



Well: Middlepark 18-10-1L
 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 2°/100' build
3	3268.40	25.37	113.31	3227.36	-109.32	253.69	2.00	-79.13	Begin 25.37° tangent
4	5889.20	25.37	113.31	5595.45	-553.68	1284.85	0.00	-400.78	Begin 10°/100' build
5	6896.07	90.00	357.66	6220.00	19.76	1528.63	10.00	197.08	LP Begin 90° lateral
6	16584.59	90.00	357.66	6220.00	9700.23	1133.73	0.00	9766.26	PBHL/TD 16584.59 MD/6220.00 TVD

DESIGN TARGET DETAILS

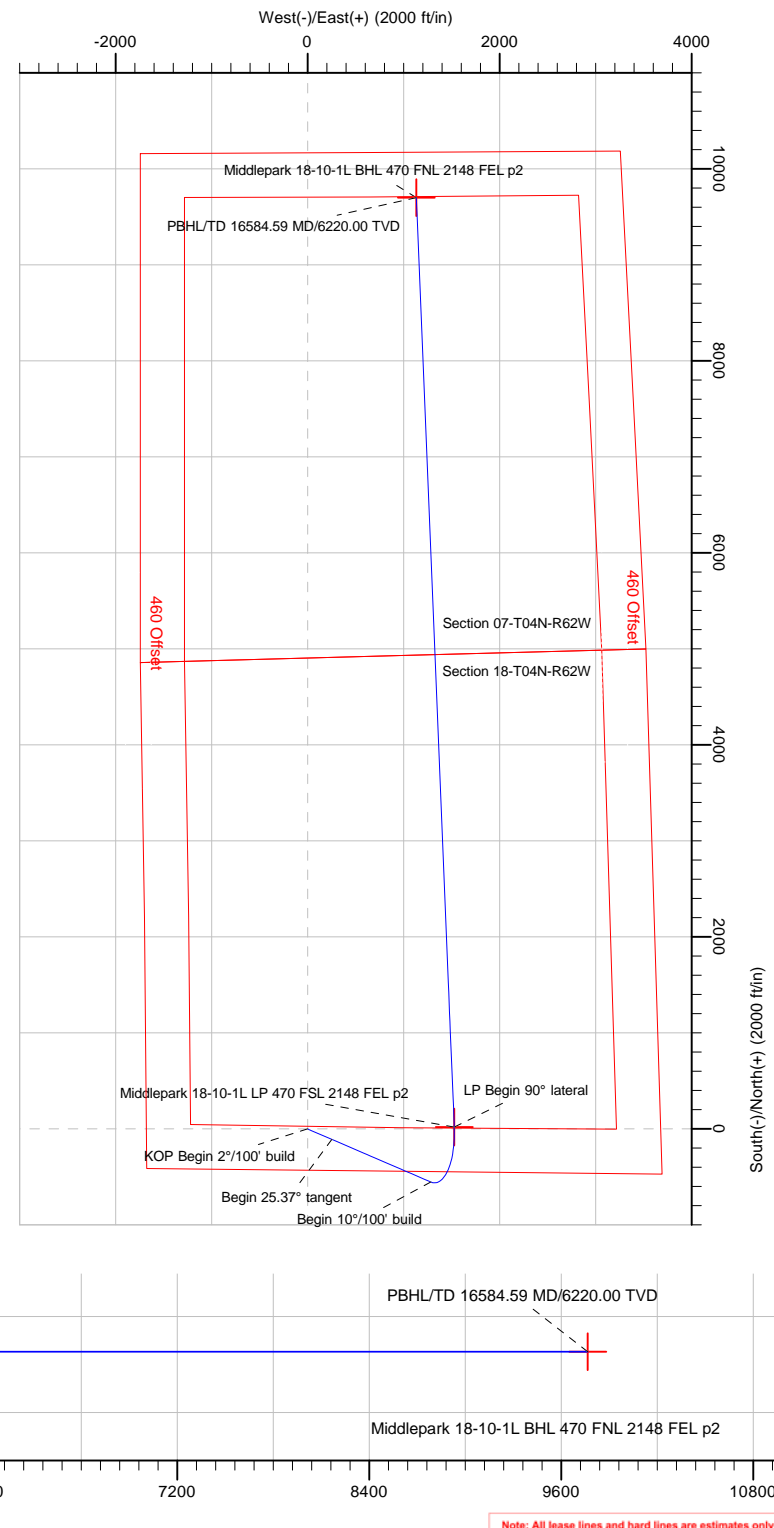
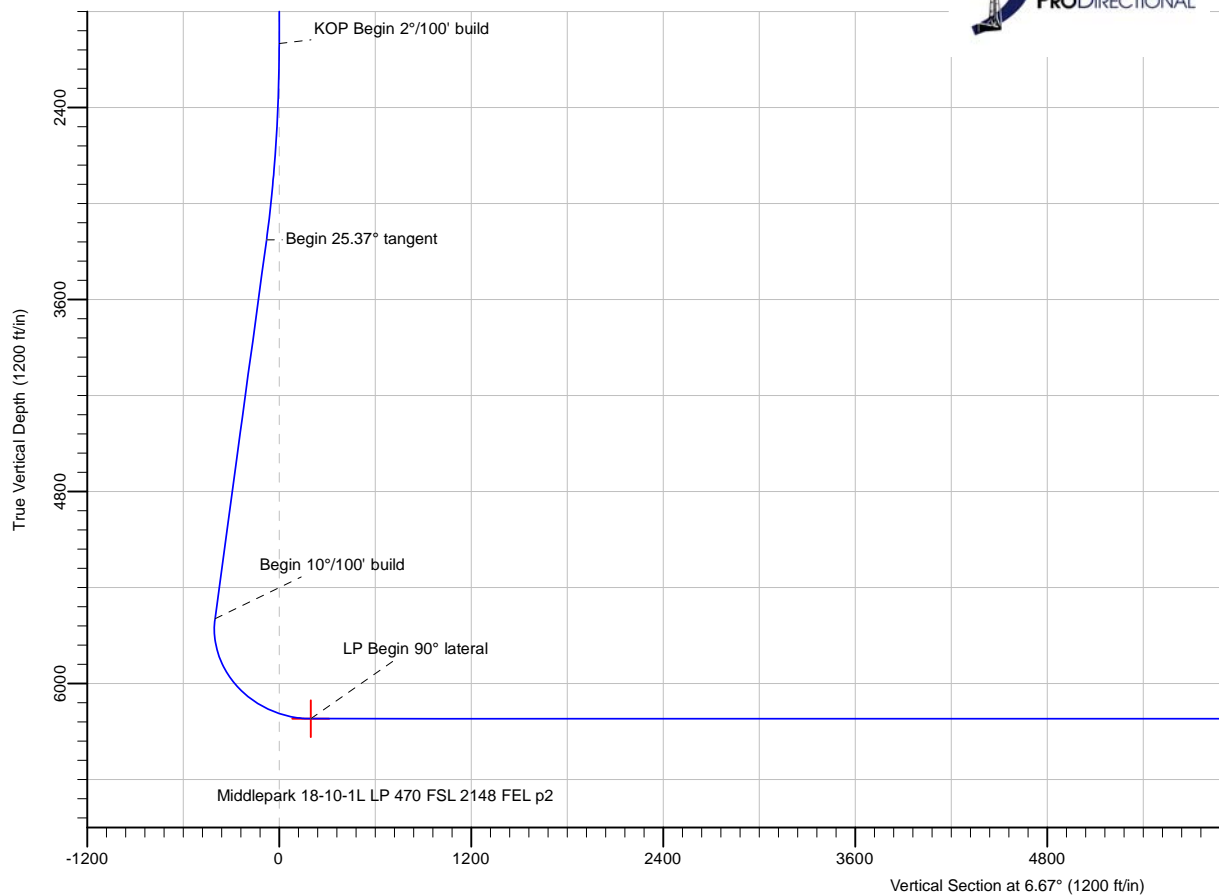
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Middlepark 18-10-1L BHL 470 FNL 2148 FEL p2	6220.00	9700.23	1133.73	14648627.40	1816973.95	40.33299969	-104.36646693
Middlepark 18-10-1L LP 470 FSL 2148 FEL p2	6220.00	19.76	1528.63	14638950.00	1817437.64	40.30641766	-104.36505218



Azimuths to True North
 Magnetic North: 8.18°

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

Middlepark 18-10-1L Surf loc: 432 FSL 1678 FWL Section 18-T04N-R62W			
NAD83 Colorado - HARN Universal Transverse Mercator (US Survey Feet) Zone 13N (108 W to 102 W) RKB=4557+24 @ 4581.00ft			
Northing	Easting	Latitude	Longitude
14638919.38	1815909.19	40.30636354	-104.37053497



Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-10-1L
Company:	Confluence Resources	TVD Reference:	RKB=4557+24 @ 4581.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4557+24 @ 4581.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-10-1L	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 18-10-1L, Surf loc: 432 FSL 1678 FWL Section 18-T04N-R62W					
Well Position	+N/-S	-2,242.00 ft	Northing:	14,638,919.38 usft	Latitude:	40.30636354
	+E/-W	1,119.41 ft	Easting:	1,815,909.19 usft	Longitude:	-104.37053497
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,557.00 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	6.67

Plan Survey Tool Program	Date	4/27/2018		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,584.59	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	
3,268.40	25.37	113.31	3,227.36	-109.32	253.69	2.00	2.00	0.00	113.31	
5,889.20	25.37	113.31	5,595.45	-553.68	1,284.85	0.00	0.00	0.00	0.00	
6,896.07	90.00	357.66	6,220.00	19.76	1,528.63	10.00	6.42	-11.49	-113.45	Middlepark 18-10-1L I
16,584.59	90.00	357.66	6,220.00	9,700.23	1,133.73	0.00	0.00	0.00	0.00	Middlepark 18-10-1L I

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Company:	Confluence Resources	TVD Reference:	RKB=4557+24 @ 4581.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4557+24 @ 4581.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-10-1L	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 2°/100' build									
2,100.00	2.00	113.31	2,099.98	-0.69	1.60	-0.50	2.00	2.00	0.00
2,200.00	4.00	113.31	2,199.84	-2.76	6.41	-2.00	2.00	2.00	0.00
2,300.00	6.00	113.31	2,299.45	-6.21	14.41	-4.50	2.00	2.00	0.00
2,400.00	8.00	113.31	2,398.70	-11.03	25.60	-7.99	2.00	2.00	0.00
2,500.00	10.00	113.31	2,497.47	-17.22	39.97	-12.47	2.00	2.00	0.00
2,600.00	12.00	113.31	2,595.62	-24.77	57.49	-17.93	2.00	2.00	0.00
2,700.00	14.00	113.31	2,693.06	-33.68	78.15	-24.38	2.00	2.00	0.00
2,800.00	16.00	113.31	2,789.64	-43.92	101.92	-31.79	2.00	2.00	0.00
2,900.00	18.00	113.31	2,885.27	-55.49	128.77	-40.17	2.00	2.00	0.00
3,000.00	20.00	113.31	2,979.82	-68.37	158.66	-49.49	2.00	2.00	0.00
3,100.00	22.00	113.31	3,073.17	-82.55	191.57	-59.76	2.00	2.00	0.00
3,200.00	24.00	113.31	3,165.21	-98.02	227.45	-70.95	2.00	2.00	0.00
3,268.40	25.37	113.31	3,227.36	-109.32	253.69	-79.13	2.00	2.00	0.00
Begin 25.37° tangent									
3,300.00	25.37	113.31	3,255.92	-114.68	266.12	-83.01	0.00	0.00	0.00
3,400.00	25.37	113.31	3,346.27	-131.63	305.46	-95.28	0.00	0.00	0.00
3,500.00	25.37	113.31	3,436.63	-148.59	344.81	-107.56	0.00	0.00	0.00
3,600.00	25.37	113.31	3,526.99	-165.54	384.16	-119.83	0.00	0.00	0.00
3,700.00	25.37	113.31	3,617.35	-182.50	423.50	-132.10	0.00	0.00	0.00
3,800.00	25.37	113.31	3,707.70	-199.45	462.85	-144.37	0.00	0.00	0.00
3,900.00	25.37	113.31	3,798.06	-216.41	502.19	-156.65	0.00	0.00	0.00
4,000.00	25.37	113.31	3,888.42	-233.36	541.54	-168.92	0.00	0.00	0.00
4,100.00	25.37	113.31	3,978.78	-250.32	580.88	-181.19	0.00	0.00	0.00
4,200.00	25.37	113.31	4,069.13	-267.27	620.23	-193.47	0.00	0.00	0.00
4,300.00	25.37	113.31	4,159.49	-284.23	659.57	-205.74	0.00	0.00	0.00
4,400.00	25.37	113.31	4,249.85	-301.18	698.92	-218.01	0.00	0.00	0.00
4,500.00	25.37	113.31	4,340.21	-318.14	738.26	-230.28	0.00	0.00	0.00
4,600.00	25.37	113.31	4,430.56	-335.09	777.61	-242.56	0.00	0.00	0.00
4,700.00	25.37	113.31	4,520.92	-352.05	816.95	-254.83	0.00	0.00	0.00
4,800.00	25.37	113.31	4,611.28	-369.00	856.30	-267.10	0.00	0.00	0.00
4,900.00	25.37	113.31	4,701.64	-385.96	895.65	-279.38	0.00	0.00	0.00

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Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-10-1L	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	25.37	113.31	4,791.99	-402.91	934.99	-291.65	0.00	0.00	0.00
5,100.00	25.37	113.31	4,882.35	-419.87	974.34	-303.92	0.00	0.00	0.00
5,200.00	25.37	113.31	4,972.71	-436.82	1,013.68	-316.19	0.00	0.00	0.00
5,300.00	25.37	113.31	5,063.07	-453.78	1,053.03	-328.47	0.00	0.00	0.00
5,400.00	25.37	113.31	5,153.42	-470.73	1,092.37	-340.74	0.00	0.00	0.00
5,500.00	25.37	113.31	5,243.78	-487.69	1,131.72	-353.01	0.00	0.00	0.00
5,600.00	25.37	113.31	5,334.14	-504.64	1,171.06	-365.29	0.00	0.00	0.00
5,700.00	25.37	113.31	5,424.49	-521.60	1,210.41	-377.56	0.00	0.00	0.00
5,800.00	25.37	113.31	5,514.85	-538.55	1,249.75	-389.83	0.00	0.00	0.00
5,889.20	25.37	113.31	5,595.45	-553.68	1,284.85	-400.78	0.00	0.00	0.00
Begin 10°/100' build									
5,900.00	24.96	110.96	5,605.23	-555.41	1,289.10	-402.00	10.00	-3.81	-21.75
6,000.00	23.15	86.66	5,696.77	-561.83	1,328.52	-403.81	10.00	-1.81	-24.30
6,100.00	25.25	62.65	5,788.19	-550.86	1,367.19	-388.42	10.00	2.11	-24.02
6,200.00	30.47	44.26	5,876.74	-522.83	1,403.92	-356.31	10.00	5.22	-18.39
6,300.00	37.52	31.49	5,959.70	-478.59	1,437.61	-308.46	10.00	7.05	-12.77
6,400.00	45.55	22.46	6,034.56	-419.49	1,467.22	-246.33	10.00	8.03	-9.03
6,500.00	54.11	15.68	6,099.05	-347.32	1,491.87	-171.78	10.00	8.56	-6.78
6,600.00	62.98	10.25	6,151.21	-264.28	1,510.79	-87.11	10.00	8.87	-5.43
6,700.00	72.03	5.63	6,189.45	-172.88	1,523.42	5.14	10.00	9.05	-4.62
6,800.00	81.17	1.47	6,212.61	-75.91	1,529.37	102.14	10.00	9.15	-4.16
6,896.07	90.00	357.66	6,220.00	19.76	1,528.63	197.08	10.00	9.19	-3.96
LP Begin 90° lateral									
6,900.00	90.00	357.66	6,220.00	23.68	1,528.47	200.96	0.00	0.00	0.00
7,000.00	90.00	357.66	6,220.00	123.60	1,524.40	299.73	0.00	0.00	0.00
7,100.00	90.00	357.66	6,220.00	223.52	1,520.32	398.49	0.00	0.00	0.00
7,200.00	90.00	357.66	6,220.00	323.43	1,516.24	497.26	0.00	0.00	0.00
7,300.00	90.00	357.66	6,220.00	423.35	1,512.17	596.03	0.00	0.00	0.00
7,400.00	90.00	357.66	6,220.00	523.27	1,508.09	694.80	0.00	0.00	0.00
7,500.00	90.00	357.66	6,220.00	623.18	1,504.02	793.57	0.00	0.00	0.00
7,600.00	90.00	357.66	6,220.00	723.10	1,499.94	892.34	0.00	0.00	0.00
7,700.00	90.00	357.66	6,220.00	823.02	1,495.86	991.10	0.00	0.00	0.00
7,800.00	90.00	357.66	6,220.00	922.94	1,491.79	1,089.87	0.00	0.00	0.00
7,900.00	90.00	357.66	6,220.00	1,022.85	1,487.71	1,188.64	0.00	0.00	0.00
8,000.00	90.00	357.66	6,220.00	1,122.77	1,483.64	1,287.41	0.00	0.00	0.00
8,100.00	90.00	357.66	6,220.00	1,222.69	1,479.56	1,386.18	0.00	0.00	0.00
8,200.00	90.00	357.66	6,220.00	1,322.60	1,475.48	1,484.94	0.00	0.00	0.00
8,300.00	90.00	357.66	6,220.00	1,422.52	1,471.41	1,583.71	0.00	0.00	0.00
8,400.00	90.00	357.66	6,220.00	1,522.44	1,467.33	1,682.48	0.00	0.00	0.00
8,500.00	90.00	357.66	6,220.00	1,622.35	1,463.26	1,781.25	0.00	0.00	0.00
8,600.00	90.00	357.66	6,220.00	1,722.27	1,459.18	1,880.02	0.00	0.00	0.00
8,700.00	90.00	357.66	6,220.00	1,822.19	1,455.10	1,978.79	0.00	0.00	0.00
8,800.00	90.00	357.66	6,220.00	1,922.10	1,451.03	2,077.55	0.00	0.00	0.00
8,900.00	90.00	357.66	6,220.00	2,022.02	1,446.95	2,176.32	0.00	0.00	0.00
9,000.00	90.00	357.66	6,220.00	2,121.94	1,442.88	2,275.09	0.00	0.00	0.00
9,100.00	90.00	357.66	6,220.00	2,221.85	1,438.80	2,373.86	0.00	0.00	0.00
9,200.00	90.00	357.66	6,220.00	2,321.77	1,434.73	2,472.63	0.00	0.00	0.00
9,300.00	90.00	357.66	6,220.00	2,421.69	1,430.65	2,571.40	0.00	0.00	0.00
9,400.00	90.00	357.66	6,220.00	2,521.61	1,426.57	2,670.16	0.00	0.00	0.00
9,500.00	90.00	357.66	6,220.00	2,621.52	1,422.50	2,768.93	0.00	0.00	0.00
9,600.00	90.00	357.66	6,220.00	2,721.44	1,418.42	2,867.70	0.00	0.00	0.00
9,700.00	90.00	357.66	6,220.00	2,821.36	1,414.35	2,966.47	0.00	0.00	0.00
9,800.00	90.00	357.66	6,220.00	2,921.27	1,410.27	3,065.24	0.00	0.00	0.00
9,900.00	90.00	357.66	6,220.00	3,021.19	1,406.19	3,164.00	0.00	0.00	0.00

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Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-10-1L	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	357.66	6,220.00	3,121.11	1,402.12	3,262.77	0.00	0.00	0.00
10,100.00	90.00	357.66	6,220.00	3,221.02	1,398.04	3,361.54	0.00	0.00	0.00
10,200.00	90.00	357.66	6,220.00	3,320.94	1,393.97	3,460.31	0.00	0.00	0.00
10,300.00	90.00	357.66	6,220.00	3,420.86	1,389.89	3,559.08	0.00	0.00	0.00
10,400.00	90.00	357.66	6,220.00	3,520.77	1,385.81	3,657.85	0.00	0.00	0.00
10,500.00	90.00	357.66	6,220.00	3,620.69	1,381.74	3,756.61	0.00	0.00	0.00
10,600.00	90.00	357.66	6,220.00	3,720.61	1,377.66	3,855.38	0.00	0.00	0.00
10,700.00	90.00	357.66	6,220.00	3,820.53	1,373.59	3,954.15	0.00	0.00	0.00
10,800.00	90.00	357.66	6,220.00	3,920.44	1,369.51	4,052.92	0.00	0.00	0.00
10,900.00	90.00	357.66	6,220.00	4,020.36	1,365.43	4,151.69	0.00	0.00	0.00
11,000.00	90.00	357.66	6,220.00	4,120.28	1,361.36	4,250.45	0.00	0.00	0.00
11,100.00	90.00	357.66	6,220.00	4,220.19	1,357.28	4,349.22	0.00	0.00	0.00
11,200.00	90.00	357.66	6,220.00	4,320.11	1,353.21	4,447.99	0.00	0.00	0.00
11,300.00	90.00	357.66	6,220.00	4,420.03	1,349.13	4,546.76	0.00	0.00	0.00
11,400.00	90.00	357.66	6,220.00	4,519.94	1,345.05	4,645.53	0.00	0.00	0.00
11,500.00	90.00	357.66	6,220.00	4,619.86	1,340.98	4,744.30	0.00	0.00	0.00
11,600.00	90.00	357.66	6,220.00	4,719.78	1,336.90	4,843.06	0.00	0.00	0.00
11,700.00	90.00	357.66	6,220.00	4,819.69	1,332.83	4,941.83	0.00	0.00	0.00
11,800.00	90.00	357.66	6,220.00	4,919.61	1,328.75	5,040.60	0.00	0.00	0.00
11,900.00	90.00	357.66	6,220.00	5,019.53	1,324.67	5,139.37	0.00	0.00	0.00
12,000.00	90.00	357.66	6,220.00	5,119.45	1,320.60	5,238.14	0.00	0.00	0.00
12,100.00	90.00	357.66	6,220.00	5,219.36	1,316.52	5,336.91	0.00	0.00	0.00
12,200.00	90.00	357.66	6,220.00	5,319.28	1,312.45	5,435.67	0.00	0.00	0.00
12,300.00	90.00	357.66	6,220.00	5,419.20	1,308.37	5,534.44	0.00	0.00	0.00
12,400.00	90.00	357.66	6,220.00	5,519.11	1,304.29	5,633.21	0.00	0.00	0.00
12,500.00	90.00	357.66	6,220.00	5,619.03	1,300.22	5,731.98	0.00	0.00	0.00
12,600.00	90.00	357.66	6,220.00	5,718.95	1,296.14	5,830.75	0.00	0.00	0.00
12,700.00	90.00	357.66	6,220.00	5,818.86	1,292.07	5,929.51	0.00	0.00	0.00
12,800.00	90.00	357.66	6,220.00	5,918.78	1,287.99	6,028.28	0.00	0.00	0.00
12,900.00	90.00	357.66	6,220.00	6,018.70	1,283.91	6,127.05	0.00	0.00	0.00
13,000.00	90.00	357.66	6,220.00	6,118.61	1,279.84	6,225.82	0.00	0.00	0.00
13,100.00	90.00	357.66	6,220.00	6,218.53	1,275.76	6,324.59	0.00	0.00	0.00
13,200.00	90.00	357.66	6,220.00	6,318.45	1,271.69	6,423.36	0.00	0.00	0.00
13,300.00	90.00	357.66	6,220.00	6,418.36	1,267.61	6,522.12	0.00	0.00	0.00
13,400.00	90.00	357.66	6,220.00	6,518.28	1,263.54	6,620.89	0.00	0.00	0.00
13,500.00	90.00	357.66	6,220.00	6,618.20	1,259.46	6,719.66	0.00	0.00	0.00
13,600.00	90.00	357.66	6,220.00	6,718.12	1,255.38	6,818.43	0.00	0.00	0.00
13,700.00	90.00	357.66	6,220.00	6,818.03	1,251.31	6,917.20	0.00	0.00	0.00
13,800.00	90.00	357.66	6,220.00	6,917.95	1,247.23	7,015.96	0.00	0.00	0.00
13,900.00	90.00	357.66	6,220.00	7,017.87	1,243.16	7,114.73	0.00	0.00	0.00
14,000.00	90.00	357.66	6,220.00	7,117.78	1,239.08	7,213.50	0.00	0.00	0.00
14,100.00	90.00	357.66	6,220.00	7,217.70	1,235.00	7,312.27	0.00	0.00	0.00
14,200.00	90.00	357.66	6,220.00	7,317.62	1,230.93	7,411.04	0.00	0.00	0.00
14,300.00	90.00	357.66	6,220.00	7,417.53	1,226.85	7,509.81	0.00	0.00	0.00
14,400.00	90.00	357.66	6,220.00	7,517.45	1,222.78	7,608.57	0.00	0.00	0.00
14,500.00	90.00	357.66	6,220.00	7,617.37	1,218.70	7,707.34	0.00	0.00	0.00
14,600.00	90.00	357.66	6,220.00	7,717.28	1,214.62	7,806.11	0.00	0.00	0.00
14,700.00	90.00	357.66	6,220.00	7,817.20	1,210.55	7,904.88	0.00	0.00	0.00
14,800.00	90.00	357.66	6,220.00	7,917.12	1,206.47	8,003.65	0.00	0.00	0.00
14,900.00	90.00	357.66	6,220.00	8,017.04	1,202.40	8,102.41	0.00	0.00	0.00
15,000.00	90.00	357.66	6,220.00	8,116.95	1,198.32	8,201.18	0.00	0.00	0.00
15,100.00	90.00	357.66	6,220.00	8,216.87	1,194.24	8,299.95	0.00	0.00	0.00
15,200.00	90.00	357.66	6,220.00	8,316.79	1,190.17	8,398.72	0.00	0.00	0.00
15,300.00	90.00	357.66	6,220.00	8,416.70	1,186.09	8,497.49	0.00	0.00	0.00

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-10-1L
Company:	Confluence Resources	TVD Reference:	RKB=4557+24 @ 4581.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4557+24 @ 4581.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-10-1L	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	357.66	6,220.00	8,516.62	1,182.02	8,596.26	0.00	0.00	0.00	
15,500.00	90.00	357.66	6,220.00	8,616.54	1,177.94	8,695.02	0.00	0.00	0.00	
15,600.00	90.00	357.66	6,220.00	8,716.45	1,173.86	8,793.79	0.00	0.00	0.00	
15,700.00	90.00	357.66	6,220.00	8,816.37	1,169.79	8,892.56	0.00	0.00	0.00	
15,800.00	90.00	357.66	6,220.00	8,916.29	1,165.71	8,991.33	0.00	0.00	0.00	
15,900.00	90.00	357.66	6,220.00	9,016.20	1,161.64	9,090.10	0.00	0.00	0.00	
16,000.00	90.00	357.66	6,220.00	9,116.12	1,157.56	9,188.87	0.00	0.00	0.00	
16,100.00	90.00	357.66	6,220.00	9,216.04	1,153.48	9,287.63	0.00	0.00	0.00	
16,200.00	90.00	357.66	6,220.00	9,315.95	1,149.41	9,386.40	0.00	0.00	0.00	
16,300.00	90.00	357.66	6,220.00	9,415.87	1,145.33	9,485.17	0.00	0.00	0.00	
16,400.00	90.00	357.66	6,220.00	9,515.79	1,141.26	9,583.94	0.00	0.00	0.00	
16,500.00	90.00	357.66	6,220.00	9,615.71	1,137.18	9,682.71	0.00	0.00	0.00	
16,584.59	90.00	357.66	6,220.00	9,700.23	1,133.73	9,766.25	0.00	0.00	0.00	
PBHL/TD 16584.59 MD/6220.00 TVD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude		Longitude
Middlepark 18-10-1L BH	0.00	0.00	6,220.00	9,700.23	1,133.73	14,648,627.40	1,816,973.95	40.33299968		-104.36646693
- hit/miss target										
- Shape										
- Point										
Middlepark 18-10-1L LP	0.00	0.00	6,220.00	19.76	1,528.63	14,638,950.00	1,817,437.64	40.30641766		-104.36505218
- plan hits target center										
- Point										

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 2°/100' build	
3,268.40	3,227.36	-109.32	253.69	Begin 25.37° tangent	
5,889.20	5,595.45	-553.68	1,284.85	Begin 10°/100' build	
6,896.07	6,220.00	19.76	1,528.63	LP Begin 90° lateral	
16,584.59	6,220.00	9,700.23	1,133.73	PBHL/TD 16584.59 MD/6220.00 TVD	

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-10-1L
Company:	Confluence Resources	TVD Reference:	RKB=4557+24 @ 4581.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4557+24 @ 4581.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-10-1L	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 18-10-1L, Surf loc: 432 FSL 1678 FWL Section 18-T04N-R62W					
Well Position	+N/-S	0.00 ft	Northing:	14,638,919.38 usft	Latitude:	40.30636354
	+E/-W	0.00 ft	Easting:	1,815,909.19 usft	Longitude:	-104.37053497
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,557.00 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	6.67

Plan Survey Tool Program	Date	4/27/2018		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,584.59 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	
3,268.40	25.37	113.31	3,227.36	-109.32	253.69	2.00	2.00	0.00	113.31	
5,889.20	25.37	113.31	5,595.45	-553.68	1,284.85	0.00	0.00	0.00	0.00	
6,896.07	90.00	357.66	6,220.00	19.76	1,528.63	10.00	6.42	-11.49	-113.45	Middlepark 18-10-1L I
16,584.59	90.00	357.66	6,220.00	9,700.23	1,133.73	0.00	0.00	0.00	0.00	Middlepark 18-10-1L I

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-10-1L
Company:	Confluence Resources	TVD Reference:	RKB=4557+24 @ 4581.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4557+24 @ 4581.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-10-1L	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	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
100.00	0.00	0.00	100.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
200.00	0.00	0.00	200.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
300.00	0.00	0.00	300.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
400.00	0.00	0.00	400.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
500.00	0.00	0.00	500.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
600.00	0.00	0.00	600.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
700.00	0.00	0.00	700.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
800.00	0.00	0.00	800.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
900.00	0.00	0.00	900.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,638,919.38	1,815,909.19	40.30636354	-104.37053497
KOP Begin 2°/100' build									
2,100.00	2.00	113.31	2,099.98	-0.69	1.60	14,638,918.70	1,815,910.80	40.30636165	-104.37052922
2,200.00	4.00	113.31	2,199.84	-2.76	6.41	14,638,916.66	1,815,915.62	40.30635596	-104.37051199
2,300.00	6.00	113.31	2,299.45	-6.21	14.41	14,638,913.27	1,815,923.65	40.30634649	-104.37048328
2,400.00	8.00	113.31	2,398.70	-11.03	25.60	14,638,908.53	1,815,934.87	40.30633325	-104.37044314
2,500.00	10.00	113.31	2,497.47	-17.22	39.97	14,638,902.44	1,815,949.28	40.30631625	-104.37039161
2,600.00	12.00	113.31	2,595.62	-24.77	57.49	14,638,895.01	1,815,966.86	40.30629551	-104.37032876
2,700.00	14.00	113.31	2,693.06	-33.68	78.15	14,638,886.26	1,815,987.58	40.30627107	-104.37025467
2,800.00	16.00	113.31	2,789.64	-43.92	101.92	14,638,876.18	1,816,011.42	40.30624294	-104.37016942
2,900.00	18.00	113.31	2,885.27	-55.49	128.77	14,638,864.81	1,816,038.35	40.30621117	-104.37007312
3,000.00	20.00	113.31	2,979.82	-68.37	158.66	14,638,852.13	1,816,068.34	40.30617580	-104.36996589
3,100.00	22.00	113.31	3,073.17	-82.55	191.57	14,638,838.19	1,816,101.34	40.30613685	-104.36984786
3,200.00	24.00	113.31	3,165.21	-98.02	227.45	14,638,822.98	1,816,137.33	40.30609439	-104.36971916
3,268.40	25.37	113.31	3,227.36	-109.32	253.69	14,638,811.86	1,816,163.65	40.30606335	-104.36962507
Begin 25.37° tangent									
3,300.00	25.37	113.31	3,255.92	-114.68	266.12	14,638,806.59	1,816,176.12	40.30604864	-104.36958048
3,400.00	25.37	113.31	3,346.27	-131.63	305.46	14,638,789.92	1,816,215.58	40.30600208	-104.36943936
3,500.00	25.37	113.31	3,436.63	-148.59	344.81	14,638,773.24	1,816,255.05	40.30595552	-104.36929824
3,600.00	25.37	113.31	3,526.99	-165.54	384.16	14,638,756.57	1,816,294.51	40.30590896	-104.36915712
3,700.00	25.37	113.31	3,617.35	-182.50	423.50	14,638,739.89	1,816,333.98	40.30586240	-104.36901600
3,800.00	25.37	113.31	3,707.70	-199.45	462.85	14,638,723.22	1,816,373.44	40.30581585	-104.36887488
3,900.00	25.37	113.31	3,798.06	-216.41	502.19	14,638,706.54	1,816,412.91	40.30576929	-104.36873376
4,000.00	25.37	113.31	3,888.42	-233.36	541.54	14,638,689.87	1,816,452.37	40.30572273	-104.36859264
4,100.00	25.37	113.31	3,978.78	-250.32	580.88	14,638,673.19	1,816,491.84	40.30567617	-104.36845153
4,200.00	25.37	113.31	4,069.13	-267.27	620.23	14,638,656.52	1,816,531.30	40.30562961	-104.36831041
4,300.00	25.37	113.31	4,159.49	-284.23	659.57	14,638,639.84	1,816,570.77	40.30558305	-104.36816929
4,400.00	25.37	113.31	4,249.85	-301.18	698.92	14,638,623.17	1,816,610.23	40.30553649	-104.36802817
4,500.00	25.37	113.31	4,340.21	-318.14	738.26	14,638,606.50	1,816,649.70	40.30548992	-104.36788705
4,600.00	25.37	113.31	4,430.56	-335.09	777.61	14,638,589.82	1,816,689.16	40.30544336	-104.36774594
4,700.00	25.37	113.31	4,520.92	-352.05	816.95	14,638,573.15	1,816,728.63	40.30539680	-104.36760482
4,800.00	25.37	113.31	4,611.28	-369.00	856.30	14,638,556.47	1,816,768.09	40.30535024	-104.36746370
4,900.00	25.37	113.31	4,701.64	-385.96	895.65	14,638,539.80	1,816,807.55	40.30530368	-104.36732259
5,000.00	25.37	113.31	4,791.99	-402.91	934.99	14,638,523.12	1,816,847.02	40.30525712	-104.36718147

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-10-1L
Company:	Confluence Resources	TVD Reference:	RKB=4557+24 @ 4581.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4557+24 @ 4581.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-10-1L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

Planned Survey									
Measured									
Depth	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map		
(ft)	(°)	(°)	Depth	(ft)	(ft)	Northing	Easting	Latitude	Longitude
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
5,100.00	25.37	113.31	4,882.35	-419.87	974.34	14,638,506.45	1,816,886.48	40.30521056	-104.36704035
5,200.00	25.37	113.31	4,972.71	-436.82	1,013.68	14,638,489.77	1,816,925.95	40.30516400	-104.36689924
5,300.00	25.37	113.31	5,063.07	-453.78	1,053.03	14,638,473.10	1,816,965.41	40.30511743	-104.36675812
5,400.00	25.37	113.31	5,153.42	-470.73	1,092.37	14,638,456.42	1,817,004.88	40.30507087	-104.36661700
5,500.00	25.37	113.31	5,243.78	-487.69	1,131.72	14,638,439.75	1,817,044.34	40.30502431	-104.36647589
5,600.00	25.37	113.31	5,334.14	-504.64	1,171.06	14,638,423.07	1,817,083.81	40.30497775	-104.36633477
5,700.00	25.37	113.31	5,424.49	-521.60	1,210.41	14,638,406.40	1,817,123.27	40.30493118	-104.36619366
5,800.00	25.37	113.31	5,514.85	-538.55	1,249.75	14,638,389.72	1,817,162.74	40.30488462	-104.36605254
5,889.20	25.37	113.31	5,595.45	-553.68	1,284.85	14,638,374.85	1,817,197.94	40.30484309	-104.36592667
Begin 10°/100' build									
5,900.00	24.96	110.96	5,605.23	-555.41	1,289.10	14,638,373.15	1,817,202.21	40.30483833	-104.36591142
6,000.00	23.15	86.66	5,696.77	-561.83	1,328.52	14,638,367.01	1,817,241.67	40.30482070	-104.36577003
6,100.00	25.25	62.65	5,788.19	-550.86	1,367.19	14,638,378.25	1,817,280.26	40.30485082	-104.36563135
6,200.00	30.47	44.26	5,876.74	-522.83	1,403.92	14,638,406.54	1,817,316.79	40.30492779	-104.36549959
6,300.00	37.52	31.49	5,959.70	-478.59	1,437.61	14,638,451.02	1,817,350.16	40.30504926	-104.36537877
6,400.00	45.55	22.46	6,034.56	-419.49	1,467.22	14,638,510.33	1,817,379.35	40.30521154	-104.36527253
6,500.00	54.11	15.68	6,099.05	-347.32	1,491.87	14,638,582.67	1,817,403.49	40.30540970	-104.36518413
6,600.00	62.98	10.25	6,151.21	-264.28	1,510.79	14,638,665.85	1,817,421.82	40.30563773	-104.36511623
6,700.00	72.03	5.63	6,189.45	-172.88	1,523.42	14,638,757.33	1,817,433.80	40.30588869	-104.36507091
6,800.00	81.17	1.47	6,212.61	-75.91	1,529.37	14,638,854.34	1,817,439.06	40.30615496	-104.36504954
6,896.07	90.00	357.66	6,220.00	19.76	1,528.63	14,638,950.00	1,817,437.64	40.30641766	-104.36505218
LP Begin 90° lateral									
6,900.00	90.00	357.66	6,220.00	23.68	1,528.47	14,638,953.92	1,817,437.45	40.30642845	-104.36505276
7,000.00	90.00	357.66	6,220.00	123.60	1,524.40	14,639,053.81	1,817,432.67	40.30670281	-104.36506735
7,100.00	90.00	357.66	6,220.00	223.52	1,520.32	14,639,153.69	1,817,427.88	40.30697718	-104.36508195
7,200.00	90.00	357.66	6,220.00	323.43	1,516.24	14,639,253.58	1,817,423.09	40.30725155	-104.36509655
7,300.00	90.00	357.66	6,220.00	423.35	1,512.17	14,639,353.46	1,817,418.31	40.30752591	-104.36511115
7,400.00	90.00	357.66	6,220.00	523.27	1,508.09	14,639,453.35	1,817,413.52	40.30780028	-104.36512575
7,500.00	90.00	357.66	6,220.00	623.18	1,504.02	14,639,553.23	1,817,408.74	40.30807465	-104.36514034
7,600.00	90.00	357.66	6,220.00	723.10	1,499.94	14,639,653.12	1,817,403.95	40.30834902	-104.36515494
7,700.00	90.00	357.66	6,220.00	823.02	1,495.86	14,639,753.00	1,817,399.16	40.30862338	-104.36516954
7,800.00	90.00	357.66	6,220.00	922.94	1,491.79	14,639,852.89	1,817,394.38	40.30889775	-104.36518414
7,900.00	90.00	357.66	6,220.00	1,022.85	1,487.71	14,639,952.77	1,817,389.59	40.30917212	-104.36519874
8,000.00	90.00	357.66	6,220.00	1,122.77	1,483.64	14,640,052.66	1,817,384.81	40.30944648	-104.36521333
8,100.00	90.00	357.66	6,220.00	1,222.69	1,479.56	14,640,152.55	1,817,380.02	40.30972085	-104.36522793
8,200.00	90.00	357.66	6,220.00	1,322.60	1,475.48	14,640,252.43	1,817,375.23	40.30999522	-104.36524253
8,300.00	90.00	357.66	6,220.00	1,422.52	1,471.41	14,640,352.32	1,817,370.45	40.31026958	-104.36525713
8,400.00	90.00	357.66	6,220.00	1,522.44	1,467.33	14,640,452.20	1,817,365.66	40.31054395	-104.36527173
8,500.00	90.00	357.66	6,220.00	1,622.35	1,463.26	14,640,552.09	1,817,360.88	40.31081832	-104.36528633
8,600.00	90.00	357.66	6,220.00	1,722.27	1,459.18	14,640,651.97	1,817,356.09	40.31109268	-104.36530093
8,700.00	90.00	357.66	6,220.00	1,822.19	1,455.10	14,640,751.86	1,817,351.31	40.31136705	-104.36531553
8,800.00	90.00	357.66	6,220.00	1,922.10	1,451.03	14,640,851.74	1,817,346.52	40.31164142	-104.36533012
8,900.00	90.00	357.66	6,220.00	2,022.02	1,446.95	14,640,951.63	1,817,341.73	40.31191578	-104.36534472
9,000.00	90.00	357.66	6,220.00	2,121.94	1,442.88	14,641,051.51	1,817,336.95	40.31219015	-104.36535932
9,100.00	90.00	357.66	6,220.00	2,221.85	1,438.80	14,641,151.40	1,817,332.16	40.31246452	-104.36537392
9,200.00	90.00	357.66	6,220.00	2,321.77	1,434.73	14,641,251.28	1,817,327.38	40.31273888	-104.36538852
9,300.00	90.00	357.66	6,220.00	2,421.69	1,430.65	14,641,351.17	1,817,322.59	40.31301324	-104.36540312
9,400.00	90.00	357.66	6,220.00	2,521.61	1,426.57	14,641,451.05	1,817,317.80	40.31328760	-104.36541772
9,500.00	90.00	357.66	6,220.00	2,621.52	1,422.50	14,641,550.94	1,817,313.02	40.31356197	-104.36543232
9,600.00	90.00	357.66	6,220.00	2,721.44	1,418.42	14,641,650.82	1,817,308.23	40.31383634	-104.36544692
9,700.00	90.00	357.66	6,220.00	2,821.36	1,414.35	14,641,750.71	1,817,303.45	40.31411070	-104.36546152
9,800.00	90.00	357.66	6,220.00	2,921.27	1,410.27	14,641,850.59	1,817,298.66	40.31438507	-104.36547612
9,900.00	90.00	357.66	6,220.00	3,021.19	1,406.19	14,641,950.48	1,817,293.87	40.31465944	-104.36549072
10,000.00	90.00	357.66	6,220.00	3,121.11	1,402.12	14,642,050.36	1,817,289.09	40.31493380	-104.36550532

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-10-1L
Company:	Confluence Resources	TVD Reference:	RKB=4557+24 @ 4581.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4557+24 @ 4581.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-10-1L	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	357.66	6,220.00	3,221.02	1,398.04	14,642,150.25	1,817,284.30	40.31520817	-104.36551992
10,200.00	90.00	357.66	6,220.00	3,320.94	1,393.97	14,642,250.13	1,817,279.52	40.31548254	-104.36553452
10,300.00	90.00	357.66	6,220.00	3,420.86	1,389.89	14,642,350.02	1,817,274.73	40.31575690	-104.36554913
10,400.00	90.00	357.66	6,220.00	3,520.77	1,385.81	14,642,449.91	1,817,269.94	40.31603127	-104.36556373
10,500.00	90.00	357.66	6,220.00	3,620.69	1,381.74	14,642,549.79	1,817,265.16	40.31630564	-104.36557833
10,600.00	90.00	357.66	6,220.00	3,720.61	1,377.66	14,642,649.68	1,817,260.37	40.31658000	-104.36559293
10,700.00	90.00	357.66	6,220.00	3,820.53	1,373.59	14,642,749.56	1,817,255.59	40.31685437	-104.36560753
10,800.00	90.00	357.66	6,220.00	3,920.44	1,369.51	14,642,849.45	1,817,250.80	40.31712873	-104.36562213
10,900.00	90.00	357.66	6,220.00	4,020.36	1,365.43	14,642,949.33	1,817,246.01	40.31740310	-104.36563673
11,000.00	90.00	357.66	6,220.00	4,120.28	1,361.36	14,643,049.22	1,817,241.23	40.31767747	-104.36565133
11,100.00	90.00	357.66	6,220.00	4,220.19	1,357.28	14,643,149.10	1,817,236.44	40.31795183	-104.36566593
11,200.00	90.00	357.66	6,220.00	4,320.11	1,353.21	14,643,248.99	1,817,231.66	40.31822620	-104.36568054
11,300.00	90.00	357.66	6,220.00	4,420.03	1,349.13	14,643,348.87	1,817,226.87	40.31850057	-104.36569514
11,400.00	90.00	357.66	6,220.00	4,519.94	1,345.05	14,643,448.76	1,817,222.08	40.31877493	-104.36570974
11,500.00	90.00	357.66	6,220.00	4,619.86	1,340.98	14,643,548.64	1,817,217.30	40.31904930	-104.36572434
11,600.00	90.00	357.66	6,220.00	4,719.78	1,336.90	14,643,648.53	1,817,212.51	40.31932366	-104.36573894
11,700.00	90.00	357.66	6,220.00	4,819.69	1,332.83	14,643,748.41	1,817,207.73	40.31959803	-104.36575355
11,800.00	90.00	357.66	6,220.00	4,919.61	1,328.75	14,643,848.30	1,817,202.94	40.31987240	-104.36576815
11,900.00	90.00	357.66	6,220.00	5,019.53	1,324.67	14,643,948.18	1,817,198.15	40.32014676	-104.36578275
12,000.00	90.00	357.66	6,220.00	5,119.45	1,320.60	14,644,048.07	1,817,193.37	40.32042113	-104.36579735
12,100.00	90.00	357.66	6,220.00	5,219.36	1,316.52	14,644,147.95	1,817,188.58	40.32069550	-104.36581196
12,200.00	90.00	357.66	6,220.00	5,319.28	1,312.45	14,644,247.84	1,817,183.80	40.32096986	-104.36582656
12,300.00	90.00	357.66	6,220.00	5,419.20	1,308.37	14,644,347.72	1,817,179.01	40.32124423	-104.36584116
12,400.00	90.00	357.66	6,220.00	5,519.11	1,304.29	14,644,447.61	1,817,174.22	40.32151859	-104.36585577
12,500.00	90.00	357.66	6,220.00	5,619.03	1,300.22	14,644,547.49	1,817,169.44	40.32179296	-104.36587037
12,600.00	90.00	357.66	6,220.00	5,718.95	1,296.14	14,644,647.38	1,817,164.65	40.32206733	-104.36588497
12,700.00	90.00	357.66	6,220.00	5,818.86	1,292.07	14,644,747.26	1,817,159.87	40.32234169	-104.36589957
12,800.00	90.00	357.66	6,220.00	5,918.78	1,287.99	14,644,847.15	1,817,155.08	40.32261606	-104.36591418
12,900.00	90.00	357.66	6,220.00	6,018.70	1,283.91	14,644,947.04	1,817,150.29	40.32289042	-104.36592878
13,000.00	90.00	357.66	6,220.00	6,118.61	1,279.84	14,645,046.92	1,817,145.51	40.32316479	-104.36594338
13,100.00	90.00	357.66	6,220.00	6,218.53	1,275.76	14,645,146.81	1,817,140.72	40.32343916	-104.36595799
13,200.00	90.00	357.66	6,220.00	6,318.45	1,271.69	14,645,246.69	1,817,135.94	40.32371352	-104.36597259
13,300.00	90.00	357.66	6,220.00	6,418.36	1,267.61	14,645,346.58	1,817,131.15	40.32398789	-104.36598720
13,400.00	90.00	357.66	6,220.00	6,518.28	1,263.54	14,645,446.46	1,817,126.36	40.32426225	-104.36600180
13,500.00	90.00	357.66	6,220.00	6,618.20	1,259.46	14,645,546.35	1,817,121.58	40.32453662	-104.36601640
13,600.00	90.00	357.66	6,220.00	6,718.12	1,255.38	14,645,646.23	1,817,116.79	40.32481099	-104.36603101
13,700.00	90.00	357.66	6,220.00	6,818.03	1,251.31	14,645,746.12	1,817,112.01	40.32508535	-104.36604561
13,800.00	90.00	357.66	6,220.00	6,917.95	1,247.23	14,645,846.00	1,817,107.22	40.32535972	-104.36606022
13,900.00	90.00	357.66	6,220.00	7,017.87	1,243.16	14,645,945.89	1,817,102.43	40.32563408	-104.36607482
14,000.00	90.00	357.66	6,220.00	7,117.78	1,239.08	14,646,045.77	1,817,097.65	40.32590845	-104.36608943
14,100.00	90.00	357.66	6,220.00	7,217.70	1,235.00	14,646,145.66	1,817,092.86	40.32618282	-104.36610403
14,200.00	90.00	357.66	6,220.00	7,317.62	1,230.93	14,646,245.54	1,817,088.08	40.32645718	-104.36611864
14,300.00	90.00	357.66	6,220.00	7,417.53	1,226.85	14,646,345.43	1,817,083.29	40.32673155	-104.36613324
14,400.00	90.00	357.66	6,220.00	7,517.45	1,222.78	14,646,445.31	1,817,078.50	40.32700591	-104.36614785
14,500.00	90.00	357.66	6,220.00	7,617.37	1,218.70	14,646,545.20	1,817,073.72	40.32728028	-104.36616245
14,600.00	90.00	357.66	6,220.00	7,717.28	1,214.62	14,646,645.08	1,817,068.93	40.32755465	-104.36617706
14,700.00	90.00	357.66	6,220.00	7,817.20	1,210.55	14,646,744.97	1,817,064.15	40.32782901	-104.36619166
14,800.00	90.00	357.66	6,220.00	7,917.12	1,206.47	14,646,844.85	1,817,059.36	40.32810338	-104.36620627
14,900.00	90.00	357.66	6,220.00	8,017.04	1,202.40	14,646,944.74	1,817,054.57	40.32837774	-104.36622087
15,000.00	90.00	357.66	6,220.00	8,116.95	1,198.32	14,647,044.62	1,817,049.79	40.32865211	-104.36623548
15,100.00	90.00	357.66	6,220.00	8,216.87	1,194.24	14,647,144.51	1,817,045.00	40.32892647	-104.36625008
15,200.00	90.00	357.66	6,220.00	8,316.79	1,190.17	14,647,244.40	1,817,040.22	40.32920084	-104.36626469
15,300.00	90.00	357.66	6,220.00	8,416.70	1,186.09	14,647,344.28	1,817,035.43	40.32947521	-104.36627930
15,400.00	90.00	357.66	6,220.00	8,516.62	1,182.02	14,647,444.17	1,817,030.64	40.32974957	-104.36629390
15,500.00	90.00	357.66	6,220.00	8,616.54	1,177.94	14,647,544.05	1,817,025.86	40.33002394	-104.36630851

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-10-1L
Company:	Confluence Resources	TVD Reference:	RKB=4557+24 @ 4581.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4557+24 @ 4581.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-10-1L	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	357.66	6,220.00	8,716.45	1,173.86	14,647,643.94	1,817,021.07	40.33029830	-104.36632311
15,700.00	90.00	357.66	6,220.00	8,816.37	1,169.79	14,647,743.82	1,817,016.29	40.33057267	-104.36633772
15,800.00	90.00	357.66	6,220.00	8,916.29	1,165.71	14,647,843.71	1,817,011.50	40.33084703	-104.36635233
15,900.00	90.00	357.66	6,220.00	9,016.20	1,161.64	14,647,943.59	1,817,006.71	40.33112140	-104.36636693
16,000.00	90.00	357.66	6,220.00	9,116.12	1,157.56	14,648,043.48	1,817,001.93	40.33139576	-104.36638154
16,100.00	90.00	357.66	6,220.00	9,216.04	1,153.48	14,648,143.36	1,816,997.14	40.33167013	-104.36639615
16,200.00	90.00	357.66	6,220.00	9,315.95	1,149.41	14,648,243.25	1,816,992.36	40.33194450	-104.36641075
16,300.00	90.00	357.66	6,220.00	9,415.87	1,145.33	14,648,343.13	1,816,987.57	40.33221886	-104.36642536
16,400.00	90.00	357.66	6,220.00	9,515.79	1,141.26	14,648,443.02	1,816,982.79	40.33249323	-104.36643997
16,500.00	90.00	357.66	6,220.00	9,615.71	1,137.18	14,648,542.90	1,816,978.00	40.33276759	-104.36645458
16,584.59	90.00	357.66	6,220.00	9,700.23	1,133.73	14,648,627.40	1,816,973.95	40.33299968	-104.36646693
PBHL/TD 16584.59 MD/6220.00 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 18-10-1L BH	0.00	0.00	6,220.00	9,700.23	1,133.73	14,648,627.40	1,816,973.95	40.33299968	-104.36646693
- plan hits target center									
- Point									
Middlepark 18-10-1L LP	0.00	0.00	6,220.00	19.76	1,528.63	14,638,950.00	1,817,437.64	40.30641766	-104.36505218
- plan hits target center									
- Point									

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 2°/100' build
3,268.40	3,227.36	-109.32	253.69	Begin 25.37° tangent
5,889.20	5,595.45	-553.68	1,284.85	Begin 10°/100' build
6,896.07	6,220.00	19.76	1,528.63	LP Begin 90° lateral
16,584.59	6,220.00	9,700.23	1,133.73	PBHL/TD 16584.59 MD/6220.00 TVD