

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT



FORM APPROVED  
OMB No. 1004-0135  
Expires January 31, 2004

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

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

JAN 15 2008  
OCD-ARTESIA

2. Name of Operator  
Marbob Energy Corporation

3a Address  
P.O. Box 227, Artesia, NM 88211-0227

3b Phone No (include area code)  
505-748-3303

4 Location of Well (Footage, Sec, T, R, M, or Survey Description)  
Surf.: 2130' FSL & 1345' FWL  
BHL: 1300' FNL & 1345' FWL  
Section 24, T17S - R29E

5 Lease Serial No

NMLC028784A

6 If Indian, Allottee or Tribe Name

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

8 Well Name and No

Burch Keely Unit #406H

9 API Well No

30-015-35564

10 Field and Pool, or Exploratory Area

Grayburg Jackson

11. County or Parish, State

Eddy County, NM

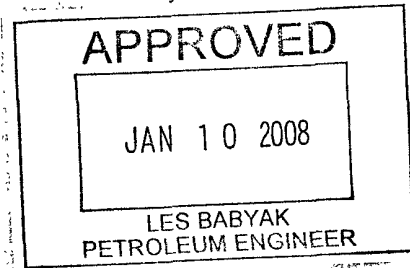
**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                |                                           |                                                    |                                                                   |
|------------------------------------------------------|-----------------------------------------------|-------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off                           |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity                           |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other <u>Drill Horizontal</u> |
|                                                      | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       |                                                                   |
|                                                      | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            |                                                                   |

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

Marbob Energy Corporation respectfully requests approval to drill the above referenced well as a horizontal instead of a vertical, with a new bottome hole location of 1300' FNL & 1345' FWL. Please see the attached planning report.

Marbob Energy Corporation also requests that the well name be changed from: Burch Keely Unit #406 to: Burch Keely Unit #406H



**ALL ITEMS IN APPROVED APD AND CONDITIONS OF APPROVAL WILL APPLY**

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

Nancy Agnew

Title Land Department

Signature

*Nancy T. Agnew*

Date 12/19/07

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by (Signature)

Name  
(Printed/Typed)

Title

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon

Office

Date

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 next page)

## State of New Mexico

## DISTRICT I

1025 N. FURNACE RD., ALBUQUERQUE, NM 87102

Energy, Minerals and Natural Resources Department

Form C-102

## DISTRICT II

1501 U. GRAND AVENUE, ALBUQUERQUE, NM 87102

## OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Revised October 12, 2006

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

MAR 08 2007

## DISTRICT III

1000 Rio Briscoe Rd., Aztec, NM 87410

## DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

## WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

|                   |                                            |                                            |
|-------------------|--------------------------------------------|--------------------------------------------|
| API Number        | Pool Code<br>28509                         | Pool Name<br>GRAYBURG JACKSON SR Q GRBG SA |
| Property Code     | Property Name<br>BURCH KEELY UNIT          | Well Number<br>984                         |
| OGED No.<br>14049 | Operator Name<br>MARBOB ENERGY CORPORATION | Elevation<br>3593'                         |

## Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| K             | 24      | 17-S     | 29-E  |         | 2130          | SOUTH            | 1345          | WEST           | EDDY   |

## Bottom Hole Location If Different From Surface

| UL or lot No.          | Section         | Township           | Range     | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|------------------------|-----------------|--------------------|-----------|---------|---------------|------------------|---------------|----------------|--------|
| C                      | 24              | 17-S               | 29-E      |         | 1300          | NORTH            | 1345          | WEST           | EDDY   |
| Dedicated Acres<br>120 | Joint or Infill | Consolidation Code | Order No. |         |               |                  |               |                |        |

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

|                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>PROJECT AREA</b></p> <p><b>PRODUCING AREA</b></p> <p><b>BHL</b></p> <p><b>GEODETIC COORDINATES</b><br/>NAD 27 NME<br/>Y=661622.0 N<br/>X=592580.1 E<br/>LAT.=32.818524° N<br/>LONG.=104.031976° W</p> | <p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Nancy T. Agnew</i> 12/20/07<br/>Signature Date<br/><b>NANCY T. AGNEW</b><br/>Printed Name</p> <p><b>SURVEYOR CERTIFICATION</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>JANUARY 09, 2007</p> <p>Date Surveyed AR<br/>Signature &amp; Seal of Professional Surveyor<br/><i>Gary Edson</i> 11/7/07<br/>07.11.0035<br/>Certificate No. GARY EDSON 12041<br/>CEAD EARCROW 17777</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Marbob**

**Eddy County**

**Burch Keely Unit #406**

**Burch Keely Unit #406**

**OH**

**Plan: Plan #1**

## **Standard Planning Report**

**19 December, 2007**



Project: Eddy County  
 Site: Burch Keely Unit #406  
 Well: Burch Keely Unit #406  
 Wellbore: OH  
 Plan: Plan #1 (Burch Keely Unit #406/OH)

PROJECT DETAILS: Eddy County  
 Geodetic System: US State Plane 1927 (Exact solution)  
 Datum: NAD 1927 (NADCON CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: New Mexico East 3001  
 System Datum: Mean Sea Level  
 Local North: Grid

# PATHFINDER

## ENERGY SERVICES

### WELL DETAILS: Burch Keely Unit #406

Ground Elevation:: 0.0  
 RKB Elevation: EST RKB @ 0.0ft  
 Rig Name:

| +N/-S | +E/-W | Northing | Easting | Latitude         | Longitude         | Slot |
|-------|-------|----------|---------|------------------|-------------------|------|
| 0.0   | 0.0   | 0.00     | 0.00    | 30° 59' 24.512 N | 105° 55' 44.137 W |      |

### SECTION DETAILS

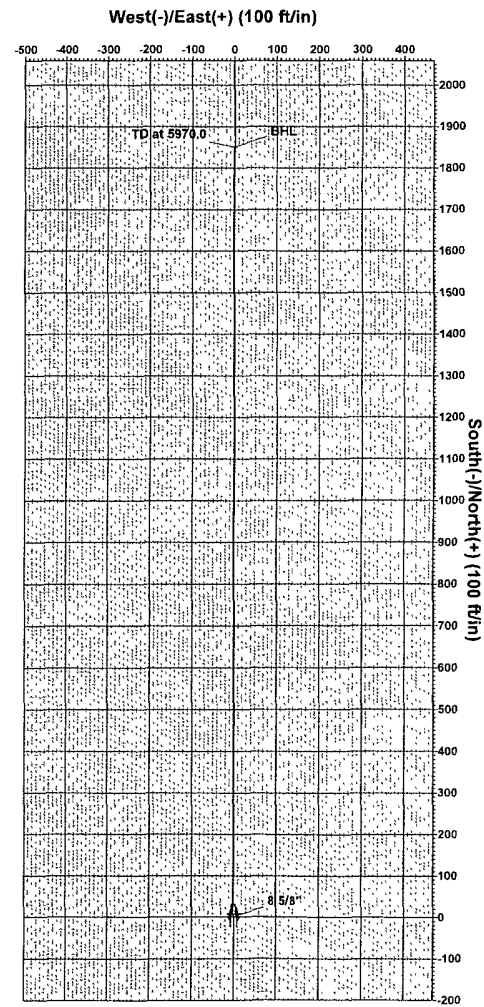
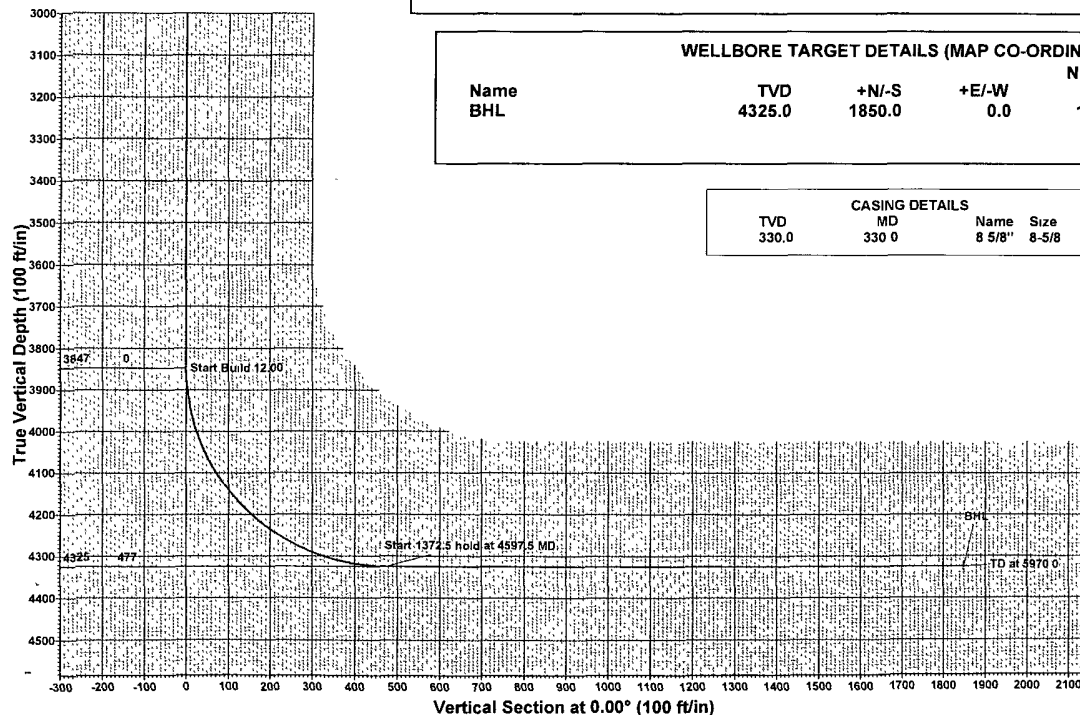
| Sec | MD     | Inc   | Azi  | TVD    | +N/-S  | +E/-W | DLeg  | TFace | VSec   | Target |
|-----|--------|-------|------|--------|--------|-------|-------|-------|--------|--------|
| 1   | 0.0    | 0.00  | 0.00 | 0.0    | 0.0    | 0.0   | 0.00  | 0.00  | 0.0    |        |
| 2   | 3847.5 | 0.00  | 0.00 | 3847.5 | 0.0    | 0.0   | 0.00  | 0.00  | 0.0    |        |
| 3   | 4597.5 | 90.00 | 0.00 | 4325.0 | 477.5  | 0.0   | 12.00 | 0.00  | 477.5  |        |
| 4   | 5970.0 | 90.00 | 0.00 | 4325.0 | 1850.0 | 0.0   | 0.00  | 0.00  | 1850.0 | BHL    |

### WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

| Name | TVD    | +N/-S  | +E/-W | Northing | Easting | Shape Point |
|------|--------|--------|-------|----------|---------|-------------|
| BHL  | 4325.0 | 1850.0 | 0.0   | 1850.00  | 0.00    |             |

### CASING DETAILS

| TVD   | MD    | Name   | Size  |
|-------|-------|--------|-------|
| 330.0 | 330.0 | 8 5/8" | 8-5/8 |



Plan: Plan #1 (Burch Keely Unit #406/OH)

Created By: Matthew May Date: 8/47, December 19 2007

Checked: \_\_\_\_\_ Date: \_\_\_\_\_

# WHS

## Planning Report

**Database:** EDM 2003.16 Single User Db  
**Company:** Marbob  
**Project:** Eddy County  
**Site:** Burch Keely Unit #406  
**Well:** Burch Keely Unit #406  
**Wellbore:** OH  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Burch Keely Unit #406  
**TVD Reference:** EST RKB @ 0.0ft  
**MD Reference:** EST RKB @ 0.0ft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

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

|                       |  |                       |  |                   |  |
|-----------------------|--|-----------------------|--|-------------------|--|
| Site                  |  | Burch Keely Unit #406 |  |                   |  |
| Site Position:        |  | Northing:             |  | ft                |  |
| From:                 |  | Easting:              |  | ft                |  |
| Position Uncertainty: |  | Slot Radius:          |  | "                 |  |
| None                  |  |                       |  | Latitude:         |  |
| 0.0 ft                |  |                       |  | Longitude:        |  |
|                       |  |                       |  | Grid Convergence: |  |
|                       |  |                       |  | 0.00 °            |  |

|                      |                       |        |                     |         |               |                   |
|----------------------|-----------------------|--------|---------------------|---------|---------------|-------------------|
| Well                 | Burch Keely Unit #406 |        |                     |         |               |                   |
| Well Position        | +N/-S                 | 0.0 ft | Northing:           | 0 00 ft | Latitude:     | 30° 59' 24.512 N  |
|                      | +E/-W                 | 0.0 ft | Easting:            | 0 00 ft | Longitude:    | 105° 55' 44.137 W |
| Position Uncertainty |                       | 0.0 ft | Wellhead Elevation: | ft      | Ground Level: | 0.0 ft            |

|           |              |             |                    |                  |                        |
|-----------|--------------|-------------|--------------------|------------------|------------------------|
| Wellbore  | OH           |             |                    |                  |                        |
| Magnetics | Model Name   | Sample Date | Declination<br>(°) | Dip Angle<br>(°) | Field Strength<br>(nT) |
|           | User Defined | 12/18/2007  | 0.00               | 0.00             | 0                      |

|                   |                  |       |               |           |
|-------------------|------------------|-------|---------------|-----------|
| Design            | Plan #1          |       |               |           |
| Audit Notes:      |                  |       |               |           |
| Version:          | Phase:           | PLAN  | Tie On Depth: | 0.0       |
| Vertical Section: | Depth From (TVD) | +N/-S | +E/-W         | Direction |
|                   | (ft)             | (ft)  | (ft)          | (°)       |
|                   | 0.0              | 0.0   | 0.0           | 0.00      |

| Plan Sections       |                 |             |                     |            |            |                       |                      |                     |         |        |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|--------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
| 0.0                 | 0.00            | 0.00        | 0.0                 | 0.0        | 0.0        | 0.00                  | 0.00                 | 0.00                | 0.00    |        |
| 3,847.5             | 0.00            | 0.00        | 3,847.5             | 0.0        | 0.0        | 0.00                  | 0.00                 | 0.00                | 0.00    |        |
| 4,597.5             | 90.00           | 0.00        | 4,325.0             | 477.5      | 0.0        | 12.00                 | 12.00                | 0.00                | 0.00    |        |
| 5,970.0             | 90.00           | 0.00        | 4,325.0             | 1,850.0    | 0.0        | 0.00                  | 0.00                 | 0.00                | 0.00    | BHL    |

# WHS

## Planning Report

**Database:** EDM 2003.16 Single User Db  
**Company:** Marbob  
**Project:** Eddy County  
**Site:** Burch Keely Unit #406  
**Well:** Burch Keely Unit #406  
**Wellbore:** OH  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Burch Keely Unit #406  
**TVD Reference:** EST RKB @ 0.0ft  
**MD Reference:** EST RKB @ 0.0ft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 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                |
| 3,847.5             | 0.00            | 0.00        | 3,847.5             | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | 0.00                |
| 3,850.0             | 0.30            | 0.00        | 3,850.0             | 0.0        | 0.0        | 0.0                   | 12.00                 | 12.00                | 0.00                |
| 3,875.0             | 3.30            | 0.00        | 3,875.0             | 0.8        | 0.0        | 0.8                   | 12.00                 | 12.00                | 0.00                |
| 3,900.0             | 6.30            | 0.00        | 3,899.9             | 2.9        | 0.0        | 2.9                   | 12.00                 | 12.00                | 0.00                |
| 3,925.0             | 9.30            | 0.00        | 3,924.7             | 6.3        | 0.0        | 6.3                   | 12.00                 | 12.00                | 0.00                |
| 3,950.0             | 12.30           | 0.00        | 3,949.2             | 11.0       | 0.0        | 11.0                  | 12.00                 | 12.00                | 0.00                |
| 3,975.0             | 15.30           | 0.00        | 3,973.5             | 16.9       | 0.0        | 16.9                  | 12.00                 | 12.00                | 0.00                |
| 4,000.0             | 18.30           | 0.00        | 3,997.4             | 24.1       | 0.0        | 24.1                  | 12.00                 | 12.00                | 0.00                |
| 4,025.0             | 21.30           | 0.00        | 4,020.9             | 32.6       | 0.0        | 32.6                  | 12.00                 | 12.00                | 0.00                |
| 4,050.0             | 24.30           | 0.00        | 4,044.0             | 42.3       | 0.0        | 42.3                  | 12.00                 | 12.00                | 0.00                |
| 4,075.0             | 27.30           | 0.00        | 4,066.5             | 53.2       | 0.0        | 53.2                  | 12.00                 | 12.00                | 0.00                |
| 4,100.0             | 30.30           | 0.00        | 4,088.4             | 65.2       | 0.0        | 65.2                  | 12.00                 | 12.00                | 0.00                |
| 4,125.0             | 33.30           | 0.00        | 4,109.6             | 78.4       | 0.0        | 78.4                  | 12.00                 | 12.00                | 0.00                |
| 4,150.0             | 36.30           | 0.00        | 4,130.2             | 92.7       | 0.0        | 92.7                  | 12.00                 | 12.00                | 0.00                |
| 4,175.0             | 39.30           | 0.00        | 4,149.9             | 108.0      | 0.0        | 108.0                 | 12.00                 | 12.00                | 0.00                |

# WHS

## Planning Report

**Database:** EDM 2003.16 Single User Db  
**Company:** Marbob  
**Project:** Eddy County  
**Site:** Burch Keely Unit #406  
**Well:** Burch Keely Unit #406  
**Wellbore:** OH  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Burch Keely Unit #406  
**TVD Reference:** EST RKB @ 0.0ft  
**MD Reference:** EST RKB @ 0.0ft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 4,200.0             | 42.30           | 0.00        | 4,168.8             | 124.3      | 0.0        | 124.3                 | 12.00                 | 12.00                | 0.00                |
| 4,225.0             | 45.30           | 0.00        | 4,186.9             | 141.6      | 0.0        | 141.6                 | 12.00                 | 12.00                | 0.00                |
| 4,250.0             | 48.30           | 0.00        | 4,204.0             | 159.8      | 0.0        | 159.8                 | 12.00                 | 12.00                | 0.00                |
| 4,275.0             | 51.30           | 0.00        | 4,220.1             | 178.9      | 0.0        | 178.9                 | 12.00                 | 12.00                | 0.00                |
| 4,300.0             | 54.30           | 0.00        | 4,235.2             | 198.8      | 0.0        | 198.8                 | 12.00                 | 12.00                | 0.00                |
| 4,325.0             | 57.30           | 0.00        | 4,249.3             | 219.5      | 0.0        | 219.5                 | 12.00                 | 12.00                | 0.00                |
| 4,350.0             | 60.30           | 0.00        | 4,262.2             | 240.9      | 0.0        | 240.9                 | 12.00                 | 12.00                | 0.00                |
| 4,375.0             | 63.30           | 0.00        | 4,274.1             | 262.9      | 0.0        | 262.9                 | 12.00                 | 12.00                | 0.00                |
| 4,400.0             | 66.30           | 0.00        | 4,284.7             | 285.5      | 0.0        | 285.5                 | 12.00                 | 12.00                | 0.00                |
| 4,425.0             | 69.30           | 0.00        | 4,294.1             | 308.7      | 0.0        | 308.7                 | 12.00                 | 12.00                | 0.00                |
| 4,450.0             | 72.30           | 0.00        | 4,302.4             | 332.3      | 0.0        | 332.3                 | 12.00                 | 12.00                | 0.00                |
| 4,475.0             | 75.30           | 0.00        | 4,309.3             | 356.3      | 0.0        | 356.3                 | 12.00                 | 12.00                | 0.00                |
| 4,500.0             | 78.30           | 0.00        | 4,315.0             | 380.6      | 0.0        | 380.6                 | 12.00                 | 12.00                | 0.00                |
| 4,525.0             | 81.30           | 0.00        | 4,319.5             | 405.2      | 0.0        | 405.2                 | 12.00                 | 12.00                | 0.00                |
| 4,550.0             | 84.30           | 0.00        | 4,322.6             | 430.0      | 0.0        | 430.0                 | 12.00                 | 12.00                | 0.00                |
| 4,575.0             | 87.30           | 0.00        | 4,324.4             | 455.0      | 0.0        | 455.0                 | 12.00                 | 12.00                | 0.00                |
| 4,597.5             | 90.00           | 0.00        | 4,325.0             | 477.5      | 0.0        | 477.5                 | 12.00                 | 12.00                | 0.00                |
| 4,600.0             | 90.00           | 0.00        | 4,325.0             | 480.0      | 0.0        | 480.0                 | 0.00                  | 0.00                 | 0.00                |
| 4,700.0             | 90.00           | 0.00        | 4,325.0             | 580.0      | 0.0        | 580.0                 | 0.00                  | 0.00                 | 0.00                |
| 4,800.0             | 90.00           | 0.00        | 4,325.0             | 680.0      | 0.0        | 680.0                 | 0.00                  | 0.00                 | 0.00                |
| 4,900.0             | 90.00           | 0.00        | 4,325.0             | 780.0      | 0.0        | 780.0                 | 0.00                  | 0.00                 | 0.00                |
| 5,000.0             | 90.00           | 0.00        | 4,325.0             | 880.0      | 0.0        | 880.0                 | 0.00                  | 0.00                 | 0.00                |
| 5,100.0             | 90.00           | 0.00        | 4,325.0             | 980.0      | 0.0        | 980.0                 | 0.00                  | 0.00                 | 0.00                |
| 5,200.0             | 90.00           | 0.00        | 4,325.0             | 1,080.0    | 0.0        | 1,080.0               | 0.00                  | 0.00                 | 0.00                |
| 5,300.0             | 90.00           | 0.00        | 4,325.0             | 1,180.0    | 0.0        | 1,180.0               | 0.00                  | 0.00                 | 0.00                |
| 5,400.0             | 90.00           | 0.00        | 4,325.0             | 1,280.0    | 0.0        | 1,280.0               | 0.00                  | 0.00                 | 0.00                |
| 5,500.0             | 90.00           | 0.00        | 4,325.0             | 1,380.0    | 0.0        | 1,380.0               | 0.00                  | 0.00                 | 0.00                |
| 5,600.0             | 90.00           | 0.00        | 4,325.0             | 1,480.0    | 0.0        | 1,480.0               | 0.00                  | 0.00                 | 0.00                |
| 5,700.0             | 90.00           | 0.00        | 4,325.0             | 1,580.0    | 0.0        | 1,580.0               | 0.00                  | 0.00                 | 0.00                |
| 5,800.0             | 90.00           | 0.00        | 4,325.0             | 1,680.0    | 0.0        | 1,680.0               | 0.00                  | 0.00                 | 0.00                |
| 5,900.0             | 90.00           | 0.00        | 4,325.0             | 1,780.0    | 0.0        | 1,780.0               | 0.00                  | 0.00                 | 0.00                |
| 5,970.0             | 90.00           | 0.00        | 4,325.0             | 1,850.0    | 0.0        | 1,850.0               | 0.00                  | 0.00                 | 0.00                |

### Targets

| Target Name        | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude         | Longitude         |
|--------------------|---------------|--------------|----------|------------|------------|---------------|--------------|------------------|-------------------|
| - hit/miss target  |               |              |          |            |            |               |              |                  |                   |
| - Shape            |               |              |          |            |            |               |              |                  |                   |
| BHL                | 0.00          | 360.00       | 4,325.0  | 1,850.0    | 0.0        | 1,850.00      | 0.00         | 30° 59' 42.816 N | 105° 55' 44.442 W |
| - plan hits target |               |              |          |            |            |               |              |                  |                   |
| - Point            |               |              |          |            |            |               |              |                  |                   |

### Casing Points

| Measured Depth (ft) | Vertical Depth (ft) | Name   | Casing Diameter (") | Hole Diameter (") |
|---------------------|---------------------|--------|---------------------|-------------------|
| 330.0               | 330.0               | 8 5/8" | 8-5/8               | 8-5/8             |