



Well: Silverton 5-01-4L  
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	3427.35	28.55	356.34	3369.03	347.57	-22.26	2.00	91.90	Begin 28.55° tangent section
4	6523.22	28.55	356.34	6088.51	1824.00	-116.81	0.00	482.28	Begin 10°/100' build/turn
5	7406.11	90.00	269.92	6577.00	2088.42	-689.89	10.00	1096.90	LP Begin 90° lateral
6	12174.00	90.00	269.92	6577.00	2081.67	-5457.78	0.00	5765.46	Begin 2°/100' turn
7	12179.03	90.00	270.02	6577.00	2081.67	-5462.81	2.00	5770.39	Begin 90.00° lateral section
8	16833.55	90.00	270.02	6577.00	2083.25	-10117.33	0.00	10329.59	PBHL/TD 16833.55 MD 6577.00 TVD

#### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Silverton 5-01-4L SL 2559 FNL 255 FWL	24.00	0.00	0.00	14651632.20	1793253.74	40.34168542	-104.45151037
Silverton 5-01-4L BHL 470 FNL 470 FWL	6577.00	2083.25	-10117.33	14653652.70	1783123.71	40.34740022	-104.48782083
Silverton 5-01-4L Int 470 FNL	6577.00	2081.67	-5457.78	14653680.00	1787783.17	40.34739993	-104.47109799
Silverton 5-01-4L LP 470 FNL 470 FEL	6577.00	2088.42	-689.89	14653716.30	1792550.92	40.34742010	-104.45398634

Silverton 5-01-4L			
Surf loc: 2559 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
14651632.20	1793253.74	40.34168542	-104.45151037

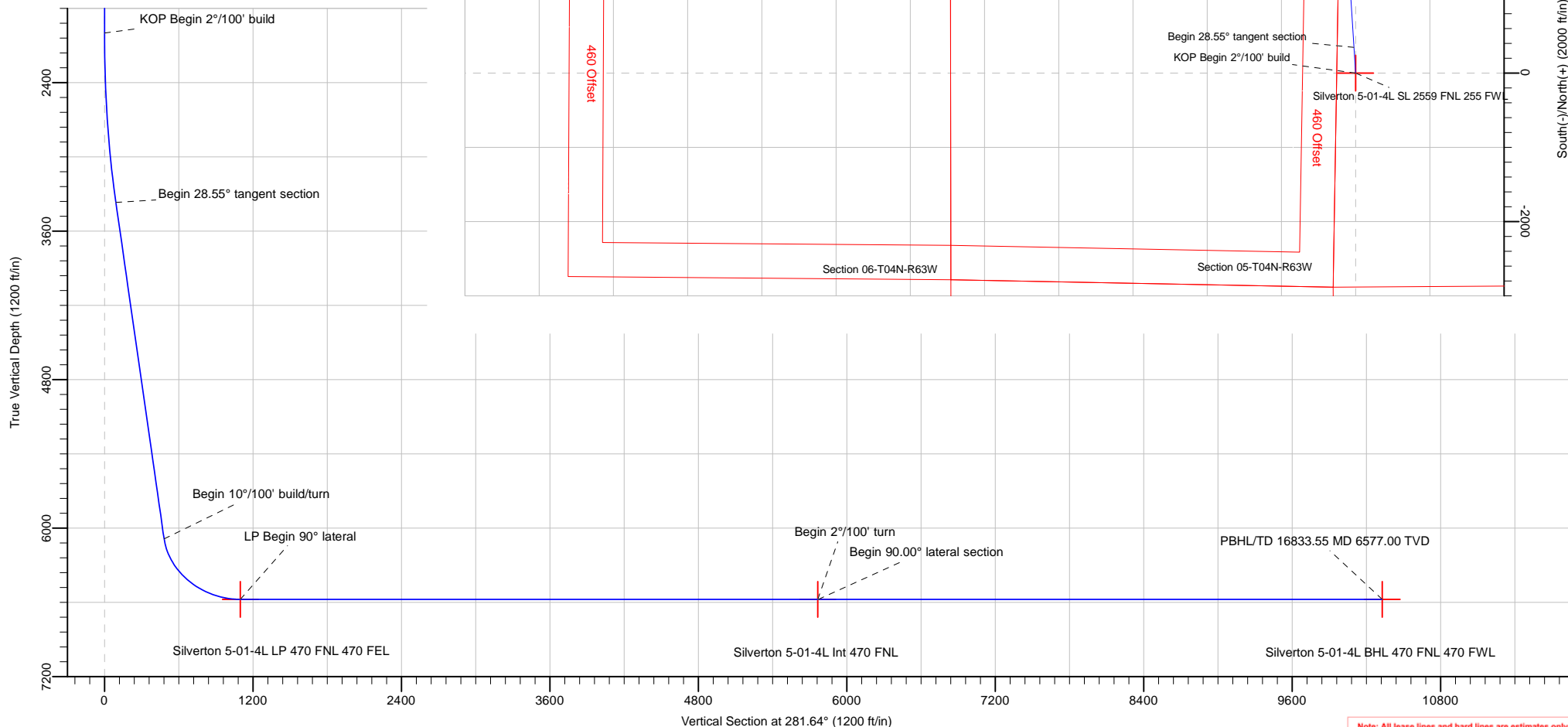


Azimuths to True North  
Magnetic North: 8.08°

Magnetic Field  
Strength: 52227.6snT  
Dip Angle: 66.90°  
Date: 5/29/2018  
Model: HDGM



PRODIRECTIONAL



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

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well Silverton 5-01-4L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Site:</b>	Section 04-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Silverton 5-01-4L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original hole		
<b>Design:</b>	plan1		

<b>Project</b>	Weld County, Colorado		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD83 Colorado - HARN		
<b>Map Zone:</b>	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 5-01-4L, Surf loc: 2559 FNL 255 FWL Section 04-T04N-R63W					
Well Position	+N/-S	0.00 ft	Northing:	14,651,632.20 usft	Latitude:	40.34168542
	+E/-W	0.00 ft	Easting:	1,793,253.74 usft	Longitude:	-104.45151037
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,628.00 ft

<b>Wellbore</b>	Original hole				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	5/29/2018	8.08	66.90	52,227.60000000

<b>Design</b>	plan1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	281.64

<b>Plan Survey Tool Program</b>	<b>Date</b>	5/29/2018		
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	16,833.55 plan1 (Original hole)		

<b>Plan Sections</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,427.35	28.55	356.34	3,369.03	347.57	-22.26	2.00	2.00	0.00	356.34	
6,523.22	28.55	356.34	6,088.51	1,824.00	-116.81	0.00	0.00	0.00	0.00	
7,406.11	90.00	269.92	6,577.00	2,088.42	-689.89	10.00	6.96	-9.79	-86.85	Silverton 5-01-4L LP 4
12,174.00	90.00	269.92	6,577.00	2,081.67	-5,457.78	0.00	0.00	0.00	0.00	Silverton 5-01-4L Int 4
12,179.03	90.00	270.02	6,577.00	2,081.67	-5,462.81	2.00	0.00	2.00	90.00	
16,833.55	90.00	270.02	6,577.00	2,083.25	-10,117.33	0.00	0.00	0.00	0.00	Silverton 5-01-4L BHL

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well Silverton 5-01-4L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Site:</b>	Section 04-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Silverton 5-01-4L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original hole		
<b>Design:</b>	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	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
100.00	0.00	0.00	100.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
200.00	0.00	0.00	200.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
300.00	0.00	0.00	300.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
400.00	0.00	0.00	400.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
500.00	0.00	0.00	500.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
600.00	0.00	0.00	600.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
700.00	0.00	0.00	700.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
800.00	0.00	0.00	800.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
900.00	0.00	0.00	900.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
<b>KOP Begin 2°/100' build</b>									
2,100.00	2.00	356.34	2,099.98	1.74	-0.11	14,651,633.94	1,793,253.62	40.34169020	-104.45151077
2,200.00	4.00	356.34	2,199.84	6.96	-0.45	14,651,639.16	1,793,253.25	40.34170454	-104.45151197
2,300.00	6.00	356.34	2,299.45	15.66	-1.00	14,651,647.85	1,793,252.64	40.34172843	-104.45151397
2,400.00	8.00	356.34	2,398.70	27.82	-1.78	14,651,660.01	1,793,251.79	40.34176182	-104.45151677
2,500.00	10.00	356.34	2,497.47	43.43	-2.78	14,651,675.61	1,793,250.69	40.34180469	-104.45152036
2,600.00	12.00	356.34	2,595.62	62.47	-4.00	14,651,694.65	1,793,249.35	40.34185697	-104.45152473
2,700.00	14.00	356.34	2,693.06	84.92	-5.44	14,651,717.08	1,793,247.78	40.34191861	-104.45152989
2,800.00	16.00	356.34	2,789.64	110.75	-7.09	14,651,742.90	1,793,245.96	40.34198953	-104.45153583
2,900.00	18.00	356.34	2,885.27	139.93	-8.96	14,651,772.07	1,793,243.91	40.34206965	-104.45154253
3,000.00	20.00	356.34	2,979.82	172.41	-11.04	14,651,804.54	1,793,241.63	40.34215886	-104.45155000
3,100.00	22.00	356.34	3,073.17	208.18	-13.33	14,651,840.29	1,793,239.12	40.34225706	-104.45155822
3,200.00	24.00	356.34	3,165.21	247.17	-15.83	14,651,879.26	1,793,236.38	40.34236413	-104.45156718
3,300.00	26.00	356.34	3,255.84	289.34	-18.53	14,651,921.42	1,793,233.42	40.34247994	-104.45157687
3,400.00	28.00	356.34	3,344.94	334.64	-21.43	14,651,966.70	1,793,230.23	40.34260434	-104.45158728
3,427.35	28.55	356.34	3,369.03	347.57	-22.26	14,651,979.63	1,793,229.33	40.34263984	-104.45159026
<b>Begin 28.55° tangent section</b>									
3,500.00	28.55	356.34	3,432.84	382.22	-24.48	14,652,014.26	1,793,226.89	40.34273498	-104.45159822
3,600.00	28.55	356.34	3,520.68	429.91	-27.53	14,652,061.93	1,793,223.54	40.34286593	-104.45160918
3,700.00	28.55	356.34	3,608.53	477.60	-30.59	14,652,109.60	1,793,220.19	40.34299689	-104.45162014
3,800.00	28.55	356.34	3,696.37	525.29	-33.64	14,652,157.27	1,793,216.84	40.34312784	-104.45163110
3,900.00	28.55	356.34	3,784.21	572.98	-36.70	14,652,204.94	1,793,213.49	40.34325880	-104.45164206
4,000.00	28.55	356.34	3,872.05	620.67	-39.75	14,652,252.61	1,793,210.14	40.34338976	-104.45165302
4,100.00	28.55	356.34	3,959.90	668.36	-42.80	14,652,300.28	1,793,206.79	40.34352071	-104.45166399
4,200.00	28.55	356.34	4,047.74	716.05	-45.86	14,652,347.95	1,793,203.45	40.34365167	-104.45167495
4,300.00	28.55	356.34	4,135.58	763.74	-48.91	14,652,395.62	1,793,200.10	40.34378262	-104.45168591
4,400.00	28.55	356.34	4,223.42	811.43	-51.97	14,652,443.29	1,793,196.75	40.34391358	-104.45169687
4,500.00	28.55	356.34	4,311.27	859.12	-55.02	14,652,490.96	1,793,193.40	40.34404453	-104.45170783
4,600.00	28.55	356.34	4,399.11	906.81	-58.08	14,652,538.63	1,793,190.05	40.34417549	-104.45171879
4,700.00	28.55	356.34	4,486.95	954.50	-61.13	14,652,586.30	1,793,186.70	40.34430644	-104.45172975
4,800.00	28.55	356.34	4,574.79	1,002.19	-64.18	14,652,633.97	1,793,183.35	40.34443740	-104.45174071
4,900.00	28.55	356.34	4,662.64	1,049.89	-67.24	14,652,681.64	1,793,180.00	40.34456835	-104.45175168
5,000.00	28.55	356.34	4,750.48	1,097.58	-70.29	14,652,729.31	1,793,176.65	40.34469931	-104.45176264

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well Silverton 5-01-4L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Site:</b>	Section 04-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Silverton 5-01-4L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original hole		
<b>Design:</b>	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	28.55	356.34	4,838.32	1,145.27	-73.35	14,652,776.98	1,793,173.30	40.34483026	-104.45177360
5,200.00	28.55	356.34	4,926.16	1,192.96	-76.40	14,652,824.65	1,793,169.95	40.34496122	-104.45178456
5,300.00	28.55	356.34	5,014.01	1,240.65	-79.45	14,652,872.33	1,793,166.60	40.34509217	-104.45179552
5,400.00	28.55	356.34	5,101.85	1,288.34	-82.51	14,652,920.00	1,793,163.25	40.34522313	-104.45180648
5,500.00	28.55	356.34	5,189.69	1,336.03	-85.56	14,652,967.67	1,793,159.90	40.34535408	-104.45181744
5,600.00	28.55	356.34	5,277.53	1,383.72	-88.62	14,653,015.34	1,793,156.55	40.34548504	-104.45182841
5,700.00	28.55	356.34	5,365.38	1,431.41	-91.67	14,653,063.01	1,793,153.20	40.34561600	-104.45183937
5,800.00	28.55	356.34	5,453.22	1,479.10	-94.73	14,653,110.68	1,793,149.85	40.34574695	-104.45185033
5,900.00	28.55	356.34	5,541.06	1,526.79	-97.78	14,653,158.35	1,793,146.50	40.34587791	-104.45186129
6,000.00	28.55	356.34	5,628.90	1,574.48	-100.83	14,653,206.02	1,793,143.15	40.34600886	-104.45187225
6,100.00	28.55	356.34	5,716.75	1,622.17	-103.89	14,653,253.69	1,793,139.80	40.34613982	-104.45188322
6,200.00	28.55	356.34	5,804.59	1,669.86	-106.94	14,653,301.36	1,793,136.45	40.34627077	-104.45189418
6,300.00	28.55	356.34	5,892.43	1,717.55	-110.00	14,653,349.03	1,793,133.10	40.34640173	-104.45190514
6,400.00	28.55	356.34	5,980.27	1,765.24	-113.05	14,653,396.70	1,793,129.75	40.34653268	-104.45191610
6,500.00	28.55	356.34	6,068.12	1,812.93	-116.11	14,653,444.37	1,793,126.40	40.34666364	-104.45192706
6,523.22	28.55	356.34	6,088.51	1,824.00	-116.81	14,653,455.44	1,793,125.62	40.34669405	-104.45192961
Begin 10°/100' build/turn									
6,600.00	29.88	340.81	6,155.62	1,860.43	-124.29	14,653,491.82	1,793,117.93	40.34679407	-104.45195643
6,700.00	34.01	323.51	6,240.64	1,906.56	-149.17	14,653,537.79	1,793,092.76	40.34692073	-104.45204574
6,800.00	40.03	310.19	6,320.58	1,949.90	-190.47	14,653,580.88	1,793,051.19	40.34703975	-104.45219397
6,900.00	47.22	300.08	6,393.01	1,989.15	-246.94	14,653,619.77	1,792,994.48	40.34714751	-104.45239662
7,000.00	55.11	292.17	6,455.73	2,023.10	-316.85	14,653,653.29	1,792,924.36	40.34724075	-104.45264753
7,100.00	63.42	285.68	6,506.83	2,050.74	-398.09	14,653,680.42	1,792,842.95	40.34731663	-104.45293908
7,200.00	71.98	280.09	6,544.77	2,071.21	-488.18	14,653,700.34	1,792,752.74	40.34737284	-104.45326241
7,300.00	80.69	275.03	6,568.39	2,083.89	-584.39	14,653,712.43	1,792,656.45	40.34740767	-104.45360769
7,400.00	89.46	270.21	6,576.97	2,088.41	-683.79	14,653,716.33	1,792,557.03	40.34742007	-104.45396444
7,406.11	90.00	269.92	6,577.00	2,088.42	-689.89	14,653,716.30	1,792,550.92	40.34742009	-104.45398635
LP Begin 90° lateral									
7,500.00	90.00	269.92	6,577.00	2,088.29	-783.79	14,653,715.58	1,792,457.03	40.34741972	-104.45432333
7,600.00	90.00	269.92	6,577.00	2,088.15	-883.79	14,653,714.82	1,792,357.03	40.34741932	-104.45468222
7,700.00	90.00	269.92	6,577.00	2,088.00	-983.79	14,653,714.06	1,792,257.03	40.34741892	-104.45504111
7,800.00	90.00	269.92	6,577.00	2,087.86	-1,083.79	14,653,713.30	1,792,157.04	40.34741852	-104.45540001
7,900.00	90.00	269.92	6,577.00	2,087.72	-1,183.79	14,653,712.54	1,792,057.04	40.34741812	-104.45575890
8,000.00	90.00	269.92	6,577.00	2,087.58	-1,283.79	14,653,711.78	1,791,957.04	40.34741772	-104.45611779
8,100.00	90.00	269.92	6,577.00	2,087.44	-1,383.79	14,653,711.01	1,791,857.05	40.34741731	-104.45647669
8,200.00	90.00	269.92	6,577.00	2,087.30	-1,483.79	14,653,710.25	1,791,757.05	40.34741691	-104.45683558
8,300.00	90.00	269.92	6,577.00	2,087.15	-1,583.79	14,653,709.49	1,791,657.05	40.34741650	-104.45719447
8,400.00	90.00	269.92	6,577.00	2,087.01	-1,683.79	14,653,708.73	1,791,557.06	40.34741610	-104.45755336
8,500.00	90.00	269.92	6,577.00	2,086.87	-1,783.79	14,653,707.97	1,791,457.06	40.34741569	-104.45791226
8,600.00	90.00	269.92	6,577.00	2,086.73	-1,883.79	14,653,707.21	1,791,357.06	40.34741528	-104.45827115
8,700.00	90.00	269.92	6,577.00	2,086.59	-1,983.79	14,653,706.45	1,791,257.07	40.34741487	-104.45863004
8,800.00	90.00	269.92	6,577.00	2,086.45	-2,083.79	14,653,705.69	1,791,157.07	40.34741446	-104.45898894
8,900.00	90.00	269.92	6,577.00	2,086.30	-2,183.78	14,653,704.92	1,791,057.07	40.34741405	-104.45934783
9,000.00	90.00	269.92	6,577.00	2,086.16	-2,283.78	14,653,704.16	1,790,957.07	40.34741363	-104.45970672
9,100.00	90.00	269.92	6,577.00	2,086.02	-2,383.78	14,653,703.40	1,790,857.08	40.34741322	-104.46006561
9,200.00	90.00	269.92	6,577.00	2,085.88	-2,483.78	14,653,702.64	1,790,757.08	40.34741280	-104.46042451
9,300.00	90.00	269.92	6,577.00	2,085.74	-2,583.78	14,653,701.88	1,790,657.08	40.34741238	-104.46078340
9,400.00	90.00	269.92	6,577.00	2,085.60	-2,683.78	14,653,701.12	1,790,557.09	40.34741197	-104.46114229
9,500.00	90.00	269.92	6,577.00	2,085.45	-2,783.78	14,653,700.36	1,790,457.09	40.34741155	-104.46150119
9,600.00	90.00	269.92	6,577.00	2,085.31	-2,883.78	14,653,699.59	1,790,357.09	40.34741113	-104.46186008
9,700.00	90.00	269.92	6,577.00	2,085.17	-2,983.78	14,653,698.83	1,790,257.10	40.34741071	-104.46221897
9,800.00	90.00	269.92	6,577.00	2,085.03	-3,083.78	14,653,698.07	1,790,157.10	40.34741028	-104.46257787
9,900.00	90.00	269.92	6,577.00	2,084.89	-3,183.78	14,653,697.31	1,790,057.10	40.34740986	-104.46293676
10,000.00	90.00	269.92	6,577.00	2,084.75	-3,283.78	14,653,696.55	1,789,957.11	40.34740943	-104.46329565

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well Silverton 5-01-4L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Site:</b>	Section 04-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Silverton 5-01-4L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original hole		
<b>Design:</b>	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	269.92	6,577.00	2,084.61	-3,383.78	14,653,695.79	1,789,857.11	40.34740901	-104.46365454
10,200.00	90.00	269.92	6,577.00	2,084.46	-3,483.78	14,653,695.03	1,789,757.11	40.34740858	-104.46401344
10,300.00	90.00	269.92	6,577.00	2,084.32	-3,583.78	14,653,694.27	1,789,657.12	40.34740815	-104.46437233
10,400.00	90.00	269.92	6,577.00	2,084.18	-3,683.78	14,653,693.50	1,789,557.12	40.34740772	-104.46473122
10,500.00	90.00	269.92	6,577.00	2,084.04	-3,783.78	14,653,692.74	1,789,457.12	40.34740729	-104.46509012
10,600.00	90.00	269.92	6,577.00	2,083.90	-3,883.78	14,653,691.98	1,789,357.12	40.34740686	-104.46544901
10,700.00	90.00	269.92	6,577.00	2,083.76	-3,983.78	14,653,691.22	1,789,257.13	40.34740643	-104.46580790
10,800.00	90.00	269.92	6,577.00	2,083.61	-4,083.78	14,653,690.46	1,789,157.13	40.34740600	-104.46616680
10,900.00	90.00	269.92	6,577.00	2,083.47	-4,183.78	14,653,689.70	1,789,057.13	40.34740556	-104.46652569
11,000.00	90.00	269.92	6,577.00	2,083.33	-4,283.78	14,653,688.94	1,788,957.14	40.34740513	-104.46688458
11,100.00	90.00	269.92	6,577.00	2,083.19	-4,383.78	14,653,688.17	1,788,857.14	40.34740469	-104.46724348
11,200.00	90.00	269.92	6,577.00	2,083.05	-4,483.78	14,653,687.41	1,788,757.14	40.34740425	-104.46760237
11,300.00	90.00	269.92	6,577.00	2,082.91	-4,583.78	14,653,686.65	1,788,657.15	40.34740381	-104.46796126
11,400.00	90.00	269.92	6,577.00	2,082.76	-4,683.78	14,653,685.89	1,788,557.15	40.34740337	-104.46832015
11,500.00	90.00	269.92	6,577.00	2,082.62	-4,783.78	14,653,685.13	1,788,457.15	40.34740293	-104.46867905
11,600.00	90.00	269.92	6,577.00	2,082.48	-4,883.78	14,653,684.37	1,788,357.16	40.34740249	-104.46903794
11,700.00	90.00	269.92	6,577.00	2,082.34	-4,983.78	14,653,683.61	1,788,257.16	40.34740204	-104.46939683
11,800.00	90.00	269.92	6,577.00	2,082.20	-5,083.78	14,653,682.84	1,788,157.16	40.34740160	-104.46975573
11,900.00	90.00	269.92	6,577.00	2,082.06	-5,183.78	14,653,682.08	1,788,057.16	40.34740115	-104.47011462
12,000.00	90.00	269.92	6,577.00	2,081.91	-5,283.78	14,653,681.32	1,787,957.17	40.34740071	-104.47047351
12,100.00	90.00	269.92	6,577.00	2,081.77	-5,383.78	14,653,680.56	1,787,857.17	40.34740026	-104.47083241
12,174.00	90.00	269.92	6,577.00	2,081.67	-5,457.78	14,653,680.00	1,787,783.17	40.34739993	-104.47109800
Begin 2°/100' turn									
12,179.03	90.00	270.02	6,577.00	2,081.67	-5,462.81	14,653,679.96	1,787,778.14	40.34739991	-104.47111605
Begin 90.00° lateral section									
12,200.00	90.00	270.02	6,577.00	2,081.67	-5,483.78	14,653,679.84	1,787,757.17	40.34739992	-104.47119130
12,300.00	90.00	270.02	6,577.00	2,081.71	-5,583.78	14,653,679.26	1,787,657.18	40.34739995	-104.47155019
12,400.00	90.00	270.02	6,577.00	2,081.74	-5,683.78	14,653,678.67	1,787,557.18	40.34739998	-104.47190909
12,500.00	90.00	270.02	6,577.00	2,081.77	-5,783.78	14,653,678.08	1,787,457.18	40.34740001	-104.47226798
12,600.00	90.00	270.02	6,577.00	2,081.81	-5,883.78	14,653,677.50	1,787,357.18	40.34740004	-104.47262687
12,700.00	90.00	270.02	6,577.00	2,081.84	-5,983.78	14,653,676.91	1,787,257.18	40.34740007	-104.47298577
12,800.00	90.00	270.02	6,577.00	2,081.88	-6,083.78	14,653,676.33	1,787,157.19	40.34740009	-104.47334466
12,900.00	90.00	270.02	6,577.00	2,081.91	-6,183.78	14,653,675.74	1,787,057.19	40.34740012	-104.47370356
13,000.00	90.00	270.02	6,577.00	2,081.94	-6,283.78	14,653,675.15	1,786,957.19	40.34740014	-104.47406245
13,100.00	90.00	270.02	6,577.00	2,081.98	-6,383.78	14,653,674.57	1,786,857.19	40.34740017	-104.47442134
13,200.00	90.00	270.02	6,577.00	2,082.01	-6,483.78	14,653,673.98	1,786,757.19	40.34740019	-104.47478024
13,300.00	90.00	270.02	6,577.00	2,082.05	-6,583.78	14,653,673.40	1,786,657.19	40.34740021	-104.47513913
13,400.00	90.00	270.02	6,577.00	2,082.08	-6,683.78	14,653,672.81	1,786,557.20	40.34740023	-104.47549802
13,500.00	90.00	270.02	6,577.00	2,082.11	-6,783.78	14,653,672.23	1,786,457.20	40.34740025	-104.47585692
13,600.00	90.00	270.02	6,577.00	2,082.15	-6,883.78	14,653,671.64	1,786,357.20	40.34740026	-104.47621581
13,700.00	90.00	270.02	6,577.00	2,082.18	-6,983.78	14,653,671.05	1,786,257.20	40.34740028	-104.47657471
13,800.00	90.00	270.02	6,577.00	2,082.22	-7,083.78	14,653,670.47	1,786,157.20	40.34740029	-104.47693360
13,900.00	90.00	270.02	6,577.00	2,082.25	-7,183.78	14,653,669.88	1,786,057.21	40.34740031	-104.47729249
14,000.00	90.00	270.02	6,577.00	2,082.28	-7,283.78	14,653,669.30	1,785,957.21	40.34740032	-104.47765139
14,100.00	90.00	270.02	6,577.00	2,082.32	-7,383.78	14,653,668.71	1,785,857.21	40.34740033	-104.47801028
14,200.00	90.00	270.02	6,577.00	2,082.35	-7,483.78	14,653,668.12	1,785,757.21	40.34740034	-104.47836918
14,300.00	90.00	270.02	6,577.00	2,082.39	-7,583.78	14,653,667.54	1,785,657.21	40.34740035	-104.47872807
14,400.00	90.00	270.02	6,577.00	2,082.42	-7,683.78	14,653,666.95	1,785,557.22	40.34740036	-104.47908696
14,500.00	90.00	270.02	6,577.00	2,082.45	-7,783.78	14,653,666.37	1,785,457.22	40.34740037	-104.47944586
14,600.00	90.00	270.02	6,577.00	2,082.49	-7,883.78	14,653,665.78	1,785,357.22	40.34740037	-104.47980475
14,700.00	90.00	270.02	6,577.00	2,082.52	-7,983.78	14,653,665.20	1,785,257.22	40.34740038	-104.48016365
14,800.00	90.00	270.02	6,577.00	2,082.56	-8,083.78	14,653,664.61	1,785,157.22	40.34740038	-104.48052254
14,900.00	90.00	270.02	6,577.00	2,082.59	-8,183.78	14,653,664.02	1,785,057.23	40.34740039	-104.48088143
15,000.00	90.00	270.02	6,577.00	2,082.62	-8,283.78	14,653,663.44	1,784,957.23	40.34740039	-104.48124033

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well Silverton 5-01-4L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Site:</b>	Section 04-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Silverton 5-01-4L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original hole		
<b>Design:</b>	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
15,100.00	90.00	270.02	6,577.00	2,082.66	-8,383.78	14,653,662.85	1,784,857.23	40.34740039	-104.48159922
15,200.00	90.00	270.02	6,577.00	2,082.69	-8,483.78	14,653,662.27	1,784,757.23	40.34740039	-104.48195812
15,300.00	90.00	270.02	6,577.00	2,082.73	-8,583.78	14,653,661.68	1,784,657.23	40.34740039	-104.48231701
15,400.00	90.00	270.02	6,577.00	2,082.76	-8,683.78	14,653,661.10	1,784,557.23	40.34740038	-104.48267590
15,500.00	90.00	270.02	6,577.00	2,082.79	-8,783.78	14,653,660.51	1,784,457.24	40.34740038	-104.48303480
15,600.00	90.00	270.02	6,577.00	2,082.83	-8,883.78	14,653,659.92	1,784,357.24	40.34740037	-104.48339369
15,700.00	90.00	270.02	6,577.00	2,082.86	-8,983.78	14,653,659.34	1,784,257.24	40.34740037	-104.48375259
15,800.00	90.00	270.02	6,577.00	2,082.89	-9,083.78	14,653,658.75	1,784,157.24	40.34740036	-104.48411148
15,900.00	90.00	270.02	6,577.00	2,082.93	-9,183.78	14,653,658.17	1,784,057.24	40.34740035	-104.48447036
16,000.00	90.00	270.02	6,577.00	2,082.96	-9,283.78	14,653,657.58	1,783,957.25	40.34740034	-104.48482926
16,100.00	90.00	270.02	6,577.00	2,083.00	-9,383.78	14,653,656.99	1,783,857.25	40.34740033	-104.48518815
16,200.00	90.00	270.02	6,577.00	2,083.03	-9,483.78	14,653,656.41	1,783,757.25	40.34740032	-104.48554705
16,300.00	90.00	270.02	6,577.00	2,083.06	-9,583.78	14,653,655.82	1,783,657.25	40.34740031	-104.48590594
16,400.00	90.00	270.02	6,577.00	2,083.10	-9,683.78	14,653,655.24	1,783,557.25	40.34740029	-104.48626483
16,500.00	90.00	270.02	6,577.00	2,083.13	-9,783.78	14,653,654.65	1,783,457.26	40.34740028	-104.48662373
16,600.00	90.00	270.02	6,577.00	2,083.17	-9,883.78	14,653,654.07	1,783,357.26	40.34740026	-104.48698262
16,700.00	90.00	270.02	6,577.00	2,083.20	-9,983.78	14,653,653.48	1,783,257.26	40.34740024	-104.48734152
16,800.00	90.00	270.02	6,577.00	2,083.23	-10,083.78	14,653,652.89	1,783,157.26	40.34740023	-104.48770041
16,833.55	90.00	270.02	6,577.00	2,083.25	-10,117.33	14,653,652.70	1,783,123.71	40.34740022	-104.48782083
PBHL/TD 16833.55 MD 6577.00 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 5-01-4L SL 25'	0.00	0.00	24.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
- plan hits target center									
- Point									
Silverton 5-01-4L BHL 4'	0.00	0.00	6,577.00	2,083.25	-10,117.33	14,653,652.70	1,783,123.71	40.34740022	-104.48782083
- plan hits target center									
- Point									
Silverton 5-01-4L LP 47'	0.00	0.00	6,577.00	2,088.42	-689.89	14,653,716.30	1,792,550.92	40.34742009	-104.45398635
- plan hits target center									
- Point									
Silverton 5-01-4L Int 47'	0.00	0.00	6,577.00	2,081.67	-5,457.78	14,653,680.00	1,787,783.17	40.34739993	-104.47109800
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,000.00	2,000.00	0.00	0.00	KOP Begin 2°/100' build
3,427.35	3,369.03	347.57	-22.26	Begin 28.55° tangent section
6,523.22	6,088.51	1,824.00	-116.81	Begin 10°/100' build/turn
7,406.11	6,577.00	2,088.42	-689.89	LP Begin 90° lateral
12,174.00	6,577.00	2,081.67	-5,457.78	Begin 2°/100' turn
12,179.03	6,577.00	2,081.67	-5,462.81	Begin 90.00° lateral section
16,833.55	6,577.00	2,083.25	-10,117.33	PBHL/TD 16833.55 MD 6577.00 TVD



<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well Silverton 5-01-4L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Site:</b>	Section 04-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Silverton 5-01-4L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original hole		
<b>Design:</b>	plan1		

<b>Project</b>	Weld County, Colorado		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD83 Colorado - HARN		
<b>Map Zone:</b>	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 5-01-4L, Surf loc: 2559 FNL 255 FWL Section 04-T04N-R63W					
Well Position	+N/-S	1,558.57 ft	Northing:	14,651,632.20 usft	Latitude:	40.34168542
	+E/-W	-38.73 ft	Easting:	1,793,253.74 usft	Longitude:	-104.45151037
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,628.00 ft

<b>Wellbore</b>	Original hole				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	5/29/2018	8.08	66.90	52,227.60000000

<b>Design</b>	plan1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	281.64

<b>Plan Survey Tool Program</b>	<b>Date</b>	5/29/2018		
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	16,833.55	plan1 (Original hole)	

<b>Plan Sections</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,427.35	28.55	356.34	3,369.03	347.57	-22.26	2.00	2.00	0.00	356.34	
6,523.22	28.55	356.34	6,088.51	1,824.00	-116.81	0.00	0.00	0.00	0.00	
7,406.11	90.00	269.92	6,577.00	2,088.42	-689.89	10.00	6.96	-9.79	-86.85	Silverton 5-01-4L LP 4
12,174.00	90.00	269.92	6,577.00	2,081.67	-5,457.78	0.00	0.00	0.00	0.00	Silverton 5-01-4L Int 4
12,179.03	90.00	270.02	6,577.00	2,081.67	-5,462.81	2.00	0.00	2.00	90.00	
16,833.55	90.00	270.02	6,577.00	2,083.25	-10,117.33	0.00	0.00	0.00	0.00	Silverton 5-01-4L BHL

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well Silverton 5-01-4L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Site:</b>	Section 04-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Silverton 5-01-4L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original hole		
<b>Design:</b>	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
<b>KOP Begin 2°/100' build</b>									
2,100.00	2.00	356.34	2,099.98	1.74	-0.11	0.46	2.00	2.00	0.00
2,200.00	4.00	356.34	2,199.84	6.96	-0.45	1.84	2.00	2.00	0.00
2,300.00	6.00	356.34	2,299.45	15.66	-1.00	4.14	2.00	2.00	0.00
2,400.00	8.00	356.34	2,398.70	27.82	-1.78	7.36	2.00	2.00	0.00
2,500.00	10.00	356.34	2,497.47	43.43	-2.78	11.48	2.00	2.00	0.00
2,600.00	12.00	356.34	2,595.62	62.47	-4.00	16.52	2.00	2.00	0.00
2,700.00	14.00	356.34	2,693.06	84.92	-5.44	22.45	2.00	2.00	0.00
2,800.00	16.00	356.34	2,789.64	110.75	-7.09	29.28	2.00	2.00	0.00
2,900.00	18.00	356.34	2,885.27	139.93	-8.96	37.00	2.00	2.00	0.00
3,000.00	20.00	356.34	2,979.82	172.41	-11.04	45.59	2.00	2.00	0.00
3,100.00	22.00	356.34	3,073.17	208.18	-13.33	55.04	2.00	2.00	0.00
3,200.00	24.00	356.34	3,165.21	247.17	-15.83	65.35	2.00	2.00	0.00
3,300.00	26.00	356.34	3,255.84	289.34	-18.53	76.50	2.00	2.00	0.00
3,400.00	28.00	356.34	3,344.94	334.64	-21.43	88.48	2.00	2.00	0.00
3,427.35	28.55	356.34	3,369.03	347.57	-22.26	91.90	2.00	2.00	0.00
<b>Begin 28.55° tangent section</b>									
3,500.00	28.55	356.34	3,432.84	382.22	-24.48	101.06	0.00	0.00	0.00
3,600.00	28.55	356.34	3,520.68	429.91	-27.53	113.67	0.00	0.00	0.00
3,700.00	28.55	356.34	3,608.53	477.60	-30.59	126.28	0.00	0.00	0.00
3,800.00	28.55	356.34	3,696.37	525.29	-33.64	138.89	0.00	0.00	0.00
3,900.00	28.55	356.34	3,784.21	572.98	-36.70	151.50	0.00	0.00	0.00
4,000.00	28.55	356.34	3,872.05	620.67	-39.75	164.11	0.00	0.00	0.00
4,100.00	28.55	356.34	3,959.90	668.36	-42.80	176.72	0.00	0.00	0.00
4,200.00	28.55	356.34	4,047.74	716.05	-45.86	189.33	0.00	0.00	0.00
4,300.00	28.55	356.34	4,135.58	763.74	-48.91	201.94	0.00	0.00	0.00
4,400.00	28.55	356.34	4,223.42	811.43	-51.97	214.55	0.00	0.00	0.00
4,500.00	28.55	356.34	4,311.27	859.12	-55.02	227.16	0.00	0.00	0.00
4,600.00	28.55	356.34	4,399.11	906.81	-58.08	239.77	0.00	0.00	0.00
4,700.00	28.55	356.34	4,486.95	954.50	-61.13	252.38	0.00	0.00	0.00
4,800.00	28.55	356.34	4,574.79	1,002.19	-64.18	264.98	0.00	0.00	0.00
4,900.00	28.55	356.34	4,662.64	1,049.89	-67.24	277.59	0.00	0.00	0.00



<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well Silverton 5-01-4L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Site:</b>	Section 04-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Silverton 5-01-4L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original hole		
<b>Design:</b>	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	28.55	356.34	4,750.48	1,097.58	-70.29	290.20	0.00	0.00	0.00	
5,100.00	28.55	356.34	4,838.32	1,145.27	-73.35	302.81	0.00	0.00	0.00	
5,200.00	28.55	356.34	4,926.16	1,192.96	-76.40	315.42	0.00	0.00	0.00	
5,300.00	28.55	356.34	5,014.01	1,240.65	-79.45	328.03	0.00	0.00	0.00	
5,400.00	28.55	356.34	5,101.85	1,288.34	-82.51	340.64	0.00	0.00	0.00	
5,500.00	28.55	356.34	5,189.69	1,336.03	-85.56	353.25	0.00	0.00	0.00	
5,600.00	28.55	356.34	5,277.53	1,383.72	-88.62	365.86	0.00	0.00	0.00	
5,700.00	28.55	356.34	5,365.38	1,431.41	-91.67	378.47	0.00	0.00	0.00	
5,800.00	28.55	356.34	5,453.22	1,479.10	-94.73	391.08	0.00	0.00	0.00	
5,900.00	28.55	356.34	5,541.06	1,526.79	-97.78	403.69	0.00	0.00	0.00	
6,000.00	28.55	356.34	5,628.90	1,574.48	-100.83	416.30	0.00	0.00	0.00	
6,100.00	28.55	356.34	5,716.75	1,622.17	-103.89	428.91	0.00	0.00	0.00	
6,200.00	28.55	356.34	5,804.59	1,669.86	-106.94	441.52	0.00	0.00	0.00	
6,300.00	28.55	356.34	5,892.43	1,717.55	-110.00	454.13	0.00	0.00	0.00	
6,400.00	28.55	356.34	5,980.27	1,765.24	-113.05	466.74	0.00	0.00	0.00	
6,500.00	28.55	356.34	6,068.12	1,812.93	-116.11	479.35	0.00	0.00	0.00	
6,523.22	28.55	356.34	6,088.51	1,824.00	-116.81	482.28	0.00	0.00	0.00	
Begin 10°/100' build/turn										
6,600.00	29.88	340.81	6,155.62	1,860.43	-124.29	496.94	10.00	1.74	-20.23	
6,700.00	34.01	323.51	6,240.64	1,906.56	-149.17	530.62	10.00	4.12	-17.30	
6,800.00	40.03	310.19	6,320.58	1,949.90	-190.47	579.81	10.00	6.02	-13.32	
6,900.00	47.22	300.08	6,393.01	1,989.15	-246.94	643.03	10.00	7.19	-10.11	
7,000.00	55.11	292.17	6,455.73	2,023.10	-316.85	718.36	10.00	7.89	-7.91	
7,100.00	63.42	285.68	6,506.83	2,050.74	-398.09	803.50	10.00	8.31	-6.49	
7,200.00	71.98	280.09	6,544.77	2,071.21	-488.18	895.86	10.00	8.56	-5.59	
7,300.00	80.69	275.03	6,568.39	2,083.89	-584.39	992.65	10.00	8.71	-5.07	
7,400.00	89.46	270.21	6,576.97	2,088.41	-683.79	1,090.92	10.00	8.78	-4.82	
7,406.11	90.00	269.92	6,577.00	2,088.42	-689.89	1,096.90	10.00	8.79	-4.77	
LP Begin 90° lateral										
7,500.00	90.00	269.92	6,577.00	2,088.29	-783.79	1,188.84	0.00	0.00	0.00	
7,600.00	90.00	269.92	6,577.00	2,088.15	-883.79	1,286.76	0.00	0.00	0.00	
7,700.00	90.00	269.92	6,577.00	2,088.00	-983.79	1,384.67	0.00	0.00	0.00	
7,800.00	90.00	269.92	6,577.00	2,087.86	-1,083.79	1,482.59	0.00	0.00	0.00	
7,900.00	90.00	269.92	6,577.00	2,087.72	-1,183.79	1,580.51	0.00	0.00	0.00	
8,000.00	90.00	269.92	6,577.00	2,087.58	-1,283.79	1,678.42	0.00	0.00	0.00	
8,100.00	90.00	269.92	6,577.00	2,087.44	-1,383.79	1,776.34	0.00	0.00	0.00	
8,200.00	90.00	269.92	6,577.00	2,087.30	-1,483.79	1,874.26	0.00	0.00	0.00	
8,300.00	90.00	269.92	6,577.00	2,087.15	-1,583.79	1,972.17	0.00	0.00	0.00	
8,400.00	90.00	269.92	6,577.00	2,087.01	-1,683.79	2,070.09	0.00	0.00	0.00	
8,500.00	90.00	269.92	6,577.00	2,086.87	-1,783.79	2,168.01	0.00	0.00	0.00	
8,600.00	90.00	269.92	6,577.00	2,086.73	-1,883.79	2,265.92	0.00	0.00	0.00	
8,700.00	90.00	269.92	6,577.00	2,086.59	-1,983.79	2,363.84	0.00	0.00	0.00	
8,800.00	90.00	269.92	6,577.00	2,086.45	-2,083.79	2,461.76	0.00	0.00	0.00	
8,900.00	90.00	269.92	6,577.00	2,086.30	-2,183.78	2,559.67	0.00	0.00	0.00	
9,000.00	90.00	269.92	6,577.00	2,086.16	-2,283.78	2,657.59	0.00	0.00	0.00	
9,100.00	90.00	269.92	6,577.00	2,086.02	-2,383.78	2,755.51	0.00	0.00	0.00	
9,200.00	90.00	269.92	6,577.00	2,085.88	-2,483.78	2,853.42	0.00	0.00	0.00	
9,300.00	90.00	269.92	6,577.00	2,085.74	-2,583.78	2,951.34	0.00	0.00	0.00	
9,400.00	90.00	269.92	6,577.00	2,085.60	-2,683.78	3,049.26	0.00	0.00	0.00	
9,500.00	90.00	269.92	6,577.00	2,085.45	-2,783.78	3,147.17	0.00	0.00	0.00	
9,600.00	90.00	269.92	6,577.00	2,085.31	-2,883.78	3,245.09	0.00	0.00	0.00	
9,700.00	90.00	269.92	6,577.00	2,085.17	-2,983.78	3,343.01	0.00	0.00	0.00	
9,800.00	90.00	269.92	6,577.00	2,085.03	-3,083.78	3,440.92	0.00	0.00	0.00	
9,900.00	90.00	269.92	6,577.00	2,084.89	-3,183.78	3,538.84	0.00	0.00	0.00	

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well Silverton 5-01-4L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Site:</b>	Section 04-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Silverton 5-01-4L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original hole		
<b>Design:</b>	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	269.92	6,577.00	2,084.75	-3,283.78	3,636.76	0.00	0.00	0.00
10,100.00	90.00	269.92	6,577.00	2,084.61	-3,383.78	3,734.67	0.00	0.00	0.00
10,200.00	90.00	269.92	6,577.00	2,084.46	-3,483.78	3,832.59	0.00	0.00	0.00
10,300.00	90.00	269.92	6,577.00	2,084.32	-3,583.78	3,930.50	0.00	0.00	0.00
10,400.00	90.00	269.92	6,577.00	2,084.18	-3,683.78	4,028.42	0.00	0.00	0.00
10,500.00	90.00	269.92	6,577.00	2,084.04	-3,783.78	4,126.34	0.00	0.00	0.00
10,600.00	90.00	269.92	6,577.00	2,083.90	-3,883.78	4,224.25	0.00	0.00	0.00
10,700.00	90.00	269.92	6,577.00	2,083.76	-3,983.78	4,322.17	0.00	0.00	0.00
10,800.00	90.00	269.92	6,577.00	2,083.61	-4,083.78	4,420.09	0.00	0.00	0.00
10,900.00	90.00	269.92	6,577.00	2,083.47	-4,183.78	4,518.00	0.00	0.00	0.00
11,000.00	90.00	269.92	6,577.00	2,083.33	-4,283.78	4,615.92	0.00	0.00	0.00
11,100.00	90.00	269.92	6,577.00	2,083.19	-4,383.78	4,713.84	0.00	0.00	0.00
11,200.00	90.00	269.92	6,577.00	2,083.05	-4,483.78	4,811.75	0.00	0.00	0.00
11,300.00	90.00	269.92	6,577.00	2,082.91	-4,583.78	4,909.67	0.00	0.00	0.00
11,400.00	90.00	269.92	6,577.00	2,082.76	-4,683.78	5,007.59	0.00	0.00	0.00
11,500.00	90.00	269.92	6,577.00	2,082.62	-4,783.78	5,105.50	0.00	0.00	0.00
11,600.00	90.00	269.92	6,577.00	2,082.48	-4,883.78	5,203.42	0.00	0.00	0.00
11,700.00	90.00	269.92	6,577.00	2,082.34	-4,983.78	5,301.34	0.00	0.00	0.00
11,800.00	90.00	269.92	6,577.00	2,082.20	-5,083.78	5,399.25	0.00	0.00	0.00
11,900.00	90.00	269.92	6,577.00	2,082.06	-5,183.78	5,497.17	0.00	0.00	0.00
12,000.00	90.00	269.92	6,577.00	2,081.91	-5,283.78	5,595.09	0.00	0.00	0.00
12,100.00	90.00	269.92	6,577.00	2,081.77	-5,383.78	5,693.00	0.00	0.00	0.00
12,174.00	90.00	269.92	6,577.00	2,081.67	-5,457.78	5,765.46	0.00	0.00	0.00
<b>Begin 2°/100' turn</b>									
12,179.03	90.00	270.02	6,577.00	2,081.67	-5,462.81	5,770.39	2.00	0.00	2.00
<b>Begin 90.00° lateral section</b>									
12,200.00	90.00	270.02	6,577.00	2,081.67	-5,483.78	5,790.93	0.00	0.00	0.00
12,300.00	90.00	270.02	6,577.00	2,081.71	-5,583.78	5,888.88	0.00	0.00	0.00
12,400.00	90.00	270.02	6,577.00	2,081.74	-5,683.78	5,986.83	0.00	0.00	0.00
12,500.00	90.00	270.02	6,577.00	2,081.77	-5,783.78	6,084.78	0.00	0.00	0.00
12,600.00	90.00	270.02	6,577.00	2,081.81	-5,883.78	6,182.74	0.00	0.00	0.00
12,700.00	90.00	270.02	6,577.00	2,081.84	-5,983.78	6,280.69	0.00	0.00	0.00
12,800.00	90.00	270.02	6,577.00	2,081.88	-6,083.78	6,378.64	0.00	0.00	0.00
12,900.00	90.00	270.02	6,577.00	2,081.91	-6,183.78	6,476.59	0.00	0.00	0.00
13,000.00	90.00	270.02	6,577.00	2,081.94	-6,283.78	6,574.54	0.00	0.00	0.00
13,100.00	90.00	270.02	6,577.00	2,081.98	-6,383.78	6,672.50	0.00	0.00	0.00
13,200.00	90.00	270.02	6,577.00	2,082.01	-6,483.78	6,770.45	0.00	0.00	0.00
13,300.00	90.00	270.02	6,577.00	2,082.05	-6,583.78	6,868.40	0.00	0.00	0.00
13,400.00	90.00	270.02	6,577.00	2,082.08	-6,683.78	6,966.35	0.00	0.00	0.00
13,500.00	90.00	270.02	6,577.00	2,082.11	-6,783.78	7,064.30	0.00	0.00	0.00
13,600.00	90.00	270.02	6,577.00	2,082.15	-6,883.78	7,162.26	0.00	0.00	0.00
13,700.00	90.00	270.02	6,577.00	2,082.18	-6,983.78	7,260.21	0.00	0.00	0.00
13,800.00	90.00	270.02	6,577.00	2,082.22	-7,083.78	7,358.16	0.00	0.00	0.00
13,900.00	90.00	270.02	6,577.00	2,082.25	-7,183.78	7,456.11	0.00	0.00	0.00
14,000.00	90.00	270.02	6,577.00	2,082.28	-7,283.78	7,554.06	0.00	0.00	0.00
14,100.00	90.00	270.02	6,577.00	2,082.32	-7,383.78	7,652.02	0.00	0.00	0.00
14,200.00	90.00	270.02	6,577.00	2,082.35	-7,483.78	7,749.97	0.00	0.00	0.00
14,300.00	90.00	270.02	6,577.00	2,082.39	-7,583.78	7,847.92	0.00	0.00	0.00
14,400.00	90.00	270.02	6,577.00	2,082.42	-7,683.78	7,945.87	0.00	0.00	0.00
14,500.00	90.00	270.02	6,577.00	2,082.45	-7,783.78	8,043.82	0.00	0.00	0.00
14,600.00	90.00	270.02	6,577.00	2,082.49	-7,883.78	8,141.78	0.00	0.00	0.00
14,700.00	90.00	270.02	6,577.00	2,082.52	-7,983.78	8,239.73	0.00	0.00	0.00
14,800.00	90.00	270.02	6,577.00	2,082.56	-8,083.78	8,337.68	0.00	0.00	0.00
14,900.00	90.00	270.02	6,577.00	2,082.59	-8,183.78	8,435.63	0.00	0.00	0.00

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well Silverton 5-01-4L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4628+24 @ 4652.00ft
<b>Site:</b>	Section 04-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	Silverton 5-01-4L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original hole		
<b>Design:</b>	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)
15,000.00	90.00	270.02	6,577.00	2,082.62	-8,283.78	8,533.58	0.00	0.00	0.00
15,100.00	90.00	270.02	6,577.00	2,082.66	-8,383.78	8,631.54	0.00	0.00	0.00
15,200.00	90.00	270.02	6,577.00	2,082.69	-8,483.78	8,729.49	0.00	0.00	0.00
15,300.00	90.00	270.02	6,577.00	2,082.73	-8,583.78	8,827.44	0.00	0.00	0.00
15,400.00	90.00	270.02	6,577.00	2,082.76	-8,683.78	8,925.39	0.00	0.00	0.00
15,500.00	90.00	270.02	6,577.00	2,082.79	-8,783.78	9,023.34	0.00	0.00	0.00
15,600.00	90.00	270.02	6,577.00	2,082.83	-8,883.78	9,121.30	0.00	0.00	0.00
15,700.00	90.00	270.02	6,577.00	2,082.86	-8,983.78	9,219.25	0.00	0.00	0.00
15,800.00	90.00	270.02	6,577.00	2,082.89	-9,083.78	9,317.20	0.00	0.00	0.00
15,900.00	90.00	270.02	6,577.00	2,082.93	-9,183.78	9,415.15	0.00	0.00	0.00
16,000.00	90.00	270.02	6,577.00	2,082.96	-9,283.78	9,513.10	0.00	0.00	0.00
16,100.00	90.00	270.02	6,577.00	2,083.00	-9,383.78	9,611.06	0.00	0.00	0.00
16,200.00	90.00	270.02	6,577.00	2,083.03	-9,483.78	9,709.01	0.00	0.00	0.00
16,300.00	90.00	270.02	6,577.00	2,083.06	-9,583.78	9,806.96	0.00	0.00	0.00
16,400.00	90.00	270.02	6,577.00	2,083.10	-9,683.78	9,904.91	0.00	0.00	0.00
16,500.00	90.00	270.02	6,577.00	2,083.13	-9,783.78	10,002.87	0.00	0.00	0.00
16,600.00	90.00	270.02	6,577.00	2,083.17	-9,883.78	10,100.82	0.00	0.00	0.00
16,700.00	90.00	270.02	6,577.00	2,083.20	-9,983.78	10,198.77	0.00	0.00	0.00
16,800.00	90.00	270.02	6,577.00	2,083.23	-10,083.78	10,296.72	0.00	0.00	0.00
16,833.55	90.00	270.02	6,577.00	2,083.25	-10,117.33	10,329.59	0.00	0.00	0.00
PBHL/TD 16833.55 MD 6577.00 TVD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Silverton 5-01-4L SL 25'	0.00	0.00	24.00	0.00	0.00	14,651,632.20	1,793,253.74	40.34168542	-104.45151037
- plan hits target center									
- Point									
Silverton 5-01-4L BHL 4'	0.00	0.00	6,577.00	2,083.25	-10,117.33	14,653,652.70	1,783,123.71	40.34740022	-104.48782083
- plan hits target center									
- Point									
Silverton 5-01-4L LP 47'	0.00	0.00	6,577.00	2,088.42	-689.89	14,653,716.30	1,792,550.92	40.34742009	-104.45398635
- plan hits target center									
- Point									
Silverton 5-01-4L Int 47'	0.00	0.00	6,577.00	2,081.67	-5,457.78	14,653,680.00	1,787,783.17	40.34739993	-104.47109800
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,000.00	2,000.00	0.00	0.00	KOP Begin 2°/100' build
3,427.35	3,369.03	347.57	-22.26	Begin 28.55° tangent section
6,523.22	6,088.51	1,824.00	-116.81	Begin 10°/100' build/turn
7,406.11	6,577.00	2,088.42	-689.89	LP Begin 90° lateral
12,174.00	6,577.00	2,081.67	-5,457.78	Begin 2°/100' turn
12,179.03	6,577.00	2,081.67	-5,462.81	Begin 90.00° lateral section
16,833.55	6,577.00	2,083.25	-10,117.33	PBHL/TD 16833.55 MD 6577.00 TVD