



Well: Middlepark 18-06-4L
 Site: Section 18-T04N-R62W
 Project: Weld County, Colorado
 Wellbore: Original Hole
 Design: plan2

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	KOP Begin 1°/100' build
3	3958.70	19.59	254.02	3920.77	-91.29	-318.74	1.00	-50.47	Begin 19.59° tangent
4	6043.65	19.59	254.02	5885.07	-283.73	-990.68	0.00	-156.86	Begin 10°/100' build
5	6995.43	90.00	359.63	6476.00	285.58	-1196.82	10.00	433.87	LP Begin 90° lateral
6	16633.74	90.00	359.63	6476.00	9923.70	-1258.38	0.00	10003.17	PBHL/TD 16633.74 MD/6476.00 TVD

DESIGN TARGET DETAILS

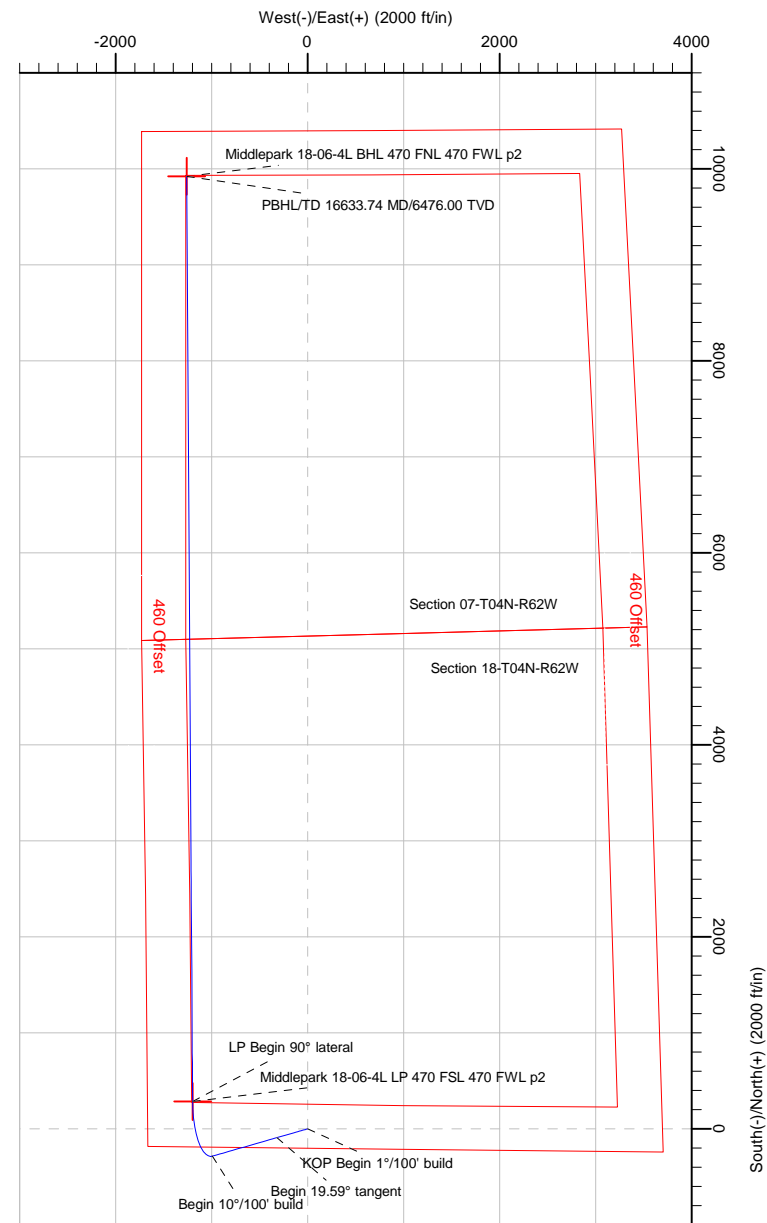
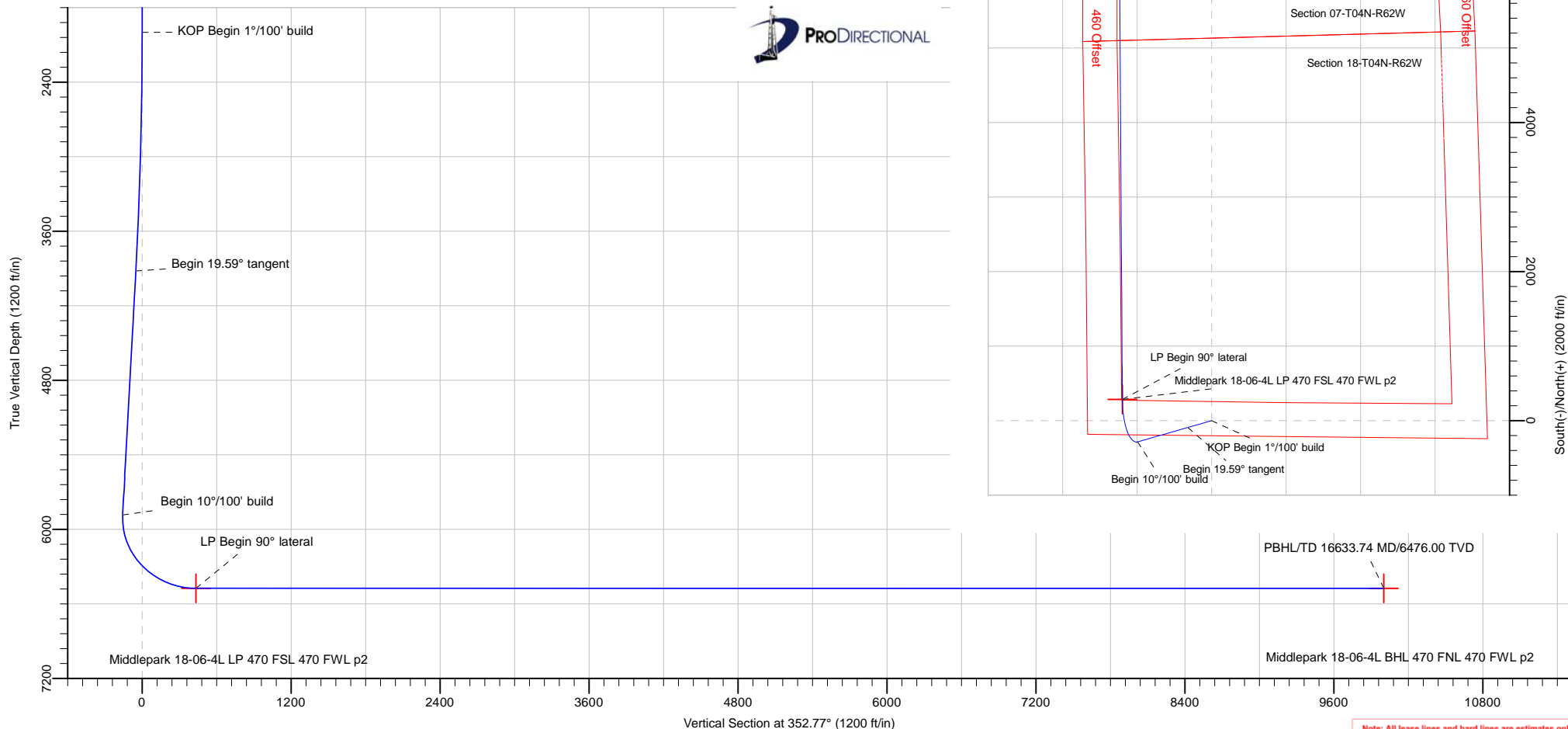
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Middlepark 18-06-4L BHL 470 FNL 470 FWL p2	6476.00	9923.70	-1258.38	14648603.94	1814570.18	40.33298219	-104.37509238
Middlepark 18-06-4L LP 470 FSL 470 FWL p2	6476.00	285.58	-1196.82	14638966.52	1814700.23	40.30651649	-104.37486988



Azimuths to True North
 Magnetic North: 8.18°

Magnetic Field
 Strength: 52247.4snT
 Dip Angle: 66.90°
 Date: 4/22/2018
 Model: HDGM

Middlepark 18-06-4L Surf loc: 202 FSL 1664 FWL Section 18-T04N-R62W			
NAD83 Colorado - HARN Universal Transverse Mercator (US Survey Feet) Zone 13N (108 W to 102 W) RKB=4556+24 @ 4580.00ft			
Northing	Easting	Latitude	Longitude
14638689.45	1815899.05	40.30573238	-104.37057720



Note: All lease lines and hard lines are estimates only and are subject to customers approval.

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-06-4L
Company:	Confluence Resources	TVD Reference:	RKB=4556+24 @ 4580.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4556+24 @ 4580.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-06-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

Project	Weld County, Colorado		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD83 Colorado - HARN		
Map Zone:	Zone 13N (108 W to 102 W)		

Site	Section 18-T04N-R62W			
Site Position:		Northing:	14,641,153.41 usft	Latitude: 40.31252000
From:	Lat/Long	Easting:	1,814,773.97 usft	Longitude: -104.37455000
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence: 0.40 °

Well	Middlepark 18-06-4L, Surf loc: 202 FSL 1664 FWL Section 18-T04N-R62W			
Well Position	+N/-S	-2,471.85 ft	Northing:	14,638,689.45 usft
	+E/-W	1,107.65 ft	Easting:	1,815,899.05 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	Latitude: 40.30573238
				Longitude: -104.37057720
				Ground Level: 4,556.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/22/2018	8.18	66.90	52,247.40000000

Design	plan2			
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	352.77

Plan Survey Tool Program	Date	4/26/2018		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,633.74	plan2 (Original Hole)	

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	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,958.70	19.59	254.02	3,920.77	-91.29	-318.74	1.00	1.00	0.00	254.02	
6,043.65	19.59	254.02	5,885.07	-283.73	-990.68	0.00	0.00	0.00	0.00	
6,995.43	90.00	359.63	6,476.00	285.58	-1,196.82	10.00	7.40	11.10	104.75	Middlepark 18-06-4L I
16,633.74	90.00	359.63	6,476.00	9,923.70	-1,258.38	0.00	0.00	0.00	0.00	Middlepark 18-06-4L I

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-06-4L
Company:	Confluence Resources	TVD Reference:	RKB=4556+24 @ 4580.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4556+24 @ 4580.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-06-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

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	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 1°/100' build									
2,100.00	1.00	254.02	2,099.99	-0.24	-0.84	-0.13	1.00	1.00	0.00
2,200.00	2.00	254.02	2,199.96	-0.96	-3.36	-0.53	1.00	1.00	0.00
2,300.00	3.00	254.02	2,299.86	-2.16	-7.55	-1.20	1.00	1.00	0.00
2,400.00	4.00	254.02	2,399.68	-3.84	-13.42	-2.12	1.00	1.00	0.00
2,500.00	5.00	254.02	2,499.37	-6.00	-20.96	-3.32	1.00	1.00	0.00
2,600.00	6.00	254.02	2,598.90	-8.64	-30.17	-4.78	1.00	1.00	0.00
2,700.00	7.00	254.02	2,698.26	-11.76	-41.06	-6.50	1.00	1.00	0.00
2,800.00	8.00	254.02	2,797.40	-15.35	-53.60	-8.49	1.00	1.00	0.00
2,900.00	9.00	254.02	2,896.30	-19.42	-67.81	-10.74	1.00	1.00	0.00
3,000.00	10.00	254.02	2,994.93	-23.97	-83.68	-13.25	1.00	1.00	0.00
3,100.00	11.00	254.02	3,093.26	-28.98	-101.20	-16.02	1.00	1.00	0.00
3,200.00	12.00	254.02	3,191.25	-34.47	-120.37	-19.06	1.00	1.00	0.00
3,300.00	13.00	254.02	3,288.87	-40.43	-141.17	-22.35	1.00	1.00	0.00
3,400.00	14.00	254.02	3,386.11	-46.86	-163.61	-25.91	1.00	1.00	0.00
3,500.00	15.00	254.02	3,482.92	-53.75	-187.68	-29.72	1.00	1.00	0.00
3,600.00	16.00	254.02	3,579.29	-61.11	-213.38	-33.78	1.00	1.00	0.00
3,700.00	17.00	254.02	3,675.17	-68.93	-240.68	-38.11	1.00	1.00	0.00
3,800.00	18.00	254.02	3,770.54	-77.21	-269.59	-42.68	1.00	1.00	0.00
3,900.00	19.00	254.02	3,865.37	-85.95	-300.09	-47.51	1.00	1.00	0.00
3,958.70	19.59	254.02	3,920.77	-91.29	-318.74	-50.47	1.00	1.00	0.00
Begin 19.59° tangent									
4,000.00	19.59	254.02	3,959.68	-95.10	-332.05	-52.57	0.00	0.00	0.00
4,100.00	19.59	254.02	4,053.89	-104.33	-364.27	-57.68	0.00	0.00	0.00
4,200.00	19.59	254.02	4,148.11	-113.56	-396.50	-62.78	0.00	0.00	0.00
4,300.00	19.59	254.02	4,242.32	-122.79	-428.73	-67.88	0.00	0.00	0.00
4,400.00	19.59	254.02	4,336.53	-132.02	-460.96	-72.99	0.00	0.00	0.00
4,500.00	19.59	254.02	4,430.75	-141.25	-493.19	-78.09	0.00	0.00	0.00
4,600.00	19.59	254.02	4,524.96	-150.48	-525.41	-83.19	0.00	0.00	0.00
4,700.00	19.59	254.02	4,619.17	-159.71	-557.64	-88.29	0.00	0.00	0.00
4,800.00	19.59	254.02	4,713.39	-168.94	-589.87	-93.40	0.00	0.00	0.00
4,900.00	19.59	254.02	4,807.60	-178.17	-622.10	-98.50	0.00	0.00	0.00

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Project:	Weld County, Colorado	MD Reference:	RKB=4556+24 @ 4580.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-06-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

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)
5,000.00	19.59	254.02	4,901.81	-187.40	-654.33	-103.60	0.00	0.00	0.00
5,100.00	19.59	254.02	4,996.03	-196.63	-686.55	-108.70	0.00	0.00	0.00
5,200.00	19.59	254.02	5,090.24	-205.86	-718.78	-113.81	0.00	0.00	0.00
5,300.00	19.59	254.02	5,184.45	-215.09	-751.01	-118.91	0.00	0.00	0.00
5,400.00	19.59	254.02	5,278.67	-224.32	-783.24	-124.01	0.00	0.00	0.00
5,500.00	19.59	254.02	5,372.88	-233.55	-815.47	-129.12	0.00	0.00	0.00
5,600.00	19.59	254.02	5,467.09	-242.78	-847.70	-134.22	0.00	0.00	0.00
5,700.00	19.59	254.02	5,561.31	-252.01	-879.92	-139.32	0.00	0.00	0.00
5,800.00	19.59	254.02	5,655.52	-261.24	-912.15	-144.42	0.00	0.00	0.00
5,900.00	19.59	254.02	5,749.73	-270.47	-944.38	-149.53	0.00	0.00	0.00
6,000.00	19.59	254.02	5,843.95	-279.70	-976.61	-154.63	0.00	0.00	0.00
6,043.65	19.59	254.02	5,885.07	-283.73	-990.68	-156.86	0.00	0.00	0.00
Begin 10°/100' build									
6,100.00	18.92	271.04	5,938.31	-286.17	-1,008.91	-156.98	10.00	-1.18	30.22
6,200.00	21.52	299.29	6,032.36	-276.88	-1,041.20	-143.70	10.00	2.60	28.24
6,300.00	27.58	318.64	6,123.43	-250.46	-1,072.57	-113.54	10.00	6.06	19.35
6,400.00	35.37	330.77	6,208.73	-207.72	-1,102.08	-67.43	10.00	7.78	12.12
6,500.00	43.96	338.82	6,285.69	-149.95	-1,128.82	-6.76	10.00	8.59	8.05
6,600.00	52.97	344.65	6,351.96	-78.91	-1,151.99	66.63	10.00	9.01	5.83
6,700.00	62.20	349.22	6,405.53	3.23	-1,170.87	150.50	10.00	9.23	4.57
6,800.00	71.55	353.07	6,444.78	94.00	-1,184.90	242.30	10.00	9.36	3.85
6,900.00	80.98	356.51	6,468.50	190.62	-1,193.65	339.26	10.00	9.43	3.44
6,995.43	90.00	359.63	6,476.00	285.59	-1,196.82	433.87	10.00	9.45	3.27
LP Begin 90° lateral									
7,000.00	90.00	359.63	6,476.00	290.16	-1,196.85	438.41	0.00	0.00	0.00
7,100.00	90.00	359.63	6,476.00	390.15	-1,197.49	537.69	0.00	0.00	0.00
7,200.00	90.00	359.63	6,476.00	490.15	-1,198.13	636.98	0.00	0.00	0.00
7,300.00	90.00	359.63	6,476.00	590.15	-1,198.77	736.26	0.00	0.00	0.00
7,400.00	90.00	359.63	6,476.00	690.15	-1,199.41	835.54	0.00	0.00	0.00
7,500.00	90.00	359.63	6,476.00	790.15	-1,200.05	934.83	0.00	0.00	0.00
7,600.00	90.00	359.63	6,476.00	890.14	-1,200.68	1,034.11	0.00	0.00	0.00
7,700.00	90.00	359.63	6,476.00	990.14	-1,201.32	1,133.40	0.00	0.00	0.00
7,800.00	90.00	359.63	6,476.00	1,090.14	-1,201.96	1,232.68	0.00	0.00	0.00
7,900.00	90.00	359.63	6,476.00	1,190.14	-1,202.60	1,331.96	0.00	0.00	0.00
8,000.00	90.00	359.63	6,476.00	1,290.14	-1,203.24	1,431.25	0.00	0.00	0.00
8,100.00	90.00	359.63	6,476.00	1,390.13	-1,203.88	1,530.53	0.00	0.00	0.00
8,200.00	90.00	359.63	6,476.00	1,490.13	-1,204.52	1,629.82	0.00	0.00	0.00
8,300.00	90.00	359.63	6,476.00	1,590.13	-1,205.15	1,729.10	0.00	0.00	0.00
8,400.00	90.00	359.63	6,476.00	1,690.13	-1,205.79	1,828.38	0.00	0.00	0.00
8,500.00	90.00	359.63	6,476.00	1,790.13	-1,206.43	1,927.67	0.00	0.00	0.00
8,600.00	90.00	359.63	6,476.00	1,890.12	-1,207.07	2,026.95	0.00	0.00	0.00
8,700.00	90.00	359.63	6,476.00	1,990.12	-1,207.71	2,126.24	0.00	0.00	0.00
8,800.00	90.00	359.63	6,476.00	2,090.12	-1,208.35	2,225.52	0.00	0.00	0.00
8,900.00	90.00	359.63	6,476.00	2,190.12	-1,208.99	2,324.80	0.00	0.00	0.00
9,000.00	90.00	359.63	6,476.00	2,290.12	-1,209.63	2,424.09	0.00	0.00	0.00
9,100.00	90.00	359.63	6,476.00	2,390.11	-1,210.26	2,523.37	0.00	0.00	0.00
9,200.00	90.00	359.63	6,476.00	2,490.11	-1,210.90	2,622.66	0.00	0.00	0.00
9,300.00	90.00	359.63	6,476.00	2,590.11	-1,211.54	2,721.94	0.00	0.00	0.00
9,400.00	90.00	359.63	6,476.00	2,690.11	-1,212.18	2,821.22	0.00	0.00	0.00
9,500.00	90.00	359.63	6,476.00	2,790.11	-1,212.82	2,920.51	0.00	0.00	0.00
9,600.00	90.00	359.63	6,476.00	2,890.10	-1,213.46	3,019.79	0.00	0.00	0.00
9,700.00	90.00	359.63	6,476.00	2,990.10	-1,214.10	3,119.08	0.00	0.00	0.00
9,800.00	90.00	359.63	6,476.00	3,090.10	-1,214.74	3,218.36	0.00	0.00	0.00
9,900.00	90.00	359.63	6,476.00	3,190.10	-1,215.37	3,317.64	0.00	0.00	0.00

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Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-06-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

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)
10,000.00	90.00	359.63	6,476.00	3,290.10	-1,216.01	3,416.93	0.00	0.00	0.00
10,100.00	90.00	359.63	6,476.00	3,390.09	-1,216.65	3,516.21	0.00	0.00	0.00
10,200.00	90.00	359.63	6,476.00	3,490.09	-1,217.29	3,615.50	0.00	0.00	0.00
10,300.00	90.00	359.63	6,476.00	3,590.09	-1,217.93	3,714.78	0.00	0.00	0.00
10,400.00	90.00	359.63	6,476.00	3,690.09	-1,218.57	3,814.06	0.00	0.00	0.00
10,500.00	90.00	359.63	6,476.00	3,790.09	-1,219.21	3,913.35	0.00	0.00	0.00
10,600.00	90.00	359.63	6,476.00	3,890.08	-1,219.84	4,012.63	0.00	0.00	0.00
10,700.00	90.00	359.63	6,476.00	3,990.08	-1,220.48	4,111.91	0.00	0.00	0.00
10,800.00	90.00	359.63	6,476.00	4,090.08	-1,221.12	4,211.20	0.00	0.00	0.00
10,900.00	90.00	359.63	6,476.00	4,190.08	-1,221.76	4,310.48	0.00	0.00	0.00
11,000.00	90.00	359.63	6,476.00	4,290.08	-1,222.40	4,409.77	0.00	0.00	0.00
11,100.00	90.00	359.63	6,476.00	4,390.07	-1,223.04	4,509.05	0.00	0.00	0.00
11,200.00	90.00	359.63	6,476.00	4,490.07	-1,223.68	4,608.33	0.00	0.00	0.00
11,300.00	90.00	359.63	6,476.00	4,590.07	-1,224.32	4,707.62	0.00	0.00	0.00
11,400.00	90.00	359.63	6,476.00	4,690.07	-1,224.95	4,806.90	0.00	0.00	0.00
11,500.00	90.00	359.63	6,476.00	4,790.06	-1,225.59	4,906.19	0.00	0.00	0.00
11,600.00	90.00	359.63	6,476.00	4,890.06	-1,226.23	5,005.47	0.00	0.00	0.00
11,700.00	90.00	359.63	6,476.00	4,990.06	-1,226.87	5,104.75	0.00	0.00	0.00
11,800.00	90.00	359.63	6,476.00	5,090.06	-1,227.51	5,204.04	0.00	0.00	0.00
11,900.00	90.00	359.63	6,476.00	5,190.06	-1,228.15	5,303.32	0.00	0.00	0.00
12,000.00	90.00	359.63	6,476.00	5,290.05	-1,228.79	5,402.61	0.00	0.00	0.00
12,100.00	90.00	359.63	6,476.00	5,390.05	-1,229.42	5,501.89	0.00	0.00	0.00
12,200.00	90.00	359.63	6,476.00	5,490.05	-1,230.06	5,601.17	0.00	0.00	0.00
12,300.00	90.00	359.63	6,476.00	5,590.05	-1,230.70	5,700.46	0.00	0.00	0.00
12,400.00	90.00	359.63	6,476.00	5,690.05	-1,231.34	5,799.74	0.00	0.00	0.00
12,500.00	90.00	359.63	6,476.00	5,790.04	-1,231.98	5,899.03	0.00	0.00	0.00
12,600.00	90.00	359.63	6,476.00	5,890.04	-1,232.62	5,998.31	0.00	0.00	0.00
12,700.00	90.00	359.63	6,476.00	5,990.04	-1,233.26	6,097.59	0.00	0.00	0.00
12,800.00	90.00	359.63	6,476.00	6,090.04	-1,233.90	6,196.88	0.00	0.00	0.00
12,900.00	90.00	359.63	6,476.00	6,190.04	-1,234.53	6,296.16	0.00	0.00	0.00
13,000.00	90.00	359.63	6,476.00	6,290.03	-1,235.17	6,395.45	0.00	0.00	0.00
13,100.00	90.00	359.63	6,476.00	6,390.03	-1,235.81	6,494.73	0.00	0.00	0.00
13,200.00	90.00	359.63	6,476.00	6,490.03	-1,236.45	6,594.01	0.00	0.00	0.00
13,300.00	90.00	359.63	6,476.00	6,590.03	-1,237.09	6,693.30	0.00	0.00	0.00
13,400.00	90.00	359.63	6,476.00	6,690.03	-1,237.73	6,792.58	0.00	0.00	0.00
13,500.00	90.00	359.63	6,476.00	6,790.02	-1,238.37	6,891.87	0.00	0.00	0.00
13,600.00	90.00	359.63	6,476.00	6,890.02	-1,239.00	6,991.15	0.00	0.00	0.00
13,700.00	90.00	359.63	6,476.00	6,990.02	-1,239.64	7,090.43	0.00	0.00	0.00
13,800.00	90.00	359.63	6,476.00	7,090.02	-1,240.28	7,189.72	0.00	0.00	0.00
13,900.00	90.00	359.63	6,476.00	7,190.02	-1,240.92	7,289.00	0.00	0.00	0.00
14,000.00	90.00	359.63	6,476.00	7,290.01	-1,241.56	7,388.29	0.00	0.00	0.00
14,100.00	90.00	359.63	6,476.00	7,390.01	-1,242.20	7,487.57	0.00	0.00	0.00
14,200.00	90.00	359.63	6,476.00	7,490.01	-1,242.84	7,586.85	0.00	0.00	0.00
14,300.00	90.00	359.63	6,476.00	7,590.01	-1,243.48	7,686.14	0.00	0.00	0.00
14,400.00	90.00	359.63	6,476.00	7,690.01	-1,244.11	7,785.42	0.00	0.00	0.00
14,500.00	90.00	359.63	6,476.00	7,790.00	-1,244.75	7,884.71	0.00	0.00	0.00
14,600.00	90.00	359.63	6,476.00	7,890.00	-1,245.39	7,983.99	0.00	0.00	0.00
14,700.00	90.00	359.63	6,476.00	7,990.00	-1,246.03	8,083.27	0.00	0.00	0.00
14,800.00	90.00	359.63	6,476.00	8,090.00	-1,246.67	8,182.56	0.00	0.00	0.00
14,900.00	90.00	359.63	6,476.00	8,190.00	-1,247.31	8,281.84	0.00	0.00	0.00
15,000.00	90.00	359.63	6,476.00	8,289.99	-1,247.95	8,381.13	0.00	0.00	0.00
15,100.00	90.00	359.63	6,476.00	8,389.99	-1,248.58	8,480.41	0.00	0.00	0.00
15,200.00	90.00	359.63	6,476.00	8,489.99	-1,249.22	8,579.69	0.00	0.00	0.00
15,300.00	90.00	359.63	6,476.00	8,589.99	-1,249.86	8,678.98	0.00	0.00	0.00

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-06-4L
Company:	Confluence Resources	TVD Reference:	RKB=4556+24 @ 4580.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4556+24 @ 4580.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-06-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

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)	
15,400.00	90.00	359.63	6,476.00	8,689.99	-1,250.50	8,778.26	0.00	0.00	0.00	
15,500.00	90.00	359.63	6,476.00	8,789.98	-1,251.14	8,877.54	0.00	0.00	0.00	
15,600.00	90.00	359.63	6,476.00	8,889.98	-1,251.78	8,976.83	0.00	0.00	0.00	
15,700.00	90.00	359.63	6,476.00	8,989.98	-1,252.42	9,076.11	0.00	0.00	0.00	
15,800.00	90.00	359.63	6,476.00	9,089.98	-1,253.06	9,175.40	0.00	0.00	0.00	
15,900.00	90.00	359.63	6,476.00	9,189.98	-1,253.69	9,274.68	0.00	0.00	0.00	
16,000.00	90.00	359.63	6,476.00	9,289.97	-1,254.33	9,373.96	0.00	0.00	0.00	
16,100.00	90.00	359.63	6,476.00	9,389.97	-1,254.97	9,473.25	0.00	0.00	0.00	
16,200.00	90.00	359.63	6,476.00	9,489.97	-1,255.61	9,572.53	0.00	0.00	0.00	
16,300.00	90.00	359.63	6,476.00	9,589.97	-1,256.25	9,671.82	0.00	0.00	0.00	
16,400.00	90.00	359.63	6,476.00	9,689.97	-1,256.89	9,771.10	0.00	0.00	0.00	
16,500.00	90.00	359.63	6,476.00	9,789.96	-1,257.53	9,870.38	0.00	0.00	0.00	
16,600.00	90.00	359.63	6,476.00	9,889.96	-1,258.16	9,969.67	0.00	0.00	0.00	
16,633.74	90.00	359.63	6,476.00	9,923.70	-1,258.38	10,003.17	0.00	0.00	0.00	
PBHL/TD 16633.74 MD/6476.00 TVD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
Middlepark 18-06-4L BH	0.00	0.00	6,476.00	9,923.70	-1,258.38	14,648,603.94	1,814,570.18	40.33298218	-104.37509238	
- plan hits target center										
- Point										
Middlepark 18-06-4L LP	0.00	0.00	6,476.00	285.58	-1,196.82	14,638,966.52	1,814,700.23	40.30651650	-104.37486989	
- plan hits target center										
- Point										

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
2,000.00	2,000.00	0.00	0.00	KOP Begin 1°/100' build	
3,958.70	3,920.77	-91.29	-318.74	Begin 19.59° tangent	
6,043.65	5,885.07	-283.73	-990.68	Begin 10°/100' build	
6,995.43	6,476.00	285.59	-1,196.82	LP Begin 90° lateral	
16,633.74	6,476.00	9,923.70	-1,258.38	PBHL/TD 16633.74 MD/6476.00 TVD	

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-06-4L
Company:	Confluence Resources	TVD Reference:	RKB=4556+24 @ 4580.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4556+24 @ 4580.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-06-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

Project	Weld County, Colorado		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD83 Colorado - HARN		
Map Zone:	Zone 13N (108 W to 102 W)		

Site		Section 18-T04N-R62W			
Site Position:		Northing:	14,641,153.41 usft	Latitude:	40.31252000
From:	Lat/Long	Easting:	1,814,773.97 usft	Longitude:	-104.37455000
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.40 °

Well	Middlepark 18-06-4L, Surf loc: 202 FSL 1664 FWL Section 18-T04N-R62W					
Well Position	+N/-S	0.00 ft	Northing:	14,638,689.45 usft	Latitude:	40.30573238
	+E/-W	0.00 ft	Easting:	1,815,899.05 usft	Longitude:	-104.37057720
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,556.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/22/2018	8.18	66.90	52,247.40000000

Design	plan2			
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	352.77

Plan Survey Tool Program	Date	4/26/2018		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,633.74 plan2 (Original Hole)		

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	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,958.70	19.59	254.02	3,920.77	-91.29	-318.74	1.00	1.00	0.00	254.02	
6,043.65	19.59	254.02	5,885.07	-283.73	-990.68	0.00	0.00	0.00	0.00	
6,995.43	90.00	359.63	6,476.00	285.58	-1,196.82	10.00	7.40	11.10	104.75	Middlepark 18-06-4L I
16,633.74	90.00	359.63	6,476.00	9,923.70	-1,258.38	0.00	0.00	0.00	0.00	Middlepark 18-06-4L I

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-06-4L
Company:	Confluence Resources	TVD Reference:	RKB=4556+24 @ 4580.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4556+24 @ 4580.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-06-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
100.00	0.00	0.00	100.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
200.00	0.00	0.00	200.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
300.00	0.00	0.00	300.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
400.00	0.00	0.00	400.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
500.00	0.00	0.00	500.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
600.00	0.00	0.00	600.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
700.00	0.00	0.00	700.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
800.00	0.00	0.00	800.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
900.00	0.00	0.00	900.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,638,689.45	1,815,899.05	40.30573238	-104.37057720
KOP Begin 1°/100' build									
2,100.00	1.00	254.02	2,099.99	-0.24	-0.84	14,638,689.20	1,815,898.21	40.30573172	-104.37058021
2,200.00	2.00	254.02	2,199.96	-0.96	-3.36	14,638,688.46	1,815,895.70	40.30572974	-104.37058924
2,300.00	3.00	254.02	2,299.86	-2.16	-7.55	14,638,687.23	1,815,891.52	40.30572644	-104.37060428
2,400.00	4.00	254.02	2,399.68	-3.84	-13.42	14,638,685.51	1,815,885.66	40.30572183	-104.37062533
2,500.00	5.00	254.02	2,499.37	-6.00	-20.96	14,638,683.30	1,815,878.13	40.30571590	-104.37065238
2,600.00	6.00	254.02	2,598.90	-8.64	-30.17	14,638,680.59	1,815,868.94	40.30570865	-104.37068543
2,700.00	7.00	254.02	2,698.26	-11.76	-41.06	14,638,677.40	1,815,858.08	40.30570009	-104.37072446
2,800.00	8.00	254.02	2,797.40	-15.35	-53.60	14,638,673.71	1,815,845.56	40.30569022	-104.37076946
2,900.00	9.00	254.02	2,896.30	-19.42	-67.81	14,638,669.54	1,815,831.38	40.30567905	-104.37082043
3,000.00	10.00	254.02	2,994.93	-23.97	-83.68	14,638,664.89	1,815,815.54	40.30566657	-104.37087734
3,100.00	11.00	254.02	3,093.26	-28.98	-101.20	14,638,659.74	1,815,798.06	40.30565279	-104.37094017
3,200.00	12.00	254.02	3,191.25	-34.47	-120.37	14,638,654.12	1,815,778.93	40.30563772	-104.37100891
3,300.00	13.00	254.02	3,288.87	-40.43	-141.17	14,638,648.01	1,815,758.17	40.30562135	-104.37108354
3,400.00	14.00	254.02	3,386.11	-46.86	-163.61	14,638,641.43	1,815,735.77	40.30560370	-104.37116404
3,500.00	15.00	254.02	3,482.92	-53.75	-187.68	14,638,634.36	1,815,711.75	40.30558477	-104.37125037
3,600.00	16.00	254.02	3,579.29	-61.11	-213.38	14,638,626.82	1,815,686.12	40.30556457	-104.37134251
3,700.00	17.00	254.02	3,675.17	-68.93	-240.68	14,638,618.81	1,815,658.87	40.30554310	-104.37144044
3,800.00	18.00	254.02	3,770.54	-77.21	-269.59	14,638,610.32	1,815,630.02	40.30552036	-104.37154412
3,900.00	19.00	254.02	3,865.37	-85.95	-300.09	14,638,601.37	1,815,599.58	40.30549637	-104.37165353
3,958.70	19.59	254.02	3,920.77	-91.29	-318.74	14,638,595.90	1,815,580.97	40.30548171	-104.37172040
Begin 19.59° tangent									
4,000.00	19.59	254.02	3,959.68	-95.10	-332.05	14,638,591.99	1,815,567.69	40.30547124	-104.37176814
4,100.00	19.59	254.02	4,053.89	-104.33	-364.27	14,638,582.53	1,815,535.53	40.30544589	-104.37188373
4,200.00	19.59	254.02	4,148.11	-113.56	-396.50	14,638,573.07	1,815,503.37	40.30542054	-104.37199933
4,300.00	19.59	254.02	4,242.32	-122.79	-428.73	14,638,563.61	1,815,471.20	40.30539520	-104.37211492
4,400.00	19.59	254.02	4,336.53	-132.02	-460.96	14,638,554.16	1,815,439.04	40.30536985	-104.37223051
4,500.00	19.59	254.02	4,430.75	-141.25	-493.19	14,638,544.70	1,815,406.88	40.30534450	-104.37234610
4,600.00	19.59	254.02	4,524.96	-150.48	-525.41	14,638,535.24	1,815,374.72	40.30531915	-104.37246169
4,700.00	19.59	254.02	4,619.17	-159.71	-557.64	14,638,525.78	1,815,342.56	40.30529381	-104.37257728
4,800.00	19.59	254.02	4,713.39	-168.94	-589.87	14,638,516.32	1,815,310.40	40.30526846	-104.37269287
4,900.00	19.59	254.02	4,807.60	-178.17	-622.10	14,638,506.86	1,815,278.24	40.30524311	-104.37280846
5,000.00	19.59	254.02	4,901.81	-187.40	-654.33	14,638,497.40	1,815,246.07	40.30521776	-104.37292405

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-06-4L
Company:	Confluence Resources	TVD Reference:	RKB=4556+24 @ 4580.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4556+24 @ 4580.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-06-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,100.00	19.59	254.02	4,996.03	-196.63	-686.55	14,638,487.94	1,815,213.91	40.30519242	-104.37303964
5,200.00	19.59	254.02	5,090.24	-205.86	-718.78	14,638,478.48	1,815,181.75	40.30516707	-104.37315523
5,300.00	19.59	254.02	5,184.45	-215.09	-751.01	14,638,469.02	1,815,149.59	40.30514172	-104.37327082
5,400.00	19.59	254.02	5,278.67	-224.32	-783.24	14,638,459.57	1,815,117.43	40.30511637	-104.37338641
5,500.00	19.59	254.02	5,372.88	-233.55	-815.47	14,638,450.11	1,815,085.27	40.30509102	-104.37350200
5,600.00	19.59	254.02	5,467.09	-242.78	-847.70	14,638,440.65	1,815,053.10	40.30506567	-104.37361759
5,700.00	19.59	254.02	5,561.31	-252.01	-879.92	14,638,431.19	1,815,020.94	40.30504032	-104.37373318
5,800.00	19.59	254.02	5,655.52	-261.24	-912.15	14,638,421.73	1,814,988.78	40.30501498	-104.37384877
5,900.00	19.59	254.02	5,749.73	-270.47	-944.38	14,638,412.27	1,814,956.62	40.30498963	-104.37396436
6,000.00	19.59	254.02	5,843.95	-279.70	-976.61	14,638,402.81	1,814,924.46	40.30496428	-104.37407995
6,043.65	19.59	254.02	5,885.07	-283.73	-990.68	14,638,398.68	1,814,910.42	40.30495321	-104.37413041
Begin 10°/100' build									
6,100.00	18.92	271.04	5,938.31	-286.17	-1,008.91	14,638,396.12	1,814,892.21	40.30494652	-104.37419579
6,200.00	21.52	299.29	6,032.36	-276.88	-1,041.20	14,638,405.18	1,814,859.85	40.30497203	-104.37431161
6,300.00	27.58	318.64	6,123.43	-250.46	-1,072.57	14,638,431.37	1,814,828.29	40.30504457	-104.37442415
6,400.00	35.37	330.77	6,208.73	-207.72	-1,102.08	14,638,473.91	1,814,798.48	40.30516194	-104.37452999
6,500.00	43.96	338.82	6,285.69	-149.95	-1,128.82	14,638,531.48	1,814,771.33	40.30532056	-104.37462591
6,600.00	52.97	344.65	6,351.96	-78.91	-1,151.99	14,638,602.35	1,814,747.66	40.30551561	-104.37470901
6,700.00	62.20	349.22	6,405.53	3.23	-1,170.87	14,638,684.36	1,814,728.19	40.30574118	-104.37477675
6,800.00	71.55	353.07	6,444.78	94.00	-1,184.90	14,638,775.02	1,814,713.52	40.30599041	-104.37482709
6,900.00	80.98	356.51	6,468.50	190.62	-1,193.65	14,638,871.57	1,814,704.08	40.30625572	-104.37485848
6,995.43	90.00	359.63	6,476.00	285.59	-1,196.82	14,638,966.52	1,814,700.23	40.30651651	-104.37486989
LP Begin 90° lateral									
7,000.00	90.00	359.63	6,476.00	290.16	-1,196.85	14,638,971.09	1,814,700.17	40.30652905	-104.37486999
7,100.00	90.00	359.63	6,476.00	390.15	-1,197.49	14,639,071.08	1,814,698.82	40.30680364	-104.37487230
7,200.00	90.00	359.63	6,476.00	490.15	-1,198.13	14,639,171.07	1,814,697.47	40.30707823	-104.37487461
7,300.00	90.00	359.63	6,476.00	590.15	-1,198.77	14,639,271.06	1,814,696.12	40.30735282	-104.37487692
7,400.00	90.00	359.63	6,476.00	690.15	-1,199.41	14,639,371.05	1,814,694.77	40.30762741	-104.37487923
7,500.00	90.00	359.63	6,476.00	790.15	-1,200.05	14,639,471.04	1,814,693.42	40.30790200	-104.37488154
7,600.00	90.00	359.63	6,476.00	890.14	-1,200.68	14,639,571.03	1,814,692.07	40.30817659	-104.37488384
7,700.00	90.00	359.63	6,476.00	990.14	-1,201.32	14,639,671.03	1,814,690.72	40.30845118	-104.37488615
7,800.00	90.00	359.63	6,476.00	1,090.14	-1,201.96	14,639,771.02	1,814,689.37	40.30872577	-104.37488846
7,900.00	90.00	359.63	6,476.00	1,190.14	-1,202.60	14,639,871.01	1,814,688.03	40.30900035	-104.37489077
8,000.00	90.00	359.63	6,476.00	1,290.14	-1,203.24	14,639,971.00	1,814,686.68	40.30927494	-104.37489308
8,100.00	90.00	359.63	6,476.00	1,390.13	-1,203.88	14,640,070.99	1,814,685.33	40.30954953	-104.37489539
8,200.00	90.00	359.63	6,476.00	1,490.13	-1,204.52	14,640,170.98	1,814,683.98	40.30982412	-104.37489769
8,300.00	90.00	359.63	6,476.00	1,590.13	-1,205.15	14,640,270.97	1,814,682.63	40.31009871	-104.37490000
8,400.00	90.00	359.63	6,476.00	1,690.13	-1,205.79	14,640,370.96	1,814,681.28	40.31037330	-104.37490231
8,500.00	90.00	359.63	6,476.00	1,790.13	-1,206.43	14,640,470.95	1,814,679.93	40.31064789	-104.37490462
8,600.00	90.00	359.63	6,476.00	1,890.12	-1,207.07	14,640,570.94	1,814,678.58	40.31092248	-104.37490693
8,700.00	90.00	359.63	6,476.00	1,990.12	-1,207.71	14,640,670.93	1,814,677.23	40.31119706	-104.37490923
8,800.00	90.00	359.63	6,476.00	2,090.12	-1,208.35	14,640,770.92	1,814,675.88	40.31147165	-104.37491154
8,900.00	90.00	359.63	6,476.00	2,190.12	-1,208.99	14,640,870.91	1,814,674.53	40.31174624	-104.37491385
9,000.00	90.00	359.63	6,476.00	2,290.12	-1,209.63	14,640,970.90	1,814,673.18	40.31202083	-104.37491616
9,100.00	90.00	359.63	6,476.00	2,390.11	-1,210.26	14,641,070.89	1,814,671.83	40.31229542	-104.37491847
9,200.00	90.00	359.63	6,476.00	2,490.11	-1,210.90	14,641,170.89	1,814,670.48	40.31257001	-104.37492078
9,300.00	90.00	359.63	6,476.00	2,590.11	-1,211.54	14,641,270.88	1,814,669.13	40.31284459	-104.37492308
9,400.00	90.00	359.63	6,476.00	2,690.11	-1,212.18	14,641,370.87	1,814,667.79	40.31311918	-104.37492539
9,500.00	90.00	359.63	6,476.00	2,790.11	-1,212.82	14,641,470.86	1,814,666.44	40.31339376	-104.37492770
9,600.00	90.00	359.63	6,476.00	2,890.10	-1,213.46	14,641,570.85	1,814,665.09	40.31366835	-104.37493001
9,700.00	90.00	359.63	6,476.00	2,990.10	-1,214.10	14,641,670.84	1,814,663.74	40.31394294	-104.37493232
9,800.00	90.00	359.63	6,476.00	3,090.10	-1,214.74	14,641,770.83	1,814,662.39	40.31421753	-104.37493463
9,900.00	90.00	359.63	6,476.00	3,190.10	-1,215.37	14,641,870.82	1,814,661.04	40.31449212	-104.37493693
10,000.00	90.00	359.63	6,476.00	3,290.10	-1,216.01	14,641,970.81	1,814,659.69	40.31476671	-104.37493924



Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-06-4L
Company:	Confluence Resources	TVD Reference:	RKB=4556+24 @ 4580.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4556+24 @ 4580.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-06-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,100.00	90.00	359.63	6,476.00	3,390.09	-1,216.65	14,642,070.80	1,814,658.34	40.31504130	-104.37494155
10,200.00	90.00	359.63	6,476.00	3,490.09	-1,217.29	14,642,170.79	1,814,656.99	40.31531588	-104.37494386
10,300.00	90.00	359.63	6,476.00	3,590.09	-1,217.93	14,642,270.78	1,814,655.64	40.31559047	-104.37494617
10,400.00	90.00	359.63	6,476.00	3,690.09	-1,218.57	14,642,370.77	1,814,654.29	40.31586506	-104.37494848
10,500.00	90.00	359.63	6,476.00	3,790.09	-1,219.21	14,642,470.76	1,814,652.94	40.31613965	-104.37495079
10,600.00	90.00	359.63	6,476.00	3,890.08	-1,219.84	14,642,570.76	1,814,651.59	40.31641424	-104.37495309
10,700.00	90.00	359.63	6,476.00	3,990.08	-1,220.48	14,642,670.75	1,814,650.24	40.31668883	-104.37495540
10,800.00	90.00	359.63	6,476.00	4,090.08	-1,221.12	14,642,770.74	1,814,648.90	40.31696342	-104.37495771
10,900.00	90.00	359.63	6,476.00	4,190.08	-1,221.76	14,642,870.73	1,814,647.55	40.31723800	-104.37496002
11,000.00	90.00	359.63	6,476.00	4,290.08	-1,222.40	14,642,970.72	1,814,646.20	40.31751259	-104.37496233
11,100.00	90.00	359.63	6,476.00	4,390.07	-1,223.04	14,643,070.71	1,814,644.85	40.31778718	-104.37496464
11,200.00	90.00	359.63	6,476.00	4,490.07	-1,223.68	14,643,170.70	1,814,643.50	40.31806177	-104.37496694
11,300.00	90.00	359.63	6,476.00	4,590.07	-1,224.32	14,643,270.69	1,814,642.15	40.31833636	-104.37496925
11,400.00	90.00	359.63	6,476.00	4,690.07	-1,224.95	14,643,370.68	1,814,640.80	40.31861095	-104.37497156
11,500.00	90.00	359.63	6,476.00	4,790.06	-1,225.59	14,643,470.67	1,814,639.45	40.31888554	-104.37497387
11,600.00	90.00	359.63	6,476.00	4,890.06	-1,226.23	14,643,570.66	1,814,638.10	40.31916012	-104.37497618
11,700.00	90.00	359.63	6,476.00	4,990.06	-1,226.87	14,643,670.65	1,814,636.75	40.31943471	-104.37497849
11,800.00	90.00	359.63	6,476.00	5,090.06	-1,227.51	14,643,770.64	1,814,635.40	40.31970930	-104.37498079
11,900.00	90.00	359.63	6,476.00	5,190.06	-1,228.15	14,643,870.63	1,814,634.05	40.31998389	-104.37498310
12,000.00	90.00	359.63	6,476.00	5,290.05	-1,228.79	14,643,970.63	1,814,632.70	40.32025848	-104.37498541
12,100.00	90.00	359.63	6,476.00	5,390.05	-1,229.42	14,644,070.62	1,814,631.35	40.32053307	-104.37498772
12,200.00	90.00	359.63	6,476.00	5,490.05	-1,230.06	14,644,170.61	1,814,630.01	40.32080765	-104.37499003
12,300.00	90.00	359.63	6,476.00	5,590.05	-1,230.70	14,644,270.60	1,814,628.66	40.32108224	-104.37499234
12,400.00	90.00	359.63	6,476.00	5,690.05	-1,231.34	14,644,370.59	1,814,627.31	40.32135683	-104.37499465
12,500.00	90.00	359.63	6,476.00	5,790.04	-1,231.98	14,644,470.58	1,814,625.96	40.32163142	-104.37499695
12,600.00	90.00	359.63	6,476.00	5,890.04	-1,232.62	14,644,570.57	1,814,624.61	40.32190601	-104.37499926
12,700.00	90.00	359.63	6,476.00	5,990.04	-1,233.26	14,644,670.56	1,814,623.26	40.32218059	-104.37500157
12,800.00	90.00	359.63	6,476.00	6,090.04	-1,233.90	14,644,770.55	1,814,621.91	40.32245518	-104.37500388
12,900.00	90.00	359.63	6,476.00	6,190.04	-1,234.53	14,644,870.54	1,814,620.56	40.32272977	-104.37500619
13,000.00	90.00	359.63	6,476.00	6,290.03	-1,235.17	14,644,970.53	1,814,619.21	40.32300436	-104.37500850
13,100.00	90.00	359.63	6,476.00	6,390.03	-1,235.81	14,645,070.52	1,814,617.86	40.32327895	-104.37501080
13,200.00	90.00	359.63	6,476.00	6,490.03	-1,236.45	14,645,170.51	1,814,616.51	40.32355354	-104.37501311
13,300.00	90.00	359.63	6,476.00	6,590.03	-1,237.09	14,645,270.50	1,814,615.16	40.32382812	-104.37501542
13,400.00	90.00	359.63	6,476.00	6,690.03	-1,237.73	14,645,370.49	1,814,613.81	40.32410271	-104.37501773
13,500.00	90.00	359.63	6,476.00	6,790.02	-1,238.37	14,645,470.49	1,814,612.46	40.32437730	-104.37502004
13,600.00	90.00	359.63	6,476.00	6,890.02	-1,239.00	14,645,570.48	1,814,611.11	40.32465189	-104.37502235
13,700.00	90.00	359.63	6,476.00	6,990.02	-1,239.64	14,645,670.47	1,814,609.77	40.32492648	-104.37502466
13,800.00	90.00	359.63	6,476.00	7,090.02	-1,240.28	14,645,770.46	1,814,608.42	40.32520106	-104.37502696
13,900.00	90.00	359.63	6,476.00	7,190.02	-1,240.92	14,645,870.45	1,814,607.07	40.32547565	-104.37502927
14,000.00	90.00	359.63	6,476.00	7,290.01	-1,241.56	14,645,970.44	1,814,605.72	40.32575024	-104.37503158
14,100.00	90.00	359.63	6,476.00	7,390.01	-1,242.20	14,646,070.43	1,814,604.37	40.32602483	-104.37503389
14,200.00	90.00	359.63	6,476.00	7,490.01	-1,242.84	14,646,170.42	1,814,603.02	40.32629942	-104.37503620
14,300.00	90.00	359.63	6,476.00	7,590.01	-1,243.48	14,646,270.41	1,814,601.67	40.32657401	-104.37503851
14,400.00	90.00	359.63	6,476.00	7,690.01	-1,244.11	14,646,370.40	1,814,600.32	40.32684859	-104.37504082
14,500.00	90.00	359.63	6,476.00	7,790.00	-1,244.75	14,646,470.39	1,814,598.97	40.32712318	-104.37504312
14,600.00	90.00	359.63	6,476.00	7,890.00	-1,245.39	14,646,570.38	1,814,597.62	40.32739777	-104.37504543
14,700.00	90.00	359.63	6,476.00	7,990.00	-1,246.03	14,646,670.37	1,814,596.27	40.32767236	-104.37504774
14,800.00	90.00	359.63	6,476.00	8,090.00	-1,246.67	14,646,770.36	1,814,594.92	40.32794695	-104.37505005
14,900.00	90.00	359.63	6,476.00	8,190.00	-1,247.31	14,646,870.36	1,814,593.57	40.32822153	-104.37505236
15,000.00	90.00	359.63	6,476.00	8,289.99	-1,247.95	14,646,970.35	1,814,592.22	40.32849612	-104.37505467
15,100.00	90.00	359.63	6,476.00	8,389.99	-1,248.58	14,647,070.34	1,814,590.88	40.32877071	-104.37505698
15,200.00	90.00	359.63	6,476.00	8,489.99	-1,249.22	14,647,170.33	1,814,589.53	40.32904530	-104.37505928
15,300.00	90.00	359.63	6,476.00	8,589.99	-1,249.86	14,647,270.32	1,814,588.18	40.32931989	-104.37506159
15,400.00	90.00	359.63	6,476.00	8,689.99	-1,250.50	14,647,370.31	1,814,586.83	40.32959447	-104.37506390
15,500.00	90.00	359.63	6,476.00	8,789.98	-1,251.14	14,647,470.30	1,814,585.48	40.32986906	-104.37506621

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-06-4L
Company:	Confluence Resources	TVD Reference:	RKB=4556+24 @ 4580.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4556+24 @ 4580.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-06-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,600.00	90.00	359.63	6,476.00	8,889.98	-1,251.78	14,647,570.29	1,814,584.13	40.33014365	-104.37506852
15,700.00	90.00	359.63	6,476.00	8,989.98	-1,252.42	14,647,670.28	1,814,582.78	40.33041824	-104.37507083
15,800.00	90.00	359.63	6,476.00	9,089.98	-1,253.06	14,647,770.27	1,814,581.43	40.33069282	-104.37507314
15,900.00	90.00	359.63	6,476.00	9,189.98	-1,253.69	14,647,870.26	1,814,580.08	40.33096741	-104.37507544
16,000.00	90.00	359.63	6,476.00	9,289.97	-1,254.33	14,647,970.25	1,814,578.73	40.33124200	-104.37507775
16,100.00	90.00	359.63	6,476.00	9,389.97	-1,254.97	14,648,070.24	1,814,577.38	40.33151659	-104.37508006
16,200.00	90.00	359.63	6,476.00	9,489.97	-1,255.61	14,648,170.23	1,814,576.03	40.33179118	-104.37508237
16,300.00	90.00	359.63	6,476.00	9,589.97	-1,256.25	14,648,270.23	1,814,574.68	40.33206576	-104.37508468
16,400.00	90.00	359.63	6,476.00	9,689.97	-1,256.89	14,648,370.22	1,814,573.33	40.33234035	-104.37508699
16,500.00	90.00	359.63	6,476.00	9,789.96	-1,257.53	14,648,470.21	1,814,571.99	40.33261494	-104.37508930
16,600.00	90.00	359.63	6,476.00	9,889.96	-1,258.16	14,648,570.20	1,814,570.64	40.33288953	-104.37509160
16,633.74	90.00	359.63	6,476.00	9,923.70	-1,258.38	14,648,603.93	1,814,570.18	40.33298217	-104.37509238
PBHL/TD 16633.74 MD/6476.00 TVD									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Middlepark 18-06-4L BH - plan hits target center - Point	0.00	0.00	6,476.00	9,923.70	-1,258.38	14,648,603.94	1,814,570.18	40.33298218	-104.37509238
Middlepark 18-06-4L LP - plan hits target center - Point	0.00	0.00	6,476.00	285.58	-1,196.82	14,638,966.52	1,814,700.23	40.30651650	-104.37486989

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,000.00	2,000.00	0.00	0.00	KOP Begin 1°/100' build
3,958.70	3,920.77	-91.29	-318.74	Begin 19.59° tangent
6,043.65	5,885.07	-283.73	-990.68	Begin 10°/100' build
6,995.43	6,476.00	285.59	-1,196.82	LP Begin 90° lateral
16,633.74	6,476.00	9,923.70	-1,258.38	PBHL/TD 16633.74 MD/6476.00 TVD