



Weld County, Colorado
Section 33-T01N-R65W
Buford 33-07-1L
plan1

Azimuth Corrections:

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

Buford 33-07-1L			
Surf Loc: 935 FSL 450 FWL Sect 33-T01N-R65W			
NAD83 Colorado - HARN			
Universal Transverse Mercator (US Survey Feet)			
Zone 13N (108 W to 102 W)			
RKB=5081+26 @ 5107.00ft			
Northing	Easting	Latitude	Longitude
14528026.68	1730921.89	40.00310078	-104.67681154

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	5462.63	46.26	142.04	5413.98	-139.44	108.77	10.00	-124.19	Begin 46.26° tangent
4	6857.99	46.26	142.04	6378.65	-934.36	728.87	0.00	-832.18	Begin 10°/100' build/turn
5	8103.94	89.79	359.92	7137.00	-464.82	1212.36	10.00	-304.01	LP Begin 89.79° lateral section
6	17760.47	89.79	359.92	7172.00	9191.64	1199.62	0.00	9269.59	PBHL/TD 17760.47 MD/7172.00 TVD

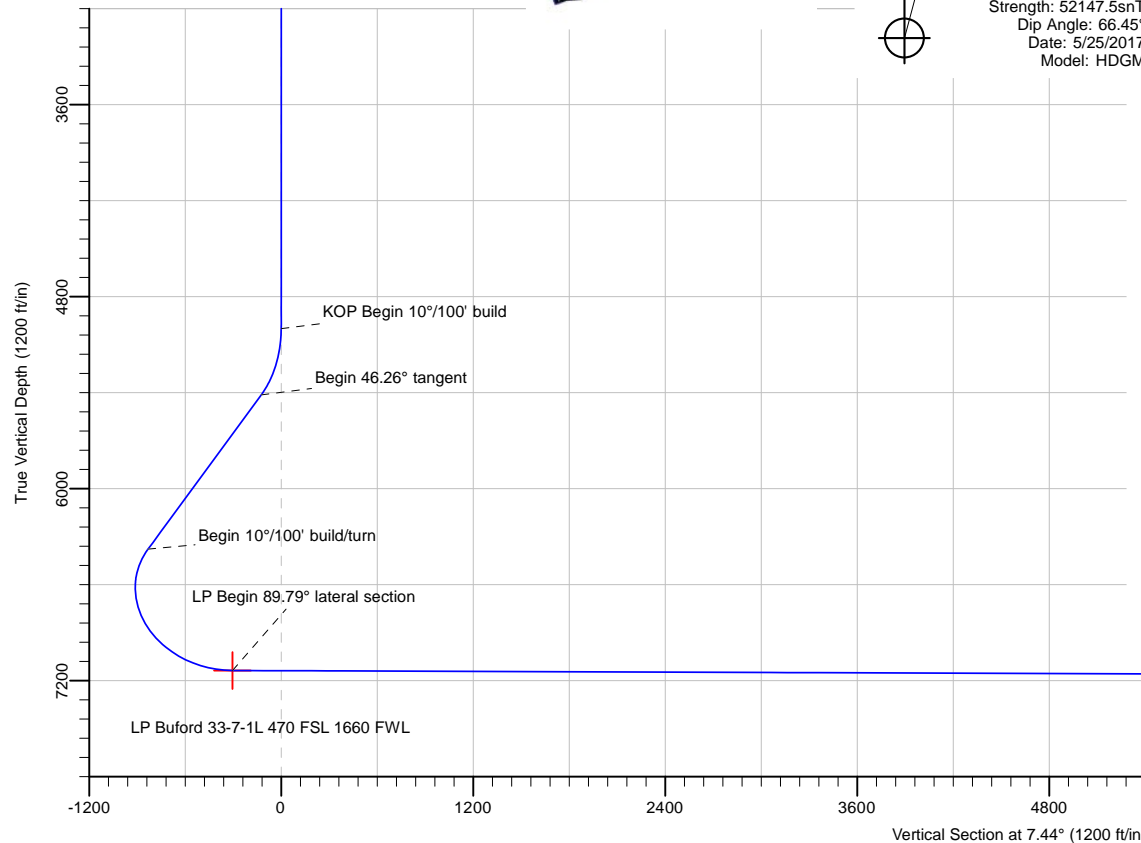
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP Buford 33-7-1L 470 FSL 1660 FWL	7137.00	-464.82	1212.36	14527566.26	1732135.93	40.00182422	-104.67248239
BHL Buford 33-7-1L 470 FNL 1660 FWL	7172.00	9191.64	1199.62	14537222.59	1732088.17	40.02834235	-104.67252622

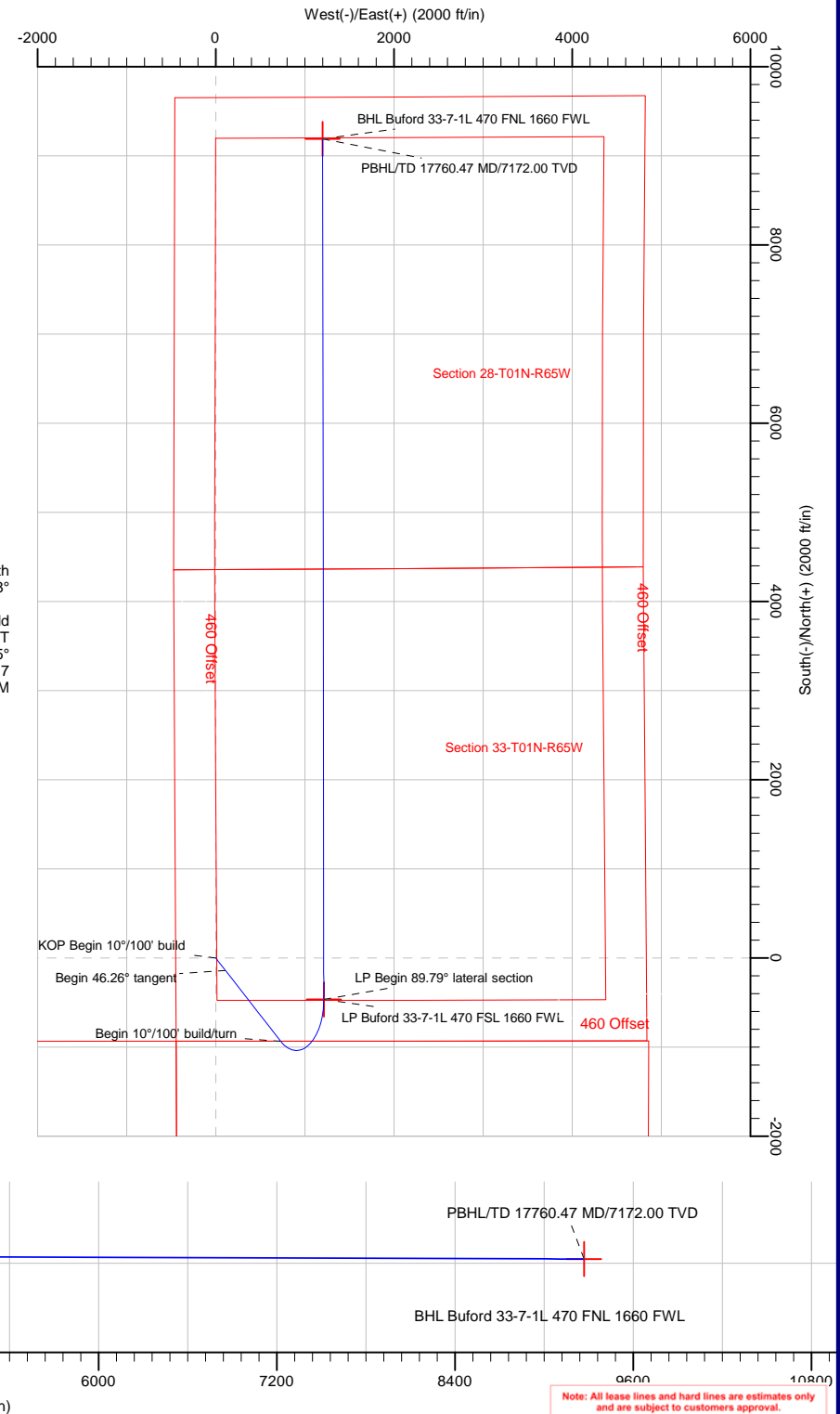


Azimuths to True North
Magnetic North: 8.28°

Magnetic Field
Strength: 52147.5nT
Dip Angle: 66.45°
Date: 5/25/2017
Model: HDGM



Date: 23:10, 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 33-07-1L
Company:	Confluence Resources	TVD Reference:	RKB=5081+26 @ 5107.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+26 @ 5107.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-07-1L	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 33-07-1L, Surf Loc: 935 FSL 450 FWL Sect 33-T01N-R65W					
Well Position	+N/-S	275.02 ft	Northing:	14,528,026.68 usft	Latitude:	40.00310078
	+E/-W	148.62 ft	Easting:	1,730,921.89 usft	Longitude:	-104.67681154
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,081.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/25/2017	8.28	66.45	52,147.50000000

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	7.44

Plan Survey Tool Program	Date	5/25/2017		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	17,760.47	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	
5,462.63	46.26	142.04	5,413.98	-139.44	108.77	10.00	10.00	0.00	142.04	
6,857.99	46.26	142.04	6,378.65	-934.36	728.87	0.00	0.00	0.00	0.00	
8,103.94	89.79	359.92	7,137.00	-464.82	1,212.36	10.00	3.49	-11.41	-131.76	LP Buford 33-7-1L 47
17,760.47	89.79	359.92	7,172.00	9,191.64	1,199.62	0.00	0.00	0.00	0.00	BHL Buford 33-7-1L 4

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-07-1L
Company:	Confluence Resources	TVD Reference:	RKB=5081+26 @ 5107.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+26 @ 5107.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-07-1L	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	142.04	5,099.49	-6.86	5.35	-6.11	10.00	10.00	0.00
5,200.00	20.00	142.04	5,195.96	-27.24	21.25	-24.27	10.00	10.00	0.00

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Project:	Weld County, Colorado	MD Reference:	RKB=5081+26 @ 5107.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-07-1L	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	142.04	5,286.48	-60.52	47.21	-53.91	10.00	10.00	0.00
5,400.00	40.00	142.04	5,368.29	-105.69	82.45	-94.13	10.00	10.00	0.00
5,462.63	46.26	142.04	5,413.98	-139.44	108.77	-124.19	10.00	10.00	0.00
Begin 46.26° tangent									
5,500.00	46.26	142.04	5,439.81	-160.73	125.38	-143.15	0.00	0.00	0.00
5,600.00	46.26	142.04	5,508.94	-217.70	169.82	-193.89	0.00	0.00	0.00
5,700.00	46.26	142.04	5,578.08	-274.67	214.26	-244.63	0.00	0.00	0.00
5,800.00	46.26	142.04	5,647.21	-331.63	258.70	-295.37	0.00	0.00	0.00
5,900.00	46.26	142.04	5,716.35	-388.60	303.14	-346.11	0.00	0.00	0.00
6,000.00	46.26	142.04	5,785.48	-445.57	347.58	-396.84	0.00	0.00	0.00
6,100.00	46.26	142.04	5,854.62	-502.54	392.02	-447.58	0.00	0.00	0.00
6,200.00	46.26	142.04	5,923.75	-559.51	436.46	-498.32	0.00	0.00	0.00
6,300.00	46.26	142.04	5,992.88	-616.48	480.90	-549.06	0.00	0.00	0.00
6,400.00	46.26	142.04	6,062.02	-673.45	525.34	-599.80	0.00	0.00	0.00
6,500.00	46.26	142.04	6,131.15	-730.42	569.78	-650.54	0.00	0.00	0.00
6,600.00	46.26	142.04	6,200.29	-787.39	614.22	-701.28	0.00	0.00	0.00
6,700.00	46.26	142.04	6,269.42	-844.36	658.66	-752.02	0.00	0.00	0.00
6,800.00	46.26	142.04	6,338.56	-901.33	703.10	-802.76	0.00	0.00	0.00
6,857.99	46.26	142.04	6,378.65	-934.36	728.87	-832.18	0.00	0.00	0.00
Begin 10°/100' build/turn									
6,900.00	43.55	137.49	6,408.41	-957.01	747.99	-852.16	10.00	-6.45	-10.83
7,000.00	37.98	124.74	6,484.25	-1,000.05	796.68	-888.54	10.00	-5.58	-12.75
7,100.00	34.12	109.01	6,565.26	-1,026.79	848.61	-908.33	10.00	-3.85	-15.73
7,200.00	32.62	90.98	6,648.98	-1,036.41	902.21	-910.93	10.00	-1.50	-18.03
7,300.00	33.78	72.79	6,732.87	-1,028.62	955.85	-896.27	10.00	1.17	-18.19
7,400.00	37.37	56.69	6,814.37	-1,003.66	1,007.90	-864.79	10.00	3.59	-16.10
7,500.00	42.76	43.56	6,891.00	-962.29	1,056.78	-817.44	10.00	5.39	-13.13
7,600.00	49.36	33.10	6,960.45	-905.76	1,101.01	-755.66	10.00	6.60	-10.47
7,700.00	56.73	24.62	7,020.60	-835.80	1,139.24	-681.33	10.00	7.37	-8.48
7,800.00	64.58	17.50	7,069.62	-754.52	1,170.31	-596.72	10.00	7.85	-7.12
7,900.00	72.73	11.27	7,106.03	-664.39	1,193.27	-504.38	10.00	8.15	-6.23
8,000.00	81.05	5.57	7,128.71	-568.17	1,207.43	-407.13	10.00	8.33	-5.69
8,100.00	89.46	0.14	7,136.97	-468.76	1,212.36	-307.92	10.00	8.41	-5.44
8,103.94	89.79	359.92	7,137.00	-464.82	1,212.36	-304.01	10.00	8.42	-5.39
LP Begin 89.79° lateral section									
8,200.00	89.79	359.92	7,137.35	-368.76	1,212.24	-208.78	0.00	0.00	0.00
8,300.00	89.79	359.92	7,137.71	-268.76	1,212.11	-109.64	0.00	0.00	0.00
8,400.00	89.79	359.92	7,138.07	-168.76	1,211.97	-10.49	0.00	0.00	0.00
8,500.00	89.79	359.92	7,138.44	-68.76	1,211.84	88.65	0.00	0.00	0.00
8,600.00	89.79	359.92	7,138.80	31.24	1,211.71	187.79	0.00	0.00	0.00
8,700.00	89.79	359.92	7,139.16	131.24	1,211.58	286.93	0.00	0.00	0.00
8,800.00	89.79	359.92	7,139.52	231.24	1,211.45	386.07	0.00	0.00	0.00
8,900.00	89.79	359.92	7,139.89	331.24	1,211.31	485.21	0.00	0.00	0.00
9,000.00	89.79	359.92	7,140.25	431.23	1,211.18	584.35	0.00	0.00	0.00
9,100.00	89.79	359.92	7,140.61	531.23	1,211.05	683.49	0.00	0.00	0.00
9,200.00	89.79	359.92	7,140.97	631.23	1,210.92	782.64	0.00	0.00	0.00
9,300.00	89.79	359.92	7,141.34	731.23	1,210.79	881.78	0.00	0.00	0.00
9,400.00	89.79	359.92	7,141.70	831.23	1,210.65	980.92	0.00	0.00	0.00
9,500.00	89.79	359.92	7,142.06	931.23	1,210.52	1,080.06	0.00	0.00	0.00
9,600.00	89.79	359.92	7,142.42	1,031.23	1,210.39	1,179.20	0.00	0.00	0.00
9,700.00	89.79	359.92	7,142.79	1,131.23	1,210.26	1,278.34	0.00	0.00	0.00
9,800.00	89.79	359.92	7,143.15	1,231.23	1,210.13	1,377.48	0.00	0.00	0.00
9,900.00	89.79	359.92	7,143.51	1,331.23	1,209.99	1,476.62	0.00	0.00	0.00

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Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-07-1L	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	89.79	359.92	7,143.87	1,431.23	1,209.86	1,575.77	0.00	0.00	0.00
10,100.00	89.79	359.92	7,144.23	1,531.23	1,209.73	1,674.91	0.00	0.00	0.00
10,200.00	89.79	359.92	7,144.60	1,631.23	1,209.60	1,774.05	0.00	0.00	0.00
10,300.00	89.79	359.92	7,144.96	1,731.22	1,209.47	1,873.19	0.00	0.00	0.00
10,400.00	89.79	359.92	7,145.32	1,831.22	1,209.33	1,972.33	0.00	0.00	0.00
10,500.00	89.79	359.92	7,145.68	1,931.22	1,209.20	2,071.47	0.00	0.00	0.00
10,600.00	89.79	359.92	7,146.05	2,031.22	1,209.07	2,170.61	0.00	0.00	0.00
10,700.00	89.79	359.92	7,146.41	2,131.22	1,208.94	2,269.75	0.00	0.00	0.00
10,800.00	89.79	359.92	7,146.77	2,231.22	1,208.81	2,368.90	0.00	0.00	0.00
10,900.00	89.79	359.92	7,147.13	2,331.22	1,208.67	2,468.04	0.00	0.00	0.00
11,000.00	89.79	359.92	7,147.50	2,431.22	1,208.54	2,567.18	0.00	0.00	0.00
11,100.00	89.79	359.92	7,147.86	2,531.22	1,208.41	2,666.32	0.00	0.00	0.00
11,200.00	89.79	359.92	7,148.22	2,631.22	1,208.28	2,765.46	0.00	0.00	0.00
11,300.00	89.79	359.92	7,148.58	2,731.22	1,208.15	2,864.60	0.00	0.00	0.00
11,400.00	89.79	359.92	7,148.95	2,831.22	1,208.02	2,963.74	0.00	0.00	0.00
11,500.00	89.79	359.92	7,149.31	2,931.22	1,207.88	3,062.88	0.00	0.00	0.00
11,600.00	89.79	359.92	7,149.67	3,031.22	1,207.75	3,162.03	0.00	0.00	0.00
11,700.00	89.79	359.92	7,150.03	3,131.21	1,207.62	3,261.17	0.00	0.00	0.00
11,800.00	89.79	359.92	7,150.40	3,231.21	1,207.49	3,360.31	0.00	0.00	0.00
11,900.00	89.79	359.92	7,150.76	3,331.21	1,207.36	3,459.45	0.00	0.00	0.00
12,000.00	89.79	359.92	7,151.12	3,431.21	1,207.22	3,558.59	0.00	0.00	0.00
12,100.00	89.79	359.92	7,151.48	3,531.21	1,207.09	3,657.73	0.00	0.00	0.00
12,200.00	89.79	359.92	7,151.85	3,631.21	1,206.96	3,756.87	0.00	0.00	0.00
12,300.00	89.79	359.92	7,152.21	3,731.21	1,206.83	3,856.01	0.00	0.00	0.00
12,400.00	89.79	359.92	7,152.57	3,831.21	1,206.70	3,955.16	0.00	0.00	0.00
12,500.00	89.79	359.92	7,152.93	3,931.21	1,206.56	4,054.30	0.00	0.00	0.00
12,600.00	89.79	359.92	7,153.30	4,031.21	1,206.43	4,153.44	0.00	0.00	0.00
12,700.00	89.79	359.92	7,153.66	4,131.21	1,206.30	4,252.58	0.00	0.00	0.00
12,800.00	89.79	359.92	7,154.02	4,231.21	1,206.17	4,351.72	0.00	0.00	0.00
12,900.00	89.79	359.92	7,154.38	4,331.21	1,206.04	4,450.86	0.00	0.00	0.00
13,000.00	89.79	359.92	7,154.75	4,431.20	1,205.90	4,550.00	0.00	0.00	0.00
13,100.00	89.79	359.92	7,155.11	4,531.20	1,205.77	4,649.14	0.00	0.00	0.00
13,200.00	89.79	359.92	7,155.47	4,631.20	1,205.64	4,748.29	0.00	0.00	0.00
13,300.00	89.79	359.92	7,155.83	4,731.20	1,205.51	4,847.43	0.00	0.00	0.00
13,400.00	89.79	359.92	7,156.20	4,831.20	1,205.38	4,946.57	0.00	0.00	0.00
13,500.00	89.79	359.92	7,156.56	4,931.20	1,205.24	5,045.71	0.00	0.00	0.00
13,600.00	89.79	359.92	7,156.92	5,031.20	1,205.11	5,144.85	0.00	0.00	0.00
13,700.00	89.79	359.92	7,157.28	5,131.20	1,204.98	5,243.99	0.00	0.00	0.00
13,800.00	89.79	359.92	7,157.65	5,231.20	1,204.85	5,343.13	0.00	0.00	0.00
13,900.00	89.79	359.92	7,158.01	5,331.20	1,204.72	5,442.27	0.00	0.00	0.00
14,000.00	89.79	359.92	7,158.37	5,431.20	1,204.58	5,541.42	0.00	0.00	0.00
14,100.00	89.79	359.92	7,158.73	5,531.20	1,204.45	5,640.56	0.00	0.00	0.00
14,200.00	89.79	359.92	7,159.10	5,631.20	1,204.32	5,739.70	0.00	0.00	0.00
14,300.00	89.79	359.92	7,159.46	5,731.20	1,204.19	5,838.84	0.00	0.00	0.00
14,400.00	89.79	359.92	7,159.82	5,831.19	1,204.06	5,937.98	0.00	0.00	0.00
14,500.00	89.79	359.92	7,160.18	5,931.19	1,203.92	6,037.12	0.00	0.00	0.00
14,600.00	89.79	359.92	7,160.55	6,031.19	1,203.79	6,136.26	0.00	0.00	0.00
14,700.00	89.79	359.92	7,160.91	6,131.19	1,203.66	6,235.40	0.00	0.00	0.00
14,800.00	89.79	359.92	7,161.27	6,231.19	1,203.53	6,334.54	0.00	0.00	0.00
14,900.00	89.79	359.92	7,161.63	6,331.19	1,203.40	6,433.69	0.00	0.00	0.00
15,000.00	89.79	359.92	7,161.99	6,431.19	1,203.26	6,532.83	0.00	0.00	0.00
15,100.00	89.79	359.92	7,162.36	6,531.19	1,203.13	6,631.97	0.00	0.00	0.00
15,200.00	89.79	359.92	7,162.72	6,631.19	1,203.00	6,731.11	0.00	0.00	0.00
15,300.00	89.79	359.92	7,163.08	6,731.19	1,202.87	6,830.25	0.00	0.00	0.00

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-07-1L
Company:	Confluence Resources	TVD Reference:	RKB=5081+26 @ 5107.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+26 @ 5107.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-07-1L	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	89.79	359.92	7,163.44	6,831.19	1,202.74	6,929.39	0.00	0.00	0.00
15,500.00	89.79	359.92	7,163.81	6,931.19	1,202.60	7,028.53	0.00	0.00	0.00
15,600.00	89.79	359.92	7,164.17	7,031.19	1,202.47	7,127.67	0.00	0.00	0.00
15,700.00	89.79	359.92	7,164.53	7,131.18	1,202.34	7,226.82	0.00	0.00	0.00
15,800.00	89.79	359.92	7,164.89	7,231.18	1,202.21	7,325.96	0.00	0.00	0.00
15,900.00	89.79	359.92	7,165.26	7,331.18	1,202.08	7,425.10	0.00	0.00	0.00
16,000.00	89.79	359.92	7,165.62	7,431.18	1,201.94	7,524.24	0.00	0.00	0.00
16,100.00	89.79	359.92	7,165.98	7,531.18	1,201.81	7,623.38	0.00	0.00	0.00
16,200.00	89.79	359.92	7,166.34	7,631.18	1,201.68	7,722.52	0.00	0.00	0.00
16,300.00	89.79	359.92	7,166.71	7,731.18	1,201.55	7,821.66	0.00	0.00	0.00
16,400.00	89.79	359.92	7,167.07	7,831.18	1,201.42	7,920.80	0.00	0.00	0.00
16,500.00	89.79	359.92	7,167.43	7,931.18	1,201.28	8,019.95	0.00	0.00	0.00
16,600.00	89.79	359.92	7,167.79	8,031.18	1,201.15	8,119.09	0.00	0.00	0.00
16,700.00	89.79	359.92	7,168.16	8,131.18	1,201.02	8,218.23	0.00	0.00	0.00
16,800.00	89.79	359.92	7,168.52	8,231.18	1,200.89	8,317.37	0.00	0.00	0.00
16,900.00	89.79	359.92	7,168.88	8,331.18	1,200.76	8,416.51	0.00	0.00	0.00
17,000.00	89.79	359.92	7,169.24	8,431.18	1,200.62	8,515.65	0.00	0.00	0.00
17,100.00	89.79	359.92	7,169.61	8,531.17	1,200.49	8,614.79	0.00	0.00	0.00
17,200.00	89.79	359.92	7,169.97	8,631.17	1,200.36	8,713.93	0.00	0.00	0.00
17,300.00	89.79	359.92	7,170.33	8,731.17	1,200.23	8,813.08	0.00	0.00	0.00
17,400.00	89.79	359.92	7,170.69	8,831.17	1,200.10	8,912.22	0.00	0.00	0.00
17,500.00	89.79	359.92	7,171.06	8,931.17	1,199.97	9,011.36	0.00	0.00	0.00
17,600.00	89.79	359.92	7,171.42	9,031.17	1,199.83	9,110.50	0.00	0.00	0.00
17,700.00	89.79	359.92	7,171.78	9,131.17	1,199.70	9,209.64	0.00	0.00	0.00
17,760.47	89.79	359.92	7,172.00	9,191.64	1,199.62	9,269.59	0.00	0.00	0.00
PBHL/TD 17760.47 MD/7172.00 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 33-7-1L 470 F	0.00	0.00	7,137.00	-464.82	1,212.36	14,527,566.26	1,732,135.93	40.00182423	-104.67248239
- plan hits target center									
- Point									
BHL Buford 33-7-1L 470	0.00	0.00	7,172.00	9,191.64	1,199.62	14,537,222.59	1,732,088.17	40.02834236	-104.67252621
- plan hits target center									
- Point									

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
5,462.63	5,413.98	-139.44	108.77	Begin 46.26° tangent
6,857.99	6,378.65	-934.36	728.87	Begin 10°/100' build/turn
8,103.94	7,137.00	-464.82	1,212.36	LP Begin 89.79° lateral section
17,760.47	7,172.00	9,191.64	1,199.62	PBHL/TD 17760.47 MD/7172.00 TVD

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-07-1L
Company:	Confluence Resources	TVD Reference:	RKB=5081+26 @ 5107.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+26 @ 5107.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-07-1L	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 33-07-1L, Surf Loc: 935 FSL 450 FWL Sect 33-T01N-R65W					
Well Position	+N/-S	0.00 ft	Northing:	14,528,026.68 usft	Latitude:	40.00310078
	+E/-W	0.00 ft	Easting:	1,730,921.89 usft	Longitude:	-104.67681154
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,081.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/25/2017	8.28	66.45	52,147.50000000

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	7.44

Plan Survey Tool Program	Date	5/25/2017		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	17,760.47 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	
5,462.63	46.26	142.04	5,413.98	-139.44	108.77	10.00	10.00	0.00	142.04	
6,857.99	46.26	142.04	6,378.65	-934.36	728.87	0.00	0.00	0.00	0.00	
8,103.94	89.79	359.92	7,137.00	-464.82	1,212.36	10.00	3.49	-11.41	-131.76	LP Buford 33-7-1L 47'
17,760.47	89.79	359.92	7,172.00	9,191.64	1,199.62	0.00	0.00	0.00	0.00	BHL Buford 33-7-1L 4

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-07-1L
Company:	Confluence Resources	TVD Reference:	RKB=5081+26 @ 5107.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+26 @ 5107.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-07-1L	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	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
100.00	0.00	0.00	100.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
200.00	0.00	0.00	200.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
300.00	0.00	0.00	300.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
400.00	0.00	0.00	400.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
500.00	0.00	0.00	500.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
600.00	0.00	0.00	600.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
700.00	0.00	0.00	700.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
800.00	0.00	0.00	800.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
900.00	0.00	0.00	900.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
2,100.00	0.00	0.00	2,100.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
2,200.00	0.00	0.00	2,200.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
2,300.00	0.00	0.00	2,300.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
2,400.00	0.00	0.00	2,400.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
2,500.00	0.00	0.00	2,500.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
2,600.00	0.00	0.00	2,600.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
2,700.00	0.00	0.00	2,700.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
2,800.00	0.00	0.00	2,800.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
2,900.00	0.00	0.00	2,900.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
3,000.00	0.00	0.00	3,000.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
3,100.00	0.00	0.00	3,100.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
3,200.00	0.00	0.00	3,200.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
3,300.00	0.00	0.00	3,300.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
3,400.00	0.00	0.00	3,400.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
3,500.00	0.00	0.00	3,500.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
3,600.00	0.00	0.00	3,600.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
3,700.00	0.00	0.00	3,700.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
3,800.00	0.00	0.00	3,800.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
3,900.00	0.00	0.00	3,900.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
4,000.00	0.00	0.00	4,000.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
4,100.00	0.00	0.00	4,100.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
4,200.00	0.00	0.00	4,200.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
4,300.00	0.00	0.00	4,300.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
4,400.00	0.00	0.00	4,400.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
4,500.00	0.00	0.00	4,500.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
4,600.00	0.00	0.00	4,600.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
4,700.00	0.00	0.00	4,700.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
4,800.00	0.00	0.00	4,800.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
4,900.00	0.00	0.00	4,900.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
5,000.00	0.00	0.00	5,000.00	0.00	0.00	14,528,026.68	1,730,921.89	40.00310078	-104.67681154
KOP Begin 10°/100' build									
5,100.00	10.00	142.04	5,099.49	-6.86	5.35	14,528,019.84	1,730,927.27	40.00308193	-104.67679242
5,200.00	20.00	142.04	5,195.96	-27.24	21.25	14,527,999.52	1,730,943.24	40.00302596	-104.67673565

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-07-1L
Company:	Confluence Resources	TVD Reference:	RKB=5081+26 @ 5107.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+26 @ 5107.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-07-1L	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	142.04	5,286.48	-60.52	47.21	14,527,966.33	1,730,969.32	40.00293457	-104.67664295
5,400.00	40.00	142.04	5,368.29	-105.69	82.45	14,527,921.29	1,731,004.72	40.00281053	-104.67651713
5,462.63	46.26	142.04	5,413.98	-139.44	108.77	14,527,887.64	1,731,031.17	40.00271785	-104.67642313
Begin 46.26° tangent									
5,500.00	46.26	142.04	5,439.81	-160.73	125.38	14,527,866.41	1,731,047.85	40.00265940	-104.67636383
5,600.00	46.26	142.04	5,508.94	-217.70	169.82	14,527,809.61	1,731,092.49	40.00250295	-104.67620514
5,700.00	46.26	142.04	5,578.08	-274.67	214.26	14,527,752.80	1,731,137.14	40.00234650	-104.67604645
5,800.00	46.26	142.04	5,647.21	-331.63	258.70	14,527,695.99	1,731,181.79	40.00219005	-104.67588777
5,900.00	46.26	142.04	5,716.35	-388.60	303.14	14,527,639.18	1,731,226.43	40.00203360	-104.67572908
6,000.00	46.26	142.04	5,785.48	-445.57	347.58	14,527,582.38	1,731,271.08	40.00187716	-104.67557039
6,100.00	46.26	142.04	5,854.62	-502.54	392.02	14,527,525.57	1,731,315.73	40.00172071	-104.67541171
6,200.00	46.26	142.04	5,923.75	-559.51	436.46	14,527,468.76	1,731,360.37	40.00156426	-104.67525302
6,300.00	46.26	142.04	5,992.88	-616.48	480.90	14,527,411.95	1,731,405.02	40.00140781	-104.67509434
6,400.00	46.26	142.04	6,062.02	-673.45	525.34	14,527,355.14	1,731,449.67	40.00125136	-104.67493565
6,500.00	46.26	142.04	6,131.15	-730.42	569.78	14,527,298.34	1,731,494.31	40.00109491	-104.67477697
6,600.00	46.26	142.04	6,200.29	-787.39	614.22	14,527,241.53	1,731,538.96	40.00093846	-104.67461829
6,700.00	46.26	142.04	6,269.42	-844.36	658.66	14,527,184.72	1,731,583.61	40.00078201	-104.67445961
6,800.00	46.26	142.04	6,338.56	-901.33	703.10	14,527,127.91	1,731,628.25	40.00062556	-104.67430093
6,857.99	46.26	142.04	6,378.65	-934.36	728.87	14,527,094.97	1,731,654.14	40.00053483	-104.67420891
Begin 10°/100' build/turn									
6,900.00	43.55	137.49	6,408.41	-957.01	747.99	14,527,072.39	1,731,673.35	40.00047264	-104.67414063
7,000.00	37.98	124.74	6,484.25	-1,000.05	796.68	14,527,029.53	1,731,722.18	40.00035444	-104.67396681
7,100.00	34.12	109.01	6,565.26	-1,026.79	848.61	14,527,002.98	1,731,774.21	40.00028101	-104.67378138
7,200.00	32.62	90.98	6,648.98	-1,036.41	902.21	14,526,993.56	1,731,827.84	40.00025459	-104.67358999
7,300.00	33.78	72.79	6,732.87	-1,028.62	955.85	14,527,001.54	1,731,881.46	40.00027597	-104.67339845
7,400.00	37.37	56.69	6,814.37	-1,003.66	1,007.90	14,527,026.68	1,731,933.42	40.00034450	-104.67321257
7,500.00	42.76	43.56	6,891.00	-962.29	1,056.78	14,527,068.23	1,731,982.15	40.00045811	-104.67303802
7,600.00	49.36	33.10	6,960.45	-905.76	1,101.01	14,527,124.92	1,732,026.18	40.00061334	-104.67288008
7,700.00	56.73	24.62	7,020.60	-835.80	1,139.24	14,527,195.03	1,732,064.15	40.00080548	-104.67274356
7,800.00	64.58	17.50	7,069.62	-754.52	1,170.31	14,527,276.42	1,732,094.92	40.00102868	-104.67263261
7,900.00	72.73	11.27	7,106.03	-664.39	1,193.27	14,527,366.62	1,732,117.56	40.00127617	-104.67255060
8,000.00	81.05	5.57	7,128.71	-568.17	1,207.43	14,527,462.90	1,732,131.37	40.00154042	-104.67250001
8,100.00	89.46	0.14	7,136.97	-468.76	1,212.36	14,527,562.33	1,732,135.94	40.00181341	-104.67248240
8,103.94	89.79	359.92	7,137.00	-464.82	1,212.36	14,527,566.26	1,732,135.93	40.00182423	-104.67248239
LP Begin 89.79° lateral section									
8,200.00	89.79	359.92	7,137.35	-368.76	1,212.24	14,527,662.32	1,732,135.45	40.00208803	-104.67248282
8,300.00	89.79	359.92	7,137.71	-268.76	1,212.11	14,527,762.32	1,732,134.96	40.00236264	-104.67248328
8,400.00	89.79	359.92	7,138.07	-168.76	1,211.97	14,527,862.32	1,732,134.46	40.00263725	-104.67248373
8,500.00	89.79	359.92	7,138.44	-68.76	1,211.84	14,527,962.32	1,732,133.97	40.00291187	-104.67248419
8,600.00	89.79	359.92	7,138.80	31.24	1,211.71	14,528,062.32	1,732,133.48	40.00318648	-104.67248464
8,700.00	89.79	359.92	7,139.16	131.24	1,211.58	14,528,162.31	1,732,132.98	40.00346110	-104.67248509
8,800.00	89.79	359.92	7,139.52	231.24	1,211.45	14,528,262.31	1,732,132.49	40.00373571	-104.67248555
8,900.00	89.79	359.92	7,139.89	331.24	1,211.31	14,528,362.31	1,732,131.99	40.00401032	-104.67248600
9,000.00	89.79	359.92	7,140.25	431.23	1,211.18	14,528,462.31	1,732,131.50	40.00428494	-104.67248646
9,100.00	89.79	359.92	7,140.61	531.23	1,211.05	14,528,562.31	1,732,131.00	40.00455955	-104.67248691
9,200.00	89.79	359.92	7,140.97	631.23	1,210.92	14,528,662.30	1,732,130.51	40.00483417	-104.67248736
9,300.00	89.79	359.92	7,141.34	731.23	1,210.79	14,528,762.30	1,732,130.01	40.00510878	-104.67248782
9,400.00	89.79	359.92	7,141.70	831.23	1,210.65	14,528,862.30	1,732,129.52	40.00538339	-104.67248827
9,500.00	89.79	359.92	7,142.06	931.23	1,210.52	14,528,962.30	1,732,129.02	40.00565801	-104.67248873
9,600.00	89.79	359.92	7,142.42	1,031.23	1,210.39	14,529,062.30	1,732,128.53	40.00593262	-104.67248918
9,700.00	89.79	359.92	7,142.79	1,131.23	1,210.26	14,529,162.29	1,732,128.03	40.00620723	-104.67248963
9,800.00	89.79	359.92	7,143.15	1,231.23	1,210.13	14,529,262.29	1,732,127.54	40.00648185	-104.67249009
9,900.00	89.79	359.92	7,143.51	1,331.23	1,209.99	14,529,362.29	1,732,127.05	40.00675646	-104.67249054
10,000.00	89.79	359.92	7,143.87	1,431.23	1,209.86	14,529,462.29	1,732,126.55	40.00703108	-104.67249100

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-07-1L
Company:	Confluence Resources	TVD Reference:	RKB=5081+26 @ 5107.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+26 @ 5107.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-07-1L	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	89.79	359.92	7,144.23	1,531.23	1,209.73	14,529,562.28	1,732,126.06	40.00730569	-104.67249145
10,200.00	89.79	359.92	7,144.60	1,631.23	1,209.60	14,529,662.28	1,732,125.56	40.00758030	-104.67249190
10,300.00	89.79	359.92	7,144.96	1,731.22	1,209.47	14,529,762.28	1,732,125.07	40.00785492	-104.67249236
10,400.00	89.79	359.92	7,145.32	1,831.22	1,209.33	14,529,862.28	1,732,124.57	40.00812953	-104.67249281
10,500.00	89.79	359.92	7,145.68	1,931.22	1,209.20	14,529,962.28	1,732,124.08	40.00840415	-104.67249327
10,600.00	89.79	359.92	7,146.05	2,031.22	1,209.07	14,530,062.27	1,732,123.58	40.00867876	-104.67249372
10,700.00	89.79	359.92	7,146.41	2,131.22	1,208.94	14,530,162.27	1,732,123.09	40.00895337	-104.67249417
10,800.00	89.79	359.92	7,146.77	2,231.22	1,208.81	14,530,262.27	1,732,122.59	40.00922799	-104.67249463
10,900.00	89.79	359.92	7,147.13	2,331.22	1,208.67	14,530,362.27	1,732,122.10	40.00950260	-104.67249508
11,000.00	89.79	359.92	7,147.50	2,431.22	1,208.54	14,530,462.27	1,732,121.61	40.00977721	-104.67249553
11,100.00	89.79	359.92	7,147.86	2,531.22	1,208.41	14,530,562.26	1,732,121.11	40.01005183	-104.67249599
11,200.00	89.79	359.92	7,148.22	2,631.22	1,208.28	14,530,662.26	1,732,120.62	40.01032644	-104.67249644
11,300.00	89.79	359.92	7,148.58	2,731.22	1,208.15	14,530,762.26	1,732,120.12	40.01060105	-104.67249690
11,400.00	89.79	359.92	7,148.95	2,831.22	1,208.02	14,530,862.26	1,732,119.63	40.01087567	-104.67249735
11,500.00	89.79	359.92	7,149.31	2,931.22	1,207.88	14,530,962.26	1,732,119.13	40.01115028	-104.67249780
11,600.00	89.79	359.92	7,149.67	3,031.22	1,207.75	14,531,062.25	1,732,118.64	40.01142490	-104.67249826
11,700.00	89.79	359.92	7,150.03	3,131.21	1,207.62	14,531,162.25	1,732,118.14	40.01169951	-104.67249871
11,800.00	89.79	359.92	7,150.40	3,231.21	1,207.49	14,531,262.25	1,732,117.65	40.01197412	-104.67249917
11,900.00	89.79	359.92	7,150.76	3,331.21	1,207.36	14,531,362.25	1,732,117.15	40.01224874	-104.67249962
12,000.00	89.79	359.92	7,151.12	3,431.21	1,207.22	14,531,462.25	1,732,116.66	40.01252335	-104.67250007
12,100.00	89.79	359.92	7,151.48	3,531.21	1,207.09	14,531,562.24	1,732,116.16	40.01279796	-104.67250053
12,200.00	89.79	359.92	7,151.85	3,631.21	1,206.96	14,531,662.24	1,732,115.67	40.01307258	-104.67250098
12,300.00	89.79	359.92	7,152.21	3,731.21	1,206.83	14,531,762.24	1,732,115.18	40.01334719	-104.67250143
12,400.00	89.79	359.92	7,152.57	3,831.21	1,206.70	14,531,862.24	1,732,114.68	40.01362180	-104.67250189
12,500.00	89.79	359.92	7,152.93	3,931.21	1,206.56	14,531,962.23	1,732,114.19	40.01389642	-104.67250234
12,600.00	89.79	359.92	7,153.30	4,031.21	1,206.43	14,532,062.23	1,732,113.69	40.01417103	-104.67250280
12,700.00	89.79	359.92	7,153.66	4,131.21	1,206.30	14,532,162.23	1,732,113.20	40.01444564	-104.67250325
12,800.00	89.79	359.92	7,154.02	4,231.21	1,206.17	14,532,262.23	1,732,112.70	40.01472026	-104.67250370
12,900.00	89.79	359.92	7,154.38	4,331.21	1,206.04	14,532,362.23	1,732,112.21	40.01499487	-104.67250416
13,000.00	89.79	359.92	7,154.75	4,431.20	1,205.90	14,532,462.22	1,732,111.71	40.01526948	-104.67250461
13,100.00	89.79	359.92	7,155.11	4,531.20	1,205.77	14,532,562.22	1,732,111.22	40.01554410	-104.67250507
13,200.00	89.79	359.92	7,155.47	4,631.20	1,205.64	14,532,662.22	1,732,110.72	40.01581871	-104.67250552
13,300.00	89.79	359.92	7,155.83	4,731.20	1,205.51	14,532,762.22	1,732,110.23	40.01609332	-104.67250597
13,400.00	89.79	359.92	7,156.20	4,831.20	1,205.38	14,532,862.22	1,732,109.74	40.01636794	-104.67250643
13,500.00	89.79	359.92	7,156.56	4,931.20	1,205.24	14,532,962.21	1,732,109.24	40.01664255	-104.67250688
13,600.00	89.79	359.92	7,156.92	5,031.20	1,205.11	14,533,062.21	1,732,108.75	40.01691716	-104.67250733
13,700.00	89.79	359.92	7,157.28	5,131.20	1,204.98	14,533,162.21	1,732,108.25	40.01719178	-104.67250779
13,800.00	89.79	359.92	7,157.65	5,231.20	1,204.85	14,533,262.21	1,732,107.76	40.01746639	-104.67250824
13,900.00	89.79	359.92	7,158.01	5,331.20	1,204.72	14,533,362.21	1,732,107.26	40.01774100	-104.67250870
14,000.00	89.79	359.92	7,158.37	5,431.20	1,204.58	14,533,462.20	1,732,106.77	40.01801562	-104.67250915
14,100.00	89.79	359.92	7,158.73	5,531.20	1,204.45	14,533,562.20	1,732,106.27	40.01829023	-104.67250960
14,200.00	89.79	359.92	7,159.10	5,631.20	1,204.32	14,533,662.20	1,732,105.78	40.01856484	-104.67251006
14,300.00	89.79	359.92	7,159.46	5,731.20	1,204.19	14,533,762.20	1,732,105.28	40.01883946	-104.67251051
14,400.00	89.79	359.92	7,159.82	5,831.19	1,204.06	14,533,862.20	1,732,104.79	40.01911407	-104.67251096
14,500.00	89.79	359.92	7,160.18	5,931.19	1,203.92	14,533,962.19	1,732,104.29	40.01938868	-104.67251142
14,600.00	89.79	359.92	7,160.55	6,031.19	1,203.79	14,534,062.19	1,732,103.80	40.01966330	-104.67251187
14,700.00	89.79	359.92	7,160.91	6,131.19	1,203.66	14,534,162.19	1,732,103.31	40.01993791	-104.67251233
14,800.00	89.79	359.92	7,161.27	6,231.19	1,203.53	14,534,262.19	1,732,102.81	40.02021252	-104.67251278
14,900.00	89.79	359.92	7,161.63	6,331.19	1,203.40	14,534,362.19	1,732,102.32	40.02048714	-104.67251323
15,000.00	89.79	359.92	7,161.99	6,431.19	1,203.26	14,534,462.18	1,732,101.82	40.02076175	-104.67251369
15,100.00	89.79	359.92	7,162.36	6,531.19	1,203.13	14,534,562.18	1,732,101.33	40.02103636	-104.67251414
15,200.00	89.79	359.92	7,162.72	6,631.19	1,203.00	14,534,662.18	1,732,100.83	40.02131098	-104.67251459
15,300.00	89.79	359.92	7,163.08	6,731.19	1,202.87	14,534,762.18	1,732,100.34	40.02158559	-104.67251505
15,400.00	89.79	359.92	7,163.44	6,831.19	1,202.74	14,534,862.17	1,732,099.84	40.02186020	-104.67251550
15,500.00	89.79	359.92	7,163.81	6,931.19	1,202.60	14,534,962.17	1,732,099.35	40.02213482	-104.67251596

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-07-1L
Company:	Confluence Resources	TVD Reference:	RKB=5081+26 @ 5107.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+26 @ 5107.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-07-1L	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	89.79	359.92	7,164.17	7,031.19	1,202.47	14,535,062.17	1,732,098.85	40.02240943	-104.67251641
15,700.00	89.79	359.92	7,164.53	7,131.18	1,202.34	14,535,162.17	1,732,098.36	40.02268404	-104.67251686
15,800.00	89.79	359.92	7,164.89	7,231.18	1,202.21	14,535,262.17	1,732,097.86	40.02295865	-104.67251732
15,900.00	89.79	359.92	7,165.26	7,331.18	1,202.08	14,535,362.16	1,732,097.37	40.02323327	-104.67251777
16,000.00	89.79	359.92	7,165.62	7,431.18	1,201.94	14,535,462.16	1,732,096.88	40.02350788	-104.67251822
16,100.00	89.79	359.92	7,165.98	7,531.18	1,201.81	14,535,562.16	1,732,096.38	40.02378249	-104.67251868
16,200.00	89.79	359.92	7,166.34	7,631.18	1,201.68	14,535,662.16	1,732,095.89	40.02405711	-104.67251913
16,300.00	89.79	359.92	7,166.71	7,731.18	1,201.55	14,535,762.16	1,732,095.39	40.02433172	-104.67251959
16,400.00	89.79	359.92	7,167.07	7,831.18	1,201.42	14,535,862.15	1,732,094.90	40.02460633	-104.67252004
16,500.00	89.79	359.92	7,167.43	7,931.18	1,201.28	14,535,962.15	1,732,094.40	40.02488095	-104.67252049
16,600.00	89.79	359.92	7,167.79	8,031.18	1,201.15	14,536,062.15	1,732,093.91	40.02515556	-104.67252095
16,700.00	89.79	359.92	7,168.16	8,131.18	1,201.02	14,536,162.15	1,732,093.41	40.02543017	-104.67252140
16,800.00	89.79	359.92	7,168.52	8,231.18	1,200.89	14,536,262.15	1,732,092.92	40.02570478	-104.67252185
16,900.00	89.79	359.92	7,168.88	8,331.18	1,200.76	14,536,362.14	1,732,092.42	40.02597940	-104.67252231
17,000.00	89.79	359.92	7,169.24	8,431.18	1,200.62	14,536,462.14	1,732,091.93	40.02625401	-104.67252276
17,100.00	89.79	359.92	7,169.61	8,531.17	1,200.49	14,536,562.14	1,732,091.44	40.02652862	-104.67252321
17,200.00	89.79	359.92	7,169.97	8,631.17	1,200.36	14,536,662.14	1,732,090.94	40.02680324	-104.67252367
17,300.00	89.79	359.92	7,170.33	8,731.17	1,200.23	14,536,762.14	1,732,090.45	40.02707785	-104.67252412
17,400.00	89.79	359.92	7,170.69	8,831.17	1,200.10	14,536,862.13	1,732,089.95	40.02735246	-104.67252458
17,500.00	89.79	359.92	7,171.06	8,931.17	1,199.97	14,536,962.13	1,732,089.46	40.02762707	-104.67252503
17,600.00	89.79	359.92	7,171.42	9,031.17	1,199.83	14,537,062.13	1,732,088.96	40.02790169	-104.67252548
17,700.00	89.79	359.92	7,171.78	9,131.17	1,199.70	14,537,162.13	1,732,088.47	40.02817630	-104.67252594
17,760.47	89.79	359.92	7,172.00	9,191.64	1,199.62	14,537,222.59	1,732,088.17	40.02834236	-104.67252621
PBHL/TD 17760.47 MD/7172.00 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
LP Buford 33-7-1L 470 F - plan hits target center - Point	0.00	0.00	7,137.00	-464.82	1,212.36	14,527,566.26	1,732,135.93	40.00182423	-104.67248239
BHL Buford 33-7-1L 470 - plan hits target center - Point	0.00	0.00	7,172.00	9,191.64	1,199.62	14,537,222.59	1,732,088.17	40.02834236	-104.67252621

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	
5,462.63	5,413.98	-139.44	108.77	Begin 46.26° tangent	
6,857.99	6,378.65	-934.36	728.87	Begin 10°/100' build/turn	
8,103.94	7,137.00	-464.82	1,212.36	LP Begin 89.79° lateral section	
17,760.47	7,172.00	9,191.64	1,199.62	PBHL/TD 17760.47 MD/7172.00 TVD	