

# **BILL BARRETT CORP**

**GARFIELD COUNTY, COLORADO NAD 1983**

**Kaufman Pad #5 NWSE-24-692**

**Kaufman 42A-24-692**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**30 September, 2010**

# BBC

## Planning Report

|                  |                                    |                                     |                                    |
|------------------|------------------------------------|-------------------------------------|------------------------------------|
| <b>Database:</b> | Compass                            | <b>Local Co-ordinate Reference:</b> | Well Kaufman 42A-24-692            |
| <b>Company:</b>  | BILL BARRETT CORP                  | <b>TVD Reference:</b>               | WELL @ 0.00ft (Original Well Elev) |
| <b>Project:</b>  | GARFIELD COUNTY, COLORADO NAD 1983 | <b>MD Reference:</b>                | WELL @ 0.00ft (Original Well Elev) |
| <b>Site:</b>     | Kaufman Pad #5 NWSE-24-692         | <b>North Reference:</b>             | True                               |
| <b>Well:</b>     | Kaufman 42A-24-692                 | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Wellbore:</b> | Wellbore #1                        |                                     |                                    |
| <b>Design:</b>   | Design #1                          |                                     |                                    |

|                    |                                    |                      |                |
|--------------------|------------------------------------|----------------------|----------------|
| <b>Project</b>     | GARFIELD COUNTY, COLORADO NAD 1983 |                      |                |
| <b>Map System:</b> | US State Plane 1983                | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983          |                      |                |
| <b>Map Zone:</b>   | Colorado Central Zone              |                      |                |

| Site                  |  |  |           |  |  | Kaufman Pad #5 NWSE-24-692 |  |  |                  |  |  |                   |  |  |                    |  |  |
|-----------------------|--|--|-----------|--|--|----------------------------|--|--|------------------|--|--|-------------------|--|--|--------------------|--|--|
| Site Position:        |  |  | Northing: |  |  | 1,618,121.825 ft           |  |  | Latitude:        |  |  | 39° 30' 41.411 N  |  |  |                    |  |  |
| From:                 |  |  | Lat/Long  |  |  | Easting:                   |  |  | 2,404,091.811 ft |  |  | Longitude:        |  |  | 107° 36' 44.2944 W |  |  |
| Position Uncertainty: |  |  | 0.00 ft   |  |  | Slot Radius:               |  |  | "                |  |  | Grid Convergence: |  |  | -1.33 °            |  |  |

|                      |                    |          |                     |                  |               |                    |
|----------------------|--------------------|----------|---------------------|------------------|---------------|--------------------|
| Well                 | Kaufman 42A-24-692 |          |                     |                  |               |                    |
| Well Position        | +N-S               | 44.79 ft | Northing:           | 1,618,165.051 ft | Latitude:     | 39° 30' 41.853 N   |
|                      | +E-W               | 66.87 ft | Easting:            | 2,404,159.701 ft | Longitude:    | 107° 36' 43.4412 W |
| Position Uncertainty |                    | 0.00 ft  | Wellhead Elevation: | ft               | Ground Level: | 0.00 ft            |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Wellbore #1       |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | BGGM2007          | 9/30/2010          | 10.34                  | 65.82                | 52,399                     |

|                          |                              |                   |                      |                      |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| <b>Design</b>            | Design #1                    |                   |                      |                      |
| <b>Audit Notes:</b>      |                              |                   |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                | PROTOTYPE         | <b>Tie On Depth:</b> | 0.00                 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b>    | <b>Direction (°)</b> |
|                          | 0.00                         | 0.00              | 0.00                 | 60.21                |

| <b>Plan Sections</b> |                 |             |                     |            |            |                       |                      |                     |         |                    |
|----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|--------------------|
| 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             |
| 0.00                 | 0.00            | 0.00        | 0.00                | 0.00       | 0.00       | 0.00                  | 0.00                 | 0.00                | 0.00    |                    |
| 760.00               | 0.00            | 0.00        | 760.00              | 0.00       | 0.00       | 0.00                  | 0.00                 | 0.00                | 0.00    |                    |
| 1,442.48             | 17.06           | 60.21       | 1,432.44            | 50.12      | 87.54      | 2.50                  | 2.50                 | 0.00                | 60.21   |                    |
| 4,455.94             | 17.06           | 60.21       | 4,313.27            | 489.45     | 854.83     | 0.00                  | 0.00                 | 0.00                | 0.00    |                    |
| 5,593.41             | 0.00            | 0.00        | 5,434.00            | 572.98     | 1,000.72   | 1.50                  | -1.50                | 0.00                | 180.00  |                    |
| 7,593.41             | 0.00            | 0.00        | 7,434.00            | 572.98     | 1,000.72   | 0.00                  | 0.00                 | 0.00                | 0.00    | Kaufman 42A-24-692 |

# BBC

## Planning Report

|                  |                                    |                                     |                                    |
|------------------|------------------------------------|-------------------------------------|------------------------------------|
| <b>Database:</b> | Compass                            | <b>Local Co-ordinate Reference:</b> | Well Kaufman 42A-24-692            |
| <b>Company:</b>  | BILL BARRETT CORP                  | <b>TVD Reference:</b>               | WELL @ 0.00ft (Original Well Elev) |
| <b>Project:</b>  | GARFIELD COUNTY, COLORADO NAD 1983 | <b>MD Reference:</b>                | WELL @ 0.00ft (Original Well Elev) |
| <b>Site:</b>     | Kaufman Pad #5 NWSE-24-692         | <b>North Reference:</b>             | True                               |
| <b>Well:</b>     | Kaufman 42A-24-692                 | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Wellbore:</b> | Wellbore #1                        |                                     |                                    |
| <b>Design:</b>   | Design #1                          |                                     |                                    |

| 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) |
| 0.00                | 0.00            | 0.00        | 0.00                | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 100.00              | 0.00            | 0.00        | 100.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 200.00              | 0.00            | 0.00        | 200.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 300.00              | 0.00            | 0.00        | 300.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 400.00              | 0.00            | 0.00        | 400.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 500.00              | 0.00            | 0.00        | 500.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 600.00              | 0.00            | 0.00        | 600.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 700.00              | 0.00            | 0.00        | 700.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 760.00              | 0.00            | 0.00        | 760.00              | 0.00       | 0.00       | 0.00                  | 0.00                  | 0.00                 | 0.00                |
| 9 5/8"              |                 |             |                     |            |            |                       |                       |                      |                     |
| 800.00              | 1.00            | 60.21       | 800.00              | 0.17       | 0.30       | 0.35                  | 2.50                  | 2.50                 | 0.00                |
| 900.00              | 3.50            | 60.21       | 899.91              | 2.12       | 3.71       | 4.27                  | 2.50                  | 2.50                 | 0.00                |
| 1,000.00            | 6.00            | 60.21       | 999.56              | 6.24       | 10.90      | 12.55                 | 2.50                  | 2.50                 | 0.00                |
| 1,100.00            | 8.50            | 60.21       | 1,098.75            | 12.51      | 21.85      | 25.17                 | 2.50                  | 2.50                 | 0.00                |
| 1,200.00            | 11.00           | 60.21       | 1,197.30            | 20.92      | 36.54      | 42.11                 | 2.50                  | 2.50                 | 0.00                |
| 1,300.00            | 13.50           | 60.21       | 1,295.02            | 31.46      | 54.95      | 63.32                 | 2.50                  | 2.50                 | 0.00                |
| 1,400.00            | 16.00           | 60.21       | 1,391.71            | 44.11      | 77.05      | 88.78                 | 2.50                  | 2.50                 | 0.00                |
| 1,442.48            | 17.06           | 60.21       | 1,432.44            | 50.12      | 87.54      | 100.87                | 2.50                  | 2.50                 | 0.00                |
| 1,500.00            | 17.06           | 60.21       | 1,487.43            | 58.51      | 102.18     | 117.74                | 0.00                  | 0.00                 | 0.00                |
| 1,600.00            | 17.06           | 60.21       | 1,583.03            | 73.08      | 127.64     | 147.09                | 0.00                  | 0.00                 | 0.00                |
| 1,700.00            | 17.06           | 60.21       | 1,678.62            | 87.66      | 153.11     | 176.43                | 0.00                  | 0.00                 | 0.00                |
| 1,800.00            | 17.06           | 60.21       | 1,774.22            | 102.24     | 178.57     | 205.77                | 0.00                  | 0.00                 | 0.00                |
| 1,900.00            | 17.06           | 60.21       | 1,869.82            | 116.82     | 204.03     | 235.11                | 0.00                  | 0.00                 | 0.00                |
| 2,000.00            | 17.06           | 60.21       | 1,965.42            | 131.40     | 229.49     | 264.45                | 0.00                  | 0.00                 | 0.00                |
| 2,100.00            | 17.06           | 60.21       | 2,061.02            | 145.98     | 254.95     | 293.79                | 0.00                  | 0.00                 | 0.00                |
| 2,200.00            | 17.06           | 60.21       | 2,156.62            | 160.56     | 280.42     | 323.13                | 0.00                  | 0.00                 | 0.00                |
| 2,300.00            | 17.06           | 60.21       | 2,252.22            | 175.14     | 305.88     | 352.47                | 0.00                  | 0.00                 | 0.00                |
| 2,400.00            | 17.06           | 60.21       | 2,347.82            | 189.72     | 331.34     | 381.81                | 0.00                  | 0.00                 | 0.00                |
| 2,500.00            | 17.06           | 60.21       | 2,443.41            | 204.29     | 356.80     | 411.15                | 0.00                  | 0.00                 | 0.00                |
| 2,600.00            | 17.06           | 60.21       | 2,539.01            | 218.87     | 382.27     | 440.49                | 0.00                  | 0.00                 | 0.00                |
| 2,700.00            | 17.06           | 60.21       | 2,634.61            | 233.45     | 407.73     | 469.83                | 0.00                  | 0.00                 | 0.00                |
| 2,800.00            | 17.06           | 60.21       | 2,730.21            | 248.03     | 433.19     | 499.17                | 0.00                  | 0.00                 | 0.00                |
| 2,900.00            | 17.06           | 60.21       | 2,825.81            | 262.61     | 458.65     | 528.51                | 0.00                  | 0.00                 | 0.00                |
| 3,000.00            | 17.06           | 60.21       | 2,921.41            | 277.19     | 484.12     | 557.85                | 0.00                  | 0.00                 | 0.00                |
| 3,100.00            | 17.06           | 60.21       | 3,017.01            | 291.77     | 509.58     | 587.19                | 0.00                  | 0.00                 | 0.00                |
| 3,200.00            | 17.06           | 60.21       | 3,112.61            | 306.35     | 535.04     | 616.53                | 0.00                  | 0.00                 | 0.00                |
| 3,300.00            | 17.06           | 60.21       | 3,208.20            | 320.93     | 560.50     | 645.88                | 0.00                  | 0.00                 | 0.00                |
| 3,400.00            | 17.06           | 60.21       | 3,303.80            | 335.50     | 585.96     | 675.22                | 0.00                  | 0.00                 | 0.00                |
| 3,500.00            | 17.06           | 60.21       | 3,399.40            | 350.08     | 611.43     | 704.56                | 0.00                  | 0.00                 | 0.00                |
| 3,600.00            | 17.06           | 60.21       | 3,495.00            | 364.66     | 636.89     | 733.90                | 0.00                  | 0.00                 | 0.00                |
| 3,693.10            | 17.06           | 60.21       | 3,584.00            | 378.23     | 660.59     | 761.21                | 0.00                  | 0.00                 | 0.00                |
| Mesaverde           |                 |             |                     |            |            |                       |                       |                      |                     |
| 3,700.00            | 17.06           | 60.21       | 3,590.60            | 379.24     | 662.35     | 763.24                | 0.00                  | 0.00                 | 0.00                |
| 3,800.00            | 17.06           | 60.21       | 3,686.20            | 393.82     | 687.81     | 792.58                | 0.00                  | 0.00                 | 0.00                |
| 3,900.00            | 17.06           | 60.21       | 3,781.80            | 408.40     | 713.28     | 821.92                | 0.00                  | 0.00                 | 0.00                |
| 4,000.00            | 17.06           | 60.21       | 3,877.40            | 422.98     | 738.74     | 851.26                | 0.00                  | 0.00                 | 0.00                |
| 4,100.00            | 17.06           | 60.21       | 3,973.00            | 437.56     | 764.20     | 880.60                | 0.00                  | 0.00                 | 0.00                |
| 4,200.00            | 17.06           | 60.21       | 4,068.59            | 452.13     | 789.66     | 909.94                | 0.00                  | 0.00                 | 0.00                |
| 4,300.00            | 17.06           | 60.21       | 4,164.19            | 466.71     | 815.12     | 939.28                | 0.00                  | 0.00                 | 0.00                |
| 4,400.00            | 17.06           | 60.21       | 4,259.79            | 481.29     | 840.59     | 968.62                | 0.00                  | 0.00                 | 0.00                |
| 4,455.94            | 17.06           | 60.21       | 4,313.27            | 489.45     | 854.83     | 985.04                | 0.00                  | 0.00                 | 0.00                |
| 4,500.00            | 16.40           | 60.21       | 4,355.46            | 495.75     | 865.84     | 997.72                | 1.50                  | -1.50                | 0.00                |
| 4,540.11            | 15.80           | 60.21       | 4,394.00            | 501.28     | 875.49     | 1,008.84              | 1.50                  | -1.50                | 0.00                |

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## Planning Report

|                  |                                    |                                     |                                    |
|------------------|------------------------------------|-------------------------------------|------------------------------------|
| <b>Database:</b> | Compass                            | <b>Local Co-ordinate Reference:</b> | Well Kaufman 42A-24-692            |
| <b>Company:</b>  | BILL BARRETT CORP                  | <b>TVD Reference:</b>               | WELL @ 0.00ft (Original Well Elev) |
| <b>Project:</b>  | GARFIELD COUNTY, COLORADO NAD 1983 | <b>MD Reference:</b>                | WELL @ 0.00ft (Original Well Elev) |
| <b>Site:</b>     | Kaufman Pad #5 NWSE-24-692         | <b>North Reference:</b>             | True                               |
| <b>Well:</b>     | Kaufman 42A-24-692                 | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Wellbore:</b> | Wellbore #1                        |                                     |                                    |
| <b>Design:</b>   | Design #1                          |                                     |                                    |

### 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) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| <b>Price Coal</b>   |                 |             |                     |            |            |                       |                       |                      |                     |
| 4,600.00            | 14.90           | 60.21       | 4,451.75            | 509.16     | 889.25     | 1,024.70              | 1.50                  | -1.50                | 0.00                |
| 4,700.00            | 13.40           | 60.21       | 4,548.72            | 521.30     | 910.46     | 1,049.14              | 1.50                  | -1.50                | 0.00                |
| 4,800.00            | 11.90           | 60.21       | 4,646.29            | 532.18     | 929.47     | 1,071.04              | 1.50                  | -1.50                | 0.00                |
| 4,900.00            | 10.40           | 60.21       | 4,744.39            | 541.79     | 946.25     | 1,090.38              | 1.50                  | -1.50                | 0.00                |
| 4,925.00            | 10.03           | 60.21       | 4,769.00            | 544.00     | 950.10     | 1,094.82              | 1.50                  | -1.50                | 0.00                |
| <b>Top Gas</b>      |                 |             |                     |            |            |                       |                       |                      |                     |
| 5,000.00            | 8.90            | 60.21       | 4,842.98            | 550.12     | 960.80     | 1,107.15              | 1.50                  | -1.50                | 0.00                |
| 5,100.00            | 7.40            | 60.21       | 4,941.96            | 557.17     | 973.11     | 1,121.33              | 1.50                  | -1.50                | 0.00                |
| 5,200.00            | 5.90            | 60.21       | 5,041.29            | 562.92     | 983.16     | 1,132.91              | 1.50                  | -1.50                | 0.00                |
| 5,300.00            | 4.40            | 60.21       | 5,140.88            | 567.38     | 990.95     | 1,141.89              | 1.50                  | -1.50                | 0.00                |
| 5,400.00            | 2.90            | 60.21       | 5,240.68            | 570.55     | 996.47     | 1,148.25              | 1.50                  | -1.50                | 0.00                |
| 5,500.00            | 1.40            | 60.21       | 5,340.60            | 572.41     | 999.73     | 1,152.01              | 1.50                  | -1.50                | 0.00                |
| 5,593.41            | 0.00            | 0.00        | 5,434.00            | 572.98     | 1,000.72   | 1,153.15              | 1.50                  | -1.50                | 0.00                |
| 5,600.00            | 0.00            | 0.00        | 5,440.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 5,700.00            | 0.00            | 0.00        | 5,540.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 5,800.00            | 0.00            | 0.00        | 5,640.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 5,900.00            | 0.00            | 0.00        | 5,740.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 6,000.00            | 0.00            | 0.00        | 5,840.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 6,100.00            | 0.00            | 0.00        | 5,940.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 6,200.00            | 0.00            | 0.00        | 6,040.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 6,300.00            | 0.00            | 0.00        | 6,140.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 6,400.00            | 0.00            | 0.00        | 6,240.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 6,500.00            | 0.00            | 0.00        | 6,340.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 6,600.00            | 0.00            | 0.00        | 6,440.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 6,700.00            | 0.00            | 0.00        | 6,540.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 6,800.00            | 0.00            | 0.00        | 6,640.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 6,900.00            | 0.00            | 0.00        | 6,740.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 7,000.00            | 0.00            | 0.00        | 6,840.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 7,100.00            | 0.00            | 0.00        | 6,940.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 7,200.00            | 0.00            | 0.00        | 7,040.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 7,293.41            | 0.00            | 0.00        | 7,134.00            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| <b>Rollins</b>      |                 |             |                     |            |            |                       |                       |                      |                     |
| 7,300.00            | 0.00            | 0.00        | 7,140.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 7,400.00            | 0.00            | 0.00        | 7,240.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 7,500.00            | 0.00            | 0.00        | 7,340.59            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| 7,593.41            | 0.00            | 0.00        | 7,434.00            | 572.98     | 1,000.72   | 1,153.15              | 0.00                  | 0.00                 | 0.00                |
| <b>TD</b>           |                 |             |                     |            |            |                       |                       |                      |                     |

### Casing Points

| Measured Depth (ft) | Vertical Depth (ft) | Name   | Casing Diameter (") | Hole Diameter (") |
|---------------------|---------------------|--------|---------------------|-------------------|
| 760.00              | 760.00              | 9 5/8" | 9-5/8               | 12-1/4            |

# BBC

## Planning Report

|                  |                                    |                                     |                                    |
|------------------|------------------------------------|-------------------------------------|------------------------------------|
| <b>Database:</b> | Compass                            | <b>Local Co-ordinate Reference:</b> | Well Kaufman 42A-24-692            |
| <b>Company:</b>  | BILL BARRETT CORP                  | <b>TVD Reference:</b>               | WELL @ 0.00ft (Original Well Elev) |
| <b>Project:</b>  | GARFIELD COUNTY, COLORADO NAD 1983 | <b>MD Reference:</b>                | WELL @ 0.00ft (Original Well Elev) |
| <b>Site:</b>     | Kaufman Pad #5 NWSE-24-692         | <b>North Reference:</b>             | True                               |
| <b>Well:</b>     | Kaufman 42A-24-692                 | <b>Survey Calculation Method:</b>   | Minimum Curvature                  |
| <b>Wellbore:</b> | Wellbore #1                        |                                     |                                    |
| <b>Design:</b>   | Design #1                          |                                     |                                    |

| Formations          |                     |            |           |         |                   |  |
|---------------------|---------------------|------------|-----------|---------|-------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name       | Lithology | Dip (°) | Dip Direction (°) |  |
| 3,693.10            | 3,584.00            | Mesaverde  |           | 0.00    |                   |  |
| 4,540.11            | 4,394.00            | Price Coal |           | 0.00    |                   |  |
| 4,925.00            | 4,769.00            | Top Gas    |           | 0.00    |                   |  |
| 7,293.41            | 7,134.00            | Rollins    |           | 0.00    |                   |  |
| 7,593.41            | 7,434.00            | TD         |           | 0.00    |                   |  |

# WELL DETAILS: Kaufman 42A-24-692

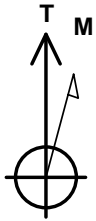
|       |       |             |               |                  |                    |      |
|-------|-------|-------------|---------------|------------------|--------------------|------|
|       |       |             | Ground Level: | 0.00             |                    |      |
| +N/-S | +E/-W | Northing    | Easting       | Latitude         | Longitude          | Slot |
| 0.00  | 0.00  | 1618165.051 | 2404159.701   | 39° 30' 41.853 N | 107° 36' 43.4412 W |      |

## SECTION DETAILS

| Sec | MD      | Inc   | Azi   | TVD     | +N/-S  | +E/-W   | DLeg | TFace  | VSec    | Target                  |
|-----|---------|-------|-------|---------|--------|---------|------|--------|---------|-------------------------|
| 1   | 0.00    | 0.00  | 0.00  | 0.00    | 0.00   | 0.00    | 0.00 | 0.00   | 0.00    |                         |
| 2   | 760.00  | 0.00  | 0.00  | 760.00  | 0.00   | 0.00    | 0.00 | 0.00   | 0.00    |                         |
| 3   | 1442.48 | 17.06 | 60.21 | 1432.44 | 50.12  | 87.54   | 2.50 | 60.21  | 100.87  |                         |
| 4   | 4455.94 | 17.06 | 60.21 | 4313.27 | 489.45 | 854.83  | 0.00 | 0.00   | 985.04  |                         |
| 5   | 5593.41 | 0.00  | 0.00  | 5434.00 | 572.98 | 1000.72 | 1.50 | 180.00 | 1153.15 |                         |
| 6   | 7593.41 | 0.00  | 0.00  | 7434.00 | 572.98 | 1000.72 | 0.00 | 0.00   | 1153.15 | Kaufman 42A-24-692 (TD) |

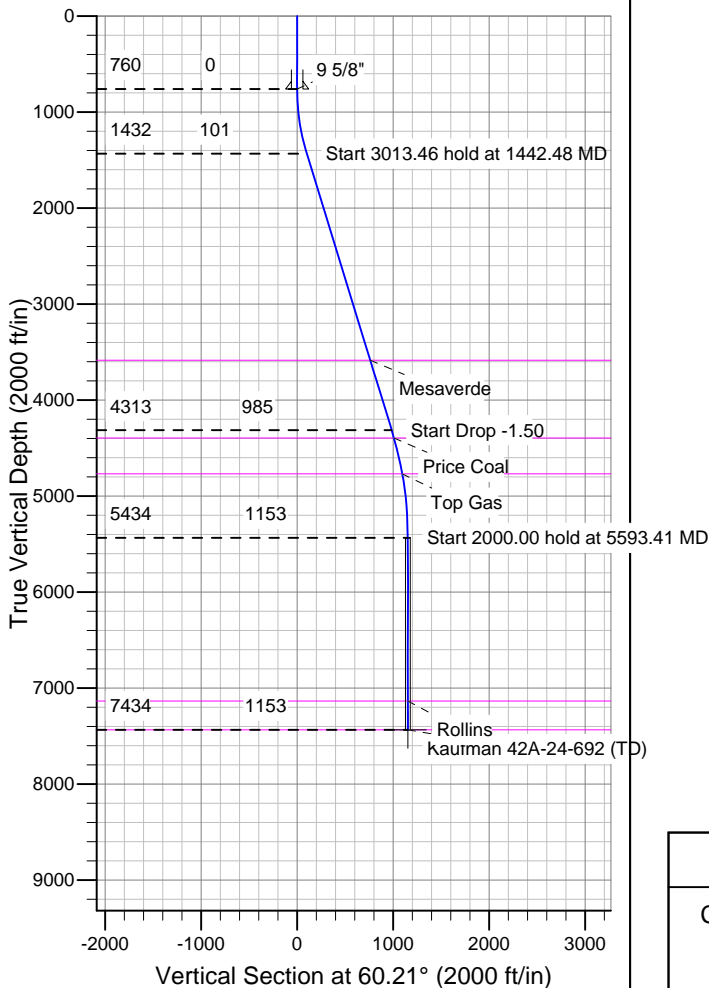
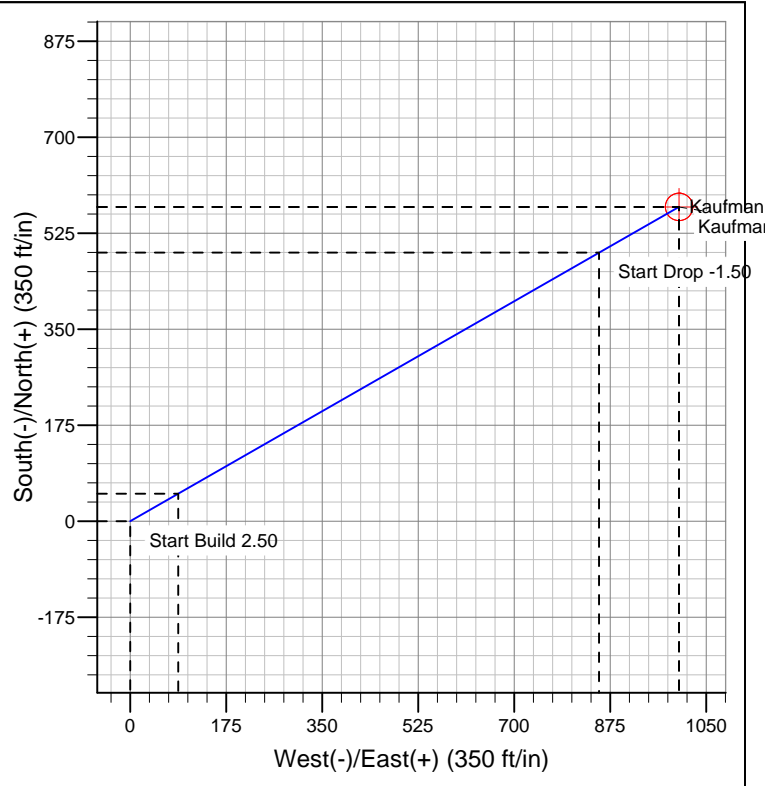
## WELLBORE TARGET DETAILS

| Name                    | TVD     | +N/-S  | +E/-W   | Shape                  |
|-------------------------|---------|--------|---------|------------------------|
| Kaufman 42A-24-692 (TD) | 7434.00 | 572.98 | 1000.72 | Circle (Radius: 25.00) |



Azimuths to True North  
Magnetic North: 10.35°

Magnetic Field  
Strength: 52531.9snT  
Dip Angle: 65.87°  
Date: 12/31/2009  
Model: IGRF200510



## FORMATION TOP DETAILS

| TVDPath | MDPath  | Formation  |
|---------|---------|------------|
| 3584.00 | 3693.10 | Mesaverde  |
| 4394.00 | 4540.11 | Price Coal |
| 4769.00 | 4925.00 | Top Gas    |
| 7134.00 | 7293.41 | Rollins    |
| 7434.00 | 7593.41 | TD         |

## REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Kaufman 42A-24-692, True North  
Vertical (TVD) Reference: WELL @ 0.00ft (Original Well Elev)  
Section (VS) Reference: Slot - (0.00N, 0.00E)  
Measured Depth Reference: WELL @ 0.00ft (Original Well Elev)  
Calculation Method: Minimum Curvature