

Well: Silverton 5-08-2L
Site: Section 04-T04N-R63W
Project: Weld County, Colorado
Wellbore: Original Hole
Design: plan1

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSec	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	2541.96	10.84	348.31	2538.73	50.05	-10.35	2.00	14.12	Begin 10.84° tangent section
4	5929.93	10.84	348.31	5866.26	673.96	-139.43	0.00	190.16	Begin 10°/100' build/turn
5	6808.15	90.00	269.97	6408.00	775.23	-712.03	10.00	768.79	LP Begin 90° lateral
6	16217.11	90.00	269.97	6408.00	770.04	-10120.99	0.00	10150.24	PBHL/TD 16217.11 MD 6408.00 TVD

DESIGN TARGET DETAILS

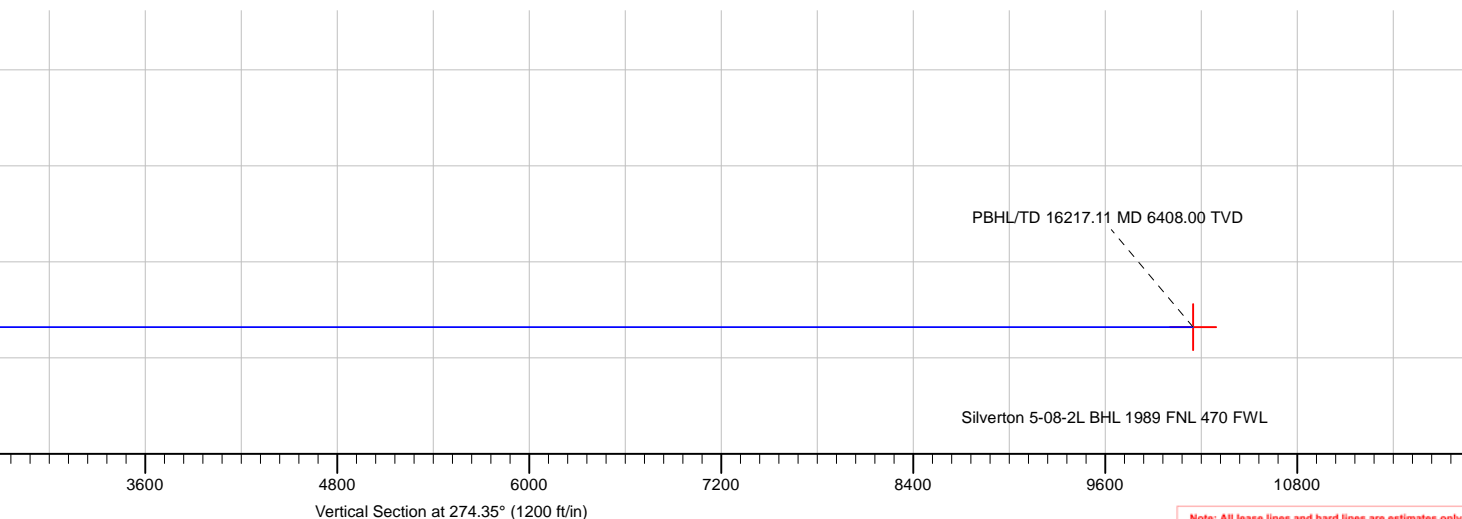
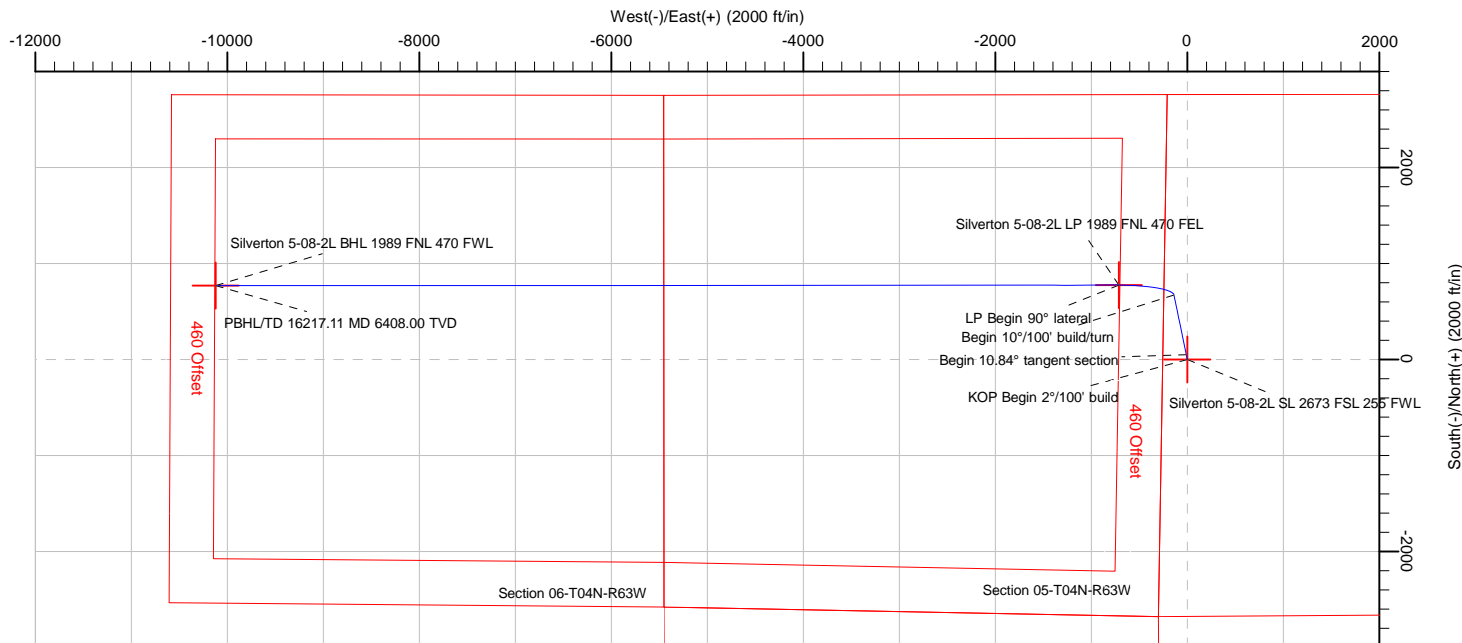
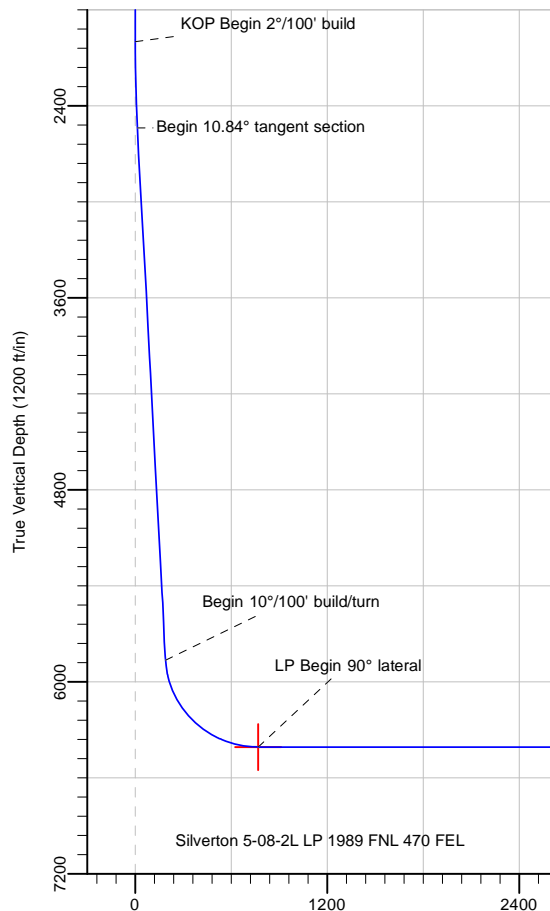
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Silverton 5-08-2L SL 2673 FSL 255 FWL	24.00	0.00	0.00	14651426.40	1793251.55	40.34112035	-104.45152280
Silverton 5-08-2L BHL 1989 FNL 470 FWL	6408.00	770.04	-10120.99	14652133.70	1783126.00	40.34322914	-104.48784416
Silverton 5-08-2L LP 1989 FNL 470 FEL	6408.00	775.23	-712.03	14652197.20	1792534.73	40.34324907	-104.45407808

Silverton 5-08-2L Surf loc: 2673 FSL 255 FWL Section 04-T04N-R63W			
NAD83 Colorado - HARN Universal Transverse Mercator (US Survey Feet) Zone 13N (108 W to 102 W) RKB=4630+24 @ 4654.00ft			
Northing 14651426.40	Easting 1793251.55	Latitude 40.34112035	Longitude -104.45152280



Azimuths to True North
Magnetic North: 8.08°

Magnetic Field
Strength: 52227.8snT
Dip Angle: 66.90°
Date: 5/29/2018
Model: HDGM



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

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=4630+24 @ 4654.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4630+24 @ 4654.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-08-2L	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 04-T04N-R63W			
Site Position:		Northing:	14,650,073.90 usft	Latitude:	40.33740565
From:	Map	Easting:	1,793,302.13 usft	Longitude:	-104.45137138
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.36 °

Well	Silverton 5-08-2L, Surf loc: 2673 FSL 255 FWL Section 04-T04N-R63W					
Well Position	+N/-S	0.00 ft	Northing:	14,651,426.40 usft	Latitude:	40.34112035
	+E/-W	0.00 ft	Easting:	1,793,251.55 usft	Longitude:	-104.45152281
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,630.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/29/2018	8.08	66.90	52,227.80000000

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	274.35

Plan Survey Tool Program	Date	5/29/2018		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,217.12 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	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,541.96	10.84	348.31	2,538.73	50.05	-10.35	2.00	2.00	0.00	348.31	
5,929.93	10.84	348.31	5,866.26	673.96	-139.43	0.00	0.00	0.00	0.00	
6,808.15	90.00	269.97	6,408.00	775.23	-712.03	10.00	9.01	-8.92	-78.55	Silverton 5-08-2L LP
16,217.12	90.00	269.97	6,408.00	770.04	-10,120.99	0.00	0.00	0.00	0.00	Silverton 5-08-2L BHL

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=4630+24 @ 4654.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4630+24 @ 4654.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-08-2L	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	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
100.00	0.00	0.00	100.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
200.00	0.00	0.00	200.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
300.00	0.00	0.00	300.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
400.00	0.00	0.00	400.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
500.00	0.00	0.00	500.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
600.00	0.00	0.00	600.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
700.00	0.00	0.00	700.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
800.00	0.00	0.00	800.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
900.00	0.00	0.00	900.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
KOP Begin 2°/100' build									
2,100.00	2.00	348.31	2,099.98	1.71	-0.35	14,651,428.10	1,793,251.19	40.34112504	-104.45152408
2,200.00	4.00	348.31	2,199.84	6.83	-1.41	14,651,433.22	1,793,250.09	40.34113911	-104.45152788
2,300.00	6.00	348.31	2,299.45	15.37	-3.18	14,651,441.75	1,793,248.28	40.34116255	-104.45153422
2,400.00	8.00	348.31	2,398.70	27.30	-5.65	14,651,453.66	1,793,245.73	40.34119532	-104.45154308
2,500.00	10.00	348.31	2,497.47	42.62	-8.82	14,651,468.96	1,793,242.47	40.34123738	-104.45155445
2,541.96	10.84	348.31	2,538.73	50.05	-10.35	14,651,476.38	1,793,240.89	40.34125779	-104.45155997
Begin 10.84° tangent section									
2,600.00	10.84	348.31	2,595.74	60.74	-12.57	14,651,487.06	1,793,238.61	40.34128714	-104.45156790
2,700.00	10.84	348.31	2,693.95	79.15	-16.38	14,651,505.45	1,793,234.68	40.34133771	-104.45158158
2,800.00	10.84	348.31	2,792.17	97.57	-20.19	14,651,523.84	1,793,230.76	40.34138827	-104.45159525
2,900.00	10.84	348.31	2,890.39	115.99	-24.00	14,651,542.23	1,793,226.84	40.34143884	-104.45160892
3,000.00	10.84	348.31	2,988.60	134.40	-27.81	14,651,560.62	1,793,222.91	40.34148941	-104.45162259
3,100.00	10.84	348.31	3,086.82	152.82	-31.62	14,651,579.01	1,793,218.99	40.34153998	-104.45163626
3,200.00	10.84	348.31	3,185.03	171.23	-35.43	14,651,597.41	1,793,215.06	40.34159054	-104.45164994
3,300.00	10.84	348.31	3,283.25	189.65	-39.23	14,651,615.80	1,793,211.14	40.34164111	-104.45166361
3,400.00	10.84	348.31	3,381.46	208.06	-43.04	14,651,634.19	1,793,207.22	40.34169168	-104.45167728
3,500.00	10.84	348.31	3,479.68	226.48	-46.85	14,651,652.58	1,793,203.29	40.34174225	-104.45169095
3,600.00	10.84	348.31	3,577.90	244.89	-50.66	14,651,670.97	1,793,199.37	40.34179281	-104.45170463
3,700.00	10.84	348.31	3,676.11	263.31	-54.47	14,651,689.36	1,793,195.45	40.34184338	-104.45171830
3,800.00	10.84	348.31	3,774.33	281.72	-58.28	14,651,707.75	1,793,191.52	40.34189395	-104.45173197
3,900.00	10.84	348.31	3,872.54	300.14	-62.09	14,651,726.15	1,793,187.60	40.34194452	-104.45174564
4,000.00	10.84	348.31	3,970.76	318.55	-65.90	14,651,744.54	1,793,183.67	40.34199508	-104.45175931
4,100.00	10.84	348.31	4,068.98	336.97	-69.71	14,651,762.93	1,793,179.75	40.34204565	-104.45177299
4,200.00	10.84	348.31	4,167.19	355.39	-73.52	14,651,781.32	1,793,175.83	40.34209622	-104.45178666
4,300.00	10.84	348.31	4,265.41	373.80	-77.33	14,651,799.71	1,793,171.90	40.34214679	-104.45180033
4,400.00	10.84	348.31	4,363.62	392.22	-81.14	14,651,818.10	1,793,167.98	40.34219735	-104.45181400
4,500.00	10.84	348.31	4,461.84	410.63	-84.95	14,651,836.49	1,793,164.05	40.34224792	-104.45182768
4,600.00	10.84	348.31	4,560.06	429.05	-88.76	14,651,854.88	1,793,160.13	40.34229849	-104.45184135
4,700.00	10.84	348.31	4,658.27	447.46	-92.57	14,651,873.28	1,793,156.21	40.34234906	-104.45185502
4,800.00	10.84	348.31	4,756.49	465.88	-96.38	14,651,891.67	1,793,152.28	40.34239963	-104.45186869
4,900.00	10.84	348.31	4,854.70	484.29	-100.19	14,651,910.06	1,793,148.36	40.34245019	-104.45188237
5,000.00	10.84	348.31	4,952.92	502.71	-104.00	14,651,928.45	1,793,144.43	40.34250076	-104.45189604

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=4630+24 @ 4654.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4630+24 @ 4654.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-08-2L	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
5,100.00	10.84	348.31	5,051.13	521.12	-107.81	14,651,946.84	1,793,140.51	40.34255133	-104.45190971
5,200.00	10.84	348.31	5,149.35	539.54	-111.62	14,651,965.23	1,793,136.59	40.34260190	-104.45192338
5,300.00	10.84	348.31	5,247.57	557.95	-115.43	14,651,983.62	1,793,132.66	40.34265246	-104.45193706
5,400.00	10.84	348.31	5,345.78	576.37	-119.24	14,652,002.02	1,793,128.74	40.34270303	-104.45195073
5,500.00	10.84	348.31	5,444.00	594.78	-123.05	14,652,020.41	1,793,124.82	40.34275360	-104.45196440
5,600.00	10.84	348.31	5,542.21	613.20	-126.86	14,652,038.80	1,793,120.89	40.34280417	-104.45197807
5,700.00	10.84	348.31	5,640.43	631.62	-130.67	14,652,057.19	1,793,116.97	40.34285473	-104.45199175
5,800.00	10.84	348.31	5,738.65	650.03	-134.48	14,652,075.58	1,793,113.04	40.34290530	-104.45200542
5,900.00	10.84	348.31	5,836.86	668.45	-138.29	14,652,093.97	1,793,109.12	40.34295587	-104.45201909
5,929.93	10.84	348.31	5,866.26	673.96	-139.43	14,652,099.48	1,793,107.95	40.34297100	-104.45202318
Begin 10°/100' build/turn									
6,000.00	14.01	318.71	5,934.75	686.80	-146.37	14,652,112.27	1,793,100.93	40.34300626	-104.45204809
6,100.00	21.83	297.88	6,029.92	704.63	-170.85	14,652,129.95	1,793,076.33	40.34305523	-104.45213595
6,200.00	30.90	288.23	6,119.46	721.40	-211.78	14,652,146.47	1,793,035.30	40.34310127	-104.45228282
6,300.00	40.37	282.71	6,200.66	736.59	-267.90	14,652,161.32	1,792,979.09	40.34314300	-104.45248423
6,400.00	50.03	279.01	6,271.06	749.76	-337.52	14,652,174.05	1,792,909.39	40.34317914	-104.45273407
6,500.00	59.77	276.24	6,328.50	760.48	-418.51	14,652,184.27	1,792,828.33	40.34320859	-104.45302473
6,600.00	69.56	273.98	6,371.24	768.45	-508.42	14,652,191.68	1,792,738.37	40.34323046	-104.45334740
6,700.00	79.37	271.98	6,398.00	773.41	-604.52	14,652,196.05	1,792,642.25	40.34324408	-104.45369225
6,800.00	89.20	270.12	6,407.94	775.22	-703.88	14,652,197.24	1,792,542.88	40.34324905	-104.45404883
6,808.15	90.00	269.97	6,408.00	775.23	-712.03	14,652,197.20	1,792,534.73	40.34324906	-104.45407808
LP Begin 90° lateral									
6,900.00	90.00	269.97	6,408.00	775.18	-803.88	14,652,196.58	1,792,442.88	40.34324892	-104.45440770
7,000.00	90.00	269.97	6,408.00	775.12	-903.88	14,652,195.90	1,792,342.89	40.34324875	-104.45476657
7,100.00	90.00	269.97	6,408.00	775.07	-1,003.88	14,652,195.23	1,792,242.89	40.34324859	-104.45512544
7,200.00	90.00	269.97	6,408.00	775.01	-1,103.88	14,652,194.55	1,792,142.89	40.34324843	-104.45548431
7,300.00	90.00	269.97	6,408.00	774.96	-1,203.88	14,652,193.88	1,792,042.89	40.34324827	-104.45584318
7,400.00	90.00	269.97	6,408.00	774.90	-1,303.88	14,652,193.20	1,791,942.90	40.34324810	-104.45620205
7,500.00	90.00	269.97	6,408.00	774.85	-1,403.88	14,652,192.53	1,791,842.90	40.34324793	-104.45656093
7,600.00	90.00	269.97	6,408.00	774.79	-1,503.88	14,652,191.85	1,791,742.90	40.34324777	-104.45691980
7,700.00	90.00	269.97	6,408.00	774.74	-1,603.88	14,652,191.18	1,791,642.90	40.34324760	-104.45727867
7,800.00	90.00	269.97	6,408.00	774.68	-1,703.88	14,652,190.50	1,791,542.91	40.34324743	-104.45763754
7,900.00	90.00	269.97	6,408.00	774.63	-1,803.88	14,652,189.83	1,791,442.91	40.34324726	-104.45799641
8,000.00	90.00	269.97	6,408.00	774.57	-1,903.88	14,652,189.15	1,791,342.91	40.34324708	-104.45835528
8,100.00	90.00	269.97	6,408.00	774.52	-2,003.88	14,652,188.48	1,791,242.91	40.34324691	-104.45871415
8,200.00	90.00	269.97	6,408.00	774.46	-2,103.88	14,652,187.80	1,791,142.92	40.34324674	-104.45907302
8,300.00	90.00	269.97	6,408.00	774.41	-2,203.88	14,652,187.13	1,791,042.92	40.34324656	-104.45943189
8,400.00	90.00	269.97	6,408.00	774.35	-2,303.88	14,652,186.45	1,790,942.92	40.34324638	-104.45979077
8,500.00	90.00	269.97	6,408.00	774.30	-2,403.88	14,652,185.78	1,790,842.92	40.34324621	-104.46014964
8,600.00	90.00	269.97	6,408.00	774.24	-2,503.88	14,652,185.10	1,790,742.93	40.34324603	-104.46050851
8,700.00	90.00	269.97	6,408.00	774.19	-2,603.88	14,652,184.43	1,790,642.93	40.34324585	-104.46086738
8,800.00	90.00	269.97	6,408.00	774.13	-2,703.88	14,652,183.75	1,790,542.93	40.34324567	-104.46122625
8,900.00	90.00	269.97	6,408.00	774.08	-2,803.88	14,652,183.08	1,790,442.93	40.34324548	-104.46158512
9,000.00	90.00	269.97	6,408.00	774.02	-2,903.88	14,652,182.40	1,790,342.94	40.34324530	-104.46194399
9,100.00	90.00	269.97	6,408.00	773.96	-3,003.88	14,652,181.73	1,790,242.94	40.34324512	-104.46230286
9,200.00	90.00	269.97	6,408.00	773.91	-3,103.88	14,652,181.06	1,790,142.94	40.34324493	-104.46266174
9,300.00	90.00	269.97	6,408.00	773.85	-3,203.88	14,652,180.38	1,790,042.94	40.34324474	-104.46302061
9,400.00	90.00	269.97	6,408.00	773.80	-3,303.88	14,652,179.71	1,789,942.95	40.34324456	-104.46337948
9,500.00	90.00	269.97	6,408.00	773.74	-3,403.88	14,652,179.03	1,789,842.95	40.34324437	-104.46373835
9,600.00	90.00	269.97	6,408.00	773.69	-3,503.88	14,652,178.36	1,789,742.95	40.34324418	-104.46409722
9,700.00	90.00	269.97	6,408.00	773.63	-3,603.88	14,652,177.68	1,789,642.95	40.34324399	-104.46445609
9,800.00	90.00	269.97	6,408.00	773.58	-3,703.88	14,652,177.01	1,789,542.96	40.34324379	-104.46481496
9,900.00	90.00	269.97	6,408.00	773.52	-3,803.88	14,652,176.33	1,789,442.96	40.34324360	-104.46517383
10,000.00	90.00	269.97	6,408.00	773.47	-3,903.88	14,652,175.66	1,789,342.96	40.34324341	-104.46553271

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=4630+24 @ 4654.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4630+24 @ 4654.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-08-2L	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	90.00	269.97	6,408.00	773.41	-4,003.88	14,652,174.98	1,789,242.96	40.34324321	-104.46589158
10,200.00	90.00	269.97	6,408.00	773.36	-4,103.88	14,652,174.31	1,789,142.97	40.34324301	-104.46625045
10,300.00	90.00	269.97	6,408.00	773.30	-4,203.88	14,652,173.63	1,789,042.97	40.34324282	-104.46660932
10,400.00	90.00	269.97	6,408.00	773.25	-4,303.88	14,652,172.96	1,788,942.97	40.34324262	-104.46696819
10,500.00	90.00	269.97	6,408.00	773.19	-4,403.88	14,652,172.28	1,788,842.97	40.34324242	-104.46732706
10,600.00	90.00	269.97	6,408.00	773.14	-4,503.88	14,652,171.61	1,788,742.98	40.34324222	-104.46768593
10,700.00	90.00	269.97	6,408.00	773.08	-4,603.88	14,652,170.93	1,788,642.98	40.34324201	-104.46804481
10,800.00	90.00	269.97	6,408.00	773.03	-4,703.88	14,652,170.26	1,788,542.98	40.34324181	-104.46840368
10,900.00	90.00	269.97	6,408.00	772.97	-4,803.88	14,652,169.58	1,788,442.98	40.34324161	-104.46876255
11,000.00	90.00	269.97	6,408.00	772.92	-4,903.88	14,652,168.91	1,788,342.99	40.34324140	-104.46912142
11,100.00	90.00	269.97	6,408.00	772.86	-5,003.88	14,652,168.23	1,788,242.99	40.34324119	-104.46948029
11,200.00	90.00	269.97	6,408.00	772.81	-5,103.88	14,652,167.56	1,788,142.99	40.34324099	-104.46983916
11,300.00	90.00	269.97	6,408.00	772.75	-5,203.88	14,652,166.88	1,788,042.99	40.34324078	-104.47019803
11,400.00	90.00	269.97	6,408.00	772.70	-5,303.88	14,652,166.21	1,787,943.00	40.34324057	-104.47055691
11,500.00	90.00	269.97	6,408.00	772.64	-5,403.88	14,652,165.53	1,787,843.00	40.34324036	-104.47091578
11,600.00	90.00	269.97	6,408.00	772.59	-5,503.88	14,652,164.86	1,787,743.00	40.34324014	-104.47127465
11,700.00	90.00	269.97	6,408.00	772.53	-5,603.88	14,652,164.18	1,787,643.00	40.34323993	-104.47163352
11,800.00	90.00	269.97	6,408.00	772.48	-5,703.88	14,652,163.51	1,787,543.01	40.34323972	-104.47199239
11,900.00	90.00	269.97	6,408.00	772.42	-5,803.88	14,652,162.83	1,787,443.01	40.34323950	-104.47235126
12,000.00	90.00	269.97	6,408.00	772.36	-5,903.88	14,652,162.16	1,787,343.01	40.34323928	-104.47271014
12,100.00	90.00	269.97	6,408.00	772.31	-6,003.88	14,652,161.48	1,787,243.01	40.34323907	-104.47306901
12,200.00	90.00	269.97	6,408.00	772.25	-6,103.88	14,652,160.81	1,787,143.02	40.34323885	-104.47342788
12,300.00	90.00	269.97	6,408.00	772.20	-6,203.88	14,652,160.13	1,787,043.02	40.34323863	-104.47378675
12,400.00	90.00	269.97	6,408.00	772.14	-6,303.88	14,652,159.46	1,786,943.02	40.34323841	-104.47414562
12,500.00	90.00	269.97	6,408.00	772.09	-6,403.88	14,652,158.78	1,786,843.02	40.34323818	-104.47450449
12,600.00	90.00	269.97	6,408.00	772.03	-6,503.88	14,652,158.11	1,786,743.03	40.34323796	-104.47486336
12,700.00	90.00	269.97	6,408.00	771.98	-6,603.88	14,652,157.43	1,786,643.03	40.34323774	-104.47522224
12,800.00	90.00	269.97	6,408.00	771.92	-6,703.88	14,652,156.76	1,786,543.03	40.34323751	-104.47558111
12,900.00	90.00	269.97	6,408.00	771.87	-6,803.88	14,652,156.08	1,786,443.03	40.34323728	-104.47593998
13,000.00	90.00	269.97	6,408.00	771.81	-6,903.88	14,652,155.41	1,786,343.03	40.34323706	-104.47629885
13,100.00	90.00	269.97	6,408.00	771.76	-7,003.88	14,652,154.73	1,786,243.04	40.34323683	-104.47665772
13,200.00	90.00	269.97	6,408.00	771.70	-7,103.88	14,652,154.06	1,786,143.04	40.34323660	-104.47701659
13,300.00	90.00	269.97	6,408.00	771.65	-7,203.88	14,652,153.38	1,786,043.04	40.34323637	-104.47737547
13,400.00	90.00	269.97	6,408.00	771.59	-7,303.88	14,652,152.71	1,785,943.04	40.34323613	-104.47773434
13,500.00	90.00	269.97	6,408.00	771.54	-7,403.88	14,652,152.03	1,785,843.05	40.34323590	-104.47809321
13,600.00	90.00	269.97	6,408.00	771.48	-7,503.88	14,652,151.36	1,785,743.05	40.34323567	-104.47845208
13,700.00	90.00	269.97	6,408.00	771.43	-7,603.88	14,652,150.69	1,785,643.05	40.34323543	-104.47881095
13,800.00	90.00	269.97	6,408.00	771.37	-7,703.88	14,652,150.01	1,785,543.05	40.34323519	-104.47916982
13,900.00	90.00	269.97	6,408.00	771.32	-7,803.88	14,652,149.34	1,785,443.06	40.34323496	-104.47952870
14,000.00	90.00	269.97	6,408.00	771.26	-7,903.88	14,652,148.66	1,785,343.06	40.34323472	-104.47988757
14,100.00	90.00	269.97	6,408.00	771.21	-8,003.88	14,652,147.99	1,785,243.06	40.34323448	-104.48024644
14,200.00	90.00	269.97	6,408.00	771.15	-8,103.88	14,652,147.31	1,785,143.06	40.34323423	-104.48060531
14,300.00	90.00	269.97	6,408.00	771.10	-8,203.88	14,652,146.64	1,785,043.07	40.34323399	-104.48096418
14,400.00	90.00	269.97	6,408.00	771.04	-8,303.88	14,652,145.96	1,784,943.07	40.34323375	-104.48132306
14,500.00	90.00	269.97	6,408.00	770.99	-8,403.88	14,652,145.29	1,784,843.07	40.34323350	-104.48168193
14,600.00	90.00	269.97	6,408.00	770.93	-8,503.88	14,652,144.61	1,784,743.07	40.34323326	-104.48204080
14,700.00	90.00	269.97	6,408.00	770.88	-8,603.88	14,652,143.94	1,784,643.08	40.34323301	-104.48239967
14,800.00	90.00	269.97	6,408.00	770.82	-8,703.88	14,652,143.26	1,784,543.08	40.34323276	-104.48275854
14,900.00	90.00	269.97	6,408.00	770.76	-8,803.88	14,652,142.59	1,784,443.08	40.34323252	-104.48311741
15,000.00	90.00	269.97	6,408.00	770.71	-8,903.88	14,652,141.91	1,784,343.08	40.34323227	-104.48347629
15,100.00	90.00	269.97	6,408.00	770.65	-9,003.88	14,652,141.24	1,784,243.09	40.34323201	-104.48383516
15,200.00	90.00	269.97	6,408.00	770.60	-9,103.88	14,652,140.56	1,784,143.09	40.34323176	-104.48419403
15,300.00	90.00	269.97	6,408.00	770.54	-9,203.88	14,652,139.89	1,784,043.09	40.34323151	-104.48455289
15,400.00	90.00	269.97	6,408.00	770.49	-9,303.88	14,652,139.21	1,783,943.09	40.34323125	-104.48491176
15,500.00	90.00	269.97	6,408.00	770.43	-9,403.88	14,652,138.54	1,783,843.10	40.34323100	-104.48527064

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=4630+24 @ 4654.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4630+24 @ 4654.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-08-2L	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	90.00	269.97	6,408.00	770.38	-9,503.88	14,652,137.86	1,783,743.10	40.34323074	-104.48562951
15,700.00	90.00	269.97	6,408.00	770.32	-9,603.88	14,652,137.19	1,783,643.10	40.34323048	-104.48598838
15,800.00	90.00	269.97	6,408.00	770.27	-9,703.88	14,652,136.51	1,783,543.10	40.34323022	-104.48634725
15,900.00	90.00	269.97	6,408.00	770.21	-9,803.88	14,652,135.84	1,783,443.11	40.34322996	-104.48670612
16,000.00	90.00	269.97	6,408.00	770.16	-9,903.88	14,652,135.16	1,783,343.11	40.34322970	-104.48706500
16,100.00	90.00	269.97	6,408.00	770.10	-10,003.88	14,652,134.49	1,783,243.11	40.34322944	-104.48742387
16,200.00	90.00	269.97	6,408.00	770.05	-10,103.88	14,652,133.81	1,783,143.11	40.34322918	-104.48778274
16,217.12	90.00	269.97	6,408.00	770.04	-10,120.99	14,652,133.70	1,783,126.00	40.34322913	-104.48784416
PBHL/TD 16217.11 MD 6408.00 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									
Silverton 5-08-2L SL 267	0.00	0.00	24.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
- plan hits target center									
- Point									
Silverton 5-08-2L BHL 19	0.00	0.00	6,408.00	770.04	-10,120.99	14,652,133.70	1,783,126.00	40.34322913	-104.48784416
- plan hits target center									
- Point									
Silverton 5-08-2L LP 19	0.00	0.00	6,408.00	775.23	-712.03	14,652,197.20	1,792,534.73	40.34324906	-104.45407808
- 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
2,541.96	2,538.73	50.05	-10.35	Begin 10.84° tangent section
5,929.93	5,866.26	673.96	-139.43	Begin 10°/100' build/turn
6,808.15	6,408.00	775.23	-712.03	LP Begin 90° lateral
16,217.12	6,408.00	770.04	-10,120.99	PBHL/TD 16217.11 MD 6408.00 TVD

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=4630+24 @ 4654.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4630+24 @ 4654.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-08-2L	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 04-T04N-R63W			
Site Position:		Northing:	14,650,073.90 usft	Latitude:	40.33740565
From:	Map	Easting:	1,793,302.13 usft	Longitude:	-104.45137138
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.36 °

Well	Silverton 5-08-2L, Surf loc: 2673 FSL 255 FWL Section 04-T04N-R63W					
Well Position	+N/-S	1,352.79 ft	Northing:	14,651,426.40 usft	Latitude:	40.34112035
	+E/-W	-42.20 ft	Easting:	1,793,251.55 usft	Longitude:	-104.45152281
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,630.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/29/2018	8.08	66.90	52,227.80000000

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	274.35

Plan Survey Tool Program	Date	5/29/2018		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,217.12	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	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,541.96	10.84	348.31	2,538.73	50.05	-10.35	2.00	2.00	0.00	348.31	
5,929.93	10.84	348.31	5,866.26	673.96	-139.43	0.00	0.00	0.00	0.00	
6,808.15	90.00	269.97	6,408.00	775.23	-712.03	10.00	9.01	-8.92	-78.55	Silverton 5-08-2L LP
16,217.12	90.00	269.97	6,408.00	770.04	-10,120.99	0.00	0.00	0.00	0.00	Silverton 5-08-2L BHL

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=4630+24 @ 4654.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4630+24 @ 4654.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-08-2L	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
KOP Begin 2°/100' build									
2,100.00	2.00	348.31	2,099.98	1.71	-0.35	0.48	2.00	2.00	0.00
2,200.00	4.00	348.31	2,199.84	6.83	-1.41	1.93	2.00	2.00	0.00
2,300.00	6.00	348.31	2,299.45	15.37	-3.18	4.34	2.00	2.00	0.00
2,400.00	8.00	348.31	2,398.70	27.30	-5.65	7.70	2.00	2.00	0.00
2,500.00	10.00	348.31	2,497.47	42.62	-8.82	12.03	2.00	2.00	0.00
2,541.96	10.84	348.31	2,538.73	50.05	-10.35	14.12	2.00	2.00	0.00
Begin 10.84° tangent section									
2,600.00	10.84	348.31	2,595.74	60.74	-12.57	17.14	0.00	0.00	0.00
2,700.00	10.84	348.31	2,693.95	79.15	-16.38	22.33	0.00	0.00	0.00
2,800.00	10.84	348.31	2,792.17	97.57	-20.19	27.53	0.00	0.00	0.00
2,900.00	10.84	348.31	2,890.39	115.99	-24.00	32.73	0.00	0.00	0.00
3,000.00	10.84	348.31	2,988.60	134.40	-27.81	37.92	0.00	0.00	0.00
3,100.00	10.84	348.31	3,086.82	152.82	-31.62	43.12	0.00	0.00	0.00
3,200.00	10.84	348.31	3,185.03	171.23	-35.43	48.31	0.00	0.00	0.00
3,300.00	10.84	348.31	3,283.25	189.65	-39.23	53.51	0.00	0.00	0.00
3,400.00	10.84	348.31	3,381.46	208.06	-43.04	58.71	0.00	0.00	0.00
3,500.00	10.84	348.31	3,479.68	226.48	-46.85	63.90	0.00	0.00	0.00
3,600.00	10.84	348.31	3,577.90	244.89	-50.66	69.10	0.00	0.00	0.00
3,700.00	10.84	348.31	3,676.11	263.31	-54.47	74.29	0.00	0.00	0.00
3,800.00	10.84	348.31	3,774.33	281.72	-58.28	79.49	0.00	0.00	0.00
3,900.00	10.84	348.31	3,872.54	300.14	-62.09	84.68	0.00	0.00	0.00
4,000.00	10.84	348.31	3,970.76	318.55	-65.90	89.88	0.00	0.00	0.00
4,100.00	10.84	348.31	4,068.98	336.97	-69.71	95.08	0.00	0.00	0.00
4,200.00	10.84	348.31	4,167.19	355.39	-73.52	100.27	0.00	0.00	0.00
4,300.00	10.84	348.31	4,265.41	373.80	-77.33	105.47	0.00	0.00	0.00
4,400.00	10.84	348.31	4,363.62	392.22	-81.14	110.66	0.00	0.00	0.00
4,500.00	10.84	348.31	4,461.84	410.63	-84.95	115.86	0.00	0.00	0.00
4,600.00	10.84	348.31	4,560.06	429.05	-88.76	121.06	0.00	0.00	0.00
4,700.00	10.84	348.31	4,658.27	447.46	-92.57	126.25	0.00	0.00	0.00
4,800.00	10.84	348.31	4,756.49	465.88	-96.38	131.45	0.00	0.00	0.00
4,900.00	10.84	348.31	4,854.70	484.29	-100.19	136.64	0.00	0.00	0.00

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=4630+24 @ 4654.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4630+24 @ 4654.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-08-2L	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)
5,000.00	10.84	348.31	4,952.92	502.71	-104.00	141.84	0.00	0.00	0.00
5,100.00	10.84	348.31	5,051.13	521.12	-107.81	147.04	0.00	0.00	0.00
5,200.00	10.84	348.31	5,149.35	539.54	-111.62	152.23	0.00	0.00	0.00
5,300.00	10.84	348.31	5,247.57	557.95	-115.43	157.43	0.00	0.00	0.00
5,400.00	10.84	348.31	5,345.78	576.37	-119.24	162.62	0.00	0.00	0.00
5,500.00	10.84	348.31	5,444.00	594.78	-123.05	167.82	0.00	0.00	0.00
5,600.00	10.84	348.31	5,542.21	613.20	-126.86	173.02	0.00	0.00	0.00
5,700.00	10.84	348.31	5,640.43	631.62	-130.67	178.21	0.00	0.00	0.00
5,800.00	10.84	348.31	5,738.65	650.03	-134.48	183.41	0.00	0.00	0.00
5,900.00	10.84	348.31	5,836.86	668.45	-138.29	188.60	0.00	0.00	0.00
5,929.93	10.84	348.31	5,866.26	673.96	-139.43	190.16	0.00	0.00	0.00
Begin 10°/100' build/turn									
6,000.00	14.01	318.71	5,934.75	686.80	-146.37	198.05	10.00	4.52	-42.25
6,100.00	21.83	297.88	6,029.92	704.63	-170.85	223.82	10.00	7.82	-20.83
6,200.00	30.90	288.23	6,119.46	721.40	-211.78	265.90	10.00	9.07	-9.65
6,300.00	40.37	282.71	6,200.66	736.59	-267.90	323.01	10.00	9.48	-5.52
6,400.00	50.03	279.01	6,271.06	749.76	-337.52	393.43	10.00	9.65	-3.70
6,500.00	59.77	276.24	6,328.50	760.48	-418.51	475.00	10.00	9.74	-2.77
6,600.00	69.56	273.98	6,371.24	768.45	-508.42	565.26	10.00	9.79	-2.27
6,700.00	79.37	271.98	6,398.00	773.41	-604.52	661.45	10.00	9.81	-1.99
6,800.00	89.20	270.12	6,407.94	775.22	-703.88	760.66	10.00	9.83	-1.87
6,808.15	90.00	269.97	6,408.00	775.23	-712.03	768.79	10.00	9.83	-1.84
LP Begin 90° lateral									
6,900.00	90.00	269.97	6,408.00	775.18	-803.88	860.37	0.00	0.00	0.00
7,000.00	90.00	269.97	6,408.00	775.12	-903.88	960.08	0.00	0.00	0.00
7,100.00	90.00	269.97	6,408.00	775.07	-1,003.88	1,059.79	0.00	0.00	0.00
7,200.00	90.00	269.97	6,408.00	775.01	-1,103.88	1,159.49	0.00	0.00	0.00
7,300.00	90.00	269.97	6,408.00	774.96	-1,203.88	1,259.20	0.00	0.00	0.00
7,400.00	90.00	269.97	6,408.00	774.90	-1,303.88	1,358.91	0.00	0.00	0.00
7,500.00	90.00	269.97	6,408.00	774.85	-1,403.88	1,458.62	0.00	0.00	0.00
7,600.00	90.00	269.97	6,408.00	774.79	-1,503.88	1,558.32	0.00	0.00	0.00
7,700.00	90.00	269.97	6,408.00	774.74	-1,603.88	1,658.03	0.00	0.00	0.00
7,800.00	90.00	269.97	6,408.00	774.68	-1,703.88	1,757.74	0.00	0.00	0.00
7,900.00	90.00	269.97	6,408.00	774.63	-1,803.88	1,857.45	0.00	0.00	0.00
8,000.00	90.00	269.97	6,408.00	774.57	-1,903.88	1,957.15	0.00	0.00	0.00
8,100.00	90.00	269.97	6,408.00	774.52	-2,003.88	2,056.86	0.00	0.00	0.00
8,200.00	90.00	269.97	6,408.00	774.46	-2,103.88	2,156.57	0.00	0.00	0.00
8,300.00	90.00	269.97	6,408.00	774.41	-2,203.88	2,256.28	0.00	0.00	0.00
8,400.00	90.00	269.97	6,408.00	774.35	-2,303.88	2,355.99	0.00	0.00	0.00
8,500.00	90.00	269.97	6,408.00	774.30	-2,403.88	2,455.69	0.00	0.00	0.00
8,600.00	90.00	269.97	6,408.00	774.24	-2,503.88	2,555.40	0.00	0.00	0.00
8,700.00	90.00	269.97	6,408.00	774.19	-2,603.88	2,655.11	0.00	0.00	0.00
8,800.00	90.00	269.97	6,408.00	774.13	-2,703.88	2,754.82	0.00	0.00	0.00
8,900.00	90.00	269.97	6,408.00	774.08	-2,803.88	2,854.52	0.00	0.00	0.00
9,000.00	90.00	269.97	6,408.00	774.02	-2,903.88	2,954.23	0.00	0.00	0.00
9,100.00	90.00	269.97	6,408.00	773.96	-3,003.88	3,053.94	0.00	0.00	0.00
9,200.00	90.00	269.97	6,408.00	773.91	-3,103.88	3,153.65	0.00	0.00	0.00
9,300.00	90.00	269.97	6,408.00	773.85	-3,203.88	3,253.35	0.00	0.00	0.00
9,400.00	90.00	269.97	6,408.00	773.80	-3,303.88	3,353.06	0.00	0.00	0.00
9,500.00	90.00	269.97	6,408.00	773.74	-3,403.88	3,452.77	0.00	0.00	0.00
9,600.00	90.00	269.97	6,408.00	773.69	-3,503.88	3,552.48	0.00	0.00	0.00
9,700.00	90.00	269.97	6,408.00	773.63	-3,603.88	3,652.18	0.00	0.00	0.00
9,800.00	90.00	269.97	6,408.00	773.58	-3,703.88	3,751.89	0.00	0.00	0.00
9,900.00	90.00	269.97	6,408.00	773.52	-3,803.88	3,851.60	0.00	0.00	0.00

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=4630+24 @ 4654.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4630+24 @ 4654.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-08-2L	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	90.00	269.97	6,408.00	773.47	-3,903.88	3,951.31	0.00	0.00	0.00
10,100.00	90.00	269.97	6,408.00	773.41	-4,003.88	4,051.01	0.00	0.00	0.00
10,200.00	90.00	269.97	6,408.00	773.36	-4,103.88	4,150.72	0.00	0.00	0.00
10,300.00	90.00	269.97	6,408.00	773.30	-4,203.88	4,250.43	0.00	0.00	0.00
10,400.00	90.00	269.97	6,408.00	773.25	-4,303.88	4,350.14	0.00	0.00	0.00
10,500.00	90.00	269.97	6,408.00	773.19	-4,403.88	4,449.85	0.00	0.00	0.00
10,600.00	90.00	269.97	6,408.00	773.14	-4,503.88	4,549.55	0.00	0.00	0.00
10,700.00	90.00	269.97	6,408.00	773.08	-4,603.88	4,649.26	0.00	0.00	0.00
10,800.00	90.00	269.97	6,408.00	773.03	-4,703.88	4,748.97	0.00	0.00	0.00
10,900.00	90.00	269.97	6,408.00	772.97	-4,803.88	4,848.68	0.00	0.00	0.00
11,000.00	90.00	269.97	6,408.00	772.92	-4,903.88	4,948.38	0.00	0.00	0.00
11,100.00	90.00	269.97	6,408.00	772.86	-5,003.88	5,048.09	0.00	0.00	0.00
11,200.00	90.00	269.97	6,408.00	772.81	-5,103.88	5,147.80	0.00	0.00	0.00
11,300.00	90.00	269.97	6,408.00	772.75	-5,203.88	5,247.51	0.00	0.00	0.00
11,400.00	90.00	269.97	6,408.00	772.70	-5,303.88	5,347.21	0.00	0.00	0.00
11,500.00	90.00	269.97	6,408.00	772.64	-5,403.88	5,446.92	0.00	0.00	0.00
11,600.00	90.00	269.97	6,408.00	772.59	-5,503.88	5,546.63	0.00	0.00	0.00
11,700.00	90.00	269.97	6,408.00	772.53	-5,603.88	5,646.34	0.00	0.00	0.00
11,800.00	90.00	269.97	6,408.00	772.48	-5,703.88	5,746.04	0.00	0.00	0.00
11,900.00	90.00	269.97	6,408.00	772.42	-5,803.88	5,845.75	0.00	0.00	0.00
12,000.00	90.00	269.97	6,408.00	772.36	-5,903.88	5,945.46	0.00	0.00	0.00
12,100.00	90.00	269.97	6,408.00	772.31	-6,003.88	6,045.17	0.00	0.00	0.00
12,200.00	90.00	269.97	6,408.00	772.25	-6,103.88	6,144.87	0.00	0.00	0.00
12,300.00	90.00	269.97	6,408.00	772.20	-6,203.88	6,244.58	0.00	0.00	0.00
12,400.00	90.00	269.97	6,408.00	772.14	-6,303.88	6,344.29	0.00	0.00	0.00
12,500.00	90.00	269.97	6,408.00	772.09	-6,403.88	6,444.00	0.00	0.00	0.00
12,600.00	90.00	269.97	6,408.00	772.03	-6,503.88	6,543.71	0.00	0.00	0.00
12,700.00	90.00	269.97	6,408.00	771.98	-6,603.88	6,643.41	0.00	0.00	0.00
12,800.00	90.00	269.97	6,408.00	771.92	-6,703.88	6,743.12	0.00	0.00	0.00
12,900.00	90.00	269.97	6,408.00	771.87	-6,803.88	6,842.83	0.00	0.00	0.00
13,000.00	90.00	269.97	6,408.00	771.81	-6,903.88	6,942.54	0.00	0.00	0.00
13,100.00	90.00	269.97	6,408.00	771.76	-7,003.88	7,042.24	0.00	0.00	0.00
13,200.00	90.00	269.97	6,408.00	771.70	-7,103.88	7,141.95	0.00	0.00	0.00
13,300.00	90.00	269.97	6,408.00	771.65	-7,203.88	7,241.66	0.00	0.00	0.00
13,400.00	90.00	269.97	6,408.00	771.59	-7,303.88	7,341.37	0.00	0.00	0.00
13,500.00	90.00	269.97	6,408.00	771.54	-7,403.88	7,441.07	0.00	0.00	0.00
13,600.00	90.00	269.97	6,408.00	771.48	-7,503.88	7,540.78	0.00	0.00	0.00
13,700.00	90.00	269.97	6,408.00	771.43	-7,603.88	7,640.49	0.00	0.00	0.00
13,800.00	90.00	269.97	6,408.00	771.37	-7,703.88	7,740.20	0.00	0.00	0.00
13,900.00	90.00	269.97	6,408.00	771.32	-7,803.88	7,839.90	0.00	0.00	0.00
14,000.00	90.00	269.97	6,408.00	771.26	-7,903.88	7,939.61	0.00	0.00	0.00
14,100.00	90.00	269.97	6,408.00	771.21	-8,003.88	8,039.32	0.00	0.00	0.00
14,200.00	90.00	269.97	6,408.00	771.15	-8,103.88	8,139.03	0.00	0.00	0.00
14,300.00	90.00	269.97	6,408.00	771.10	-8,203.88	8,238.73	0.00	0.00	0.00
14,400.00	90.00	269.97	6,408.00	771.04	-8,303.88	8,338.44	0.00	0.00	0.00
14,500.00	90.00	269.97	6,408.00	770.99	-8,403.88	8,438.15	0.00	0.00	0.00
14,600.00	90.00	269.97	6,408.00	770.93	-8,503.88	8,537.86	0.00	0.00	0.00
14,700.00	90.00	269.97	6,408.00	770.88	-8,603.88	8,637.57	0.00	0.00	0.00
14,800.00	90.00	269.97	6,408.00	770.82	-8,703.88	8,737.27	0.00	0.00	0.00
14,900.00	90.00	269.97	6,408.00	770.76	-8,803.88	8,836.98	0.00	0.00	0.00
15,000.00	90.00	269.97	6,408.00	770.71	-8,903.88	8,936.69	0.00	0.00	0.00
15,100.00	90.00	269.97	6,408.00	770.65	-9,003.88	9,036.40	0.00	0.00	0.00
15,200.00	90.00	269.97	6,408.00	770.60	-9,103.88	9,136.10	0.00	0.00	0.00
15,300.00	90.00	269.97	6,408.00	770.54	-9,203.88	9,235.81	0.00	0.00	0.00

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-08-2L
Company:	Confluence Resources	TVD Reference:	RKB=4630+24 @ 4654.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4630+24 @ 4654.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-08-2L	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	90.00	269.97	6,408.00	770.49	-9,303.88	9,335.52	0.00	0.00	0.00
15,500.00	90.00	269.97	6,408.00	770.43	-9,403.88	9,435.23	0.00	0.00	0.00
15,600.00	90.00	269.97	6,408.00	770.38	-9,503.88	9,534.93	0.00	0.00	0.00
15,700.00	90.00	269.97	6,408.00	770.32	-9,603.88	9,634.64	0.00	0.00	0.00
15,800.00	90.00	269.97	6,408.00	770.27	-9,703.88	9,734.35	0.00	0.00	0.00
15,900.00	90.00	269.97	6,408.00	770.21	-9,803.88	9,834.06	0.00	0.00	0.00
16,000.00	90.00	269.97	6,408.00	770.16	-9,903.88	9,933.76	0.00	0.00	0.00
16,100.00	90.00	269.97	6,408.00	770.10	-10,003.88	10,033.47	0.00	0.00	0.00
16,200.00	90.00	269.97	6,408.00	770.05	-10,103.88	10,133.18	0.00	0.00	0.00
16,217.12	90.00	269.97	6,408.00	770.04	-10,120.99	10,150.24	0.00	0.00	0.00
PBHL/TD 16217.11 MD 6408.00 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
Silverton 5-08-2L SL 267 - plan hits target center - Point	0.00	0.00	24.00	0.00	0.00	14,651,426.40	1,793,251.55	40.34112035	-104.45152281
Silverton 5-08-2L BHL 11 - plan hits target center - Point	0.00	0.00	6,408.00	770.04	-10,120.99	14,652,133.70	1,783,126.00	40.34322913	-104.48784416
Silverton 5-08-2L LP 19 - plan hits target center - Point	0.00	0.00	6,408.00	775.23	-712.03	14,652,197.20	1,792,534.73	40.34324906	-104.45407808

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
2,541.96	2,538.73	50.05	-10.35	Begin 10.84° tangent section
5,929.93	5,866.26	673.96	-139.43	Begin 10°/100' build/turn
6,808.15	6,408.00	775.23	-712.03	LP Begin 90° lateral
16,217.12	6,408.00	770.04	-10,120.99	PBHL/TD 16217.11 MD 6408.00 TVD