



Project: Weld County, CO
Site: SEC 26 T8N-R67W
Well: CROWCHILD 7-67-3-34C
Wellbore: Original Wellbore
Design: Plan 4

Reference Details

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Latitude: 40° 37' 34.547 N
Longitude: 104° 52' 7.086 W
Grid Convergence: 0.41° West
Ground Elevation: 5154.0
KB Elevation: KB @ 5180.0usft



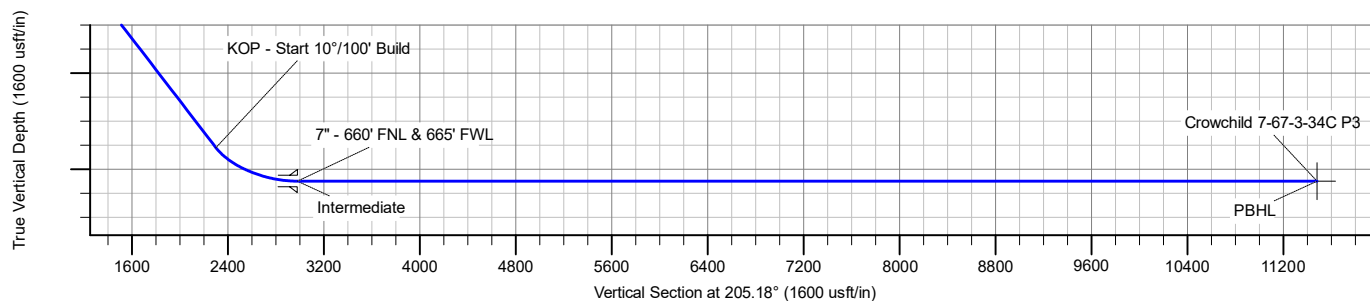
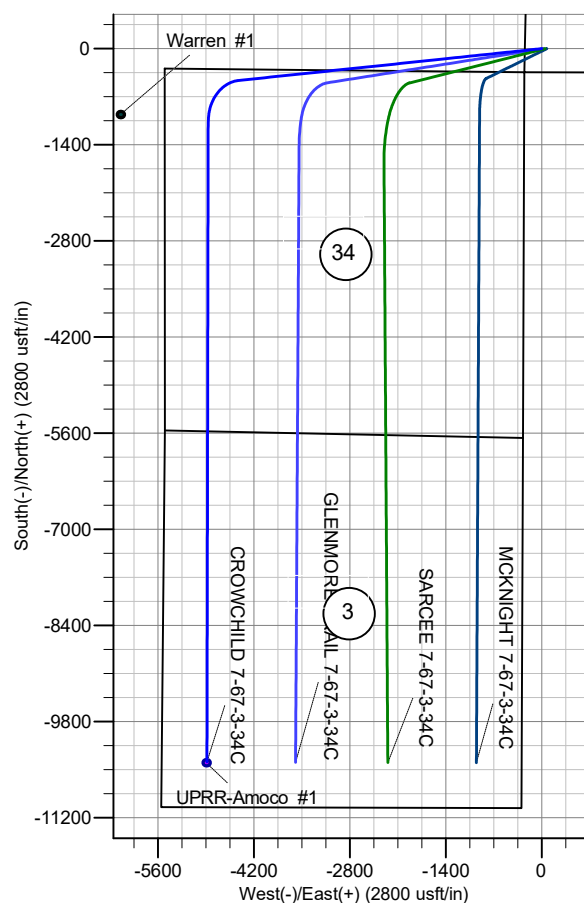
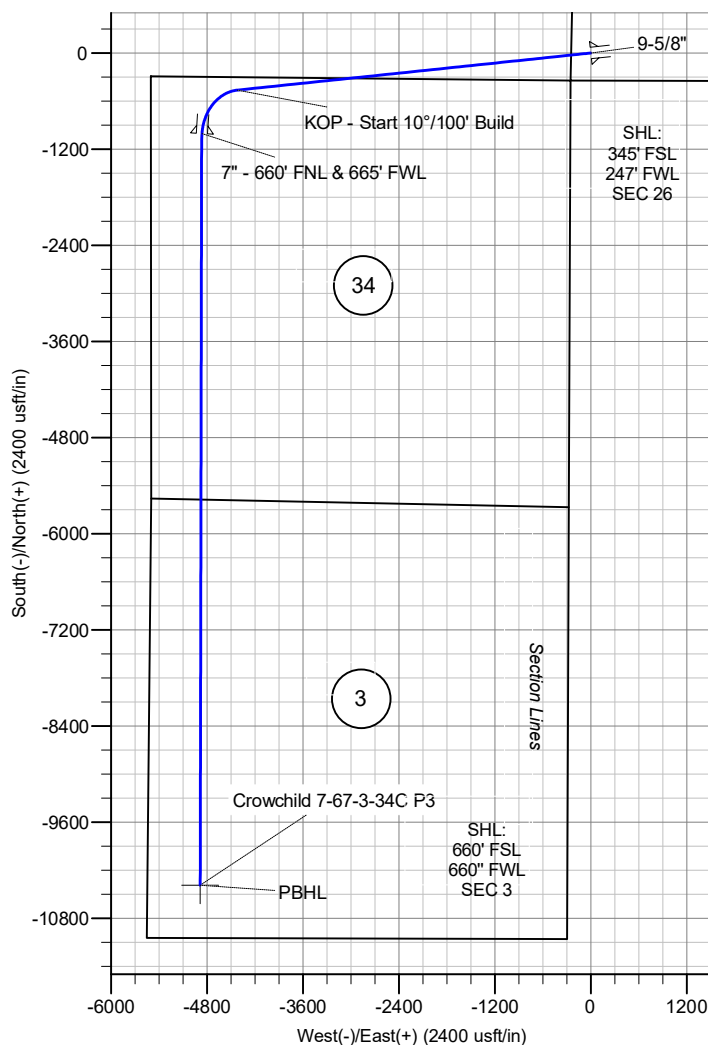
RPM Consulting, Inc.
1600 Broadway, Suite 1480
Denver, CO 80202
303-595-7625

SECTION DETAILS

| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | Vsect |
|---------|-------|--------|--------|----------|---------|-------|--------|---------|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 |
| 2000.0 | 0.00 | 0.00 | 2000.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 |
| 5740.0 | 56.10 | 264.02 | 5170.4 | -176.0 | -1680.1 | 1.50 | 264.02 | 874.1 |
| 9058.3 | 56.10 | 264.02 | 7021.2 | -462.9 | -4419.3 | 0.00 | 0.00 | 2299.3 |
| 9880.3 | 90.00 | 183.43 | 7300.0 | -1005.1 | -4861.8 | 10.00 | 275.28 | 2978.2 |
| 10046.4 | 90.00 | 180.11 | 7300.0 | -1171.1 | -4867.0 | 2.00 | -90.00 | 3130.6 |
| 19263.7 | 90.00 | 180.11 | 7300.0 | -10388.3 | -4884.2 | 0.00 | 0.00 | 11479.2 |

CASING DETAILS

| TVD | MD | Name |
|--------|--------|--------------|
| 1600.0 | 1600.0 | Surface |
| 7300.0 | 9880.3 | Intermediate |



Enerplus Resources (USA) Corporation

**Weld County, CO
SEC 26 T8N-R67W
CROWCHILD 7-67-3-34C**

Original Wellbore

Plan: Plan 4

Standard Planning Report

17 September, 2020

Planning Report

| | | | |
|------------------|--------------------------------------|-------------------------------------|---------------------------|
| Database: | EDM Server Database | Local Co-ordinate Reference: | Well CROWCHILD 7-67-3-34C |
| Company: | Enerplus Resources (USA) Corporation | TVD Reference: | KB @ 5180.0usft |
| Project: | Weld County, CO | MD Reference: | KB @ 5180.0usft |
| Site: | SEC 26 T8N-R67W | North Reference: | True |
| Well: | CROWCHILD 7-67-3-34C | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Original Wellbore | | |
| Design: | Plan 4 | | |

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

| | | | | | |
|-----------------------|----------|-----------------|-------------------|-------------------|-------------------|
| Site | | SEC 26 T8N-R67W | | | |
| Site Position: | | Northing: | 1,471,710.17 usft | Latitude: | 40° 37' 35.306 N |
| From: | Lat/Long | Easting: | 3,178,017.95 usft | Longitude: | 104° 51' 31.223 W |
| Position Uncertainty: | 0.0 usft | Slot Radius: | 13-3/16 " | Grid Convergence: | 0.41 ° |

| Well | CROWCHILD 7-67-3-34C | | | | | |
|----------------------|----------------------|---------------|---------------------|-------------------|---------------|------------------|
| Well Position | +N/-S | -76.7 usft | Northing: | 1,471,613.45 usft | Latitude: | 40° 37' 34.547 N |
| | +E/-W | -2,765.3 usft | Easting: | 3,175,253.32 usft | Longitude: | 104° 52' 7.086 W |
| Position Uncertainty | 0.0 usft | | Wellhead Elevation: | | Ground Level: | 5,154.0 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Original Wellbore | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2015 | 10/31/2020 | 7.93 | 66.93 | 52,110.39577522 |

| | | | | |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| Design | Plan 4 | | | |
| 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 | 205.18 |

| | | | | |
|---------------------------------|------------------------|--------------------------|----------------------------|---------------------|
| Plan Survey Tool Program | Date | 9/16/2020 | | |
| Depth From (usft) | Depth To (usft) | Survey (Wellbore) | Tool Name | Remarks |
| 1 | 0.0 | 19,263.7 | Plan 4 (Original Wellbore) | MWD |
| | | | | OWSG MWD - Standard |

| | | | | | | | | | | |
|------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|--------------------------------|-------------------------------|------------------------------|----------------|----------------------|
| 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 | |
| 2,000.0 | 0.00 | 0.00 | 2,000.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5,740.0 | 56.10 | 264.02 | 5,170.4 | -176.0 | -1,680.1 | 1.50 | 1.50 | 0.00 | 264.02 | |
| 9,058.3 | 56.10 | 264.02 | 7,021.2 | -462.9 | -4,419.3 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 9,880.3 | 90.00 | 183.43 | 7,300.0 | -1,005.1 | -4,861.8 | 10.00 | 4.12 | -9.80 | 275.28 | |
| 10,046.4 | 90.00 | 180.11 | 7,300.0 | -1,171.1 | -4,867.0 | 2.00 | 0.00 | -2.00 | -90.00 | |
| 19,263.7 | 90.00 | 180.11 | 7,300.0 | -10,388.3 | -4,884.2 | 0.00 | 0.00 | 0.00 | 0.00 | Crowchild 7-67-3-34C |

Planning Report

| | | | |
|------------------|--------------------------------------|-------------------------------------|---------------------------|
| Database: | EDM Server Database | Local Co-ordinate Reference: | Well CROWCHILD 7-67-3-34C |
| Company: | Enerplus Resources (USA) Corporation | TVD Reference: | KB @ 5180.0usft |
| Project: | Weld County, CO | MD Reference: | KB @ 5180.0usft |
| Site: | SEC 26 T8N-R67W | North Reference: | True |
| Well: | CROWCHILD 7-67-3-34C | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Original Wellbore | | |
| Design: | Plan 4 | | |

| 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 |
| 1,200.0 | 0.00 | 0.00 | 1,200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,300.0 | 0.00 | 0.00 | 1,300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,400.0 | 0.00 | 0.00 | 1,400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,500.0 | 0.00 | 0.00 | 1,500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,600.0 | 0.00 | 0.00 | 1,600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 9-5/8" - Surface | | | | | | | | | |
| 1,700.0 | 0.00 | 0.00 | 1,700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,800.0 | 0.00 | 0.00 | 1,800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,900.0 | 0.00 | 0.00 | 1,900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 2,000.0 | 0.00 | 0.00 | 2,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| Begin 1.5° Nudge | | | | | | | | | |
| 2,100.0 | 1.50 | 264.02 | 2,100.0 | -0.1 | -1.3 | 0.7 | 1.50 | 1.50 | 0.00 |
| 2,200.0 | 3.00 | 264.02 | 2,199.9 | -0.5 | -5.2 | 2.7 | 1.50 | 1.50 | 0.00 |
| 2,300.0 | 4.50 | 264.02 | 2,299.7 | -1.2 | -11.7 | 6.1 | 1.50 | 1.50 | 0.00 |
| 2,400.0 | 6.00 | 264.02 | 2,399.3 | -2.2 | -20.8 | 10.8 | 1.50 | 1.50 | 0.00 |
| 2,500.0 | 7.50 | 264.02 | 2,498.6 | -3.4 | -32.5 | 16.9 | 1.50 | 1.50 | 0.00 |
| 2,600.0 | 9.00 | 264.02 | 2,597.5 | -4.9 | -46.8 | 24.3 | 1.50 | 1.50 | 0.00 |
| 2,700.0 | 10.50 | 264.02 | 2,696.1 | -6.7 | -63.6 | 33.1 | 1.50 | 1.50 | 0.00 |
| 2,800.0 | 12.00 | 264.02 | 2,794.2 | -8.7 | -83.0 | 43.2 | 1.50 | 1.50 | 0.00 |
| 2,900.0 | 13.50 | 264.02 | 2,891.7 | -11.0 | -105.0 | 54.6 | 1.50 | 1.50 | 0.00 |
| 3,000.0 | 15.00 | 264.02 | 2,988.6 | -13.6 | -129.4 | 67.3 | 1.50 | 1.50 | 0.00 |
| 3,100.0 | 16.50 | 264.02 | 3,084.9 | -16.4 | -156.4 | 81.4 | 1.50 | 1.50 | 0.00 |
| 3,200.0 | 18.00 | 264.02 | 3,180.4 | -19.5 | -185.9 | 96.7 | 1.50 | 1.50 | 0.00 |
| 3,300.0 | 19.50 | 264.02 | 3,275.0 | -22.8 | -217.9 | 113.4 | 1.50 | 1.50 | 0.00 |
| 3,400.0 | 21.00 | 264.02 | 3,368.9 | -26.4 | -252.3 | 131.3 | 1.50 | 1.50 | 0.00 |
| 3,500.0 | 22.50 | 264.02 | 3,461.7 | -30.3 | -289.2 | 150.5 | 1.50 | 1.50 | 0.00 |
| 3,600.0 | 24.00 | 264.02 | 3,553.6 | -34.4 | -328.4 | 170.9 | 1.50 | 1.50 | 0.00 |
| 3,700.0 | 25.50 | 264.02 | 3,644.4 | -38.8 | -370.1 | 192.5 | 1.50 | 1.50 | 0.00 |
| 3,800.0 | 27.00 | 264.02 | 3,734.1 | -43.4 | -414.1 | 215.4 | 1.50 | 1.50 | 0.00 |
| 3,900.0 | 28.50 | 264.02 | 3,822.6 | -48.2 | -460.4 | 239.5 | 1.50 | 1.50 | 0.00 |
| 4,000.0 | 30.00 | 264.02 | 3,909.9 | -53.3 | -509.0 | 264.8 | 1.50 | 1.50 | 0.00 |
| 4,100.0 | 31.50 | 264.02 | 3,995.8 | -58.6 | -559.8 | 291.3 | 1.50 | 1.50 | 0.00 |
| 4,200.0 | 33.00 | 264.02 | 4,080.4 | -64.2 | -612.9 | 318.9 | 1.50 | 1.50 | 0.00 |
| 4,300.0 | 34.50 | 264.02 | 4,163.5 | -70.0 | -668.1 | 347.6 | 1.50 | 1.50 | 0.00 |
| 4,400.0 | 36.00 | 264.02 | 4,245.2 | -76.0 | -725.5 | 377.5 | 1.50 | 1.50 | 0.00 |
| 4,500.0 | 37.50 | 264.02 | 4,325.3 | -82.2 | -785.0 | 408.4 | 1.50 | 1.50 | 0.00 |
| 4,600.0 | 39.00 | 264.02 | 4,403.8 | -88.7 | -846.6 | 440.5 | 1.50 | 1.50 | 0.00 |
| 4,700.0 | 40.50 | 264.02 | 4,480.7 | -95.3 | -910.2 | 473.6 | 1.50 | 1.50 | 0.00 |
| 4,800.0 | 42.00 | 264.02 | 4,555.9 | -102.2 | -975.8 | 507.7 | 1.50 | 1.50 | 0.00 |
| 4,900.0 | 43.50 | 264.02 | 4,629.3 | -109.3 | -1,043.3 | 542.8 | 1.50 | 1.50 | 0.00 |
| 5,000.0 | 45.00 | 264.02 | 4,700.9 | -116.6 | -1,112.7 | 578.9 | 1.50 | 1.50 | 0.00 |

Planning Report

| | | | |
|------------------|--------------------------------------|-------------------------------------|---------------------------|
| Database: | EDM Server Database | Local Co-ordinate Reference: | Well CROWCHILD 7-67-3-34C |
| Company: | Enerplus Resources (USA) Corporation | TVD Reference: | KB @ 5180.0usft |
| Project: | Weld County, CO | MD Reference: | KB @ 5180.0usft |
| Site: | SEC 26 T8N-R67W | North Reference: | True |
| Well: | CROWCHILD 7-67-3-34C | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Original Wellbore | | |
| Design: | Plan 4 | | |

| 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) |
| 5,100.0 | 46.50 | 264.02 | 4,770.7 | -124.0 | -1,183.9 | 616.0 | 1.50 | 1.50 | 0.00 |
| 5,200.0 | 48.00 | 264.02 | 4,838.6 | -131.7 | -1,257.0 | 654.0 | 1.50 | 1.50 | 0.00 |
| 5,300.0 | 49.50 | 264.02 | 4,904.5 | -139.5 | -1,331.7 | 692.9 | 1.50 | 1.50 | 0.00 |
| 5,400.0 | 51.00 | 264.02 | 4,968.5 | -147.5 | -1,408.2 | 732.6 | 1.50 | 1.50 | 0.00 |
| 5,500.0 | 52.50 | 264.02 | 5,030.4 | -155.7 | -1,486.3 | 773.3 | 1.50 | 1.50 | 0.00 |
| 5,600.0 | 54.00 | 264.02 | 5,090.2 | -164.0 | -1,566.0 | 814.7 | 1.50 | 1.50 | 0.00 |
| 5,700.0 | 55.50 | 264.02 | 5,147.9 | -172.5 | -1,647.2 | 857.0 | 1.50 | 1.50 | 0.00 |
| 5,740.0 | 56.10 | 264.02 | 5,170.4 | -176.0 | -1,680.1 | 874.1 | 1.50 | 1.50 | 0.00 |
| Begin 56.10° Tangent | | | | | | | | | |
| 5,800.0 | 56.10 | 264.02 | 5,203.9 | -181.2 | -1,729.6 | 899.9 | 0.00 | 0.00 | 0.00 |
| 5,900.0 | 56.10 | 264.02 | 5,259.7 | -189.8 | -1,812.2 | 942.8 | 0.00 | 0.00 | 0.00 |
| 6,000.0 | 56.10 | 264.02 | 5,315.4 | -198.5 | -1,894.7 | 985.8 | 0.00 | 0.00 | 0.00 |
| 6,100.0 | 56.10 | 264.02 | 5,371.2 | -207.1 | -1,977.3 | 1,028.7 | 0.00 | 0.00 | 0.00 |
| 6,200.0 | 56.10 | 264.02 | 5,427.0 | -215.8 | -2,059.8 | 1,071.7 | 0.00 | 0.00 | 0.00 |
| 6,300.0 | 56.10 | 264.02 | 5,482.8 | -224.4 | -2,142.4 | 1,114.6 | 0.00 | 0.00 | 0.00 |
| 6,400.0 | 56.10 | 264.02 | 5,538.5 | -233.1 | -2,224.9 | 1,157.6 | 0.00 | 0.00 | 0.00 |
| 6,500.0 | 56.10 | 264.02 | 5,594.3 | -241.7 | -2,307.5 | 1,200.5 | 0.00 | 0.00 | 0.00 |
| 6,600.0 | 56.10 | 264.02 | 5,650.1 | -250.4 | -2,390.0 | 1,243.5 | 0.00 | 0.00 | 0.00 |
| 6,700.0 | 56.10 | 264.02 | 5,705.8 | -259.0 | -2,472.6 | 1,286.4 | 0.00 | 0.00 | 0.00 |
| 6,800.0 | 56.10 | 264.02 | 5,761.6 | -267.7 | -2,555.1 | 1,329.4 | 0.00 | 0.00 | 0.00 |
| 6,900.0 | 56.10 | 264.02 | 5,817.4 | -276.3 | -2,637.7 | 1,372.3 | 0.00 | 0.00 | 0.00 |
| 7,000.0 | 56.10 | 264.02 | 5,873.2 | -284.9 | -2,720.2 | 1,415.3 | 0.00 | 0.00 | 0.00 |
| 7,100.0 | 56.10 | 264.02 | 5,928.9 | -293.6 | -2,802.8 | 1,458.2 | 0.00 | 0.00 | 0.00 |
| 7,200.0 | 56.10 | 264.02 | 5,984.7 | -302.2 | -2,885.3 | 1,501.2 | 0.00 | 0.00 | 0.00 |
| 7,300.0 | 56.10 | 264.02 | 6,040.5 | -310.9 | -2,967.9 | 1,544.1 | 0.00 | 0.00 | 0.00 |
| 7,400.0 | 56.10 | 264.02 | 6,096.3 | -319.5 | -3,050.4 | 1,587.1 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 56.10 | 264.02 | 6,152.0 | -328.2 | -3,133.0 | 1,630.0 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 56.10 | 264.02 | 6,207.8 | -336.8 | -3,215.5 | 1,673.0 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 56.10 | 264.02 | 6,263.6 | -345.5 | -3,298.1 | 1,715.9 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 56.10 | 264.02 | 6,319.4 | -354.1 | -3,380.6 | 1,758.8 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 56.10 | 264.02 | 6,375.1 | -362.8 | -3,463.2 | 1,801.8 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 56.10 | 264.02 | 6,430.9 | -371.4 | -3,545.7 | 1,844.7 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 56.10 | 264.02 | 6,486.7 | -380.1 | -3,628.3 | 1,887.7 | 0.00 | 0.00 | 0.00 |
| 8,200.0 | 56.10 | 264.02 | 6,542.5 | -388.7 | -3,710.8 | 1,930.6 | 0.00 | 0.00 | 0.00 |
| 8,300.0 | 56.10 | 264.02 | 6,598.2 | -397.4 | -3,793.4 | 1,973.6 | 0.00 | 0.00 | 0.00 |
| 8,400.0 | 56.10 | 264.02 | 6,654.0 | -406.0 | -3,875.9 | 2,016.5 | 0.00 | 0.00 | 0.00 |
| 8,500.0 | 56.10 | 264.02 | 6,709.8 | -414.7 | -3,958.5 | 2,059.5 | 0.00 | 0.00 | 0.00 |
| 8,600.0 | 56.10 | 264.02 | 6,765.6 | -423.3 | -4,041.0 | 2,102.4 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 56.10 | 264.02 | 6,821.3 | -431.9 | -4,123.6 | 2,145.4 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 56.10 | 264.02 | 6,877.1 | -440.6 | -4,206.1 | 2,188.3 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 56.10 | 264.02 | 6,932.9 | -449.2 | -4,288.7 | 2,231.3 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 56.10 | 264.02 | 6,988.7 | -457.9 | -4,371.2 | 2,274.2 | 0.00 | 0.00 | 0.00 |
| 9,058.3 | 56.10 | 264.02 | 7,021.2 | -462.9 | -4,419.3 | 2,299.3 | 0.00 | 0.00 | 0.00 |
| KOP - Start 10°/100' Build | | | | | | | | | |
| 9,100.0 | 56.58 | 259.04 | 7,044.3 | -468.0 | -4,453.7 | 2,318.5 | 10.00 | 1.16 | -11.93 |
| 9,200.0 | 58.53 | 247.41 | 7,098.1 | -492.4 | -4,534.2 | 2,374.8 | 10.00 | 1.94 | -11.63 |
| 9,300.0 | 61.47 | 236.37 | 7,148.2 | -533.2 | -4,610.3 | 2,444.2 | 10.00 | 2.94 | -11.04 |
| 9,400.0 | 65.26 | 226.01 | 7,193.1 | -589.2 | -4,679.8 | 2,524.4 | 10.00 | 3.78 | -10.36 |
| 9,500.0 | 69.71 | 216.31 | 7,231.5 | -658.7 | -4,740.4 | 2,613.1 | 10.00 | 4.45 | -9.70 |
| 9,600.0 | 74.66 | 207.18 | 7,262.1 | -739.6 | -4,790.3 | 2,707.5 | 10.00 | 4.95 | -9.13 |
| 9,700.0 | 79.96 | 198.49 | 7,284.1 | -829.5 | -4,828.0 | 2,804.8 | 10.00 | 5.31 | -8.69 |
| 9,800.0 | 85.49 | 190.08 | 7,296.8 | -925.5 | -4,852.4 | 2,902.1 | 10.00 | 5.52 | -8.41 |
| 9,880.3 | 90.00 | 183.43 | 7,300.0 | -1,005.1 | -4,861.8 | 2,978.2 | 10.00 | 5.62 | -8.28 |

Planning Report

| | | | |
|------------------|--------------------------------------|-------------------------------------|---------------------------|
| Database: | EDM Server Database | Local Co-ordinate Reference: | Well CROWCHILD 7-67-3-34C |
| Company: | Enerplus Resources (USA) Corporation | TVD Reference: | KB @ 5180.0usft |
| Project: | Weld County, CO | MD Reference: | KB @ 5180.0usft |
| Site: | SEC 26 T8N-R67W | North Reference: | True |
| Well: | CROWCHILD 7-67-3-34C | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Original Wellbore | | |
| Design: | Plan 4 | | |

| 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) |
| 7" - 660' FNL & 665' FWL - Intermediate | | | | | | | | | |
| 9,900.0 | 90.00 | 183.03 | 7,300.0 | -1,024.7 | -4,863.0 | 2,996.4 | 2.01 | 0.01 | -2.01 |
| 10,000.0 | 90.00 | 181.03 | 7,300.0 | -1,124.7 | -4,866.5 | 3,088.4 | 2.00 | 0.00 | -2.00 |
| 10,046.4 | 90.00 | 180.11 | 7,300.0 | -1,171.1 | -4,867.0 | 3,130.6 | 2.00 | 0.00 | -2.00 |
| 10,100.0 | 90.00 | 180.11 | 7,300.0 | -1,224.7 | -4,867.1 | 3,179.1 | 0.00 | 0.00 | 0.00 |
| 10,200.0 | 90.00 | 180.11 | 7,300.0 | -1,324.7 | -4,867.3 | 3,269.7 | 0.00 | 0.00 | 0.00 |
| 10,300.0 | 90.00 | 180.11 | 7,300.0 | -1,424.7 | -4,867.4 | 3,360.3 | 0.00 | 0.00 | 0.00 |
| 10,400.0 | 90.00 | 180.11 | 7,300.0 | -1,524.7 | -4,867.6 | 3,450.9 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 90.00 | 180.11 | 7,300.0 | -1,624.7 | -4,867.8 | 3,541.4 | 0.00 | 0.00 | 0.00 |
| 10,600.0 | 90.00 | 180.11 | 7,300.0 | -1,724.7 | -4,868.0 | 3,632.0 | 0.00 | 0.00 | 0.00 |
| 10,700.0 | 90.00 | 180.11 | 7,300.0 | -1,824.7 | -4,868.2 | 3,722.6 | 0.00 | 0.00 | 0.00 |
| 10,800.0 | 90.00 | 180.11 | 7,300.0 | -1,924.7 | -4,868.4 | 3,813.2 | 0.00 | 0.00 | 0.00 |
| 10,900.0 | 90.00 | 180.11 | 7,300.0 | -2,024.7 | -4,868.6 | 3,903.7 | 0.00 | 0.00 | 0.00 |
| 11,000.0 | 90.00 | 180.11 | 7,300.0 | -2,124.7 | -4,868.7 | 3,994.3 | 0.00 | 0.00 | 0.00 |
| 11,100.0 | 90.00 | 180.11 | 7,300.0 | -2,224.7 | -4,868.9 | 4,084.9 | 0.00 | 0.00 | 0.00 |
| 11,200.0 | 90.00 | 180.11 | 7,300.0 | -2,324.7 | -4,869.1 | 4,175.5 | 0.00 | 0.00 | 0.00 |
| 11,300.0 | 90.00 | 180.11 | 7,300.0 | -2,424.7 | -4,869.3 | 4,266.0 | 0.00 | 0.00 | 0.00 |
| 11,400.0 | 90.00 | 180.11 | 7,300.0 | -2,524.7 | -4,869.5 | 4,356.6 | 0.00 | 0.00 | 0.00 |
| 11,500.0 | 90.00 | 180.11 | 7,300.0 | -2,624.7 | -4,869.7 | 4,447.2 | 0.00 | 0.00 | 0.00 |
| 11,600.0 | 90.00 | 180.11 | 7,300.0 | -2,724.7 | -4,869.9 | 4,537.8 | 0.00 | 0.00 | 0.00 |
| 11,700.0 | 90.00 | 180.11 | 7,300.0 | -2,824.7 | -4,870.0 | 4,628.3 | 0.00 | 0.00 | 0.00 |
| 11,800.0 | 90.00 | 180.11 | 7,300.0 | -2,924.7 | -4,870.2 | 4,718.9 | 0.00 | 0.00 | 0.00 |
| 11,900.0 | 90.00 | 180.11 | 7,300.0 | -3,024.7 | -4,870.4 | 4,809.5 | 0.00 | 0.00 | 0.00 |
| 12,000.0 | 90.00 | 180.11 | 7,300.0 | -3,124.7 | -4,870.6 | 4,900.1 | 0.00 | 0.00 | 0.00 |
| 12,100.0 | 90.00 | 180.11 | 7,300.0 | -3,224.7 | -4,870.8 | 4,990.6 | 0.00 | 0.00 | 0.00 |
| 12,200.0 | 90.00 | 180.11 | 7,300.0 | -3,324.7 | -4,871.0 | 5,081.2 | 0.00 | 0.00 | 0.00 |
| 12,300.0 | 90.00 | 180.11 | 7,300.0 | -3,424.7 | -4,871.2 | 5,171.8 | 0.00 | 0.00 | 0.00 |
| 12,400.0 | 90.00 | 180.11 | 7,300.0 | -3,524.7 | -4,871.4 | 5,262.4 | 0.00 | 0.00 | 0.00 |
| 12,500.0 | 90.00 | 180.11 | 7,300.0 | -3,624.7 | -4,871.5 | 5,352.9 | 0.00 | 0.00 | 0.00 |
| 12,600.0 | 90.00 | 180.11 | 7,300.0 | -3,724.7 | -4,871.7 | 5,443.5 | 0.00 | 0.00 | 0.00 |
| 12,700.0 | 90.00 | 180.11 | 7,300.0 | -3,824.7 | -4,871.9 | 5,534.1 | 0.00 | 0.00 | 0.00 |
| 12,800.0 | 90.00 | 180.11 | 7,300.0 | -3,924.7 | -4,872.1 | 5,624.7 | 0.00 | 0.00 | 0.00 |
| 12,900.0 | 90.00 | 180.11 | 7,300.0 | -4,024.7 | -4,872.3 | 5,715.3 | 0.00 | 0.00 | 0.00 |
| 13,000.0 | 90.00 | 180.11 | 7,300.0 | -4,124.7 | -4,872.5 | 5,805.8 | 0.00 | 0.00 | 0.00 |
| 13,100.0 | 90.00 | 180.11 | 7,300.0 | -4,224.7 | -4,872.7 | 5,896.4 | 0.00 | 0.00 | 0.00 |
| 13,200.0 | 90.00 | 180.11 | 7,300.0 | -4,324.7 | -4,872.8 | 5,987.0 | 0.00 | 0.00 | 0.00 |
| 13,300.0 | 90.00 | 180.11 | 7,300.0 | -4,424.7 | -4,873.0 | 6,077.6 | 0.00 | 0.00 | 0.00 |
| 13,400.0 | 90.00 | 180.11 | 7,300.0 | -4,524.7 | -4,873.2 | 6,168.1 | 0.00 | 0.00 | 0.00 |
| 13,500.0 | 90.00 | 180.11 | 7,300.0 | -4,624.7 | -4,873.4 | 6,258.7 | 0.00 | 0.00 | 0.00 |
| 13,600.0 | 90.00 | 180.11 | 7,300.0 | -4,724.7 | -4,873.6 | 6,349.3 | 0.00 | 0.00 | 0.00 |
| 13,700.0 | 90.00 | 180.11 | 7,300.0 | -4,824.7 | -4,873.8 | 6,439.9 | 0.00 | 0.00 | 0.00 |
| 13,800.0 | 90.00 | 180.11 | 7,300.0 | -4,924.7 | -4,874.0 | 6,530.4 | 0.00 | 0.00 | 0.00 |
| 13,900.0 | 90.00 | 180.11 | 7,300.0 | -5,024.7 | -4,874.2 | 6,621.0 | 0.00 | 0.00 | 0.00 |
| 14,000.0 | 90.00 | 180.11 | 7,300.0 | -5,124.7 | -4,874.3 | 6,711.6 | 0.00 | 0.00 | 0.00 |
| 14,100.0 | 90.00 | 180.11 | 7,300.0 | -5,224.7 | -4,874.5 | 6,802.2 | 0.00 | 0.00 | 0.00 |
| 14,200.0 | 90.00 | 180.11 | 7,300.0 | -5,324.7 | -4,874.7 | 6,892.7 | 0.00 | 0.00 | 0.00 |
| 14,300.0 | 90.00 | 180.11 | 7,300.0 | -5,424.7 | -4,874.9 | 6,983.3 | 0.00 | 0.00 | 0.00 |
| 14,400.0 | 90.00 | 180.11 | 7,300.0 | -5,524.7 | -4,875.1 | 7,073.9 | 0.00 | 0.00 | 0.00 |
| 14,500.0 | 90.00 | 180.11 | 7,300.0 | -5,624.7 | -4,875.3 | 7,164.5 | 0.00 | 0.00 | 0.00 |
| 14,600.0 | 90.00 | 180.11 | 7,300.0 | -5,724.7 | -4,875.5 | 7,255.0 | 0.00 | 0.00 | 0.00 |
| 14,700.0 | 90.00 | 180.11 | 7,300.0 | -5,824.7 | -4,875.6 | 7,345.6 | 0.00 | 0.00 | 0.00 |
| 14,800.0 | 90.00 | 180.11 | 7,300.0 | -5,924.7 | -4,875.8 | 7,436.2 | 0.00 | 0.00 | 0.00 |
| 14,900.0 | 90.00 | 180.11 | 7,300.0 | -6,024.7 | -4,876.0 | 7,526.8 | 0.00 | 0.00 | 0.00 |
| 15,000.0 | 90.00 | 180.11 | 7,300.0 | -6,124.7 | -4,876.2 | 7,617.4 | 0.00 | 0.00 | 0.00 |

Planning Report

| | | | |
|------------------|--------------------------------------|-------------------------------------|---------------------------|
| Database: | EDM Server Database | Local Co-ordinate Reference: | Well CROWCHILD 7-67-3-34C |
| Company: | Enerplus Resources (USA) Corporation | TVD Reference: | KB @ 5180.0usft |
| Project: | Weld County, CO | MD Reference: | KB @ 5180.0usft |
| Site: | SEC 26 T8N-R67W | North Reference: | True |
| Well: | CROWCHILD 7-67-3-34C | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Original Wellbore | | |
| Design: | Plan 4 | | |

| 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) |
| 15,100.0 | 90.00 | 180.11 | 7,300.0 | -6,224.7 | -4,876.4 | 7,707.9 | 0.00 | 0.00 | 0.00 |
| 15,200.0 | 90.00 | 180.11 | 7,300.0 | -6,324.7 | -4,876.6 | 7,798.5 | 0.00 | 0.00 | 0.00 |
| 15,300.0 | 90.00 | 180.11 | 7,300.0 | -6,424.7 | -4,876.8 | 7,889.1 | 0.00 | 0.00 | 0.00 |
| 15,400.0 | 90.00 | 180.11 | 7,300.0 | -6,524.7 | -4,876.9 | 7,979.7 | 0.00 | 0.00 | 0.00 |
| 15,500.0 | 90.00 | 180.11 | 7,300.0 | -6,624.7 | -4,877.1 | 8,070.2 | 0.00 | 0.00 | 0.00 |
| 15,600.0 | 90.00 | 180.11 | 7,300.0 | -6,724.7 | -4,877.3 | 8,160.8 | 0.00 | 0.00 | 0.00 |
| 15,700.0 | 90.00 | 180.11 | 7,300.0 | -6,824.7 | -4,877.5 | 8,251.4 | 0.00 | 0.00 | 0.00 |
| 15,800.0 | 90.00 | 180.11 | 7,300.0 | -6,924.7 | -4,877.7 | 8,342.0 | 0.00 | 0.00 | 0.00 |
| 15,900.0 | 90.00 | 180.11 | 7,300.0 | -7,024.7 | -4,877.9 | 8,432.5 | 0.00 | 0.00 | 0.00 |
| 16,000.0 | 90.00 | 180.11 | 7,300.0 | -7,124.7 | -4,878.1 | 8,523.1 | 0.00 | 0.00 | 0.00 |
| 16,100.0 | 90.00 | 180.11 | 7,300.0 | -7,224.7 | -4,878.3 | 8,613.7 | 0.00 | 0.00 | 0.00 |
| 16,200.0 | 90.00 | 180.11 | 7,300.0 | -7,324.7 | -4,878.4 | 8,704.3 | 0.00 | 0.00 | 0.00 |
| 16,300.0 | 90.00 | 180.11 | 7,300.0 | -7,424.7 | -4,878.6 | 8,794.8 | 0.00 | 0.00 | 0.00 |
| 16,400.0 | 90.00 | 180.11 | 7,300.0 | -7,524.7 | -4,878.8 | 8,885.4 | 0.00 | 0.00 | 0.00 |
| 16,500.0 | 90.00 | 180.11 | 7,300.0 | -7,624.7 | -4,879.0 | 8,976.0 | 0.00 | 0.00 | 0.00 |
| 16,600.0 | 90.00 | 180.11 | 7,300.0 | -7,724.7 | -4,879.2 | 9,066.6 | 0.00 | 0.00 | 0.00 |
| 16,700.0 | 90.00 | 180.11 | 7,300.0 | -7,824.7 | -4,879.4 | 9,157.1 | 0.00 | 0.00 | 0.00 |
| 16,800.0 | 90.00 | 180.11 | 7,300.0 | -7,924.7 | -4,879.6 | 9,247.7 | 0.00 | 0.00 | 0.00 |
| 16,900.0 | 90.00 | 180.11 | 7,300.0 | -8,024.7 | -4,879.7 | 9,338.3 | 0.00 | 0.00 | 0.00 |
| 17,000.0 | 90.00 | 180.11 | 7,300.0 | -8,124.7 | -4,879.9 | 9,428.9 | 0.00 | 0.00 | 0.00 |
| 17,100.0 | 90.00 | 180.11 | 7,300.0 | -8,224.7 | -4,880.1 | 9,519.4 | 0.00 | 0.00 | 0.00 |
| 17,200.0 | 90.00 | 180.11 | 7,300.0 | -8,324.7 | -4,880.3 | 9,610.0 | 0.00 | 0.00 | 0.00 |
| 17,300.0 | 90.00 | 180.11 | 7,300.0 | -8,424.7 | -4,880.5 | 9,700.6 | 0.00 | 0.00 | 0.00 |
| 17,400.0 | 90.00 | 180.11 | 7,300.0 | -8,524.7 | -4,880.7 | 9,791.2 | 0.00 | 0.00 | 0.00 |
| 17,500.0 | 90.00 | 180.11 | 7,300.0 | -8,624.7 | -4,880.9 | 9,881.8 | 0.00 | 0.00 | 0.00 |
| 17,600.0 | 90.00 | 180.11 | 7,300.0 | -8,724.7 | -4,881.0 | 9,972.3 | 0.00 | 0.00 | 0.00 |
| 17,700.0 | 90.00 | 180.11 | 7,300.0 | -8,824.7 | -4,881.2 | 10,062.9 | 0.00 | 0.00 | 0.00 |
| 17,800.0 | 90.00 | 180.11 | 7,300.0 | -8,924.7 | -4,881.4 | 10,153.5 | 0.00 | 0.00 | 0.00 |
| 17,900.0 | 90.00 | 180.11 | 7,300.0 | -9,024.7 | -4,881.6 | 10,244.1 | 0.00 | 0.00 | 0.00 |
| 18,000.0 | 90.00 | 180.11 | 7,300.0 | -9,124.7 | -4,881.8 | 10,334.6 | 0.00 | 0.00 | 0.00 |
| 18,100.0 | 90.00 | 180.11 | 7,300.0 | -9,224.7 | -4,882.0 | 10,425.2 | 0.00 | 0.00 | 0.00 |
| 18,200.0 | 90.00 | 180.11 | 7,300.0 | -9,324.7 | -4,882.2 | 10,515.8 | 0.00 | 0.00 | 0.00 |
| 18,300.0 | 90.00 | 180.11 | 7,300.0 | -9,424.7 | -4,882.4 | 10,606.4 | 0.00 | 0.00 | 0.00 |
| 18,400.0 | 90.00 | 180.11 | 7,300.0 | -9,524.7 | -4,882.5 | 10,696.9 | 0.00 | 0.00 | 0.00 |
| 18,500.0 | 90.00 | 180.11 | 7,300.0 | -9,624.7 | -4,882.7 | 10,787.5 | 0.00 | 0.00 | 0.00 |
| 18,600.0 | 90.00 | 180.11 | 7,300.0 | -9,724.7 | -4,882.9 | 10,878.1 | 0.00 | 0.00 | 0.00 |
| 18,700.0 | 90.00 | 180.11 | 7,300.0 | -9,824.7 | -4,883.1 | 10,968.7 | 0.00 | 0.00 | 0.00 |
| 18,800.0 | 90.00 | 180.11 | 7,300.0 | -9,924.7 | -4,883.3 | 11,059.2 | 0.00 | 0.00 | 0.00 |
| 18,900.0 | 90.00 | 180.11 | 7,300.0 | -10,024.7 | -4,883.5 | 11,149.8 | 0.00 | 0.00 | 0.00 |
| 19,000.0 | 90.00 | 180.11 | 7,300.0 | -10,124.7 | -4,883.7 | 11,240.4 | 0.00 | 0.00 | 0.00 |
| 19,100.0 | 90.00 | 180.11 | 7,300.0 | -10,224.7 | -4,883.8 | 11,331.0 | 0.00 | 0.00 | 0.00 |
| 19,200.0 | 90.00 | 180.11 | 7,300.0 | -10,324.7 | -4,884.0 | 11,421.5 | 0.00 | 0.00 | 0.00 |
| 19,263.7 | 90.00 | 180.11 | 7,300.0 | -10,388.3 | -4,884.2 | 11,479.2 | 0.00 | 0.00 | 0.00 |
| PBHL | | | | | | | | | |

Planning Report

| | | | |
|------------------|--------------------------------------|-------------------------------------|---------------------------|
| Database: | EDM Server Database | Local Co-ordinate Reference: | Well CROWCHILD 7-67-3-34C |
| Company: | Enerplus Resources (USA) Corporation | TVD Reference: | KB @ 5180.0usft |
| Project: | Weld County, CO | MD Reference: | KB @ 5180.0usft |
| Site: | SEC 26 T8N-R67W | North Reference: | True |
| Well: | CROWCHILD 7-67-3-34C | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Original Wellbore | | |
| Design: | Plan 4 | | |

| Design Targets | | | | | | | | | |
|---------------------------|-----------|----------|---------|-----------|----------|--------------|--------------|------------------|-------------------|
| Target Name | Dip Angle | Dip Dir. | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| - hit/miss target | (°) | (°) | (usft) | (usft) | (usft) | (usft) | (usft) | | |
| - Shape | | | | | | | | | |
| Crowchild 7-67-3-34C P: | 0.00 | 0.00 | 7,300.0 | -10,388.3 | -4,884.2 | 1,461,190.59 | 3,170,443.25 | 40° 35' 51.889 N | 104° 53' 10.403 W |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |

| Casing Points | | | | | |
|----------------|----------------|--------------|--|-----------------|---------------|
| Measured Depth | Vertical Depth | Name | | Casing Diameter | Hole Diameter |
| (usft) | (usft) | | | (") | (") |
| 1,600.0 | 1,600.0 | Surface | | 9-5/8 | 9-5/8 |
| 9,880.3 | 7,300.0 | Intermediate | | 7 | 7 |

| Plan Annotations | | | | | |
|------------------|----------------|-------------------|----------|----------------------------|--|
| Measured Depth | Vertical Depth | Local Coordinates | | | |
| (usft) | (usft) | +N/-S | +E/-W | Comment | |
| (usft) | (usft) | (usft) | (usft) | | |
| 1,600.0 | 1,600.0 | 0.0 | 0.0 | 9-5/8" | |
| 2,000.0 | 2,000.0 | 0.0 | 0.0 | Begin 1.5° Nudge | |
| 5,740.0 | 5,170.4 | -176.0 | -1,680.1 | Begin 56.10° Tangent | |
| 9,058.3 | 7,021.2 | -462.9 | -4,419.3 | KOP - Start 10°/100' Build | |
| 9,880.3 | 7,300.0 | -1,005.1 | -4,861.8 | 7" - 660' FNL & 665' FWL | |
| 19,263.7 | 7,300.0 | -10,388.3 | -4,884.2 | PBHL | |