

Weld County, Colorado
Section 33-T01N-R65W
Buford 33-08-2L
plan1

Azimuth Corrections:

To convert a Magnetic Direction to a True Direction, Add 8.28° East

Buford 33-08-2L			
Surf Loc: 1010 FSL 300 FWL Sect 33-T01N-R65W			
NAD83 Colorado - HARN			
Universal Transverse Mercator (US Survey Feet)			
Zone 13N (108 W to 102 W)			
RKB=5077+25 @ 5102.00ft			
North	East	Lat	Long
14528101.11	1730771.24	40.00330667	-104.67734854

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	5000.00	0.00	0.00	5000.00	0.00	0.00	0.00	0.00	KOP Begin 10°/100' build
3	5451.67	45.17	142.78	5406.32	-134.58	102.22	10.00	-119.83	Begin 45.17° tangent
4	7005.55	45.17	142.78	6501.88	-1012.09	768.77	0.00	-901.18	Begin 10°/100' build/turn
5	8248.81	89.89	359.92	7269.00	-539.81	1232.75	10.00	-371.53	LP Begin 89.89° lateral section
6	17904.81	89.89	359.92	7288.00	9116.16	1219.94	0.00	9197.43	PBHL/TD 17904.81 MD/7288.00 TVD

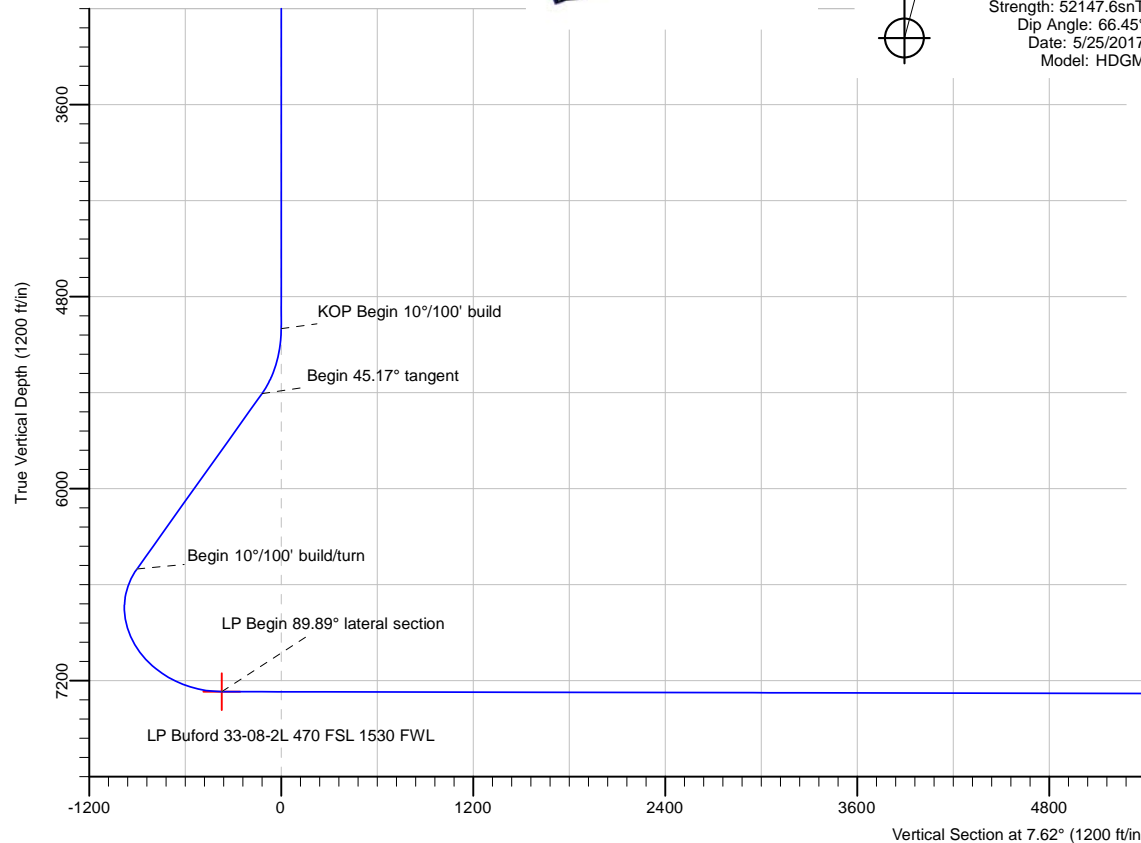
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	North	East	Lat	Long
LP Buford 33-08-2L 470 FSL 1530 FWL	7269.00	-539.81	1232.75	14527565.77	1732005.93	40.00182419	-104.67294660
BHL Buford 33-08-2L 470 FNL 1530 FWL	7288.00	9116.16	1219.94	14537221.61	1731958.17	40.02834097	-104.67299061

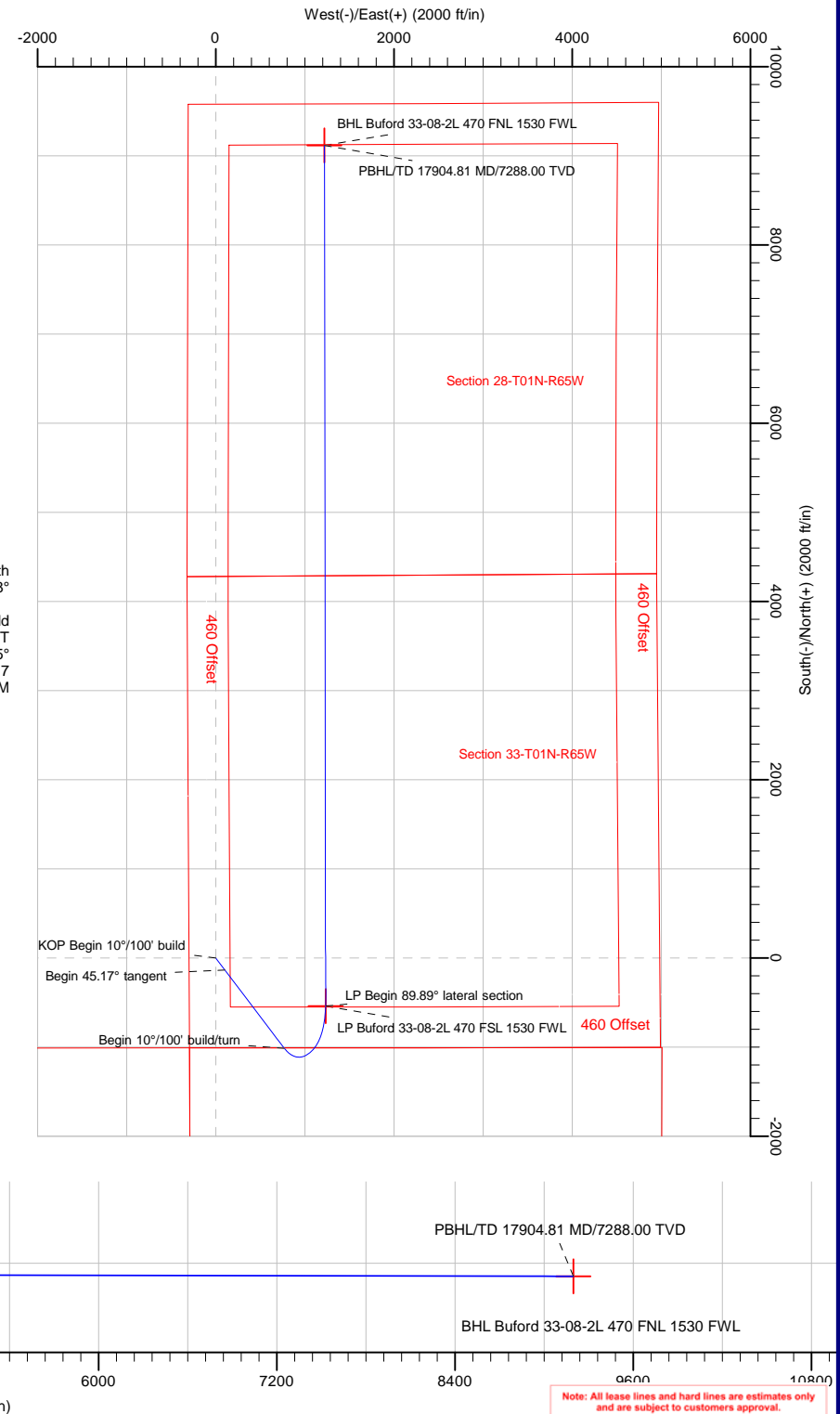


Azimuths to True North
Magnetic North: 8.28°

Magnetic Field
Strength: 52147.6snT
Dip Angle: 66.45°
Date: 5/25/2017
Model: HDGM



Date: 22:37, May 25 2017



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 Buford 33-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-08-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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 33-T01N-R65W			
Site Position:		Northing:	14,527,751.12 usft	Latitude:	40.00234552
From:	Map	Easting:	1,730,774.27 usft	Longitude:	-104.67734224
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.21 °

Well	Buford 33-08-2L, Surf Loc: 1010 FSL 300 FWL Sect 33-T01N-R65W					
Well Position	+N/-S	350.00 ft	Northing:	14,528,101.11 usft	Latitude:	40.00330667
	+E/-W	-1.76 ft	Easting:	1,730,771.24 usft	Longitude:	-104.67734853
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,077.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/25/2017	8.28	66.45	52,147.60000000

Design	plan1			
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	7.62

Plan Survey Tool Program	Date	5/25/2017		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	17,904.81	plan1 (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	
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,451.67	45.17	142.78	5,406.32	-134.58	102.22	10.00	10.00	0.00	142.78	
7,005.55	45.17	142.78	6,501.88	-1,012.09	768.77	0.00	0.00	0.00	0.00	
8,248.81	89.89	359.92	7,269.00	-539.81	1,232.75	10.00	3.60	-11.49	-133.02	LP Buford 33-08-2L 4'
17,904.81	89.89	359.92	7,288.00	9,116.16	1,219.94	0.00	0.00	0.00	0.00	BHL Buford 33-08-2L

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-08-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 10°/100' build									
5,100.00	10.00	142.78	5,099.49	-6.93	5.27	-6.17	10.00	10.00	0.00
5,200.00	20.00	142.78	5,195.96	-27.52	20.90	-24.50	10.00	10.00	0.00

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Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-08-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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)
5,300.00	30.00	142.78	5,286.48	-61.13	46.43	-54.43	10.00	10.00	0.00
5,400.00	40.00	142.78	5,368.29	-106.74	81.08	-95.05	10.00	10.00	0.00
5,451.67	45.17	142.78	5,406.32	-134.58	102.22	-119.83	10.00	10.00	0.00
Begin 45.17° tangent									
5,500.00	45.17	142.78	5,440.40	-161.87	122.95	-144.13	0.00	0.00	0.00
5,600.00	45.17	142.78	5,510.90	-218.34	165.85	-194.41	0.00	0.00	0.00
5,700.00	45.17	142.78	5,581.41	-274.81	208.74	-244.70	0.00	0.00	0.00
5,800.00	45.17	142.78	5,651.91	-331.29	251.64	-294.98	0.00	0.00	0.00
5,900.00	45.17	142.78	5,722.41	-387.76	294.53	-345.26	0.00	0.00	0.00
6,000.00	45.17	142.78	5,792.92	-444.23	337.43	-395.55	0.00	0.00	0.00
6,100.00	45.17	142.78	5,863.42	-500.70	380.33	-445.83	0.00	0.00	0.00
6,200.00	45.17	142.78	5,933.93	-557.17	423.22	-496.12	0.00	0.00	0.00
6,300.00	45.17	142.78	6,004.43	-613.65	466.12	-546.40	0.00	0.00	0.00
6,400.00	45.17	142.78	6,074.94	-670.12	509.01	-596.68	0.00	0.00	0.00
6,500.00	45.17	142.78	6,145.44	-726.59	551.91	-646.97	0.00	0.00	0.00
6,600.00	45.17	142.78	6,215.95	-783.06	594.80	-697.25	0.00	0.00	0.00
6,700.00	45.17	142.78	6,286.45	-839.53	637.70	-747.53	0.00	0.00	0.00
6,800.00	45.17	142.78	6,356.96	-896.01	680.59	-797.82	0.00	0.00	0.00
6,900.00	45.17	142.78	6,427.46	-952.48	723.49	-848.10	0.00	0.00	0.00
7,000.00	45.17	142.78	6,497.97	-1,008.95	766.38	-898.38	0.00	0.00	0.00
7,005.55	45.17	142.78	6,501.88	-1,012.09	768.77	-901.18	0.00	0.00	0.00
Begin 10°/100' build/turn									
7,100.00	39.21	131.84	6,571.93	-1,058.77	811.36	-941.80	10.00	-6.31	-11.58
7,200.00	34.32	117.21	6,652.17	-1,092.83	860.10	-969.09	10.00	-4.88	-14.63
7,300.00	31.59	99.46	6,736.27	-1,110.07	911.14	-979.41	10.00	-2.73	-17.75
7,400.00	31.59	80.30	6,821.67	-1,109.96	962.93	-972.43	10.00	0.00	-19.15
7,500.00	34.31	62.55	6,905.77	-1,092.51	1,013.88	-948.38	10.00	2.72	-17.75
7,600.00	39.19	47.91	6,986.03	-1,058.25	1,062.46	-907.98	10.00	4.88	-14.64
7,700.00	45.53	36.39	7,059.99	-1,008.22	1,107.19	-852.46	10.00	6.34	-11.52
7,800.00	52.79	27.27	7,125.43	-943.94	1,146.70	-783.50	10.00	7.26	-9.12
7,900.00	60.62	19.82	7,180.33	-867.37	1,179.81	-703.21	10.00	7.83	-7.45
8,000.00	68.80	13.46	7,223.05	-780.82	1,205.49	-614.03	10.00	8.19	-6.36
8,100.00	77.20	7.77	7,252.28	-686.93	1,222.98	-518.65	10.00	8.40	-5.68
8,200.00	85.71	2.46	7,267.13	-588.56	1,231.73	-419.98	10.00	8.51	-5.31
8,248.81	89.89	359.92	7,269.00	-539.81	1,232.75	-371.53	10.00	8.55	-5.20
LP Begin 89.89° lateral section									
8,300.00	89.89	359.92	7,269.10	-488.62	1,232.68	-320.80	0.00	0.00	0.00
8,400.00	89.89	359.92	7,269.30	-388.62	1,232.55	-221.70	0.00	0.00	0.00
8,500.00	89.89	359.92	7,269.49	-288.62	1,232.41	-122.61	0.00	0.00	0.00
8,600.00	89.89	359.92	7,269.69	-188.62	1,232.28	-23.51	0.00	0.00	0.00
8,700.00	89.89	359.92	7,269.89	-88.62	1,232.15	75.59	0.00	0.00	0.00
8,800.00	89.89	359.92	7,270.08	11.38	1,232.02	174.69	0.00	0.00	0.00
8,900.00	89.89	359.92	7,270.28	111.38	1,231.88	273.79	0.00	0.00	0.00
9,000.00	89.89	359.92	7,270.48	211.38	1,231.75	372.89	0.00	0.00	0.00
9,100.00	89.89	359.92	7,270.68	311.38	1,231.62	471.99	0.00	0.00	0.00
9,200.00	89.89	359.92	7,270.87	411.38	1,231.49	571.08	0.00	0.00	0.00
9,300.00	89.89	359.92	7,271.07	511.38	1,231.35	670.18	0.00	0.00	0.00
9,400.00	89.89	359.92	7,271.27	611.37	1,231.22	769.28	0.00	0.00	0.00
9,500.00	89.89	359.92	7,271.46	711.37	1,231.09	868.38	0.00	0.00	0.00
9,600.00	89.89	359.92	7,271.66	811.37	1,230.95	967.48	0.00	0.00	0.00
9,700.00	89.89	359.92	7,271.86	911.37	1,230.82	1,066.58	0.00	0.00	0.00
9,800.00	89.89	359.92	7,272.05	1,011.37	1,230.69	1,165.68	0.00	0.00	0.00
9,900.00	89.89	359.92	7,272.25	1,111.37	1,230.56	1,264.77	0.00	0.00	0.00

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Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-08-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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	89.89	359.92	7,272.45	1,211.37	1,230.42	1,363.87	0.00	0.00	0.00
10,100.00	89.89	359.92	7,272.64	1,311.37	1,230.29	1,462.97	0.00	0.00	0.00
10,200.00	89.89	359.92	7,272.84	1,411.37	1,230.16	1,562.07	0.00	0.00	0.00
10,300.00	89.89	359.92	7,273.04	1,511.37	1,230.03	1,661.17	0.00	0.00	0.00
10,400.00	89.89	359.92	7,273.23	1,611.37	1,229.89	1,760.27	0.00	0.00	0.00
10,500.00	89.89	359.92	7,273.43	1,711.37	1,229.76	1,859.37	0.00	0.00	0.00
10,600.00	89.89	359.92	7,273.63	1,811.37	1,229.63	1,958.46	0.00	0.00	0.00
10,700.00	89.89	359.92	7,273.82	1,911.37	1,229.50	2,057.56	0.00	0.00	0.00
10,800.00	89.89	359.92	7,274.02	2,011.37	1,229.36	2,156.66	0.00	0.00	0.00
10,900.00	89.89	359.92	7,274.22	2,111.37	1,229.23	2,255.76	0.00	0.00	0.00
11,000.00	89.89	359.92	7,274.41	2,211.37	1,229.10	2,354.86	0.00	0.00	0.00
11,100.00	89.89	359.92	7,274.61	2,311.37	1,228.97	2,453.96	0.00	0.00	0.00
11,200.00	89.89	359.92	7,274.81	2,411.37	1,228.83	2,553.06	0.00	0.00	0.00
11,300.00	89.89	359.92	7,275.00	2,511.37	1,228.70	2,652.15	0.00	0.00	0.00
11,400.00	89.89	359.92	7,275.20	2,611.37	1,228.57	2,751.25	0.00	0.00	0.00
11,500.00	89.89	359.92	7,275.40	2,711.37	1,228.44	2,850.35	0.00	0.00	0.00
11,600.00	89.89	359.92	7,275.59	2,811.37	1,228.30	2,949.45	0.00	0.00	0.00
11,700.00	89.89	359.92	7,275.79	2,911.37	1,228.17	3,048.55	0.00	0.00	0.00
11,800.00	89.89	359.92	7,275.99	3,011.37	1,228.04	3,147.65	0.00	0.00	0.00
11,900.00	89.89	359.92	7,276.18	3,111.37	1,227.91	3,246.75	0.00	0.00	0.00
12,000.00	89.89	359.92	7,276.38	3,211.37	1,227.77	3,345.84	0.00	0.00	0.00
12,100.00	89.89	359.92	7,276.58	3,311.37	1,227.64	3,444.94	0.00	0.00	0.00
12,200.00	89.89	359.92	7,276.77	3,411.37	1,227.51	3,544.04	0.00	0.00	0.00
12,300.00	89.89	359.92	7,276.97	3,511.37	1,227.37	3,643.14	0.00	0.00	0.00
12,400.00	89.89	359.92	7,277.17	3,611.37	1,227.24	3,742.24	0.00	0.00	0.00
12,500.00	89.89	359.92	7,277.37	3,711.37	1,227.11	3,841.34	0.00	0.00	0.00
12,600.00	89.89	359.92	7,277.56	3,811.37	1,226.98	3,940.44	0.00	0.00	0.00
12,700.00	89.89	359.92	7,277.76	3,911.37	1,226.84	4,039.53	0.00	0.00	0.00
12,800.00	89.89	359.92	7,277.96	4,011.37	1,226.71	4,138.63	0.00	0.00	0.00
12,900.00	89.89	359.92	7,278.15	4,111.37	1,226.58	4,237.73	0.00	0.00	0.00
13,000.00	89.89	359.92	7,278.35	4,211.36	1,226.45	4,336.83	0.00	0.00	0.00
13,100.00	89.89	359.92	7,278.55	4,311.36	1,226.31	4,435.93	0.00	0.00	0.00
13,200.00	89.89	359.92	7,278.74	4,411.36	1,226.18	4,535.03	0.00	0.00	0.00
13,300.00	89.89	359.92	7,278.94	4,511.36	1,226.05	4,634.13	0.00	0.00	0.00
13,400.00	89.89	359.92	7,279.14	4,611.36	1,225.92	4,733.22	0.00	0.00	0.00
13,500.00	89.89	359.92	7,279.33	4,711.36	1,225.78	4,832.32	0.00	0.00	0.00
13,600.00	89.89	359.92	7,279.53	4,811.36	1,225.65	4,931.42	0.00	0.00	0.00
13,700.00	89.89	359.92	7,279.73	4,911.36	1,225.52	5,030.52	0.00	0.00	0.00
13,800.00	89.89	359.92	7,279.92	5,011.36	1,225.39	5,129.62	0.00	0.00	0.00
13,900.00	89.89	359.92	7,280.12	5,111.36	1,225.25	5,228.72	0.00	0.00	0.00
14,000.00	89.89	359.92	7,280.32	5,211.36	1,225.12	5,327.82	0.00	0.00	0.00
14,100.00	89.89	359.92	7,280.51	5,311.36	1,224.99	5,426.91	0.00	0.00	0.00
14,200.00	89.89	359.92	7,280.71	5,411.36	1,224.86	5,526.01	0.00	0.00	0.00
14,300.00	89.89	359.92	7,280.91	5,511.36	1,224.72	5,625.11	0.00	0.00	0.00
14,400.00	89.89	359.92	7,281.10	5,611.36	1,224.59	5,724.21	0.00	0.00	0.00
14,500.00	89.89	359.92	7,281.30	5,711.36	1,224.46	5,823.31	0.00	0.00	0.00
14,600.00	89.89	359.92	7,281.50	5,811.36	1,224.32	5,922.41	0.00	0.00	0.00
14,700.00	89.89	359.92	7,281.69	5,911.36	1,224.19	6,021.51	0.00	0.00	0.00
14,800.00	89.89	359.92	7,281.89	6,011.36	1,224.06	6,120.60	0.00	0.00	0.00
14,900.00	89.89	359.92	7,282.09	6,111.36	1,223.93	6,219.70	0.00	0.00	0.00
15,000.00	89.89	359.92	7,282.28	6,211.36	1,223.79	6,318.80	0.00	0.00	0.00
15,100.00	89.89	359.92	7,282.48	6,311.36	1,223.66	6,417.90	0.00	0.00	0.00
15,200.00	89.89	359.92	7,282.68	6,411.36	1,223.53	6,517.00	0.00	0.00	0.00
15,300.00	89.89	359.92	7,282.87	6,511.36	1,223.40	6,616.10	0.00	0.00	0.00

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-08-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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	89.89	359.92	7,283.07	6,611.36	1,223.26	6,715.20	0.00	0.00	0.00
15,500.00	89.89	359.92	7,283.27	6,711.36	1,223.13	6,814.29	0.00	0.00	0.00
15,600.00	89.89	359.92	7,283.47	6,811.36	1,223.00	6,913.39	0.00	0.00	0.00
15,700.00	89.89	359.92	7,283.66	6,911.36	1,222.87	7,012.49	0.00	0.00	0.00
15,800.00	89.89	359.92	7,283.86	7,011.36	1,222.73	7,111.59	0.00	0.00	0.00
15,900.00	89.89	359.92	7,284.06	7,111.36	1,222.60	7,210.69	0.00	0.00	0.00
16,000.00	89.89	359.92	7,284.25	7,211.36	1,222.47	7,309.79	0.00	0.00	0.00
16,100.00	89.89	359.92	7,284.45	7,311.36	1,222.34	7,408.89	0.00	0.00	0.00
16,200.00	89.89	359.92	7,284.65	7,411.36	1,222.20	7,507.98	0.00	0.00	0.00
16,300.00	89.89	359.92	7,284.84	7,511.36	1,222.07	7,607.08	0.00	0.00	0.00
16,400.00	89.89	359.92	7,285.04	7,611.36	1,221.94	7,706.18	0.00	0.00	0.00
16,500.00	89.89	359.92	7,285.24	7,711.36	1,221.81	7,805.28	0.00	0.00	0.00
16,600.00	89.89	359.92	7,285.43	7,811.35	1,221.67	7,904.38	0.00	0.00	0.00
16,700.00	89.89	359.92	7,285.63	7,911.35	1,221.54	8,003.48	0.00	0.00	0.00
16,800.00	89.89	359.92	7,285.83	8,011.35	1,221.41	8,102.58	0.00	0.00	0.00
16,900.00	89.89	359.92	7,286.02	8,111.35	1,221.28	8,201.67	0.00	0.00	0.00
17,000.00	89.89	359.92	7,286.22	8,211.35	1,221.14	8,300.77	0.00	0.00	0.00
17,100.00	89.89	359.92	7,286.42	8,311.35	1,221.01	8,399.87	0.00	0.00	0.00
17,200.00	89.89	359.92	7,286.61	8,411.35	1,220.88	8,498.97	0.00	0.00	0.00
17,300.00	89.89	359.92	7,286.81	8,511.35	1,220.74	8,598.07	0.00	0.00	0.00
17,400.00	89.89	359.92	7,287.01	8,611.35	1,220.61	8,697.17	0.00	0.00	0.00
17,500.00	89.89	359.92	7,287.20	8,711.35	1,220.48	8,796.27	0.00	0.00	0.00
17,600.00	89.89	359.92	7,287.40	8,811.35	1,220.35	8,895.36	0.00	0.00	0.00
17,700.00	89.89	359.92	7,287.60	8,911.35	1,220.21	8,994.46	0.00	0.00	0.00
17,800.00	89.89	359.92	7,287.79	9,011.35	1,220.08	9,093.56	0.00	0.00	0.00
17,900.00	89.89	359.92	7,287.99	9,111.35	1,219.95	9,192.66	0.00	0.00	0.00
17,904.81	89.89	359.92	7,288.00	9,116.16	1,219.94	9,197.43	0.00	0.00	0.00
PBHL/TD 17904.81 MD/7288.00 TVD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LP Buford 33-08-2L 470 - hit/miss target - Shape - Point	0.00	0.00	7,269.00	-539.81	1,232.75	14,527,565.77	1,732,005.93	40.00182419	-104.67294660
BHL Buford 33-08-2L 47 - plan hits target center - Point	0.00	0.00	7,288.00	9,116.16	1,219.94	14,537,221.61	1,731,958.17	40.02834098	-104.67299061

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
5,000.00	5,000.00	0.00	0.00	KOP Begin 10°/100' build
5,451.67	5,406.32	-134.58	102.22	Begin 45.17° tangent
7,005.55	6,501.88	-1,012.09	768.77	Begin 10°/100' build/turn
8,248.81	7,269.00	-539.81	1,232.75	LP Begin 89.89° lateral section
17,904.81	7,288.00	9,116.16	1,219.94	PBHL/TD 17904.81 MD/7288.00 TVD

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-08-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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 33-T01N-R65W			
Site Position:		Northing:	14,527,751.12 usft	Latitude:	40.00234552
From:	Map	Easting:	1,730,774.27 usft	Longitude:	-104.67734224
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.21 °

Well	Buford 33-08-2L, Surf Loc: 1010 FSL 300 FWL Sect 33-T01N-R65W					
Well Position	+N/-S	0.00 ft	Northing:	14,528,101.11 usft	Latitude:	40.00330667
	+E/-W	0.00 ft	Easting:	1,730,771.24 usft	Longitude:	-104.67734853
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,077.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/25/2017	8.28	66.45	52,147.60000000

Design	plan1			
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	7.62

Plan Survey Tool Program	Date	5/25/2017		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	17,904.81 plan1 (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	
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,451.67	45.17	142.78	5,406.32	-134.58	102.22	10.00	10.00	0.00	142.78	
7,005.55	45.17	142.78	6,501.88	-1,012.09	768.77	0.00	0.00	0.00	0.00	
8,248.81	89.89	359.92	7,269.00	-539.81	1,232.75	10.00	3.60	-11.49	-133.02	LP Buford 33-08-2L 4'
17,904.81	89.89	359.92	7,288.00	9,116.16	1,219.94	0.00	0.00	0.00	0.00	BHL Buford 33-08-2L

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-08-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
100.00	0.00	0.00	100.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
200.00	0.00	0.00	200.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
300.00	0.00	0.00	300.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
400.00	0.00	0.00	400.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
500.00	0.00	0.00	500.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
600.00	0.00	0.00	600.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
700.00	0.00	0.00	700.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
800.00	0.00	0.00	800.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
900.00	0.00	0.00	900.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
2,100.00	0.00	0.00	2,100.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
2,200.00	0.00	0.00	2,200.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
2,300.00	0.00	0.00	2,300.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
2,400.00	0.00	0.00	2,400.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
2,500.00	0.00	0.00	2,500.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
2,600.00	0.00	0.00	2,600.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
2,700.00	0.00	0.00	2,700.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
2,800.00	0.00	0.00	2,800.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
2,900.00	0.00	0.00	2,900.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
3,000.00	0.00	0.00	3,000.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
3,100.00	0.00	0.00	3,100.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
3,200.00	0.00	0.00	3,200.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
3,300.00	0.00	0.00	3,300.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
3,400.00	0.00	0.00	3,400.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
3,500.00	0.00	0.00	3,500.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
3,600.00	0.00	0.00	3,600.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
3,700.00	0.00	0.00	3,700.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
3,800.00	0.00	0.00	3,800.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
3,900.00	0.00	0.00	3,900.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
4,000.00	0.00	0.00	4,000.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
4,100.00	0.00	0.00	4,100.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
4,200.00	0.00	0.00	4,200.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
4,300.00	0.00	0.00	4,300.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
4,400.00	0.00	0.00	4,400.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
4,500.00	0.00	0.00	4,500.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
4,600.00	0.00	0.00	4,600.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
4,700.00	0.00	0.00	4,700.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
4,800.00	0.00	0.00	4,800.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
4,900.00	0.00	0.00	4,900.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
5,000.00	0.00	0.00	5,000.00	0.00	0.00	14,528,101.11	1,730,771.24	40.00330667	-104.67734853
KOP Begin 10°/100' build									
5,100.00	10.00	142.78	5,099.49	-6.93	5.27	14,528,094.20	1,730,776.53	40.00328764	-104.67732973
5,200.00	20.00	142.78	5,195.96	-27.52	20.90	14,528,073.67	1,730,792.24	40.00323111	-104.67727390

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-08-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
5,300.00	30.00	142.78	5,286.48	-61.13	46.43	14,528,040.16	1,730,817.89	40.00313881	-104.67718273	
5,400.00	40.00	142.78	5,368.29	-106.74	81.08	14,527,994.66	1,730,852.71	40.00301354	-104.67705900	
5,451.67	45.17	142.78	5,406.32	-134.58	102.22	14,527,966.91	1,730,873.95	40.00293711	-104.67698351	
Begin 45.17° tangent										
5,500.00	45.17	142.78	5,440.40	-161.87	122.95	14,527,939.69	1,730,894.78	40.00286215	-104.67690948	
5,600.00	45.17	142.78	5,510.90	-218.34	165.85	14,527,883.38	1,730,937.88	40.00270707	-104.67675631	
5,700.00	45.17	142.78	5,581.41	-274.81	208.74	14,527,827.06	1,730,980.98	40.00255199	-104.67660313	
5,800.00	45.17	142.78	5,651.91	-331.29	251.64	14,527,770.74	1,731,024.08	40.00239691	-104.67644996	
5,900.00	45.17	142.78	5,722.41	-387.76	294.53	14,527,714.43	1,731,067.17	40.00224182	-104.67629679	
6,000.00	45.17	142.78	5,792.92	-444.23	337.43	14,527,658.11	1,731,110.27	40.00208674	-104.67614362	
6,100.00	45.17	142.78	5,863.42	-500.70	380.33	14,527,601.79	1,731,153.37	40.00193166	-104.67599045	
6,200.00	45.17	142.78	5,933.93	-557.17	423.22	14,527,545.48	1,731,196.47	40.00177657	-104.67583728	
6,300.00	45.17	142.78	6,004.43	-613.65	466.12	14,527,489.16	1,731,239.57	40.00162149	-104.67568411	
6,400.00	45.17	142.78	6,074.94	-670.12	509.01	14,527,432.84	1,731,282.67	40.00146641	-104.67553095	
6,500.00	45.17	142.78	6,145.44	-726.59	551.91	14,527,376.53	1,731,325.77	40.00131132	-104.67537778	
6,600.00	45.17	142.78	6,215.95	-783.06	594.80	14,527,320.21	1,731,368.87	40.00115624	-104.67522461	
6,700.00	45.17	142.78	6,286.45	-839.53	637.70	14,527,263.90	1,731,411.97	40.00100115	-104.67507145	
6,800.00	45.17	142.78	6,356.96	-896.01	680.59	14,527,207.58	1,731,455.07	40.00084607	-104.67491828	
6,900.00	45.17	142.78	6,427.46	-952.48	723.49	14,527,151.26	1,731,498.17	40.00069099	-104.67476512	
7,000.00	45.17	142.78	6,497.97	-1,008.95	766.38	14,527,094.95	1,731,541.27	40.00053590	-104.67461196	
7,005.55	45.17	142.78	6,501.88	-1,012.09	768.77	14,527,091.82	1,731,543.66	40.00052729	-104.67460345	
Begin 10°/100' build/turn										
7,100.00	39.21	131.84	6,571.93	-1,058.77	811.36	14,527,045.29	1,731,586.42	40.00039908	-104.67445137	
7,200.00	34.32	117.21	6,652.17	-1,092.83	860.10	14,527,011.41	1,731,635.29	40.00030555	-104.67427732	
7,300.00	31.59	99.46	6,736.27	-1,110.07	911.14	14,526,994.36	1,731,686.39	40.00025821	-104.67409507	
7,400.00	31.59	80.30	6,821.67	-1,109.96	962.93	14,526,994.65	1,731,738.17	40.00025850	-104.67391016	
7,500.00	34.31	62.55	6,905.77	-1,092.51	1,013.88	14,527,012.28	1,731,789.07	40.00030641	-104.67372821	
7,600.00	39.19	47.91	6,986.03	-1,058.25	1,062.46	14,527,046.72	1,731,837.52	40.00040048	-104.67355474	
7,700.00	45.53	36.39	7,059.99	-1,008.22	1,107.19	14,527,096.91	1,731,882.07	40.00053787	-104.67339502	
7,800.00	52.79	27.27	7,125.43	-943.94	1,146.70	14,527,161.33	1,731,921.35	40.00071438	-104.67325391	
7,900.00	60.62	19.82	7,180.33	-867.37	1,179.81	14,527,238.03	1,731,954.17	40.00092467	-104.67313570	
8,000.00	68.80	13.46	7,223.05	-780.82	1,205.49	14,527,324.66	1,731,979.55	40.00116233	-104.67304397	
8,100.00	77.20	7.77	7,252.28	-686.93	1,222.98	14,527,418.61	1,731,996.69	40.00142016	-104.67298151	
8,200.00	85.71	2.46	7,267.13	-588.56	1,231.73	14,527,517.02	1,732,005.09	40.00169031	-104.67295023	
8,248.81	89.89	359.92	7,269.00	-539.81	1,232.75	14,527,565.77	1,732,005.93	40.00182419	-104.67294660	
LP Begin 89.89° lateral section										
8,300.00	89.89	359.92	7,269.10	-488.62	1,232.68	14,527,616.96	1,732,005.68	40.00196476	-104.67294683	
8,400.00	89.89	359.92	7,269.30	-388.62	1,232.55	14,527,716.96	1,732,005.18	40.00223937	-104.67294729	
8,500.00	89.89	359.92	7,269.49	-288.62	1,232.41	14,527,816.96	1,732,004.69	40.00251399	-104.67294775	
8,600.00	89.89	359.92	7,269.69	-188.62	1,232.28	14,527,916.95	1,732,004.19	40.00278860	-104.67294820	
8,700.00	89.89	359.92	7,269.89	-88.62	1,232.15	14,528,016.95	1,732,003.70	40.00306322	-104.67294866	
8,800.00	89.89	359.92	7,270.08	11.38	1,232.02	14,528,116.95	1,732,003.20	40.00333783	-104.67294911	
8,900.00	89.89	359.92	7,270.28	111.38	1,231.88	14,528,216.95	1,732,002.71	40.00361245	-104.67294957	
9,000.00	89.89	359.92	7,270.48	211.38	1,231.75	14,528,316.95	1,732,002.21	40.00388706	-104.67295003	
9,100.00	89.89	359.92	7,270.68	311.38	1,231.62	14,528,416.95	1,732,001.72	40.00416168	-104.67295048	
9,200.00	89.89	359.92	7,270.87	411.38	1,231.49	14,528,516.94	1,732,001.22	40.00443629	-104.67295094	
9,300.00	89.89	359.92	7,271.07	511.38	1,231.35	14,528,616.94	1,732,000.73	40.00471091	-104.67295139	
9,400.00	89.89	359.92	7,271.27	611.37	1,231.22	14,528,716.94	1,732,000.23	40.00498552	-104.67295185	
9,500.00	89.89	359.92	7,271.46	711.37	1,231.09	14,528,816.94	1,731,999.74	40.00526014	-104.67295231	
9,600.00	89.89	359.92	7,271.66	811.37	1,230.95	14,528,916.94	1,731,999.25	40.00553475	-104.67295276	
9,700.00	89.89	359.92	7,271.86	911.37	1,230.82	14,529,016.94	1,731,998.75	40.00580937	-104.67295322	
9,800.00	89.89	359.92	7,272.05	1,011.37	1,230.69	14,529,116.94	1,731,998.26	40.00608398	-104.67295367	
9,900.00	89.89	359.92	7,272.25	1,111.37	1,230.56	14,529,216.93	1,731,997.76	40.00635860	-104.67295413	
10,000.00	89.89	359.92	7,272.45	1,211.37	1,230.42	14,529,316.93	1,731,997.27	40.00663321	-104.67295458	

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-08-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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	89.89	359.92	7,272.64	1,311.37	1,230.29	14,529,416.93	1,731,996.77	40.00690783	-104.67295504
10,200.00	89.89	359.92	7,272.84	1,411.37	1,230.16	14,529,516.93	1,731,996.28	40.00718244	-104.67295550
10,300.00	89.89	359.92	7,273.04	1,511.37	1,230.03	14,529,616.93	1,731,995.78	40.00745706	-104.67295595
10,400.00	89.89	359.92	7,273.23	1,611.37	1,229.89	14,529,716.93	1,731,995.29	40.00773167	-104.67295641
10,500.00	89.89	359.92	7,273.43	1,711.37	1,229.76	14,529,816.92	1,731,994.79	40.00800629	-104.67295686
10,600.00	89.89	359.92	7,273.63	1,811.37	1,229.63	14,529,916.92	1,731,994.30	40.00828090	-104.67295732
10,700.00	89.89	359.92	7,273.82	1,911.37	1,229.50	14,530,016.92	1,731,993.80	40.00855552	-104.67295778
10,800.00	89.89	359.92	7,274.02	2,011.37	1,229.36	14,530,116.92	1,731,993.31	40.00883013	-104.67295823
10,900.00	89.89	359.92	7,274.22	2,111.37	1,229.23	14,530,216.92	1,731,992.82	40.00910475	-104.67295869
11,000.00	89.89	359.92	7,274.41	2,211.37	1,229.10	14,530,316.92	1,731,992.32	40.00937936	-104.67295914
11,100.00	89.89	359.92	7,274.61	2,311.37	1,228.97	14,530,416.91	1,731,991.83	40.00965398	-104.67295960
11,200.00	89.89	359.92	7,274.81	2,411.37	1,228.83	14,530,516.91	1,731,991.33	40.00992859	-104.67296005
11,300.00	89.89	359.92	7,275.00	2,511.37	1,228.70	14,530,616.91	1,731,990.84	40.01020321	-104.67296051
11,400.00	89.89	359.92	7,275.20	2,611.37	1,228.57	14,530,716.91	1,731,990.34	40.01047782	-104.67296097
11,500.00	89.89	359.92	7,275.40	2,711.37	1,228.44	14,530,816.91	1,731,989.85	40.01075244	-104.67296142
11,600.00	89.89	359.92	7,275.59	2,811.37	1,228.30	14,530,916.91	1,731,989.35	40.01102705	-104.67296188
11,700.00	89.89	359.92	7,275.79	2,911.37	1,228.17	14,531,016.90	1,731,988.86	40.01130167	-104.67296233
11,800.00	89.89	359.92	7,275.99	3,011.37	1,228.04	14,531,116.90	1,731,988.36	40.01157628	-104.67296279
11,900.00	89.89	359.92	7,276.18	3,111.37	1,227.91	14,531,216.90	1,731,987.87	40.01185090	-104.67296325
12,000.00	89.89	359.92	7,276.38	3,211.37	1,227.77	14,531,316.90	1,731,987.37	40.01212551	-104.67296370
12,100.00	89.89	359.92	7,276.58	3,311.37	1,227.64	14,531,416.90	1,731,986.88	40.01240013	-104.67296416
12,200.00	89.89	359.92	7,276.77	3,411.37	1,227.51	14,531,516.90	1,731,986.39	40.01267474	-104.67296461
12,300.00	89.89	359.92	7,276.97	3,511.37	1,227.37	14,531,616.89	1,731,985.89	40.01294936	-104.67296507
12,400.00	89.89	359.92	7,277.17	3,611.37	1,227.24	14,531,716.89	1,731,985.40	40.01322397	-104.67296552
12,500.00	89.89	359.92	7,277.37	3,711.37	1,227.11	14,531,816.89	1,731,984.90	40.01349859	-104.67296598
12,600.00	89.89	359.92	7,277.56	3,811.37	1,226.98	14,531,916.89	1,731,984.41	40.01377320	-104.67296644
12,700.00	89.89	359.92	7,277.76	3,911.37	1,226.84	14,532,016.89	1,731,983.91	40.01404782	-104.67296689
12,800.00	89.89	359.92	7,277.96	4,011.37	1,226.71	14,532,116.89	1,731,983.42	40.01432243	-104.67296735
12,900.00	89.89	359.92	7,278.15	4,111.37	1,226.58	14,532,216.89	1,731,982.92	40.01459705	-104.67296780
13,000.00	89.89	359.92	7,278.35	4,211.36	1,226.45	14,532,316.88	1,731,982.43	40.01487166	-104.67296826
13,100.00	89.89	359.92	7,278.55	4,311.36	1,226.31	14,532,416.88	1,731,981.93	40.01514628	-104.67296872
13,200.00	89.89	359.92	7,278.74	4,411.36	1,226.18	14,532,516.88	1,731,981.44	40.01542089	-104.67296917
13,300.00	89.89	359.92	7,278.94	4,511.36	1,226.05	14,532,616.88	1,731,980.94	40.01569551	-104.67296963
13,400.00	89.89	359.92	7,279.14	4,611.36	1,225.92	14,532,716.88	1,731,980.45	40.01597012	-104.67297008
13,500.00	89.89	359.92	7,279.33	4,711.36	1,225.78	14,532,816.88	1,731,979.96	40.01624473	-104.67297054
13,600.00	89.89	359.92	7,279.53	4,811.36	1,225.65	14,532,916.87	1,731,979.46	40.01651935	-104.67297099
13,700.00	89.89	359.92	7,279.73	4,911.36	1,225.52	14,533,016.87	1,731,978.97	40.01679396	-104.67297145
13,800.00	89.89	359.92	7,279.92	5,011.36	1,225.39	14,533,116.87	1,731,978.47	40.01706858	-104.67297191
13,900.00	89.89	359.92	7,280.12	5,111.36	1,225.25	14,533,216.87	1,731,977.98	40.01734319	-104.67297236
14,000.00	89.89	359.92	7,280.32	5,211.36	1,225.12	14,533,316.87	1,731,977.48	40.01761781	-104.67297282
14,100.00	89.89	359.92	7,280.51	5,311.36	1,224.99	14,533,416.87	1,731,976.99	40.01789242	-104.67297327
14,200.00	89.89	359.92	7,280.71	5,411.36	1,224.86	14,533,516.86	1,731,976.49	40.01816704	-104.67297373
14,300.00	89.89	359.92	7,280.91	5,511.36	1,224.72	14,533,616.86	1,731,976.00	40.01844165	-104.67297418
14,400.00	89.89	359.92	7,281.10	5,611.36	1,224.59	14,533,716.86	1,731,975.50	40.01871627	-104.67297464
14,500.00	89.89	359.92	7,281.30	5,711.36	1,224.46	14,533,816.86	1,731,975.01	40.01899088	-104.67297510
14,600.00	89.89	359.92	7,281.50	5,811.36	1,224.32	14,533,916.86	1,731,974.51	40.01926549	-104.67297555
14,700.00	89.89	359.92	7,281.69	5,911.36	1,224.19	14,534,016.86	1,731,974.02	40.01954011	-104.67297601
14,800.00	89.89	359.92	7,281.89	6,011.36	1,224.06	14,534,116.85	1,731,973.53	40.01981472	-104.67297646
14,900.00	89.89	359.92	7,282.09	6,111.36	1,223.93	14,534,216.85	1,731,973.03	40.02008934	-104.67297692
15,000.00	89.89	359.92	7,282.28	6,211.36	1,223.79	14,534,316.85	1,731,972.54	40.02036395	-104.67297737
15,100.00	89.89	359.92	7,282.48	6,311.36	1,223.66	14,534,416.85	1,731,972.04	40.02063857	-104.67297783
15,200.00	89.89	359.92	7,282.68	6,411.36	1,223.53	14,534,516.85	1,731,971.55	40.02091318	-104.67297829
15,300.00	89.89	359.92	7,282.87	6,511.36	1,223.40	14,534,616.85	1,731,971.05	40.02118780	-104.67297874
15,400.00	89.89	359.92	7,283.07	6,611.36	1,223.26	14,534,716.84	1,731,970.56	40.02146241	-104.67297920
15,500.00	89.89	359.92	7,283.27	6,711.36	1,223.13	14,534,816.84	1,731,970.06	40.02173702	-104.67297965

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-08-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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	89.89	359.92	7,283.47	6,811.36	1,223.00	14,534,916.84	1,731,969.57	40.02201164	-104.67298011
15,700.00	89.89	359.92	7,283.66	6,911.36	1,222.87	14,535,016.84	1,731,969.07	40.02228625	-104.67298056
15,800.00	89.89	359.92	7,283.86	7,011.36	1,222.73	14,535,116.84	1,731,968.58	40.02256087	-104.67298102
15,900.00	89.89	359.92	7,284.06	7,111.36	1,222.60	14,535,216.84	1,731,968.08	40.02283548	-104.67298148
16,000.00	89.89	359.92	7,284.25	7,211.36	1,222.47	14,535,316.84	1,731,967.59	40.02311010	-104.67298193
16,100.00	89.89	359.92	7,284.45	7,311.36	1,222.34	14,535,416.83	1,731,967.10	40.02338471	-104.67298239
16,200.00	89.89	359.92	7,284.65	7,411.36	1,222.20	14,535,516.83	1,731,966.60	40.02365932	-104.67298284
16,300.00	89.89	359.92	7,284.84	7,511.36	1,222.07	14,535,616.83	1,731,966.11	40.02393394	-104.67298330
16,400.00	89.89	359.92	7,285.04	7,611.36	1,221.94	14,535,716.83	1,731,965.61	40.02420855	-104.67298375
16,500.00	89.89	359.92	7,285.24	7,711.36	1,221.81	14,535,816.83	1,731,965.12	40.02448317	-104.67298421
16,600.00	89.89	359.92	7,285.43	7,811.35	1,221.67	14,535,916.83	1,731,964.62	40.02475778	-104.67298466
16,700.00	89.89	359.92	7,285.63	7,911.35	1,221.54	14,536,016.82	1,731,964.13	40.02503240	-104.67298512
16,800.00	89.89	359.92	7,285.83	8,011.35	1,221.41	14,536,116.82	1,731,963.63	40.02530701	-104.67298558
16,900.00	89.89	359.92	7,286.02	8,111.35	1,221.28	14,536,216.82	1,731,963.14	40.02558162	-104.67298603
17,000.00	89.89	359.92	7,286.22	8,211.35	1,221.14	14,536,316.82	1,731,962.64	40.02585624	-104.67298649
17,100.00	89.89	359.92	7,286.42	8,311.35	1,221.01	14,536,416.82	1,731,962.15	40.02613085	-104.67298694
17,200.00	89.89	359.92	7,286.61	8,411.35	1,220.88	14,536,516.82	1,731,961.65	40.02640547	-104.67298740
17,300.00	89.89	359.92	7,286.81	8,511.35	1,220.74	14,536,616.81	1,731,961.16	40.02668008	-104.67298785
17,400.00	89.89	359.92	7,287.01	8,611.35	1,220.61	14,536,716.81	1,731,960.67	40.02695470	-104.67298831
17,500.00	89.89	359.92	7,287.20	8,711.35	1,220.48	14,536,816.81	1,731,960.17	40.02722931	-104.67298877
17,600.00	89.89	359.92	7,287.40	8,811.35	1,220.35	14,536,916.81	1,731,959.68	40.02750392	-104.67298922
17,700.00	89.89	359.92	7,287.60	8,911.35	1,220.21	14,537,016.81	1,731,959.18	40.02777854	-104.67298968
17,800.00	89.89	359.92	7,287.79	9,011.35	1,220.08	14,537,116.81	1,731,958.69	40.02805315	-104.67299013
17,900.00	89.89	359.92	7,287.99	9,111.35	1,219.95	14,537,216.80	1,731,958.19	40.02832777	-104.67299059
17,904.81	89.89	359.92	7,288.00	9,116.16	1,219.94	14,537,221.61	1,731,958.17	40.02834098	-104.67299061
PBHL/TD 17904.81 MD/7288.00 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									
LP Buford 33-08-2L 470	0.00	0.00	7,269.00	-539.81	1,232.75	14,527,565.77	1,732,005.93	40.00182419	-104.67294660
- plan hits target center									
- Point									
BHL Buford 33-08-2L 47	0.00	0.00	7,288.00	9,116.16	1,219.94	14,537,221.61	1,731,958.17	40.02834098	-104.67299061
- plan hits target center									
- Point									

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
5,000.00	5,000.00	0.00	0.00	KOP Begin 10°/100' build	
5,451.67	5,406.32	-134.58	102.22	Begin 45.17° tangent	
7,005.55	6,501.88	-1,012.09	768.77	Begin 10°/100' build/turn	
8,248.81	7,269.00	-539.81	1,232.75	LP Begin 89.89° lateral section	
17,904.81	7,288.00	9,116.16	1,219.94	PBHL/TD 17904.81 MD/7288.00 TVD	