

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_CARTER 10 PAD

Carter 15-32

Carter 15-32

Plan: Carter 15-32 (wp01)

Standard Planning Report

28 January, 2011



Project: COLORADO NORTHERN ZONE - 83
Site: WELD_CARTER 10 PAD
Well: Carter 15-32
Wellbore: Carter 15-32
Section:
SHL:
Design: Carter 15-32 (wp01)
Latitude: 40.093728
Longitude: -104.797235
GL: 4912.00
KB: WELL @ 4912.00ft (Original Well Elev)

| FORMATION TOP DETAILS | | |
|-----------------------|---------|-----------|
| TVDPath | MDPath | Formation |
| 3980.00 | 4150.65 | PK Depth |
| 4482.00 | 4680.67 | SX Depth |
| 7127.00 | 7385.87 | NIO Depth |
| 7452.00 | 7710.87 | CD Depth |
| 7542.00 | 7800.87 | GH Depth |
| 7892.00 | 8150.87 | J Depth |
| 8072.00 | 8330.87 | DK Depth |

Weatherford®



Azimuths to True North
Magnetic North: 8.93°
Magnetic Field
Strength: 53022.0snT
Dip Angle: 66.82°
Date: 12/3/2010
Model: IGRF2010

WELL DETAILS: Carter 15-32

| +N/-S | +E/-W | Northing | Ground Level: Easting | 4912.00 Latitude | Longitude | Slot |
|-------|-------|------------|--------------------------|---------------------|-------------|------|
| 0.00 | 0.00 | 1277768.71 | 3196609.49 | 40.093728 | -104.797235 | |

CASING DETAILS

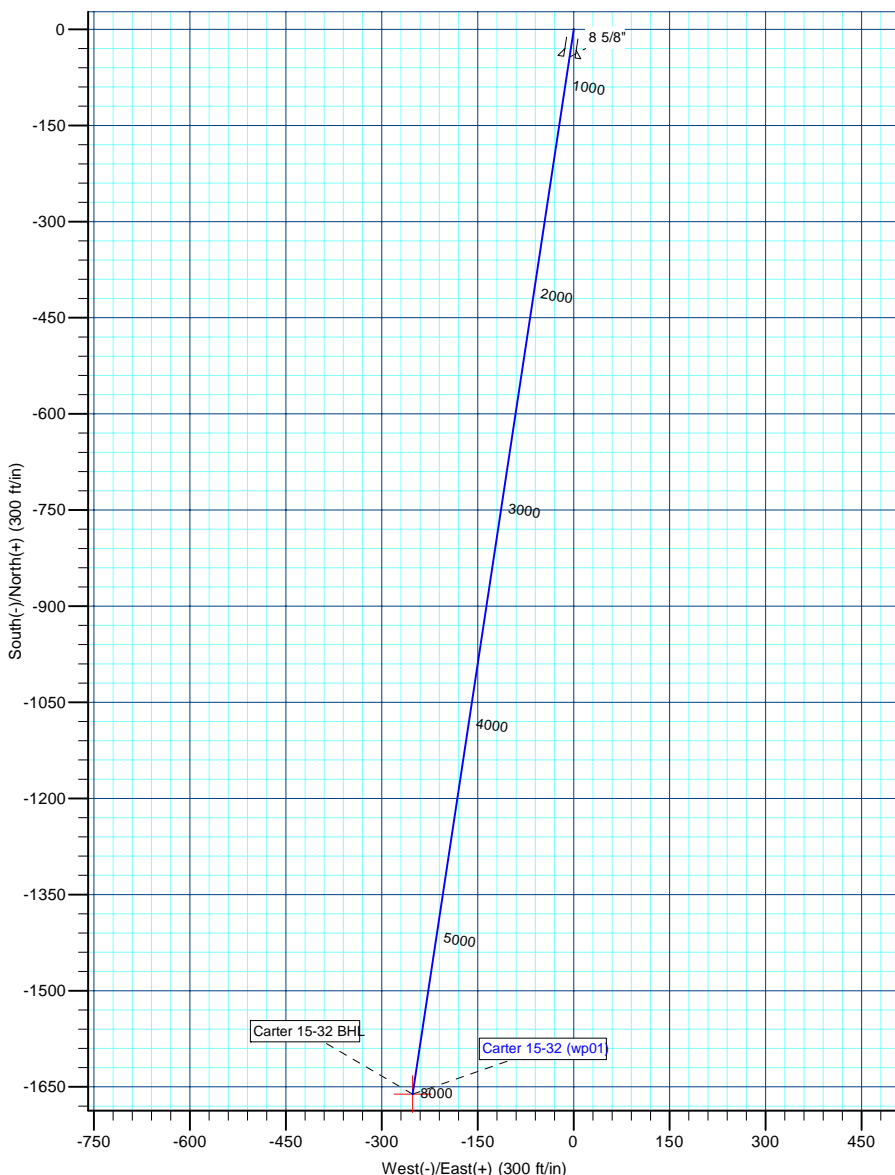
| TVD | MD | Name | Size |
|--------|--------|--------|-------|
| 800.00 | 802.57 | 8 5/8" | 8-5/8 |

DESIGN TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude | Shape Point |
|------------------|---------|----------|---------|------------|------------|-----------|-------------|----------------|
| Carter 15-32 BHL | 8272.00 | -1661.43 | -251.53 | 1276105.34 | 3196371.14 | 40.089167 | -104.798134 | |

SECTION DETAILS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect |
|---------|-------|--------|---------|----------|---------|------|--------|---------|
| 0.00 | 0.00 | 0.00 | 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 |
| 1235.69 | 18.71 | 188.61 | 1219.14 | -149.75 | -22.67 | 2.00 | 188.61 | 151.45 |
| 5461.51 | 18.71 | 188.61 | 5221.55 | -1490.29 | -225.62 | 0.00 | 0.00 | 1507.27 |
| 6530.87 | 0.00 | 0.00 | 6272.00 | -1661.43 | -251.53 | 1.75 | 180.00 | 1680.36 |
| 8530.87 | 0.00 | 0.00 | 8272.00 | -1661.43 | -251.53 | 0.00 | 0.00 | 1680.36 |



| | | | |
|------------------|-----------------------------|-------------------------------------|---------------------------------------|
| Database: | edm5000p | Local Co-ordinate Reference: | Well Carter 15-32 |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | WELL @ 4912.00ft (Original Well Elev) |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | WELL @ 4912.00ft (Original Well Elev) |
| Site: | WELD_CARTER 10 PAD | North Reference: | True |
| Well: | Carter 15-32 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Carter 15-32 | | |
| Design: | Carter 15-32 (wp01) | | |

| | | | |
|--------------------|-----------------------------|----------------------|----------------|
| Project | COLORADO NORTHERN ZONE - 83 | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | |

| Site | | WELD_CARTER 10 PAD | | | |
|-----------------------|----------|--------------------|-----------------|-------------------|-------------|
| Site Position: | | Northing: | 1,277,768.43 ft | Latitude: | 40.093728 |
| From: | Lat/Long | Easting: | 3,196,569.49 ft | Longitude: | -104.797378 |
| Position Uncertainty: | 0.00 ft | Slot Radius: | 0 " | Grid Convergence: | 0.45 |

| | | | | | | |
|----------------------|--------------|----------|---------------------|-----------------|---------------|-------------|
| Well | Carter 15-32 | | | | | |
| Well Position | +N-S | -0.04 ft | Northing: | 1,277,768.71 ft | Latitude: | 40.093728 |
| | +E-W | 40.01 ft | Easting: | 3,196,609.49 ft | Longitude: | -104.797235 |
| Position Uncertainty | | 0.00 ft | Wellhead Elevation: | | Ground Level: | 4,912.00 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Carter 15-32 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 12/3/2010 | 8.93 | 66.82 | 53,022 |

| | | | | |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| Design | Carter 15-32 (wp01) | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
| | 0.00 | 0.00 | 0.00 | 188.61 |

| 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 |
| 0.00 | 0.00 | 0.00 | 0.00 | 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 | |
| 1,235.69 | 18.71 | 188.61 | 1,219.14 | -149.75 | -22.67 | 2.00 | 2.00 | 0.00 | 188.61 | |
| 5,461.51 | 18.71 | 188.61 | 5,221.55 | -1,490.29 | -225.62 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 6,530.87 | 0.00 | 0.00 | 6,272.00 | -1,661.43 | -251.53 | 1.75 | -1.75 | 0.00 | 180.00 | |
| 8,530.87 | 0.00 | 0.00 | 8,272.00 | -1,661.43 | -251.53 | 0.00 | 0.00 | 0.00 | 0.00 | Carter 15-32 BHL |

| | | | |
|------------------|-----------------------------|-------------------------------------|---------------------------------------|
| Database: | edm5000p | Local Co-ordinate Reference: | Well Carter 15-32 |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | WELL @ 4912.00ft (Original Well Elev) |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | WELL @ 4912.00ft (Original Well Elev) |
| Site: | WELD_CARTER 10 PAD | North Reference: | True |
| Well: | Carter 15-32 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Carter 15-32 | | |
| Design: | Carter 15-32 (wp01) | | |

| 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 | 2.00 | 188.61 | 399.98 | -1.73 | -0.26 | 1.75 | 2.00 | 2.00 | 0.00 |
| 500.00 | 4.00 | 188.61 | 499.84 | -6.90 | -1.04 | 6.98 | 2.00 | 2.00 | 0.00 |
| 600.00 | 6.00 | 188.61 | 599.45 | -15.52 | -2.35 | 15.69 | 2.00 | 2.00 | 0.00 |
| 700.00 | 8.00 | 188.61 | 698.70 | -27.57 | -4.17 | 27.88 | 2.00 | 2.00 | 0.00 |
| 800.00 | 10.00 | 188.61 | 797.47 | -43.03 | -6.51 | 43.52 | 2.00 | 2.00 | 0.00 |
| 802.57 | 10.05 | 188.61 | 800.00 | -43.48 | -6.58 | 43.97 | 2.00 | 2.00 | 0.00 |
| 8 5/8" | | | | | | | | | |
| 900.00 | 12.00 | 188.61 | 895.62 | -61.90 | -9.37 | 62.60 | 2.00 | 2.00 | 0.00 |
| 1,000.00 | 14.00 | 188.61 | 993.06 | -84.14 | -12.74 | 85.10 | 2.00 | 2.00 | 0.00 |
| 1,100.00 | 16.00 | 188.61 | 1,089.64 | -109.73 | -16.61 | 110.98 | 2.00 | 2.00 | 0.00 |
| 1,200.00 | 18.00 | 188.61 | 1,185.27 | -138.63 | -20.99 | 140.21 | 2.00 | 2.00 | 0.00 |
| 1,235.69 | 18.71 | 188.61 | 1,219.14 | -149.75 | -22.67 | 151.45 | 2.00 | 2.00 | 0.00 |
| 1,300.00 | 18.71 | 188.61 | 1,280.05 | -170.15 | -25.76 | 172.09 | 0.00 | 0.00 | 0.00 |
| 1,400.00 | 18.71 | 188.61 | 1,374.77 | -201.87 | -30.56 | 204.17 | 0.00 | 0.00 | 0.00 |
| 1,500.00 | 18.71 | 188.61 | 1,469.48 | -233.59 | -35.36 | 236.25 | 0.00 | 0.00 | 0.00 |
| 1,600.00 | 18.71 | 188.61 | 1,564.19 | -265.32 | -40.17 | 268.34 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 18.71 | 188.61 | 1,658.91 | -297.04 | -44.97 | 300.42 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 18.71 | 188.61 | 1,753.62 | -328.76 | -49.77 | 332.51 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 18.71 | 188.61 | 1,848.33 | -360.48 | -54.57 | 364.59 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 18.71 | 188.61 | 1,943.05 | -392.21 | -59.38 | 396.68 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 18.71 | 188.61 | 2,037.76 | -423.93 | -64.18 | 428.76 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 18.71 | 188.61 | 2,132.47 | -455.65 | -68.98 | 460.84 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 18.71 | 188.61 | 2,227.19 | -487.37 | -73.79 | 492.93 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 18.71 | 188.61 | 2,321.90 | -519.10 | -78.59 | 525.01 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 18.71 | 188.61 | 2,416.61 | -550.82 | -83.39 | 557.10 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 18.71 | 188.61 | 2,511.33 | -582.54 | -88.19 | 589.18 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 18.71 | 188.61 | 2,606.04 | -614.26 | -93.00 | 621.26 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 18.71 | 188.61 | 2,700.75 | -645.99 | -97.80 | 653.35 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 18.71 | 188.61 | 2,795.46 | -677.71 | -102.60 | 685.43 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 18.71 | 188.61 | 2,890.18 | -709.43 | -107.40 | 717.52 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 18.71 | 188.61 | 2,984.89 | -741.16 | -112.21 | 749.60 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 18.71 | 188.61 | 3,079.60 | -772.88 | -117.01 | 781.68 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 18.71 | 188.61 | 3,174.32 | -804.60 | -121.81 | 813.77 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 18.71 | 188.61 | 3,269.03 | -836.32 | -126.61 | 845.85 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 18.71 | 188.61 | 3,363.74 | -868.05 | -131.42 | 877.94 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 18.71 | 188.61 | 3,458.46 | -899.77 | -136.22 | 910.02 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 18.71 | 188.61 | 3,553.17 | -931.49 | -141.02 | 942.11 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 18.71 | 188.61 | 3,647.88 | -963.21 | -145.82 | 974.19 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 18.71 | 188.61 | 3,742.60 | -994.94 | -150.63 | 1,006.27 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 18.71 | 188.61 | 3,837.31 | -1,026.66 | -155.43 | 1,038.36 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 18.71 | 188.61 | 3,932.02 | -1,058.38 | -160.23 | 1,070.44 | 0.00 | 0.00 | 0.00 |
| 4,150.65 | 18.71 | 188.61 | 3,980.00 | -1,074.45 | -162.66 | 1,086.69 | 0.00 | 0.00 | 0.00 |
| PK Depth | | | | | | | | | |
| 4,200.00 | 18.71 | 188.61 | 4,026.74 | -1,090.10 | -165.03 | 1,102.53 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 18.71 | 188.61 | 4,121.45 | -1,121.83 | -169.84 | 1,134.61 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 18.71 | 188.61 | 4,216.16 | -1,153.55 | -174.64 | 1,166.69 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 18.71 | 188.61 | 4,310.88 | -1,185.27 | -179.44 | 1,198.78 | 0.00 | 0.00 | 0.00 |
| 4,600.00 | 18.71 | 188.61 | 4,405.59 | -1,217.00 | -184.24 | 1,230.86 | 0.00 | 0.00 | 0.00 |
| 4,680.67 | 18.71 | 188.61 | 4,482.00 | -1,242.59 | -188.12 | 1,256.75 | 0.00 | 0.00 | 0.00 |

| | | | |
|------------------|-----------------------------|-------------------------------------|---------------------------------------|
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| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | WELL @ 4912.00ft (Original Well Elev) |
| Site: | WELD_CARTER 10 PAD | North Reference: | True |
| Well: | Carter 15-32 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Carter 15-32 | | |
| Design: | Carter 15-32 (wp01) | | |

| 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) |
| SX Depth | | | | | | | | | |
| 4,700.00 | 18.71 | 188.61 | 4,500.30 | -1,248.72 | -189.05 | 1,262.95 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 18.71 | 188.61 | 4,595.02 | -1,280.44 | -193.85 | 1,295.03 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 18.71 | 188.61 | 4,689.73 | -1,312.16 | -198.65 | 1,327.12 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 18.71 | 188.61 | 4,784.44 | -1,343.89 | -203.46 | 1,359.20 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 18.71 | 188.61 | 4,879.16 | -1,375.61 | -208.26 | 1,391.28 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 18.71 | 188.61 | 4,973.87 | -1,407.33 | -213.06 | 1,423.37 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 18.71 | 188.61 | 5,068.58 | -1,439.05 | -217.86 | 1,455.45 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 18.71 | 188.61 | 5,163.30 | -1,470.78 | -222.67 | 1,487.54 | 0.00 | 0.00 | 0.00 |
| 5,461.51 | 18.71 | 188.61 | 5,221.55 | -1,490.29 | -225.62 | 1,507.27 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 18.04 | 188.61 | 5,258.08 | -1,502.29 | -227.44 | 1,519.41 | 1.75 | -1.75 | 0.00 |
| 5,600.00 | 16.29 | 188.61 | 5,353.62 | -1,531.47 | -231.85 | 1,548.92 | 1.75 | -1.75 | 0.00 |
| 5,700.00 | 14.54 | 188.61 | 5,450.02 | -1,557.75 | -235.83 | 1,575.50 | 1.75 | -1.75 | 0.00 |
| 5,800.00 | 12.79 | 188.61 | 5,547.19 | -1,581.10 | -239.37 | 1,599.12 | 1.75 | -1.75 | 0.00 |
| 5,900.00 | 11.04 | 188.61 | 5,645.03 | -1,601.52 | -242.46 | 1,619.77 | 1.75 | -1.75 | 0.00 |
| 6,000.00 | 9.29 | 188.61 | 5,743.46 | -1,618.97 | -245.10 | 1,637.41 | 1.75 | -1.75 | 0.00 |
| 6,100.00 | 7.54 | 188.61 | 5,842.38 | -1,633.44 | -247.29 | 1,652.05 | 1.75 | -1.75 | 0.00 |
| 6,200.00 | 5.79 | 188.61 | 5,941.70 | -1,644.91 | -249.03 | 1,663.65 | 1.75 | -1.75 | 0.00 |
| 6,300.00 | 4.04 | 188.61 | 6,041.32 | -1,653.38 | -250.31 | 1,672.22 | 1.75 | -1.75 | 0.00 |
| 6,400.00 | 2.29 | 188.61 | 6,141.17 | -1,658.84 | -251.14 | 1,677.74 | 1.75 | -1.75 | 0.00 |
| 6,500.00 | 0.54 | 188.61 | 6,241.13 | -1,661.28 | -251.51 | 1,680.21 | 1.75 | -1.75 | 0.00 |
| 6,530.87 | 0.00 | 0.00 | 6,272.00 | -1,661.43 | -251.53 | 1,680.36 | 1.75 | -1.75 | 0.00 |
| 6,600.00 | 0.00 | 0.00 | 6,341.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 6,700.00 | 0.00 | 0.00 | 6,441.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 6,800.00 | 0.00 | 0.00 | 6,541.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 6,900.00 | 0.00 | 0.00 | 6,641.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 7,000.00 | 0.00 | 0.00 | 6,741.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 7,100.00 | 0.00 | 0.00 | 6,841.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 7,200.00 | 0.00 | 0.00 | 6,941.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 7,300.00 | 0.00 | 0.00 | 7,041.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 7,385.87 | 0.00 | 0.00 | 7,127.00 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| NIO Depth | | | | | | | | | |
| 7,400.00 | 0.00 | 0.00 | 7,141.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 7,500.00 | 0.00 | 0.00 | 7,241.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 7,600.00 | 0.00 | 0.00 | 7,341.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 7,700.00 | 0.00 | 0.00 | 7,441.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 7,710.87 | 0.00 | 0.00 | 7,452.00 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| CD Depth | | | | | | | | | |
| 7,800.00 | 0.00 | 0.00 | 7,541.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 7,800.87 | 0.00 | 0.00 | 7,542.00 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| GH Depth | | | | | | | | | |
| 7,900.00 | 0.00 | 0.00 | 7,641.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 8,000.00 | 0.00 | 0.00 | 7,741.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 8,100.00 | 0.00 | 0.00 | 7,841.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 8,150.87 | 0.00 | 0.00 | 7,892.00 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| J Depth | | | | | | | | | |
| 8,200.00 | 0.00 | 0.00 | 7,941.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 0.00 | 0.00 | 8,041.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 8,330.87 | 0.00 | 0.00 | 8,072.00 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| DK Depth | | | | | | | | | |
| 8,400.00 | 0.00 | 0.00 | 8,141.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 8,500.00 | 0.00 | 0.00 | 8,241.13 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |
| 8,530.87 | 0.00 | 0.00 | 8,272.00 | -1,661.43 | -251.53 | 1,680.36 | 0.00 | 0.00 | 0.00 |

| | | | |
|------------------|-----------------------------|-------------------------------------|---------------------------------------|
| Database: | edm5000p | Local Co-ordinate Reference: | Well Carter 15-32 |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | WELL @ 4912.00ft (Original Well Elev) |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | WELL @ 4912.00ft (Original Well Elev) |
| Site: | WELD_CARTER 10 PAD | North Reference: | True |
| Well: | Carter 15-32 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Carter 15-32 | | |
| Design: | Carter 15-32 (wp01) | | |

| 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) | |
| Carter 15-32 BHL | | | | | | | | | | |

| Design Targets | | | | | | | | | |
|---------------------------|-------------------|---------------|--------------|----------|------------|------------|---------------|--------------|-----------------------|
| Target Name | - hit/miss target | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | |
| - Shape | | | | | | | | | Latitude Longitude |
| Carter 15-32 BHL | | 0.00 | 0.00 | 8,272.00 | -1,661.43 | -251.53 | 1,276,105.34 | 3,196,371.14 | 40.089167 -104.798134 |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |

| Casing Points | | | | | |
|---------------------|---------------------|--------|--|---------------------|-------------------|
| Measured Depth (ft) | Vertical Depth (ft) | Name | | Casing Diameter (") | Hole Diameter (") |
| 802.57 | 800.00 | 8 5/8" | | 8-5/8 | 11 |

| Formations | | | | | | |
|---------------------|---------------------|-----------|-----------|---------|-------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) | |
| 4,150.65 | 3,980.00 | PK Depth | | | | |
| 4,680.67 | 4,482.00 | SX Depth | | | | |
| 7,385.87 | 7,127.00 | NIO Depth | | | | |
| 7,710.87 | 7,452.00 | CD Depth | | | | |
| 7,800.87 | 7,542.00 | GH Depth | | | | |
| 8,150.87 | 7,892.00 | J Depth | | | | |
| 8,330.87 | 8,072.00 | DK Depth | | | | |