



Well: Silverton 5-02-4L
Site: Section 04-T04N-R63W
Project: Weld County, Colorado
Wellbore: Original Hole
Design: plan1

Section Details

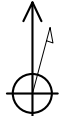
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSec	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	KOP Begin 2°/100' build
3	2907.85	18.16	353.70	2892.73	141.79	-15.66	2.00	34.14	Begin 18.16° tangent section
4	6240.89	18.16	353.70	6059.80	1174.16	-129.70	0.00	282.74	Begin 10°/100' build/turn
5	7121.38	90.00	269.97	6586.00	1345.38	-702.42	10.00	872.98	LP Begin 90° lateral
6	16538.26	90.00	269.97	6586.00	1340.24	-10119.30	0.00	10207.67	PBHL/TD 16538.26 MD 6586.00 TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Silverton 5-02-4L SL 2684 FNL 255 FWL	24.00	0.00	0.00	14651507.20	1793252.41	40.34134221	-104.45151792
Silverton 5-02-4L BHL 1338 FNL 470 FWL	6586.00	1340.24	-10119.30	14652784.70	1783125.02	40.34501675	-104.48783416
Silverton 5-02-4L LP 1338 FNL 470 FEL	6586.00	1345.38	-702.42	14652848.20	1792541.67	40.34503653	-104.45403876

Silverton 5-02-4L			
Surf loc: 2684 FNL 255 FWL Section 04-T04N-R63W			
NAD83 Colorado - HARN			
Universal Transverse Mercator (US Survey Feet)			
Zone 13N (108 W to 102 W)			
RKB=4628+24 @ 4652.00ft			
Northing	Easting	Latitude	Longitude
14651507.20	1793252.41	40.34134221	-104.45151792

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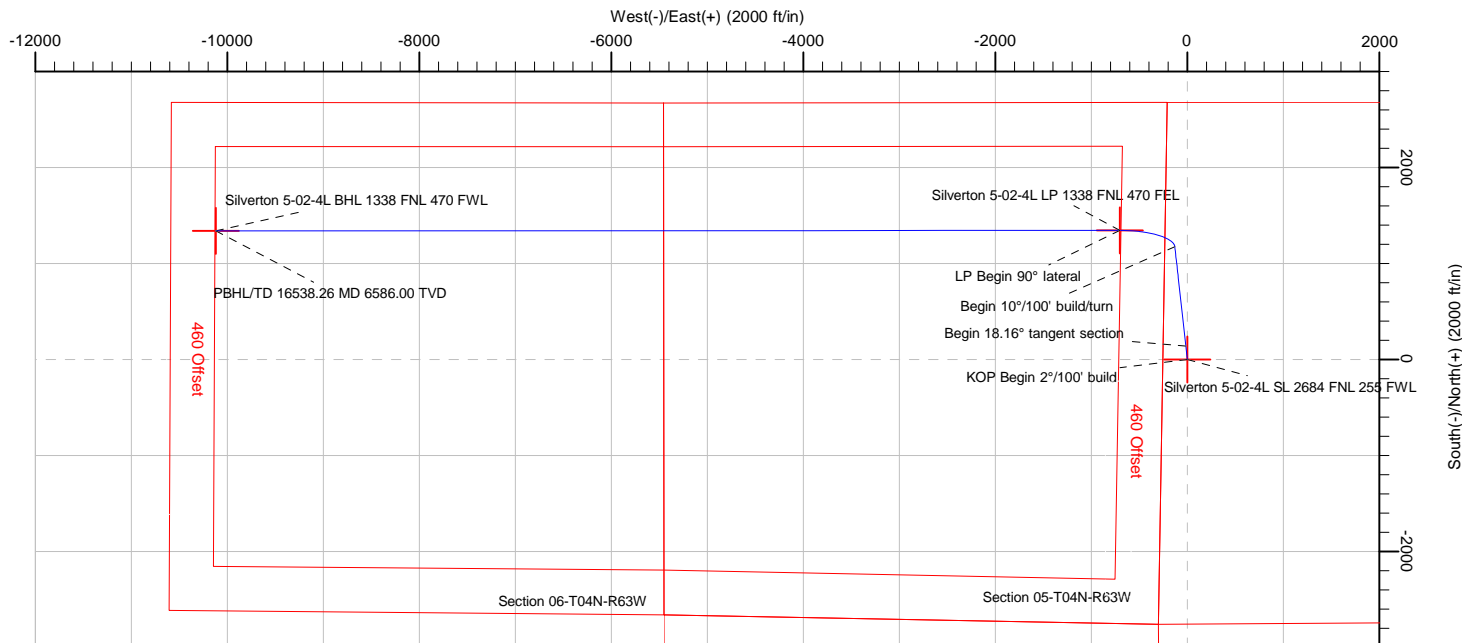
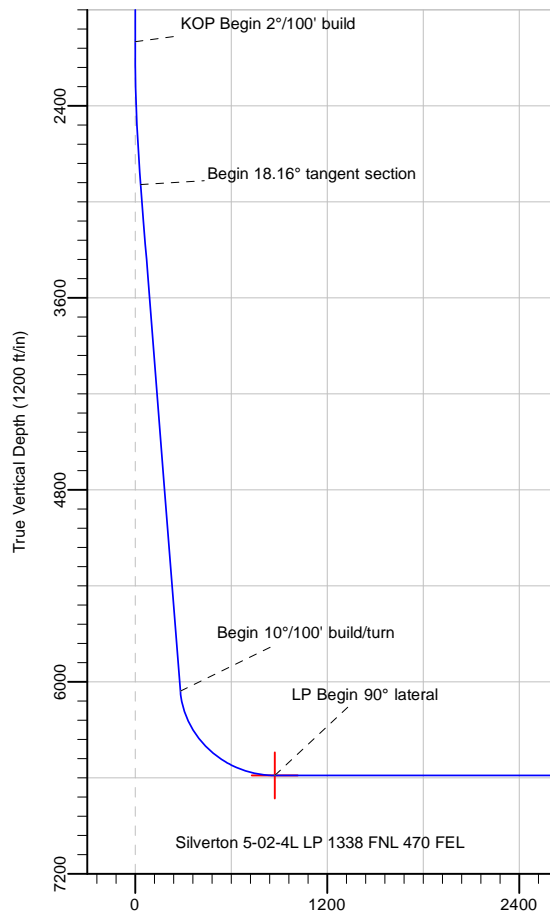


Azimuths to True North
Magnetic North: 8.08°

Magnetic Field
Strength: 52227.9snT
Dip Angle: 66.90°
Date: 5/29/2018
Model: HDGM



PRODIRECTIONAL



Vertical Section at 277.54° (1200 ft/in)

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 5-02-4L
Company:	Confluence Resources	TVD Reference:	RKB=4628+24 @ 4652.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4628+24 @ 4652.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-02-4L	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 5-02-4L, Surf loc: 2684 FNL 255 FWL Section 04-T04N-R63W					
Well Position	+N/-S	0.00 ft	Northing:	14,651,507.20 usft	Latitude:	40.34134220
	+E/-W	0.00 ft	Easting:	1,793,252.41 usft	Longitude:	-104.45151793
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,628.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/29/2018	8.08	66.90	52,227.90000000

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	277.54

Plan Survey Tool Program	Date	5/29/2018		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,538.26 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	
2,907.85	18.16	353.70	2,892.73	141.79	-15.66	2.00	2.00	0.00	353.70	
6,240.89	18.16	353.70	6,059.80	1,174.16	-129.70	0.00	0.00	0.00	0.00	
7,121.38	90.00	269.97	6,586.00	1,345.38	-702.42	10.00	8.16	-9.51	-84.04	Silverton 5-02-4L LP
16,538.26	90.00	269.97	6,586.00	1,340.24	-10,119.30	0.00	0.00	0.00	0.00	Silverton 5-02-4L BHL

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-02-4L
Company:	Confluence Resources	TVD Reference:	RKB=4628+24 @ 4652.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4628+24 @ 4652.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-02-4L	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	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
100.00	0.00	0.00	100.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
200.00	0.00	0.00	200.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
300.00	0.00	0.00	300.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
400.00	0.00	0.00	400.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
500.00	0.00	0.00	500.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
600.00	0.00	0.00	600.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
700.00	0.00	0.00	700.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
800.00	0.00	0.00	800.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
900.00	0.00	0.00	900.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
KOP Begin 2°/100' build									
2,100.00	2.00	353.70	2,099.98	1.73	-0.19	14,651,508.93	1,793,252.21	40.34134697	-104.45151861
2,200.00	4.00	353.70	2,199.84	6.94	-0.77	14,651,514.13	1,793,251.60	40.34136125	-104.45152068
2,300.00	6.00	353.70	2,299.45	15.60	-1.72	14,651,522.79	1,793,250.59	40.34138504	-104.45152411
2,400.00	8.00	353.70	2,398.70	27.71	-3.06	14,651,534.89	1,793,249.18	40.34141830	-104.45152891
2,500.00	10.00	353.70	2,497.47	43.26	-4.78	14,651,550.43	1,793,247.36	40.34146099	-104.45153507
2,600.00	12.00	353.70	2,595.62	62.22	-6.87	14,651,569.38	1,793,245.15	40.34151307	-104.45154259
2,700.00	14.00	353.70	2,693.06	84.58	-9.34	14,651,591.72	1,793,242.54	40.34157446	-104.45155145
2,800.00	16.00	353.70	2,789.64	110.31	-12.18	14,651,617.43	1,793,239.54	40.34164510	-104.45156165
2,900.00	18.00	353.70	2,885.27	139.37	-15.39	14,651,646.46	1,793,236.15	40.34172489	-104.45157317
2,907.85	18.16	353.70	2,892.73	141.79	-15.66	14,651,648.88	1,793,235.87	40.34173155	-104.45157413
Begin 18.16° tangent section									
3,000.00	18.16	353.70	2,980.29	170.33	-18.81	14,651,677.41	1,793,232.54	40.34180992	-104.45158544
3,100.00	18.16	353.70	3,075.31	201.30	-22.24	14,651,708.36	1,793,228.93	40.34189497	-104.45159772
3,200.00	18.16	353.70	3,170.33	232.28	-25.66	14,651,739.31	1,793,225.31	40.34198002	-104.45161000
3,300.00	18.16	353.70	3,265.35	263.25	-29.08	14,651,770.26	1,793,221.70	40.34206508	-104.45162228
3,400.00	18.16	353.70	3,360.37	294.22	-32.50	14,651,801.21	1,793,218.09	40.34215013	-104.45163456
3,500.00	18.16	353.70	3,455.40	325.20	-35.92	14,651,832.17	1,793,214.47	40.34223518	-104.45164684
3,600.00	18.16	353.70	3,550.42	356.17	-39.34	14,651,863.12	1,793,210.86	40.34232024	-104.45165911
3,700.00	18.16	353.70	3,645.44	387.15	-42.76	14,651,894.07	1,793,207.25	40.34240529	-104.45167139
3,800.00	18.16	353.70	3,740.46	418.12	-46.19	14,651,925.02	1,793,203.63	40.34249034	-104.45168367
3,900.00	18.16	353.70	3,835.48	449.09	-49.61	14,651,955.97	1,793,200.02	40.34257540	-104.45169595
4,000.00	18.16	353.70	3,930.50	480.07	-53.03	14,651,986.93	1,793,196.41	40.34266045	-104.45170823
4,100.00	18.16	353.70	4,025.52	511.04	-56.45	14,652,017.88	1,793,192.79	40.34274550	-104.45172051
4,200.00	18.16	353.70	4,120.54	542.02	-59.87	14,652,048.83	1,793,189.18	40.34283055	-104.45173279
4,300.00	18.16	353.70	4,215.56	572.99	-63.29	14,652,079.78	1,793,185.57	40.34291561	-104.45174506
4,400.00	18.16	353.70	4,310.58	603.96	-66.71	14,652,110.74	1,793,181.95	40.34300066	-104.45175734
4,500.00	18.16	353.70	4,405.60	634.94	-70.14	14,652,141.69	1,793,178.34	40.34308571	-104.45176962
4,600.00	18.16	353.70	4,500.62	665.91	-73.56	14,652,172.64	1,793,174.73	40.34317077	-104.45178190
4,700.00	18.16	353.70	4,595.64	696.89	-76.98	14,652,203.59	1,793,171.11	40.34325582	-104.45179418
4,800.00	18.16	353.70	4,690.66	727.86	-80.40	14,652,234.54	1,793,167.50	40.34334087	-104.45180646
4,900.00	18.16	353.70	4,785.68	758.83	-83.82	14,652,265.50	1,793,163.89	40.34342592	-104.45181874
5,000.00	18.16	353.70	4,880.70	789.81	-87.24	14,652,296.45	1,793,160.27	40.34351098	-104.45183102

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-02-4L
Company:	Confluence Resources	TVD Reference:	RKB=4628+24 @ 4652.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4628+24 @ 4652.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-02-4L	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	18.16	353.70	4,975.72	820.78	-90.66	14,652,327.40	1,793,156.66	40.34359603	-104.45184329
5,200.00	18.16	353.70	5,070.75	851.76	-94.09	14,652,358.35	1,793,153.05	40.34368108	-104.45185557
5,300.00	18.16	353.70	5,165.77	882.73	-97.51	14,652,389.30	1,793,149.44	40.34376614	-104.45186785
5,400.00	18.16	353.70	5,260.79	913.70	-100.93	14,652,420.26	1,793,145.82	40.34385119	-104.45188013
5,500.00	18.16	353.70	5,355.81	944.68	-104.35	14,652,451.21	1,793,142.21	40.34393624	-104.45189241
5,600.00	18.16	353.70	5,450.83	975.65	-107.77	14,652,482.16	1,793,138.60	40.34402129	-104.45190469
5,700.00	18.16	353.70	5,545.85	1,006.62	-111.19	14,652,513.11	1,793,134.98	40.34410635	-104.45191697
5,800.00	18.16	353.70	5,640.87	1,037.60	-114.61	14,652,544.06	1,793,131.37	40.34419140	-104.45192925
5,900.00	18.16	353.70	5,735.89	1,068.57	-118.03	14,652,575.02	1,793,127.76	40.34427645	-104.45194153
6,000.00	18.16	353.70	5,830.91	1,099.55	-121.46	14,652,605.97	1,793,124.14	40.34436151	-104.45195380
6,100.00	18.16	353.70	5,925.93	1,130.52	-124.88	14,652,636.92	1,793,120.53	40.34444656	-104.45196608
6,200.00	18.16	353.70	6,020.95	1,161.49	-128.30	14,652,667.87	1,793,116.92	40.34453161	-104.45197836
6,240.89	18.16	353.70	6,059.80	1,174.16	-129.70	14,652,680.53	1,793,115.44	40.34456639	-104.45198338
Begin 10°/100' build/turn									
6,300.00	19.64	335.95	6,115.77	1,192.40	-134.76	14,652,698.74	1,793,110.26	40.34461648	-104.45200156
6,400.00	25.19	313.85	6,208.35	1,222.57	-157.01	14,652,728.77	1,793,087.83	40.34469931	-104.45208140
6,500.00	32.80	300.35	6,295.84	1,251.07	-195.83	14,652,757.03	1,793,048.83	40.34477758	-104.45222072
6,600.00	41.36	291.70	6,375.60	1,277.04	-250.04	14,652,782.66	1,792,994.46	40.34484889	-104.45241526
6,700.00	50.37	285.63	6,445.20	1,299.69	-317.99	14,652,804.89	1,792,926.38	40.34491109	-104.45265911
6,800.00	59.62	280.99	6,502.53	1,318.34	-397.61	14,652,823.04	1,792,846.63	40.34496229	-104.45294488
6,900.00	69.01	277.16	6,545.84	1,332.41	-486.50	14,652,836.56	1,792,757.66	40.34500092	-104.45326388
7,000.00	78.47	273.78	6,573.82	1,341.48	-581.94	14,652,845.04	1,792,662.17	40.34502582	-104.45360641
7,100.00	87.97	270.63	6,585.62	1,345.27	-681.04	14,652,848.22	1,792,563.04	40.34503622	-104.45396206
7,121.38	90.00	269.97	6,586.00	1,345.38	-702.42	14,652,848.20	1,792,541.67	40.34503653	-104.45403876
LP Begin 90° lateral									
7,200.00	90.00	269.97	6,586.00	1,345.34	-781.04	14,652,847.67	1,792,463.05	40.34503641	-104.45432093
7,300.00	90.00	269.97	6,586.00	1,345.28	-881.04	14,652,846.99	1,792,363.05	40.34503625	-104.45467981
7,400.00	90.00	269.97	6,586.00	1,345.23	-981.04	14,652,846.32	1,792,263.05	40.34503609	-104.45503869
7,500.00	90.00	269.97	6,586.00	1,345.17	-1,081.04	14,652,845.64	1,792,163.06	40.34503592	-104.45539757
7,600.00	90.00	269.97	6,586.00	1,345.12	-1,181.04	14,652,844.97	1,792,063.06	40.34503576	-104.45575645
7,700.00	90.00	269.97	6,586.00	1,345.07	-1,281.04	14,652,844.30	1,791,963.06	40.34503560	-104.45611533
7,800.00	90.00	269.97	6,586.00	1,345.01	-1,381.04	14,652,843.62	1,791,863.06	40.34503543	-104.45647421
7,900.00	90.00	269.97	6,586.00	1,344.96	-1,481.04	14,652,842.95	1,791,763.07	40.34503527	-104.45683309
8,000.00	90.00	269.97	6,586.00	1,344.90	-1,581.04	14,652,842.27	1,791,663.07	40.34503510	-104.45719197
8,100.00	90.00	269.97	6,586.00	1,344.85	-1,681.04	14,652,841.60	1,791,563.07	40.34503493	-104.45755085
8,200.00	90.00	269.97	6,586.00	1,344.79	-1,781.04	14,652,840.92	1,791,463.07	40.34503476	-104.45790973
8,300.00	90.00	269.97	6,586.00	1,344.74	-1,881.04	14,652,840.25	1,791,363.08	40.34503459	-104.45826861
8,400.00	90.00	269.97	6,586.00	1,344.68	-1,981.04	14,652,839.58	1,791,263.08	40.34503442	-104.45862749
8,500.00	90.00	269.97	6,586.00	1,344.63	-2,081.04	14,652,838.90	1,791,163.08	40.34503425	-104.45898637
8,600.00	90.00	269.97	6,586.00	1,344.57	-2,181.04	14,652,838.23	1,791,063.08	40.34503408	-104.45934525
8,700.00	90.00	269.97	6,586.00	1,344.52	-2,281.04	14,652,837.55	1,790,963.09	40.34503390	-104.45970414
8,800.00	90.00	269.97	6,586.00	1,344.47	-2,381.04	14,652,836.88	1,790,863.09	40.34503373	-104.46006302
8,900.00	90.00	269.97	6,586.00	1,344.41	-2,481.04	14,652,836.20	1,790,763.09	40.34503355	-104.46042190
9,000.00	90.00	269.97	6,586.00	1,344.36	-2,581.04	14,652,835.53	1,790,663.09	40.34503337	-104.46078078
9,100.00	90.00	269.97	6,586.00	1,344.30	-2,681.04	14,652,834.86	1,790,563.10	40.34503319	-104.46113966
9,200.00	90.00	269.97	6,586.00	1,344.25	-2,781.04	14,652,834.18	1,790,463.10	40.34503301	-104.46149854
9,300.00	90.00	269.97	6,586.00	1,344.19	-2,881.04	14,652,833.51	1,790,363.10	40.34503283	-104.46185742
9,400.00	90.00	269.97	6,586.00	1,344.14	-2,981.04	14,652,832.83	1,790,263.10	40.34503265	-104.46221630
9,500.00	90.00	269.97	6,586.00	1,344.08	-3,081.04	14,652,832.16	1,790,163.11	40.34503246	-104.46257518
9,600.00	90.00	269.97	6,586.00	1,344.03	-3,181.04	14,652,831.48	1,790,063.11	40.34503228	-104.46293406
9,700.00	90.00	269.97	6,586.00	1,343.97	-3,281.04	14,652,830.81	1,789,963.11	40.34503209	-104.46329294
9,800.00	90.00	269.97	6,586.00	1,343.92	-3,381.04	14,652,830.14	1,789,863.11	40.34503191	-104.46365182
9,900.00	90.00	269.97	6,586.00	1,343.86	-3,481.04	14,652,829.46	1,789,763.12	40.34503172	-104.46401070
10,000.00	90.00	269.97	6,586.00	1,343.81	-3,581.04	14,652,828.79	1,789,663.12	40.34503153	-104.46436959

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-02-4L
Company:	Confluence Resources	TVD Reference:	RKB=4628+24 @ 4652.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4628+24 @ 4652.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-02-4L	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	6,586.00	1,343.76	-3,681.04	14,652,828.11	1,789,563.12	40.34503134	-104.46472847
10,200.00	90.00	269.97	6,586.00	1,343.70	-3,781.04	14,652,827.44	1,789,463.12	40.34503115	-104.46508735
10,300.00	90.00	269.97	6,586.00	1,343.65	-3,881.04	14,652,826.76	1,789,363.13	40.34503095	-104.46544623
10,400.00	90.00	269.97	6,586.00	1,343.59	-3,981.04	14,652,826.09	1,789,263.13	40.34503076	-104.46580511
10,500.00	90.00	269.97	6,586.00	1,343.54	-4,081.04	14,652,825.41	1,789,163.13	40.34503057	-104.46616399
10,600.00	90.00	269.97	6,586.00	1,343.48	-4,181.04	14,652,824.74	1,789,063.13	40.34503037	-104.46652287
10,700.00	90.00	269.97	6,586.00	1,343.43	-4,281.04	14,652,824.07	1,788,963.14	40.34503017	-104.46688175
10,800.00	90.00	269.97	6,586.00	1,343.37	-4,381.04	14,652,823.39	1,788,863.14	40.34502997	-104.46724063
10,900.00	90.00	269.97	6,586.00	1,343.32	-4,481.04	14,652,822.72	1,788,763.14	40.34502978	-104.46759951
11,000.00	90.00	269.97	6,586.00	1,343.26	-4,581.04	14,652,822.04	1,788,663.14	40.34502958	-104.46795839
11,100.00	90.00	269.97	6,586.00	1,343.21	-4,681.04	14,652,821.37	1,788,563.15	40.34502937	-104.46831727
11,200.00	90.00	269.97	6,586.00	1,343.16	-4,781.04	14,652,820.69	1,788,463.15	40.34502917	-104.46867616
11,300.00	90.00	269.97	6,586.00	1,343.10	-4,881.04	14,652,820.02	1,788,363.15	40.34502897	-104.46903504
11,400.00	90.00	269.97	6,586.00	1,343.05	-4,981.04	14,652,819.35	1,788,263.15	40.34502876	-104.46939392
11,500.00	90.00	269.97	6,586.00	1,342.99	-5,081.04	14,652,818.67	1,788,163.16	40.34502856	-104.46975280
11,600.00	90.00	269.97	6,586.00	1,342.94	-5,181.04	14,652,818.00	1,788,063.16	40.34502835	-104.47011168
11,700.00	90.00	269.97	6,586.00	1,342.88	-5,281.04	14,652,817.32	1,787,963.16	40.34502814	-104.47047056
11,800.00	90.00	269.97	6,586.00	1,342.83	-5,381.04	14,652,816.65	1,787,863.16	40.34502793	-104.47082944
11,900.00	90.00	269.97	6,586.00	1,342.77	-5,481.04	14,652,815.97	1,787,763.17	40.34502772	-104.47118832
12,000.00	90.00	269.97	6,586.00	1,342.72	-5,581.04	14,652,815.30	1,787,663.17	40.34502751	-104.47154720
12,100.00	90.00	269.97	6,586.00	1,342.66	-5,681.04	14,652,814.63	1,787,563.17	40.34502730	-104.47190608
12,200.00	90.00	269.97	6,586.00	1,342.61	-5,781.04	14,652,813.95	1,787,463.17	40.34502708	-104.47226497
12,300.00	90.00	269.97	6,586.00	1,342.55	-5,881.04	14,652,813.28	1,787,363.18	40.34502687	-104.47262385
12,400.00	90.00	269.97	6,586.00	1,342.50	-5,981.04	14,652,812.60	1,787,263.18	40.34502665	-104.47298273
12,500.00	90.00	269.97	6,586.00	1,342.45	-6,081.04	14,652,811.93	1,787,163.18	40.34502644	-104.47334161
12,600.00	90.00	269.97	6,586.00	1,342.39	-6,181.04	14,652,811.25	1,787,063.18	40.34502622	-104.47370049
12,700.00	90.00	269.97	6,586.00	1,342.34	-6,281.04	14,652,810.58	1,786,963.19	40.34502600	-104.47405937
12,800.00	90.00	269.97	6,586.00	1,342.28	-6,381.04	14,652,809.91	1,786,863.19	40.34502578	-104.47441825
12,900.00	90.00	269.97	6,586.00	1,342.23	-6,481.04	14,652,809.23	1,786,763.19	40.34502556	-104.47477713
13,000.00	90.00	269.97	6,586.00	1,342.17	-6,581.04	14,652,808.56	1,786,663.19	40.34502533	-104.47513601
13,100.00	90.00	269.97	6,586.00	1,342.12	-6,681.04	14,652,807.88	1,786,563.19	40.34502511	-104.47549489
13,200.00	90.00	269.97	6,586.00	1,342.06	-6,781.04	14,652,807.21	1,786,463.20	40.34502489	-104.47585378
13,300.00	90.00	269.97	6,586.00	1,342.01	-6,881.04	14,652,806.53	1,786,363.20	40.34502466	-104.47621266
13,400.00	90.00	269.97	6,586.00	1,341.95	-6,981.04	14,652,805.86	1,786,263.20	40.34502443	-104.47657154
13,500.00	90.00	269.97	6,586.00	1,341.90	-7,081.04	14,652,805.19	1,786,163.20	40.34502420	-104.47693042
13,600.00	90.00	269.97	6,586.00	1,341.84	-7,181.04	14,652,804.51	1,786,063.21	40.34502398	-104.47728930
13,700.00	90.00	269.97	6,586.00	1,341.79	-7,281.04	14,652,803.84	1,785,963.21	40.34502375	-104.47764818
13,800.00	90.00	269.97	6,586.00	1,341.74	-7,381.04	14,652,803.16	1,785,863.21	40.34502351	-104.47800706
13,900.00	90.00	269.97	6,586.00	1,341.68	-7,481.04	14,652,802.49	1,785,763.21	40.34502328	-104.47836594
14,000.00	90.00	269.97	6,586.00	1,341.63	-7,581.04	14,652,801.81	1,785,663.22	40.34502305	-104.47872482
14,100.00	90.00	269.97	6,586.00	1,341.57	-7,681.04	14,652,801.14	1,785,563.22	40.34502281	-104.47908371
14,200.00	90.00	269.97	6,586.00	1,341.52	-7,781.04	14,652,800.46	1,785,463.22	40.34502258	-104.47944259
14,300.00	90.00	269.97	6,586.00	1,341.46	-7,881.04	14,652,799.79	1,785,363.22	40.34502234	-104.47980147
14,400.00	90.00	269.97	6,586.00	1,341.41	-7,981.04	14,652,799.12	1,785,263.23	40.34502210	-104.48016035
14,500.00	90.00	269.97	6,586.00	1,341.35	-8,081.04	14,652,798.44	1,785,163.23	40.34502186	-104.48051923
14,600.00	90.00	269.97	6,586.00	1,341.30	-8,181.04	14,652,797.77	1,785,063.23	40.34502162	-104.48087811
14,700.00	90.00	269.97	6,586.00	1,341.24	-8,281.04	14,652,797.09	1,784,963.23	40.34502138	-104.48123699
14,800.00	90.00	269.97	6,586.00	1,341.19	-8,381.04	14,652,796.42	1,784,863.24	40.34502114	-104.48159587
14,900.00	90.00	269.97	6,586.00	1,341.14	-8,481.04	14,652,795.74	1,784,763.24	40.34502089	-104.48195476
15,000.00	90.00	269.97	6,586.00	1,341.08	-8,581.04	14,652,795.07	1,784,663.24	40.34502065	-104.48231364
15,100.00	90.00	269.97	6,586.00	1,341.03	-8,681.04	14,652,794.40	1,784,563.24	40.34502040	-104.48267252
15,200.00	90.00	269.97	6,586.00	1,340.97	-8,781.04	14,652,793.72	1,784,463.25	40.34502016	-104.48303140
15,300.00	90.00	269.97	6,586.00	1,340.92	-8,881.04	14,652,793.05	1,784,363.25	40.34501991	-104.48339028
15,400.00	90.00	269.97	6,586.00	1,340.86	-8,981.04	14,652,792.37	1,784,263.25	40.34501966	-104.48374916
15,500.00	90.00	269.97	6,586.00	1,340.81	-9,081.04	14,652,791.70	1,784,163.25	40.34501941	-104.48410804

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-02-4L
Company:	Confluence Resources	TVD Reference:	RKB=4628+24 @ 4652.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4628+24 @ 4652.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-02-4L	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	6,586.00	1,340.75	-9,181.04	14,652,791.02	1,784,063.26	40.34501916	-104.48446692
15,700.00	90.00	269.97	6,586.00	1,340.70	-9,281.04	14,652,790.35	1,783,963.26	40.34501890	-104.48482580
15,800.00	90.00	269.97	6,586.00	1,340.64	-9,381.04	14,652,789.68	1,783,863.26	40.34501865	-104.48518468
15,900.00	90.00	269.97	6,586.00	1,340.59	-9,481.04	14,652,789.00	1,783,763.26	40.34501839	-104.48554356
16,000.00	90.00	269.97	6,586.00	1,340.53	-9,581.04	14,652,788.33	1,783,663.27	40.34501814	-104.48590244
16,100.00	90.00	269.97	6,586.00	1,340.48	-9,681.04	14,652,787.65	1,783,563.27	40.34501788	-104.48626132
16,200.00	90.00	269.97	6,586.00	1,340.43	-9,781.04	14,652,786.98	1,783,463.27	40.34501762	-104.48662020
16,300.00	90.00	269.97	6,586.00	1,340.37	-9,881.04	14,652,786.30	1,783,363.27	40.34501736	-104.48697908
16,400.00	90.00	269.97	6,586.00	1,340.32	-9,981.04	14,652,785.63	1,783,263.28	40.34501710	-104.48733797
16,500.00	90.00	269.97	6,586.00	1,340.26	-10,081.04	14,652,784.96	1,783,163.28	40.34501684	-104.48769685
16,538.26	90.00	269.97	6,586.00	1,340.24	-10,119.30	14,652,784.70	1,783,125.02	40.34501674	-104.48783416
PBHL/TD 16538.26 MD 6586.00 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 5-02-4L SL 268	0.00	0.00	24.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220	-104.45151793
- plan hits target center									
- Point									
Silverton 5-02-4L LP 133	0.00	0.00	6,586.00	1,345.38	-702.42	14,652,848.20	1,792,541.67	40.34503653	-104.45403876
- plan hits target center									
- Point									
Silverton 5-02-4L BHL 11	0.00	0.00	6,586.00	1,340.24	-10,119.30	14,652,784.70	1,783,125.02	40.34501674	-104.48783416
- 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
2,907.85	2,892.73	141.79	-15.66	Begin 18.16° tangent section
6,240.89	6,059.80	1,174.16	-129.70	Begin 10°/100' build/turn
7,121.38	6,586.00	1,345.38	-702.42	LP Begin 90° lateral
16,538.26	6,586.00	1,340.24	-10,119.30	PBHL/TD 16538.26 MD 6586.00 TVD

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-02-4L
Company:	Confluence Resources	TVD Reference:	RKB=4628+24 @ 4652.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4628+24 @ 4652.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-02-4L	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 5-02-4L, Surf loc: 2684 FNL 255 FWL Section 04-T04N-R63W					
Well Position	+N/-S	1,433.58 ft	Northing:	14,651,507.20 usft	Latitude:	40.34134220
	+E/-W	-40.83 ft	Easting:	1,793,252.41 usft	Longitude:	-104.45151793
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,628.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/29/2018	8.08	66.90	52,227.90000000

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	277.54

Plan Survey Tool Program	Date	5/29/2018		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,538.26	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	
2,907.85	18.16	353.70	2,892.73	141.79	-15.66	2.00	2.00	0.00	353.70	
6,240.89	18.16	353.70	6,059.80	1,174.16	-129.70	0.00	0.00	0.00	0.00	
7,121.38	90.00	269.97	6,586.00	1,345.38	-702.42	10.00	8.16	-9.51	-84.04	Silverton 5-02-4L LP
16,538.26	90.00	269.97	6,586.00	1,340.24	-10,119.30	0.00	0.00	0.00	0.00	Silverton 5-02-4L BHL

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-02-4L
Company:	Confluence Resources	TVD Reference:	RKB=4628+24 @ 4652.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4628+24 @ 4652.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-02-4L	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	353.70	2,099.98	1.73	-0.19	0.42	2.00	2.00	0.00
2,200.00	4.00	353.70	2,199.84	6.94	-0.77	1.67	2.00	2.00	0.00
2,300.00	6.00	353.70	2,299.45	15.60	-1.72	3.76	2.00	2.00	0.00
2,400.00	8.00	353.70	2,398.70	27.71	-3.06	6.67	2.00	2.00	0.00
2,500.00	10.00	353.70	2,497.47	43.26	-4.78	10.42	2.00	2.00	0.00
2,600.00	12.00	353.70	2,595.62	62.22	-6.87	14.98	2.00	2.00	0.00
2,700.00	14.00	353.70	2,693.06	84.58	-9.34	20.37	2.00	2.00	0.00
2,800.00	16.00	353.70	2,789.64	110.31	-12.18	26.56	2.00	2.00	0.00
2,900.00	18.00	353.70	2,885.27	139.37	-15.39	33.56	2.00	2.00	0.00
2,907.85	18.16	353.70	2,892.73	141.79	-15.66	34.14	2.00	2.00	0.00
Begin 18.16° tangent section									
3,000.00	18.16	353.70	2,980.29	170.33	-18.81	41.02	0.00	0.00	0.00
3,100.00	18.16	353.70	3,075.31	201.30	-22.24	48.47	0.00	0.00	0.00
3,200.00	18.16	353.70	3,170.33	232.28	-25.66	55.93	0.00	0.00	0.00
3,300.00	18.16	353.70	3,265.35	263.25	-29.08	63.39	0.00	0.00	0.00
3,400.00	18.16	353.70	3,360.37	294.22	-32.50	70.85	0.00	0.00	0.00
3,500.00	18.16	353.70	3,455.40	325.20	-35.92	78.31	0.00	0.00	0.00
3,600.00	18.16	353.70	3,550.42	356.17	-39.34	85.77	0.00	0.00	0.00
3,700.00	18.16	353.70	3,645.44	387.15	-42.76	93.23	0.00	0.00	0.00
3,800.00	18.16	353.70	3,740.46	418.12	-46.19	100.68	0.00	0.00	0.00
3,900.00	18.16	353.70	3,835.48	449.09	-49.61	108.14	0.00	0.00	0.00
4,000.00	18.16	353.70	3,930.50	480.07	-53.03	115.60	0.00	0.00	0.00
4,100.00	18.16	353.70	4,025.52	511.04	-56.45	123.06	0.00	0.00	0.00
4,200.00	18.16	353.70	4,120.54	542.02	-59.87	130.52	0.00	0.00	0.00
4,300.00	18.16	353.70	4,215.56	572.99	-63.29	137.98	0.00	0.00	0.00
4,400.00	18.16	353.70	4,310.58	603.96	-66.71	145.44	0.00	0.00	0.00
4,500.00	18.16	353.70	4,405.60	634.94	-70.14	152.89	0.00	0.00	0.00
4,600.00	18.16	353.70	4,500.62	665.91	-73.56	160.35	0.00	0.00	0.00
4,700.00	18.16	353.70	4,595.64	696.89	-76.98	167.81	0.00	0.00	0.00
4,800.00	18.16	353.70	4,690.66	727.86	-80.40	175.27	0.00	0.00	0.00
4,900.00	18.16	353.70	4,785.68	758.83	-83.82	182.73	0.00	0.00	0.00

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-02-4L
Company:	Confluence Resources	TVD Reference:	RKB=4628+24 @ 4652.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4628+24 @ 4652.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-02-4L	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	18.16	353.70	4,880.70	789.81	-87.24	190.19	0.00	0.00	0.00
5,100.00	18.16	353.70	4,975.72	820.78	-90.66	197.65	0.00	0.00	0.00
5,200.00	18.16	353.70	5,070.75	851.76	-94.09	205.10	0.00	0.00	0.00
5,300.00	18.16	353.70	5,165.77	882.73	-97.51	212.56	0.00	0.00	0.00
5,400.00	18.16	353.70	5,260.79	913.70	-100.93	220.02	0.00	0.00	0.00
5,500.00	18.16	353.70	5,355.81	944.68	-104.35	227.48	0.00	0.00	0.00
5,600.00	18.16	353.70	5,450.83	975.65	-107.77	234.94	0.00	0.00	0.00
5,700.00	18.16	353.70	5,545.85	1,006.62	-111.19	242.40	0.00	0.00	0.00
5,800.00	18.16	353.70	5,640.87	1,037.60	-114.61	249.86	0.00	0.00	0.00
5,900.00	18.16	353.70	5,735.89	1,068.57	-118.03	257.31	0.00	0.00	0.00
6,000.00	18.16	353.70	5,830.91	1,099.55	-121.46	264.77	0.00	0.00	0.00
6,100.00	18.16	353.70	5,925.93	1,130.52	-124.88	272.23	0.00	0.00	0.00
6,200.00	18.16	353.70	6,020.95	1,161.49	-128.30	279.69	0.00	0.00	0.00
6,240.89	18.16	353.70	6,059.80	1,174.16	-129.70	282.74	0.00	0.00	0.00
Begin 10°/100' build/turn									
6,300.00	19.64	335.95	6,115.77	1,192.40	-134.76	290.15	10.00	2.51	-30.02
6,400.00	25.19	313.85	6,208.35	1,222.57	-157.01	316.17	10.00	5.55	-22.10
6,500.00	32.80	300.35	6,295.84	1,251.07	-195.83	358.40	10.00	7.62	-13.50
6,600.00	41.36	291.70	6,375.60	1,277.04	-250.04	415.54	10.00	8.55	-8.65
6,700.00	50.37	285.63	6,445.20	1,299.69	-317.99	485.88	10.00	9.01	-6.07
6,800.00	59.62	280.99	6,502.53	1,318.34	-397.61	567.27	10.00	9.25	-4.65
6,900.00	69.01	277.16	6,545.84	1,332.41	-486.50	657.23	10.00	9.39	-3.83
7,000.00	78.47	273.78	6,573.82	1,341.48	-581.94	753.04	10.00	9.46	-3.37
7,100.00	87.97	270.63	6,585.62	1,345.27	-681.04	851.78	10.00	9.50	-3.15
7,121.38	90.00	269.97	6,586.00	1,345.38	-702.42	872.98	10.00	9.51	-3.10
LP Begin 90° lateral									
7,200.00	90.00	269.97	6,586.00	1,345.34	-781.04	950.92	0.00	0.00	0.00
7,300.00	90.00	269.97	6,586.00	1,345.28	-881.04	1,050.05	0.00	0.00	0.00
7,400.00	90.00	269.97	6,586.00	1,345.23	-981.04	1,149.17	0.00	0.00	0.00
7,500.00	90.00	269.97	6,586.00	1,345.17	-1,081.04	1,248.30	0.00	0.00	0.00
7,600.00	90.00	269.97	6,586.00	1,345.12	-1,181.04	1,347.43	0.00	0.00	0.00
7,700.00	90.00	269.97	6,586.00	1,345.07	-1,281.04	1,446.55	0.00	0.00	0.00
7,800.00	90.00	269.97	6,586.00	1,345.01	-1,381.04	1,545.68	0.00	0.00	0.00
7,900.00	90.00	269.97	6,586.00	1,344.96	-1,481.04	1,644.81	0.00	0.00	0.00
8,000.00	90.00	269.97	6,586.00	1,344.90	-1,581.04	1,743.94	0.00	0.00	0.00
8,100.00	90.00	269.97	6,586.00	1,344.85	-1,681.04	1,843.06	0.00	0.00	0.00
8,200.00	90.00	269.97	6,586.00	1,344.79	-1,781.04	1,942.19	0.00	0.00	0.00
8,300.00	90.00	269.97	6,586.00	1,344.74	-1,881.04	2,041.32	0.00	0.00	0.00
8,400.00	90.00	269.97	6,586.00	1,344.68	-1,981.04	2,140.44	0.00	0.00	0.00
8,500.00	90.00	269.97	6,586.00	1,344.63	-2,081.04	2,239.57	0.00	0.00	0.00
8,600.00	90.00	269.97	6,586.00	1,344.57	-2,181.04	2,338.70	0.00	0.00	0.00
8,700.00	90.00	269.97	6,586.00	1,344.52	-2,281.04	2,437.82	0.00	0.00	0.00
8,800.00	90.00	269.97	6,586.00	1,344.47	-2,381.04	2,536.95	0.00	0.00	0.00
8,900.00	90.00	269.97	6,586.00	1,344.41	-2,481.04	2,636.08	0.00	0.00	0.00
9,000.00	90.00	269.97	6,586.00	1,344.36	-2,581.04	2,735.21	0.00	0.00	0.00
9,100.00	90.00	269.97	6,586.00	1,344.30	-2,681.04	2,834.33	0.00	0.00	0.00
9,200.00	90.00	269.97	6,586.00	1,344.25	-2,781.04	2,933.46	0.00	0.00	0.00
9,300.00	90.00	269.97	6,586.00	1,344.19	-2,881.04	3,032.59	0.00	0.00	0.00
9,400.00	90.00	269.97	6,586.00	1,344.14	-2,981.04	3,131.71	0.00	0.00	0.00
9,500.00	90.00	269.97	6,586.00	1,344.08	-3,081.04	3,230.84	0.00	0.00	0.00
9,600.00	90.00	269.97	6,586.00	1,344.03	-3,181.04	3,329.97	0.00	0.00	0.00
9,700.00	90.00	269.97	6,586.00	1,343.97	-3,281.04	3,429.10	0.00	0.00	0.00
9,800.00	90.00	269.97	6,586.00	1,343.92	-3,381.04	3,528.22	0.00	0.00	0.00
9,900.00	90.00	269.97	6,586.00	1,343.86	-3,481.04	3,627.35	0.00	0.00	0.00

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-02-4L
Company:	Confluence Resources	TVD Reference:	RKB=4628+24 @ 4652.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4628+24 @ 4652.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-02-4L	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	6,586.00	1,343.81	-3,581.04	3,726.48	0.00	0.00	0.00
10,100.00	90.00	269.97	6,586.00	1,343.76	-3,681.04	3,825.60	0.00	0.00	0.00
10,200.00	90.00	269.97	6,586.00	1,343.70	-3,781.04	3,924.73	0.00	0.00	0.00
10,300.00	90.00	269.97	6,586.00	1,343.65	-3,881.04	4,023.86	0.00	0.00	0.00
10,400.00	90.00	269.97	6,586.00	1,343.59	-3,981.04	4,122.99	0.00	0.00	0.00
10,500.00	90.00	269.97	6,586.00	1,343.54	-4,081.04	4,222.11	0.00	0.00	0.00
10,600.00	90.00	269.97	6,586.00	1,343.48	-4,181.04	4,321.24	0.00	0.00	0.00
10,700.00	90.00	269.97	6,586.00	1,343.43	-4,281.04	4,420.37	0.00	0.00	0.00
10,800.00	90.00	269.97	6,586.00	1,343.37	-4,381.04	4,519.49	0.00	0.00	0.00
10,900.00	90.00	269.97	6,586.00	1,343.32	-4,481.04	4,618.62	0.00	0.00	0.00
11,000.00	90.00	269.97	6,586.00	1,343.26	-4,581.04	4,717.75	0.00	0.00	0.00
11,100.00	90.00	269.97	6,586.00	1,343.21	-4,681.04	4,816.88	0.00	0.00	0.00
11,200.00	90.00	269.97	6,586.00	1,343.16	-4,781.04	4,916.00	0.00	0.00	0.00
11,300.00	90.00	269.97	6,586.00	1,343.10	-4,881.04	5,015.13	0.00	0.00	0.00
11,400.00	90.00	269.97	6,586.00	1,343.05	-4,981.04	5,114.26	0.00	0.00	0.00
11,500.00	90.00	269.97	6,586.00	1,342.99	-5,081.04	5,213.38	0.00	0.00	0.00
11,600.00	90.00	269.97	6,586.00	1,342.94	-5,181.04	5,312.51	0.00	0.00	0.00
11,700.00	90.00	269.97	6,586.00	1,342.88	-5,281.04	5,411.64	0.00	0.00	0.00
11,800.00	90.00	269.97	6,586.00	1,342.83	-5,381.04	5,510.77	0.00	0.00	0.00
11,900.00	90.00	269.97	6,586.00	1,342.77	-5,481.04	5,609.89	0.00	0.00	0.00
12,000.00	90.00	269.97	6,586.00	1,342.72	-5,581.04	5,709.02	0.00	0.00	0.00
12,100.00	90.00	269.97	6,586.00	1,342.66	-5,681.04	5,808.15	0.00	0.00	0.00
12,200.00	90.00	269.97	6,586.00	1,342.61	-5,781.04	5,907.27	0.00	0.00	0.00
12,300.00	90.00	269.97	6,586.00	1,342.55	-5,881.04	6,006.40	0.00	0.00	0.00
12,400.00	90.00	269.97	6,586.00	1,342.50	-5,981.04	6,105.53	0.00	0.00	0.00
12,500.00	90.00	269.97	6,586.00	1,342.45	-6,081.04	6,204.66	0.00	0.00	0.00
12,600.00	90.00	269.97	6,586.00	1,342.39	-6,181.04	6,303.78	0.00	0.00	0.00
12,700.00	90.00	269.97	6,586.00	1,342.34	-6,281.04	6,402.91	0.00	0.00	0.00
12,800.00	90.00	269.97	6,586.00	1,342.28	-6,381.04	6,502.04	0.00	0.00	0.00
12,900.00	90.00	269.97	6,586.00	1,342.23	-6,481.04	6,601.16	0.00	0.00	0.00
13,000.00	90.00	269.97	6,586.00	1,342.17	-6,581.04	6,700.29	0.00	0.00	0.00
13,100.00	90.00	269.97	6,586.00	1,342.12	-6,681.04	6,799.42	0.00	0.00	0.00
13,200.00	90.00	269.97	6,586.00	1,342.06	-6,781.04	6,898.55	0.00	0.00	0.00
13,300.00	90.00	269.97	6,586.00	1,342.01	-6,881.04	6,997.67	0.00	0.00	0.00
13,400.00	90.00	269.97	6,586.00	1,341.95	-6,981.04	7,096.80	0.00	0.00	0.00
13,500.00	90.00	269.97	6,586.00	1,341.90	-7,081.04	7,195.93	0.00	0.00	0.00
13,600.00	90.00	269.97	6,586.00	1,341.84	-7,181.04	7,295.05	0.00	0.00	0.00
13,700.00	90.00	269.97	6,586.00	1,341.79	-7,281.04	7,394.18	0.00	0.00	0.00
13,800.00	90.00	269.97	6,586.00	1,341.74	-7,381.04	7,493.31	0.00	0.00	0.00
13,900.00	90.00	269.97	6,586.00	1,341.68	-7,481.04	7,592.44	0.00	0.00	0.00
14,000.00	90.00	269.97	6,586.00	1,341.63	-7,581.04	7,691.56	0.00	0.00	0.00
14,100.00	90.00	269.97	6,586.00	1,341.57	-7,681.04	7,790.69	0.00	0.00	0.00
14,200.00	90.00	269.97	6,586.00	1,341.52	-7,781.04	7,889.82	0.00	0.00	0.00
14,300.00	90.00	269.97	6,586.00	1,341.46	-7,881.04	7,988.94	0.00	0.00	0.00
14,400.00	90.00	269.97	6,586.00	1,341.41	-7,981.04	8,088.07	0.00	0.00	0.00
14,500.00	90.00	269.97	6,586.00	1,341.35	-8,081.04	8,187.20	0.00	0.00	0.00
14,600.00	90.00	269.97	6,586.00	1,341.30	-8,181.04	8,286.33	0.00	0.00	0.00
14,700.00	90.00	269.97	6,586.00	1,341.24	-8,281.04	8,385.45	0.00	0.00	0.00
14,800.00	90.00	269.97	6,586.00	1,341.19	-8,381.04	8,484.58	0.00	0.00	0.00
14,900.00	90.00	269.97	6,586.00	1,341.14	-8,481.04	8,583.71	0.00	0.00	0.00
15,000.00	90.00	269.97	6,586.00	1,341.08	-8,581.04	8,682.83	0.00	0.00	0.00
15,100.00	90.00	269.97	6,586.00	1,341.03	-8,681.04	8,781.96	0.00	0.00	0.00
15,200.00	90.00	269.97	6,586.00	1,340.97	-8,781.04	8,881.09	0.00	0.00	0.00
15,300.00	90.00	269.97	6,586.00	1,340.92	-8,881.04	8,980.21	0.00	0.00	0.00

Database:	DB_Aug0116_LT_v14	Local Co-ordinate Reference:	Well Silverton 5-02-4L
Company:	Confluence Resources	TVD Reference:	RKB=4628+24 @ 4652.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4628+24 @ 4652.00ft
Site:	Section 04-T04N-R63W	North Reference:	True
Well:	Silverton 5-02-4L	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	6,586.00	1,340.86	-8,981.04	9,079.34	0.00	0.00	0.00	
15,500.00	90.00	269.97	6,586.00	1,340.81	-9,081.04	9,178.47	0.00	0.00	0.00	
15,600.00	90.00	269.97	6,586.00	1,340.75	-9,181.04	9,277.60	0.00	0.00	0.00	
15,700.00	90.00	269.97	6,586.00	1,340.70	-9,281.04	9,376.72	0.00	0.00	0.00	
15,800.00	90.00	269.97	6,586.00	1,340.64	-9,381.04	9,475.85	0.00	0.00	0.00	
15,900.00	90.00	269.97	6,586.00	1,340.59	-9,481.04	9,574.98	0.00	0.00	0.00	
16,000.00	90.00	269.97	6,586.00	1,340.53	-9,581.04	9,674.10	0.00	0.00	0.00	
16,100.00	90.00	269.97	6,586.00	1,340.48	-9,681.04	9,773.23	0.00	0.00	0.00	
16,200.00	90.00	269.97	6,586.00	1,340.43	-9,781.04	9,872.36	0.00	0.00	0.00	
16,300.00	90.00	269.97	6,586.00	1,340.37	-9,881.04	9,971.49	0.00	0.00	0.00	
16,400.00	90.00	269.97	6,586.00	1,340.32	-9,981.04	10,070.61	0.00	0.00	0.00	
16,500.00	90.00	269.97	6,586.00	1,340.26	-10,081.04	10,169.74	0.00	0.00	0.00	
16,538.26	90.00	269.97	6,586.00	1,340.24	-10,119.30	10,207.67	0.00	0.00	0.00	
PBHL/TD 16538.26 MD 6586.00 TVD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude		Longitude
Silverton 5-02-4L SL 266 - hit/miss target - Shape - Point	0.00	0.00	24.00	0.00	0.00	14,651,507.20	1,793,252.41	40.34134220		-104.45151793
Silverton 5-02-4L LP 133 - plan hits target center - Point	0.00	0.00	6,586.00	1,345.38	-702.42	14,652,848.20	1,792,541.67	40.34503653		-104.45403876
Silverton 5-02-4L BHL 11 - plan hits target center - Point	0.00	0.00	6,586.00	1,340.24	-10,119.30	14,652,784.70	1,783,125.02	40.34501674		-104.48783416

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	
2,907.85	2,892.73	141.79	-15.66	Begin 18.16° tangent section	
6,240.89	6,059.80	1,174.16	-129.70	Begin 10°/100' build/turn	
7,121.38	6,586.00	1,345.38	-702.42	LP Begin 90° lateral	
16,538.26	6,586.00	1,340.24	-10,119.30	PBHL/TD 16538.26 MD 6586.00 TVD	