

Ursa Operating Company, LLC

Rockies Region

Speakman A

BAT 12C-24-07-96

Wellbore #1

Plan: Design #1

Standard Planning Report

13 June, 2013



Payzone Directional

Planning Report



| | | | |
|------------------|-----------------------------|-------------------------------------|--|
| Database: | EDM 2003.21 Single User Db | Local Co-ordinate Reference: | Well BAT 12C-24-07-96 |
| Company: | Ursa Operating Company, LLC | TVD Reference: | BAT 12C-24-07-96 @ 5197.9ft (Original Well Elev) |
| Project: | Rockies Region | MD Reference: | BAT 12C-24-07-96 @ 5197.9ft (Original Well Elev) |
| Site: | Speakman A | North Reference: | True |
| Well: | BAT 12C-24-07-96 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Design #1 | | |

| | | | |
|--------------------|---------------------------|----------------------|----------------|
| Project | Rockies Region | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Central Zone | | |

| Site | | Speakman A | | | |
|-----------------------|----------|--------------|--------------|-------------------|------------------|
| Site Position: | | Northing: | 484,154.15 m | Latitude: | 39° 25' 15.663 N |
| From: | Lat/Long | Easting: | 693,950.13 m | Longitude: | 108° 3' 38.016 W |
| Position Uncertainty: | 0.0 ft | Slot Radius: | in | Grid Convergence: | -1.61 ° |

| | | | | | | |
|----------------------|--|---------|---------------------|--------------|---------------|------------------|
| Well | BAT 12C-24-07-96, SHL LAT: 39.421059384 LONG: -108.060501543 | | | | | |
| Well Position | +N/-S | 15.2 ft | Northing: | 484,158.65 m | Latitude: | 39° 25' 15.814 N |
| | +E/-W | 16.5 ft | Easting: | 693,955.30 m | Longitude: | 108° 3' 37.806 W |
| Position Uncertainty | | 0.0 ft | Wellhead Elevation: | 5,197.9 ft | Ground Level: | 5,182.5 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF200510 | 6/13/2013 | 10.08 | 65.63 | 52,047 |

| | | | | |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| Design | Design #1 | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PROTOTYPE | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
| | 0.0 | 0.0 | 0.0 | 306.14 |

| 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 | |
| 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,209.8 | 35.34 | 306.14 | 1,146.9 | 177.9 | -243.6 | 3.50 | 3.50 | 0.00 | 306.14 | |
| 3,050.0 | 35.34 | 306.14 | 2,648.1 | 805.7 | -1,103.3 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4,059.8 | 0.00 | 0.00 | 3,595.0 | 983.6 | -1,346.9 | 3.50 | -3.50 | 0.00 | 180.00 | BAT 12C-24-07-96 T |
| 6,281.8 | 0.00 | 0.00 | 5,817.0 | 983.6 | -1,346.9 | 0.00 | 0.00 | 0.00 | 0.00 | BAT 12C-24-07-96 B |

Payzone Directional Planning Report



| | | | |
|------------------|-----------------------------|-------------------------------------|--|
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| Company: | Ursa Operating Company, LLC | TVD Reference: | BAT 12C-24-07-96 @ 5197.9ft (Original Well Elev) |
| Project: | Rockies Region | MD Reference: | BAT 12C-24-07-96 @ 5197.9ft (Original Well Elev) |
| Site: | Speakman A | North Reference: | True |
| Well: | BAT 12C-24-07-96 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | 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) |
|--|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 0.0 | 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 |
| Start Build 3.50 | | | | | | | | | |
| 300.0 | 3.50 | 306.14 | 299.9 | 1.8 | -2.5 | 3.1 | 3.50 | 3.50 | 0.00 |
| 400.0 | 7.00 | 306.14 | 399.5 | 7.2 | -9.9 | 12.2 | 3.50 | 3.50 | 0.00 |
| 500.0 | 10.50 | 306.14 | 498.3 | 16.2 | -22.1 | 27.4 | 3.50 | 3.50 | 0.00 |
| 600.0 | 14.00 | 306.14 | 596.0 | 28.7 | -39.3 | 48.6 | 3.50 | 3.50 | 0.00 |
| 700.0 | 17.50 | 306.14 | 692.3 | 44.7 | -61.2 | 75.8 | 3.50 | 3.50 | 0.00 |
| 800.0 | 21.00 | 306.14 | 786.7 | 64.1 | -87.8 | 108.7 | 3.50 | 3.50 | 0.00 |
| 900.0 | 24.50 | 306.14 | 878.9 | 86.9 | -119.0 | 147.4 | 3.50 | 3.50 | 0.00 |
| 1,000.0 | 28.00 | 306.14 | 968.5 | 113.0 | -154.7 | 191.6 | 3.50 | 3.50 | 0.00 |
| 1,100.0 | 31.50 | 306.14 | 1,055.3 | 142.3 | -194.8 | 241.2 | 3.50 | 3.50 | 0.00 |
| 1,209.8 | 35.34 | 306.14 | 1,146.9 | 177.9 | -243.6 | 301.7 | 3.50 | 3.50 | 0.00 |
| Start 1840.2 hold at 1209.8 MD | | | | | | | | | |
| 1,300.0 | 35.34 | 306.14 | 1,220.5 | 208.7 | -285.8 | 353.9 | 0.00 | 0.00 | 0.00 |
| 1,400.0 | 35.34 | 306.14 | 1,302.1 | 242.8 | -332.5 | 411.7 | 0.00 | 0.00 | 0.00 |
| 1,500.0 | 35.34 | 306.14 | 1,383.7 | 276.9 | -379.2 | 469.6 | 0.00 | 0.00 | 0.00 |
| 1,600.0 | 35.34 | 306.14 | 1,465.3 | 311.0 | -425.9 | 527.4 | 0.00 | 0.00 | 0.00 |
| 1,700.0 | 35.34 | 306.14 | 1,546.8 | 345.2 | -472.6 | 585.3 | 0.00 | 0.00 | 0.00 |
| 1,800.0 | 35.34 | 306.14 | 1,628.4 | 379.3 | -519.4 | 643.1 | 0.00 | 0.00 | 0.00 |
| 1,900.0 | 35.34 | 306.14 | 1,710.0 | 413.4 | -566.1 | 700.9 | 0.00 | 0.00 | 0.00 |
| 2,000.0 | 35.34 | 306.14 | 1,791.5 | 447.5 | -612.8 | 758.8 | 0.00 | 0.00 | 0.00 |
| 2,100.0 | 35.34 | 306.14 | 1,873.1 | 481.6 | -659.5 | 816.6 | 0.00 | 0.00 | 0.00 |
| 2,200.0 | 35.34 | 306.14 | 1,954.7 | 515.7 | -706.2 | 874.5 | 0.00 | 0.00 | 0.00 |
| 2,300.0 | 35.34 | 306.14 | 2,036.3 | 549.8 | -752.9 | 932.3 | 0.00 | 0.00 | 0.00 |
| 2,400.0 | 35.34 | 306.14 | 2,117.8 | 584.0 | -799.7 | 990.2 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 35.34 | 306.14 | 2,199.4 | 618.1 | -846.4 | 1,048.0 | 0.00 | 0.00 | 0.00 |
| 2,600.0 | 35.34 | 306.14 | 2,281.0 | 652.2 | -893.1 | 1,105.9 | 0.00 | 0.00 | 0.00 |
| 2,700.0 | 35.34 | 306.14 | 2,362.5 | 686.3 | -939.8 | 1,163.7 | 0.00 | 0.00 | 0.00 |
| 2,800.0 | 35.34 | 306.14 | 2,444.1 | 720.4 | -986.5 | 1,221.6 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 35.34 | 306.14 | 2,525.7 | 754.5 | -1,033.2 | 1,279.4 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 35.34 | 306.14 | 2,607.3 | 788.6 | -1,079.9 | 1,337.2 | 0.00 | 0.00 | 0.00 |
| 3,011.9 | 35.34 | 306.14 | 2,617.0 | 792.7 | -1,085.5 | 1,344.2 | 0.00 | 0.00 | 0.00 |
| WF | | | | | | | | | |
| 3,050.0 | 35.34 | 306.14 | 2,648.1 | 805.7 | -1,103.3 | 1,366.2 | 0.00 | 0.00 | 0.00 |
| Start Drop -3.50 | | | | | | | | | |
| 3,100.0 | 33.59 | 306.14 | 2,689.3 | 822.4 | -1,126.2 | 1,394.5 | 3.50 | -3.50 | 0.00 |
| 3,200.0 | 30.09 | 306.14 | 2,774.2 | 853.5 | -1,168.8 | 1,447.2 | 3.50 | -3.50 | 0.00 |
| 3,300.0 | 26.59 | 306.14 | 2,862.2 | 881.5 | -1,207.1 | 1,494.7 | 3.50 | -3.50 | 0.00 |
| 3,400.0 | 23.09 | 306.14 | 2,952.9 | 906.3 | -1,241.0 | 1,536.7 | 3.50 | -3.50 | 0.00 |
| 3,500.0 | 19.59 | 306.14 | 3,046.1 | 927.7 | -1,270.4 | 1,573.1 | 3.50 | -3.50 | 0.00 |
| 3,600.0 | 16.09 | 306.14 | 3,141.2 | 945.8 | -1,295.1 | 1,603.7 | 3.50 | -3.50 | 0.00 |
| 3,700.0 | 12.59 | 306.14 | 3,238.1 | 960.4 | -1,315.1 | 1,628.5 | 3.50 | -3.50 | 0.00 |
| 3,800.0 | 9.09 | 306.14 | 3,336.3 | 971.5 | -1,330.3 | 1,647.3 | 3.50 | -3.50 | 0.00 |
| 3,900.0 | 5.59 | 306.14 | 3,435.5 | 979.0 | -1,340.6 | 1,660.1 | 3.50 | -3.50 | 0.00 |
| 4,000.0 | 2.09 | 306.14 | 3,535.2 | 983.0 | -1,346.1 | 1,666.8 | 3.50 | -3.50 | 0.00 |
| 4,059.8 | 0.00 | 0.00 | 3,595.0 | 983.6 | -1,346.9 | 1,667.9 | 3.50 | -3.50 | 0.00 |
| Start 2222.0 hold at 4059.8 MD - Top of Gas | | | | | | | | | |
| 4,100.0 | 0.00 | 0.00 | 3,635.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 0.00 | 0.00 | 3,735.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |

Payzone Directional

Planning Report



| | | | |
|------------------|-----------------------------|-------------------------------------|--|
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| Company: | Ursa Operating Company, LLC | TVD Reference: | BAT 12C-24-07-96 @ 5197.9ft (Original Well Elev) |
| Project: | Rockies Region | MD Reference: | BAT 12C-24-07-96 @ 5197.9ft (Original Well Elev) |
| Site: | Speakman A | North Reference: | True |
| Well: | BAT 12C-24-07-96 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | 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) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 4,300.0 | 0.00 | 0.00 | 3,835.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 0.00 | 0.00 | 3,935.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 0.00 | 0.00 | 4,035.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 4,600.0 | 0.00 | 0.00 | 4,135.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 0.00 | 0.00 | 4,235.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 0.00 | 0.00 | 4,335.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 4,900.0 | 0.00 | 0.00 | 4,435.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 0.00 | 0.00 | 4,535.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 0.00 | 0.00 | 4,635.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 0.00 | 0.00 | 4,735.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 5,300.0 | 0.00 | 0.00 | 4,835.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 5,400.0 | 0.00 | 0.00 | 4,935.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 5,460.8 | 0.00 | 0.00 | 4,996.0 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| Cameo | | | | | | | | | |
| 5,500.0 | 0.00 | 0.00 | 5,035.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 5,600.0 | 0.00 | 0.00 | 5,135.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 5,700.0 | 0.00 | 0.00 | 5,235.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 5,800.0 | 0.00 | 0.00 | 5,335.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 5,900.0 | 0.00 | 0.00 | 5,435.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 5,981.8 | 0.00 | 0.00 | 5,517.0 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| Rollins | | | | | | | | | |
| 6,000.0 | 0.00 | 0.00 | 5,535.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 6,100.0 | 0.00 | 0.00 | 5,635.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 6,200.0 | 0.00 | 0.00 | 5,735.2 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| 6,281.8 | 0.00 | 0.00 | 5,817.0 | 983.6 | -1,346.9 | 1,667.9 | 0.00 | 0.00 | 0.00 |
| TD at 6281.8 | | | | | | | | | |

Formations

| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---------------------|---------------------|------------|-----------|---------|-------------------|
| 3,011.9 | 2,617.0 | WF | | 0.00 | |
| 4,059.8 | 3,595.0 | Top of Gas | | 0.00 | |
| 5,460.8 | 4,996.0 | Cameo | | 0.00 | |
| 5,981.8 | 5,517.0 | Rollins | | 0.00 | |

Plan Annotations

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment |
|---------------------|---------------------|-------------------|------------|--------------------------------|
| | | +N/-S (ft) | +E/-W (ft) | |
| 200.0 | 200.0 | 0.0 | 0.0 | Start Build 3.50 |
| 1,209.8 | 1,146.9 | 177.9 | -243.6 | Start 1840.2 hold at 1209.8 MD |
| 3,050.0 | 2,648.1 | 805.7 | -1,103.3 | Start Drop -3.50 |
| 4,059.8 | 3,595.0 | 983.6 | -1,346.9 | Start 2222.0 hold at 4059.8 MD |
| 6,281.8 | 5,817.0 | 983.6 | -1,346.9 | TD at 6281.8 |



Well Name: BAT 12C-24-07-96
Surface Location: Speakman A
North American Datum 1983 , US State Plane 1983, Colorado Central Zone
Ground Elevation: 5182.5
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 484158.65 693955.30 39° 25' 15.814 N 108° 3' 37.806 W
Original Well Elev BAT 12C-24-07-96 @ 5197.9ft (Original Well Elev)



Azimuths to True North
Magnetic North: 10.08°
Magnetic Field
Strength: 52046.8snT
Dip Angle: 65.63°
Date: 6/13/2013
Model: IGRF200510

Speakman A
BAT 12C-24-07-96
Design #1
15:25, June 13 2013

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

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Shape |
|----------------------|--------|-------|---------|-----------|-----------|------------------|------------------|-------|
| BAT 12C-24-07-96 TGT | 3595.0 | 983.6 | -1346.9 | 484469.90 | 693553.37 | 39° 25' 25.535 N | 108° 3' 54.971 W | Point |
| BAT 12C-24-07-96 BHL | 5817.0 | 983.6 | -1346.9 | 484469.90 | 693553.37 | 39° 25' 25.535 N | 108° 3' 54.971 W | Point |

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 | 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 3 | 1209.8 | 35.34 | 306.14 | 1146.9 | 177.9 | -243.6 | 3.50 | 306.14 | 301.7 | |
| 4 | 3050.0 | 35.34 | 306.14 | 2648.1 | 805.7 | -1103.3 | 0.00 | 0.00 | 1366.2 | |
| 5 | 4059.8 | 0.00 | 0.00 | 3595.0 | 983.6 | -1346.9 | 3.50 | 180.00 | 1667.9 | BAT 12C-24-07-96 TGT |
| 6 | 6281.8 | 0.00 | 0.00 | 5817.0 | 983.6 | -1346.9 | 0.00 | 0.00 | 1667.9 | BAT 12C-24-07-96 BHL |

ANNOTATIONS

| TVD | MD | Annotation |
|--------|--------|--------------------------------|
| 200.0 | 200.0 | Start Build 3.50 |
| 1146.9 | 1209.8 | Start 1840.2 hold at 1209.8 MD |
| 2648.1 | 3050.0 | Start Drop -3.50 |
| 3595.0 | 4059.8 | Start 2222.0 hold at 4059.8 MD |
| 5817.0 | 6281.8 | TD at 6281.8 |

FORMATION TOP DETAILS

| TVDPathMDPath | Formation |
|---------------|------------|
| 2617.0 3011.9 | WF |
| 3595.0 4059.8 | Top of Gas |
| 4996.0 5460.8 | Cameo |
| 5517.0 5981.8 | Rollins |

