

Azimuths to True North
Magnetic North: 9.08°

Magnetic Field
Strength: 53404.4snT
Dip Angle: 67.39°
Date: 9/9/2010
Model: IGRF2010

Rubicon Oil & Gas

County: Weld County
Well: Pawnee 10-67-28-1
Wellbore: Single Lateral
Design: Plan 1
Rig: Unknown

PROJECT DETAILS

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

System Datum: Mean Sea Level
Local North: True

SITE DETAILS

Legal Location: SEC 28, T10N R67W

Site Centre Latitude: 40° 48' 37.566 N
Longitude: 104° 54' 8.064 W

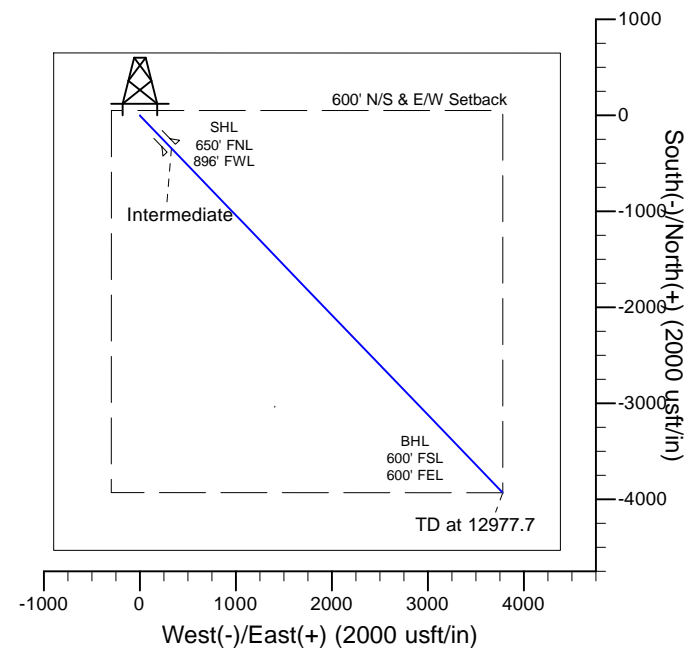
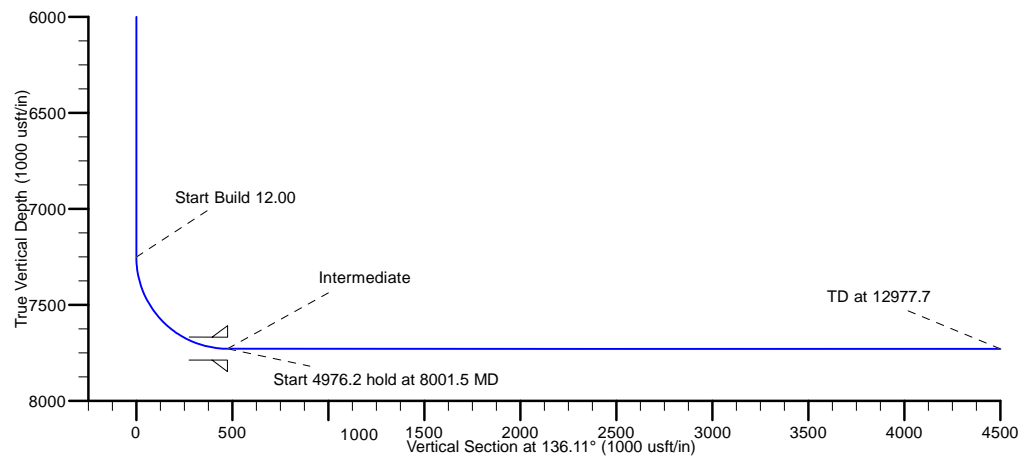
Ref. Datum: WELL @ 5683.2usft (Unknown)
Positional Uncertainty: 0.0
Convergence: 0.39

CASING DETAILS

| TVD | MD | Name |
|--------|--------|--------------|
| 7729.0 | 8000.0 | Intermediate |

SECTION DETAILS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | Vsect | Target |
|---------|-------|--------|--------|---------|--------|-------|--------|--------|--------|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 7251.5 | 0.00 | 0.00 | 7251.5 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 8001.5 | 90.00 | 136.11 | 7729.0 | -344.1 | 331.0 | 12.00 | 136.11 | 477.5 | |
| 12977.7 | 90.00 | 136.11 | 7729.0 | -3930.0 | 3781.2 | 0.00 | 0.00 | 5453.7 | PBHL |



RPM Consulting
1600 Broadway, Suite 1510
Denver, CO 80202
303-595-7625



Plan: Plan 1 (Pawnee 10-67-28-1/Single Lateral)
Created By: Christi Ng Date: 13:36, September 09 2010
Checked: Date: _____
Reviewed: Date: _____

Rubicon Oil & Gas

**Weld County
SEC 28, T10N R67W
Pawnee 10-67-28-1**

Single Lateral

Plan: Plan 1

Standard Planning Report

09 September, 2010

Planning Report

| | | | |
|------------------|-------------------------------|-------------------------------------|-----------------------------|
| Database: | EDBM 5000.1 Single User Db 64 | Local Co-ordinate Reference: | Site SEC 28, T10N R67W |
| Company: | Rubicon Oil & Gas | TVD Reference: | WELL @ 5683.2usft (Unknown) |
| Project: | Weld County | MD Reference: | WELL @ 5683.2usft (Unknown) |
| Site: | SEC 28, T10N R67W | North Reference: | True |
| Well: | Pawnee 10-67-28-1 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Single Lateral | | |
| Design: | Plan 1 | | |

| | | | |
|--------------------|---------------------------|----------------------|----------------|
| Project | Weld County | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | |

| | | | | | |
|-----------------------|----------|-------------------|-------------------|-------------------|------------------|
| Site | | SEC 28, T10N R67W | | | |
| Site Position: | | Northing: | 1,538,646.32 usft | Latitude: | 40° 48' 37.566 N |
| From: | Lat/Long | Easting: | 3,165,473.12 usft | Longitude: | 104° 54' 8.064 W |
| Position Uncertainty: | 0.0 usft | Slot Radius: | 13-3/16 " | Grid Convergence: | 0.39 ° |

| Well | | Pawnee 10-67-28-1 | | | | |
|----------------------|-------|-------------------|---------------------|-------------------|---------------|------------------|
| Well Position | +N/-S | 0.0 usft | Northing: | 1,538,646.32 usft | Latitude: | 40° 48' 37.566 N |
| | +E/-W | 0.0 usft | Easting: | 3,165,473.12 usft | Longitude: | 104° 54' 8.064 W |
| Position Uncertainty | | 0.0 usft | Wellhead Elevation: | | Ground Level: | 5,683.2 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Single Lateral | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 9/9/2010 | 9.08 | 67.39 | 53,404 |

| | | | | |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| Design | Plan 1 | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
| | 0.0 | 0.0 | 0.0 | 136.11 |

| 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 | |
| 7,251.5 | 0.00 | 0.00 | 7,251.5 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 8,001.5 | 90.00 | 136.11 | 7,729.0 | -344.1 | 331.0 | 12.00 | 12.00 | 0.00 | 136.11 | |
| 12,977.7 | 90.00 | 136.11 | 7,729.0 | -3,930.0 | 3,781.2 | 0.00 | 0.00 | 0.00 | 0.00 | PBHL |

Planning Report

| | | | |
|------------------|-------------------------------|-------------------------------------|-----------------------------|
| Database: | EDBM 5000.1 Single User Db 64 | Local Co-ordinate Reference: | Site SEC 28, T10N R67W |
| Company: | Rubicon Oil & Gas | TVD Reference: | WELL @ 5683.2usft (Unknown) |
| Project: | Weld County | MD Reference: | WELL @ 5683.2usft (Unknown) |
| Site: | SEC 28, T10N R67W | North Reference: | True |
| Well: | Pawnee 10-67-28-1 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Single Lateral | | |
| 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 |
| 500.0 | 0.00 | 0.00 | 500.0 | 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 |
| 1,500.0 | 0.00 | 0.00 | 1,500.0 | 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 |
| 2,500.0 | 0.00 | 0.00 | 2,500.0 | 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 |
| 3,500.0 | 0.00 | 0.00 | 3,500.0 | 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 |
| 4,500.0 | 0.00 | 0.00 | 4,500.0 | 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 |
| 5,500.0 | 0.00 | 0.00 | 5,500.0 | 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 |
| 6,500.0 | 0.00 | 0.00 | 6,500.0 | 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 |
| 7,251.5 | 0.00 | 0.00 | 7,251.5 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 29.82 | 136.11 | 7,488.9 | -45.5 | 43.8 | 63.2 | 12.00 | 12.00 | 0.00 |
| 8,000.0 | 89.82 | 136.11 | 7,729.0 | -343.0 | 330.0 | 475.9 | 12.00 | 12.00 | 0.00 |
| Intermediate | | | | | | | | | |
| 8,001.5 | 90.00 | 136.11 | 7,729.0 | -344.1 | 331.0 | 477.5 | 12.00 | 12.00 | 0.00 |
| 8,500.0 | 90.00 | 136.11 | 7,729.0 | -703.3 | 676.6 | 975.9 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 90.00 | 136.11 | 7,729.0 | -1,063.6 | 1,023.3 | 1,475.9 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 90.00 | 136.11 | 7,729.0 | -1,423.9 | 1,370.0 | 1,975.9 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 90.00 | 136.11 | 7,729.0 | -1,784.2 | 1,716.6 | 2,475.9 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 90.00 | 136.11 | 7,729.0 | -2,144.5 | 2,063.3 | 2,975.9 | 0.00 | 0.00 | 0.00 |
| 11,000.0 | 90.00 | 136.11 | 7,729.0 | -2,504.8 | 2,410.0 | 3,475.9 | 0.00 | 0.00 | 0.00 |
| 11,500.0 | 90.00 | 136.11 | 7,729.0 | -2,865.2 | 2,756.6 | 3,975.9 | 0.00 | 0.00 | 0.00 |
| 12,000.0 | 90.00 | 136.11 | 7,729.0 | -3,225.5 | 3,103.3 | 4,475.9 | 0.00 | 0.00 | 0.00 |
| 12,500.0 | 90.00 | 136.11 | 7,729.0 | -3,585.8 | 3,449.9 | 4,975.9 | 0.00 | 0.00 | 0.00 |
| 12,977.7 | 90.00 | 136.11 | 7,729.0 | -3,930.0 | 3,781.2 | 5,453.7 | 0.00 | 0.00 | 0.00 |

| Design Targets | | | | | | | | | |
|---------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|------------------|-------------------|
| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
| - hit/miss target | | | | | | | | | |
| - Shape | | | | | | | | | |
| PBHL | 0.00 | 0.00 | 7,729.0 | -3,930.0 | 3,781.2 | 1,534,741.85 | 3,169,280.70 | 40° 47' 58.731 N | 104° 53' 18.899 W |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |

| Casing Points | | | | | |
|-----------------------|-----------------------|--------------|---------------------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name | Casing Diameter (") | Hole Diameter (") | |
| 8,000.0 | 7,729.0 | Intermediate | 7 | 8-3/4 | |