



# **Ursa Operating Company, LLC**

**Rockies Region**

**Hoffmeister A1**

**Hoffmeister A1**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**29 April, 2014**



|                  |                             |                                     |  |
|------------------|-----------------------------|-------------------------------------|--|
| <b>Database:</b> | MasterDB                    | <b>Local Co-ordinate Reference:</b> | Well Hoffmeister A1                      |
| <b>Company:</b>  | Ursa Operating Company, LLC | <b>TVD Reference:</b>               | Hoffmeister A1 @ 5420.9usft (PAD Est KB) |
| <b>Project:</b>  | Rockies Region              | <b>MD Reference:</b>                | Hoffmeister A1 @ 5420.9usft (PAD Est KB) |
| <b>Site:</b>     | Hoffmeister A1              | <b>North Reference:</b>             | True                                     |
| <b>Well:</b>     | Hoffmeister A1              | <b>Survey Calculation Method:</b>   | Minimum Curvature                        |
| <b>Wellbore:</b> | Wellbore #1                 |                                     |  |
| <b>Design:</b>   | Design #1                   |                                     |  |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | Rockies Region            |                      |                |
| <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                  |          | Hoffmeister A1 |                   |                   |                   |
| Site Position:        |          | Northing:      | 1,631,888.89 usft | Latitude:         | 39° 32' 50.231 N  |
| From:                 | Lat/Long | Easting:       | 2,373,517.75 usft | Longitude:        | 107° 43' 18.589 W |
| Position Uncertainty: | 0.0 usft | Slot Radius:   | 13-3/16 "         | Grid Convergence: | -1.40 °           |

|                      |  |          |                     |                   |               |                   |
|----------------------|--|----------|---------------------|-------------------|---------------|-------------------|
| Well                 | Hoffmeister A1, SHL LAT: 39.547286509 LONG: -107.721830414 |          |                     |                   |               |                   |
| Well Position        | +N/-S  | 0.0 usft | Northing:           | 1,631,888.88 usft | Latitude:     | 39° 32' 50.231 N  |
|                      | +E/-W  | 0.0 usft | Easting:            | 2,373,517.75 usft | Longitude:    | 107° 43' 18.589 W |
| Position Uncertainty |  | 0.0 usft | Wellhead Elevation: | 5,420.9 usft      | Ground Level: | 5,405.5 usft      |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <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> |
|                  | IGRF2010          | 4/29/2014          | 9.86                   | 65.75                | 52,028                     |

|                          |                                |                     |                      |                      |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| <b>Design</b>            | Design #1                      |                     |                      |                      |
| <b>Audit Notes:</b>      |                                |                     |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                  | PROTOTYPE           | <b>Tie On Depth:</b> | 0.0                  |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b>  | <b>Direction (°)</b> |
|                          | 0.0                            | 0.0                 | 0.0                  | 309.17               |

| <b>Plan Sections</b>  |                 |             |                       |              |              |                         |                        |                       |         |                    |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|--------------------|
| 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    |                    |
| 1,100.0               | 0.00            | 0.00        | 1,100.0               | 0.0          | 0.0          | 0.00                    | 0.00                   | 0.00                  | 0.00    |                    |
| 1,909.1               | 24.27           | 309.17      | 1,885.1               | 106.6        | -130.9       | 3.00                    | 3.00                   | 0.00                  | 309.17  |                    |
| 5,915.0               | 24.27           | 309.17      | 5,536.9               | 1,146.9      | -1,407.5     | 0.00                    | 0.00                   | 0.00                  | 0.00    |                    |
| 6,724.1               | 0.00            | 0.00        | 6,322.0               | 1,253.5      | -1,538.4     | 3.00                    | -3.00                  | 0.00                  | 180.00  | Hoffmeister A1 TGT |
| 8,698.1               | 0.00            | 0.00        | 8,296.0               | 1,253.5      | -1,538.4     | 0.00                    | 0.00                   | 0.00                  | 0.00    |                    |

|                  |                             |                                     |  |
|------------------|-----------------------------|-------------------------------------|--|
| <b>Database:</b> | MasterDB                    | <b>Local Co-ordinate Reference:</b> | Well Hoffmeister A1                      |
| <b>Company:</b>  | Ursa Operating Company, LLC | <b>TVD Reference:</b>               | Hoffmeister A1 @ 5420.9usft (PAD Est KB) |
| <b>Project:</b>  | Rockies Region              | <b>MD Reference:</b>                | Hoffmeister A1 @ 5420.9usft (PAD Est KB) |
| <b>Site:</b>     | Hoffmeister A1              | <b>North Reference:</b>             | True                                     |
| <b>Well:</b>     | Hoffmeister A1              | <b>Survey Calculation Method:</b>   | Minimum Curvature                        |
| <b>Wellbore:</b> | Wellbore #1                 |                                     |  |
| <b>Design:</b>   | Design #1                   |                                     |  |

| Planned Survey                 |                 |             |                       |              |              |                         |                         |                        |                       |
|--------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)          | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 0.0                            | 0.00            | 0.00        | 0.0                   | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 100.0                          | 0.00            | 0.00        | 100.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 200.0                          | 0.00            | 0.00        | 200.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 300.0                          | 0.00            | 0.00        | 300.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 400.0                          | 0.00            | 0.00        | 400.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 500.0                          | 0.00            | 0.00        | 500.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 600.0                          | 0.00            | 0.00        | 600.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 700.0                          | 0.00            | 0.00        | 700.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 800.0                          | 0.00            | 0.00        | 800.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 900.0                          | 0.00            | 0.00        | 900.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 1,000.0                        | 0.00            | 0.00        | 1,000.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| 1,100.0                        | 0.00            | 0.00        | 1,100.0               | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| Start Build 3.00               |                 |             |                       |              |              |                         |                         |                        |                       |
| 1,200.0                        | 3.00            | 309.17      | 1,200.0               | 1.7          | -2.0         | 2.6                     | 3.00                    | 3.00                   | 0.00                  |
| 1,300.0                        | 6.00            | 309.17      | 1,299.6               | 6.6          | -8.1         | 10.5                    | 3.00                    | 3.00                   | 0.00                  |
| 1,400.0                        | 9.00            | 309.17      | 1,398.8               | 14.9         | -18.2        | 23.5                    | 3.00                    | 3.00                   | 0.00                  |
| 1,500.0                        | 12.00           | 309.17      | 1,497.1               | 26.4         | -32.4        | 41.7                    | 3.00                    | 3.00                   | 0.00                  |
| 1,600.0                        | 15.00           | 309.17      | 1,594.3               | 41.1         | -50.5        | 65.1                    | 3.00                    | 3.00                   | 0.00                  |
| 1,700.0                        | 18.00           | 309.17      | 1,690.2               | 59.0         | -72.5        | 93.5                    | 3.00                    | 3.00                   | 0.00                  |
| 1,800.0                        | 21.00           | 309.17      | 1,784.4               | 80.1         | -98.3        | 126.9                   | 3.00                    | 3.00                   | 0.00                  |
| 1,909.1                        | 24.27           | 309.17      | 1,885.1               | 106.6        | -130.9       | 168.8                   | 3.00                    | 3.00                   | 0.00                  |
| Start 4005.9 hold at 1909.1 MD |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,000.0                        | 24.27           | 309.17      | 1,968.0               | 130.3        | -159.9       | 206.2                   | 0.00                    | 0.00                   | 0.00                  |
| 2,100.0                        | 24.27           | 309.17      | 2,059.1               | 156.2        | -191.7       | 247.3                   | 0.00                    | 0.00                   | 0.00                  |
| 2,200.0                        | 24.27           | 309.17      | 2,150.3               | 182.2        | -223.6       | 288.4                   | 0.00                    | 0.00                   | 0.00                  |
| 2,300.0                        | 24.27           | 309.17      | 2,241.5               | 208.2        | -255.5       | 329.5                   | 0.00                    | 0.00                   | 0.00                  |
| 2,400.0                        | 24.27           | 309.17      | 2,332.6               | 234.1        | -287.3       | 370.6                   | 0.00                    | 0.00                   | 0.00                  |
| 2,500.0                        | 24.27           | 309.17      | 2,423.8               | 260.1        | -319.2       | 411.7                   | 0.00                    | 0.00                   | 0.00                  |
| 2,600.0                        | 24.27           | 309.17      | 2,514.9               | 286.1        | -351.1       | 452.9                   | 0.00                    | 0.00                   | 0.00                  |
| 2,700.0                        | 24.27           | 309.17      | 2,606.1               | 312.0        | -382.9       | 494.0                   | 0.00                    | 0.00                   | 0.00                  |
| 2,800.0                        | 24.27           | 309.17      | 2,697.3               | 338.0        | -414.8       | 535.1                   | 0.00                    | 0.00                   | 0.00                  |
| 2,900.0                        | 24.27           | 309.17      | 2,788.4               | 364.0        | -446.7       | 576.2                   | 0.00                    | 0.00                   | 0.00                  |
| 3,000.0                        | 24.27           | 309.17      | 2,879.6               | 389.9        | -478.5       | 617.3                   | 0.00                    | 0.00                   | 0.00                  |
| 3,100.0                        | 24.27           | 309.17      | 2,970.7               | 415.9        | -510.4       | 658.4                   | 0.00                    | 0.00                   | 0.00                  |
| 3,200.0                        | 24.27           | 309.17      | 3,061.9               | 441.9        | -542.3       | 699.5                   | 0.00                    | 0.00                   | 0.00                  |
| 3,300.0                        | 24.27           | 309.17      | 3,153.1               | 467.8        | -574.1       | 740.6                   | 0.00                    | 0.00                   | 0.00                  |
| 3,400.0                        | 24.27           | 309.17      | 3,244.2               | 493.8        | -606.0       | 781.7                   | 0.00                    | 0.00                   | 0.00                  |
| 3,500.0                        | 24.27           | 309.17      | 3,335.4               | 519.8        | -637.9       | 822.8                   | 0.00                    | 0.00                   | 0.00                  |
| 3,600.0                        | 24.27           | 309.17      | 3,426.5               | 545.7        | -669.8       | 863.9                   | 0.00                    | 0.00                   | 0.00                  |
| 3,700.0                        | 24.27           | 309.17      | 3,517.7               | 571.7        | -701.6       | 905.0                   | 0.00                    | 0.00                   | 0.00                  |
| 3,800.0                        | 24.27           | 309.17      | 3,608.9               | 597.7        | -733.5       | 946.1                   | 0.00                    | 0.00                   | 0.00                  |
| 3,900.0                        | 24.27           | 309.17      | 3,700.0               | 623.6        | -765.4       | 987.3                   | 0.00                    | 0.00                   | 0.00                  |
| 4,000.0                        | 24.27           | 309.17      | 3,791.2               | 649.6        | -797.2       | 1,028.4                 | 0.00                    | 0.00                   | 0.00                  |
| 4,100.0                        | 24.27           | 309.17      | 3,882.3               | 675.6        | -829.1       | 1,069.5                 | 0.00                    | 0.00                   | 0.00                  |
| 4,200.0                        | 24.27           | 309.17      | 3,973.5               | 701.5        | -861.0       | 1,110.6                 | 0.00                    | 0.00                   | 0.00                  |
| 4,300.0                        | 24.27           | 309.17      | 4,064.7               | 727.5        | -892.8       | 1,151.7                 | 0.00                    | 0.00                   | 0.00                  |
| 4,400.0                        | 24.27           | 309.17      | 4,155.8               | 753.5        | -924.7       | 1,192.8                 | 0.00                    | 0.00                   | 0.00                  |
| 4,500.0                        | 24.27           | 309.17      | 4,247.0               | 779.4        | -956.6       | 1,233.9                 | 0.00                    | 0.00                   | 0.00                  |
| 4,562.4                        | 24.27           | 309.17      | 4,303.9               | 795.6        | -976.5       | 1,259.6                 | 0.00                    | 0.00                   | 0.00                  |
| WF                             |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,600.0                        | 24.27           | 309.17      | 4,338.1               | 805.4        | -988.4       | 1,275.0                 | 0.00                    | 0.00                   | 0.00                  |
| 4,700.0                        | 24.27           | 309.17      | 4,429.3               | 831.4        | -1,020.3     | 1,316.1                 | 0.00                    | 0.00                   | 0.00                  |
| 4,800.0                        | 24.27           | 309.17      | 4,520.5               | 857.3        | -1,052.2     | 1,357.2                 | 0.00                    | 0.00                   | 0.00                  |

|                  |                             |                                     |  |
|------------------|-----------------------------|-------------------------------------|--|
| <b>Database:</b> | MasterDB                    | <b>Local Co-ordinate Reference:</b> | Well Hoffmeister A1                      |
| <b>Company:</b>  | Ursa Operating Company, LLC | <b>TVD Reference:</b>               | Hoffmeister A1 @ 5420.9usft (PAD Est KB) |
| <b>Project:</b>  | Rockies Region              | <b>MD Reference:</b>                | Hoffmeister A1 @ 5420.9usft (PAD Est KB) |
| <b>Site:</b>     | Hoffmeister A1              | <b>North Reference:</b>             | True                                     |
| <b>Well:</b>     | Hoffmeister A1              | <b>Survey Calculation Method:</b>   | Minimum Curvature                        |
| <b>Wellbore:</b> | Wellbore #1                 |                                     |  |
| <b>Design:</b>   | Design #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) |
| 4,900.0   | 24.27           | 309.17      | 4,611.6               | 883.3        | -1,084.0     | 1,398.3                 | 0.00                    | 0.00                   | 0.00                  |
| 5,000.0   | 24.27           | 309.17      | 4,702.8               | 909.3        | -1,115.9     | 1,439.4                 | 0.00                    | 0.00                   | 0.00                  |
| 5,100.0   | 24.27           | 309.17      | 4,793.9               | 935.2        | -1,147.8     | 1,480.6                 | 0.00                    | 0.00                   | 0.00                  |
| 5,200.0   | 24.27           | 309.17      | 4,885.1               | 961.2        | -1,179.6     | 1,521.7                 | 0.00                    | 0.00                   | 0.00                  |
| 5,300.0   | 24.27           | 309.17      | 4,976.3               | 987.2        | -1,211.5     | 1,562.8                 | 0.00                    | 0.00                   | 0.00                  |
| 5,400.0   | 24.27           | 309.17      | 5,067.4               | 1,013.1      | -1,243.4     | 1,603.9                 | 0.00                    | 0.00                   | 0.00                  |
| 5,500.0   | 24.27           | 309.17      | 5,158.6               | 1,039.1      | -1,275.3     | 1,645.0                 | 0.00                    | 0.00                   | 0.00                  |
| 5,600.0   | 24.27           | 309.17      | 5,249.7               | 1,065.1      | -1,307.1     | 1,686.1                 | 0.00                    | 0.00                   | 0.00                  |
| 5,700.0   | 24.27           | 309.17      | 5,340.9               | 1,091.0      | -1,339.0     | 1,727.2                 | 0.00                    | 0.00                   | 0.00                  |
| 5,800.0   | 24.27           | 309.17      | 5,432.1               | 1,117.0      | -1,370.9     | 1,768.3                 | 0.00                    | 0.00                   | 0.00                  |
| 5,900.0   | 24.27           | 309.17      | 5,523.2               | 1,143.0      | -1,402.7     | 1,809.4                 | 0.00                    | 0.00                   | 0.00                  |
| 5,915.0   | 24.27           | 309.17      | 5,536.9               | 1,146.9      | -1,407.5     | 1,815.6                 | 0.00                    | 0.00                   | 0.00                  |
| Start Drop -3.00                                    |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,000.0   | 21.72           | 309.17      | 5,615.1               | 1,167.8      | -1,433.3     | 1,848.8                 | 3.00                    | -3.00                  | 0.00                  |
| 6,100.0   | 18.72           | 309.17      | 5,709.0               | 1,189.7      | -1,460.0     | 1,883.4                 | 3.00                    | -3.00                  | 0.00                  |
| 6,200.0   | 15.72           | 309.17      | 5,804.5               | 1,208.4      | -1,483.0     | 1,913.0                 | 3.00                    | -3.00                  | 0.00                  |
| 6,300.0   | 12.72           | 309.17      | 5,901.4               | 1,223.9      | -1,502.0     | 1,937.5                 | 3.00                    | -3.00                  | 0.00                  |
| 6,400.0   | 9.72            | 309.17      | 5,999.5               | 1,236.2      | -1,517.1     | 1,957.0                 | 3.00                    | -3.00                  | 0.00                  |
| 6,500.0   | 6.72            | 309.17      | 6,098.4               | 1,245.2      | -1,528.2     | 1,971.3                 | 3.00                    | -3.00                  | 0.00                  |
| 6,600.0   | 3.72            | 309.17      | 6,198.0               | 1,251.0      | -1,535.3     | 1,980.4                 | 3.00                    | -3.00                  | 0.00                  |
| 6,700.0   | 0.72            | 309.17      | 6,297.9               | 1,253.4      | -1,538.3     | 1,984.3                 | 3.00                    | -3.00                  | 0.00                  |
| 6,724.0   | 0.00            | 309.17      | 6,321.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 3.00                    | -3.00                  | 0.00                  |
| Top of Gas  |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,724.1   | 0.00            | 309.17      | 6,322.0               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| Start 1974.0 hold at 6724.1 MD - Hoffmeister A1 TGT |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,800.0   | 0.00            | 0.00        | 6,397.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 6,900.0   | 0.00            | 0.00        | 6,497.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 7,000.0   | 0.00            | 0.00        | 6,597.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 7,100.0   | 0.00            | 0.00        | 6,697.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 7,200.0   | 0.00            | 0.00        | 6,797.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 7,300.0   | 0.00            | 0.00        | 6,897.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 7,382.0   | 0.00            | 0.00        | 6,979.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| Cameo   |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,400.0   | 0.00            | 0.00        | 6,997.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 7,500.0   | 0.00            | 0.00        | 7,097.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 7,600.0   | 0.00            | 0.00        | 7,197.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 7,700.0   | 0.00            | 0.00        | 7,297.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 7,800.0   | 0.00            | 0.00        | 7,397.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 7,900.0   | 0.00            | 0.00        | 7,497.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 8,000.0   | 0.00            | 0.00        | 7,597.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 8,100.0   | 0.00            | 0.00        | 7,697.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 8,200.0   | 0.00            | 0.00        | 7,797.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 8,300.0   | 0.00            | 0.00        | 7,897.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 8,398.0   | 0.00            | 0.00        | 7,995.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| Rollins   |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,400.0   | 0.00            | 0.00        | 7,997.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 8,500.0   | 0.00            | 0.00        | 8,097.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 8,600.0   | 0.00            | 0.00        | 8,197.9               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| 8,698.1   | 0.00            | 0.00        | 8,296.0               | 1,253.5      | -1,538.4     | 1,984.4                 | 0.00                    | 0.00                   | 0.00                  |
| TD at 8698.1  |                 |             |                       |              |              |                         |                         |                        |                       |

|                  |                             |                                     |  |
|------------------|-----------------------------|-------------------------------------|--|
| <b>Database:</b> | MasterDB                    | <b>Local Co-ordinate Reference:</b> | Well Hoffmeister A1                      |
| <b>Company:</b>  | Ursa Operating Company, LLC | <b>TVD Reference:</b>               | Hoffmeister A1 @ 5420.9usft (PAD Est KB) |
| <b>Project:</b>  | Rockies Region              | <b>MD Reference:</b>                | Hoffmeister A1 @ 5420.9usft (PAD Est KB) |
| <b>Site:</b>     | Hoffmeister A1              | <b>North Reference:</b>             | True                                     |
| <b>Well:</b>     | Hoffmeister A1              | <b>Survey Calculation Method:</b>   | Minimum Curvature                        |
| <b>Wellbore:</b> | Wellbore #1                 |                                     |  |
| <b>Design:</b>   | Design #1                   |                                     |  |

| Design Targets                            |                  |                 |               |                 |                 |                    |                   |                 |                   |
|---|------------------|-----------------|---------------|-----------------|-----------------|--------------------|-------------------|-----------------|-------------------|
| Target Name                               | Dip Angle<br>(°) | Dip Dir.<br>(°) | TVD<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude        | Longitude         |
| - hit/miss target                         |                  |                 |               |                 |                 |                    |                   |                 |                   |
| - Shape                                   |                  |                 |               |                 |                 |                    |                   |                 |                   |
| Hoffmeister A1 TGT                        | 0.00             | 0.00            | 6,322.0       | 1,253.5         | -1,538.4        | 1,633,179.62       | 2,372,010.47      | 39° 33' 2.620 N | 107° 43' 38.230 W |
| - plan hits target center                 |                  |                 |               |                 |                 |                    |                   |                 |                   |
| - Rectangle (sides W100.0 H40.0 D1,974.0) |                  |                 |               |                 |                 |                    |                   |                 |                   |

| Formations                  |                             |            |           |            |                         |  |
|-----------------------------|-----------------------------|------------|-----------|------------|-------------------------|--|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Name       | Lithology | Dip<br>(°) | Dip<br>Direction<br>(°) |  |
| 4,562.4                     | 4,303.9                     | WF         |           | 0.00       |                         |  |
| 6,724.0                     | 6,321.9                     | Top of Gas |           | 0.00       |                         |  |
| 7,382.0                     | 6,979.9                     | Cameo      |           | 0.00       |                         |  |
| 8,398.0                     | 7,995.9                     | Rollins    |           | 0.00       |                         |  |

| Plan Annotations            |                             |                   |                 |                                |
|-----------------------------|-----------------------------|-------------------|-----------------|--------------------------------|
| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                        |
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                |
| 1,100.0                     | 1,100.0                     | 0.0               | 0.0             | Start Build 3.00               |
| 1,909.1                     | 1,885.1                     | 106.6             | -130.9          | Start 4005.9 hold at 1909.1 MD |
| 5,915.0                     | 5,536.9                     | 1,146.9           | -1,407.5        | Start Drop -3.00               |
| 6,724.1                     | 6,322.0                     | 1,253.5           | -1,538.4        | Start 1974.0 hold at 6724.1 MD |
| 8,698.1                     | 8,296.0                     | 1,253.5           | -1,538.4        | TD at 8698.1                   |



Well Name: Hoffmeister A1  
Surface Location: Hoffmeister A1  
North American Datum 1983, US State Plane 1983, Colorado Central Zone  
Ground Elevation: 5405.5  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.0 0.0 1631888.88 2373517.74 39° 32' 50.231 N 107° 43' 18.589 W  
PAD Est KB Hoffmeister A1 @ 5420.9usft (PAD Est KB)



Azimuths to True North  
Magnetic North: 9.86°  
Magnetic Field  
Strength: 52027.7nT  
Dip Angle: 65.75°  
Date: 4/29/2014  
Model: IGRF2010

Hoffmeister A1  
Hoffmeister A1  
Design #1  
12:41, April 29 2014

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

| Name               | TVD    | +N/-S  | +E/-W   | Northing   | Easting    | Latitude        | Longitude         | Shape                           |
|--------------------|--------|--------|---------|------------|------------|-----------------|-------------------|---------------------------------|
| Hoffmeister A1 TGT | 6322.0 | 1253.5 | -1538.4 | 1633179.62 | 2372010.46 | 39° 33' 2.620 N | 107° 43' 38.230 W | Rectangle (Sides: L40.0 W100.0) |

#### 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   | 1100.0 | 0.00  | 0.00   | 1100.0 | 0.0    | 0.0     | 0.00 | 0.00   | 0.0    |                    |
| 3   | 1909.1 | 24.27 | 309.17 | 1885.1 | 106.6  | -130.9  | 3.00 | 309.17 | 168.8  |                    |
| 4   | 5915.0 | 24.27 | 309.17 | 5536.9 | 1146.9 | -1407.5 | 0.00 | 0.00   | 1815.6 |                    |
| 5   | 6724.1 | 0.00  | 0.00   | 6322.0 | 1253.5 | -1538.4 | 3.00 | 180.00 | 1984.4 | Hoffmeister A1 TGT |
| 6   | 8698.1 | 0.00  | 0.00   | 8296.0 | 1253.5 | -1538.4 | 0.00 | 0.00   | 1984.4 |                    |

#### ANNOTATIONS

| TVD    | MD     | Annotation                     |
|--------|--------|--------------------------------|
| 1100.0 | 1100.0 | Start Build 3.00               |
| 1885.1 | 1909.1 | Start 4005.9 hold at 1909.1 MD |
| 5536.9 | 5915.0 | Start Drop -3.00               |
| 6322.0 | 6724.1 | Start 1974.0 hold at 6724.1 MD |
| 8296.0 | 8698.1 | TD at 8698.1                   |

#### FORMATION TOP DETAILS

| TVDPath | MDPath | Formation  | DipAngle | DipDir |
|---------|--------|------------|----------|--------|
| 4303.9  | 4562.4 | WF         | 0.00     |        |
| 6321.9  | 6724.0 | Top of Gas | 0.00     |        |
| 6979.9  | 7382.0 | Cameo      | 0.00     |        |
| 7995.9  | 8398.0 | Rollins    | 0.00     |        |

