



Well Name: **Hutchison 9-67-3-7**

Surface Location: Hutchison 9-67-3-7 Pad Sec.3-T9N-R67W
North American Datum 1983 US State Plane 1983 Wyoming Eastern Zone

Ground Elevation: 5549.0

+N/-S +E/-W
0.0 0.0

Northing

Easting

Latitude

Longitude

Slot

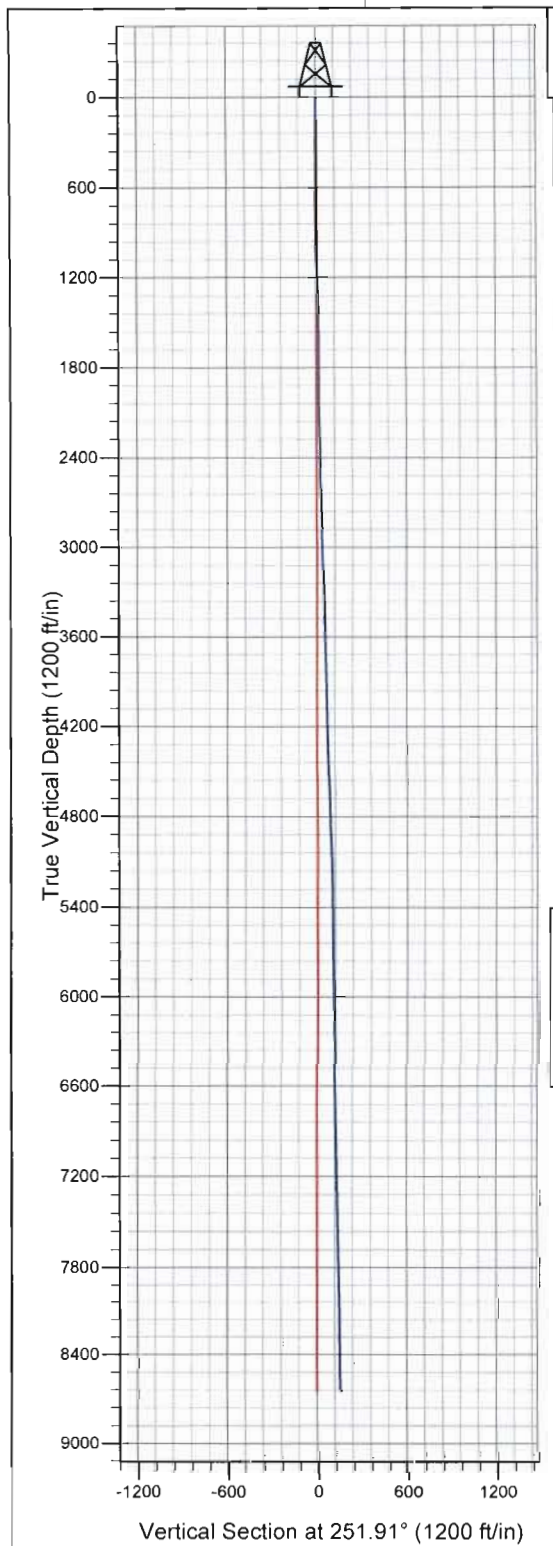
100850.10

736743.15

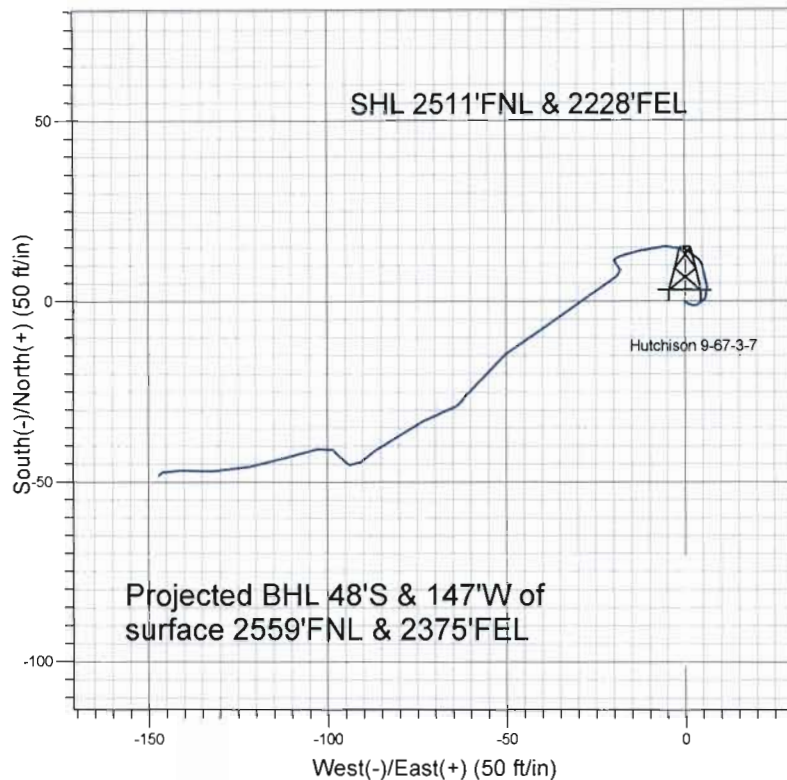
40° 46' 35.267 N

104° 52' 32.596 W

Original Well Elev WELL @ 5562.0ft (Original Well Elev)



Anadarko, Laramie County WY



LEGEND

- Hutchison 9-67-3-7, Wellbore #1, Design #1 V0
- Wellbore #1

Final Survey Plot

Projected Final Survey -
8650'MD & 8647'TVD @ 48' VS
1.1 deg Inc 231.5 deg AZ

Project: SEC.3-T9N-R67W
Site: Hutchison 9-67-3-7 Pad Sec.3-T9N-R67W
Well: Hutchison 9-67-3-7
Plan: Wellbore #1



Anadarko, Laramie County WY

SEC.3-T9N-R67W

Hutchison 9-67-3-7 Pad Sec.3-T9N-R67W

Hutchison 9-67-3-7

Wellbore #1

Design: Wellbore #1

Survey Report - Geographic

19 January, 2011

| | | | |
|------------------|---------------------------------------|-------------------------------------|--------------------------------------|
| Company: | Anadarko, Laramie County WY | Local Co-ordinate Reference: | Well Hutchison 9-67-3-7 |
| Project: | SEC.3-T9N-R67W | TVD Reference: | WELL @ 5562.0ft (Original Well Elev) |
| Site: | Hutchison 9-67-3-7 Pad Sec.3-T9N-R67W | MD Reference: | WELL @ 5562.0ft (Original Well Elev) |
| Well: | Hutchison 9-67-3-7 | North Reference: | True |
| Wellbore: | Wellbore #1 | Survey Calculation Method: | Minimum Curvature |
| Design: | Wellbore #1 | Database: | Landmark |

| | | | |
|--------------------|---|----------------------|-----------------------------|
| Project | SEC.3-T9N-R67W, Laramie County, Wyoming | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | Using Well Reference Point |
| Map Zone: | Wyoming Eastern Zone | | Using geodetic scale factor |

| | | | | | |
|-----------------------|----------|---------------------------------------|---------------|-------------------|-------------------|
| Site | | Hutchison 9-67-3-7 Pad Sec.3-T9N-R67W | | | |
| Site Position: | | Northing: | 100,850.10 ft | Latitude: | 40° 46' 35.267 N |
| From: | Lat/Long | Easting: | 736,743.15 ft | Longitude: | 104° 52' 32.596 W |
| Position Uncertainty: | 0.0 ft | Slot Radius: | " | Grid Convergence: | 0.19 ° |

| | | | | | | |
|----------------------|--------------------|--------|---------------------|---------------|---------------|-------------------|
| Well | Hutchison 9-67-3-7 | | | | | |
| Well Position | +N/-S | 0.0 ft | Northing: | 100,850.10 ft | Latitude: | 40° 46' 35.267 N |
| | +E/-W | 0.0 ft | Easting: | 736,743.15 ft | Longitude: | 104° 52' 32.596 W |
| Position Uncertainty | | 0.0 ft | Wellhead Elevation: | ft | Ground Level: | 5,549.0 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 1/12/2011 | 9.02 | 67.35 | 53,355 |

| | | | | |
|-------------------|--------------------------|---------------|---------------|-------------------|
| Design | Wellbore #1 | | | |
| Audit Notes: | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: 0.0 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
| | 0.0 | 0.0 | 0.0 | 251.91 |

| | | | | | |
|-----------------------|----------------|--------------------------|------------------|--------------------|--|
| Survey Program | Date | 1/12/2011 | | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 148.0 | 8,650.0 | Survey #1 (Wellbore #1) | | | |

Company: Anadarko, Laramie County WY
Project: SEC.3-T9N-R67W
Site: Hutchison 9-67-3-7 Pad Sec.3-T9N-R67W
Well: Hutchison 9-67-3-7
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Hutchison 9-67-3-7
TVD Reference: WELL @ 5562.0ft (Original Well Elev)
MD Reference: WELL @ 5562.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Landmark

Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Map Northing (ft) | Map Easting (ft) | Latitude | Longitude |
|---------------------|-----------------|-------------|---------------------|------------|------------|-------------------|------------------|------------------|-------------------|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 100,850.10 | 736,743.15 | 40° 46' 35.267 N | 104° 52' 32.596 W |
| 148.0 | 1.20 | 120.90 | 148.0 | -0.8 | 1.3 | 100,849.31 | 736,744.49 | 40° 46' 35.259 N | 104° 52' 32.578 W |
| 265.0 | 1.20 | 70.60 | 265.0 | -1.0 | 3.5 | 100,849.10 | 736,746.69 | 40° 46' 35.257 N | 104° 52' 32.550 W |
| 756.0 | 2.20 | 339.10 | 755.8 | 9.5 | 5.0 | 100,859.61 | 736,748.15 | 40° 46' 35.361 N | 104° 52' 32.530 W |
| 819.0 | 1.80 | 322.70 | 818.8 | 11.4 | 4.0 | 100,861.53 | 736,747.11 | 40° 46' 35.380 N | 104° 52' 32.544 W |
| 1,310.0 | 2.90 | 253.80 | 1,309.4 | 14.1 | -12.6 | 100,864.14 | 736,730.50 | 40° 46' 35.406 N | 104° 52' 32.760 W |
| 1,391.0 | 2.90 | 255.00 | 1,390.3 | 13.0 | -16.6 | 100,863.03 | 736,726.56 | 40° 46' 35.395 N | 104° 52' 32.811 W |
| 1,550.0 | 0.90 | 132.40 | 1,549.3 | 11.1 | -19.5 | 100,861.13 | 736,723.60 | 40° 46' 35.376 N | 104° 52' 32.849 W |
| 2,057.0 | 0.70 | 239.60 | 2,056.2 | 6.8 | -19.3 | 100,856.88 | 736,723.88 | 40° 46' 35.334 N | 104° 52' 32.846 W |
| 2,564.0 | 1.60 | 233.10 | 2,563.1 | 1.0 | -27.6 | 100,851.04 | 736,715.57 | 40° 46' 35.277 N | 104° 52' 32.954 W |
| 3,037.0 | 1.60 | 237.10 | 3,035.9 | -6.5 | -38.4 | 100,843.45 | 736,704.77 | 40° 46' 35.202 N | 104° 52' 33.095 W |
| 3,515.0 | 1.80 | 235.00 | 3,513.7 | -14.5 | -50.2 | 100,835.48 | 736,693.04 | 40° 46' 35.124 N | 104° 52' 33.248 W |
| 3,990.0 | 2.20 | 215.20 | 3,988.5 | -26.2 | -61.5 | 100,823.71 | 736,681.72 | 40° 46' 35.008 N | 104° 52' 33.395 W |
| 4,117.0 | 0.90 | 233.10 | 4,115.4 | -28.8 | -63.7 | 100,821.12 | 736,679.52 | 40° 46' 34.982 N | 104° 52' 33.424 W |
| 4,599.0 | 1.70 | 252.40 | 4,597.3 | -33.2 | -73.6 | 100,816.65 | 736,669.70 | 40° 46' 34.939 N | 104° 52' 33.552 W |
| 5,075.0 | 2.10 | 227.30 | 5,073.0 | -41.3 | -86.7 | 100,808.56 | 736,656.58 | 40° 46' 34.859 N | 104° 52' 33.723 W |
| 5,582.0 | 1.00 | 332.70 | 5,579.9 | -43.6 | -95.6 | 100,806.16 | 736,647.74 | 40° 46' 34.836 N | 104° 52' 33.838 W |
| 6,089.0 | 1.20 | 257.90 | 6,086.8 | -40.8 | -102.8 | 100,808.95 | 736,640.51 | 40° 46' 34.864 N | 104° 52' 33.932 W |
| 6,596.0 | 1.10 | 251.90 | 6,593.7 | -43.4 | -112.6 | 100,806.30 | 736,630.70 | 40° 46' 34.838 N | 104° 52' 34.059 W |
| 7,071.0 | 1.20 | 260.00 | 7,068.6 | -45.7 | -121.8 | 100,803.99 | 736,621.48 | 40° 46' 34.815 N | 104° 52' 34.179 W |
| 7,578.0 | 1.20 | 267.10 | 7,575.5 | -46.9 | -132.4 | 100,802.76 | 736,610.95 | 40° 46' 34.803 N | 104° 52' 34.316 W |
| 8,086.0 | 0.70 | 279.90 | 8,083.5 | -46.6 | -140.7 | 100,803.00 | 736,602.58 | 40° 46' 34.806 N | 104° 52' 34.425 W |
| 8,561.0 | 0.60 | 245.70 | 8,558.4 | -47.2 | -145.9 | 100,802.46 | 736,597.46 | 40° 46' 34.801 N | 104° 52' 34.492 W |
| 8,606.0 | 1.10 | 231.50 | 8,603.4 | -47.5 | -146.4 | 100,802.09 | 736,596.90 | 40° 46' 34.797 N | 104° 52' 34.499 W |
| 8,650.0 | 1.10 | 231.50 | 8,647.4 | -48.1 | -147.1 | 100,801.56 | 736,596.25 | 40° 46' 34.792 N | 104° 52' 34.507 W |

Checked By: Shirley Jorman Approved By: Jerry C. Calkins Date: 1/19/11