

**Weld County, Colorado  
Section 34-T01N-R65W  
Desha 4-5-1L  
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	5000.00	0.00	0.00	5000.00	0.00	0.00	0.00	0.00	KOP Begin 10°/100' build
3	5618.47	61.85	259.47	5505.17	-55.28	-297.53	10.00	143.02	Begin 61.85° tangent
4	8648.34	61.85	259.47	6934.75	-543.31	-2923.98	0.00	1405.52	Begin 10°/100' build/turn
5	9456.40	89.98	179.91	7165.00	-1109.53	-3345.92	10.00	2073.13	LP Begin 89.98° lateral section
6	18797.16	89.98	179.91	7168.00	-10450.28	-3330.46	0.00	10968.15	PBHL/TD 18797.16 MD/7168.00 TVD

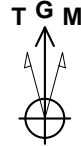
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP Desha 4-05-1L 470 FNL 2580 FEL	7165.00	-1109.53	-3345.92	14526630.47	1733204.90	39.99924356	-104.66867772
BHL Desha 4-05-1L 470 FSL 2580 FEL	7168.00	-10450.28	-3330.46	14517289.74	1733220.36	39.97359232	-104.66874643

Desha 4-5-1L			
Surf loc: 620 FSL 793 FWL Sec34-T01N-R65W			
NAD83 Colorado - HARN			
Universal Transverse Mercator (US Survey Feet)			
Zone 13N (108 W to 102 W)			
RKB-5140+25 @ 5165.00ft			
Northing	Easting	Latitude	Longitude
14527740.00	1736550.81	40.00225572	-104.65671530

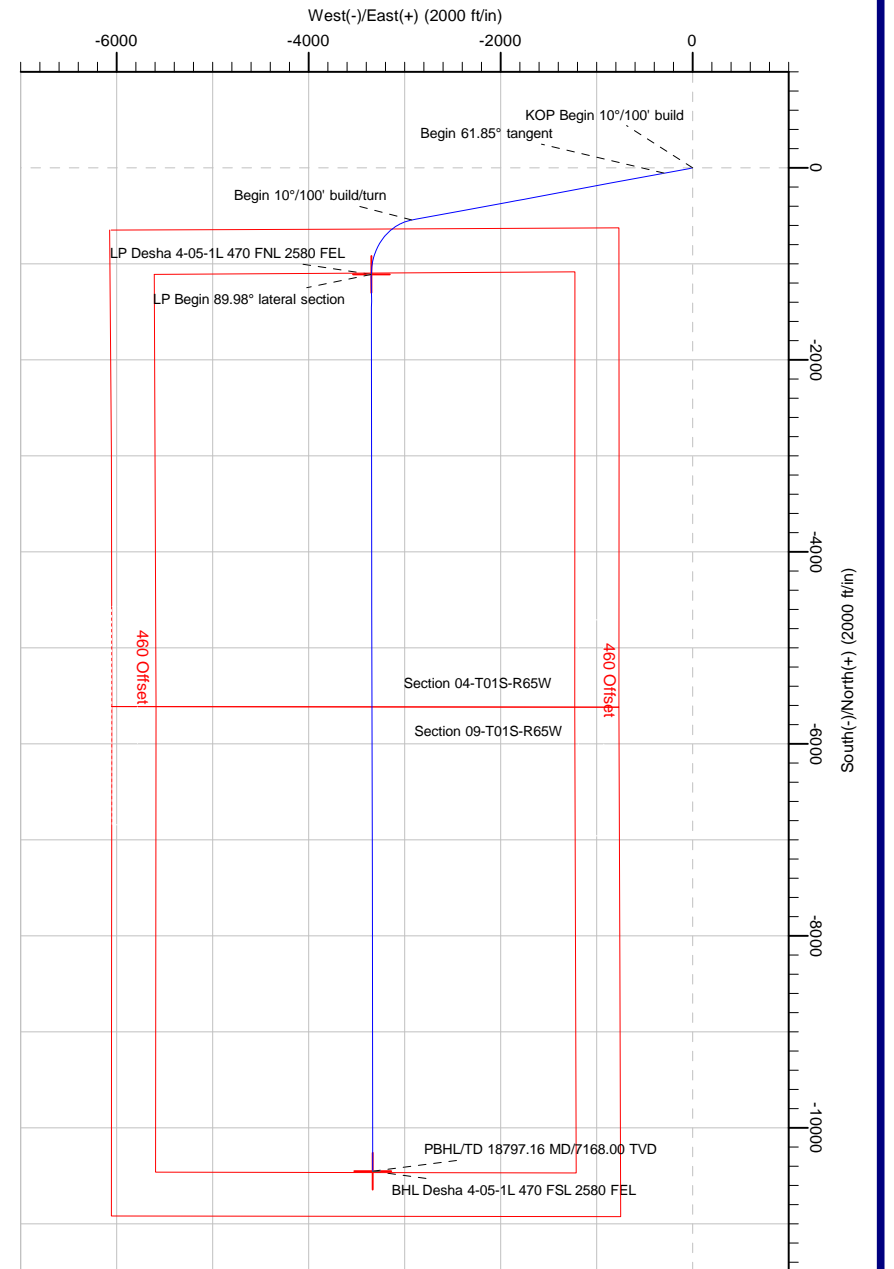
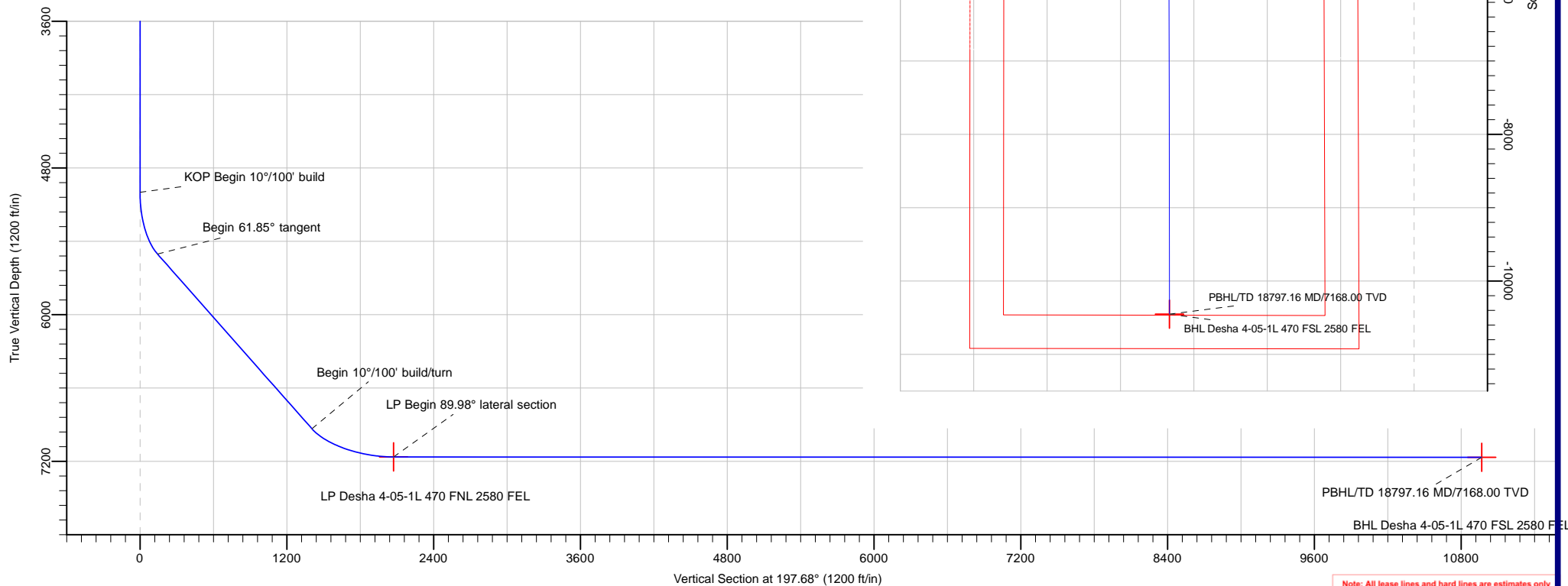
Azimuth Corrections:

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



Azimuths to Grid North  
True North: -0.22°  
Magnetic North: 8.05°

Magnetic Field  
Strength: 52109.9nT  
Dip Angle: 66.45°  
Date: 8/29/2017  
Model: HDGM



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

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-1L	<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 34-T01N-R65W			
Site Position:		Northing:	14,527,892.80 usft	Latitude:	40.00267560
From:	Map	Easting:	1,736,525.30 usft	Longitude:	-104.65680429
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.22 °

Well	Desha 4-5-1L, Surf loc: 620 FSL 793 FWL Sec34-T01N-R65W					
Well Position	+N/-S	-152.80 ft	Northing:	14,527,740.00 usft	Latitude:	40.00225572
	+E/-W	25.51 ft	Easting:	1,736,550.81 usft	Longitude:	-104.65671529
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,140.00 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	8/29/2017	8.27	66.45	52,109.90000000

<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	197.68

<b>Plan Survey Tool Program</b>	<b>Date</b>	8/29/2017		
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	18,797.16	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	
5,618.47	61.85	259.47	5,505.17	-55.28	-297.53	10.00	10.00	0.00	259.47	
8,648.34	61.85	259.47	6,934.75	-543.31	-2,923.98	0.00	0.00	0.00	0.00	
9,456.40	89.98	179.91	7,165.00	-1,109.53	-3,345.92	10.00	3.48	-9.85	-85.05	LP Desha 4-05-1L 471
18,797.16	89.98	179.91	7,168.00	-10,450.28	-3,330.46	0.00	0.00	0.00	0.00	BHL Desha 4-05-1L 4

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-1L	<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
2,500.00	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
<b>KOP Begin 10°/100' build</b>									
5,100.00	10.00	259.47	5,099.49	-1.59	-8.56	4.11	10.00	10.00	0.00
5,200.00	20.00	259.47	5,195.96	-6.31	-33.97	16.33	10.00	10.00	0.00

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-1L	<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)
5,300.00	30.00	259.47	5,286.48	-14.02	-75.47	36.28	10.00	10.00	0.00
5,400.00	40.00	259.47	5,368.29	-24.49	-131.79	63.35	10.00	10.00	0.00
5,500.00	50.00	259.47	5,438.91	-37.39	-201.22	96.73	10.00	10.00	0.00
5,600.00	60.00	259.47	5,496.20	-52.34	-281.66	135.39	10.00	10.00	0.00
5,618.47	61.85	259.47	5,505.17	-55.28	-297.53	143.02	10.00	10.00	0.00
Begin 61.85° tangent									
5,700.00	61.85	259.47	5,543.64	-68.42	-368.20	176.99	0.00	0.00	0.00
5,800.00	61.85	259.47	5,590.82	-84.52	-454.89	218.66	0.00	0.00	0.00
5,900.00	61.85	259.47	5,638.01	-100.63	-541.57	260.33	0.00	0.00	0.00
6,000.00	61.85	259.47	5,685.19	-116.74	-628.26	302.00	0.00	0.00	0.00
6,100.00	61.85	259.47	5,732.37	-132.85	-714.94	343.66	0.00	0.00	0.00
6,200.00	61.85	259.47	5,779.55	-148.95	-801.63	385.33	0.00	0.00	0.00
6,300.00	61.85	259.47	5,826.74	-165.06	-888.31	427.00	0.00	0.00	0.00
6,400.00	61.85	259.47	5,873.92	-181.17	-975.00	468.67	0.00	0.00	0.00
6,500.00	61.85	259.47	5,921.10	-197.27	-1,061.69	510.34	0.00	0.00	0.00
6,600.00	61.85	259.47	5,968.28	-213.38	-1,148.37	552.01	0.00	0.00	0.00
6,700.00	61.85	259.47	6,015.47	-229.49	-1,235.06	593.67	0.00	0.00	0.00
6,800.00	61.85	259.47	6,062.65	-245.60	-1,321.74	635.34	0.00	0.00	0.00
6,900.00	61.85	259.47	6,109.83	-261.70	-1,408.43	677.01	0.00	0.00	0.00
7,000.00	61.85	259.47	6,157.01	-277.81	-1,495.11	718.68	0.00	0.00	0.00
7,100.00	61.85	259.47	6,204.20	-293.92	-1,581.80	760.35	0.00	0.00	0.00
7,200.00	61.85	259.47	6,251.38	-310.02	-1,668.48	802.02	0.00	0.00	0.00
7,300.00	61.85	259.47	6,298.56	-326.13	-1,755.17	843.69	0.00	0.00	0.00
7,400.00	61.85	259.47	6,345.75	-342.24	-1,841.85	885.35	0.00	0.00	0.00
7,500.00	61.85	259.47	6,392.93	-358.35	-1,928.54	927.02	0.00	0.00	0.00
7,600.00	61.85	259.47	6,440.11	-374.45	-2,015.22	968.69	0.00	0.00	0.00
7,700.00	61.85	259.47	6,487.29	-390.56	-2,101.91	1,010.36	0.00	0.00	0.00
7,800.00	61.85	259.47	6,534.48	-406.67	-2,188.60	1,052.03	0.00	0.00	0.00
7,900.00	61.85	259.47	6,581.66	-422.77	-2,275.28	1,093.70	0.00	0.00	0.00
8,000.00	61.85	259.47	6,628.84	-438.88	-2,361.97	1,135.37	0.00	0.00	0.00
8,100.00	61.85	259.47	6,676.02	-454.99	-2,448.65	1,177.03	0.00	0.00	0.00
8,200.00	61.85	259.47	6,723.21	-471.10	-2,535.34	1,218.70	0.00	0.00	0.00
8,300.00	61.85	259.47	6,770.39	-487.20	-2,622.02	1,260.37	0.00	0.00	0.00
8,400.00	61.85	259.47	6,817.57	-503.31	-2,708.71	1,302.04	0.00	0.00	0.00
8,500.00	61.85	259.47	6,864.76	-519.42	-2,795.39	1,343.71	0.00	0.00	0.00
8,600.00	61.85	259.47	6,911.94	-535.52	-2,882.08	1,385.38	0.00	0.00	0.00
8,648.34	61.85	259.47	6,934.75	-543.31	-2,923.98	1,405.52	0.00	0.00	0.00
Begin 10°/100' build/turn									
8,700.00	62.42	253.67	6,958.91	-553.92	-2,968.37	1,429.10	10.00	1.10	-11.24
8,800.00	64.18	242.64	7,003.95	-587.15	-3,051.09	1,485.88	10.00	1.77	-11.02
8,900.00	66.75	232.02	7,045.57	-636.23	-3,127.47	1,555.84	10.00	2.57	-10.63
9,000.00	70.01	221.84	7,082.49	-699.67	-3,195.19	1,636.85	10.00	3.25	-10.18
9,100.00	73.82	212.11	7,113.60	-775.54	-3,252.20	1,726.45	10.00	3.81	-9.73
9,200.00	78.05	202.77	7,137.96	-861.54	-3,296.77	1,821.91	10.00	4.23	-9.34
9,300.00	82.58	193.72	7,154.81	-955.04	-3,327.54	1,920.35	10.00	4.53	-9.05
9,400.00	87.29	184.86	7,163.66	-1,053.22	-3,343.57	2,018.76	10.00	4.71	-8.86
9,456.40	89.98	179.91	7,165.00	-1,109.53	-3,345.92	2,073.13	10.00	4.77	-8.79
LP Begin 89.98° lateral section									
9,500.00	89.98	179.91	7,165.01	-1,153.14	-3,345.84	2,114.65	0.00	0.00	0.00
9,600.00	89.98	179.91	7,165.05	-1,253.14	-3,345.68	2,209.88	0.00	0.00	0.00
9,700.00	89.98	179.91	7,165.08	-1,353.14	-3,345.51	2,305.10	0.00	0.00	0.00
9,800.00	89.98	179.91	7,165.11	-1,453.14	-3,345.35	2,400.33	0.00	0.00	0.00
9,900.00	89.98	179.91	7,165.14	-1,553.14	-3,345.18	2,495.56	0.00	0.00	0.00

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-1L	<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	89.98	179.91	7,165.17	-1,653.14	-3,345.02	2,590.79	0.00	0.00	0.00	
10,100.00	89.98	179.91	7,165.21	-1,753.14	-3,344.85	2,686.02	0.00	0.00	0.00	
10,200.00	89.98	179.91	7,165.24	-1,853.14	-3,344.69	2,781.25	0.00	0.00	0.00	
10,300.00	89.98	179.91	7,165.27	-1,953.13	-3,344.52	2,876.47	0.00	0.00	0.00	
10,400.00	89.98	179.91	7,165.30	-2,053.13	-3,344.35	2,971.70	0.00	0.00	0.00	
10,500.00	89.98	179.91	7,165.34	-2,153.13	-3,344.19	3,066.93	0.00	0.00	0.00	
10,600.00	89.98	179.91	7,165.37	-2,253.13	-3,344.02	3,162.16	0.00	0.00	0.00	
10,700.00	89.98	179.91	7,165.40	-2,353.13	-3,343.86	3,257.39	0.00	0.00	0.00	
10,800.00	89.98	179.91	7,165.43	-2,453.13	-3,343.69	3,352.61	0.00	0.00	0.00	
10,900.00	89.98	179.91	7,165.46	-2,553.13	-3,343.53	3,447.84	0.00	0.00	0.00	
11,000.00	89.98	179.91	7,165.50	-2,653.13	-3,343.36	3,543.07	0.00	0.00	0.00	
11,100.00	89.98	179.91	7,165.53	-2,753.13	-3,343.20	3,638.30	0.00	0.00	0.00	
11,200.00	89.98	179.91	7,165.56	-2,853.13	-3,343.03	3,733.53	0.00	0.00	0.00	
11,300.00	89.98	179.91	7,165.59	-2,953.13	-3,342.87	3,828.75	0.00	0.00	0.00	
11,400.00	89.98	179.91	7,165.62	-3,053.13	-3,342.70	3,923.98	0.00	0.00	0.00	
11,500.00	89.98	179.91	7,165.66	-3,153.13	-3,342.53	4,019.21	0.00	0.00	0.00	
11,600.00	89.98	179.91	7,165.69	-3,253.13	-3,342.37	4,114.44	0.00	0.00	0.00	
11,700.00	89.98	179.91	7,165.72	-3,353.13	-3,342.20	4,209.67	0.00	0.00	0.00	
11,800.00	89.98	179.91	7,165.75	-3,453.13	-3,342.04	4,304.89	0.00	0.00	0.00	
11,900.00	89.98	179.91	7,165.78	-3,553.13	-3,341.87	4,400.12	0.00	0.00	0.00	
12,000.00	89.98	179.91	7,165.82	-3,653.13	-3,341.71	4,495.35	0.00	0.00	0.00	
12,100.00	89.98	179.91	7,165.85	-3,753.13	-3,341.54	4,590.58	0.00	0.00	0.00	
12,200.00	89.98	179.91	7,165.88	-3,853.13	-3,341.38	4,685.81	0.00	0.00	0.00	
12,300.00	89.98	179.91	7,165.91	-3,953.13	-3,341.21	4,781.03	0.00	0.00	0.00	
12,400.00	89.98	179.91	7,165.95	-4,053.13	-3,341.04	4,876.26	0.00	0.00	0.00	
12,500.00	89.98	179.91	7,165.98	-4,153.13	-3,340.88	4,971.49	0.00	0.00	0.00	
12,600.00	89.98	179.91	7,166.01	-4,253.13	-3,340.71	5,066.72	0.00	0.00	0.00	
12,700.00	89.98	179.91	7,166.04	-4,353.13	-3,340.55	5,161.95	0.00	0.00	0.00	
12,800.00	89.98	179.91	7,166.07	-4,453.13	-3,340.38	5,257.17	0.00	0.00	0.00	
12,900.00	89.98	179.91	7,166.11	-4,553.13	-3,340.22	5,352.40	0.00	0.00	0.00	
13,000.00	89.98	179.91	7,166.14	-4,653.13	-3,340.05	5,447.63	0.00	0.00	0.00	
13,100.00	89.98	179.91	7,166.17	-4,753.13	-3,339.89	5,542.86	0.00	0.00	0.00	
13,200.00	89.98	179.91	7,166.20	-4,853.13	-3,339.72	5,638.09	0.00	0.00	0.00	
13,300.00	89.98	179.91	7,166.23	-4,953.13	-3,339.56	5,733.31	0.00	0.00	0.00	
13,400.00	89.98	179.91	7,166.27	-5,053.13	-3,339.39	5,828.54	0.00	0.00	0.00	
13,500.00	89.98	179.91	7,166.30	-5,153.13	-3,339.22	5,923.77	0.00	0.00	0.00	
13,600.00	89.98	179.91	7,166.33	-5,253.13	-3,339.06	6,019.00	0.00	0.00	0.00	
13,700.00	89.98	179.91	7,166.36	-5,353.13	-3,338.89	6,114.23	0.00	0.00	0.00	
13,800.00	89.98	179.91	7,166.40	-5,453.13	-3,338.73	6,209.45	0.00	0.00	0.00	
13,900.00	89.98	179.91	7,166.43	-5,553.13	-3,338.56	6,304.68	0.00	0.00	0.00	
14,000.00	89.98	179.91	7,166.46	-5,653.13	-3,338.40	6,399.91	0.00	0.00	0.00	
14,100.00	89.98	179.91	7,166.49	-5,753.13	-3,338.23	6,495.14	0.00	0.00	0.00	
14,200.00	89.98	179.91	7,166.52	-5,853.13	-3,338.07	6,590.37	0.00	0.00	0.00	
14,300.00	89.98	179.91	7,166.56	-5,953.13	-3,337.90	6,685.59	0.00	0.00	0.00	
14,400.00	89.98	179.91	7,166.59	-6,053.13	-3,337.73	6,780.82	0.00	0.00	0.00	
14,500.00	89.98	179.91	7,166.62	-6,153.13	-3,337.57	6,876.05	0.00	0.00	0.00	
14,600.00	89.98	179.91	7,166.65	-6,253.13	-3,337.40	6,971.28	0.00	0.00	0.00	
14,700.00	89.98	179.91	7,166.68	-6,353.13	-3,337.24	7,066.51	0.00	0.00	0.00	
14,800.00	89.98	179.91	7,166.72	-6,453.13	-3,337.07	7,161.73	0.00	0.00	0.00	
14,900.00	89.98	179.91	7,166.75	-6,553.13	-3,336.91	7,256.96	0.00	0.00	0.00	
15,000.00	89.98	179.91	7,166.78	-6,653.13	-3,336.74	7,352.19	0.00	0.00	0.00	
15,100.00	89.98	179.91	7,166.81	-6,753.13	-3,336.58	7,447.42	0.00	0.00	0.00	
15,200.00	89.98	179.91	7,166.84	-6,853.13	-3,336.41	7,542.65	0.00	0.00	0.00	
15,300.00	89.98	179.91	7,166.88	-6,953.13	-3,336.24	7,637.88	0.00	0.00	0.00	

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-1L	<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)	
15,400.00	89.98	179.91	7,166.91	-7,053.13	-3,336.08	7,733.10	0.00	0.00	0.00	
15,500.00	89.98	179.91	7,166.94	-7,153.13	-3,335.91	7,828.33	0.00	0.00	0.00	
15,600.00	89.98	179.91	7,166.97	-7,253.13	-3,335.75	7,923.56	0.00	0.00	0.00	
15,700.00	89.98	179.91	7,167.01	-7,353.13	-3,335.58	8,018.79	0.00	0.00	0.00	
15,800.00	89.98	179.91	7,167.04	-7,453.13	-3,335.42	8,114.02	0.00	0.00	0.00	
15,900.00	89.98	179.91	7,167.07	-7,553.13	-3,335.25	8,209.24	0.00	0.00	0.00	
16,000.00	89.98	179.91	7,167.10	-7,653.13	-3,335.09	8,304.47	0.00	0.00	0.00	
16,100.00	89.98	179.91	7,167.13	-7,753.13	-3,334.92	8,399.70	0.00	0.00	0.00	
16,200.00	89.98	179.91	7,167.17	-7,853.13	-3,334.76	8,494.93	0.00	0.00	0.00	
16,300.00	89.98	179.91	7,167.20	-7,953.13	-3,334.59	8,590.16	0.00	0.00	0.00	
16,400.00	89.98	179.91	7,167.23	-8,053.13	-3,334.42	8,685.38	0.00	0.00	0.00	
16,500.00	89.98	179.91	7,167.26	-8,153.13	-3,334.26	8,780.61	0.00	0.00	0.00	
16,600.00	89.98	179.91	7,167.29	-8,253.13	-3,334.09	8,875.84	0.00	0.00	0.00	
16,700.00	89.98	179.91	7,167.33	-8,353.13	-3,333.93	8,971.07	0.00	0.00	0.00	
16,800.00	89.98	179.91	7,167.36	-8,453.13	-3,333.76	9,066.30	0.00	0.00	0.00	
16,900.00	89.98	179.91	7,167.39	-8,553.13	-3,333.60	9,161.52	0.00	0.00	0.00	
17,000.00	89.98	179.91	7,167.42	-8,653.13	-3,333.43	9,256.75	0.00	0.00	0.00	
17,100.00	89.98	179.91	7,167.46	-8,753.13	-3,333.27	9,351.98	0.00	0.00	0.00	
17,200.00	89.98	179.91	7,167.49	-8,853.13	-3,333.10	9,447.21	0.00	0.00	0.00	
17,300.00	89.98	179.91	7,167.52	-8,953.13	-3,332.93	9,542.44	0.00	0.00	0.00	
17,400.00	89.98	179.91	7,167.55	-9,053.12	-3,332.77	9,637.66	0.00	0.00	0.00	
17,500.00	89.98	179.91	7,167.58	-9,153.12	-3,332.60	9,732.89	0.00	0.00	0.00	
17,600.00	89.98	179.91	7,167.62	-9,253.12	-3,332.44	9,828.12	0.00	0.00	0.00	
17,700.00	89.98	179.91	7,167.65	-9,353.12	-3,332.27	9,923.35	0.00	0.00	0.00	
17,800.00	89.98	179.91	7,167.68	-9,453.12	-3,332.11	10,018.58	0.00	0.00	0.00	
17,900.00	89.98	179.91	7,167.71	-9,553.12	-3,331.94	10,113.80	0.00	0.00	0.00	
18,000.00	89.98	179.91	7,167.74	-9,653.12	-3,331.78	10,209.03	0.00	0.00	0.00	
18,100.00	89.98	179.91	7,167.78	-9,753.12	-3,331.61	10,304.26	0.00	0.00	0.00	
18,200.00	89.98	179.91	7,167.81	-9,853.12	-3,331.45	10,399.49	0.00	0.00	0.00	
18,300.00	89.98	179.91	7,167.84	-9,953.12	-3,331.28	10,494.72	0.00	0.00	0.00	
18,400.00	89.98	179.91	7,167.87	-10,053.12	-3,331.11	10,589.94	0.00	0.00	0.00	
18,500.00	89.98	179.91	7,167.90	-10,153.12	-3,330.95	10,685.17	0.00	0.00	0.00	
18,600.00	89.98	179.91	7,167.94	-10,253.12	-3,330.78	10,780.40	0.00	0.00	0.00	
18,700.00	89.98	179.91	7,167.97	-10,353.12	-3,330.62	10,875.63	0.00	0.00	0.00	
18,797.16	89.98	179.91	7,168.00	-10,450.28	-3,330.46	10,968.15	0.00	0.00	0.00	
PBHL/TD 18797.16 MD/7168.00 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										
LP Desha 4-05-1L 470 F	0.00	0.00	7,165.00	-1,109.53	-3,345.92	14,526,630.47	1,733,204.90	39.99924356	-104.66867772	
- plan hits target center										
- Point										
BHL Desha 4-05-1L 470	0.00	0.00	7,168.00	-10,450.28	-3,330.46	14,517,289.74	1,733,220.36	39.97359232	-104.66874643	
- plan hits target center										
- Point										

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-1L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	plan1		

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	
5,618.47	5,505.17	-55.28	-297.53	Begin 61.85° tangent	
8,648.34	6,934.75	-543.31	-2,923.98	Begin 10°/100' build/turn	
9,456.40	7,165.00	-1,109.53	-3,345.92	LP Begin 89.98° lateral section	
18,797.16	7,168.00	-10,450.28	-3,330.46	PBHL/TD 18797.16 MD/7168.00 TVD	

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-1L	<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 34-T01N-R65W			
Site Position:		Northing:	14,527,892.80 usft	Latitude:	40.00267560
From:	Map	Easting:	1,736,525.30 usft	Longitude:	-104.65680429
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.22 °

Well	Desha 4-5-1L, Surf loc: 620 FSL 793 FWL Sec34-T01N-R65W					
Well Position	+N/-S	0.00 ft	Northing:	14,527,740.00 usft	Latitude:	40.00225572
	+E/-W	0.00 ft	Easting:	1,736,550.81 usft	Longitude:	-104.65671529
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,140.00 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	8/29/2017	8.27	66.45	52,109.90000000

<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	197.68

<b>Plan Survey Tool Program</b>	<b>Date</b>	8/29/2017		
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	18,797.16 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	
5,618.47	61.85	259.47	5,505.17	-55.28	-297.53	10.00	10.00	0.00	259.47	
8,648.34	61.85	259.47	6,934.75	-543.31	-2,923.98	0.00	0.00	0.00	0.00	
9,456.40	89.98	179.91	7,165.00	-1,109.53	-3,345.92	10.00	3.48	-9.85	-85.05	LP Desha 4-05-1L 471
18,797.16	89.98	179.91	7,168.00	-10,450.28	-3,330.46	0.00	0.00	0.00	0.00	BHL Desha 4-05-1L 4



<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-1L	<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	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
100.00	0.00	0.00	100.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
200.00	0.00	0.00	200.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
300.00	0.00	0.00	300.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
400.00	0.00	0.00	400.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
500.00	0.00	0.00	500.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
600.00	0.00	0.00	600.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
700.00	0.00	0.00	700.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
800.00	0.00	0.00	800.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
900.00	0.00	0.00	900.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
2,100.00	0.00	0.00	2,100.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
2,200.00	0.00	0.00	2,200.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
2,300.00	0.00	0.00	2,300.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
2,400.00	0.00	0.00	2,400.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
2,500.00	0.00	0.00	2,500.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
2,600.00	0.00	0.00	2,600.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
2,700.00	0.00	0.00	2,700.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
2,800.00	0.00	0.00	2,800.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
2,900.00	0.00	0.00	2,900.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
3,000.00	0.00	0.00	3,000.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
3,100.00	0.00	0.00	3,100.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
3,200.00	0.00	0.00	3,200.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
3,300.00	0.00	0.00	3,300.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
3,400.00	0.00	0.00	3,400.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
3,500.00	0.00	0.00	3,500.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
3,600.00	0.00	0.00	3,600.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
3,700.00	0.00	0.00	3,700.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
3,800.00	0.00	0.00	3,800.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
3,900.00	0.00	0.00	3,900.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
4,000.00	0.00	0.00	4,000.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
4,100.00	0.00	0.00	4,100.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
4,200.00	0.00	0.00	4,200.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
4,300.00	0.00	0.00	4,300.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
4,400.00	0.00	0.00	4,400.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
4,500.00	0.00	0.00	4,500.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
4,600.00	0.00	0.00	4,600.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
4,700.00	0.00	0.00	4,700.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
4,800.00	0.00	0.00	4,800.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
4,900.00	0.00	0.00	4,900.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
5,000.00	0.00	0.00	5,000.00	0.00	0.00	14,527,740.00	1,736,550.81	40.00225572	-104.65671529
KOP Begin 10°/100' build									
5,100.00	10.00	259.47	5,099.49	-1.59	-8.56	14,527,738.41	1,736,542.25	40.00225144	-104.65674588
5,200.00	20.00	259.47	5,195.96	-6.31	-33.97	14,527,733.69	1,736,516.84	40.00223875	-104.65683669

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-1L	<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
5,300.00	30.00	259.47	5,286.48	-14.02	-75.47	14,527,725.98	1,736,475.34	40.00221801	-104.65698498
5,400.00	40.00	259.47	5,368.29	-24.49	-131.79	14,527,715.52	1,736,419.02	40.00218987	-104.65718623
5,500.00	50.00	259.47	5,438.91	-37.39	-201.22	14,527,702.62	1,736,349.59	40.00215517	-104.65743434
5,600.00	60.00	259.47	5,496.20	-52.34	-281.66	14,527,687.67	1,736,269.15	40.00211498	-104.65772176
5,618.47	61.85	259.47	5,505.17	-55.28	-297.53	14,527,684.72	1,736,253.28	40.00210704	-104.65777847
Begin 61.85° tangent									
5,700.00	61.85	259.47	5,543.64	-68.42	-368.20	14,527,671.59	1,736,182.61	40.00207173	-104.65803102
5,800.00	61.85	259.47	5,590.82	-84.52	-454.89	14,527,655.48	1,736,095.92	40.00202841	-104.65834078
5,900.00	61.85	259.47	5,638.01	-100.63	-541.57	14,527,639.37	1,736,009.24	40.00198509	-104.65865053
6,000.00	61.85	259.47	5,685.19	-116.74	-628.26	14,527,623.27	1,735,922.55	40.00194177	-104.65896029
6,100.00	61.85	259.47	5,732.37	-132.85	-714.94	14,527,607.16	1,735,835.87	40.00189844	-104.65927005
6,200.00	61.85	259.47	5,779.55	-148.95	-801.63	14,527,591.05	1,735,749.18	40.00185512	-104.65957980
6,300.00	61.85	259.47	5,826.74	-165.06	-888.31	14,527,574.95	1,735,662.50	40.00181180	-104.65988956
6,400.00	61.85	259.47	5,873.92	-181.17	-975.00	14,527,558.84	1,735,575.81	40.00176847	-104.66019932
6,500.00	61.85	259.47	5,921.10	-197.27	-1,061.69	14,527,542.73	1,735,489.13	40.00172515	-104.66050907
6,600.00	61.85	259.47	5,968.28	-213.38	-1,148.37	14,527,526.62	1,735,402.44	40.00168182	-104.66081883
6,700.00	61.85	259.47	6,015.47	-229.49	-1,235.06	14,527,510.52	1,735,315.76	40.00163849	-104.66112858
6,800.00	61.85	259.47	6,062.65	-245.60	-1,321.74	14,527,494.41	1,735,229.07	40.00159517	-104.66143834
6,900.00	61.85	259.47	6,109.83	-261.70	-1,408.43	14,527,478.30	1,735,142.38	40.00155184	-104.66174809
7,000.00	61.85	259.47	6,157.01	-277.81	-1,495.11	14,527,462.20	1,735,055.70	40.00150851	-104.66205784
7,100.00	61.85	259.47	6,204.20	-293.92	-1,581.80	14,527,446.09	1,734,969.01	40.00146518	-104.66236760
7,200.00	61.85	259.47	6,251.38	-310.02	-1,668.48	14,527,429.98	1,734,882.33	40.00142185	-104.66267735
7,300.00	61.85	259.47	6,298.56	-326.13	-1,755.17	14,527,413.87	1,734,795.64	40.00137851	-104.66298710
7,400.00	61.85	259.47	6,345.75	-342.24	-1,841.85	14,527,397.77	1,734,708.96	40.00133518	-104.66329685
7,500.00	61.85	259.47	6,392.93	-358.35	-1,928.54	14,527,381.66	1,734,622.27	40.00129185	-104.66360660
7,600.00	61.85	259.47	6,440.11	-374.45	-2,015.22	14,527,365.55	1,734,535.59	40.00124851	-104.66391635
7,700.00	61.85	259.47	6,487.29	-390.56	-2,101.91	14,527,349.45	1,734,448.90	40.00120518	-104.66422610
7,800.00	61.85	259.47	6,534.48	-406.67	-2,188.60	14,527,333.34	1,734,362.22	40.00116184	-104.66453585
7,900.00	61.85	259.47	6,581.66	-422.77	-2,275.28	14,527,317.23	1,734,275.53	40.00111850	-104.66484560
8,000.00	61.85	259.47	6,628.84	-438.88	-2,361.97	14,527,301.12	1,734,188.85	40.00107517	-104.66515535
8,100.00	61.85	259.47	6,676.02	-454.99	-2,448.65	14,527,285.02	1,734,102.16	40.00103183	-104.66546510
8,200.00	61.85	259.47	6,723.21	-471.10	-2,535.34	14,527,268.91	1,734,015.48	40.00098849	-104.66577485
8,300.00	61.85	259.47	6,770.39	-487.20	-2,622.02	14,527,252.80	1,733,928.79	40.00094515	-104.66608460
8,400.00	61.85	259.47	6,817.57	-503.31	-2,708.71	14,527,236.70	1,733,842.11	40.00090181	-104.66639435
8,500.00	61.85	259.47	6,864.76	-519.42	-2,795.39	14,527,220.59	1,733,755.42	40.00085846	-104.66670410
8,600.00	61.85	259.47	6,911.94	-535.52	-2,882.08	14,527,204.48	1,733,668.74	40.00081512	-104.66701384
8,648.34	61.85	259.47	6,934.75	-543.31	-2,923.98	14,527,196.69	1,733,626.83	40.00079417	-104.66716358
Begin 10°/100' build/turn									
8,700.00	62.42	253.67	6,958.91	-553.92	-2,968.37	14,527,186.09	1,733,582.44	40.00076550	-104.66732222
8,800.00	64.18	242.64	7,003.95	-587.15	-3,051.09	14,527,152.86	1,733,499.73	40.00067509	-104.66761801
8,900.00	66.75	232.02	7,045.57	-636.23	-3,127.47	14,527,103.78	1,733,423.35	40.00054108	-104.66789140
9,000.00	70.01	221.84	7,082.49	-699.67	-3,195.19	14,527,040.34	1,733,355.63	40.00036756	-104.66813407
9,100.00	73.82	212.11	7,113.60	-775.54	-3,252.20	14,526,964.47	1,733,298.61	40.00015980	-104.66833865
9,200.00	78.05	202.77	7,137.96	-861.54	-3,296.77	14,526,878.47	1,733,254.05	39.99992409	-104.66849894
9,300.00	82.58	193.72	7,154.81	-955.04	-3,327.54	14,526,784.96	1,733,223.28	39.99966762	-104.66861004
9,400.00	87.29	184.86	7,163.66	-1,053.22	-3,343.57	14,526,686.78	1,733,207.24	39.99939817	-104.66866860
9,456.40	89.98	179.91	7,165.00	-1,109.53	-3,345.92	14,526,630.47	1,733,204.90	39.99924356	-104.66867772
LP Begin 89.98° lateral section									
9,500.00	89.98	179.91	7,165.01	-1,153.14	-3,345.84	14,526,586.87	1,733,204.97	39.99912382	-104.66867804
9,600.00	89.98	179.91	7,165.05	-1,253.14	-3,345.68	14,526,486.87	1,733,205.14	39.99884920	-104.66867877
9,700.00	89.98	179.91	7,165.08	-1,353.14	-3,345.51	14,526,386.87	1,733,205.30	39.99857459	-104.66867951
9,800.00	89.98	179.91	7,165.11	-1,453.14	-3,345.35	14,526,286.87	1,733,205.47	39.99829997	-104.66868025
9,900.00	89.98	179.91	7,165.14	-1,553.14	-3,345.18	14,526,186.87	1,733,205.63	39.99802536	-104.66868098
10,000.00	89.98	179.91	7,165.17	-1,653.14	-3,345.02	14,526,086.87	1,733,205.80	39.99775074	-104.66868172

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-1L	<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	89.98	179.91	7,165.21	-1,753.14	-3,344.85	14,525,986.87	1,733,205.96	39.99747612	-104.66868245
10,200.00	89.98	179.91	7,165.24	-1,853.14	-3,344.69	14,525,886.87	1,733,206.13	39.99720151	-104.66868319
10,300.00	89.98	179.91	7,165.27	-1,953.13	-3,344.52	14,525,786.87	1,733,206.29	39.99692689	-104.66868393
10,400.00	89.98	179.91	7,165.30	-2,053.13	-3,344.35	14,525,686.87	1,733,206.46	39.99665228	-104.66868466
10,500.00	89.98	179.91	7,165.34	-2,153.13	-3,344.19	14,525,586.87	1,733,206.63	39.99637766	-104.66868540
10,600.00	89.98	179.91	7,165.37	-2,253.13	-3,344.02	14,525,486.87	1,733,206.79	39.99610305	-104.66868613
10,700.00	89.98	179.91	7,165.40	-2,353.13	-3,343.86	14,525,386.88	1,733,206.96	39.99582843	-104.66868687
10,800.00	89.98	179.91	7,165.43	-2,453.13	-3,343.69	14,525,286.88	1,733,207.12	39.99555381	-104.66868761
10,900.00	89.98	179.91	7,165.46	-2,553.13	-3,343.53	14,525,186.88	1,733,207.29	39.99527920	-104.66868834
11,000.00	89.98	179.91	7,165.50	-2,653.13	-3,343.36	14,525,086.88	1,733,207.45	39.99500458	-104.66868908
11,100.00	89.98	179.91	7,165.53	-2,753.13	-3,343.20	14,524,986.88	1,733,207.62	39.99472997	-104.66868981
11,200.00	89.98	179.91	7,165.56	-2,853.13	-3,343.03	14,524,886.88	1,733,207.78	39.99445535	-104.66869055
11,300.00	89.98	179.91	7,165.59	-2,953.13	-3,342.87	14,524,786.88	1,733,207.95	39.99418074	-104.66869129
11,400.00	89.98	179.91	7,165.62	-3,053.13	-3,342.70	14,524,686.88	1,733,208.12	39.99390612	-104.66869202
11,500.00	89.98	179.91	7,165.66	-3,153.13	-3,342.53	14,524,586.88	1,733,208.28	39.99363150	-104.66869276
11,600.00	89.98	179.91	7,165.69	-3,253.13	-3,342.37	14,524,486.88	1,733,208.45	39.99335689	-104.66869349
11,700.00	89.98	179.91	7,165.72	-3,353.13	-3,342.20	14,524,386.88	1,733,208.61	39.99308227	-104.66869423
11,800.00	89.98	179.91	7,165.75	-3,453.13	-3,342.04	14,524,286.88	1,733,208.78	39.99280766	-104.66869497
11,900.00	89.98	179.91	7,165.78	-3,553.13	-3,341.87	14,524,186.88	1,733,208.94	39.99253304	-104.66869570
12,000.00	89.98	179.91	7,165.82	-3,653.13	-3,341.71	14,524,086.88	1,733,209.11	39.99225843	-104.66869644
12,100.00	89.98	179.91	7,165.85	-3,753.13	-3,341.54	14,523,986.88	1,733,209.27	39.99198381	-104.66869717
12,200.00	89.98	179.91	7,165.88	-3,853.13	-3,341.38	14,523,886.88	1,733,209.44	39.99170919	-104.66869791
12,300.00	89.98	179.91	7,165.91	-3,953.13	-3,341.21	14,523,786.88	1,733,209.61	39.99143458	-104.66869865
12,400.00	89.98	179.91	7,165.95	-4,053.13	-3,341.04	14,523,686.88	1,733,209.77	39.99115996	-104.66869938
12,500.00	89.98	179.91	7,165.98	-4,153.13	-3,340.88	14,523,586.88	1,733,209.94	39.99088535	-104.66870012
12,600.00	89.98	179.91	7,166.01	-4,253.13	-3,340.71	14,523,486.88	1,733,210.10	39.99061073	-104.66870085
12,700.00	89.98	179.91	7,166.04	-4,353.13	-3,340.55	14,523,386.88	1,733,210.27	39.99033611	-104.66870159
12,800.00	89.98	179.91	7,166.07	-4,453.13	-3,340.38	14,523,286.88	1,733,210.43	39.99006150	-104.66870232
12,900.00	89.98	179.91	7,166.11	-4,553.13	-3,340.22	14,523,186.88	1,733,210.60	39.98978688	-104.66870306
13,000.00	89.98	179.91	7,166.14	-4,653.13	-3,340.05	14,523,086.88	1,733,210.76	39.98951227	-104.66870380
13,100.00	89.98	179.91	7,166.17	-4,753.13	-3,339.89	14,522,986.88	1,733,210.93	39.98923765	-104.66870453
13,200.00	89.98	179.91	7,166.20	-4,853.13	-3,339.72	14,522,886.88	1,733,211.09	39.98896303	-104.66870527
13,300.00	89.98	179.91	7,166.23	-4,953.13	-3,339.56	14,522,786.88	1,733,211.26	39.98868842	-104.66870600
13,400.00	89.98	179.91	7,166.27	-5,053.13	-3,339.39	14,522,686.88	1,733,211.43	39.98841380	-104.66870674
13,500.00	89.98	179.91	7,166.30	-5,153.13	-3,339.22	14,522,586.88	1,733,211.59	39.98813919	-104.66870747
13,600.00	89.98	179.91	7,166.33	-5,253.13	-3,339.06	14,522,486.88	1,733,211.76	39.98786457	-104.66870821
13,700.00	89.98	179.91	7,166.36	-5,353.13	-3,338.89	14,522,386.89	1,733,211.92	39.98758995	-104.66870895
13,800.00	89.98	179.91	7,166.40	-5,453.13	-3,338.73	14,522,286.89	1,733,212.09	39.98731534	-104.66870968
13,900.00	89.98	179.91	7,166.43	-5,553.13	-3,338.56	14,522,186.89	1,733,212.25	39.98704072	-104.66871042
14,000.00	89.98	179.91	7,166.46	-5,653.13	-3,338.40	14,522,086.89	1,733,212.42	39.98676611	-104.66871115
14,100.00	89.98	179.91	7,166.49	-5,753.13	-3,338.23	14,521,986.89	1,733,212.58	39.98649149	-104.66871189
14,200.00	89.98	179.91	7,166.52	-5,853.13	-3,338.07	14,521,886.89	1,733,212.75	39.98621687	-104.66871262
14,300.00	89.98	179.91	7,166.56	-5,953.13	-3,337.90	14,521,786.89	1,733,212.92	39.98594226	-104.66871336
14,400.00	89.98	179.91	7,166.59	-6,053.13	-3,337.73	14,521,686.89	1,733,213.08	39.98566764	-104.66871410
14,500.00	89.98	179.91	7,166.62	-6,153.13	-3,337.57	14,521,586.89	1,733,213.25	39.98539302	-104.66871483
14,600.00	89.98	179.91	7,166.65	-6,253.13	-3,337.40	14,521,486.89	1,733,213.41	39.98511841	-104.66871557
14,700.00	89.98	179.91	7,166.68	-6,353.13	-3,337.24	14,521,386.89	1,733,213.58	39.98484379	-104.66871630
14,800.00	89.98	179.91	7,166.72	-6,453.13	-3,337.07	14,521,286.89	1,733,213.74	39.98456918	-104.66871704
14,900.00	89.98	179.91	7,166.75	-6,553.13	-3,336.91	14,521,186.89	1,733,213.91	39.98429456	-104.66871777
15,000.00	89.98	179.91	7,166.78	-6,653.13	-3,336.74	14,521,086.89	1,733,214.07	39.98401994	-104.66871851
15,100.00	89.98	179.91	7,166.81	-6,753.13	-3,336.58	14,520,986.89	1,733,214.24	39.98374533	-104.66871924
15,200.00	89.98	179.91	7,166.84	-6,853.13	-3,336.41	14,520,886.89	1,733,214.41	39.98347071	-104.66871998
15,300.00	89.98	179.91	7,166.88	-6,953.13	-3,336.24	14,520,786.89	1,733,214.57	39.98319609	-104.66872071
15,400.00	89.98	179.91	7,166.91	-7,053.13	-3,336.08	14,520,686.89	1,733,214.74	39.98292148	-104.66872145
15,500.00	89.98	179.91	7,166.94	-7,153.13	-3,335.91	14,520,586.89	1,733,214.90	39.98264686	-104.66872219

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-1L	<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	
15,600.00	89.98	179.91	7,166.97	-7,253.13	-3,335.75	14,520,486.89	1,733,215.07	39.98237225	-104.66872292	
15,700.00	89.98	179.91	7,167.01	-7,353.13	-3,335.58	14,520,386.89	1,733,215.23	39.98209763	-104.66872366	
15,800.00	89.98	179.91	7,167.04	-7,453.13	-3,335.42	14,520,286.89	1,733,215.40	39.98182301	-104.66872439	
15,900.00	89.98	179.91	7,167.07	-7,553.13	-3,335.25	14,520,186.89	1,733,215.56	39.98154840	-104.66872513	
16,000.00	89.98	179.91	7,167.10	-7,653.13	-3,335.09	14,520,086.89	1,733,215.73	39.98127378	-104.66872586	
16,100.00	89.98	179.91	7,167.13	-7,753.13	-3,334.92	14,519,986.89	1,733,215.89	39.98099916	-104.66872660	
16,200.00	89.98	179.91	7,167.17	-7,853.13	-3,334.76	14,519,886.89	1,733,216.06	39.98072455	-104.66872733	
16,300.00	89.98	179.91	7,167.20	-7,953.13	-3,334.59	14,519,786.89	1,733,216.23	39.98044993	-104.66872807	
16,400.00	89.98	179.91	7,167.23	-8,053.13	-3,334.42	14,519,686.89	1,733,216.39	39.98017531	-104.66872880	
16,500.00	89.98	179.91	7,167.26	-8,153.13	-3,334.26	14,519,586.89	1,733,216.56	39.97990070	-104.66872954	
16,600.00	89.98	179.91	7,167.29	-8,253.13	-3,334.09	14,519,486.90	1,733,216.72	39.97962608	-104.66873027	
16,700.00	89.98	179.91	7,167.33	-8,353.13	-3,333.93	14,519,386.90	1,733,216.89	39.97935147	-104.66873101	
16,800.00	89.98	179.91	7,167.36	-8,453.13	-3,333.76	14,519,286.90	1,733,217.05	39.97907685	-104.66873175	
16,900.00	89.98	179.91	7,167.39	-8,553.13	-3,333.60	14,519,186.90	1,733,217.22	39.97880223	-104.66873248	
17,000.00	89.98	179.91	7,167.42	-8,653.13	-3,333.43	14,519,086.90	1,733,217.38	39.97852762	-104.66873322	
17,100.00	89.98	179.91	7,167.46	-8,753.13	-3,333.27	14,518,986.90	1,733,217.55	39.97825300	-104.66873395	
17,200.00	89.98	179.91	7,167.49	-8,853.13	-3,333.10	14,518,886.90	1,733,217.72	39.97797838	-104.66873469	
17,300.00	89.98	179.91	7,167.52	-8,953.13	-3,332.93	14,518,786.90	1,733,217.88	39.97770377	-104.66873542	
17,400.00	89.98	179.91	7,167.55	-9,053.12	-3,332.77	14,518,686.90	1,733,218.05	39.97742915	-104.66873616	
17,500.00	89.98	179.91	7,167.58	-9,153.12	-3,332.60	14,518,586.90	1,733,218.21	39.97715453	-104.66873689	
17,600.00	89.98	179.91	7,167.62	-9,253.12	-3,332.44	14,518,486.90	1,733,218.38	39.97687992	-104.66873763	
17,700.00	89.98	179.91	7,167.65	-9,353.12	-3,332.27	14,518,386.90	1,733,218.54	39.97660530	-104.66873836	
17,800.00	89.98	179.91	7,167.68	-9,453.12	-3,332.11	14,518,286.90	1,733,218.71	39.97633068	-104.66873910	
17,900.00	89.98	179.91	7,167.71	-9,553.12	-3,331.94	14,518,186.90	1,733,218.87	39.97605607	-104.66873983	
18,000.00	89.98	179.91	7,167.74	-9,653.12	-3,331.78	14,518,086.90	1,733,219.04	39.97578145	-104.66874057	
18,100.00	89.98	179.91	7,167.78	-9,753.12	-3,331.61	14,517,986.90	1,733,219.20	39.97550683	-104.66874130	
18,200.00	89.98	179.91	7,167.81	-9,853.12	-3,331.45	14,517,886.90	1,733,219.37	39.97523222	-104.66874204	
18,300.00	89.98	179.91	7,167.84	-9,953.12	-3,331.28	14,517,786.90	1,733,219.54	39.97495760	-104.66874277	
18,400.00	89.98	179.91	7,167.87	-10,053.12	-3,331.11	14,517,686.90	1,733,219.70	39.97468298	-104.66874351	
18,500.00	89.98	179.91	7,167.90	-10,153.12	-3,330.95	14,517,586.90	1,733,219.87	39.97440837	-104.66874424	
18,600.00	89.98	179.91	7,167.94	-10,253.12	-3,330.78	14,517,486.90	1,733,220.03	39.97413375	-104.66874498	
18,700.00	89.98	179.91	7,167.97	-10,353.12	-3,330.62	14,517,386.90	1,733,220.20	39.97385913	-104.66874571	
18,797.16	89.98	179.91	7,168.00	-10,450.28	-3,330.46	14,517,289.74	1,733,220.36	39.97359232	-104.66874643	
PBHL/TD 18797.16 MD/7168.00 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										
LP Desha 4-05-1L 470 F	0.00	0.00	7,165.00	-1,109.53	-3,345.92	14,526,630.47	1,733,204.90	39.99924356	-104.66867772	
- plan hits target center										
- Point										
BHL Desha 4-05-1L 470	0.00	0.00	7,168.00	-10,450.28	-3,330.46	14,517,289.74	1,733,220.36	39.97359232	-104.66874643	
- plan hits target center										
- Point										

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-1L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	plan1		

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
5,618.47	5,505.17	-55.28	-297.53	Begin 61.85° tangent
8,648.34	6,934.75	-543.31	-2,923.98	Begin 10°/100' build/turn
9,456.40	7,165.00	-1,109.53	-3,345.92	LP Begin 89.98° lateral section
18,797.16	7,168.00	-10,450.28	-3,330.46	PBHL/TD 18797.16 MD/7168.00 TVD