



Weld County, Colorado  
Section 10 & 15 T04N-R63W  
70 Ranch 10-6-2L  
plan1

Azimuth Corrections:

To convert a Magnetic Direction to a True Direction, Add 8.17° East

70 Ranch 10-6-2L			
Surf Loc: 95 FNL 1724 FWL Section 10-T04N-R63W			
NAD83 Colorado - HARN			
Universal Transverse Mercator (US Survey Feet)			
Zone 13N (108 W to 102 W)			
RKB=4606+25 @ 4631.01ft			
Northing	Easting	Latitude	Longitude
14648751.63	1799907.45	40.33366000	-104.42770000

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	5171.07	17.11	0.94	5168.54	25.35	0.42	10.00	-25.34	Begin 17.11° tangent section
4	5676.53	17.11	0.94	5651.63	174.01	2.85	0.00	-173.93	Begin 10°/100' build/turn
5	6749.18	90.17	179.05	6393.00	-375.10	19.51	10.00	375.39	LP Begin 90.17° lateral section
6	16331.90	90.17	179.05	6365.00	-9956.46	178.41	0.00	9958.06	PBHL/TD 16331.90 MD 6365.00 TVD

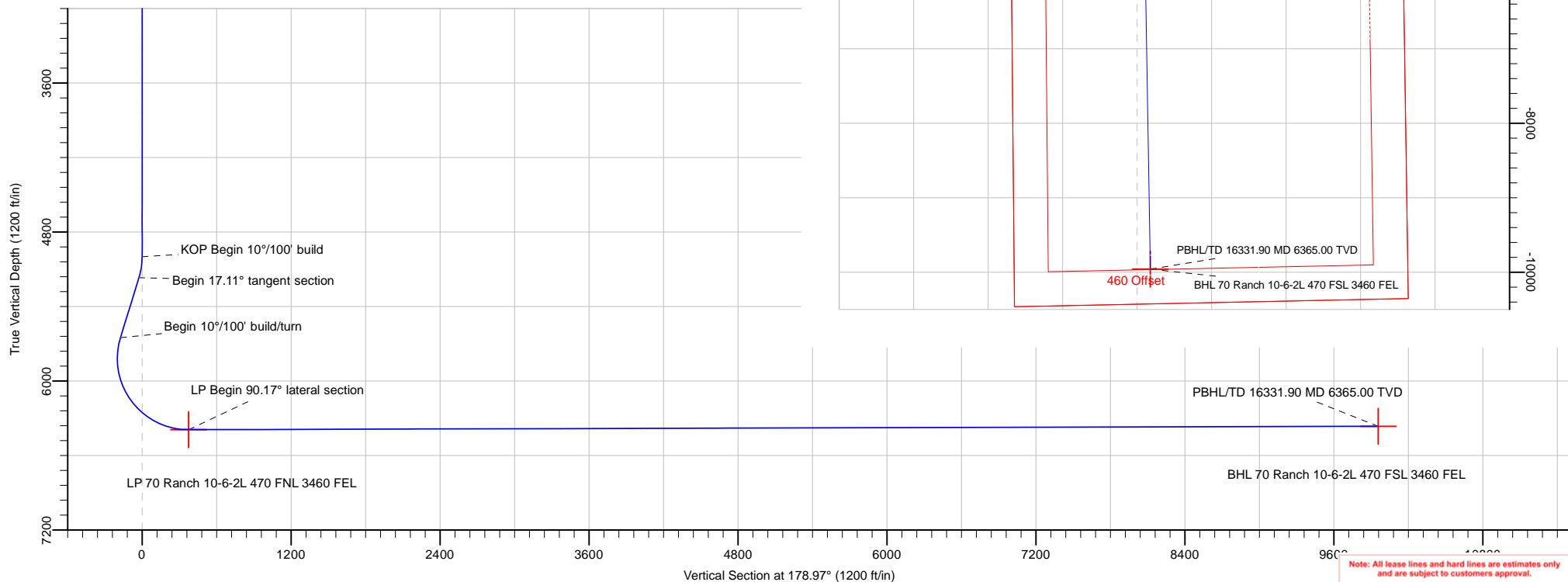
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BHL 70 Ranch 10-6-2L 470 FSL 3460 FEL	6365.00	-9956.46	178.41	14638796.55	1800150.23	40.30632000	-104.42706000
LP 70 Ranch 10-6-2L 470 FNL 3460 FEL	6393.00	-375.10	19.51	14648376.67	1799929.38	40.33263000	-104.42763000



Azimuths to True North  
Magnetic North: 8.17°

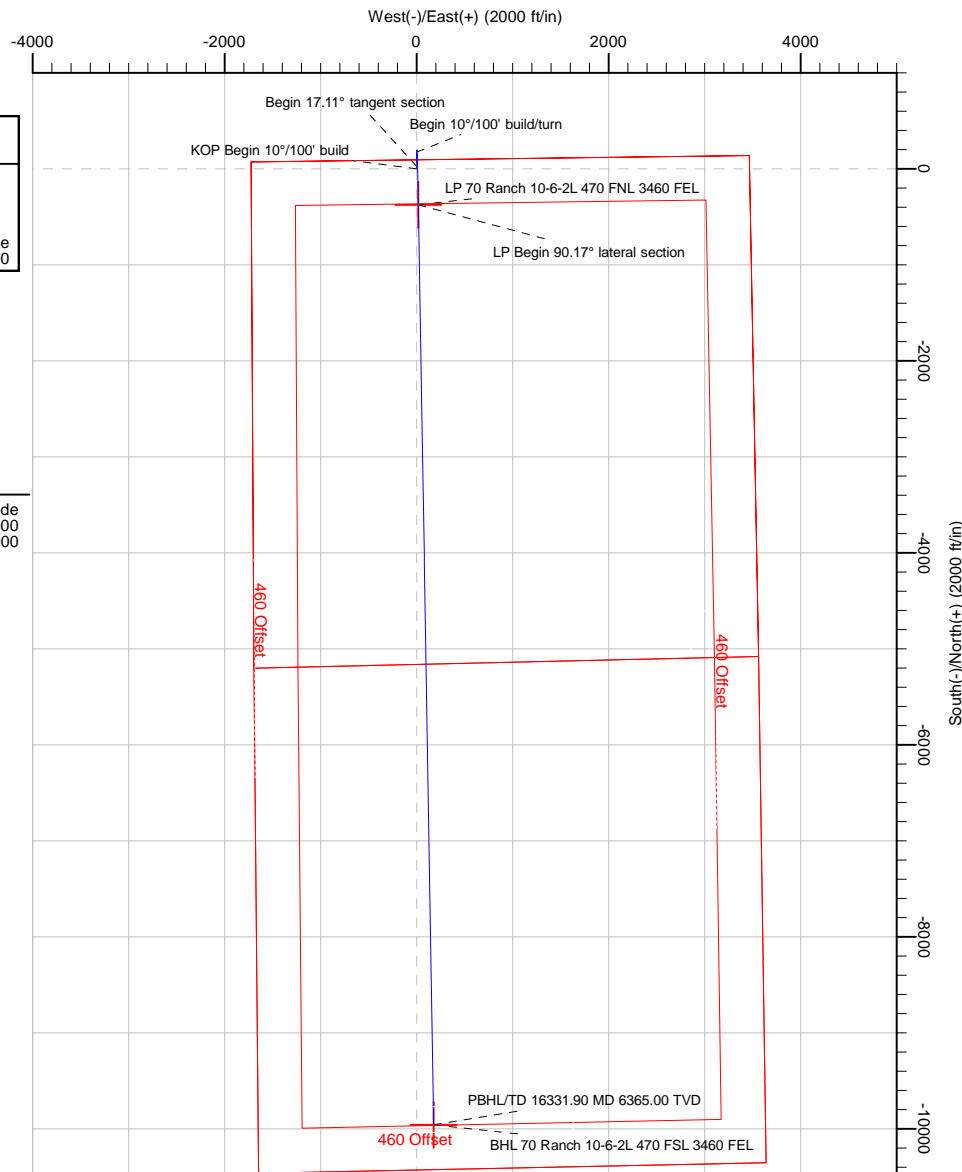
Magnetic Field  
Strength: 52358.1snT  
Dip Angle: 66.97°  
Date: 5/7/2017  
Model: HDGM



Date: 11:24, May 08 2017

Vertical Section at 178.97° (1200 ft/in)

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 70 Ranch 10-6-2L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-6-2L	<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)		

<b>Site</b>	Section 10 & 15 T04N-R63W			
<b>Site Position:</b>		<b>Northing:</b>	14,648,687.65 usft	<b>Latitude:</b> 40.33348000
<b>From:</b>	Lat/Long	<b>Easting:</b>	1,800,150.33 usft	<b>Longitude:</b> -104.42683000
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 0.37 °

<b>Well</b>	70 Ranch 10-6-2L, Surf Loc: 95 FNL 1724 FWL Section 10-T04N-R63W			
<b>Well Position</b>	<b>+N/-S</b>	65.55 ft	<b>Northing:</b>	14,648,751.63 usft
	<b>+E/-W</b>	-242.46 ft	<b>Easting:</b>	1,799,907.45 usft
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	<b>Latitude:</b> 40.33366000
				<b>Longitude:</b> -104.42770000
				<b>Ground Level:</b> 4,606.01 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	5/7/2017	8.17	66.97	52,358.10000000

<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	178.97

<b>Plan Survey Tool Program</b>	<b>Date</b>	5/8/2017		
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	16,331.90	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	
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,171.07	17.11	0.94	5,168.54	25.35	0.42	10.00	10.00	0.00	0.94	
5,676.53	17.11	0.94	5,651.63	174.01	2.85	0.00	0.00	0.00	0.00	
6,749.18	90.17	179.05	6,393.00	-375.10	19.51	10.00	6.81	16.60	178.02	LP 70 Ranch 10-6-2L
16,331.90	90.17	179.05	6,365.00	-9,956.46	178.41	0.00	0.00	0.00	0.00	BHL 70 Ranch 10-6-2

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-6-2L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-6-2L	<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
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
2,500.01	0.00	0.00	2,500.01	0.00	0.00	0.00	0.00	0.00	0.00
2,600.01	0.00	0.00	2,600.01	0.00	0.00	0.00	0.00	0.00	0.00
2,700.01	0.00	0.00	2,700.01	0.00	0.00	0.00	0.00	0.00	0.00
2,800.01	0.00	0.00	2,800.01	0.00	0.00	0.00	0.00	0.00	0.00
2,900.01	0.00	0.00	2,900.01	0.00	0.00	0.00	0.00	0.00	0.00
3,000.01	0.00	0.00	3,000.01	0.00	0.00	0.00	0.00	0.00	0.00
3,100.01	0.00	0.00	3,100.01	0.00	0.00	0.00	0.00	0.00	0.00
3,200.01	0.00	0.00	3,200.01	0.00	0.00	0.00	0.00	0.00	0.00
3,300.01	0.00	0.00	3,300.01	0.00	0.00	0.00	0.00	0.00	0.00
3,400.01	0.00	0.00	3,400.01	0.00	0.00	0.00	0.00	0.00	0.00
3,500.01	0.00	0.00	3,500.01	0.00	0.00	0.00	0.00	0.00	0.00
3,600.01	0.00	0.00	3,600.01	0.00	0.00	0.00	0.00	0.00	0.00
3,700.01	0.00	0.00	3,700.01	0.00	0.00	0.00	0.00	0.00	0.00
3,800.01	0.00	0.00	3,800.01	0.00	0.00	0.00	0.00	0.00	0.00
3,900.01	0.00	0.00	3,900.01	0.00	0.00	0.00	0.00	0.00	0.00
4,000.01	0.00	0.00	4,000.01	0.00	0.00	0.00	0.00	0.00	0.00
4,100.01	0.00	0.00	4,100.01	0.00	0.00	0.00	0.00	0.00	0.00
4,200.01	0.00	0.00	4,200.01	0.00	0.00	0.00	0.00	0.00	0.00
4,300.01	0.00	0.00	4,300.01	0.00	0.00	0.00	0.00	0.00	0.00
4,400.01	0.00	0.00	4,400.01	0.00	0.00	0.00	0.00	0.00	0.00
4,500.01	0.00	0.00	4,500.01	0.00	0.00	0.00	0.00	0.00	0.00
4,600.01	0.00	0.00	4,600.01	0.00	0.00	0.00	0.00	0.00	0.00
4,700.01	0.00	0.00	4,700.01	0.00	0.00	0.00	0.00	0.00	0.00
4,800.01	0.00	0.00	4,800.01	0.00	0.00	0.00	0.00	0.00	0.00
4,900.01	0.00	0.00	4,900.01	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									
5,000.01	0.00	0.94	5,000.01	0.00	0.00	0.00	0.00	0.00	0.00
5,100.01	10.00	0.94	5,099.50	8.71	0.14	-8.70	10.00	10.00	0.00

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<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-6-2L	<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)
5,171.07	17.11	0.94	5,168.54	25.35	0.42	-25.34	10.00	10.00	0.00
<b>Begin 17.11° tangent section</b>									
5,200.01	17.11	0.94	5,196.20	33.86	0.56	-33.84	0.00	0.00	0.00
5,300.01	17.11	0.94	5,291.78	63.27	1.04	-63.24	0.00	0.00	0.00
5,400.01	17.11	0.94	5,387.35	92.68	1.52	-92.64	0.00	0.00	0.00
5,500.01	17.11	0.94	5,482.93	122.09	2.00	-122.04	0.00	0.00	0.00
5,600.01	17.11	0.94	5,578.50	151.51	2.48	-151.44	0.00	0.00	0.00
5,676.53	17.11	0.94	5,651.63	174.01	2.85	-173.93	0.00	0.00	0.00
<b>Begin 10°/100' build/turn</b>									
5,700.01	14.76	1.26	5,674.21	180.46	2.98	-180.37	10.00	-9.99	1.35
5,800.01	4.79	6.02	5,772.64	197.38	3.69	-197.29	10.00	-9.98	4.76
5,900.01	5.28	172.74	5,872.51	196.96	4.72	-196.85	10.00	0.50	166.72
6,000.01	15.26	176.91	5,970.78	179.21	6.01	-179.07	10.00	9.98	4.17
6,100.01	25.26	177.81	6,064.48	144.66	7.54	-144.50	10.00	10.00	0.90
6,200.01	35.25	178.22	6,150.74	94.37	9.25	-94.19	10.00	10.00	0.41
6,300.01	45.25	178.47	6,226.97	29.86	11.09	-29.65	10.00	10.00	0.25
6,400.01	55.25	178.64	6,290.82	-46.91	13.02	47.14	10.00	10.00	0.17
6,500.01	65.25	178.78	6,340.38	-133.60	14.96	133.85	10.00	10.00	0.14
6,600.01	75.25	178.89	6,374.13	-227.58	16.87	227.85	10.00	10.00	0.12
6,700.01	85.25	179.00	6,391.04	-325.99	18.67	326.28	10.00	10.00	0.10
6,749.18	90.17	179.05	6,393.00	-375.10	19.51	375.39	10.00	10.00	0.10
<b>LP Begin 90.17° lateral section</b>									
6,800.01	90.17	179.05	6,392.85	-425.93	20.35	426.22	0.00	0.00	0.00
6,900.01	90.17	179.05	6,392.56	-525.91	22.01	526.22	0.00	0.00	0.00
7,000.01	90.17	179.05	6,392.27	-625.90	23.67	626.22	0.00	0.00	0.00
7,100.01	90.17	179.05	6,391.98	-725.88	25.33	726.22	0.00	0.00	0.00
7,200.01	90.17	179.05	6,391.68	-825.87	26.98	826.22	0.00	0.00	0.00
7,300.01	90.17	179.05	6,391.39	-925.86	28.64	926.22	0.00	0.00	0.00
7,400.01	90.17	179.05	6,391.10	-1,025.84	30.30	1,026.22	0.00	0.00	0.00
7,500.02	90.17	179.05	6,390.81	-1,125.83	31.96	1,126.22	0.00	0.00	0.00
7,600.02	90.17	179.05	6,390.51	-1,225.81	33.62	1,226.22	0.00	0.00	0.00
7,700.02	90.17	179.05	6,390.22	-1,325.80	35.28	1,326.22	0.00	0.00	0.00
7,800.02	90.17	179.05	6,389.93	-1,425.79	36.93	1,426.22	0.00	0.00	0.00
7,900.02	90.17	179.05	6,389.64	-1,525.77	38.59	1,526.22	0.00	0.00	0.00
8,000.02	90.17	179.05	6,389.35	-1,625.76	40.25	1,626.22	0.00	0.00	0.00
8,100.02	90.17	179.05	6,389.05	-1,725.74	41.91	1,726.22	0.00	0.00	0.00
8,200.02	90.17	179.05	6,388.76	-1,825.73	43.57	1,826.22	0.00	0.00	0.00
8,300.02	90.17	179.05	6,388.47	-1,925.72	45.23	1,926.22	0.00	0.00	0.00
8,400.02	90.17	179.05	6,388.18	-2,025.70	46.88	2,026.22	0.00	0.00	0.00
8,500.02	90.17	179.05	6,387.88	-2,125.69	48.54	2,126.22	0.00	0.00	0.00
8,600.02	90.17	179.05	6,387.59	-2,225.67	50.20	2,226.22	0.00	0.00	0.00
8,700.02	90.17	179.05	6,387.30	-2,325.66	51.86	2,326.22	0.00	0.00	0.00
8,800.02	90.17	179.05	6,387.01	-2,425.65	53.52	2,426.22	0.00	0.00	0.00
8,900.02	90.17	179.05	6,386.72	-2,525.63	55.17	2,526.22	0.00	0.00	0.00
9,000.02	90.17	179.05	6,386.42	-2,625.62	56.83	2,626.22	0.00	0.00	0.00
9,100.02	90.17	179.05	6,386.13	-2,725.60	58.49	2,726.22	0.00	0.00	0.00
9,200.02	90.17	179.05	6,385.84	-2,825.59	60.15	2,826.21	0.00	0.00	0.00
9,300.02	90.17	179.05	6,385.55	-2,925.58	61.81	2,926.21	0.00	0.00	0.00
9,400.02	90.17	179.05	6,385.25	-3,025.56	63.47	3,026.21	0.00	0.00	0.00
9,500.02	90.17	179.05	6,384.96	-3,125.55	65.12	3,126.21	0.00	0.00	0.00
9,600.02	90.17	179.05	6,384.67	-3,225.53	66.78	3,226.21	0.00	0.00	0.00
9,700.02	90.17	179.05	6,384.38	-3,325.52	68.44	3,326.21	0.00	0.00	0.00
9,800.02	90.17	179.05	6,384.09	-3,425.51	70.10	3,426.21	0.00	0.00	0.00

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<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-6-2L	<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)	
9,900.02	90.17	179.05	6,383.79	-3,525.49	71.76	3,526.21	0.00	0.00	0.00	
10,000.02	90.17	179.05	6,383.50	-3,625.48	73.42	3,626.21	0.00	0.00	0.00	
10,100.02	90.17	179.05	6,383.21	-3,725.46	75.07	3,726.21	0.00	0.00	0.00	
10,200.02	90.17	179.05	6,382.92	-3,825.45	76.73	3,826.21	0.00	0.00	0.00	
10,300.02	90.17	179.05	6,382.62	-3,925.44	78.39	3,926.21	0.00	0.00	0.00	
10,400.02	90.17	179.05	6,382.33	-4,025.42	80.05	4,026.21	0.00	0.00	0.00	
10,500.02	90.17	179.05	6,382.04	-4,125.41	81.71	4,126.21	0.00	0.00	0.00	
10,600.02	90.17	179.05	6,381.75	-4,225.39	83.36	4,226.21	0.00	0.00	0.00	
10,700.02	90.17	179.05	6,381.46	-4,325.38	85.02	4,326.21	0.00	0.00	0.00	
10,800.02	90.17	179.05	6,381.16	-4,425.37	86.68	4,426.21	0.00	0.00	0.00	
10,900.02	90.17	179.05	6,380.87	-4,525.35	88.34	4,526.21	0.00	0.00	0.00	
11,000.02	90.17	179.05	6,380.58	-4,625.34	90.00	4,626.21	0.00	0.00	0.00	
11,100.02	90.17	179.05	6,380.29	-4,725.33	91.66	4,726.21	0.00	0.00	0.00	
11,200.02	90.17	179.05	6,380.00	-4,825.31	93.31	4,826.21	0.00	0.00	0.00	
11,300.02	90.17	179.05	6,379.70	-4,925.30	94.97	4,926.21	0.00	0.00	0.00	
11,400.02	90.17	179.05	6,379.41	-5,025.28	96.63	5,026.21	0.00	0.00	0.00	
11,500.02	90.17	179.05	6,379.12	-5,125.27	98.29	5,126.21	0.00	0.00	0.00	
11,600.02	90.17	179.05	6,378.83	-5,225.26	99.95	5,226.21	0.00	0.00	0.00	
11,700.02	90.17	179.05	6,378.53	-5,325.24	101.61	5,326.21	0.00	0.00	0.00	
11,800.02	90.17	179.05	6,378.24	-5,425.23	103.26	5,426.21	0.00	0.00	0.00	
11,900.02	90.17	179.05	6,377.95	-5,525.21	104.92	5,526.21	0.00	0.00	0.00	
12,000.02	90.17	179.05	6,377.66	-5,625.20	106.58	5,626.21	0.00	0.00	0.00	
12,100.02	90.17	179.05	6,377.37	-5,725.19	108.24	5,726.21	0.00	0.00	0.00	
12,200.02	90.17	179.05	6,377.07	-5,825.17	109.90	5,826.21	0.00	0.00	0.00	
12,300.02	90.17	179.05	6,376.78	-5,925.16	111.55	5,926.20	0.00	0.00	0.00	
12,400.03	90.17	179.05	6,376.49	-6,025.14	113.21	6,026.20	0.00	0.00	0.00	
12,500.03	90.17	179.05	6,376.20	-6,125.13	114.87	6,126.20	0.00	0.00	0.00	
12,600.03	90.17	179.05	6,375.90	-6,225.12	116.53	6,226.20	0.00	0.00	0.00	
12,700.03	90.17	179.05	6,375.61	-6,325.10	118.19	6,326.20	0.00	0.00	0.00	
12,800.03	90.17	179.05	6,375.32	-6,425.09	119.85	6,426.20	0.00	0.00	0.00	
12,900.03	90.17	179.05	6,375.03	-6,525.07	121.50	6,526.20	0.00	0.00	0.00	
13,000.03	90.17	179.05	6,374.74	-6,625.06	123.16	6,626.20	0.00	0.00	0.00	
13,100.03	90.17	179.05	6,374.44	-6,725.05	124.82	6,726.20	0.00	0.00	0.00	
13,200.03	90.17	179.05	6,374.15	-6,825.03	126.48	6,826.20	0.00	0.00	0.00	
13,300.03	90.17	179.05	6,373.86	-6,925.02	128.14	6,926.20	0.00	0.00	0.00	
13,400.03	90.17	179.05	6,373.57	-7,025.00	129.80	7,026.20	0.00	0.00	0.00	
13,500.03	90.17	179.05	6,373.27	-7,124.99	131.45	7,126.20	0.00	0.00	0.00	
13,600.03	90.17	179.05	6,372.98	-7,224.98	133.11	7,226.20	0.00	0.00	0.00	
13,700.03	90.17	179.05	6,372.69	-7,324.96	134.77	7,326.20	0.00	0.00	0.00	
13,800.03	90.17	179.05	6,372.40	-7,424.95	136.43	7,426.20	0.00	0.00	0.00	
13,900.03	90.17	179.05	6,372.11	-7,524.93	138.09	7,526.20	0.00	0.00	0.00	
14,000.03	90.17	179.05	6,371.81	-7,624.92	139.74	7,626.20	0.00	0.00	0.00	
14,100.03	90.17	179.05	6,371.52	-7,724.91	141.40	7,726.20	0.00	0.00	0.00	
14,200.03	90.17	179.05	6,371.23	-7,824.89	143.06	7,826.20	0.00	0.00	0.00	
14,300.03	90.17	179.05	6,370.94	-7,924.88	144.72	7,926.20	0.00	0.00	0.00	
14,400.03	90.17	179.05	6,370.64	-8,024.86	146.38	8,026.20	0.00	0.00	0.00	
14,500.03	90.17	179.05	6,370.35	-8,124.85	148.04	8,126.20	0.00	0.00	0.00	
14,600.03	90.17	179.05	6,370.06	-8,224.84	149.69	8,226.20	0.00	0.00	0.00	
14,700.03	90.17	179.05	6,369.77	-8,324.82	151.35	8,326.20	0.00	0.00	0.00	
14,800.03	90.17	179.05	6,369.48	-8,424.81	153.01	8,426.20	0.00	0.00	0.00	
14,900.03	90.17	179.05	6,369.18	-8,524.79	154.67	8,526.20	0.00	0.00	0.00	
15,000.03	90.17	179.05	6,368.89	-8,624.78	156.33	8,626.20	0.00	0.00	0.00	
15,100.03	90.17	179.05	6,368.60	-8,724.77	157.99	8,726.20	0.00	0.00	0.00	
15,200.03	90.17	179.05	6,368.31	-8,824.75	159.64	8,826.20	0.00	0.00	0.00	

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-6-2L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-6-2L	<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)	
15,300.03	90.17	179.05	6,368.02	-8,924.74	161.30	8,926.20	0.00	0.00	0.00	
15,400.03	90.17	179.05	6,367.72	-9,024.72	162.96	9,026.20	0.00	0.00	0.00	
15,500.03	90.17	179.05	6,367.43	-9,124.71	164.62	9,126.19	0.00	0.00	0.00	
15,600.03	90.17	179.05	6,367.14	-9,224.70	166.28	9,226.19	0.00	0.00	0.00	
15,700.03	90.17	179.05	6,366.85	-9,324.68	167.93	9,326.19	0.00	0.00	0.00	
15,800.03	90.17	179.05	6,366.55	-9,424.67	169.59	9,426.19	0.00	0.00	0.00	
15,900.03	90.17	179.05	6,366.26	-9,524.65	171.25	9,526.19	0.00	0.00	0.00	
16,000.03	90.17	179.05	6,365.97	-9,624.64	172.91	9,626.19	0.00	0.00	0.00	
16,100.03	90.17	179.05	6,365.68	-9,724.63	174.57	9,726.19	0.00	0.00	0.00	
16,200.03	90.17	179.05	6,365.39	-9,824.61	176.23	9,826.19	0.00	0.00	0.00	
16,300.03	90.17	179.05	6,365.09	-9,924.60	177.88	9,926.19	0.00	0.00	0.00	
16,331.90	90.17	179.05	6,365.00	-9,956.46	178.41	9,958.06	0.00	0.00	0.00	
PBHL/TD 16331.90 MD 6365.00 TVD										

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
BHL 70 Ranch 10-6-2L 4 - plan hits target center - Point	0.00	0.00	6,365.00	-9,956.46	178.41	14,638,796.55	1,800,150.23	40.30632000	-104.42706000	
LP 70 Ranch 10-6-2L 47 - plan hits target center - Point	0.00	0.00	6,393.00	-375.10	19.51	14,648,376.67	1,799,929.38	40.33263000	-104.42763000	

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	
5,171.07	5,168.54	25.35	0.42	Begin 17.11° tangent section	
5,676.53	5,651.63	174.01	2.85	Begin 10°/100' build/turn	
6,749.18	6,393.00	-375.10	19.51	LP Begin 90.17° lateral section	
16,331.90	6,365.00	-9,956.46	178.41	PBHL/TD 16331.90 MD 6365.00 TVD	

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-6-2L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-6-2L	<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)		

<b>Site</b>	Section 10 & 15 T04N-R63W		
<b>Site Position:</b>		<b>Northing:</b>	14,648,687.65 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	1,800,150.33 usft
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	40.33348000
		<b>Longitude:</b>	-104.42683000
		<b>Grid Convergence:</b>	0.37 °

<b>Well</b>	70 Ranch 10-6-2L, Surf Loc: 95 FNL 1724 FWL Section 10-T04N-R63W		
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.00 ft	<b>Wellhead Elevation:</b>	<b>Latitude:</b>
			<b>Longitude:</b>
			<b>Ground Level:</b>

<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	5/7/2017	8.17	66.97	52,358.10000000

<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	178.97

<b>Plan Survey Tool Program</b>	<b>Date</b>	5/8/2017		
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	16,331.90 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	
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,171.07	17.11	0.94	5,168.54	25.35	0.42	10.00	10.00	0.00	0.94	
5,676.53	17.11	0.94	5,651.63	174.01	2.85	0.00	0.00	0.00	0.00	
6,749.18	90.17	179.05	6,393.00	-375.10	19.51	10.00	6.81	16.60	178.02	LP 70 Ranch 10-6-2L
16,331.90	90.17	179.05	6,365.00	-9,956.46	178.41	0.00	0.00	0.00	0.00	BHL 70 Ranch 10-6-2



<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-6-2L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-6-2L	<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	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
100.00	0.00	0.00	100.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
200.00	0.00	0.00	200.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
300.00	0.00	0.00	300.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
400.00	0.00	0.00	400.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
500.00	0.00	0.00	500.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
600.00	0.00	0.00	600.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
700.00	0.00	0.00	700.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
800.00	0.00	0.00	800.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
900.00	0.00	0.00	900.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
2,100.00	0.00	0.00	2,100.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
2,200.00	0.00	0.00	2,200.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
2,300.00	0.00	0.00	2,300.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
2,400.00	0.00	0.00	2,400.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
2,500.01	0.00	0.00	2,500.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
2,600.01	0.00	0.00	2,600.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
2,700.01	0.00	0.00	2,700.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
2,800.01	0.00	0.00	2,800.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
2,900.01	0.00	0.00	2,900.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
3,000.01	0.00	0.00	3,000.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
3,100.01	0.00	0.00	3,100.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
3,200.01	0.00	0.00	3,200.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
3,300.01	0.00	0.00	3,300.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
3,400.01	0.00	0.00	3,400.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
3,500.01	0.00	0.00	3,500.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
3,600.01	0.00	0.00	3,600.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
3,700.01	0.00	0.00	3,700.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
3,800.01	0.00	0.00	3,800.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
3,900.01	0.00	0.00	3,900.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
4,000.01	0.00	0.00	4,000.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
4,100.01	0.00	0.00	4,100.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
4,200.01	0.00	0.00	4,200.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
4,300.01	0.00	0.00	4,300.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
4,400.01	0.00	0.00	4,400.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
4,500.01	0.00	0.00	4,500.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
4,600.01	0.00	0.00	4,600.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
4,700.01	0.00	0.00	4,700.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
4,800.01	0.00	0.00	4,800.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
4,900.01	0.00	0.00	4,900.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
5,000.00	0.00	0.00	5,000.00	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
<b>KOP Begin 10°/100' build</b>									
5,000.01	0.00	0.94	5,000.01	0.00	0.00	14,648,751.63	1,799,907.45	40.33366000	-104.42770000
5,100.01	10.00	0.94	5,099.50	8.71	0.14	14,648,760.34	1,799,907.54	40.33368390	-104.42769949



<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-6-2L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-6-2L	<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
5,171.07	17.11	0.94	5,168.54	25.35	0.42	14,648,776.98	1,799,907.70	40.33372960	-104.42769851
<b>Begin 17.11° tangent section</b>									
5,200.01	17.11	0.94	5,196.20	33.86	0.56	14,648,785.49	1,799,907.79	40.33375297	-104.42769801
5,300.01	17.11	0.94	5,291.78	63.27	1.04	14,648,814.91	1,799,908.08	40.33383373	-104.42769628
5,400.01	17.11	0.94	5,387.35	92.68	1.52	14,648,844.32	1,799,908.37	40.33391450	-104.42769455
5,500.01	17.11	0.94	5,482.93	122.09	2.00	14,648,873.74	1,799,908.66	40.33399526	-104.42769282
5,600.01	17.11	0.94	5,578.50	151.51	2.48	14,648,903.15	1,799,908.96	40.33407603	-104.42769109
5,676.53	17.11	0.94	5,651.63	174.01	2.85	14,648,925.66	1,799,909.18	40.33413782	-104.42768977
<b>Begin 10°/100' build/turn</b>									
5,700.01	14.76	1.26	5,674.21	180.46	2.98	14,648,932.10	1,799,909.26	40.33415552	-104.42768933
5,800.01	4.79	6.02	5,772.64	197.38	3.69	14,648,949.03	1,799,909.87	40.33420200	-104.42768675
5,900.01	5.28	172.74	5,872.51	196.96	4.72	14,648,948.62	1,799,910.89	40.33420085	-104.42768308
6,000.01	15.26	176.91	5,970.78	179.21	6.01	14,648,930.87	1,799,912.30	40.33415209	-104.42767844
6,100.01	25.26	177.81	6,064.48	144.66	7.54	14,648,896.34	1,799,914.05	40.33405722	-104.42767297
6,200.01	35.25	178.22	6,150.74	94.37	9.25	14,648,846.06	1,799,916.09	40.33391912	-104.42766682
6,300.01	45.25	178.47	6,226.97	29.86	11.09	14,648,781.56	1,799,918.35	40.33374198	-104.42766020
6,400.01	55.25	178.64	6,290.82	-46.91	13.02	14,648,704.81	1,799,920.77	40.33353118	-104.42765329
6,500.01	65.25	178.78	6,340.38	-133.60	14.96	14,648,618.13	1,799,923.28	40.33329314	-104.42764632
6,600.01	75.25	178.89	6,374.13	-227.58	16.87	14,648,524.17	1,799,925.79	40.33303507	-104.42763949
6,700.01	85.25	179.00	6,391.04	-325.99	18.67	14,648,425.76	1,799,928.23	40.33276483	-104.42763300
6,749.18	90.17	179.05	6,393.00	-375.10	19.51	14,648,376.67	1,799,929.38	40.33263000	-104.42763000
<b>LP Begin 90.17° lateral section</b>									
6,800.01	90.17	179.05	6,392.85	-425.93	20.35	14,648,325.85	1,799,930.56	40.33249042	-104.42762698
6,900.01	90.17	179.05	6,392.56	-525.91	22.01	14,648,225.87	1,799,932.86	40.33221587	-104.42762103
7,000.01	90.17	179.05	6,392.27	-625.90	23.67	14,648,125.90	1,799,935.16	40.33194131	-104.42761508
7,100.01	90.17	179.05	6,391.98	-725.88	25.33	14,648,025.93	1,799,937.47	40.33166675	-104.42760913
7,200.01	90.17	179.05	6,391.68	-825.87	26.98	14,647,925.95	1,799,939.77	40.33139220	-104.42760318
7,300.01	90.17	179.05	6,391.39	-925.86	28.64	14,647,825.98	1,799,942.08	40.33111764	-104.42759723
7,400.01	90.17	179.05	6,391.10	-1,025.84	30.30	14,647,726.01	1,799,944.38	40.33084308	-104.42759128
7,500.02	90.17	179.05	6,390.81	-1,125.83	31.96	14,647,626.04	1,799,946.69	40.33056853	-104.42758533
7,600.02	90.17	179.05	6,390.51	-1,225.81	33.62	14,647,526.06	1,799,948.99	40.33029397	-104.42757938
7,700.02	90.17	179.05	6,390.22	-1,325.80	35.28	14,647,426.09	1,799,951.30	40.33001941	-104.42757343
7,800.02	90.17	179.05	6,389.93	-1,425.79	36.93	14,647,326.12	1,799,953.60	40.32974486	-104.42756748
7,900.02	90.17	179.05	6,389.64	-1,525.77	38.59	14,647,226.14	1,799,955.91	40.32947030	-104.42756153
8,000.02	90.17	179.05	6,389.35	-1,625.76	40.25	14,647,126.17	1,799,958.21	40.32919574	-104.42755558
8,100.02	90.17	179.05	6,389.05	-1,725.74	41.91	14,647,026.20	1,799,960.52	40.32892119	-104.42754963
8,200.02	90.17	179.05	6,388.76	-1,825.73	43.57	14,646,926.22	1,799,962.82	40.32864663	-104.42754369
8,300.02	90.17	179.05	6,388.47	-1,925.72	45.23	14,646,826.25	1,799,965.12	40.32837207	-104.42753774
8,400.02	90.17	179.05	6,388.18	-2,025.70	46.88	14,646,726.28	1,799,967.43	40.32809752	-104.42753179
8,500.02	90.17	179.05	6,387.88	-2,125.69	48.54	14,646,626.30	1,799,969.73	40.32782296	-104.42752584
8,600.02	90.17	179.05	6,387.59	-2,225.67	50.20	14,646,526.33	1,799,972.04	40.32754840	-104.42751989
8,700.02	90.17	179.05	6,387.30	-2,325.66	51.86	14,646,426.36	1,799,974.34	40.32727385	-104.42751394
8,800.02	90.17	179.05	6,387.01	-2,425.65	53.52	14,646,326.39	1,799,976.65	40.32699929	-104.42750799
8,900.02	90.17	179.05	6,386.72	-2,525.63	55.17	14,646,226.41	1,799,978.95	40.32672473	-104.42750204
9,000.02	90.17	179.05	6,386.42	-2,625.62	56.83	14,646,126.44	1,799,981.26	40.32645018	-104.42749609
9,100.02	90.17	179.05	6,386.13	-2,725.60	58.49	14,646,026.47	1,799,983.56	40.32617562	-104.42749014
9,200.02	90.17	179.05	6,385.84	-2,825.59	60.15	14,645,926.49	1,799,985.87	40.32590106	-104.42748419
9,300.02	90.17	179.05	6,385.55	-2,925.58	61.81	14,645,826.52	1,799,988.17	40.32562650	-104.42747824
9,400.02	90.17	179.05	6,385.25	-3,025.56	63.47	14,645,726.55	1,799,990.48	40.32535195	-104.42747229
9,500.02	90.17	179.05	6,384.96	-3,125.55	65.12	14,645,626.57	1,799,992.78	40.32507739	-104.42746635
9,600.02	90.17	179.05	6,384.67	-3,225.53	66.78	14,645,526.60	1,799,995.09	40.32480283	-104.42746040
9,700.02	90.17	179.05	6,384.38	-3,325.52	68.44	14,645,426.63	1,799,997.39	40.32452828	-104.42745445
9,800.02	90.17	179.05	6,384.09	-3,425.51	70.10	14,645,326.66	1,799,999.69	40.32425372	-104.42744850
9,900.02	90.17	179.05	6,383.79	-3,525.49	71.76	14,645,226.68	1,800,002.00	40.32397916	-104.42744255

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-6-2L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-6-2L	<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
10,000.02	90.17	179.05	6,383.50	-3,625.48	73.42	14,645,126.71	1,800,004.30	40.32370461	-104.42743660
10,100.02	90.17	179.05	6,383.21	-3,725.46	75.07	14,645,026.74	1,800,006.61	40.32343005	-104.42743065
10,200.02	90.17	179.05	6,382.92	-3,825.45	76.73	14,644,926.76	1,800,008.91	40.32315549	-104.42742470
10,300.02	90.17	179.05	6,382.62	-3,925.44	78.39	14,644,826.79	1,800,011.22	40.32288093	-104.42741876
10,400.02	90.17	179.05	6,382.33	-4,025.42	80.05	14,644,726.82	1,800,013.52	40.32260638	-104.42741281
10,500.02	90.17	179.05	6,382.04	-4,125.41	81.71	14,644,626.84	1,800,015.83	40.32233182	-104.42740686
10,600.02	90.17	179.05	6,381.75	-4,225.39	83.36	14,644,526.87	1,800,018.13	40.32205726	-104.42740091
10,700.02	90.17	179.05	6,381.46	-4,325.38	85.02	14,644,426.90	1,800,020.44	40.32178271	-104.42739496
10,800.02	90.17	179.05	6,381.16	-4,425.37	86.68	14,644,326.93	1,800,022.74	40.32150815	-104.42738901
10,900.02	90.17	179.05	6,380.87	-4,525.35	88.34	14,644,226.95	1,800,025.05	40.32123359	-104.42738306
11,000.02	90.17	179.05	6,380.58	-4,625.34	90.00	14,644,126.98	1,800,027.35	40.32095904	-104.42737712
11,100.02	90.17	179.05	6,380.29	-4,725.33	91.66	14,644,027.01	1,800,029.66	40.32068448	-104.42737117
11,200.02	90.17	179.05	6,380.00	-4,825.31	93.31	14,643,927.03	1,800,031.96	40.32040992	-104.42736522
11,300.02	90.17	179.05	6,379.70	-4,925.30	94.97	14,643,827.06	1,800,034.26	40.32013536	-104.42735927
11,400.02	90.17	179.05	6,379.41	-5,025.28	96.63	14,643,727.09	1,800,036.57	40.31986081	-104.42735332
11,500.02	90.17	179.05	6,379.12	-5,125.27	98.29	14,643,627.11	1,800,038.87	40.31958625	-104.42734737
11,600.02	90.17	179.05	6,378.83	-5,225.26	99.95	14,643,527.14	1,800,041.18	40.31931169	-104.42734143
11,700.02	90.17	179.05	6,378.53	-5,325.24	101.61	14,643,427.17	1,800,043.48	40.31903713	-104.42733548
11,800.02	90.17	179.05	6,378.24	-5,425.23	103.26	14,643,327.20	1,800,045.79	40.31876258	-104.42732953
11,900.02	90.17	179.05	6,377.95	-5,525.21	104.92	14,643,227.22	1,800,048.09	40.31848802	-104.42732358
12,000.02	90.17	179.05	6,377.66	-5,625.20	106.58	14,643,127.25	1,800,050.40	40.31821346	-104.42731763
12,100.02	90.17	179.05	6,377.37	-5,725.19	108.24	14,643,027.28	1,800,052.70	40.31793891	-104.42731169
12,200.02	90.17	179.05	6,377.07	-5,825.17	109.90	14,642,927.30	1,800,055.01	40.31766435	-104.42730574
12,300.02	90.17	179.05	6,376.78	-5,925.16	111.55	14,642,827.33	1,800,057.31	40.31738979	-104.42729979
12,400.03	90.17	179.05	6,376.49	-6,025.14	113.21	14,642,727.36	1,800,059.62	40.31711523	-104.42729384
12,500.03	90.17	179.05	6,376.20	-6,125.13	114.87	14,642,627.38	1,800,061.92	40.31684068	-104.42728789
12,600.03	90.17	179.05	6,375.90	-6,225.12	116.53	14,642,527.41	1,800,064.22	40.31656612	-104.42728195
12,700.03	90.17	179.05	6,375.61	-6,325.10	118.19	14,642,427.44	1,800,066.53	40.31629156	-104.42727600
12,800.03	90.17	179.05	6,375.32	-6,425.09	119.85	14,642,327.47	1,800,068.83	40.31601700	-104.42727005
12,900.03	90.17	179.05	6,375.03	-6,525.07	121.50	14,642,227.49	1,800,071.14	40.31574245	-104.42726410
13,000.03	90.17	179.05	6,374.74	-6,625.06	123.16	14,642,127.52	1,800,073.44	40.31546789	-104.42725815
13,100.03	90.17	179.05	6,374.44	-6,725.05	124.82	14,642,027.55	1,800,075.75	40.31519333	-104.42725221
13,200.03	90.17	179.05	6,374.15	-6,825.03	126.48	14,641,927.57	1,800,078.05	40.31491877	-104.42724626
13,300.03	90.17	179.05	6,373.86	-6,925.02	128.14	14,641,827.60	1,800,080.36	40.31464422	-104.42724031
13,400.03	90.17	179.05	6,373.57	-7,025.00	129.80	14,641,727.63	1,800,082.66	40.31436966	-104.42723436
13,500.03	90.17	179.05	6,373.27	-7,124.99	131.45	14,641,627.65	1,800,084.97	40.31409510	-104.42722842
13,600.03	90.17	179.05	6,372.98	-7,224.98	133.11	14,641,527.68	1,800,087.27	40.31382054	-104.42722247
13,700.03	90.17	179.05	6,372.69	-7,324.96	134.77	14,641,427.71	1,800,089.58	40.31354599	-104.42721652
13,800.03	90.17	179.05	6,372.40	-7,424.95	136.43	14,641,327.74	1,800,091.88	40.31327143	-104.42721057
13,900.03	90.17	179.05	6,372.11	-7,524.93	138.09	14,641,227.76	1,800,094.19	40.31299687	-104.42720463
14,000.03	90.17	179.05	6,371.81	-7,624.92	139.74	14,641,127.79	1,800,096.49	40.31272232	-104.42719868
14,100.03	90.17	179.05	6,371.52	-7,724.91	141.40	14,641,027.82	1,800,098.79	40.31244777	-104.42719273
14,200.03	90.17	179.05	6,371.23	-7,824.89	143.06	14,640,927.84	1,800,101.10	40.31217321	-104.42718678
14,300.03	90.17	179.05	6,370.94	-7,924.88	144.72	14,640,827.87	1,800,103.40	40.31189865	-104.42718084
14,400.03	90.17	179.05	6,370.64	-8,024.86	146.38	14,640,727.90	1,800,105.71	40.31162409	-104.42717489
14,500.03	90.17	179.05	6,370.35	-8,124.85	148.04	14,640,627.92	1,800,108.01	40.31134954	-104.42716894
14,600.03	90.17	179.05	6,370.06	-8,224.84	149.69	14,640,527.95	1,800,110.32	40.31107498	-104.42716300
14,700.03	90.17	179.05	6,369.77	-8,324.82	151.35	14,640,427.98	1,800,112.62	40.31080042	-104.42715705
14,800.03	90.17	179.05	6,369.48	-8,424.81	153.01	14,640,328.01	1,800,114.93	40.31052586	-104.42715110
14,900.03	90.17	179.05	6,369.18	-8,524.79	154.67	14,640,228.03	1,800,117.23	40.31025131	-104.42714515
15,000.03	90.17	179.05	6,368.89	-8,624.78	156.33	14,640,128.06	1,800,119.54	40.30997675	-104.42713921
15,100.03	90.17	179.05	6,368.60	-8,724.77	157.99	14,640,028.09	1,800,121.84	40.30970219	-104.42713326
15,200.03	90.17	179.05	6,368.31	-8,824.75	159.64	14,639,928.11	1,800,124.15	40.30942763	-104.42712731
15,300.03	90.17	179.05	6,368.02	-8,924.74	161.30	14,639,828.14	1,800,126.45	40.30915308	-104.42712137
15,400.03	90.17	179.05	6,367.72	-9,024.72	162.96	14,639,728.17	1,800,128.76	40.30887852	-104.42711542

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-6-2L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4606+25 @ 4631.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-6-2L	<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
15,500.03	90.17	179.05	6,367.43	-9,124.71	164.62	14,639,628.19	1,800,131.06	40.30860396	-104.42710947
15,600.03	90.17	179.05	6,367.14	-9,224.70	166.28	14,639,528.22	1,800,133.36	40.30832940	-104.42710353
15,700.03	90.17	179.05	6,366.85	-9,324.68	167.93	14,639,428.25	1,800,135.67	40.30805484	-104.42709758
15,800.03	90.17	179.05	6,366.55	-9,424.67	169.59	14,639,328.27	1,800,137.97	40.30778029	-104.42709163
15,900.03	90.17	179.05	6,366.26	-9,524.65	171.25	14,639,228.30	1,800,140.28	40.30750573	-104.42708569
16,000.03	90.17	179.05	6,365.97	-9,624.64	172.91	14,639,128.33	1,800,142.58	40.30723117	-104.42707974
16,100.03	90.17	179.05	6,365.68	-9,724.63	174.57	14,639,028.36	1,800,144.89	40.30695661	-104.42707379
16,200.03	90.17	179.05	6,365.39	-9,824.61	176.23	14,638,928.38	1,800,147.19	40.30668206	-104.42706785
16,300.03	90.17	179.05	6,365.09	-9,924.60	177.88	14,638,828.41	1,800,149.50	40.30640750	-104.42706190
16,331.90	90.17	179.05	6,365.00	-9,956.46	178.41	14,638,796.55	1,800,150.23	40.30632000	-104.42706000
PBHL/TD 16331.90 MD 6365.00 TVD									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BHL 70 Ranch 10-6-2L 4 - plan hits target center - Point	0.00	0.00	6,365.00	-9,956.46	178.41	14,638,796.55	1,800,150.23	40.30632000	-104.42706000
LP 70 Ranch 10-6-2L 47 - plan hits target center - Point	0.00	0.00	6,393.00	-375.10	19.51	14,648,376.67	1,799,929.38	40.33263000	-104.42763000

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	
5,171.07	5,168.54	25.35	0.42	Begin 17.11° tangent section	
5,676.53	5,651.63	174.01	2.85	Begin 10°/100' build/turn	
6,749.18	6,393.00	-375.10	19.51	LP Begin 90.17° lateral section	
16,331.90	6,365.00	-9,956.46	178.41	PBHL/TD 16331.90 MD 6365.00 TVD	