



Weld County, Colorado
Section 31-T01N-R65W
Walla 5-10-4L
plan1

Walla 5-10-4L			
Surf Loc: 861 FSL 705 FWL Sec31-T01N-R65W			
NAD83 Colorado - HARN			
Universal Transverse Mercator (US Survey Feet)			
Zone 13N (108 W to 102 W)			
RKB=5039+23 @ 5062.00ft			
Northing	Easting	Latitude	Longitude
14527928.29	1724480.96	40.00289244	-104.69981257

Azimuth Corrections:

To convert a Magnetic Direction to a True Direction, Add 8.27° East

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5000.00	0.00	0.00	5000.00	0.00	0.00	0.00	0.00	KOP Begin 10°/100' build
3	5335.10	33.51	126.50	5316.32	-56.64	76.56	10.00	64.89	Begin 33.51° tangent section
4	7550.56	33.51	126.50	7163.55	-784.10	1059.81	0.00	898.27	Begin 10°/100' build/turn
5	8260.06	90.00	180.25	7504.00	-1326.47	1239.22	10.00	1457.38	LP Begin 90.00° lateral section
6	17525.60	90.00	180.25	7504.00	-10591.92	1198.34	0.00	10659.49	PBHL/TD 17525.60 MD/7504.00 TVD

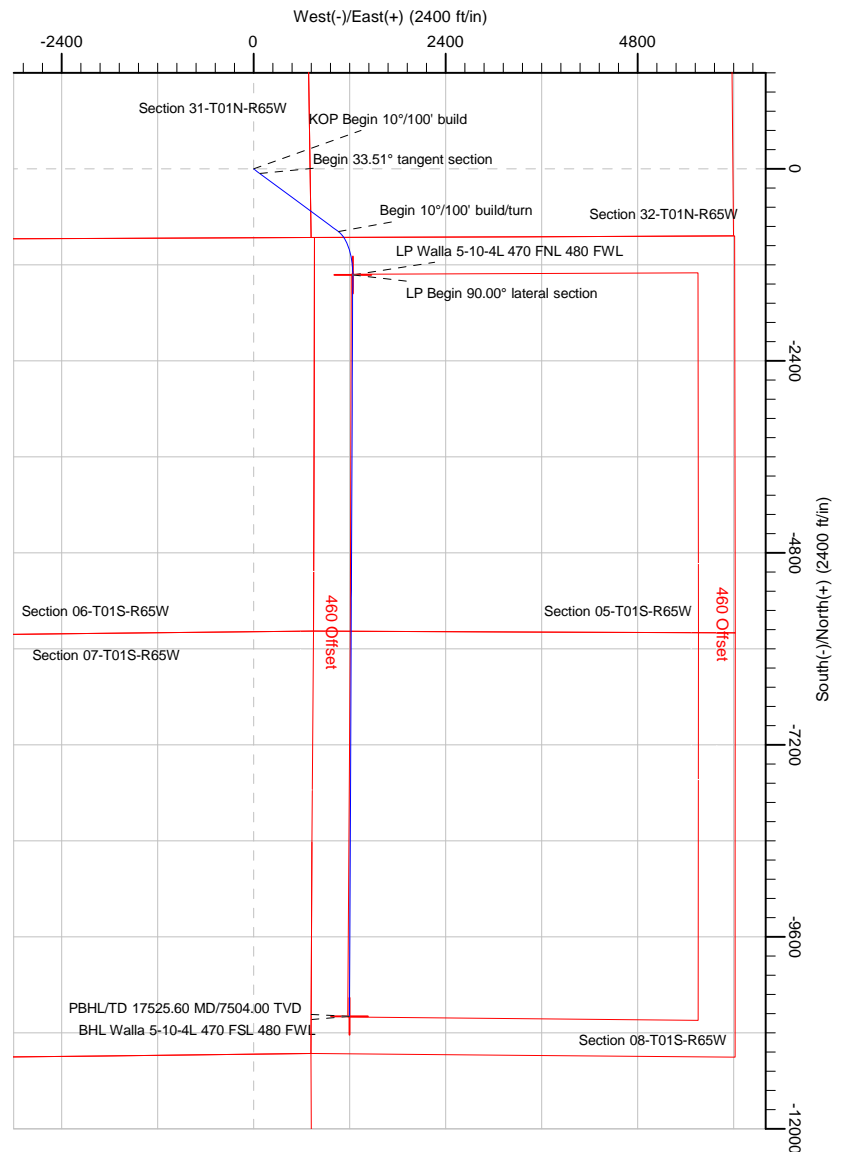
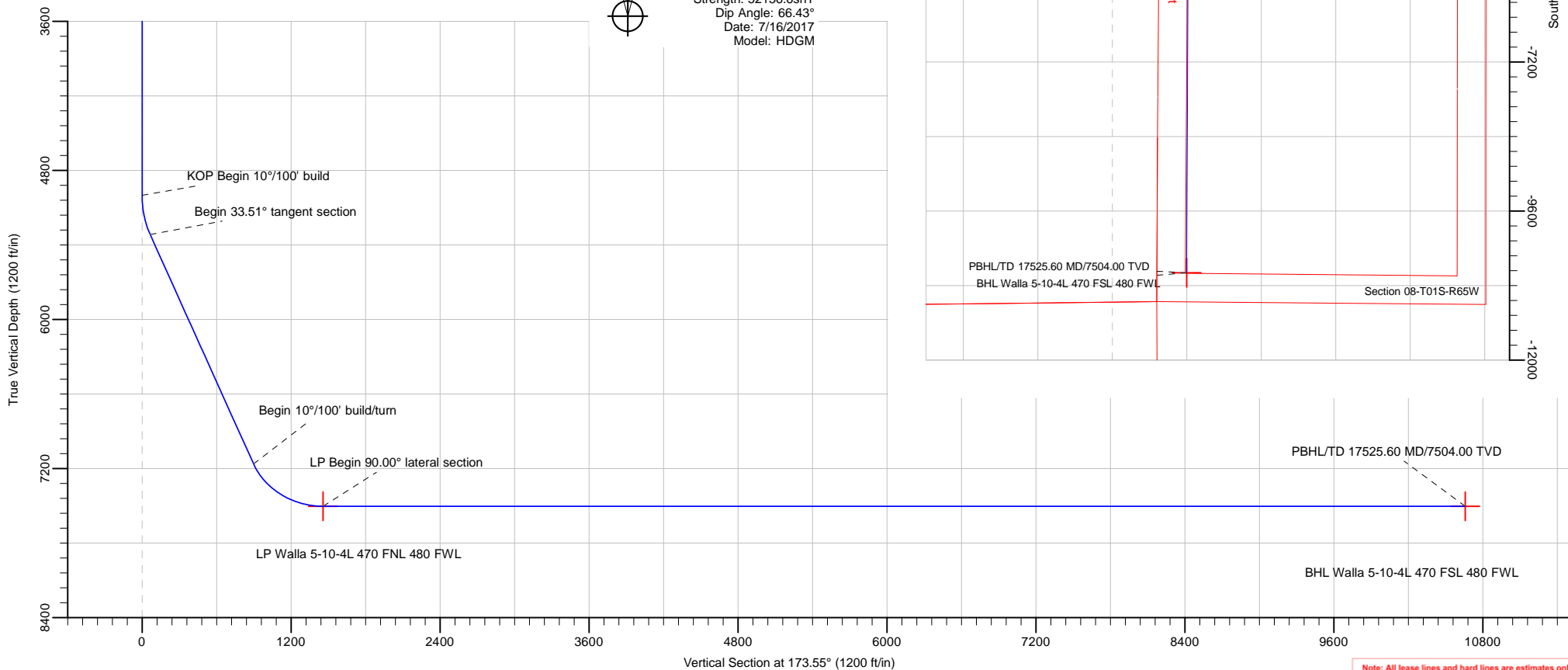
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BHL Walla 5-10-4L 470 FSL 480 FWL	7504.00	-10591.92	1198.34	14517336.39	1725679.30	39.97379422	-104.69566255
LP Walla 5-10-4L 470 FNL 480 FWL	7504.00	-1326.47	1239.22	14526601.82	1725720.18	39.99923820	-104.69540366



Azimuths to Grid North
True North: -0.19°
Magnetic North: 8.07°

Magnetic Field
Strength: 52136.6snT
Dip Angle: 66.43°
Date: 7/16/2017
Model: HDGM



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

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-10-4L
Company:	Confluence Resources	TVD Reference:	RKB=5039+23 @ 5062.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5039+23 @ 5062.00ft
Site:	Section 31-T01N-R65W	North Reference:	Grid
Well:	Walla 5-10-4L	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 31-T01N-R65W				
Site Position:		Northing:	14,527,926.57 usft	Latitude:	40.00289000
From:	Lat/Long	Easting:	1,724,232.45 usft	Longitude:	-104.70070000
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.19 °

Well	Walla 5-10-4L, Surf Loc: 861 FSL 705 FWL Sec31-T01N-R65W					
Well Position	+N/-S	1.72 ft	Northing:	14,527,928.29 usft	Latitude:	40.00289244
	+E/-W	248.51 ft	Easting:	1,724,480.96 usft	Longitude:	-104.69981257
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,039.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	7/16/2017	8.27	66.43	52,136.60000000

Design	plan1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	173.55

Plan Survey Tool Program	Date	7/16/2017		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	17,525.60	plan1 (Original Hole)	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,335.10	33.51	126.50	5,316.32	-56.64	76.56	10.00	10.00	0.00	126.50	
7,550.56	33.51	126.50	7,163.55	-784.10	1,059.81	0.00	0.00	0.00	0.00	
8,260.06	90.00	180.25	7,504.00	-1,326.47	1,239.22	10.00	7.96	7.58	58.57	LP Walla 5-10-4L 470
17,525.60	90.00	180.25	7,504.00	-10,591.92	1,198.34	0.00	0.00	0.00	0.00	BHL Walla 5-10-4L 47

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-10-4L
Company:	Confluence Resources	TVD Reference:	RKB=5039+23 @ 5062.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5039+23 @ 5062.00ft
Site:	Section 31-T01N-R65W	North Reference:	Grid
Well:	Walla 5-10-4L	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
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 10°/100' build									
5,100.00	10.00	126.50	5,099.49	-5.18	7.00	5.93	10.00	10.00	0.00
5,200.00	20.00	126.50	5,195.96	-20.55	27.78	23.54	10.00	10.00	0.00

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-10-4L
Company:	Confluence Resources	TVD Reference:	RKB=5039+23 @ 5062.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5039+23 @ 5062.00ft
Site:	Section 31-T01N-R65W	North Reference:	Grid
Well:	Walla 5-10-4L	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)
5,300.00	30.00	126.50	5,286.48	-45.66	61.71	52.30	10.00	10.00	0.00
5,335.10	33.51	126.50	5,316.32	-56.64	76.56	64.89	10.00	10.00	0.00
Begin 33.51° tangent section									
5,400.00	33.51	126.50	5,370.43	-77.95	105.36	89.30	0.00	0.00	0.00
5,500.00	33.51	126.50	5,453.81	-110.79	149.74	126.92	0.00	0.00	0.00
5,600.00	33.51	126.50	5,537.19	-143.62	194.12	164.53	0.00	0.00	0.00
5,700.00	33.51	126.50	5,620.57	-176.46	238.50	202.15	0.00	0.00	0.00
5,800.00	33.51	126.50	5,703.95	-209.29	282.89	239.77	0.00	0.00	0.00
5,900.00	33.51	126.50	5,787.33	-242.13	327.27	277.38	0.00	0.00	0.00
6,000.00	33.51	126.50	5,870.71	-274.96	371.65	315.00	0.00	0.00	0.00
6,100.00	33.51	126.50	5,954.09	-307.80	416.03	352.62	0.00	0.00	0.00
6,200.00	33.51	126.50	6,037.47	-340.63	460.41	390.23	0.00	0.00	0.00
6,300.00	33.51	126.50	6,120.85	-373.47	504.79	427.85	0.00	0.00	0.00
6,400.00	33.51	126.50	6,204.23	-406.31	549.18	465.47	0.00	0.00	0.00
6,500.00	33.51	126.50	6,287.61	-439.14	593.56	503.08	0.00	0.00	0.00
6,600.00	33.51	126.50	6,370.99	-471.98	637.94	540.70	0.00	0.00	0.00
6,700.00	33.51	126.50	6,454.36	-504.81	682.32	578.32	0.00	0.00	0.00
6,800.00	33.51	126.50	6,537.74	-537.65	726.70	615.93	0.00	0.00	0.00
6,900.00	33.51	126.50	6,621.12	-570.48	771.08	653.55	0.00	0.00	0.00
7,000.00	33.51	126.50	6,704.50	-603.32	815.46	691.17	0.00	0.00	0.00
7,100.00	33.51	126.50	6,787.88	-636.15	859.85	728.79	0.00	0.00	0.00
7,200.00	33.51	126.50	6,871.26	-668.99	904.23	766.40	0.00	0.00	0.00
7,300.00	33.51	126.50	6,954.64	-701.82	948.61	804.02	0.00	0.00	0.00
7,400.00	33.51	126.50	7,038.02	-734.66	992.99	841.64	0.00	0.00	0.00
7,500.00	33.51	126.50	7,121.40	-767.50	1,037.37	879.25	0.00	0.00	0.00
7,550.56	33.51	126.50	7,163.55	-784.10	1,059.81	898.27	0.00	0.00	0.00
Begin 10°/100' build/turn									
7,600.00	36.30	133.63	7,204.11	-802.32	1,081.39	918.81	10.00	5.65	14.43
7,700.00	43.00	145.32	7,281.17	-850.92	1,122.32	971.69	10.00	6.70	11.69
7,800.00	50.61	154.25	7,349.64	-913.92	1,158.61	1,038.38	10.00	7.61	8.93
7,900.00	58.76	161.36	7,407.45	-989.43	1,189.15	1,116.84	10.00	8.15	7.11
8,000.00	67.25	167.31	7,452.83	-1,075.13	1,213.00	1,204.69	10.00	8.48	5.95
8,100.00	75.92	172.56	7,484.41	-1,168.44	1,229.46	1,299.25	10.00	8.68	5.25
8,200.00	84.70	177.42	7,501.23	-1,266.52	1,238.01	1,397.67	10.00	8.78	4.86
8,260.06	90.00	180.25	7,504.00	-1,326.47	1,239.22	1,457.38	10.00	8.82	4.72
LP Begin 90.00° lateral section									
8,300.00	90.00	180.25	7,504.00	-1,366.41	1,239.05	1,497.05	0.00	0.00	0.00
8,400.00	90.00	180.25	7,504.00	-1,466.41	1,238.61	1,596.36	0.00	0.00	0.00
8,500.00	90.00	180.25	7,504.00	-1,566.41	1,238.16	1,695.68	0.00	0.00	0.00
8,600.00	90.00	180.25	7,504.00	-1,666.41	1,237.72	1,794.99	0.00	0.00	0.00
8,700.00	90.00	180.25	7,504.00	-1,766.41	1,237.28	1,894.31	0.00	0.00	0.00
8,800.00	90.00	180.25	7,504.00	-1,866.41	1,236.84	1,993.62	0.00	0.00	0.00
8,900.00	90.00	180.25	7,504.00	-1,966.41	1,236.40	2,092.94	0.00	0.00	0.00
9,000.00	90.00	180.25	7,504.00	-2,066.41	1,235.96	2,192.25	0.00	0.00	0.00
9,100.00	90.00	180.25	7,504.00	-2,166.41	1,235.52	2,291.57	0.00	0.00	0.00
9,200.00	90.00	180.25	7,504.00	-2,266.41	1,235.08	2,390.89	0.00	0.00	0.00
9,300.00	90.00	180.25	7,504.00	-2,366.40	1,234.63	2,490.20	0.00	0.00	0.00
9,400.00	90.00	180.25	7,504.00	-2,466.40	1,234.19	2,589.52	0.00	0.00	0.00
9,500.00	90.00	180.25	7,504.00	-2,566.40	1,233.75	2,688.83	0.00	0.00	0.00
9,600.00	90.00	180.25	7,504.00	-2,666.40	1,233.31	2,788.15	0.00	0.00	0.00
9,700.00	90.00	180.25	7,504.00	-2,766.40	1,232.87	2,887.46	0.00	0.00	0.00
9,800.00	90.00	180.25	7,504.00	-2,866.40	1,232.43	2,986.78	0.00	0.00	0.00
9,900.00	90.00	180.25	7,504.00	-2,966.40	1,231.99	3,086.09	0.00	0.00	0.00

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-10-4L
Company:	Confluence Resources	TVD Reference:	RKB=5039+23 @ 5062.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5039+23 @ 5062.00ft
Site:	Section 31-T01N-R65W	North Reference:	Grid
Well:	Walla 5-10-4L	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	180.25	7,504.00	-3,066.40	1,231.55	3,185.41	0.00	0.00	0.00
10,100.00	90.00	180.25	7,504.00	-3,166.40	1,231.10	3,284.73	0.00	0.00	0.00
10,200.00	90.00	180.25	7,504.00	-3,266.40	1,230.66	3,384.04	0.00	0.00	0.00
10,300.00	90.00	180.25	7,504.00	-3,366.40	1,230.22	3,483.36	0.00	0.00	0.00
10,400.00	90.00	180.25	7,504.00	-3,466.39	1,229.78	3,582.67	0.00	0.00	0.00
10,500.00	90.00	180.25	7,504.00	-3,566.39	1,229.34	3,681.99	0.00	0.00	0.00
10,600.00	90.00	180.25	7,504.00	-3,666.39	1,228.90	3,781.30	0.00	0.00	0.00
10,700.00	90.00	180.25	7,504.00	-3,766.39	1,228.46	3,880.62	0.00	0.00	0.00
10,800.00	90.00	180.25	7,504.00	-3,866.39	1,228.02	3,979.93	0.00	0.00	0.00
10,900.00	90.00	180.25	7,504.00	-3,966.39	1,227.57	4,079.25	0.00	0.00	0.00
11,000.00	90.00	180.25	7,504.00	-4,066.39	1,227.13	4,178.57	0.00	0.00	0.00
11,100.00	90.00	180.25	7,504.00	-4,166.39	1,226.69	4,277.88	0.00	0.00	0.00
11,200.00	90.00	180.25	7,504.00	-4,266.39	1,226.25	4,377.20	0.00	0.00	0.00
11,300.00	90.00	180.25	7,504.00	-4,366.39	1,225.81	4,476.51	0.00	0.00	0.00
11,400.00	90.00	180.25	7,504.00	-4,466.38	1,225.37	4,575.83	0.00	0.00	0.00
11,500.00	90.00	180.25	7,504.00	-4,566.38	1,224.93	4,675.14	0.00	0.00	0.00
11,600.00	90.00	180.25	7,504.00	-4,666.38	1,224.49	4,774.46	0.00	0.00	0.00
11,700.00	90.00	180.25	7,504.00	-4,766.38	1,224.05	4,873.77	0.00	0.00	0.00
11,800.00	90.00	180.25	7,504.00	-4,866.38	1,223.60	4,973.09	0.00	0.00	0.00
11,900.00	90.00	180.25	7,504.00	-4,966.38	1,223.16	5,072.40	0.00	0.00	0.00
12,000.00	90.00	180.25	7,504.00	-5,066.38	1,222.72	5,171.72	0.00	0.00	0.00
12,100.00	90.00	180.25	7,504.00	-5,166.38	1,222.28	5,271.04	0.00	0.00	0.00
12,200.00	90.00	180.25	7,504.00	-5,266.38	1,221.84	5,370.35	0.00	0.00	0.00
12,300.00	90.00	180.25	7,504.00	-5,366.38	1,221.40	5,469.67	0.00	0.00	0.00
12,400.00	90.00	180.25	7,504.00	-5,466.37	1,220.96	5,568.98	0.00	0.00	0.00
12,500.00	90.00	180.25	7,504.00	-5,566.37	1,220.52	5,668.30	0.00	0.00	0.00
12,600.00	90.00	180.25	7,504.00	-5,666.37	1,220.07	5,767.61	0.00	0.00	0.00
12,700.00	90.00	180.25	7,504.00	-5,766.37	1,219.63	5,866.93	0.00	0.00	0.00
12,800.00	90.00	180.25	7,504.00	-5,866.37	1,219.19	5,966.24	0.00	0.00	0.00
12,900.00	90.00	180.25	7,504.00	-5,966.37	1,218.75	6,065.56	0.00	0.00	0.00
13,000.00	90.00	180.25	7,504.00	-6,066.37	1,218.31	6,164.88	0.00	0.00	0.00
13,100.00	90.00	180.25	7,504.00	-6,166.37	1,217.87	6,264.19	0.00	0.00	0.00
13,200.00	90.00	180.25	7,504.00	-6,266.37	1,217.43	6,363.51	0.00	0.00	0.00
13,300.00	90.00	180.25	7,504.00	-6,366.37	1,216.99	6,462.82	0.00	0.00	0.00
13,400.00	90.00	180.25	7,504.00	-6,466.37	1,216.54	6,562.14	0.00	0.00	0.00
13,500.00	90.00	180.25	7,504.00	-6,566.36	1,216.10	6,661.45	0.00	0.00	0.00
13,600.00	90.00	180.25	7,504.00	-6,666.36	1,215.66	6,760.77	0.00	0.00	0.00
13,700.00	90.00	180.25	7,504.00	-6,766.36	1,215.22	6,860.08	0.00	0.00	0.00
13,800.00	90.00	180.25	7,504.00	-6,866.36	1,214.78	6,959.40	0.00	0.00	0.00
13,900.00	90.00	180.25	7,504.00	-6,966.36	1,214.34	7,058.72	0.00	0.00	0.00
14,000.00	90.00	180.25	7,504.00	-7,066.36	1,213.90	7,158.03	0.00	0.00	0.00
14,100.00	90.00	180.25	7,504.00	-7,166.36	1,213.46	7,257.35	0.00	0.00	0.00
14,200.00	90.00	180.25	7,504.00	-7,266.36	1,213.02	7,356.66	0.00	0.00	0.00
14,300.00	90.00	180.25	7,504.00	-7,366.36	1,212.57	7,455.98	0.00	0.00	0.00
14,400.00	90.00	180.25	7,504.00	-7,466.36	1,212.13	7,555.29	0.00	0.00	0.00
14,500.00	90.00	180.25	7,504.00	-7,566.35	1,211.69	7,654.61	0.00	0.00	0.00
14,600.00	90.00	180.25	7,504.00	-7,666.35	1,211.25	7,753.92	0.00	0.00	0.00
14,700.00	90.00	180.25	7,504.00	-7,766.35	1,210.81	7,853.24	0.00	0.00	0.00
14,800.00	90.00	180.25	7,504.00	-7,866.35	1,210.37	7,952.55	0.00	0.00	0.00
14,900.00	90.00	180.25	7,504.00	-7,966.35	1,209.93	8,051.87	0.00	0.00	0.00
15,000.00	90.00	180.25	7,504.00	-8,066.35	1,209.49	8,151.19	0.00	0.00	0.00
15,100.00	90.00	180.25	7,504.00	-8,166.35	1,209.04	8,250.50	0.00	0.00	0.00
15,200.00	90.00	180.25	7,504.00	-8,266.35	1,208.60	8,349.82	0.00	0.00	0.00
15,300.00	90.00	180.25	7,504.00	-8,366.35	1,208.16	8,449.13	0.00	0.00	0.00

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-10-4L
Company:	Confluence Resources	TVD Reference:	RKB=5039+23 @ 5062.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5039+23 @ 5062.00ft
Site:	Section 31-T01N-R65W	North Reference:	Grid
Well:	Walla 5-10-4L	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	180.25	7,504.00	-8,466.35	1,207.72	8,548.45	0.00	0.00	0.00	
15,500.00	90.00	180.25	7,504.00	-8,566.34	1,207.28	8,647.76	0.00	0.00	0.00	
15,600.00	90.00	180.25	7,504.00	-8,666.34	1,206.84	8,747.08	0.00	0.00	0.00	
15,700.00	90.00	180.25	7,504.00	-8,766.34	1,206.40	8,846.39	0.00	0.00	0.00	
15,800.00	90.00	180.25	7,504.00	-8,866.34	1,205.96	8,945.71	0.00	0.00	0.00	
15,900.00	90.00	180.25	7,504.00	-8,966.34	1,205.51	9,045.03	0.00	0.00	0.00	
16,000.00	90.00	180.25	7,504.00	-9,066.34	1,205.07	9,144.34	0.00	0.00	0.00	
16,100.00	90.00	180.25	7,504.00	-9,166.34	1,204.63	9,243.66	0.00	0.00	0.00	
16,200.00	90.00	180.25	7,504.00	-9,266.34	1,204.19	9,342.97	0.00	0.00	0.00	
16,300.00	90.00	180.25	7,504.00	-9,366.34	1,203.75	9,442.29	0.00	0.00	0.00	
16,400.00	90.00	180.25	7,504.00	-9,466.34	1,203.31	9,541.60	0.00	0.00	0.00	
16,500.00	90.00	180.25	7,504.00	-9,566.34	1,202.87	9,640.92	0.00	0.00	0.00	
16,600.00	90.00	180.25	7,504.00	-9,666.33	1,202.43	9,740.23	0.00	0.00	0.00	
16,700.00	90.00	180.25	7,504.00	-9,766.33	1,201.99	9,839.55	0.00	0.00	0.00	
16,800.00	90.00	180.25	7,504.00	-9,866.33	1,201.54	9,938.86	0.00	0.00	0.00	
16,900.00	90.00	180.25	7,504.00	-9,966.33	1,201.10	10,038.18	0.00	0.00	0.00	
17,000.00	90.00	180.25	7,504.00	-10,066.33	1,200.66	10,137.50	0.00	0.00	0.00	
17,100.00	90.00	180.25	7,504.00	-10,166.33	1,200.22	10,236.81	0.00	0.00	0.00	
17,200.00	90.00	180.25	7,504.00	-10,266.33	1,199.78	10,336.13	0.00	0.00	0.00	
17,300.00	90.00	180.25	7,504.00	-10,366.33	1,199.34	10,435.44	0.00	0.00	0.00	
17,400.00	90.00	180.25	7,504.00	-10,466.33	1,198.90	10,534.76	0.00	0.00	0.00	
17,500.00	90.00	180.25	7,504.00	-10,566.33	1,198.46	10,634.07	0.00	0.00	0.00	
17,525.60	90.00	180.25	7,504.00	-10,591.92	1,198.34	10,659.49	0.00	0.00	0.00	
PBHL/TD 17525.60 MD/7504.00 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									
BHL Walla 5-10-4L 470 I	0.00	0.00	7,504.00	-10,591.92	1,198.34	14,517,336.39	1,725,679.30	39.97379422 -104.69566255	
- plan hits target center									
- Point									
LP Walla 5-10-4L 470 Ft	0.00	0.00	7,504.00	-1,326.47	1,239.22	14,526,601.82	1,725,720.18	39.99923820 -104.69540365	
- plan hits target center									
- Point									

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
5,000.00	5,000.00	0.00	0.00	KOP Begin 10°/100' build	
5,335.10	5,316.32	-56.64	76.56	Begin 33.51° tangent section	
7,550.56	7,163.55	-784.10	1,059.81	Begin 10°/100' build/turn	
8,260.06	7,504.00	-1,326.47	1,239.22	LP Begin 90.00° lateral section	
17,525.60	7,504.00	-10,591.92	1,198.34	PBHL/TD 17525.60 MD/7504.00 TVD	

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-10-4L
Company:	Confluence Resources	TVD Reference:	RKB=5039+23 @ 5062.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5039+23 @ 5062.00ft
Site:	Section 31-T01N-R65W	North Reference:	Grid
Well:	Walla 5-10-4L	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 31-T01N-R65W			
Site Position:		Northing:	14,527,926.57 usft	Latitude:	40.00289000
From:	Lat/Long	Easting:	1,724,232.45 usft	Longitude:	-104.70070000
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.19 °

Well	Walla 5-10-4L, Surf Loc: 861 FSL 705 FWL Sec31-T01N-R65W					
Well Position	+N/-S	0.00 ft	Northing:	14,527,928.29 usft	Latitude:	40.00289244
	+E/-W	0.00 ft	Easting:	1,724,480.96 usft	Longitude:	-104.69981257
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,039.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	7/16/2017	8.27	66.43	52,136.60000000

Design	plan1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	173.55

Plan Survey Tool Program	Date	7/16/2017		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	17,525.60 plan1 (Original Hole)		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,335.10	33.51	126.50	5,316.32	-56.64	76.56	10.00	10.00	0.00	126.50	
7,550.56	33.51	126.50	7,163.55	-784.10	1,059.81	0.00	0.00	0.00	0.00	
8,260.06	90.00	180.25	7,504.00	-1,326.47	1,239.22	10.00	7.96	7.58	58.57	LP Walla 5-10-4L 470
17,525.60	90.00	180.25	7,504.00	-10,591.92	1,198.34	0.00	0.00	0.00	0.00	BHL Walla 5-10-4L 47

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-10-4L
Company:	Confluence Resources	TVD Reference:	RKB=5039+23 @ 5062.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5039+23 @ 5062.00ft
Site:	Section 31-T01N-R65W	North Reference:	Grid
Well:	Walla 5-10-4L	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	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
100.00	0.00	0.00	100.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
200.00	0.00	0.00	200.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
300.00	0.00	0.00	300.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
400.00	0.00	0.00	400.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
500.00	0.00	0.00	500.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
600.00	0.00	0.00	600.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
700.00	0.00	0.00	700.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
800.00	0.00	0.00	800.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
900.00	0.00	0.00	900.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
2,100.00	0.00	0.00	2,100.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
2,200.00	0.00	0.00	2,200.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
2,300.00	0.00	0.00	2,300.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
2,400.00	0.00	0.00	2,400.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
2,500.00	0.00	0.00	2,500.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
2,600.00	0.00	0.00	2,600.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
2,700.00	0.00	0.00	2,700.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
2,800.00	0.00	0.00	2,800.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
2,900.00	0.00	0.00	2,900.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
3,000.00	0.00	0.00	3,000.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
3,100.00	0.00	0.00	3,100.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
3,200.00	0.00	0.00	3,200.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
3,300.00	0.00	0.00	3,300.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
3,400.00	0.00	0.00	3,400.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
3,500.00	0.00	0.00	3,500.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
3,600.00	0.00	0.00	3,600.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
3,700.00	0.00	0.00	3,700.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
3,800.00	0.00	0.00	3,800.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
3,900.00	0.00	0.00	3,900.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
4,000.00	0.00	0.00	4,000.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
4,100.00	0.00	0.00	4,100.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
4,200.00	0.00	0.00	4,200.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
4,300.00	0.00	0.00	4,300.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
4,400.00	0.00	0.00	4,400.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
4,500.00	0.00	0.00	4,500.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
4,600.00	0.00	0.00	4,600.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
4,700.00	0.00	0.00	4,700.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
4,800.00	0.00	0.00	4,800.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
4,900.00	0.00	0.00	4,900.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
5,000.00	0.00	0.00	5,000.00	0.00	0.00	14,527,928.29	1,724,480.96	40.00289244	-104.69981257
KOP Begin 10°/100' build									
5,100.00	10.00	126.50	5,099.49	-5.18	7.00	14,527,923.12	1,724,487.96	40.00287816	-104.69978765
5,200.00	20.00	126.50	5,195.96	-20.55	27.78	14,527,907.74	1,724,508.74	40.00283575	-104.69971363

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-10-4L
Company:	Confluence Resources	TVD Reference:	RKB=5039+23 @ 5062.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5039+23 @ 5062.00ft
Site:	Section 31-T01N-R65W	North Reference:	Grid
Well:	Walla 5-10-4L	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
5,300.00	30.00	126.50	5,286.48	-45.66	61.71	14,527,882.64	1,724,542.67	40.00276649	-104.69959277
5,335.10	33.51	126.50	5,316.32	-56.64	76.56	14,527,871.66	1,724,557.51	40.00273619	-104.69953988
Begin 33.51° tangent section									
5,400.00	33.51	126.50	5,370.43	-77.95	105.36	14,527,850.34	1,724,586.32	40.00267740	-104.69943728
5,500.00	33.51	126.50	5,453.81	-110.79	149.74	14,527,817.51	1,724,630.70	40.00258682	-104.69927920
5,600.00	33.51	126.50	5,537.19	-143.62	194.12	14,527,784.67	1,724,675.08	40.00249624	-104.69912111
5,700.00	33.51	126.50	5,620.57	-176.46	238.50	14,527,751.84	1,724,719.46	40.00240565	-104.69896303
5,800.00	33.51	126.50	5,703.95	-209.29	282.89	14,527,719.00	1,724,763.84	40.00231507	-104.69880494
5,900.00	33.51	126.50	5,787.33	-242.13	327.27	14,527,686.17	1,724,808.23	40.00222449	-104.69864686
6,000.00	33.51	126.50	5,870.71	-274.96	371.65	14,527,653.33	1,724,852.61	40.00213390	-104.69848878
6,100.00	33.51	126.50	5,954.09	-307.80	416.03	14,527,620.50	1,724,896.99	40.00204332	-104.69833070
6,200.00	33.51	126.50	6,037.47	-340.63	460.41	14,527,587.66	1,724,941.37	40.00195274	-104.69817262
6,300.00	33.51	126.50	6,120.85	-373.47	504.79	14,527,554.83	1,724,985.75	40.00186215	-104.69801453
6,400.00	33.51	126.50	6,204.23	-406.31	549.18	14,527,521.99	1,725,030.13	40.00177157	-104.69785645
6,500.00	33.51	126.50	6,287.61	-439.14	593.56	14,527,489.15	1,725,074.51	40.00168098	-104.69769837
6,600.00	33.51	126.50	6,370.99	-471.98	637.94	14,527,456.32	1,725,118.90	40.00159040	-104.69754029
6,700.00	33.51	126.50	6,454.36	-504.81	682.32	14,527,423.48	1,725,163.28	40.00149981	-104.69738221
6,800.00	33.51	126.50	6,537.74	-537.65	726.70	14,527,390.65	1,725,207.66	40.00140923	-104.69722413
6,900.00	33.51	126.50	6,621.12	-570.48	771.08	14,527,357.81	1,725,252.04	40.00131864	-104.69706606
7,000.00	33.51	126.50	6,704.50	-603.32	815.46	14,527,324.98	1,725,296.42	40.00122806	-104.69690798
7,100.00	33.51	126.50	6,787.88	-636.15	859.85	14,527,292.14	1,725,340.80	40.00113747	-104.69674990
7,200.00	33.51	126.50	6,871.26	-668.99	904.23	14,527,259.31	1,725,385.18	40.00104689	-104.69659182
7,300.00	33.51	126.50	6,954.64	-701.82	948.61	14,527,226.47	1,725,429.57	40.00095630	-104.69643375
7,400.00	33.51	126.50	7,038.02	-734.66	992.99	14,527,193.64	1,725,473.95	40.00086571	-104.69627567
7,500.00	33.51	126.50	7,121.40	-767.50	1,037.37	14,527,160.80	1,725,518.33	40.00077513	-104.69611759
7,550.56	33.51	126.50	7,163.55	-784.10	1,059.81	14,527,144.20	1,725,540.77	40.00072933	-104.69603767
Begin 10°/100' build/turn									
7,600.00	36.30	133.63	7,204.11	-802.32	1,081.39	14,527,125.97	1,725,562.35	40.00067907	-104.69596084
7,700.00	43.00	145.32	7,281.17	-850.92	1,122.32	14,527,077.38	1,725,603.28	40.00054525	-104.69581526
7,800.00	50.61	154.25	7,349.64	-913.92	1,158.61	14,527,014.37	1,725,639.57	40.00037188	-104.69568646
7,900.00	58.76	161.36	7,407.45	-989.43	1,189.15	14,526,938.87	1,725,670.10	40.00016425	-104.69557834
8,000.00	67.25	167.31	7,452.83	-1,075.13	1,213.00	14,526,853.16	1,725,693.96	39.99992866	-104.69549420
8,100.00	75.92	172.56	7,484.41	-1,168.44	1,229.46	14,526,759.85	1,725,710.41	39.99967226	-104.69543659
8,200.00	84.70	177.42	7,501.23	-1,266.52	1,238.01	14,526,661.78	1,725,718.96	39.99940286	-104.69540727
8,260.06	90.00	180.25	7,504.00	-1,326.47	1,239.22	14,526,601.82	1,725,720.18	39.99923820	-104.69540365
LP Begin 90.00° lateral section									
8,300.00	90.00	180.25	7,504.00	-1,366.41	1,239.05	14,526,561.88	1,725,720.00	39.99912852	-104.69540477
8,400.00	90.00	180.25	7,504.00	-1,466.41	1,238.61	14,526,461.88	1,725,719.56	39.99885391	-104.69540756
8,500.00	90.00	180.25	7,504.00	-1,566.41	1,238.16	14,526,361.89	1,725,719.12	39.99857930	-104.69541036
8,600.00	90.00	180.25	7,504.00	-1,666.41	1,237.72	14,526,261.89	1,725,718.68	39.99830469	-104.69541315
8,700.00	90.00	180.25	7,504.00	-1,766.41	1,237.28	14,526,161.89	1,725,718.24	39.99803008	-104.69541595
8,800.00	90.00	180.25	7,504.00	-1,866.41	1,236.84	14,526,061.89	1,725,717.80	39.99775548	-104.69541875
8,900.00	90.00	180.25	7,504.00	-1,966.41	1,236.40	14,525,961.89	1,725,717.36	39.99748087	-104.69542154
9,000.00	90.00	180.25	7,504.00	-2,066.41	1,235.96	14,525,861.89	1,725,716.91	39.99720626	-104.69542434
9,100.00	90.00	180.25	7,504.00	-2,166.41	1,235.52	14,525,761.89	1,725,716.47	39.99693165	-104.69542713
9,200.00	90.00	180.25	7,504.00	-2,266.41	1,235.08	14,525,661.89	1,725,716.03	39.99665704	-104.69542993
9,300.00	90.00	180.25	7,504.00	-2,366.40	1,234.63	14,525,561.89	1,725,715.59	39.99638244	-104.69543272
9,400.00	90.00	180.25	7,504.00	-2,466.40	1,234.19	14,525,461.90	1,725,715.15	39.99610783	-104.69543552
9,500.00	90.00	180.25	7,504.00	-2,566.40	1,233.75	14,525,361.90	1,725,714.71	39.99583322	-104.69543831
9,600.00	90.00	180.25	7,504.00	-2,666.40	1,233.31	14,525,261.90	1,725,714.27	39.99555861	-104.69544111
9,700.00	90.00	180.25	7,504.00	-2,766.40	1,232.87	14,525,161.90	1,725,713.83	39.99528400	-104.69544390
9,800.00	90.00	180.25	7,504.00	-2,866.40	1,232.43	14,525,061.90	1,725,713.38	39.99500939	-104.69544670
9,900.00	90.00	180.25	7,504.00	-2,966.40	1,231.99	14,524,961.90	1,725,712.94	39.99473479	-104.69544949
10,000.00	90.00	180.25	7,504.00	-3,066.40	1,231.55	14,524,861.90	1,725,712.50	39.99446018	-104.69545229

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-10-4L
Company:	Confluence Resources	TVD Reference:	RKB=5039+23 @ 5062.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5039+23 @ 5062.00ft
Site:	Section 31-T01N-R65W	North Reference:	Grid
Well:	Walla 5-10-4L	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	180.25	7,504.00	-3,166.40	1,231.10	14,524,761.90	1,725,712.06	39.99418557	-104.69545508
10,200.00	90.00	180.25	7,504.00	-3,266.40	1,230.66	14,524,661.91	1,725,711.62	39.99391096	-104.69545788
10,300.00	90.00	180.25	7,504.00	-3,366.40	1,230.22	14,524,561.91	1,725,711.18	39.99363635	-104.69546067
10,400.00	90.00	180.25	7,504.00	-3,466.39	1,229.78	14,524,461.91	1,725,710.74	39.99336174	-104.69546347
10,500.00	90.00	180.25	7,504.00	-3,566.39	1,229.34	14,524,361.91	1,725,710.30	39.99308714	-104.69546626
10,600.00	90.00	180.25	7,504.00	-3,666.39	1,228.90	14,524,261.91	1,725,709.85	39.99281253	-104.69546906
10,700.00	90.00	180.25	7,504.00	-3,766.39	1,228.46	14,524,161.91	1,725,709.41	39.99253792	-104.69547185
10,800.00	90.00	180.25	7,504.00	-3,866.39	1,228.02	14,524,061.91	1,725,708.97	39.99226331	-104.69547465
10,900.00	90.00	180.25	7,504.00	-3,966.39	1,227.57	14,523,961.91	1,725,708.53	39.99198870	-104.69547744
11,000.00	90.00	180.25	7,504.00	-4,066.39	1,227.13	14,523,861.91	1,725,708.09	39.99171409	-104.69548024
11,100.00	90.00	180.25	7,504.00	-4,166.39	1,226.69	14,523,761.92	1,725,707.65	39.99143948	-104.69548303
11,200.00	90.00	180.25	7,504.00	-4,266.39	1,226.25	14,523,661.92	1,725,707.21	39.99116488	-104.69548583
11,300.00	90.00	180.25	7,504.00	-4,366.39	1,225.81	14,523,561.92	1,725,706.77	39.99089027	-104.69548862
11,400.00	90.00	180.25	7,504.00	-4,466.38	1,225.37	14,523,461.92	1,725,706.32	39.99061566	-104.69549142
11,500.00	90.00	180.25	7,504.00	-4,566.38	1,224.93	14,523,361.92	1,725,705.88	39.99034105	-104.69549421
11,600.00	90.00	180.25	7,504.00	-4,666.38	1,224.49	14,523,261.92	1,725,705.44	39.99006644	-104.69549701
11,700.00	90.00	180.25	7,504.00	-4,766.38	1,224.05	14,523,161.92	1,725,705.00	39.98979183	-104.69549980
11,800.00	90.00	180.25	7,504.00	-4,866.38	1,223.60	14,523,061.92	1,725,704.56	39.98951722	-104.69550259
11,900.00	90.00	180.25	7,504.00	-4,966.38	1,223.16	14,522,961.92	1,725,704.12	39.98924262	-104.69550539
12,000.00	90.00	180.25	7,504.00	-5,066.38	1,222.72	14,522,861.93	1,725,703.68	39.98896801	-104.69550818
12,100.00	90.00	180.25	7,504.00	-5,166.38	1,222.28	14,522,761.93	1,725,703.24	39.98869340	-104.69551098
12,200.00	90.00	180.25	7,504.00	-5,266.38	1,221.84	14,522,661.93	1,725,702.80	39.98841879	-104.69551377
12,300.00	90.00	180.25	7,504.00	-5,366.38	1,221.40	14,522,561.93	1,725,702.35	39.98814418	-104.69551657
12,400.00	90.00	180.25	7,504.00	-5,466.37	1,220.96	14,522,461.93	1,725,701.91	39.98786957	-104.69551936
12,500.00	90.00	180.25	7,504.00	-5,566.37	1,220.52	14,522,361.93	1,725,701.47	39.98759496	-104.69552216
12,600.00	90.00	180.25	7,504.00	-5,666.37	1,220.07	14,522,261.93	1,725,701.03	39.98732036	-104.69552495
12,700.00	90.00	180.25	7,504.00	-5,766.37	1,219.63	14,522,161.93	1,725,700.59	39.98704575	-104.69552774
12,800.00	90.00	180.25	7,504.00	-5,866.37	1,219.19	14,522,061.94	1,725,700.15	39.98677114	-104.69553054
12,900.00	90.00	180.25	7,504.00	-5,966.37	1,218.75	14,521,961.94	1,725,699.71	39.98649653	-104.69553333
13,000.00	90.00	180.25	7,504.00	-6,066.37	1,218.31	14,521,861.94	1,725,699.27	39.98622192	-104.69553613
13,100.00	90.00	180.25	7,504.00	-6,166.37	1,217.87	14,521,761.94	1,725,698.82	39.98594731	-104.69553892
13,200.00	90.00	180.25	7,504.00	-6,266.37	1,217.43	14,521,661.94	1,725,698.38	39.98567270	-104.69554171
13,300.00	90.00	180.25	7,504.00	-6,366.37	1,216.99	14,521,561.94	1,725,697.94	39.98539809	-104.69554451
13,400.00	90.00	180.25	7,504.00	-6,466.37	1,216.54	14,521,461.94	1,725,697.50	39.98512349	-104.69554730
13,500.00	90.00	180.25	7,504.00	-6,566.36	1,216.10	14,521,361.94	1,725,697.06	39.98484888	-104.69555010
13,600.00	90.00	180.25	7,504.00	-6,666.36	1,215.66	14,521,261.94	1,725,696.62	39.98457427	-104.69555289
13,700.00	90.00	180.25	7,504.00	-6,766.36	1,215.22	14,521,161.95	1,725,696.18	39.98429966	-104.69555569
13,800.00	90.00	180.25	7,504.00	-6,866.36	1,214.78	14,521,061.95	1,725,695.74	39.98402505	-104.69555848
13,900.00	90.00	180.25	7,504.00	-6,966.36	1,214.34	14,520,961.95	1,725,695.29	39.98375044	-104.69556127
14,000.00	90.00	180.25	7,504.00	-7,066.36	1,213.90	14,520,861.95	1,725,694.85	39.98347583	-104.69556407
14,100.00	90.00	180.25	7,504.00	-7,166.36	1,213.46	14,520,761.95	1,725,694.41	39.98320122	-104.69556686
14,200.00	90.00	180.25	7,504.00	-7,266.36	1,213.02	14,520,661.95	1,725,693.97	39.98292661	-104.69556965
14,300.00	90.00	180.25	7,504.00	-7,366.36	1,212.57	14,520,561.95	1,725,693.53	39.98265201	-104.69557245
14,400.00	90.00	180.25	7,504.00	-7,466.36	1,212.13	14,520,461.95	1,725,693.09	39.98237740	-104.69557524
14,500.00	90.00	180.25	7,504.00	-7,566.35	1,211.69	14,520,361.96	1,725,692.65	39.98210279	-104.69557804
14,600.00	90.00	180.25	7,504.00	-7,666.35	1,211.25	14,520,261.96	1,725,692.21	39.98182818	-104.69558083
14,700.00	90.00	180.25	7,504.00	-7,766.35	1,210.81	14,520,161.96	1,725,691.77	39.98155357	-104.69558362
14,800.00	90.00	180.25	7,504.00	-7,866.35	1,210.37	14,520,061.96	1,725,691.32	39.98127896	-104.69558642
14,900.00	90.00	180.25	7,504.00	-7,966.35	1,209.93	14,519,961.96	1,725,690.88	39.98100435	-104.69558921
15,000.00	90.00	180.25	7,504.00	-8,066.35	1,209.49	14,519,861.96	1,725,690.44	39.98072974	-104.69559200
15,100.00	90.00	180.25	7,504.00	-8,166.35	1,209.04	14,519,761.96	1,725,690.00	39.98045513	-104.69559480
15,200.00	90.00	180.25	7,504.00	-8,266.35	1,208.60	14,519,661.96	1,725,689.56	39.98018052	-104.69559759
15,300.00	90.00	180.25	7,504.00	-8,366.35	1,208.16	14,519,561.96	1,725,689.12	39.97990592	-104.69560038
15,400.00	90.00	180.25	7,504.00	-8,466.35	1,207.72	14,519,461.97	1,725,688.68	39.97963131	-104.69560318
15,500.00	90.00	180.25	7,504.00	-8,566.34	1,207.28	14,519,361.97	1,725,688.24	39.97935670	-104.69560597

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-10-4L
Company:	Confluence Resources	TVD Reference:	RKB=5039+23 @ 5062.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5039+23 @ 5062.00ft
Site:	Section 31-T01N-R65W	North Reference:	Grid
Well:	Walla 5-10-4L	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	180.25	7,504.00	-8,666.34	1,206.84	14,519,261.97	1,725,687.79	39.97908209	-104.69560877
15,700.00	90.00	180.25	7,504.00	-8,766.34	1,206.40	14,519,161.97	1,725,687.35	39.97880748	-104.69561156
15,800.00	90.00	180.25	7,504.00	-8,866.34	1,205.96	14,519,061.97	1,725,686.91	39.97853287	-104.69561435
15,900.00	90.00	180.25	7,504.00	-8,966.34	1,205.51	14,518,961.97	1,725,686.47	39.97825826	-104.69561715
16,000.00	90.00	180.25	7,504.00	-9,066.34	1,205.07	14,518,861.97	1,725,686.03	39.97798365	-104.69561994
16,100.00	90.00	180.25	7,504.00	-9,166.34	1,204.63	14,518,761.97	1,725,685.59	39.97770904	-104.69562273
16,200.00	90.00	180.25	7,504.00	-9,266.34	1,204.19	14,518,661.98	1,725,685.15	39.97743443	-104.69562552
16,300.00	90.00	180.25	7,504.00	-9,366.34	1,203.75	14,518,561.98	1,725,684.71	39.97715982	-104.69562832
16,400.00	90.00	180.25	7,504.00	-9,466.34	1,203.31	14,518,461.98	1,725,684.26	39.97688522	-104.69563111
16,500.00	90.00	180.25	7,504.00	-9,566.34	1,202.87	14,518,361.98	1,725,683.82	39.97661061	-104.69563390
16,600.00	90.00	180.25	7,504.00	-9,666.33	1,202.43	14,518,261.98	1,725,683.38	39.97633600	-104.69563670
16,700.00	90.00	180.25	7,504.00	-9,766.33	1,201.99	14,518,161.98	1,725,682.94	39.97606139	-104.69563949
16,800.00	90.00	180.25	7,504.00	-9,866.33	1,201.54	14,518,061.98	1,725,682.50	39.97578678	-104.69564228
16,900.00	90.00	180.25	7,504.00	-9,966.33	1,201.10	14,517,961.98	1,725,682.06	39.97551217	-104.69564508
17,000.00	90.00	180.25	7,504.00	-10,066.33	1,200.66	14,517,861.98	1,725,681.62	39.97523756	-104.69564787
17,100.00	90.00	180.25	7,504.00	-10,166.33	1,200.22	14,517,761.99	1,725,681.18	39.97496295	-104.69565066
17,200.00	90.00	180.25	7,504.00	-10,266.33	1,199.78	14,517,661.99	1,725,680.74	39.97468834	-104.69565346
17,300.00	90.00	180.25	7,504.00	-10,366.33	1,199.34	14,517,561.99	1,725,680.29	39.97441373	-104.69565625
17,400.00	90.00	180.25	7,504.00	-10,466.33	1,198.90	14,517,461.99	1,725,679.85	39.97413912	-104.69565904
17,500.00	90.00	180.25	7,504.00	-10,566.33	1,198.46	14,517,361.99	1,725,679.41	39.97386451	-104.69566183
17,525.60	90.00	180.25	7,504.00	-10,591.92	1,198.34	14,517,336.39	1,725,679.30	39.97379422	-104.69566255
PBHL/TD 17525.60 MD/7504.00 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									
BHL Walla 5-10-4L 470 I	0.00	0.00	7,504.00	-10,591.92	1,198.34	14,517,336.39	1,725,679.30	39.97379422	-104.69566255
- plan hits target center									
- Point									
LP Walla 5-10-4L 470 Ft	0.00	0.00	7,504.00	-1,326.47	1,239.22	14,526,601.82	1,725,720.18	39.99923820	-104.69540365
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
5,000.00	5,000.00	0.00	0.00	KOP Begin 10°/100' build
5,335.10	5,316.32	-56.64	76.56	Begin 33.51° tangent section
7,550.56	7,163.55	-784.10	1,059.81	Begin 10°/100' build/turn
8,260.06	7,504.00	-1,326.47	1,239.22	LP Begin 90.00° lateral section
17,525.60	7,504.00	-10,591.92	1,198.34	PBHL/TD 17525.60 MD/7504.00 TVD