  | 8. Lease Name and Well No. <b>&lt;313384&gt;</b><br>Young 21 PM Federal #1H                                                                         |  |
| 3b. Phone No. (include area code) <b>HOBBS CCD</b><br>575-390-6838                                                                                                                                                     |  | 9. API Well No.<br><b>30-025-41930</b>                                                                                                              |  |
| 4. Location of Well (Report location clearly and in accordance with any State requirements.)<br>At surface 297' FSL & 706' FEL, Sec. 21 T18S R32E<br>At proposed prod. zone 990' FSL & 330' FWL, Sec. 21 T18S R32E     |  | 10. Field and Pool, or Exploratory<br>Young Bone Spring <b>&lt;65330&gt;</b>                                                                        |  |
| 14. Distance in miles and direction from nearest town or post office*<br>37 miles west of Hobbs, NM                                                                                                                    |  | 11. Sec., T. R. M. or Blk. and Survey or Area<br>Sec. 21 T18S R32E                                                                                  |  |
| 15. Distance from proposed* location to nearest property or lease line, ft.<br>(Also to nearest drig. unit line, if any) 297'                                                                                          |  | 12. County or Parish<br>Lea                                                                                                                         |  |
| 16. No. of acres in lease<br>NM9022-200, NM9475-160<br>NM59044-80                                                                                                                                                      |  | 13. State<br>NM                                                                                                                                     |  |
| 17. Spacing Unit dedicated to this well<br>160                                                                                                                                                                         |  | 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.<br>113' - Querecho Plains<br>QA Sand #11 |  |
| 19. Proposed Depth<br>13,181' - MD<br>8499' - TVD                                                                                                                                                                      |  | 20. BLM/BIA Bond No. on file<br>NM-1693 nationwide, NMB-000919                                                                                      |  |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br>3750' - GL                                                                                                                                                      |  | 22. Approximate date work will start*<br>01/01/2014                                                                                                 |  |
| 23. Estimated duration<br>60 days                                                                                                                                                                                      |  | 24. Attachments                                                                                                                                     |  |

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the BLM.

|                                             |                                        |                            |
|---------------------------------------------|----------------------------------------|----------------------------|
| 25. Signature <b>Bradley Bishop</b>         | Name (Printed/Typed)<br>Bradley Bishop | Date<br>11/01/2013         |
| Title                                       |                                        |                            |
| Approved by (Signature) <b>Steve Caffey</b> | Name (Printed/Typed)                   | Date<br><b>JUN 17 2014</b> |
| Title<br><b>FIELD MANAGER</b>               | Office<br><b>CARLSBAD FIELD OFFICE</b> |                            |

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.**APPROVAL FOR TWO YEARS**

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.

(Continued on page 2)

\*(Instructions on page 2)

Capitan Controlled Water Basin

**K2**  
**06/20/14****SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**Approval Subject to General Requirements  
& Special Stipulations Attached**JUN 23 2014****PM**

## Mewbourne Oil Company

PO Box 5270  
Hobbs, NM 88241  
(575) 393-5905

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 1 day of Nov., 2013.

Name: NM Young

Signature: B. B. Young FOR NM Young

Position Title: Hobbs District Manager

Address: PO Box 5270, Hobbs NM 88241

Telephone: 575-393-5905

E-mail: myoung@mewbourne.com

**Drilling Program**  
**Mewbourne Oil Company**  
Young 21 PM Fed Com #1H  
297' FSL & 706' FEL (SHL)  
Sec 21-T18S-R32E  
Lea County, New Mexico

**1. The estimated tops of geological markers are as follows:**

|                                   |                    |
|-----------------------------------|--------------------|
| Rustler                           | 1090'              |
| Top Salt                          | 1350'              |
| Base Salt                         | 2470'              |
| Yates                             | 2660'              |
| Seven Rivers                      | 3170'              |
| *Queen                            | 3850'              |
| Capitan                           | NP                 |
| *Grayburg                         | 4110'              |
| San Andres                        | 4905'              |
| Glorieta                          | NP                 |
| Yeso                              | NP                 |
| *Lamar                            | 5730'              |
| *Bone Springs                     | 6870'              |
| *1 <sup>st</sup> Bone Spring Sand | 8340'              |
| *2 <sup>nd</sup> Bone Spring Sand | 9030'              |
| 3 <sup>rd</sup> Bone Spring Sand  | Will Not Penetrate |
| Wolfcamp                          | Will Not Penetrate |

**2. Estimated depths of anticipated fresh water, oil, or gas:**

|              |                                                                                                                                     |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Water        | Fresh water is anticipated @ 380' & will be protected by setting surface casing at <sup>1175'</sup> 1445' and cementing to surface. |
| Hydrocarbons | Oil and gas are anticipated in the above (*) formations. These zones will be protected by casing as necessary.                      |

**3. Pressure control equipment:**

A 2000# WP Annular will be installed after running 13 3/8" casing. A 3000# WP Double Ram BOP and 3000# WP Annular will be installed after running 9 5/8" & 7" casing strings. Pressure tests will be conducted prior to drilling out under all casing strings. BOP controls will be installed prior to drilling under surface casing and will remain in use until completion of drilling operations. BOPE will be inspected and operated as recommended in Onshore Order #2. A kelly cock and a sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position when the kelly is not in use. Will test the 13 3/8" annular to 1500# and the 9 5/8" & 7" BOPE to 3000# and annular to 1500# with a third party testing company before drilling below each shoe, but will test again, if needed, in 30 days from the 1<sup>st</sup> test as per BLM Onshore Oil and Gas Order #2.

**4. MOC proposes to drill a vertical wellbore to 8922' & kick off to horizontal @ 9400' TVD. The well will be drilled to 13483' MD (9440' TVD). See attached directional plan.**

## 5. Proposed casing and cementing program:

### A. Casing Program:

*See COA*

| Hole Size | Casing        | Wt/Ft. | Grade | Depth           | Jt Type |
|-----------|---------------|--------|-------|-----------------|---------|
| 17 1/2"   | 13 3/8" (new) | 48#    | H40   | 0'-1115' 1175'  | ST&C    |
| 12 1/4"   | 9 5/8" (new)  | 36#    | J55   | 0'-2710' 2600'  | LT&C    |
| 8 3/4"    | 7" (new)      | 26#    | P110  | 0'-8922' MD     | LT&C    |
| 8 3/4"    | 7" (new)      | 26#    | P110  | 8922'-9667' MD  | BT&C    |
| 6 1/8"    | 4 1/2" (new)  | 13.5#  | P110  | 9467'-13483' MD | LT&C    |

Minimum casing design factors: Collapse 1.125, Burst 1.0, Tensile strength 1.8.

\*Subject to availability of casing.

### B. Cementing Program:

- See COA*
- Surface Casing:** 660 sacks Class "C" light cement w/ salt & LCM additives. Yield at 2.0 cuft/sk. 200 sacks Class "C" cement w/ 2% CaCl<sub>2</sub>. Yield at 1.34 cuft/sk. Mix water 215 bbls of FW. Cmt circulated to surface w/ 100% excess.
  - Intermediate Casing:** 400 sacks Class "C" light cement w/ salt & LCM additives. Yield at 2.0 cuft/sk. 200 sacks Class "C" cement w/ 2% CaCl<sub>2</sub>. Yield at 1.34 cuft/sk. Mix water 136 bbls of FW. Cmt circulated to surface w/ 25% excess.
  - Production Casing:** 450 sacks Class H light cement (35:65:4) with fluid loss, LCM, & salt additives. Yield at 2.12 cuft/sk. 400 sacks Class H cement containing fluid loss additives. Yield at 1.18 cuft/sk. Mix water 171 bbls of FW. Cmt calculated to tie back 200' into 9 5/8" casing @ 2710' w/ 25% excess.
  - Production Liner:** This will be a Packer/Port completion from TD up inside 7" casing with packer type liner hanger.

\*Referring to above blends of light cement: (wt% fly ash : wt% cement : wt% bentonite of the total of first two numbers). Generic names of additives are used since the availability of specific company and products are unknown at this time.

## 6. Mud Program:

*See COA*

| Interval            | Type System  | Weight    | Viscosity | Fluid Loss |
|---------------------|--------------|-----------|-----------|------------|
| 0' - 1115' 1175'    | FW spud mud  | 8.6-9.0   | 32-34     | NA         |
| 1115' - 2710' 2600' | Brine water  | 10.0-10.2 | 28-30     | NA         |
| 2710' - 8922' (KOP) | FW           | 8.5-8.7   | 28-30     | 15         |
| 8922' - TD          | FW w/Polymer | 8.5-8.7   | 32-35     | 15         |

\*\*Visual mud monitoring system shall be in place to detect volume changes indicating loss or gain of circulation fluid volume. Sufficient mud materials will be kept on location at all times to combat abnormal conditions.

## 7. Evaluation Program:

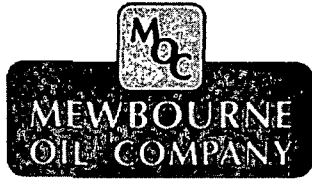
Samples: 10' samples from surface casing to TD  
Logging: GR & Gyro from KOP -100' (8822') to surface. GR from 8822' to TD.

## **8. Downhole Conditions**

|                                  |                                                                  |
|----------------------------------|------------------------------------------------------------------|
| Zones of abnormal pressure:      | None anticipated                                                 |
| Zones of lost circulation:       | Anticipated in surface and intermediate holes                    |
| Maximum bottom hole temperature: | 120 degree F                                                     |
| Maximum bottom hole pressure:    | 8.3 lbs/gal gradient or less ( $.43368 \times 9440' = 4094$ psi) |

## **9. Anticipated Starting Date:**

Mewbourne Oil Company intends to drill this well as soon as possible after receiving approval with approximately 40 days involved in drilling operations and an additional 10 days involved in completion operations on the project.



# **Mewbourne Oil Company .**

**Lea County N.M.**

**Section 21-18S-32E Young 21PM Federal Com #1H**

**Young 21PM Federal Com #1H**

**Original Hole**

**Plan: Plan#1**

## **Standard Planning Report**

**11 October, 2013**





# Stryker Directional Planning Report



|                  |                                               |                                     |                                           |
|------------------|-----------------------------------------------|-------------------------------------|-------------------------------------------|
| <b>Database:</b> | EDM 5000.1 Single User Db                     | <b>Local Co-ordinate Reference:</b> | Well Young 21 PM:Federal Com #1H          |
| <b>Company:</b>  | Mewbourne Oil Company                         | <b>TVD Reference:</b>               | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| <b>Project:</b>  | Lea County N.M.                               | <b>MD Reference:</b>                | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| <b>Site:</b>     | Section 21-18S-32E Young 21PM:Federal Com #1H | <b>North Reference:</b>             | Grid                                      |
| <b>Well:</b>     | Young 21 PM:Federal Com #1H                   | <b>Survey Calculation Method:</b>   | Minimum Curvature                         |
| <b>Wellbore:</b> | Original Hole                                 |                                     |                                           |
| <b>Design:</b>   | Plan#1                                        |                                     |                                           |

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project</b>     | Lea County N.M.                      |                      |                |
| <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                 |                      |                |

|                              |                                               |                          |                   |
|------------------------------|-----------------------------------------------|--------------------------|-------------------|
| <b>Site</b>                  | Section 21-18S-32E Young 21PM:Federal Com #1H |                          |                   |
| <b>Site Position:</b>        |                                               | <b>Northing:</b>         | 628,454.40 usft   |
| <b>From:</b>                 | Map                                           | <b>Easting:</b>          | 674,913.20 usft   |
| <b>Position Uncertainty:</b> | 0.0 usft                                      | <b>Slot Radius:</b>      | 13-3/16 "         |
|                              |                                               | <b>Latitude:</b>         | 32° 43' 35.137 N  |
|                              |                                               | <b>Longitude:</b>        | 103° 45' 52.422 W |
|                              |                                               | <b>Grid Convergence:</b> | 0.31 °            |

|                             |                             |                            |                                     |
|-----------------------------|-----------------------------|----------------------------|-------------------------------------|
| <b>Well</b>                 | Young 21 PM:Federal Com #1H |                            |                                     |
| <b>Well Position</b>        | <b>+N/-S</b>                | 0.0 usft                   | <b>Northing:</b> 628,454.40 usft    |
|                             | <b>+E/-W</b>                | 0.0 usft                   | <b>Easting:</b> 674,913.20 usft     |
| <b>Position Uncertainty</b> | 0.0 usft                    | <b>Wellhead Elevation:</b> | <b>Latitude:</b> 32° 43' 35.137 N   |
|                             |                             |                            | <b>Longitude:</b> 103° 45' 52.422 W |
|                             |                             |                            | <b>Ground Level:</b> 3,750.0 usft   |

|                 |               |  |  |
|-----------------|---------------|--|--|
| <b>Wellbore</b> | Original Hole |  |  |
|-----------------|---------------|--|--|

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|-----------|------------|-------------|-----------------|---------------|---------------------|
|           | IGRF2010   | 10/11/2013  | 7.43            | 60.56         | 48,662              |

|               |        |  |  |
|---------------|--------|--|--|
| <b>Design</b> | Plan#1 |  |  |
|---------------|--------|--|--|

|                     |               |           |                          |
|---------------------|---------------|-----------|--------------------------|
| <b>Audit Notes:</b> |               |           |                          |
| <b>Version:</b>     | <b>Phase:</b> | PROTOTYPE | <b>Tie On Depth:</b> 0.0 |

| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
|-------------------|-------------------------|--------------|--------------|---------------|
|                   | 0.0                     | 0.0          | 0.0          | 279.23        |

| Plan Sections         |                 |             |                       |              |              |                         |                        |                       |         |                  |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target           |
| 0.0                   | 0.00            | 0.00        | 0.0                   | 0.0          | 0.0          | 0.00                    | 0.00                   | 0.00                  | 0.00    |                  |
| 8,922.6               | 0.00            | 0.00        | 8,922.6               | 0.0          | 0.0          | 0.00                    | 0.00                   | 0.00                  | 0.00    |                  |
| 9,667.6               | 89.40           | 279.23      | 9,400.0               | 75.7         | -466.4       | 12.00                   | 12.00                  | -10.84                | 279.23  |                  |
| 13,483.8              | 89.40           | 279.23      | 9,440.0               | 687.5        | -4,232.9     | 0.00                    | 0.00                   | 0.00                  | 0.00    | PBHL Young 21 PM |



# Stryker Directional Planning Report



|           |                                                 |                              |                                           |
|-----------|-------------------------------------------------|------------------------------|-------------------------------------------|
| Database: | EDM 5000.1 Single User Db                       | Local Co-ordinate Reference: | Well: Young 21 PM Federal Com #1H         |
| Company:  | Mewbourne Oil Company                           | TVD Reference:               | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| Project:  | Lea County N.M.                                 | MD Reference:                | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| Site:     | Section 21-18S-32E, Young 21 PM Federal Com #1H | North Reference:             | Grid                                      |
| Well:     | Young 21 PM Federal Com #1H                     | Survey Calculation Method:   | Minimum Curvature                         |
| Wellbore: | Original Hole                                   |                              |                                           |
| Design:   | Plan #1                                         |                              |                                           |

| Planned Survey        |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 0.0                   | 0.00            | 0.00        | 0.0                   | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 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                  |





# Stryker Directional Planning Report



|           |                                               |                              |                                           |
|-----------|-----------------------------------------------|------------------------------|-------------------------------------------|
| Database: | EDM 5000.1 Single User Db                     | Local Co-ordinate Reference: | Well Young 21 PM Federal Com #1H          |
| Company:  | Mewbourne Oil Company                         | TVD Reference:               | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| Project:  | Lea County N.M                                | MD Reference:                | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| Site:     | Section 21-18S-32E Young 21PM Federal Com #1H | North Reference:             | Grid                                      |
| Well:     | Young 21 PM Federal Com #1H                   | Survey Calculation Method:   | Minimum Curvature                         |
| Wellbore: | Original Hole                                 |                              |                                           |
| Design:   | Plan#1                                        |                              |                                           |

## Planned Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| 5,300.0               | 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                  |
| 8,922.6               | 0.00            | 0.00        | 8,922.6               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 8,925.0               | 0.29            | 279.23      | 8,925.0               | 0.0          | 0.0          | 0.0                     | 12.00                   | 12.00                  | 0.00                  |
| 8,950.0               | 3.29            | 279.23      | 8,950.0               | 0.1          | -0.8         | 0.8                     | 12.00                   | 12.00                  | 0.00                  |
| 8,975.0               | 6.29            | 279.23      | 8,974.9               | 0.5          | -2.8         | 2.9                     | 12.00                   | 12.00                  | 0.00                  |
| 9,000.0               | 9.29            | 279.23      | 8,999.7               | 1.0          | -6.2         | 6.3                     | 12.00                   | 12.00                  | 0.00                  |
| 9,025.0               | 12.29           | 279.23      | 9,024.2               | 1.8          | -10.8        | 10.9                    | 12.00                   | 12.00                  | 0.00                  |
| 9,050.0               | 15.29           | 279.23      | 9,048.5               | 2.7          | -16.7        | 16.9                    | 12.00                   | 12.00                  | 0.00                  |
| 9,075.0               | 18.29           | 279.23      | 9,072.4               | 3.9          | -23.8        | 24.1                    | 12.00                   | 12.00                  | 0.00                  |
| 9,100.0               | 21.29           | 279.23      | 9,095.9               | 5.2          | -32.2        | 32.6                    | 12.00                   | 12.00                  | 0.00                  |
| 9,125.0               | 24.29           | 279.23      | 9,119.0               | 6.8          | -41.7        | 42.3                    | 12.00                   | 12.00                  | 0.00                  |
| 9,150.0               | 27.29           | 279.23      | 9,141.5               | 8.5          | -52.4        | 53.1                    | 12.00                   | 12.00                  | 0.00                  |
| 9,175.0               | 30.29           | 279.23      | 9,163.4               | 10.4         | -64.3        | 65.2                    | 12.00                   | 12.00                  | 0.00                  |
| 9,200.0               | 33.29           | 279.23      | 9,184.7               | 12.6         | -77.3        | 78.3                    | 12.00                   | 12.00                  | 0.00                  |
| 9,225.0               | 36.29           | 279.23      | 9,205.2               | 14.8         | -91.4        | 92.6                    | 12.00                   | 12.00                  | 0.00                  |
| 9,250.0               | 39.29           | 279.23      | 9,224.9               | 17.3         | -106.5       | 107.9                   | 12.00                   | 12.00                  | 0.00                  |
| 9,275.0               | 42.29           | 279.23      | 9,243.9               | 19.9         | -122.6       | 124.2                   | 12.00                   | 12.00                  | 0.00                  |



# Stryker Directional Planning Report



|           |                                                |                              |                                           |
|-----------|------------------------------------------------|------------------------------|-------------------------------------------|
| Database: | EDM 5000.1 Single User Db                      | Local Co-ordinate Reference: | Well Young 21 PM Federal Com #1H          |
| Company:  | Mewbourne Oil Company                          | TVD Reference:               | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| Project:  | Lea County N.M.                                | MD Reference:                | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| Site:     | Section 21-18S-32E Young 21 PM Federal Com #1H | North Reference:             | Grid                                      |
| Well:     | Young 21 PM Federal Com #1H                    | Survey Calculation Method:   | Minimum Curvature                         |
| Wellbore: | Original Hole                                  |                              |                                           |
| Design:   | Plan #1                                        |                              |                                           |

| Planned Survey        |                 |             |                       |             |             |                         |                         |                        |                       |  |
|-----------------------|-----------------|-------------|-----------------------|-------------|-------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N-S (usft) | +E-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |  |
| 9,300.0               | 45.29           | 279.23      | 9,261.9               | 22.7        | -139.7      | 141.5                   | 12.00                   | 12.00                  | 0.00                  |  |
| 9,325.0               | 48.29           | 279.23      | 9,279.0               | 25.6        | -157.7      | 159.8                   | 12.00                   | 12.00                  | 0.00                  |  |
| 9,350.0               | 51.29           | 279.23      | 9,295.2               | 28.7        | -176.5      | 178.9                   | 12.00                   | 12.00                  | 0.00                  |  |
| 9,375.0               | 54.29           | 279.23      | 9,310.3               | 31.9        | -196.2      | 198.8                   | 12.00                   | 12.00                  | 0.00                  |  |
| 9,400.0               | 57.29           | 279.23      | 9,324.3               | 35.2        | -216.6      | 219.4                   | 12.00                   | 12.00                  | 0.00                  |  |
| 9,425.0               | 60.29           | 279.23      | 9,337.3               | 38.6        | -237.7      | 240.8                   | 12.00                   | 12.00                  | 0.00                  |  |
| 9,450.0               | 63.29           | 279.23      | 9,349.1               | 42.1        | -259.4      | 262.8                   | 12.00                   | 12.00                  | 0.00                  |  |
| 9,475.0               | 66.29           | 279.23      | 9,359.8               | 45.8        | -281.8      | 285.5                   | 12.00                   | 12.00                  | 0.00                  |  |
| 9,500.0               | 69.29           | 279.23      | 9,369.2               | 49.5        | -304.6      | 308.6                   | 12.00                   | 12.00                  | 0.00                  |  |
| 9,525.0               | 72.29           | 279.23      | 9,377.4               | 53.3        | -327.9      | 332.2                   | 12.00                   | 12.00                  | 0.00                  |  |
| 9,550.0               | 75.29           | 279.23      | 9,384.4               | 57.1        | -351.6      | 356.2                   | 12.00                   | 12.00                  | 0.00                  |  |
| 9,575.0               | 78.29           | 279.23      | 9,390.1               | 61.0        | -375.6      | 380.5                   | 12.00                   | 12.00                  | 0.00                  |  |
| 9,600.0               | 81.29           | 279.23      | 9,394.6               | 65.0        | -399.9      | 405.1                   | 12.00                   | 12.00                  | 0.00                  |  |
| 9,625.0               | 84.29           | 279.23      | 9,397.7               | 68.9        | -424.4      | 429.9                   | 12.00                   | 12.00                  | 0.00                  |  |
| 9,650.0               | 87.29           | 279.23      | 9,399.5               | 72.9        | -449.0      | 454.9                   | 12.00                   | 12.00                  | 0.00                  |  |
| 9,667.6               | 89.40           | 279.23      | 9,400.0               | 75.7        | -466.4      | 472.5                   | 12.00                   | 12.00                  | 0.00                  |  |
| 9,700.0               | 89.40           | 279.23      | 9,400.4               | 80.9        | -498.3      | 504.9                   | 0.00                    | 0.00                   | 0.00                  |  |
| 9,800.0               | 89.40           | 279.23      | 9,401.4               | 97.0        | -597.0      | 604.9                   | 0.00                    | 0.00                   | 0.00                  |  |
| 9,900.0               | 89.40           | 279.23      | 9,402.5               | 113.0       | -695.7      | 704.9                   | 0.00                    | 0.00                   | 0.00                  |  |
| 10,000.0              | 89.40           | 279.23      | 9,403.5               | 129.0       | -794.4      | 804.8                   | 0.00                    | 0.00                   | 0.00                  |  |
| 10,100.0              | 89.40           | 279.23      | 9,404.6               | 145.1       | -893.1      | 904.8                   | 0.00                    | 0.00                   | 0.00                  |  |
| 10,200.0              | 89.40           | 279.23      | 9,405.6               | 161.1       | -991.8      | 1,004.8                 | 0.00                    | 0.00                   | 0.00                  |  |
| 10,300.0              | 89.40           | 279.23      | 9,406.7               | 177.1       | -1,090.5    | 1,104.8                 | 0.00                    | 0.00                   | 0.00                  |  |
| 10,400.0              | 89.40           | 279.23      | 9,407.7               | 193.2       | -1,189.2    | 1,204.8                 | 0.00                    | 0.00                   | 0.00                  |  |
| 10,500.0              | 89.40           | 279.23      | 9,408.8               | 209.2       | -1,287.9    | 1,304.8                 | 0.00                    | 0.00                   | 0.00                  |  |
| 10,600.0              | 89.40           | 279.23      | 9,409.8               | 225.2       | -1,386.6    | 1,404.8                 | 0.00                    | 0.00                   | 0.00                  |  |
| 10,700.0              | 89.40           | 279.23      | 9,410.8               | 241.3       | -1,485.3    | 1,504.8                 | 0.00                    | 0.00                   | 0.00                  |  |
| 10,800.0              | 89.40           | 279.23      | 9,411.9               | 257.3       | -1,584.0    | 1,604.8                 | 0.00                    | 0.00                   | 0.00                  |  |
| 10,900.0              | 89.40           | 279.23      | 9,412.9               | 273.3       | -1,682.7    | 1,704.8                 | 0.00                    | 0.00                   | 0.00                  |  |
| 11,000.0              | 89.40           | 279.23      | 9,414.0               | 289.4       | -1,781.4    | 1,804.8                 | 0.00                    | 0.00                   | 0.00                  |  |
| 11,100.0              | 89.40           | 279.23      | 9,415.0               | 305.4       | -1,880.1    | 1,904.8                 | 0.00                    | 0.00                   | 0.00                  |  |
| 11,200.0              | 89.40           | 279.23      | 9,416.1               | 321.4       | -1,978.8    | 2,004.8                 | 0.00                    | 0.00                   | 0.00                  |  |
| 11,300.0              | 89.40           | 279.23      | 9,417.1               | 337.4       | -2,077.5    | 2,104.8                 | 0.00                    | 0.00                   | 0.00                  |  |
| 11,400.0              | 89.40           | 279.23      | 9,418.2               | 353.5       | -2,176.3    | 2,204.8                 | 0.00                    | 0.00                   | 0.00                  |  |
| 11,500.0              | 89.40           | 279.23      | 9,419.2               | 369.5       | -2,275.0    | 2,304.8                 | 0.00                    | 0.00                   | 0.00                  |  |
| 11,600.0              | 89.40           | 279.23      | 9,420.3               | 385.5       | -2,373.7    | 2,404.8                 | 0.00                    | 0.00                   | 0.00                  |  |
| 11,700.0              | 89.40           | 279.23      | 9,421.3               | 401.6       | -2,472.4    | 2,504.8                 | 0.00                    | 0.00                   | 0.00                  |  |
| 11,800.0              | 89.40           | 279.23      | 9,422.4               | 417.6       | -2,571.1    | 2,604.7                 | 0.00                    | 0.00                   | 0.00                  |  |
| 11,900.0              | 89.40           | 279.23      | 9,423.4               | 433.6       | -2,669.8    | 2,704.7                 | 0.00                    | 0.00                   | 0.00                  |  |
| 12,000.0              | 89.40           | 279.23      | 9,424.5               | 449.7       | -2,768.5    | 2,804.7                 | 0.00                    | 0.00                   | 0.00                  |  |
| 12,100.0              | 89.40           | 279.23      | 9,425.5               | 465.7       | -2,867.2    | 2,904.7                 | 0.00                    | 0.00                   | 0.00                  |  |
| 12,200.0              | 89.40           | 279.23      | 9,426.6               | 481.7       | -2,965.9    | 3,004.7                 | 0.00                    | 0.00                   | 0.00                  |  |
| 12,300.0              | 89.40           | 279.23      | 9,427.6               | 497.8       | -3,064.6    | 3,104.7                 | 0.00                    | 0.00                   | 0.00                  |  |
| 12,400.0              | 89.40           | 279.23      | 9,428.7               | 513.8       | -3,163.3    | 3,204.7                 | 0.00                    | 0.00                   | 0.00                  |  |
| 12,500.0              | 89.40           | 279.23      | 9,429.7               | 529.8       | -3,262.0    | 3,304.7                 | 0.00                    | 0.00                   | 0.00                  |  |
| 12,600.0              | 89.40           | 279.23      | 9,430.7               | 545.9       | -3,360.7    | 3,404.7                 | 0.00                    | 0.00                   | 0.00                  |  |
| 12,700.0              | 89.40           | 279.23      | 9,431.8               | 561.9       | -3,459.4    | 3,504.7                 | 0.00                    | 0.00                   | 0.00                  |  |
| 12,800.0              | 89.40           | 279.23      | 9,432.8               | 577.9       | -3,558.1    | 3,604.7                 | 0.00                    | 0.00                   | 0.00                  |  |
| 12,900.0              | 89.40           | 279.23      | 9,433.9               | 593.9       | -3,656.8    | 3,704.7                 | 0.00                    | 0.00                   | 0.00                  |  |
| 13,000.0              | 89.40           | 279.23      | 9,434.9               | 610.0       | -3,755.5    | 3,804.7                 | 0.00                    | 0.00                   | 0.00                  |  |
| 13,100.0              | 89.40           | 279.23      | 9,436.0               | 626.0       | -3,854.2    | 3,904.7                 | 0.00                    | 0.00                   | 0.00                  |  |
| 13,200.0              | 89.40           | 279.23      | 9,437.0               | 642.0       | -3,952.9    | 4,004.7                 | 0.00                    | 0.00                   | 0.00                  |  |
| 13,300.0              | 89.40           | 279.23      | 9,438.1               | 658.1       | -4,051.6    | 4,104.7                 | 0.00                    | 0.00                   | 0.00                  |  |



# Stryker Directional Planning Report



|           |                                               |                              |                                           |
|-----------|-----------------------------------------------|------------------------------|-------------------------------------------|
| Database: | EDM 5000.1 Single User Db                     | Local Co-ordinate Reference: | Well Young 21-PM Federal Com #1H          |
| Company:  | Mewbourne Oil Company                         | TVD Reference:               | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| Project:  | Lea County N.M.                               | MD Reference:                | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| Site:     | Section 21-18S-32E-Young 21PM Federal Com #1H | North Reference:             | Grid                                      |
| Well:     | Young 21-PM Federal Com #1H                   | Survey Calculation Method:   | Minimum Curvature                         |
| Wellbore: | Original Hole                                 |                              |                                           |
| Design:   | Plan#1                                        |                              |                                           |

| Planned Survey        |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 13,400.0              | 89.40           | 279.23      | 9,439.1               | 674.1        | -4,150.3     | 4,204.7                 | 0.00                    | 0.00                   | 0.00                  |
| 13,483.8              | 89.40           | 279.23      | 9,440.0               | 687.5        | -4,232.9     | 4,288.4                 | 0.00                    | 0.00                   | 0.00                  |

| Design Targets     |                                                                                        |               |              |            |              |              |                 |                |                                    |
|--------------------|----------------------------------------------------------------------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|------------------------------------|
| Target Name        | hit/miss target                                                                        | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude Longitude                 |
| LP Young 21 PM Fed | - plan misses target center by 6.2usft at 9673.2usft MD (9400.1 TVD, 76.6 N, -471.8 E) | 0.00          | 0.00         | 9,400.0    | 70.6         | -472.8       | 628,524.97      | 674,440.36     | 32° 43' 35.860 N 103° 45' 57.953 W |
|                    | - Point                                                                                |               |              |            |              |              |                 |                |                                    |
| PBHL Young 21 PM F | - plan hits target center                                                              | 0.00          | 0.00         | 9,440.0    | 687.5        | -4,232.9     | 629,141.94      | 670,680.26     | 32° 43' 42.162 N 103° 46' 41.930 W |
|                    | - Point                                                                                |               |              |            |              |              |                 |                |                                    |

| Plan Annotations      |                       |                   |              |                             |
|-----------------------|-----------------------|-------------------|--------------|-----------------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                     |
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                             |
| 8,922.6               | 8,922.6               | 0.0               | 0.0          | 8922.6' MD KOP              |
| 9,667.6               | 9,400.0               | 75.7              | -466.4       | 9667.6' MD; 9400' TVD LP    |
| 13,483.8              | 9,440.0               | 687.5             | -4,232.9     | 13483.8' MD; 9440' TVD PBHL |



# **Mewbourne Oil Company .**

**Lea County N.M.**

**Section 21-18S-32E Young 21PM Federal Com #1H**

**Young 21 PM Federal Com #1H**

**Original Hole**

**Plan: Plan#1**

## **Standard Planning Report - Geographic**

**11 October, 2013**





# Stryker Directional Planning Report - Geographic



|                  |                                               |                                     |                                           |
|------------------|-----------------------------------------------|-------------------------------------|-------------------------------------------|
| <b>Database:</b> | EDM 5000.1 Single User Db                     | <b>Local Co-ordinate Reference:</b> | Well-Young 21-PM-Federal Com #1H          |
| <b>Company:</b>  | Mewbourne Oil Company                         | <b>TVD Reference:</b>               | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| <b>Project:</b>  | Lea County N.M.                               | <b>MD Reference:</b>                | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| <b>Site:</b>     | Section 21-18S-32E Young 21PM Federal Com #1H | <b>North Reference:</b>             | Grid                                      |
| <b>Well:</b>     | Young 21-PM-Federal Com #1H                   | <b>Survey Calculation Method:</b>   | Minimum Curvature                         |
| <b>Wellbore:</b> | Original Hole                                 |                                     |                                           |
| <b>Design:</b>   | Plan#1                                        |                                     |                                           |

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project</b>     | Lea County N.M.                      |                      |                |
| <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                 |                      |                |

|                              |                                               |                               |                                     |
|------------------------------|-----------------------------------------------|-------------------------------|-------------------------------------|
| <b>Site</b>                  | Section 21-18S-32E Young 21PM-Federal Com #1H |                               |                                     |
| <b>Site Position:</b>        | <b>Northing:</b>                              | 628,454.40 usft               | <b>Latitude:</b> 32° 43' 35.137 N   |
| <b>From:</b> Map             | <b>Easting:</b>                               | 674,913.20 usft               | <b>Longitude:</b> 103° 45' 52.422 W |
| <b>Position Uncertainty:</b> | 0.0 usft                                      | <b>Slot Radius:</b> 13-3/16 " | <b>Grid Convergence:</b> 0.31 °     |

|                             |                             |                            |                                     |
|-----------------------------|-----------------------------|----------------------------|-------------------------------------|
| <b>Well</b>                 | Young 21-PM-Federal Com #1H |                            |                                     |
| <b>Well Position</b>        | <b>+N/-S</b>                | 0.0 usft                   | <b>Northing:</b> 628,454.40 usft    |
|                             | <b>+E/-W</b>                | 0.0 usft                   | <b>Easting:</b> 674,913.20 usft     |
| <b>Position Uncertainty</b> | 0.0 usft                    | <b>Wellhead Elevation:</b> | <b>Latitude:</b> 32° 43' 35.137 N   |
|                             |                             |                            | <b>Longitude:</b> 103° 45' 52.422 W |
|                             |                             |                            | <b>Ground Level:</b> 3,750.0 usft   |

|                 |               |  |  |
|-----------------|---------------|--|--|
| <b>Wellbore</b> | Original Hole |  |  |
|-----------------|---------------|--|--|

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|-----------|------------|-------------|-----------------|---------------|---------------------|
|           | IGRF2010   | 10/11/2013  | 7.43            | 60.56         | 48,662              |

|               |        |  |  |
|---------------|--------|--|--|
| <b>Design</b> | Plan#1 |  |  |
|---------------|--------|--|--|

|                     |               |           |                          |
|---------------------|---------------|-----------|--------------------------|
| <b>Audit Notes:</b> |               |           |                          |
| <b>Version:</b>     | <b>Phase:</b> | PROTOTYPE | <b>Tie On Depth:</b> 0.0 |

| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
|-------------------|-------------------------|--------------|--------------|---------------|
|                   | 0.0                     | 0.0          | 0.0          | 279.23        |

| Plan Sections         |                 |             |                       |              |              |                         |                        |                       |         |                  |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target           |
| 0.0                   | 0.00            | 0.00        | 0.0                   | 0.0          | 0.0          | 0.00                    | 0.00                   | 0.00                  | 0.00    |                  |
| 8,922.6               | 0.00            | 0.00        | 8,922.6               | 0.0          | 0.0          | 0.00                    | 0.00                   | 0.00                  | 0.00    |                  |
| 9,667.6               | 89.40           | 279.23      | 9,400.0               | 75.7         | -466.4       | 12.00                   | 12.00                  | -10.84                | 279.23  |                  |
| 13,483.8              | 89.40           | 279.23      | 9,440.0               | 687.5        | -4,232.9     | 0.00                    | 0.00                   | 0.00                  | 0.00    | PBHL Young 21 PM |



# Stryker Directional Planning Report - Geographic



|           |                                               |                              |                                           |
|-----------|-----------------------------------------------|------------------------------|-------------------------------------------|
| Database: | EDM 5000.1 Single User.Db                     | Local Co-ordinate Reference: | Well; Young 21 PM Federal Com #1H         |
| Company:  | Mewbourne Oil Company                         | TVD Reference:               | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| Project:  | Lea County N.M.                               | MD Reference:                | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| Site:     | Section 21-18S-32E-Young 21PM Federal Com #1H | North Reference:             | Grid                                      |
| Well:     | Young 21 PM Federal Com #1H                   | Survey Calculation Method:   | Minimum Curvature                         |
| Wellbore: | Original Hole                                 |                              |                                           |
| Design:   | Plan#1                                        |                              |                                           |

| Planned Survey        |                 |             |                       |              |              |                     |                    |                  |                   |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|------------------|-------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude         | Longitude         |
| 0.0                   | 0.00            | 0.00        | 0.0                   | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 100.0                 | 0.00            | 0.00        | 100.0                 | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 200.0                 | 0.00            | 0.00        | 200.0                 | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 300.0                 | 0.00            | 0.00        | 300.0                 | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 400.0                 | 0.00            | 0.00        | 400.0                 | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 500.0                 | 0.00            | 0.00        | 500.0                 | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 600.0                 | 0.00            | 0.00        | 600.0                 | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 700.0                 | 0.00            | 0.00        | 700.0                 | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 800.0                 | 0.00            | 0.00        | 800.0                 | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 900.0                 | 0.00            | 0.00        | 900.0                 | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 1,000.0               | 0.00            | 0.00        | 1,000.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 1,100.0               | 0.00            | 0.00        | 1,100.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 1,200.0               | 0.00            | 0.00        | 1,200.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 1,300.0               | 0.00            | 0.00        | 1,300.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 1,400.0               | 0.00            | 0.00        | 1,400.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 1,500.0               | 0.00            | 0.00        | 1,500.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 1,600.0               | 0.00            | 0.00        | 1,600.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 1,700.0               | 0.00            | 0.00        | 1,700.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 1,800.0               | 0.00            | 0.00        | 1,800.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 1,900.0               | 0.00            | 0.00        | 1,900.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 2,000.0               | 0.00            | 0.00        | 2,000.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 2,100.0               | 0.00            | 0.00        | 2,100.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 2,200.0               | 0.00            | 0.00        | 2,200.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 2,300.0               | 0.00            | 0.00        | 2,300.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 2,400.0               | 0.00            | 0.00        | 2,400.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 2,500.0               | 0.00            | 0.00        | 2,500.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 2,600.0               | 0.00            | 0.00        | 2,600.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 2,700.0               | 0.00            | 0.00        | 2,700.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 2,800.0               | 0.00            | 0.00        | 2,800.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 2,900.0               | 0.00            | 0.00        | 2,900.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 3,000.0               | 0.00            | 0.00        | 3,000.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 3,100.0               | 0.00            | 0.00        | 3,100.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 3,200.0               | 0.00            | 0.00        | 3,200.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 3,300.0               | 0.00            | 0.00        | 3,300.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 3,400.0               | 0.00            | 0.00        | 3,400.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 3,500.0               | 0.00            | 0.00        | 3,500.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 3,600.0               | 0.00            | 0.00        | 3,600.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 3,700.0               | 0.00            | 0.00        | 3,700.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 3,800.0               | 0.00            | 0.00        | 3,800.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 3,900.0               | 0.00            | 0.00        | 3,900.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 4,000.0               | 0.00            | 0.00        | 4,000.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 4,100.0               | 0.00            | 0.00        | 4,100.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 4,200.0               | 0.00            | 0.00        | 4,200.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 4,300.0               | 0.00            | 0.00        | 4,300.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 4,400.0               | 0.00            | 0.00        | 4,400.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 4,500.0               | 0.00            | 0.00        | 4,500.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 4,600.0               | 0.00            | 0.00        | 4,600.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 4,700.0               | 0.00            | 0.00        | 4,700.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 4,800.0               | 0.00            | 0.00        | 4,800.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 4,900.0               | 0.00            | 0.00        | 4,900.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 5,000.0               | 0.00            | 0.00        | 5,000.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 5,100.0               | 0.00            | 0.00        | 5,100.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 5,200.0               | 0.00            | 0.00        | 5,200.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 5,300.0               | 0.00            | 0.00        | 5,300.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |





# Stryker Directional Planning Report - Geographic



|           |                                               |                              |                                           |
|-----------|-----------------------------------------------|------------------------------|-------------------------------------------|
| Database: | EDM 5000.1 Single User Db                     | Local Co-ordinate Reference: | Well Young 21 PM Federal Com #1H          |
| Company:  | Mewbourne Oil Company                         | TVD Reference:               | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| Project:  | Lea County N.M.                               | MD Reference:                | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| Site:     | Section 21-18S-32E Young 21PM Federal Com #1H | North Reference:             | Grid                                      |
| Well:     | Young 21 PM Federal Com #1H                   | Survey Calculation Method:   | Minimum Curvature                         |
| Wellbore: | Original Hole                                 |                              |                                           |
| Design:   | Plan#1                                        |                              |                                           |

| Planned Survey        |                 |             |                       |              |              |                     |                    |                  |                   |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|------------------|-------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude         | Longitude         |
| 5,400.0               | 0.00            | 0.00        | 5,400.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 5,500.0               | 0.00            | 0.00        | 5,500.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 5,600.0               | 0.00            | 0.00        | 5,600.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 5,700.0               | 0.00            | 0.00        | 5,700.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 5,800.0               | 0.00            | 0.00        | 5,800.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 5,900.0               | 0.00            | 0.00        | 5,900.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 6,000.0               | 0.00            | 0.00        | 6,000.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 6,100.0               | 0.00            | 0.00        | 6,100.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 6,200.0               | 0.00            | 0.00        | 6,200.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 6,300.0               | 0.00            | 0.00        | 6,300.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 6,400.0               | 0.00            | 0.00        | 6,400.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 6,500.0               | 0.00            | 0.00        | 6,500.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 6,600.0               | 0.00            | 0.00        | 6,600.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 6,700.0               | 0.00            | 0.00        | 6,700.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 6,800.0               | 0.00            | 0.00        | 6,800.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 6,900.0               | 0.00            | 0.00        | 6,900.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 7,000.0               | 0.00            | 0.00        | 7,000.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 7,100.0               | 0.00            | 0.00        | 7,100.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 7,200.0               | 0.00            | 0.00        | 7,200.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 7,300.0               | 0.00            | 0.00        | 7,300.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 7,400.0               | 0.00            | 0.00        | 7,400.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 7,500.0               | 0.00            | 0.00        | 7,500.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 7,600.0               | 0.00            | 0.00        | 7,600.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 7,700.0               | 0.00            | 0.00        | 7,700.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 7,800.0               | 0.00            | 0.00        | 7,800.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 7,900.0               | 0.00            | 0.00        | 7,900.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 8,000.0               | 0.00            | 0.00        | 8,000.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 8,100.0               | 0.00            | 0.00        | 8,100.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 8,200.0               | 0.00            | 0.00        | 8,200.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 8,300.0               | 0.00            | 0.00        | 8,300.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 8,400.0               | 0.00            | 0.00        | 8,400.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 8,500.0               | 0.00            | 0.00        | 8,500.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 8,600.0               | 0.00            | 0.00        | 8,600.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 8,700.0               | 0.00            | 0.00        | 8,700.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 8,800.0               | 0.00            | 0.00        | 8,800.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 8,900.0               | 0.00            | 0.00        | 8,900.0               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 8,922.6               | 0.00            | 0.00        | 8,922.6               | 0.0          | 0.0          | 628,454.40          | 674,913.20         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 8,925.0               | 0.29            | 279.23      | 8,925.0               | 0.0          | 0.0          | 628,454.41          | 674,913.19         | 32° 43' 35.137 N | 103° 45' 52.422 W |
| 8,950.0               | 3.29            | 279.23      | 8,950.0               | 0.1          | -0.8         | 628,454.53          | 674,912.42         | 32° 43' 35.138 N | 103° 45' 52.431 W |
| 8,975.0               | 6.29            | 279.23      | 8,974.9               | 0.5          | -2.8         | 628,454.86          | 674,910.36         | 32° 43' 35.141 N | 103° 45' 52.455 W |
| 9,000.0               | 9.29            | 279.23      | 8,999.7               | 1.0          | -6.2         | 628,455.41          | 674,907.02         | 32° 43' 35.147 N | 103° 45' 52.494 W |
| 9,025.0               | 12.29           | 279.23      | 9,024.2               | 1.8          | -10.8        | 628,456.16          | 674,902.40         | 32° 43' 35.154 N | 103° 45' 52.548 W |
| 9,050.0               | 15.29           | 279.23      | 9,048.5               | 2.7          | -16.7        | 628,457.11          | 674,896.52         | 32° 43' 35.164 N | 103° 45' 52.617 W |
| 9,075.0               | 18.29           | 279.23      | 9,072.4               | 3.9          | -23.8        | 628,458.27          | 674,889.39         | 32° 43' 35.176 N | 103° 45' 52.700 W |
| 9,100.0               | 21.29           | 279.23      | 9,095.9               | 5.2          | -32.2        | 628,459.63          | 674,881.04         | 32° 43' 35.190 N | 103° 45' 52.798 W |
| 9,125.0               | 24.29           | 279.23      | 9,119.0               | 6.8          | -41.7        | 628,461.18          | 674,871.48         | 32° 43' 35.206 N | 103° 45' 52.910 W |
| 9,150.0               | 27.29           | 279.23      | 9,141.5               | 8.5          | -52.4        | 628,462.92          | 674,860.75         | 32° 43' 35.224 N | 103° 45' 53.035 W |
| 9,175.0               | 30.29           | 279.23      | 9,163.4               | 10.4         | -64.3        | 628,464.85          | 674,848.86         | 32° 43' 35.243 N | 103° 45' 53.174 W |
| 9,200.0               | 33.29           | 279.23      | 9,184.7               | 12.6         | -77.3        | 628,466.96          | 674,835.87         | 32° 43' 35.265 N | 103° 45' 53.326 W |
| 9,225.0               | 36.29           | 279.23      | 9,205.2               | 14.8         | -91.4        | 628,469.25          | 674,821.79         | 32° 43' 35.288 N | 103° 45' 53.491 W |
| 9,250.0               | 39.29           | 279.23      | 9,224.9               | 17.3         | -106.5       | 628,471.71          | 674,806.67         | 32° 43' 35.313 N | 103° 45' 53.668 W |
| 9,275.0               | 42.29           | 279.23      | 9,243.9               | 19.9         | -122.6       | 628,474.32          | 674,790.55         | 32° 43' 35.340 N | 103° 45' 53.856 W |
| 9,300.0               | 45.29           | 279.23      | 9,261.9               | 22.7         | -139.7       | 628,477.10          | 674,773.48         | 32° 43' 35.369 N | 103° 45' 54.056 W |
| 9,325.0               | 48.29           | 279.23      | 9,279.0               | 25.6         | -157.7       | 628,480.02          | 674,755.50         | 32° 43' 35.398 N | 103° 45' 54.266 W |



# Stryker Directional Planning Report - Geographic



|                  |                                               |                                     |                                           |
|------------------|-----------------------------------------------|-------------------------------------|-------------------------------------------|
| <b>Database:</b> | EDM 5000.1 Single User Db                     | <b>Local Co-ordinate Reference:</b> | Well Young 21 PM Federal Com #1H          |
| <b>Company:</b>  | Mewbourne Oil Company                         | <b>TVD Reference:</b>               | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| <b>Project:</b>  | Lea County N.M.                               | <b>MD Reference:</b>                | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| <b>Site:</b>     | Section 21-18S-32E Young 21PM Federal Com #1H | <b>North Reference:</b>             | Grid                                      |
| <b>Well:</b>     | Young 21 PM Federal Com #1H                   | <b>Survey Calculation Method:</b>   | Minimum Curvature                         |
| <b>Wellbore:</b> | Original Hole                                 |                                     |                                           |
| <b>Design:</b>   | Plan#1                                        |                                     |                                           |

## Planned Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude         | Longitude         |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|------------------|-------------------|
| 9,350.0               | 51.29           | 279.23      | 9,295.2               | 28.7         | -176.5       | 628,483.08          | 674,736.65         | 32° 43' 35.430 N | 103° 45' 54.487 W |
| 9,375.0               | 54.29           | 279.23      | 9,310.3               | 31.9         | -196.2       | 628,486.27          | 674,717.00         | 32° 43' 35.462 N | 103° 45' 54.717 W |
| 9,400.0               | 57.29           | 279.23      | 9,324.3               | 35.2         | -216.6       | 628,489.58          | 674,696.60         | 32° 43' 35.496 N | 103° 45' 54.955 W |
| 9,425.0               | 60.29           | 279.23      | 9,337.3               | 38.6         | -237.7       | 628,493.01          | 674,675.50         | 32° 43' 35.531 N | 103° 45' 55.202 W |
| 9,450.0               | 63.29           | 279.23      | 9,349.1               | 42.1         | -259.4       | 628,496.54          | 674,653.75         | 32° 43' 35.567 N | 103° 45' 55.456 W |
| 9,475.0               | 66.29           | 279.23      | 9,359.8               | 45.8         | -281.8       | 628,500.17          | 674,631.43         | 32° 43' 35.604 N | 103° 45' 55.717 W |
| 9,500.0               | 69.29           | 279.23      | 9,369.2               | 49.5         | -304.6       | 628,503.88          | 674,608.59         | 32° 43' 35.642 N | 103° 45' 55.985 W |
| 9,525.0               | 72.29           | 279.23      | 9,377.4               | 53.3         | -327.9       | 628,507.66          | 674,585.29         | 32° 43' 35.681 N | 103° 45' 56.257 W |
| 9,550.0               | 75.29           | 279.23      | 9,384.4               | 57.1         | -351.6       | 628,511.51          | 674,561.60         | 32° 43' 35.720 N | 103° 45' 56.534 W |
| 9,575.0               | 78.29           | 279.23      | 9,390.1               | 61.0         | -375.6       | 628,515.41          | 674,537.57         | 32° 43' 35.760 N | 103° 45' 56.815 W |
| 9,600.0               | 81.29           | 279.23      | 9,394.6               | 65.0         | -399.9       | 628,519.36          | 674,513.29         | 32° 43' 35.800 N | 103° 45' 57.099 W |
| 9,625.0               | 84.29           | 279.23      | 9,397.7               | 68.9         | -424.4       | 628,523.33          | 674,488.81         | 32° 43' 35.841 N | 103° 45' 57.385 W |
| 9,650.0               | 87.29           | 279.23      | 9,399.5               | 72.9         | -449.0       | 628,527.33          | 674,464.21         | 32° 43' 35.882 N | 103° 45' 57.673 W |
| 9,667.6               | 89.40           | 279.23      | 9,400.0               | 75.7         | -466.4       | 628,530.15          | 674,446.84         | 32° 43' 35.911 N | 103° 45' 57.876 W |
| 9,700.0               | 89.40           | 279.23      | 9,400.4               | 80.9         | -498.3       | 628,535.35          | 674,414.86         | 32° 43' 35.964 N | 103° 45' 58.250 W |
| 9,800.0               | 89.40           | 279.23      | 9,401.4               | 97.0         | -597.0       | 628,551.38          | 674,316.16         | 32° 43' 36.128 N | 103° 45' 59.405 W |
| 9,900.0               | 89.40           | 279.23      | 9,402.5               | 113.0        | -695.7       | 628,567.41          | 674,217.46         | 32° 43' 36.292 N | 103° 46' 0.559 W  |
| 10,000.0              | 89.40           | 279.23      | 9,403.5               | 129.0        | -794.4       | 628,583.44          | 674,118.76         | 32° 43' 36.455 N | 103° 46' 1.713 W  |
| 10,100.0              | 89.40           | 279.23      | 9,404.6               | 145.1        | -893.1       | 628,599.47          | 674,020.06         | 32° 43' 36.619 N | 103° 46' 2.868 W  |
| 10,200.0              | 89.40           | 279.23      | 9,405.6               | 161.1        | -991.8       | 628,615.50          | 673,921.36         | 32° 43' 36.783 N | 103° 46' 4.022 W  |
| 10,300.0              | 89.40           | 279.23      | 9,406.7               | 177.1        | -1,090.5     | 628,631.53          | 673,822.66         | 32° 43' 36.947 N | 103° 46' 5.177 W  |
| 10,400.0              | 89.40           | 279.23      | 9,407.7               | 193.2        | -1,189.2     | 628,647.57          | 673,723.96         | 32° 43' 37.111 N | 103° 46' 6.331 W  |
| 10,500.0              | 89.40           | 279.23      | 9,408.8               | 209.2        | -1,287.9     | 628,663.60          | 673,625.25         | 32° 43' 37.275 N | 103° 46' 7.485 W  |
| 10,600.0              | 89.40           | 279.23      | 9,409.8               | 225.2        | -1,386.6     | 628,679.63          | 673,526.55         | 32° 43' 37.439 N | 103° 46' 8.640 W  |
| 10,700.0              | 89.40           | 279.23      | 9,410.8               | 241.3        | -1,485.3     | 628,695.66          | 673,427.85         | 32° 43' 37.602 N | 103° 46' 9.794 W  |
| 10,800.0              | 89.40           | 279.23      | 9,411.9               | 257.3        | -1,584.0     | 628,711.69          | 673,329.15         | 32° 43' 37.766 N | 103° 46' 10.948 W |
| 10,900.0              | 89.40           | 279.23      | 9,412.9               | 273.3        | -1,682.7     | 628,727.72          | 673,230.45         | 32° 43' 37.930 N | 103° 46' 12.103 W |
| 11,000.0              | 89.40           | 279.23      | 9,414.0               | 289.4        | -1,781.4     | 628,743.75          | 673,131.75         | 32° 43' 38.094 N | 103° 46' 13.257 W |
| 11,100.0              | 89.40           | 279.23      | 9,415.0               | 305.4        | -1,880.1     | 628,759.79          | 673,033.05         | 32° 43' 38.258 N | 103° 46' 14.412 W |
| 11,200.0              | 89.40           | 279.23      | 9,416.1               | 321.4        | -1,978.8     | 628,775.82          | 672,934.35         | 32° 43' 38.421 N | 103° 46' 15.566 W |
| 11,300.0              | 89.40           | 279.23      | 9,417.1               | 337.4        | -2,077.5     | 628,791.85          | 672,835.65         | 32° 43' 38.585 N | 103° 46' 16.720 W |
| 11,400.0              | 89.40           | 279.23      | 9,418.2               | 353.5        | -2,176.3     | 628,807.88          | 672,736.94         | 32° 43' 38.749 N | 103° 46' 17.875 W |
| 11,500.0              | 89.40           | 279.23      | 9,419.2               | 369.5        | -2,275.0     | 628,823.91          | 672,638.24         | 32° 43' 38.913 N | 103° 46' 19.029 W |
| 11,600.0              | 89.40           | 279.23      | 9,420.3               | 385.5        | -2,373.7     | 628,839.94          | 672,539.54         | 32° 43' 39.077 N | 103° 46' 20.184 W |
| 11,700.0              | 89.40           | 279.23      | 9,421.3               | 401.6        | -2,472.4     | 628,855.97          | 672,440.84         | 32° 43' 39.240 N | 103° 46' 21.338 W |
| 11,800.0              | 89.40           | 279.23      | 9,422.4               | 417.6        | -2,571.1     | 628,872.01          | 672,342.14         | 32° 43' 39.404 N | 103° 46' 22.492 W |
| 11,900.0              | 89.40           | 279.23      | 9,423.4               | 433.6        | -2,669.8     | 628,888.04          | 672,243.44         | 32° 43' 39.568 N | 103° 46' 23.647 W |
| 12,000.0              | 89.40           | 279.23      | 9,424.5               | 449.7        | -2,768.5     | 628,904.07          | 672,144.74         | 32° 43' 39.732 N | 103° 46' 24.801 W |
| 12,100.0              | 89.40           | 279.23      | 9,425.5               | 465.7        | -2,867.2     | 628,920.10          | 672,046.04         | 32° 43' 39.896 N | 103° 46' 25.956 W |
| 12,200.0              | 89.40           | 279.23      | 9,426.6               | 481.7        | -2,965.9     | 628,936.13          | 671,947.34         | 32° 43' 40.059 N | 103° 46' 27.110 W |
| 12,300.0              | 89.40           | 279.23      | 9,427.6               | 497.8        | -3,064.6     | 628,952.16          | 671,848.64         | 32° 43' 40.223 N | 103° 46' 28.264 W |
| 12,400.0              | 89.40           | 279.23      | 9,428.7               | 513.8        | -3,163.3     | 628,968.19          | 671,749.93         | 32° 43' 40.387 N | 103° 46' 29.419 W |
| 12,500.0              | 89.40           | 279.23      | 9,429.7               | 529.8        | -3,262.0     | 628,984.23          | 671,651.23         | 32° 43' 40.551 N | 103° 46' 30.573 W |
| 12,600.0              | 89.40           | 279.23      | 9,430.7               | 545.9        | -3,360.7     | 629,000.26          | 671,552.53         | 32° 43' 40.715 N | 103° 46' 31.728 W |
| 12,700.0              | 89.40           | 279.23      | 9,431.8               | 561.9        | -3,459.4     | 629,016.29          | 671,453.83         | 32° 43' 40.878 N | 103° 46' 32.882 W |
| 12,800.0              | 89.40           | 279.23      | 9,432.8               | 577.9        | -3,558.1     | 629,032.32          | 671,355.13         | 32° 43' 41.042 N | 103° 46' 34.036 W |
| 12,900.0              | 89.40           | 279.23      | 9,433.9               | 593.9        | -3,656.8     | 629,048.35          | 671,256.43         | 32° 43' 41.206 N | 103° 46' 35.191 W |
| 13,000.0              | 89.40           | 279.23      | 9,434.9               | 610.0        | -3,755.5     | 629,064.38          | 671,157.73         | 32° 43' 41.370 N | 103° 46' 36.345 W |
| 13,100.0              | 89.40           | 279.23      | 9,436.0               | 626.0        | -3,854.2     | 629,080.41          | 671,059.04         | 32° 43' 41.533 N | 103° 46' 37.500 W |
| 13,200.0              | 89.40           | 279.23      | 9,437.0               | 642.0        | -3,952.9     | 629,096.45          | 670,960.34         | 32° 43' 41.697 N | 103° 46' 38.654 W |
| 13,300.0              | 89.40           | 279.23      | 9,438.1               | 658.1        | -4,051.6     | 629,112.48          | 670,861.63         | 32° 43' 41.861 N | 103° 46' 39.808 W |
| 13,400.0              | 89.40           | 279.23      | 9,439.1               | 674.1        | -4,150.3     | 629,128.51          | 670,762.93         | 32° 43' 42.025 N | 103° 46' 40.963 W |
| 13,483.8              | 89.40           | 279.23      | 9,440.0               | 687.5        | -4,232.9     | 629,141.94          | 670,680.26         | 32° 43' 42.162 N | 103° 46' 41.930 W |





# Stryker Directional Planning Report - Geographic



|           |                                               |                              |                                           |
|-----------|-----------------------------------------------|------------------------------|-------------------------------------------|
| Database: | EDM 5000.1 Single User Db                     | Local Co-ordinate Reference: | Well Young 21 PM Federal Com #1H          |
| Company:  | Mewbourne Oil Company                         | TVD Reference:               | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| Project:  | Lea County N.M.                               | MD Reference:                | GL3750 + 20 @ 3770.0usft (Patterson #110) |
| Site:     | Section 21-18S-32E Young 21PM Federal Com #1H | North Reference:             | Grid                                      |
| Well:     | Young 21 PM Federal Com #1H                   | Survey Calculation Method:   | Minimum Curvature                         |
| Wellbore: | Original Hole                                 |                              |                                           |
| Design:   | Plan#1                                        |                              |                                           |

## Design Targets

| Target Name                                                                            | Dip Angle | Dip Dir. | TVD     | +N/-S  | +E/-W    | Northing   | Easting    | Latitude         | Longitude         |
|----------------------------------------------------------------------------------------|-----------|----------|---------|--------|----------|------------|------------|------------------|-------------------|
| - hit/miss target                                                                      | (°)       | (°)      | (usft)  | (usft) | (usft)   | (usft)     | (usft)     |                  |                   |
| - Shape                                                                                |           |          |         |        |          |            |            |                  |                   |
| LP Young 21 PM Fed                                                                     | 0.00      | 0.00     | 9,400.0 | 70.6   | -472.8   | 628,524.97 | 674,440.36 | 32° 43' 35.860 N | 103° 45' 57.953 W |
| - plan misses target center by 6.2usft at 9673.2usft MD (9400.1 TVD, 76.6 N, -471.8 E) |           |          |         |        |          |            |            |                  |                   |
| - Point                                                                                |           |          |         |        |          |            |            |                  |                   |
| PBHL Young 21 PM F                                                                     | 0.00      | 0.00     | 9,440.0 | 687.5  | -4,232.9 | 629,141.94 | 670,680.26 | 32° 43' 42.162 N | 103° 46' 41.930 W |
| - plan hits target center                                                              |           |          |         |        |          |            |            |                  |                   |
| - Point                                                                                |           |          |         |        |          |            |            |                  |                   |

## Plan Annotations

| Measured Depth | Vertical Depth | Local Coordinates |              | Comment                     |
|----------------|----------------|-------------------|--------------|-----------------------------|
| (usft)         | (usft)         | +N/-S (usft)      | +E/-W (usft) |                             |
| 8,922.6        | 8,922.6        | 0.0               | 0.0          | 8922.6' MD KOP              |
| 9,667.6        | 9,400.0        | 75.7              | -466.4       | 9667.6' MD; 9400' TVD LP    |
| 13,483.8       | 9,440.0        | 687.5             | -4,232.9     | 13483.8' MD; 9440' TVD PBHL |

**Notes Regarding Blowout Preventer**

**Mewbourne Oil Company**

Young 21 PM Fed Com #1H

297' FSL & 706' FEL (SHL)

Sec 21-T18S-R32E

Lea County, New Mexico

- I. Drilling nipple (bell nipple) to be constructed so that it can be removed without the use of a welder through the opening of the rotary table, with minimum internal diameter equal to blowout preventer bore.
- II. Blowout preventer and all fittings must be in good condition with a minimum 2000 psi working pressure on 13 3/8" casing and 3000 psi working pressure on 9 5/8" & 7" casing.
- III. Safety valve must be available on the rig floor at all times with proper connections to install in the drill string. Valve must be full bore with minimum 3000 psi working pressure.
- IV. Equipment through which bit must pass shall be at least as large as internal diameter of the casing.
- V. A kelly cock shall be installed on the kelly at all times.

Blowout preventer closing equipment to include and accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.

# 11" 3M BOPE & Closed Loop Equipment Schematic

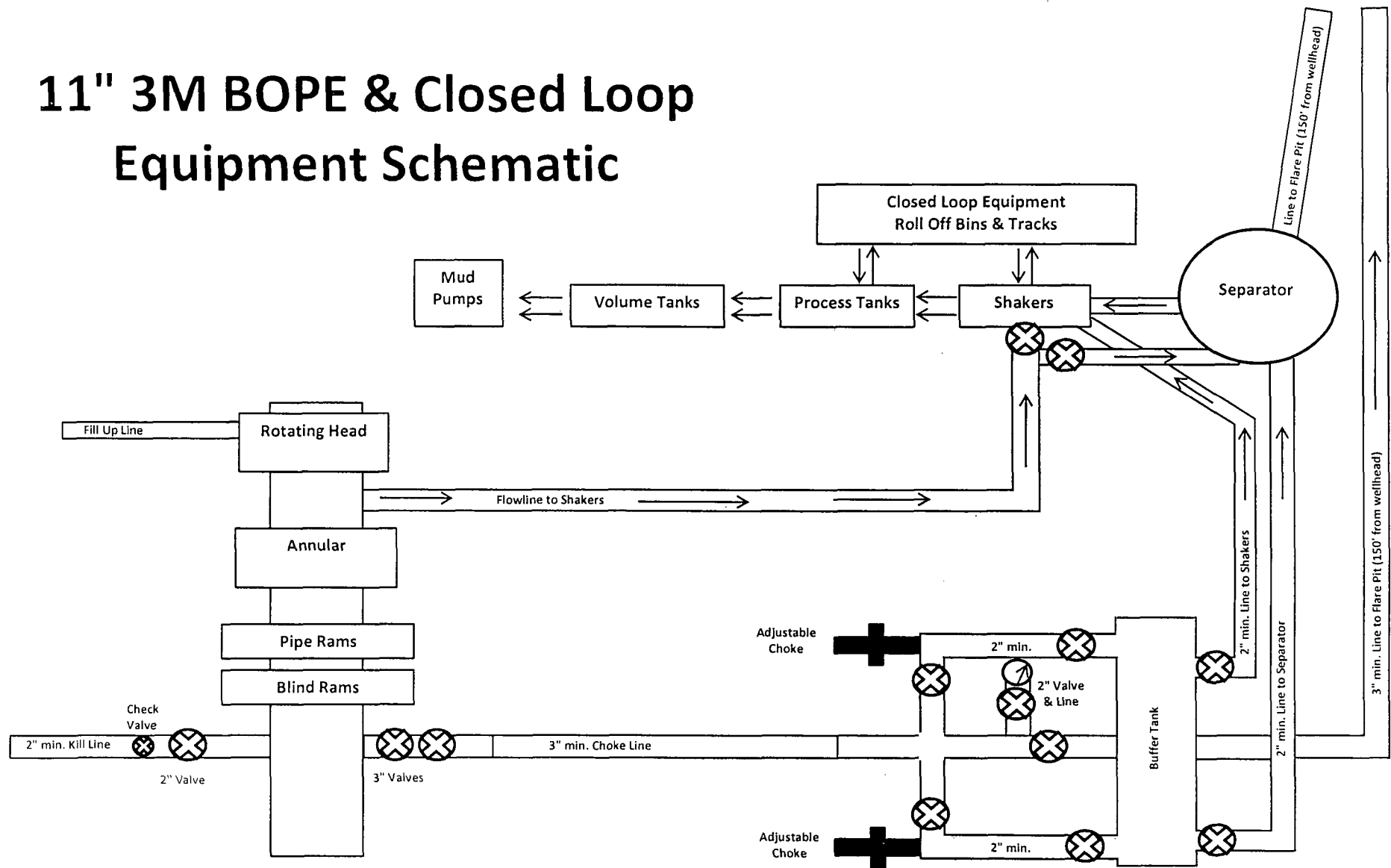


Exhibit 2  
Well Name: Young 21 PM Fed Com #1H

Note: All valves & lines on choke manifold are 3" unless otherwise noted. Exact manifold configuration may vary.

# 13 5/8" 2M BOPE & Closed Loop Equipment Schematic

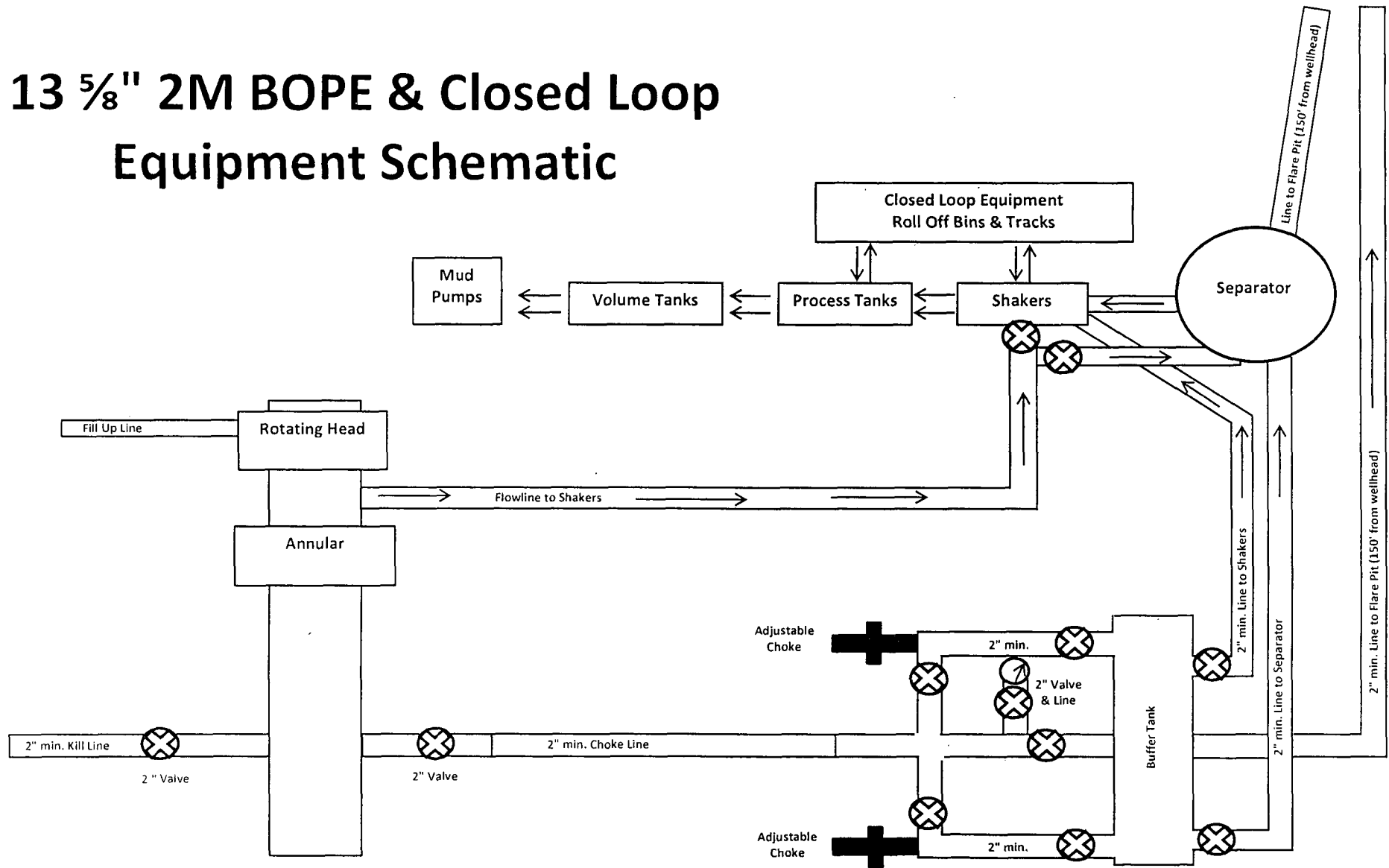


Exhibit 2A  
Well Name: Young 21 PM Fed Com #1H

H2S Diagram  
Closed Loop Pad Dimensions 280' x 320'

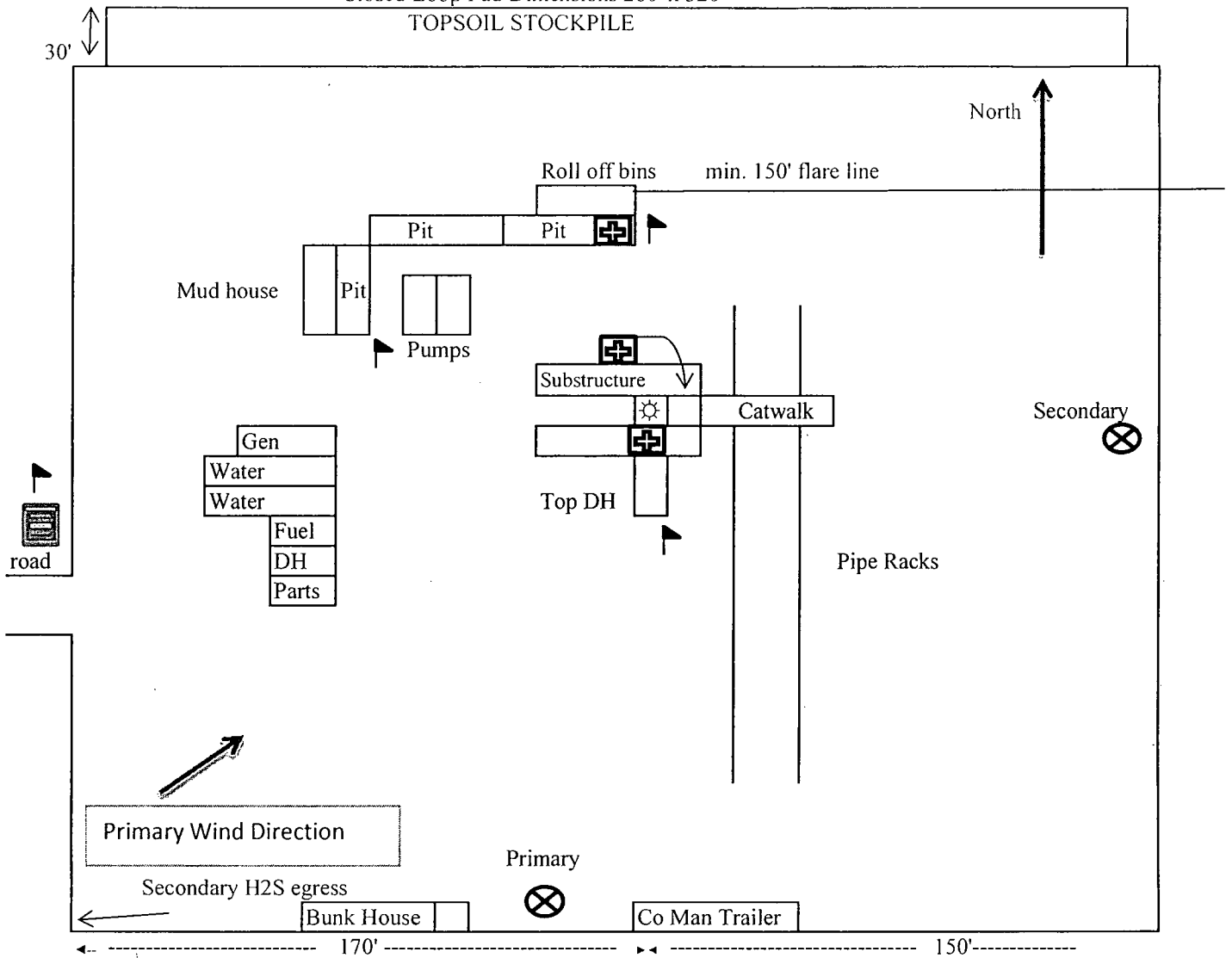


Exhibit 5



= Safety Stations



= H2S Monitors



= Wind Markers



= Warning Signs

Mewbourne Oil Company  
Young 21 PM Fed Com #1H  
297' FSL & 706' FEL  
Sec. 21 T18S R32E  
Lea County, NM