



Project: Mesa County, CO
 Site: Nichols 24-06A
 Well: Nichols 0994-24-06E
 Wellbore: Wellbore #1
 Design: Design #1
 Latitude: 39.264586
 Longitude: -107.830603
 Ground Level: 7137.0
 well @ 7167.0usft (H&P #522)



PROJECT DETAILS: Mesa County, CO

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Central Zone
 System Datum: Mean Sea Level

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Nichols 0994-24-06E, True North
 Vertical (TVD) Reference: well @ 7167.0usft (H&P #522)
 Section (VS) Reference: Slot - (0.0N, 0.0E)
 Measured Depth Reference: well @ 7167.0usft (H&P #522)
 Calculation Method: Minimum Curvature

WELL DETAILS:

Nichols 0994-24-06E

| +N/-S | +E/-W | North | Ground Level: | 7137.0 | Latitude | Longitude |
|-------|-------|------------|---------------|------------|-----------|-------------|
| 0.0 | 0.0 | 1529722.96 | Easting | 2340212.77 | 39.264586 | -107.830603 |

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

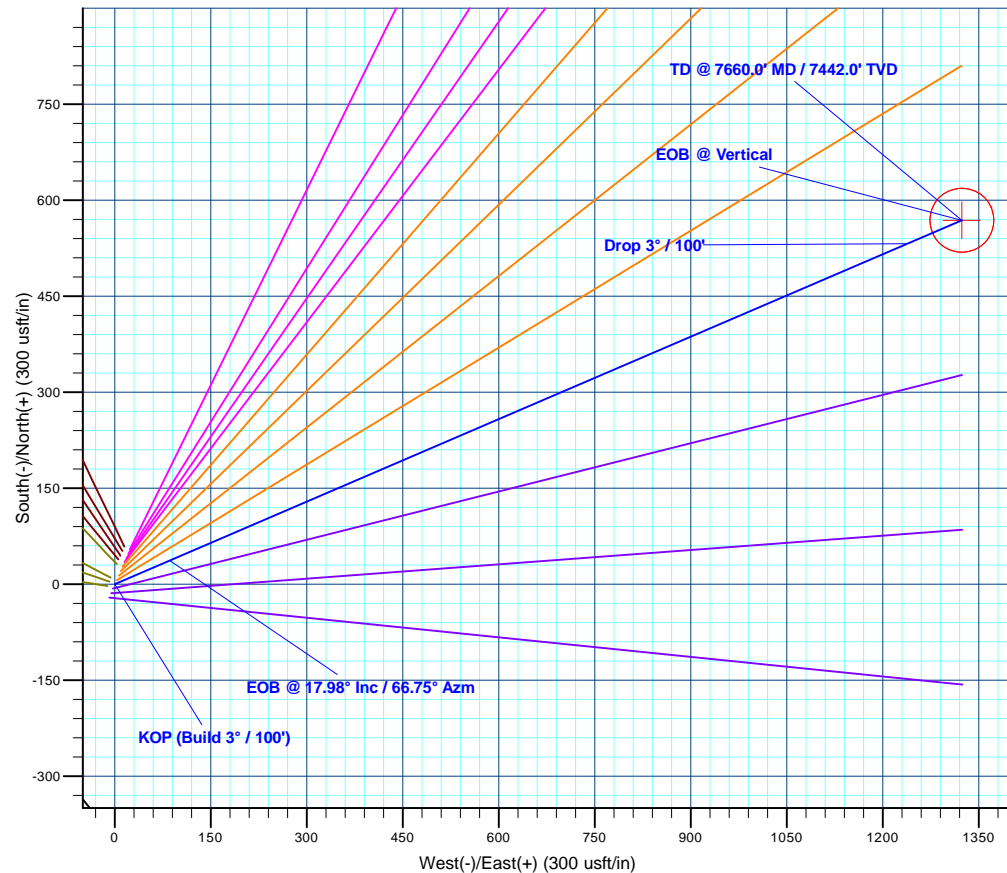
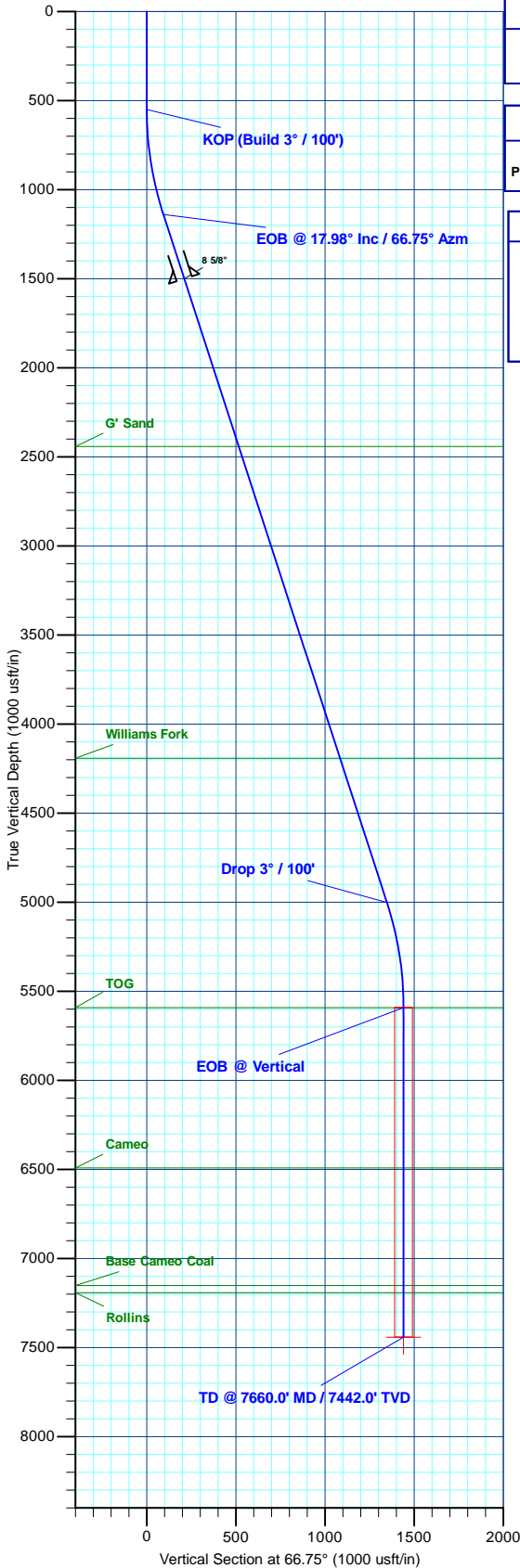
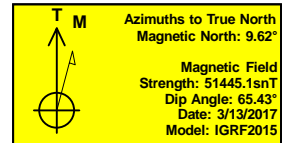
| Name | TVD | +N/-S | +E/-W | North | Easting | Latitude | Longitude |
|----------------------------|--------|-------|--------|------------|------------|-----------|-------------|
| PBHL - Nichols 0994-24-06E | 7442.0 | 568.6 | 1323.6 | 1530257.41 | 2341550.52 | 39.266147 | -107.825928 |

SECTION DETAILS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect | Annotation |
|--------|-------|-------|--------|-------|--------|------|--------|--------|-------------------------------|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 550.0 | 0.00 | 0.00 | 550.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | KOP (Build 3° / 100') |
| 1149.5 | 17.98 | 66.75 | 1139.7 | 36.8 | 85.7 | 3.00 | 66.75 | 93.3 | EOB @ 17.98° Inc / 66.75° Azm |
| 5210.5 | 17.98 | 66.75 | 5002.3 | 531.8 | 1237.9 | 0.00 | 0.00 | 1347.2 | Drop 3° / 100' |
| 5810.0 | 0.00 | 0.00 | 5592.0 | 568.6 | 1323.6 | 3.00 | 180.00 | 1440.6 | EOB @ Vertical |
| 7660.0 | 0.00 | 0.00 | 7442.0 | 568.6 | 1323.6 | 0.00 | 0.00 | 1440.6 | TD @ 7660.0' MD / 7442.0' TVD |

FORMATION TOP DETAILS

| TVDPATH | MDPATH | Formation |
|---------|--------|-----------------|
| 2442.0 | 2518.7 | G' Sand |
| 4192.0 | 4358.6 | Williams Fork |
| 5592.0 | 5810.0 | TOG |
| 6492.0 | 6710.0 | Cameo |
| 7152.0 | 7370.0 | Base Cameo Coal |
| 7192.0 | 7410.0 | Rollins |



Plan: Design #1 (Nichols 0994-24-06E/Wellbore #1)

Created By: Will Jircik Date: 18:46, March 13 2017



Laramie Energy, LLC

Mesa County, CO

Nichols 24-06A

Nichols 0994-24-06E

Wellbore #1

Plan: Design #1

QES Well Planning Report

13 March, 2017





Well Planning Report



| | | | |
|------------------|---------------------|-------------------------------------|------------------------------|
| Database: | EDM5002 | Local Co-ordinate Reference: | Well Nichols 0994-24-06E |
| Company: | Laramie Energy, LLC | TVD Reference: | well @ 7167.0usft (H&P #522) |
| Project: | Mesa County, CO | MD Reference: | well @ 7167.0usft (H&P #522) |
| Site: | Nichols 24-06A | North Reference: | True |
| Well: | Nichols 0994-24-06E | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Design #1 | | |

| Project | Mesa County, CO | | |
|-------------|---------------------------|---------------|----------------|
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Central Zone | | |

| Site | | Nichols 24-06A | | | | |
|-----------------------|-------|----------------|-------------------|-------------------|-------------------|-------------------|
| Site Position: | | Northing: | 1,529,702.08 usft | Latitude: | 39° 15' 52.301 N | |
| | From: | Lat/Long | Easting: | 2,340,203.74 usft | Longitude: | 107° 49' 50.279 W |
| Position Uncertainty: | | 0.0 usft | Slot Radius: | 13-3/16 " | Grid Convergence: | -1.47 ° |

| | | | | | | |
|----------------------|---------------------|-----------|---------------------|-------------------|---------------|-------------------|
| Well | Nichols 0994-24-06E | | | | | |
| Well Position | +N/-S | 21.1 usft | Northing: | 1,529,722.97 usft | Latitude: | 39° 15' 52.509 N |
| | +E/-W | 8.5 usft | Easting: | 2,340,212.77 usft | Longitude: | 107° 49' 50.171 W |
| Position Uncertainty | | 0.0 usft | Wellhead Elevation: | 0.0 usft | Ground Level: | 7,137.0 usft |

| | | | | | |
|-----------|-------------|-------------|--------------------|------------------|------------------------|
| Wellbore | Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2015 | 3/13/2017 | 9.62 | 65.43 | 51,445 |

| | | | | |
|-------------------|----------------------------|-----------------|-----------------|------------------|
| Design | Design #1 | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
| | 0.0 | 0.0 | 0.0 | 66.75 |

| Plan Sections | | | | | | | | | | |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|-------------------------------|------------------------------|-----------------------------|------------|----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 550.0 | 0.00 | 0.00 | 550.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,149.5 | 17.98 | 66.75 | 1,139.7 | 36.8 | 85.7 | 3.00 | 3.00 | 0.00 | 66.75 | |
| 5,210.5 | 17.98 | 66.75 | 5,002.3 | 531.8 | 1,237.9 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5,810.0 | 0.00 | 0.00 | 5,592.0 | 568.6 | 1,323.6 | 3.00 | -3.00 | 0.00 | 180.00 | |
| 7,660.0 | 0.00 | 0.00 | 7,442.0 | 568.6 | 1,323.6 | 0.00 | 0.00 | 0.00 | 0.00 | PBHL - Nichols 0994- |



Well Planning Report



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|------------------|---------------------|-------------------------------------|------------------------------|
| Database: | EDM5002 | Local Co-ordinate Reference: | Well Nichols 0994-24-06E |
| Company: | Laramie Energy, LLC | TVD Reference: | well @ 7167.0usft (H&P #522) |
| Project: | Mesa County, CO | MD Reference: | well @ 7167.0usft (H&P #522) |
| Site: | Nichols 24-06A | North Reference: | True |
| Well: | Nichols 0994-24-06E | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | 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 |
| KOP (Build 3° / 100') | | | | | | | | | |
| 550.0 | 0.00 | 0.00 | 550.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 600.0 | 1.50 | 66.75 | 600.0 | 0.3 | 0.6 | 0.7 | 3.00 | 3.00 | 0.00 |
| 700.0 | 4.50 | 66.75 | 699.8 | 2.3 | 5.4 | 5.9 | 3.00 | 3.00 | 0.00 |
| 800.0 | 7.50 | 66.75 | 799.3 | 6.4 | 15.0 | 16.3 | 3.00 | 3.00 | 0.00 |
| 900.0 | 10.50 | 66.75 | 898.0 | 12.6 | 29.4 | 32.0 | 3.00 | 3.00 | 0.00 |
| 1,000.0 | 13.50 | 66.75 | 995.8 | 20.8 | 48.5 | 52.8 | 3.00 | 3.00 | 0.00 |
| 1,100.0 | 16.50 | 66.75 | 1,092.4 | 31.0 | 72.3 | 78.6 | 3.00 | 3.00 | 0.00 |
| EOB @ 17.98° Inc / 66.75° Azm | | | | | | | | | |
| 1,149.5 | 17.98 | 66.75 | 1,139.7 | 36.8 | 85.7 | 93.3 | 3.00 | 3.00 | 0.00 |
| 1,200.0 | 17.98 | 66.75 | 1,187.7 | 43.0 | 100.1 | 108.9 | 0.00 | 0.00 | 0.00 |
| 1,300.0 | 17.98 | 66.75 | 1,282.8 | 55.2 | 128.4 | 139.8 | 0.00 | 0.00 | 0.00 |
| 1,400.0 | 17.98 | 66.75 | 1,378.0 | 67.4 | 156.8 | 170.7 | 0.00 | 0.00 | 0.00 |
| 1,500.0 | 17.98 | 66.75 | 1,473.1 | 79.5 | 185.2 | 201.5 | 0.00 | 0.00 | 0.00 |
| 1,600.0 | 17.98 | 66.75 | 1,568.2 | 91.7 | 213.6 | 232.4 | 0.00 | 0.00 | 0.00 |
| 1,700.0 | 17.98 | 66.75 | 1,663.3 | 103.9 | 241.9 | 263.3 | 0.00 | 0.00 | 0.00 |
| 1,800.0 | 17.98 | 66.75 | 1,758.4 | 116.1 | 270.3 | 294.2 | 0.00 | 0.00 | 0.00 |
| 1,900.0 | 17.98 | 66.75 | 1,853.5 | 128.3 | 298.7 | 325.1 | 0.00 | 0.00 | 0.00 |
| 2,000.0 | 17.98 | 66.75 | 1,948.6 | 140.5 | 327.0 | 355.9 | 0.00 | 0.00 | 0.00 |
| 2,100.0 | 17.98 | 66.75 | 2,043.8 | 152.7 | 355.4 | 386.8 | 0.00 | 0.00 | 0.00 |
| 2,200.0 | 17.98 | 66.75 | 2,138.9 | 164.9 | 383.8 | 417.7 | 0.00 | 0.00 | 0.00 |
| 2,300.0 | 17.98 | 66.75 | 2,234.0 | 177.0 | 412.1 | 448.6 | 0.00 | 0.00 | 0.00 |
| 2,400.0 | 17.98 | 66.75 | 2,329.1 | 189.2 | 440.5 | 479.4 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 17.98 | 66.75 | 2,424.2 | 201.4 | 468.9 | 510.3 | 0.00 | 0.00 | 0.00 |
| G' Sand | | | | | | | | | |
| 2,518.7 | 17.98 | 66.75 | 2,442.0 | 203.7 | 474.2 | 516.1 | 0.00 | 0.00 | 0.00 |
| 2,600.0 | 17.98 | 66.75 | 2,519.3 | 213.6 | 497.2 | 541.2 | 0.00 | 0.00 | 0.00 |
| 2,700.0 | 17.98 | 66.75 | 2,614.4 | 225.8 | 525.6 | 572.1 | 0.00 | 0.00 | 0.00 |
| 2,800.0 | 17.98 | 66.75 | 2,709.6 | 238.0 | 554.0 | 602.9 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 17.98 | 66.75 | 2,804.7 | 250.2 | 582.4 | 633.8 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 17.98 | 66.75 | 2,899.8 | 262.4 | 610.7 | 664.7 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 17.98 | 66.75 | 2,994.9 | 274.5 | 639.1 | 695.6 | 0.00 | 0.00 | 0.00 |
| 3,200.0 | 17.98 | 66.75 | 3,090.0 | 286.7 | 667.5 | 726.4 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 17.98 | 66.75 | 3,185.1 | 298.9 | 695.8 | 757.3 | 0.00 | 0.00 | 0.00 |
| 3,400.0 | 17.98 | 66.75 | 3,280.2 | 311.1 | 724.2 | 788.2 | 0.00 | 0.00 | 0.00 |
| 3,500.0 | 17.98 | 66.75 | 3,375.4 | 323.3 | 752.6 | 819.1 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 17.98 | 66.75 | 3,470.5 | 335.5 | 780.9 | 850.0 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | 17.98 | 66.75 | 3,565.6 | 347.7 | 809.3 | 880.8 | 0.00 | 0.00 | 0.00 |
| 3,800.0 | 17.98 | 66.75 | 3,660.7 | 359.9 | 837.7 | 911.7 | 0.00 | 0.00 | 0.00 |
| 3,900.0 | 17.98 | 66.75 | 3,755.8 | 372.0 | 866.1 | 942.6 | 0.00 | 0.00 | 0.00 |
| 4,000.0 | 17.98 | 66.75 | 3,850.9 | 384.2 | 894.4 | 973.5 | 0.00 | 0.00 | 0.00 |
| 4,100.0 | 17.98 | 66.75 | 3,946.0 | 396.4 | 922.8 | 1,004.3 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 17.98 | 66.75 | 4,041.1 | 408.6 | 951.2 | 1,035.2 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 17.98 | 66.75 | 4,136.3 | 420.8 | 979.5 | 1,066.1 | 0.00 | 0.00 | 0.00 |
| Williams Fork | | | | | | | | | |
| 4,358.6 | 17.98 | 66.75 | 4,192.0 | 427.9 | 996.2 | 1,084.2 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 17.98 | 66.75 | 4,231.4 | 433.0 | 1,007.9 | 1,097.0 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 17.98 | 66.75 | 4,326.5 | 445.2 | 1,036.3 | 1,127.8 | 0.00 | 0.00 | 0.00 |



Well Planning Report



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|------------------|---------------------|-------------------------------------|------------------------------|
| Database: | EDM5002 | Local Co-ordinate Reference: | Well Nichols 0994-24-06E |
| Company: | Laramie Energy, LLC | TVD Reference: | well @ 7167.0usft (H&P #522) |
| Project: | Mesa County, CO | MD Reference: | well @ 7167.0usft (H&P #522) |
| Site: | Nichols 24-06A | North Reference: | True |
| Well: | Nichols 0994-24-06E | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | 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) |
| 4,600.0 | 17.98 | 66.75 | 4,421.6 | 457.3 | 1,064.6 | 1,158.7 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 17.98 | 66.75 | 4,516.7 | 469.5 | 1,093.0 | 1,189.6 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 17.98 | 66.75 | 4,611.8 | 481.7 | 1,121.4 | 1,220.5 | 0.00 | 0.00 | 0.00 |
| 4,900.0 | 17.98 | 66.75 | 4,706.9 | 493.9 | 1,149.8 | 1,251.4 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 17.98 | 66.75 | 4,802.1 | 506.1 | 1,178.1 | 1,282.2 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 17.98 | 66.75 | 4,897.2 | 518.3 | 1,206.5 | 1,313.1 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 17.98 | 66.75 | 4,992.3 | 530.5 | 1,234.9 | 1,344.0 | 0.00 | 0.00 | 0.00 |
| Drop 3° / 100' | | | | | | | | | |
| 5,210.5 | 17.98 | 66.75 | 5,002.3 | 531.8 | 1,237.9 | 1,347.2 | 0.00 | 0.00 | 0.00 |
| 5,300.0 | 15.30 | 66.75 | 5,088.0 | 541.9 | 1,261.4 | 1,372.9 | 3.00 | -3.00 | 0.00 |
| 5,400.0 | 12.30 | 66.75 | 5,185.1 | 551.3 | 1,283.3 | 1,396.7 | 3.00 | -3.00 | 0.00 |
| 5,500.0 | 9.30 | 66.75 | 5,283.3 | 558.7 | 1,300.5 | 1,415.4 | 3.00 | -3.00 | 0.00 |
| 5,600.0 | 6.30 | 66.75 | 5,382.4 | 564.0 | 1,313.0 | 1,429.0 | 3.00 | -3.00 | 0.00 |
| 5,700.0 | 3.30 | 66.75 | 5,482.0 | 567.3 | 1,320.7 | 1,437.4 | 3.00 | -3.00 | 0.00 |
| 5,800.0 | 0.30 | 66.75 | 5,582.0 | 568.6 | 1,323.6 | 1,440.5 | 3.00 | -3.00 | 0.00 |
| EOB @ Vertical - TOG | | | | | | | | | |
| 5,810.0 | 0.00 | 0.00 | 5,592.0 | 568.6 | 1,323.6 | 1,440.6 | 3.00 | -3.00 | 0.00 |
| 5,900.0 | 0.00 | 0.00 | 5,682.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| 6,000.0 | 0.00 | 0.00 | 5,782.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| 6,100.0 | 0.00 | 0.00 | 5,882.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| 6,200.0 | 0.00 | 0.00 | 5,982.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| 6,300.0 | 0.00 | 0.00 | 6,082.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| 6,400.0 | 0.00 | 0.00 | 6,182.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| 6,500.0 | 0.00 | 0.00 | 6,282.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| 6,600.0 | 0.00 | 0.00 | 6,382.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| 6,700.0 | 0.00 | 0.00 | 6,482.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| Cameo | | | | | | | | | |
| 6,710.0 | 0.00 | 0.00 | 6,492.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| 6,800.0 | 0.00 | 0.00 | 6,582.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| 6,900.0 | 0.00 | 0.00 | 6,682.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| 7,000.0 | 0.00 | 0.00 | 6,782.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| 7,100.0 | 0.00 | 0.00 | 6,882.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| 7,200.0 | 0.00 | 0.00 | 6,982.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| 7,300.0 | 0.00 | 0.00 | 7,082.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| Base Cameo Coal | | | | | | | | | |
| 7,370.0 | 0.00 | 0.00 | 7,152.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| 7,400.0 | 0.00 | 0.00 | 7,182.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| Rollins | | | | | | | | | |
| 7,410.0 | 0.00 | 0.00 | 7,192.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 0.00 | 0.00 | 7,282.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 0.00 | 0.00 | 7,382.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |
| TD @ 7660.0' MD / 7442.0' TVD | | | | | | | | | |
| 7,660.0 | 0.00 | 0.00 | 7,442.0 | 568.6 | 1,323.6 | 1,440.6 | 0.00 | 0.00 | 0.00 |



Well Planning Report



| | | | |
|------------------|---------------------|-------------------------------------|------------------------------|
| Database: | EDM5002 | Local Co-ordinate Reference: | Well Nichols 0994-24-06E |
| Company: | Laramie Energy, LLC | TVD Reference: | well @ 7167.0usft (H&P #522) |
| Project: | Mesa County, CO | MD Reference: | well @ 7167.0usft (H&P #522) |
| Site: | Nichols 24-06A | North Reference: | True |
| Well: | Nichols 0994-24-06E | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | Design #1 | | |

| Design Targets | | | | | | | | | |
|---------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|------------------|-------------------|
| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
| - hit/miss target | | | | | | | | | |
| - Shape | | | | | | | | | |
| PBHL - Nichols 0994-24 | 0.00 | 0.00 | 7,442.0 | 568.6 | 1,323.6 | 1,530,257.42 | 2,341,550.52 | 39° 15' 58.129 N | 107° 49' 33.341 W |
| - plan hits target center | | | | | | | | | |
| - Circle (radius 50.0) | | | | | | | | | |

| Formations | | | | | | |
|-----------------------|-----------------------|-----------------|-----------|---------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name | Lithology | Dip (°) | Dip Direction (°) | |
| 2,518.7 | 2,442.0 | G' Sand | | | | |
| 4,358.6 | 4,192.0 | Williams Fork | | | | |
| 5,810.0 | 5,592.0 | TOG | | | | |
| 6,710.0 | 6,492.0 | Cameo | | | | |
| 7,370.0 | 7,152.0 | Base Cameo Coal | | | | |
| 7,410.0 | 7,192.0 | Rollins | | | | |

| Plan Annotations | | | | | |
|-----------------------|-----------------------|-------------------|--------------|-------------------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | | |
| | | +N/-S (usft) | +E/-W (usft) | Comment | |
| 550.0 | 550.0 | 0.0 | 0.0 | KOP (Build 3° / 100') | |
| 1,149.5 | 1,139.7 | 36.8 | 85.7 | EOB @ 17.98° Inc / 66.75° Azm | |
| 5,210.5 | 5,002.3 | 531.8 | 1,237.9 | Drop 3° / 100' | |
| 5,810.0 | 5,592.0 | 568.6 | 1,323.6 | EOB @ Vertical | |
| 7,660.0 | 7,442.0 | 568.6 | 1,323.6 | TD @ 7660.0' MD / 7442.0' TVD | |