

**Project:** Weld County, CO  
**Site:** SEC 26 T8N-R67W  
**Well:** SARCEE 7-67-3-34C  
**Wellbore:** Original Wellbore  
**Design:** Plan 5

## 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' 6.438 W  
 Grid Convergence: 0.41° West  
 Ground Elevation: 5154.0  
 KB Elevation: KB @ 5179.0usft



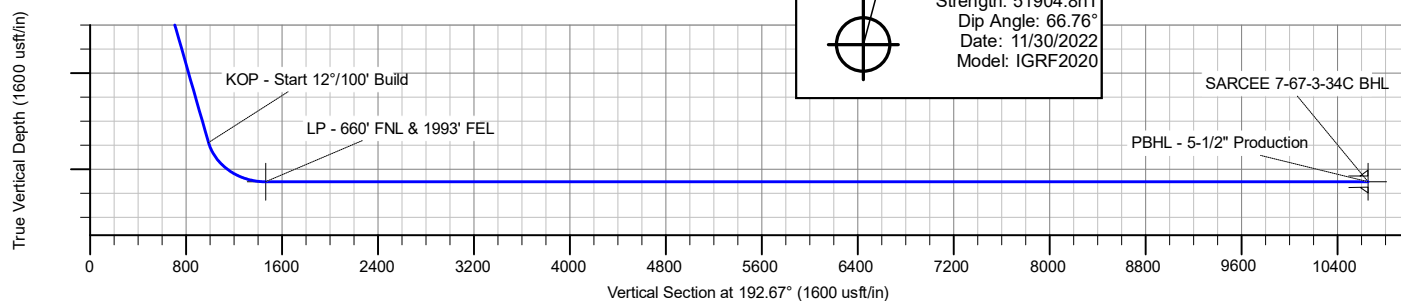
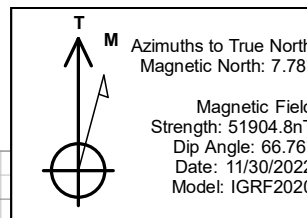
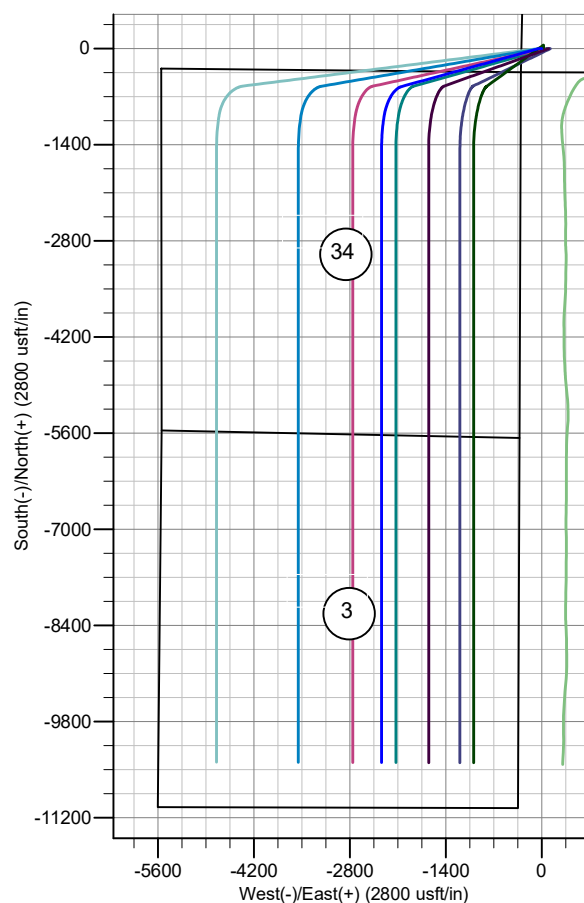
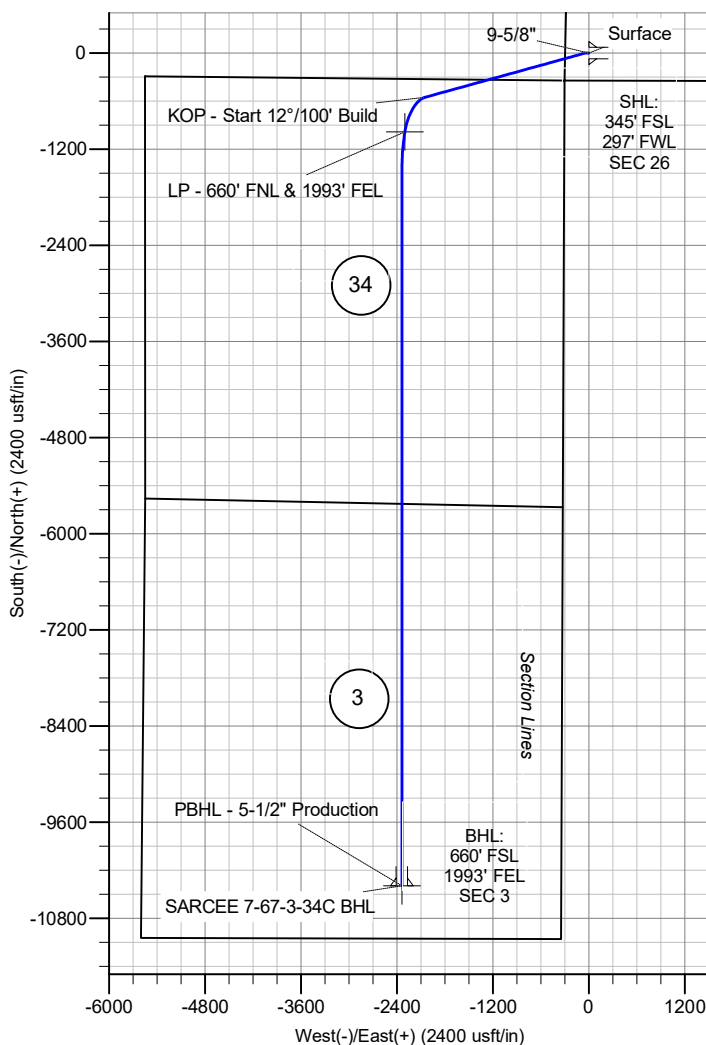
**RPM Consulting, Inc.**  
 1600 Broadway, Suite 1480  
 Denver, CO 80202  
 303-595-7625

## 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
1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0
2000.0	5.00	270.00	1999.4	0.0	-21.8	1.00	270.00	4.8
2500.0	0.00	0.00	2498.7	0.0	-43.6	1.00	180.00	9.6
4592.0	31.38	254.58	4487.7	-148.6	-582.2	1.50	254.58	272.6
7508.9	31.38	254.58	6978.0	-552.4	-2046.4	0.00	0.00	987.7
8154.6	90.00	189.16	7305.0	-983.7	-2299.7	12.00	291.33	1464.0
8612.9	90.00	180.00	7305.0	-1440.0	-2336.3	2.00	-90.00	1917.2
17568.5	90.00	180.00	7305.0	-10395.7	-2336.3	0.00	0.00	10654.9

## CASING DETAILS

TVD	MD	Name
1500.0	1500.0	Surface
7305.0	17568.5	Production



# **Enerplus Resources (USA) Corporation**

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

**Original Wellbore**

**Plan: Plan 5**

## **Standard Planning Report**

**26 October, 2022**

## Planning Report

<b>Database:</b>	EDM Server Database	<b>Local Co-ordinate Reference:</b>	Well SARCEE 7-67-3-34C
<b>Company:</b>	Enerplus Resources (USA) Corporation	<b>TVD Reference:</b>	KB @ 5179.0usft
<b>Project:</b>	Weld County, CO	<b>MD Reference:</b>	KB @ 5179.0usft
<b>Site:</b>	SEC 26 T8N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	SARCEE 7-67-3-34C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	Plan 5		

<b>Project</b>	Weld County, CO		
<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 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 "		

Well		SARCEE 7-67-3-34C				
Well Position	+N/-S	0.0 usft	Northing:	1,471,613.81 usft	Latitude:	40° 37' 34.547 N
	+E/-W	0.0 usft	Easting:	3,175,303.28 usft	Longitude:	104° 52' 6.438 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	5,154.0 usft
Grid Convergence:		0.41 °				

<b>Wellbore</b>	Original Wellbore				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	11/30/2022	7.78	66.76	51,904.78620493

<b>Design</b>	Plan 5				
<b>Audit Notes:</b>					
<b>Version:</b>		<b>Phase:</b>	PLAN	<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	192.67	

<b>Plan Survey Tool Program</b>	<b>Date</b>	10/26/2022			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.0	17,568.5	Plan 5 (Original Wellbore)	MWD	
				OWSG MWD - Standard	

## Planning Report

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<b>Project:</b>	Weld County, CO	<b>MD Reference:</b>	KB @ 5179.0usft
<b>Site:</b>	SEC 26 T8N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	SARCEE 7-67-3-34C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	Plan 5		

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	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	5.00	270.00	1,999.4	0.0	-21.8	1.00	1.00	0.00	270.00	
2,500.0	0.00	0.00	2,498.7	0.0	-43.6	1.00	-1.00	0.00	180.00	
4,592.0	31.38	254.58	4,487.7	-148.6	-582.2	1.50	1.50	0.00	254.58	
7,508.9	31.38	254.58	6,978.0	-552.4	-2,046.4	0.00	0.00	0.00	0.00	
8,154.6	90.00	189.16	7,305.0	-983.7	-2,299.7	12.00	9.08	-10.13	291.34	
8,612.9	90.00	180.00	7,305.0	-1,440.0	-2,336.3	2.00	0.00	-2.00	-90.00	
17,568.5	90.00	180.00	7,305.0	-10,395.7	-2,336.3	0.00	0.00	0.00	0.00	SARCEE 7-67-3-34C

# Planning Report

<b>Database:</b>	EDM Server Database	<b>Local Co-ordinate Reference:</b>	Well SARCEE 7-67-3-34C
<b>Company:</b>	Enerplus Resources (USA) Corporation	<b>TVD Reference:</b>	KB @ 5179.0usft
<b>Project:</b>	Weld County, CO	<b>MD Reference:</b>	KB @ 5179.0usft
<b>Site:</b>	SEC 26 T8N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	SARCEE 7-67-3-34C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	Plan 5		

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
9-5/8" - Surface									
1,600.0	1.00	270.00	1,600.0	0.0	-0.9	0.2	1.00	1.00	0.00
1,700.0	2.00	270.00	1,700.0	0.0	-3.5	0.8	1.00	1.00	0.00
1,800.0	3.00	270.00	1,799.9	0.0	-7.9	1.7	1.00	1.00	0.00
1,900.0	4.00	270.00	1,899.7	0.0	-14.0	3.1	1.00	1.00	0.00
2,000.0	5.00	270.00	1,999.4	0.0	-21.8	4.8	1.00	1.00	0.00
Begin AC Nudge									
2,100.0	4.00	270.00	2,099.1	0.0	-29.6	6.5	1.00	-1.00	0.00
2,200.0	3.00	270.00	2,198.9	0.0	-35.8	7.8	1.00	-1.00	0.00
2,300.0	2.00	270.00	2,298.8	0.0	-40.1	8.8	1.00	-1.00	0.00
2,400.0	1.00	270.00	2,398.7	0.0	-42.7	9.4	1.00	-1.00	0.00
2,500.0	0.00	0.00	2,498.7	0.0	-43.6	9.6	1.00	-1.00	0.00
2,600.0	1.50	254.58	2,598.7	-0.3	-44.9	10.2	1.50	1.50	0.00
2,700.0	3.00	254.58	2,698.6	-1.4	-48.7	12.0	1.50	1.50	0.00
2,800.0	4.50	254.58	2,798.4	-3.1	-55.0	15.1	1.50	1.50	0.00
2,900.0	6.00	254.58	2,898.0	-5.6	-63.8	19.4	1.50	1.50	0.00
3,000.0	7.50	254.58	2,997.3	-8.7	-75.1	24.9	1.50	1.50	0.00
3,100.0	9.00	254.58	3,096.3	-12.5	-88.9	31.7	1.50	1.50	0.00
3,200.0	10.50	254.58	3,194.8	-17.0	-105.3	39.7	1.50	1.50	0.00
3,300.0	12.00	254.58	3,292.9	-22.2	-124.1	48.9	1.50	1.50	0.00
3,400.0	13.50	254.58	3,390.4	-28.1	-145.3	59.2	1.50	1.50	0.00
3,500.0	15.00	254.58	3,487.3	-34.6	-169.1	70.8	1.50	1.50	0.00
3,551.5	15.77	254.58	3,537.0	-38.2	-182.2	77.3	1.50	1.50	0.00
Richards									
3,600.0	16.50	254.58	3,583.6	-41.8	-195.2	83.6	1.50	1.50	0.00
3,700.0	18.00	254.58	3,679.1	-49.7	-223.8	97.6	1.50	1.50	0.00
3,800.0	19.50	254.58	3,773.8	-58.3	-254.8	112.7	1.50	1.50	0.00
3,900.0	21.00	254.58	3,867.6	-67.5	-288.2	129.0	1.50	1.50	0.00
4,000.0	22.50	254.58	3,960.5	-77.3	-323.9	146.4	1.50	1.50	0.00
4,100.0	24.00	254.58	4,052.4	-87.8	-362.0	165.0	1.50	1.50	0.00
4,174.4	25.12	254.58	4,120.0	-96.0	-391.7	179.6	1.50	1.50	0.00
Terry									
4,200.0	25.50	254.58	4,143.2	-98.9	-402.3	184.7	1.50	1.50	0.00
4,300.0	27.00	254.58	4,232.8	-110.7	-444.9	205.6	1.50	1.50	0.00
4,400.0	28.50	254.58	4,321.3	-123.1	-489.8	227.5	1.50	1.50	0.00
4,500.0	30.00	254.58	4,408.6	-136.1	-536.9	250.5	1.50	1.50	0.00
4,592.0	31.38	254.58	4,487.7	-148.6	-582.2	272.6	1.50	1.50	0.00
Begin 13.38° Tangent									

# Planning Report

<b>Database:</b>	EDM Server Database	<b>Local Co-ordinate Reference:</b>	Well SARCEE 7-67-3-34C
<b>Company:</b>	Enerplus Resources (USA) Corporation	<b>TVD Reference:</b>	KB @ 5179.0usft
<b>Project:</b>	Weld County, CO	<b>MD Reference:</b>	KB @ 5179.0usft
<b>Site:</b>	SEC 26 T8N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	SARCEE 7-67-3-34C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	Plan 5		

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	31.38	254.58	4,494.5	-149.7	-586.2	274.6	0.00	0.00	0.00
4,700.0	31.38	254.58	4,579.9	-163.5	-636.4	299.1	0.00	0.00	0.00
4,800.0	31.38	254.58	4,665.3	-177.4	-686.6	323.6	0.00	0.00	0.00
4,831.3	31.38	254.58	4,692.0	-181.7	-702.3	331.3	0.00	0.00	0.00
<b>Hygeine</b>									
4,900.0	31.38	254.58	4,750.7	-191.2	-736.8	348.1	0.00	0.00	0.00
5,000.0	31.38	254.58	4,836.0	-205.0	-787.0	372.6	0.00	0.00	0.00
5,100.0	31.38	254.58	4,921.4	-218.9	-837.2	397.1	0.00	0.00	0.00
5,200.0	31.38	254.58	5,006.8	-232.7	-887.4	421.6	0.00	0.00	0.00
5,300.0	31.38	254.58	5,092.1	-246.6	-937.6	446.2	0.00	0.00	0.00
5,400.0	31.38	254.58	5,177.5	-260.4	-987.8	470.7	0.00	0.00	0.00
5,500.0	31.38	254.58	5,262.9	-274.3	-1,038.0	495.2	0.00	0.00	0.00
5,600.0	31.38	254.58	5,348.3	-288.1	-1,088.2	519.7	0.00	0.00	0.00
5,655.9	31.38	254.58	5,396.0	-295.9	-1,116.2	533.4	0.00	0.00	0.00
<b>Lower Pierre zero</b>									
5,700.0	31.38	254.58	5,433.6	-302.0	-1,138.4	544.2	0.00	0.00	0.00
5,800.0	31.38	254.58	5,519.0	-315.8	-1,188.6	568.7	0.00	0.00	0.00
5,900.0	31.38	254.58	5,604.4	-329.7	-1,238.8	593.2	0.00	0.00	0.00
6,000.0	31.38	254.58	5,689.8	-343.5	-1,289.0	617.8	0.00	0.00	0.00
6,100.0	31.38	254.58	5,775.1	-357.3	-1,339.2	642.3	0.00	0.00	0.00
6,185.4	31.38	254.58	5,848.0	-369.2	-1,382.0	663.2	0.00	0.00	0.00
<b>Lower Pierre 1</b>									
6,200.0	31.38	254.58	5,860.5	-371.2	-1,389.4	666.8	0.00	0.00	0.00
6,300.0	31.38	254.58	5,945.9	-385.0	-1,439.6	691.3	0.00	0.00	0.00
6,400.0	31.38	254.58	6,031.3	-398.9	-1,489.8	715.8	0.00	0.00	0.00
6,500.0	31.38	254.58	6,116.6	-412.7	-1,539.9	740.3	0.00	0.00	0.00
6,600.0	31.38	254.58	6,202.0	-426.6	-1,590.1	764.9	0.00	0.00	0.00
6,700.0	31.38	254.58	6,287.4	-440.4	-1,640.3	789.4	0.00	0.00	0.00
6,800.0	31.38	254.58	6,372.7	-454.3	-1,690.5	813.9	0.00	0.00	0.00
6,900.0	31.38	254.58	6,458.1	-468.1	-1,740.7	838.4	0.00	0.00	0.00
7,000.0	31.38	254.58	6,543.5	-482.0	-1,790.9	862.9	0.00	0.00	0.00
7,017.0	31.38	254.58	6,558.0	-484.3	-1,799.5	867.1	0.00	0.00	0.00
<b>Lower Pierre 2</b>									
7,100.0	31.38	254.58	6,628.9	-495.8	-1,841.1	887.4	0.00	0.00	0.00
7,200.0	31.38	254.58	6,714.2	-509.6	-1,891.3	911.9	0.00	0.00	0.00
7,300.0	31.38	254.58	6,799.6	-523.5	-1,941.5	936.5	0.00	0.00	0.00
7,381.3	31.38	254.58	6,869.0	-534.7	-1,982.3	956.4	0.00	0.00	0.00
<b>Lower Pierre 3</b>									
7,400.0	31.38	254.58	6,885.0	-537.3	-1,991.7	961.0	0.00	0.00	0.00
7,484.4	31.38	254.58	6,957.0	-549.0	-2,034.1	981.7	0.00	0.00	0.00
<b>Sharon Springs</b>									
7,500.0	31.38	254.58	6,970.4	-551.2	-2,041.9	985.5	0.00	0.00	0.00
7,508.9	31.38	254.58	6,978.0	-552.4	-2,046.4	987.7	0.00	0.00	0.00
<b>KOP - Start 12"/100' Build</b>									
7,529.0	32.33	250.38	6,995.0	-555.6	-2,056.5	993.0	12.00	4.71	-20.92
<b>Nio A Chalk</b>									
7,551.6	33.55	245.92	7,014.0	-560.2	-2,067.9	1,000.0	12.00	5.41	-19.71
<b>Nio A Marl</b>									
7,590.5	36.00	238.93	7,046.0	-570.5	-2,087.5	1,014.3	12.00	6.28	-17.94
<b>Nio B upper</b>									
7,600.0	36.65	237.37	7,053.6	-573.4	-2,092.3	1,018.3	12.00	6.89	-16.59
7,653.0	40.64	229.43	7,095.0	-593.2	-2,118.7	1,043.3	12.00	7.53	-14.99

# Planning Report

<b>Database:</b>	EDM Server Database	<b>Local Co-ordinate Reference:</b>	Well SARCEE 7-67-3-34C
<b>Company:</b>	Enerplus Resources (USA) Corporation	<b>TVD Reference:</b>	KB @ 5179.0usft
<b>Project:</b>	Weld County, CO	<b>MD Reference:</b>	KB @ 5179.0usft
<b>Site:</b>	SEC 26 T8N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	SARCEE 7-67-3-34C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	Plan 5		

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)	
<b>Nio B chalk</b>										
7,700.0	44.57	223.44	7,129.6	-615.2	-2,141.7	1,069.8	12.00	8.36	-12.74	
7,730.7	47.28	219.97	7,151.0	-631.6	-2,156.4	1,089.1	12.00	8.85	-11.29	
<b>Nio B marl</b>										
7,778.4	51.69	215.15	7,182.0	-660.4	-2,178.4	1,122.0	12.00	9.23	-10.09	
<b>Nio C Chalk</b>										
7,800.0	53.74	213.17	7,195.1	-674.6	-2,188.1	1,138.0	12.00	9.51	-9.20	
7,844.5	58.06	209.39	7,220.0	-706.1	-2,207.2	1,172.9	12.00	9.72	-8.50	
<b>Nio C Marl</b>										
7,899.9	63.59	205.15	7,247.0	-749.1	-2,229.3	1,219.6	12.00	9.97	-7.65	
<b>Nio D chalk</b>										
7,900.0	63.60	205.14	7,247.1	-749.2	-2,229.3	1,219.8	12.00	10.09	-7.26	
7,985.1	72.30	199.36	7,279.0	-822.1	-2,259.0	1,297.4	12.00	10.22	-6.80	
<b>Fort Hays</b>										
8,000.0	73.84	198.41	7,283.3	-835.6	-2,263.6	1,311.6	12.00	10.34	-6.36	
8,073.3	81.47	193.93	7,299.0	-904.3	-2,283.5	1,383.0	12.00	10.41	-6.11	
<b>Codell</b>										
8,100.0	84.27	192.36	7,302.3	-930.1	-2,289.5	1,409.5	12.00	10.47	-5.91	
8,154.6	90.00	189.17	7,305.0	-983.7	-2,299.7	1,464.0	12.00	10.49	-5.84	
<b>LP - 660' FNL &amp; 1993' FEL</b>										
8,200.0	90.00	188.26	7,305.0	-1,028.5	-2,306.6	1,509.3	2.00	0.01	-2.00	
8,300.0	90.00	186.26	7,305.0	-1,127.7	-2,319.2	1,608.8	2.00	0.00	-2.00	
8,400.0	90.00	184.26	7,305.0	-1,227.3	-2,328.4	1,708.0	2.00	0.00	-2.00	
8,500.0	90.00	182.26	7,305.0	-1,327.1	-2,334.1	1,806.6	2.00	0.00	-2.00	
8,600.0	90.00	180.26	7,305.0	-1,427.1	-2,336.3	1,904.6	2.00	0.00	-2.00	
8,612.9	90.00	180.00	7,305.0	-1,440.0	-2,336.3	1,917.2	2.00	0.00	-2.00	
8,700.0	90.00	180.00	7,305.0	-1,527.1	-2,336.3	2,002.2	0.00	0.00	0.00	
8,800.0	90.00	180.00	7,305.0	-1,627.1	-2,336.3	2,099.8	0.00	0.00	0.00	
8,900.0	90.00	180.00	7,305.0	-1,727.1	-2,336.3	2,197.3	0.00	0.00	0.00	
9,000.0	90.00	180.00	7,305.0	-1,827.1	-2,336.3	2,294.9	0.00	0.00	0.00	
9,100.0	90.00	180.00	7,305.0	-1,927.1	-2,336.3	2,392.5	0.00	0.00	0.00	
9,200.0	90.00	180.00	7,305.0	-2,027.1	-2,336.3	2,490.0	0.00	0.00	0.00	
9,300.0	90.00	180.00	7,305.0	-2,127.1	-2,336.3	2,587.6	0.00	0.00	0.00	
9,400.0	90.00	180.00	7,305.0	-2,227.1	-2,336.3	2,685.2	0.00	0.00	0.00	
9,500.0	90.00	180.00	7,305.0	-2,327.1	-2,336.3	2,782.7	0.00	0.00	0.00	
9,600.0	90.00	180.00	7,305.0	-2,427.1	-2,336.3	2,880.3	0.00	0.00	0.00	
9,700.0	90.00	180.00	7,305.0	-2,527.1	-2,336.3	2,977.9	0.00	0.00	0.00	
9,800.0	90.00	180.00	7,305.0	-2,627.1	-2,336.3	3,075.4	0.00	0.00	0.00	
9,900.0	90.00	180.00	7,305.0	-2,727.1	-2,336.3	3,173.0	0.00	0.00	0.00	
10,000.0	90.00	180.00	7,305.0	-2,827.1	-2,336.3	3,270.6	0.00	0.00	0.00	
10,100.0	90.00	180.00	7,305.0	-2,927.1	-2,336.3	3,368.1	0.00	0.00	0.00	
10,200.0	90.00	180.00	7,305.0	-3,027.1	-2,336.3	3,465.7	0.00	0.00	0.00	
10,300.0	90.00	180.00	7,305.0	-3,127.1	-2,336.3	3,563.3	0.00	0.00	0.00	
10,400.0	90.00	180.00	7,305.0	-3,227.1	-2,336.3	3,660.8	0.00	0.00	0.00	
10,500.0	90.00	180.00	7,305.0	-3,327.1	-2,336.3	3,758.4	0.00	0.00	0.00	
10,600.0	90.00	180.00	7,305.0	-3,427.1	-2,336.3	3,856.0	0.00	0.00	0.00	
10,700.0	90.00	180.00	7,305.0	-3,527.1	-2,336.3	3,953.5	0.00	0.00	0.00	
10,800.0	90.00	180.00	7,305.0	-3,627.1	-2,336.3	4,051.1	0.00	0.00	0.00	
10,900.0	90.00	180.00	7,305.0	-3,727.1	-2,336.3	4,148.7	0.00	0.00	0.00	
11,000.0	90.00	180.00	7,305.0	-3,827.1	-2,336.3	4,246.2	0.00	0.00	0.00	
11,100.0	90.00	180.00	7,305.0	-3,927.1	-2,336.3	4,343.8	0.00	0.00	0.00	
11,200.0	90.00	180.00	7,305.0	-4,027.1	-2,336.3	4,441.4	0.00	0.00	0.00	
11,300.0	90.00	180.00	7,305.0	-4,127.1	-2,336.3	4,538.9	0.00	0.00	0.00	

# Planning Report

<b>Database:</b>	EDM Server Database	<b>Local Co-ordinate Reference:</b>	Well SARCEE 7-67-3-34C
<b>Company:</b>	Enerplus Resources (USA) Corporation	<b>TVD Reference:</b>	KB @ 5179.0usft
<b>Project:</b>	Weld County, CO	<b>MD Reference:</b>	KB @ 5179.0usft
<b>Site:</b>	SEC 26 T8N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	SARCEE 7-67-3-34C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	Plan 5		

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)
11,400.0	90.00	180.00	7,305.0	-4,227.1	-2,336.3	4,636.5	0.00	0.00	0.00
11,500.0	90.00	180.00	7,305.0	-4,327.1	-2,336.3	4,734.1	0.00	0.00	0.00
11,600.0	90.00	180.00	7,305.0	-4,427.1	-2,336.3	4,831.6	0.00	0.00	0.00
11,700.0	90.00	180.00	7,305.0	-4,527.1	-2,336.3	4,929.2	0.00	0.00	0.00
11,800.0	90.00	180.00	7,305.0	-4,627.1	-2,336.3	5,026.8	0.00	0.00	0.00
11,900.0	90.00	180.00	7,305.0	-4,727.1	-2,336.3	5,124.3	0.00	0.00	0.00
12,000.0	90.00	180.00	7,305.0	-4,827.1	-2,336.3	5,221.9	0.00	0.00	0.00
12,100.0	90.00	180.00	7,305.0	-4,927.1	-2,336.3	5,319.5	0.00	0.00	0.00
12,200.0	90.00	180.00	7,305.0	-5,027.1	-2,336.3	5,417.0	0.00	0.00	0.00
12,300.0	90.00	180.00	7,305.0	-5,127.1	-2,336.3	5,514.6	0.00	0.00	0.00
12,400.0	90.00	180.00	7,305.0	-5,227.1	-2,336.3	5,612.2	0.00	0.00	0.00
12,500.0	90.00	180.00	7,305.0	-5,327.1	-2,336.3	5,709.7	0.00	0.00	0.00
12,600.0	90.00	180.00	7,305.0	-5,427.1	-2,336.3	5,807.3	0.00	0.00	0.00
12,700.0	90.00	180.00	7,305.0	-5,527.1	-2,336.3	5,904.9	0.00	0.00	0.00
12,800.0	90.00	180.00	7,305.0	-5,627.1	-2,336.3	6,002.4	0.00	0.00	0.00
12,900.0	90.00	180.00	7,305.0	-5,727.1	-2,336.3	6,100.0	0.00	0.00	0.00
13,000.0	90.00	180.00	7,305.0	-5,827.1	-2,336.3	6,197.6	0.00	0.00	0.00
13,100.0	90.00	180.00	7,305.0	-5,927.1	-2,336.3	6,295.1	0.00	0.00	0.00
13,200.0	90.00	180.00	7,305.0	-6,027.1	-2,336.3	6,392.7	0.00	0.00	0.00
13,300.0	90.00	180.00	7,305.0	-6,127.1	-2,336.3	6,490.3	0.00	0.00	0.00
13,400.0	90.00	180.00	7,305.0	-6,227.1	-2,336.3	6,587.8	0.00	0.00	0.00
13,500.0	90.00	180.00	7,305.0	-6,327.1	-2,336.3	6,685.4	0.00	0.00	0.00
13,600.0	90.00	180.00	7,305.0	-6,427.1	-2,336.3	6,783.0	0.00	0.00	0.00
13,700.0	90.00	180.00	7,305.0	-6,527.1	-2,336.3	6,880.5	0.00	0.00	0.00
13,800.0	90.00	180.00	7,305.0	-6,627.1	-2,336.3	6,978.1	0.00	0.00	0.00
13,900.0	90.00	180.00	7,305.0	-6,727.1	-2,336.3	7,075.7	0.00	0.00	0.00
14,000.0	90.00	180.00	7,305.0	-6,827.1	-2,336.3	7,173.2	0.00	0.00	0.00
14,100.0	90.00	180.00	7,305.0	-6,927.1	-2,336.3	7,270.8	0.00	0.00	0.00
14,200.0	90.00	180.00	7,305.0	-7,027.1	-2,336.3	7,368.4	0.00	0.00	0.00
14,300.0	90.00	180.00	7,305.0	-7,127.1	-2,336.3	7,465.9	0.00	0.00	0.00
14,400.0	90.00	180.00	7,305.0	-7,227.1	-2,336.3	7,563.5	0.00	0.00	0.00
14,500.0	90.00	180.00	7,305.0	-7,327.1	-2,336.3	7,661.1	0.00	0.00	0.00
14,600.0	90.00	180.00	7,305.0	-7,427.1	-2,336.3	7,758.6	0.00	0.00	0.00
14,700.0	90.00	180.00	7,305.0	-7,527.1	-2,336.3	7,856.2	0.00	0.00	0.00
14,800.0	90.00	180.00	7,305.0	-7,627.1	-2,336.3	7,953.8	0.00	0.00	0.00
14,900.0	90.00	180.00	7,305.0	-7,727.1	-2,336.3	8,051.3	0.00	0.00	0.00
15,000.0	90.00	180.00	7,305.0	-7,827.1	-2,336.3	8,148.9	0.00	0.00	0.00
15,100.0	90.00	180.00	7,305.0	-7,927.1	-2,336.3	8,246.5	0.00	0.00	0.00
15,200.0	90.00	180.00	7,305.0	-8,027.1	-2,336.3	8,344.0	0.00	0.00	0.00
15,300.0	90.00	180.00	7,305.0	-8,127.1	-2,336.3	8,441.6	0.00	0.00	0.00
15,400.0	90.00	180.00	7,305.0	-8,227.1	-2,336.3	8,539.2	0.00	0.00	0.00
15,500.0	90.00	180.00	7,305.0	-8,327.1	-2,336.3	8,636.7	0.00	0.00	0.00
15,600.0	90.00	180.00	7,305.0	-8,427.1	-2,336.3	8,734.3	0.00	0.00	0.00
15,700.0	90.00	180.00	7,305.0	-8,527.1	-2,336.3	8,831.9	0.00	0.00	0.00
15,800.0	90.00	180.00	7,305.0	-8,627.1	-2,336.3	8,929.4	0.00	0.00	0.00
15,900.0	90.00	180.00	7,305.0	-8,727.1	-2,336.3	9,027.0	0.00	0.00	0.00
16,000.0	90.00	180.00	7,305.0	-8,827.1	-2,336.3	9,124.6	0.00	0.00	0.00
16,100.0	90.00	180.00	7,305.0	-8,927.1	-2,336.3	9,222.1	0.00	0.00	0.00
16,200.0	90.00	180.00	7,305.0	-9,027.1	-2,336.3	9,319.7	0.00	0.00	0.00
16,300.0	90.00	180.00	7,305.0	-9,127.1	-2,336.3	9,417.3	0.00	0.00	0.00
16,400.0	90.00	180.00	7,305.0	-9,227.1	-2,336.3	9,514.8	0.00	0.00	0.00
16,500.0	90.00	180.00	7,305.0	-9,327.1	-2,336.3	9,612.4	0.00	0.00	0.00
16,600.0	90.00	180.00	7,305.0	-9,427.1	-2,336.3	9,710.0	0.00	0.00	0.00
16,700.0	90.00	180.00	7,305.0	-9,527.1	-2,336.3	9,807.5	0.00	0.00	0.00



## Planning Report

<b>Database:</b>	EDM Server Database	<b>Local Co-ordinate Reference:</b>	Well SARCEE 7-67-3-34C
<b>Company:</b>	Enerplus Resources (USA) Corporation	<b>TVD Reference:</b>	KB @ 5179.0usft
<b>Project:</b>	Weld County, CO	<b>MD Reference:</b>	KB @ 5179.0usft
<b>Site:</b>	SEC 26 T8N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	SARCEE 7-67-3-34C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	Plan 5		

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)	
16,800.0	90.00	180.00	7,305.0	-9,627.1	-2,336.3	9,905.1	0.00	0.00	0.00	
16,900.0	90.00	180.00	7,305.0	-9,727.1	-2,336.3	10,002.7	0.00	0.00	0.00	
17,000.0	90.00	180.00	7,305.0	-9,827.1	-2,336.3	10,100.2	0.00	0.00	0.00	
17,100.0	90.00	180.00	7,305.0	-9,927.1	-2,336.3	10,197.8	0.00	0.00	0.00	
17,200.0	90.00	180.00	7,305.0	-10,027.1	-2,336.3	10,295.4	0.00	0.00	0.00	
17,300.0	90.00	180.00	7,305.0	-10,127.1	-2,336.3	10,392.9	0.00	0.00	0.00	
17,400.0	90.00	180.00	7,305.0	-10,227.1	-2,336.3	10,490.5	0.00	0.00	0.00	
17,500.0	90.00	180.00	7,305.0	-10,327.1	-2,336.3	10,588.1	0.00	0.00	0.00	
17,568.5	90.00	180.00	7,305.0	-10,395.6	-2,336.3	10,654.9	0.00	0.00	0.00	
PBHL - 5-1/2" Production - Production										

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										
SARCEE 7-67-3-34C LF	0.00	0.00	7,305.0	-983.9	-2,299.6	1,470,613.55	3,173,010.77	40° 37' 24.823 N		104° 52' 36.260 W
- plan misses target center by 0.2usft at 8154.8usft MD (7305.0 TVD, -983.9 N, -2299.8 E)										
- Point										
SARCEE 7-67-3-34C B+	0.00	0.00	7,305.0	-10,395.7	-2,336.3	1,461,201.79	3,173,041.10	40° 35' 51.821 N		104° 52' 36.725 W
- plan hits target center										
- Point										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
1,500.0	1,500.0	Surface		9-5/8	13-1/2
17,568.5	7,305.0	Production		5-1/2	8-1/2

## Planning Report

<b>Database:</b>	EDM Server Database	<b>Local Co-ordinate Reference:</b>	Well SARCEE 7-67-3-34C
<b>Company:</b>	Enerplus Resources (USA) Corporation	<b>TVD Reference:</b>	KB @ 5179.0usft
<b>Project:</b>	Weld County, CO	<b>MD Reference:</b>	KB @ 5179.0usft
<b>Site:</b>	SEC 26 T8N-R67W	<b>North Reference:</b>	True
<b>Well:</b>	SARCEE 7-67-3-34C	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Wellbore		
<b>Design:</b>	Plan 5		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,551.5	3,537.0	Richards				
4,174.4	4,120.0	Terry				
4,831.3	4,692.0	Hygeine				
5,655.9	5,396.0	Lower Pierre zero				
6,185.4	5,848.0	Lower Pierre 1				
7,017.0	6,558.0	Lower Pierre 2				
7,381.3	6,869.0	Lower Pierre 3				
7,484.4	6,957.0	Sharon Springs				
7,529.0	6,995.0	Nio A Chalk				
7,551.6	7,014.0	Nio A Marl				
7,590.5	7,046.0	Nio B upper				
7,653.0	7,095.0	Nio B chalk				
7,730.7	7,151.0	Nio B marl				
7,778.4	7,182.0	Nio C Chalk				
7,844.5	7,220.0	Nio C Marl				
7,899.9	7,247.0	Nio D chalk				
7,985.1	7,279.0	Fort Hays				
8,073.3	7,299.0	Codell				

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,500.0	1,500.0	0.0	0.0	9-5/8"
2,000.0	1,999.4	0.0	-21.8	Begin AC Nudge
4,592.0	4,487.7	-148.6	-582.2	Begin 13.38° Tangent
7,508.9	6,978.0	-552.4	-2,046.4	KOP - Start 12°/100' Build
8,154.6	7,305.0	-983.7	-2,299.7	LP - 660' FNL & 1993' FEL
17,568.5	7,305.0	-10,395.6	-2,336.3	PBHL - 5-1/2" Production