

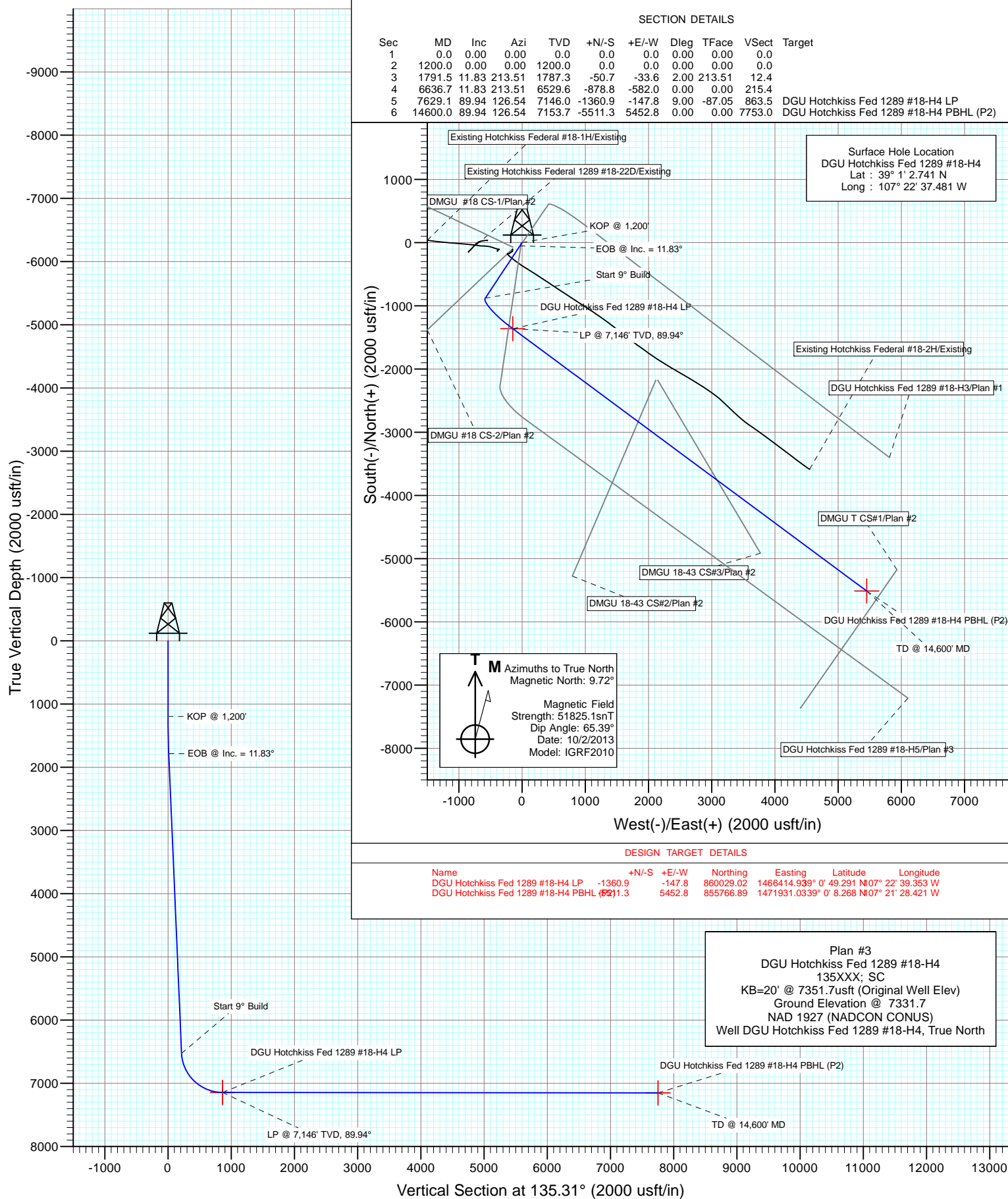


**GUNNISON ENERGY CORPORATION**

Project: Gunnison County, CO  
Site: DGU Hotchkiss Federal #1289 Pad  
Well: DGU Hotchkiss Fed 1289 #18-H4  
Borehole: HZ  
Design: Plan #3



**CATHEDRAL**



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well DGU Hotchkiss Fed 1289 #18-H4
<b>Company:</b>	Gunnison Energy Corporation	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Project:</b>	Gunnison County, CO	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>North Reference:</b>	True
<b>Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #3		

<b>Project</b>	Gunnison County, CO		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Colorado South 503		

<b>Site</b>	DGU Hotchkiss Federal #1289 Pad		
<b>Site Position:</b>		<b>Northing:</b>	861,386.71 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	1,466,590.03 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16"
		<b>Latitude:</b>	39° 1' 2.741 N
		<b>Longitude:</b>	107° 22' 37.481 W
		<b>Grid Convergence:</b>	-1.15 °

<b>Well</b>	DGU Hotchkiss Fed 1289 #18-H4		
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	usft
		<b>Latitude:</b>	39° 1' 2.741 N
		<b>Longitude:</b>	107° 22' 37.481 W
		<b>Ground Level:</b>	7,331.7 usft

<b>Wellbore</b>	HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
			(°)	(°)	(nT)
	IGRF2010	10/2/2013	9.72	65.39	51,825

<b>Design</b>	Plan #3			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	135.31

<b>Plan Sections</b>										
<b>Measured Depth</b>	<b>Inclination</b>	<b>Azimuth</b>	<b>Vertical Depth</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Dogleg Rate</b>	<b>Build Rate</b>	<b>Turn Rate</b>	<b>TFO</b>	<b>Target</b>
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,791.5	11.83	213.51	1,787.3	-50.7	-33.6	2.00	2.00	0.00	213.51	
6,636.7	11.83	213.51	6,529.6	-878.8	-582.0	0.00	0.00	0.00	0.00	
7,629.1	89.94	126.54	7,146.0	-1,360.9	-147.8	9.00	7.87	-8.76	-87.05	DGU Hotchkiss Fed 1
14,600.0	89.94	126.54	7,153.7	-5,511.3	5,452.8	0.00	0.00	0.00	0.00	DGU Hotchkiss Fed 1

# Cathedral Energy Services

## Planning Report

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<b>Company:</b>	Gunnison Energy Corporation	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Project:</b>	Gunnison County, CO	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>North Reference:</b>	True
<b>Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #3		

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	KOP @ 1,200'
1,300.0	2.00	213.51	1,300.0	-1.5	-1.0	0.4	2.00	2.00	
1,400.0	4.00	213.51	1,399.8	-5.8	-3.9	1.4	2.00	2.00	
1,500.0	6.00	213.51	1,499.5	-13.1	-8.7	3.2	2.00	2.00	
1,600.0	8.00	213.51	1,598.7	-23.2	-15.4	5.7	2.00	2.00	
1,700.0	10.00	213.51	1,697.5	-36.3	-24.0	8.9	2.00	2.00	
1,791.5	11.83	213.51	1,787.3	-50.7	-33.6	12.4	2.00	2.00	EOB @ Inc. = 11.83°
1,800.0	11.83	213.51	1,795.6	-52.2	-34.6	12.8	0.00	0.00	
1,900.0	11.83	213.51	1,893.5	-69.3	-45.9	17.0	0.00	0.00	
2,000.0	11.83	213.51	1,991.4	-86.4	-57.2	21.2	0.00	0.00	
2,100.0	11.83	213.51	2,089.3	-103.5	-68.5	25.4	0.00	0.00	
2,200.0	11.83	213.51	2,187.1	-120.6	-79.8	29.5	0.00	0.00	
2,300.0	11.83	213.51	2,285.0	-137.6	-91.2	33.7	0.00	0.00	
2,400.0	11.83	213.51	2,382.9	-154.7	-102.5	37.9	0.00	0.00	
2,500.0	11.83	213.51	2,480.8	-171.8	-113.8	42.1	0.00	0.00	
2,600.0	11.83	213.51	2,578.6	-188.9	-125.1	46.3	0.00	0.00	
2,700.0	11.83	213.51	2,676.5	-206.0	-136.4	50.5	0.00	0.00	
2,800.0	11.83	213.51	2,774.4	-223.1	-147.7	54.7	0.00	0.00	
2,900.0	11.83	213.51	2,872.3	-240.2	-159.1	58.9	0.00	0.00	
3,000.0	11.83	213.51	2,970.1	-257.3	-170.4	63.1	0.00	0.00	
3,100.0	11.83	213.51	3,068.0	-274.4	-181.7	67.2	0.00	0.00	
3,200.0	11.83	213.51	3,165.9	-291.5	-193.0	71.4	0.00	0.00	
3,300.0	11.83	213.51	3,263.8	-308.6	-204.3	75.6	0.00	0.00	
3,400.0	11.83	213.51	3,361.6	-325.6	-215.7	79.8	0.00	0.00	
3,500.0	11.83	213.51	3,459.5	-342.7	-227.0	84.0	0.00	0.00	
3,600.0	11.83	213.51	3,557.4	-359.8	-238.3	88.2	0.00	0.00	
3,700.0	11.83	213.51	3,655.3	-376.9	-249.6	92.4	0.00	0.00	
3,800.0	11.83	213.51	3,753.2	-394.0	-260.9	96.6	0.00	0.00	
3,900.0	11.83	213.51	3,851.0	-411.1	-272.3	100.8	0.00	0.00	
4,000.0	11.83	213.51	3,948.9	-428.2	-283.6	104.9	0.00	0.00	
4,100.0	11.83	213.51	4,046.8	-445.3	-294.9	109.1	0.00	0.00	
4,200.0	11.83	213.51	4,144.7	-462.4	-306.2	113.3	0.00	0.00	
4,300.0	11.83	213.51	4,242.5	-479.5	-317.5	117.5	0.00	0.00	
4,400.0	11.83	213.51	4,340.4	-496.6	-328.8	121.7	0.00	0.00	
4,500.0	11.83	213.51	4,438.3	-513.7	-340.2	125.9	0.00	0.00	
4,600.0	11.83	213.51	4,536.2	-530.7	-351.5	130.1	0.00	0.00	
4,700.0	11.83	213.51	4,634.0	-547.8	-362.8	134.3	0.00	0.00	
4,800.0	11.83	213.51	4,731.9	-564.9	-374.1	138.5	0.00	0.00	
4,900.0	11.83	213.51	4,829.8	-582.0	-385.4	142.6	0.00	0.00	
5,000.0	11.83	213.51	4,927.7	-599.1	-396.8	146.8	0.00	0.00	

# Cathedral Energy Services

## Planning Report

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<b>Company:</b>	Gunnison Energy Corporation	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Project:</b>	Gunnison County, CO	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>North Reference:</b>	True
<b>Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #3		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
5,100.0	11.83	213.51	5,025.5	-616.2	-408.1	151.0	0.00	0.00	
5,200.0	11.83	213.51	5,123.4	-633.3	-419.4	155.2	0.00	0.00	
5,300.0	11.83	213.51	5,221.3	-650.4	-430.7	159.4	0.00	0.00	
5,400.0	11.83	213.51	5,319.2	-667.5	-442.0	163.6	0.00	0.00	
5,500.0	11.83	213.51	5,417.0	-684.6	-453.4	167.8	0.00	0.00	
5,600.0	11.83	213.51	5,514.9	-701.7	-464.7	172.0	0.00	0.00	
5,700.0	11.83	213.51	5,612.8	-718.7	-476.0	176.2	0.00	0.00	
5,800.0	11.83	213.51	5,710.7	-735.8	-487.3	180.4	0.00	0.00	
5,900.0	11.83	213.51	5,808.6	-752.9	-498.6	184.5	0.00	0.00	
6,000.0	11.83	213.51	5,906.4	-770.0	-509.9	188.7	0.00	0.00	
6,100.0	11.83	213.51	6,004.3	-787.1	-521.3	192.9	0.00	0.00	
6,200.0	11.83	213.51	6,102.2	-804.2	-532.6	197.1	0.00	0.00	
6,300.0	11.83	213.51	6,200.1	-821.3	-543.9	201.3	0.00	0.00	
6,400.0	11.83	213.51	6,297.9	-838.4	-555.2	205.5	0.00	0.00	
6,500.0	11.83	213.51	6,395.8	-855.5	-566.5	209.7	0.00	0.00	
6,600.0	11.83	213.51	6,493.7	-872.6	-577.9	213.9	0.00	0.00	
6,636.7	11.83	213.51	6,529.6	-878.8	-582.0	215.4	0.00	0.00	Start 9° Build
6,650.0	11.95	207.72	6,542.6	-881.2	-583.4	216.1	9.00	0.91	
6,700.0	13.38	188.13	6,591.4	-891.5	-586.6	221.2	9.00	2.85	
6,750.0	15.97	173.50	6,639.8	-904.1	-586.7	230.1	9.00	5.18	
6,800.0	19.26	163.30	6,687.5	-918.8	-583.5	242.8	9.00	6.58	
6,850.0	22.95	156.13	6,734.1	-935.6	-577.2	259.1	9.00	7.38	
6,900.0	26.88	150.90	6,779.5	-954.4	-567.8	279.2	9.00	7.86	
6,950.0	30.95	146.94	6,823.2	-975.1	-555.2	302.6	9.00	8.15	
7,000.0	35.12	143.83	6,865.1	-997.5	-539.7	329.5	9.00	8.34	
7,050.0	39.35	141.30	6,904.9	-1,021.5	-521.3	359.5	9.00	8.47	
7,100.0	43.63	139.20	6,942.4	-1,046.9	-500.1	392.5	9.00	8.56	
7,150.0	47.95	137.40	6,977.2	-1,073.7	-476.3	428.3	9.00	8.62	
7,200.0	52.28	135.84	7,009.3	-1,101.5	-449.9	466.6	9.00	8.67	
7,250.0	56.64	134.44	7,038.4	-1,130.4	-421.2	507.3	9.00	8.71	
7,300.0	61.01	133.18	7,064.2	-1,160.0	-390.4	550.0	9.00	8.74	
7,350.0	65.39	132.03	7,086.8	-1,190.2	-357.5	594.6	9.00	8.76	
7,400.0	69.77	130.95	7,105.8	-1,220.8	-322.9	640.7	9.00	8.78	
7,450.0	74.17	129.93	7,121.3	-1,251.6	-286.7	688.1	9.00	8.79	
7,500.0	78.57	128.95	7,133.1	-1,282.4	-249.2	736.4	9.00	8.80	
7,550.0	82.97	128.01	7,141.1	-1,313.1	-210.6	785.4	9.00	8.80	
7,600.0	87.37	127.08	7,145.3	-1,343.5	-171.1	834.7	9.00	8.81	
7,629.1	89.94	126.54	7,146.0	-1,360.9	-147.8	863.5	9.00	8.81	LP @ 7,146' TVD, 89.94°
7,700.0	89.94	126.54	7,146.1	-1,403.1	-90.8	933.6	0.00	0.00	
7,800.0	89.94	126.54	7,146.2	-1,462.7	-10.5	1,032.4	0.00	0.00	
7,900.0	89.94	126.54	7,146.3	-1,522.2	69.9	1,131.2	0.00	0.00	
8,000.0	89.94	126.54	7,146.4	-1,581.7	150.2	1,230.1	0.00	0.00	
8,100.0	89.94	126.54	7,146.5	-1,641.3	230.6	1,328.9	0.00	0.00	
8,200.0	89.94	126.54	7,146.6	-1,700.8	310.9	1,427.7	0.00	0.00	
8,300.0	89.94	126.54	7,146.7	-1,760.4	391.2	1,526.6	0.00	0.00	
8,400.0	89.94	126.54	7,146.9	-1,819.9	471.6	1,625.4	0.00	0.00	
8,500.0	89.94	126.54	7,147.0	-1,879.4	551.9	1,724.2	0.00	0.00	
8,600.0	89.94	126.54	7,147.1	-1,939.0	632.3	1,823.1	0.00	0.00	
8,700.0	89.94	126.54	7,147.2	-1,998.5	712.6	1,921.9	0.00	0.00	
8,800.0	89.94	126.54	7,147.3	-2,058.1	793.0	2,020.7	0.00	0.00	
8,900.0	89.94	126.54	7,147.4	-2,117.6	873.3	2,119.6	0.00	0.00	
9,000.0	89.94	126.54	7,147.5	-2,177.1	953.6	2,218.4	0.00	0.00	

# Cathedral Energy Services

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<b>Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #3		

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
9,100.0	89.94	126.54	7,147.6	-2,236.7	1,034.0	2,317.2	0.00	0.00	
9,200.0	89.94	126.54	7,147.7	-2,296.2	1,114.3	2,416.1	0.00	0.00	
9,300.0	89.94	126.54	7,147.8	-2,355.8	1,194.7	2,514.9	0.00	0.00	
9,400.0	89.94	126.54	7,148.0	-2,415.3	1,275.0	2,613.7	0.00	0.00	
9,500.0	89.94	126.54	7,148.1	-2,474.8	1,355.4	2,712.5	0.00	0.00	
9,600.0	89.94	126.54	7,148.2	-2,534.4	1,435.7	2,811.4	0.00	0.00	
9,700.0	89.94	126.54	7,148.3	-2,593.9	1,516.0	2,910.2	0.00	0.00	
9,800.0	89.94	126.54	7,148.4	-2,653.5	1,596.4	3,009.0	0.00	0.00	
9,900.0	89.94	126.54	7,148.5	-2,713.0	1,676.7	3,107.9	0.00	0.00	
10,000.0	89.94	126.54	7,148.6	-2,772.5	1,757.1	3,206.7	0.00	0.00	
10,100.0	89.94	126.54	7,148.7	-2,832.1	1,837.4	3,305.5	0.00	0.00	
10,200.0	89.94	126.54	7,148.8	-2,891.6	1,917.8	3,404.4	0.00	0.00	
10,300.0	89.94	126.54	7,149.0	-2,951.2	1,998.1	3,503.2	0.00	0.00	
10,400.0	89.94	126.54	7,149.1	-3,010.7	2,078.5	3,602.0	0.00	0.00	
10,500.0	89.94	126.54	7,149.2	-3,070.2	2,158.8	3,700.9	0.00	0.00	
10,600.0	89.94	126.54	7,149.3	-3,129.8	2,239.1	3,799.7	0.00	0.00	
10,700.0	89.94	126.54	7,149.4	-3,189.3	2,319.5	3,898.5	0.00	0.00	
10,800.0	89.94	126.54	7,149.5	-3,248.9	2,399.8	3,997.4	0.00	0.00	
10,900.0	89.94	126.54	7,149.6	-3,308.4	2,480.2	4,096.2	0.00	0.00	
11,000.0	89.94	126.54	7,149.7	-3,367.9	2,560.5	4,195.0	0.00	0.00	
11,100.0	89.94	126.54	7,149.8	-3,427.5	2,640.9	4,293.9	0.00	0.00	
11,200.0	89.94	126.54	7,149.9	-3,487.0	2,721.2	4,392.7	0.00	0.00	
11,300.0	89.94	126.54	7,150.1	-3,546.6	2,801.5	4,491.5	0.00	0.00	
11,400.0	89.94	126.54	7,150.2	-3,606.1	2,881.9	4,590.4	0.00	0.00	
11,500.0	89.94	126.54	7,150.3	-3,665.6	2,962.2	4,689.2	0.00	0.00	
11,600.0	89.94	126.54	7,150.4	-3,725.2	3,042.6	4,788.0	0.00	0.00	
11,700.0	89.94	126.54	7,150.5	-3,784.7	3,122.9	4,886.9	0.00	0.00	
11,800.0	89.94	126.54	7,150.6	-3,844.3	3,203.3	4,985.7	0.00	0.00	
11,900.0	89.94	126.54	7,150.7	-3,903.8	3,283.6	5,084.5	0.00	0.00	
12,000.0	89.94	126.54	7,150.8	-3,963.3	3,363.9	5,183.4	0.00	0.00	
12,100.0	89.94	126.54	7,150.9	-4,022.9	3,444.3	5,282.2	0.00	0.00	
12,200.0	89.94	126.54	7,151.0	-4,082.4	3,524.6	5,381.0	0.00	0.00	
12,300.0	89.94	126.54	7,151.2	-4,142.0	3,605.0	5,479.8	0.00	0.00	
12,400.0	89.94	126.54	7,151.3	-4,201.5	3,685.3	5,578.7	0.00	0.00	
12,500.0	89.94	126.54	7,151.4	-4,261.0	3,765.7	5,677.5	0.00	0.00	
12,600.0	89.94	126.54	7,151.5	-4,320.6	3,846.0	5,776.3	0.00	0.00	
12,700.0	89.94	126.54	7,151.6	-4,380.1	3,926.3	5,875.2	0.00	0.00	
12,800.0	89.94	126.54	7,151.7	-4,439.6	4,006.7	5,974.0	0.00	0.00	
12,900.0	89.94	126.54	7,151.8	-4,499.2	4,087.0	6,072.8	0.00	0.00	
13,000.0	89.94	126.54	7,151.9	-4,558.7	4,167.4	6,171.7	0.00	0.00	
13,100.0	89.94	126.54	7,152.0	-4,618.3	4,247.7	6,270.5	0.00	0.00	
13,200.0	89.94	126.54	7,152.2	-4,677.8	4,328.1	6,369.3	0.00	0.00	
13,300.0	89.94	126.54	7,152.3	-4,737.3	4,408.4	6,468.2	0.00	0.00	
13,400.0	89.94	126.54	7,152.4	-4,796.9	4,488.7	6,567.0	0.00	0.00	
13,500.0	89.94	126.54	7,152.5	-4,856.4	4,569.1	6,665.8	0.00	0.00	
13,600.0	89.94	126.54	7,152.6	-4,916.0	4,649.4	6,764.7	0.00	0.00	
13,700.0	89.94	126.54	7,152.7	-4,975.5	4,729.8	6,863.5	0.00	0.00	
13,800.0	89.94	126.54	7,152.8	-5,035.0	4,810.1	6,962.3	0.00	0.00	
13,900.0	89.94	126.54	7,152.9	-5,094.6	4,890.5	7,061.2	0.00	0.00	
14,000.0	89.94	126.54	7,153.0	-5,154.1	4,970.8	7,160.0	0.00	0.00	
14,100.0	89.94	126.54	7,153.1	-5,213.7	5,051.1	7,258.8	0.00	0.00	
14,200.0	89.94	126.54	7,153.3	-5,273.2	5,131.5	7,357.7	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well DGU Hotchkiss Fed 1289 #18-H4
<b>Company:</b>	Gunnison Energy Corporation	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Project:</b>	Gunnison County, CO	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>North Reference:</b>	True
<b>Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #3		

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
14,300.0	89.94	126.54	7,153.4	-5,332.7	5,211.8	7,456.5	0.00	0.00	
14,400.0	89.94	126.54	7,153.5	-5,392.3	5,292.2	7,555.3	0.00	0.00	
14,500.0	89.94	126.54	7,153.6	-5,451.8	5,372.5	7,654.2	0.00	0.00	
14,600.0	89.94	126.54	7,153.7	-5,511.3	5,452.8	7,753.0	0.00	0.00	TD @ 14,600' MD

### Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
DGU Hotchkiss Fed 128 - plan hits target center - Point	0.00	358.86	7,153.7	-5,511.3	5,452.8	855,766.89	1,471,931.03	39° 0' 8.268 N	107° 21' 28.421 W
DGU Hotchkiss Fed 128 - plan misses target center by 2051.2usft at 14600.0usft MD (7153.7 TVD, -5511.3 N, 5452.8 E) - Point	0.00	358.86	7,156.0	-6,732.6	7,100.9	854,512.74	1,473,554.17	38° 59' 56.195 N	107° 21' 7.553 W
DGU Hotchkiss Fed 128 - plan hits target center - Point	0.00	358.85	7,146.0	-1,360.9	-147.8	860,029.02	1,466,414.93	39° 0' 49.291 N	107° 22' 39.353 W

### Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
1,200.0	1,200.0	0.0	0.0	KOP @ 1,200'
1,791.5	1,787.3	-50.7	-33.6	EOB @ Inc. = 11.83°
6,636.7	6,529.6	-878.8	-582.0	Start 9° Build
7,629.1	7,146.0	-1,360.9	-147.8	LP @ 7,146' TVD, 89.94°
14,600.0	7,153.7	-5,511.3	5,452.8	TD @ 14,600' MD

# **Gunnison Energy Corporation**

**Gunnison County, CO**

**DGU Hotchkiss Federal #1289 Pad**

**DGU Hotchkiss Fed 1289 #18-H4**

**HZ**

**Plan #3**

## **Anticollision Report**

**17 December, 2013**

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Gunnison Energy Corporation	<b>Local Co-ordinate Reference:</b>	Well DGU Hotchkiss Fed 1289 #18-H4
<b>Project:</b>	Gunnison County, CO	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Reference Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Reference	Plan #3		
Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
Interpolation Method:	MD Interval 100.0usft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 500.0usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	12/17/2013		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	14,600.0	Plan #3 (HZ)	MWD	MWD	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Deadman Gulch Unit						
DMGU #18 CS-1 - OH - Plan #2	433.2	433.5	165.9	164.4	114.974	CC, ES
DMGU #18 CS-1 - OH - Plan #2	1,000.0	872.1	301.9	297.5	68.541	SF
DMGU #18 CS-2 - OH - Plan #2	366.6	366.9	178.5	177.3	147.485	CC
DMGU #18 CS-2 - OH - Plan #2	400.0	400.0	178.5	177.2	134.566	ES
DMGU #18 CS-2 - OH - Plan #2	700.0	632.6	227.1	224.8	98.019	SF
DMGU 18-43 CS#2 - OH - Plan #2						Out of range
DMGU 18-43 CS#3 - OH - Plan #2						Out of range
DMGU T CS#1 - OH - Plan #2						Out of range
Existing Hotchkiss Federal #18-1H - Existing - Existing	4,321.9	4,318.0	359.2	348.8	34.560	CC, ES, SF
Existing Hotchkiss Federal #18-2H - Existing - Existing	2,458.5	2,440.6	54.8	49.2	9.785	CC, ES
Existing Hotchkiss Federal #18-2H - Existing - Existing	2,500.0	2,481.4	55.4	49.7	9.658	SF
Existing Hotchkiss Federal 1289 #18-22D - Existing - Exi						Out of range
DGU Hotchkiss Federal #1289 Pad						
DGU Hotchkiss Fed 1289 #18-H3 - HZ - Plan #1	1,200.0	1,200.0	15.0	10.9	3.645	CC, ES, SF
DGU Hotchkiss Fed 1289 #18-H5 - HZ - Plan #3	1,000.0	1,000.0	14.8	11.4	4.341	CC, ES
DGU Hotchkiss Fed 1289 #18-H5 - HZ - Plan #3	1,100.0	1,099.6	16.0	12.3	4.257	SF



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Gunnison Energy Corporation	<b>Local Co-ordinate Reference:</b>	Well DGU Hotchkiss Fed 1289 #18-H4
<b>Project:</b>	Gunnison County, CO	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Reference Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Deadman Gulch Unit - DMGU #18 CS-1 - OH - Plan #2													Offset Well Error:	0.0 usft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
0.0	0.0	0.3	0.3	0.0	0.0	-114.53	-68.9	-150.9	165.9					
100.0	100.0	100.3	100.3	0.1	0.1	-114.53	-68.9	-150.9	165.9	165.6	0.28	592.888		
200.0	200.0	200.3	200.3	0.3	0.3	-114.53	-68.9	-150.9	165.9	165.2	0.63	263.780		
300.0	300.0	300.3	300.3	0.5	0.5	-114.53	-68.9	-150.9	165.9	164.9	0.98	169.624		
400.0	400.0	400.3	400.3	0.7	0.7	-114.53	-68.9	-150.9	165.9	164.5	1.33	125.003		
433.2	433.2	433.5	433.5	0.7	0.7	-114.53	-68.9	-150.9	165.9	164.4	1.44	114.974	CC, ES	
500.0	500.0	493.7	493.7	0.8	0.8	-114.18	-68.3	-152.1	166.9	165.2	1.67	100.139		
600.0	600.0	579.3	578.6	1.0	1.0	-111.59	-63.9	-161.4	175.0	172.9	2.03	86.104		
700.0	700.0	661.4	658.4	1.2	1.3	-107.27	-55.6	-178.9	192.0	189.5	2.49	77.022		
800.0	800.0	738.2	730.4	1.4	1.7	-102.36	-44.4	-202.6	218.9	215.8	3.07	71.351		
900.0	900.0	808.5	793.7	1.5	2.3	-97.73	-31.3	-230.3	255.7	252.0	3.72	68.781		
1,000.0	1,000.0	872.1	848.0	1.7	2.9	-93.78	-17.2	-260.1	301.9	297.5	4.40	68.541	SF	
1,100.0	1,100.0	928.9	894.0	1.9	3.6	-90.57	-2.9	-290.3	356.2	351.1	5.09	70.018		
1,200.0	1,200.0	984.6	936.3	2.1	4.3	-87.77	12.6	-323.0	417.4	411.6	5.79	72.078		
1,300.0	1,300.0	1,050.0	984.3	2.2	5.2	60.21	31.6	-363.2	481.8	477.0	4.82	99.888		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Gunnison Energy Corporation	<b>Local Co-ordinate Reference:</b>	Well DGU Hotchkiss Fed 1289 #18-H4
<b>Project:</b>	Gunnison County, CO	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Reference Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Uncertainty Axis			
0.0	0.0	0.3	0.3	0.0	0.0	-123.29	-98.0	-149.2	178.5					
100.0	100.0	100.3	100.3	0.1	0.1	-123.29	-98.0	-149.2	178.5	178.2	0.28	638.003		
200.0	200.0	200.3	200.3	0.3	0.3	-123.29	-98.0	-149.2	178.5	177.9	0.63	283.852		
300.0	300.0	300.3	300.3	0.5	0.5	-123.29	-98.0	-149.2	178.5	177.5	0.98	182.531		
366.6	366.6	366.9	366.9	0.6	0.6	-123.29	-98.0	-149.2	178.5	177.3	1.21	147.485 CC		
400.0	400.0	400.0	400.0	0.7	0.7	-123.29	-98.0	-149.2	178.5	177.2	1.33	134.566 ES		
500.0	500.0	480.2	480.0	0.8	0.8	-123.54	-101.1	-152.5	184.0	182.4	1.64	111.950		
600.0	600.0	558.2	556.9	1.0	1.0	-124.20	-110.0	-161.8	200.4	198.4	1.97	101.775		
700.0	700.0	632.6	628.5	1.2	1.3	-125.06	-123.8	-176.3	227.1	224.8	2.32	98.019 SF		
800.0	800.0	700.0	691.3	1.4	1.8	-125.92	-140.6	-194.1	263.3	260.6	2.68	98.100		
900.0	900.0	766.1	750.4	1.5	2.3	-126.76	-161.0	-215.6	308.0	304.9	3.11	99.136		
1,000.0	1,000.0	824.3	799.9	1.7	2.9	-127.45	-182.0	-237.7	360.3	356.7	3.55	101.538		
1,100.0	1,100.0	876.7	842.3	1.9	3.4	-128.01	-203.3	-260.1	418.9	414.9	4.01	104.577		
1,200.0	1,200.0	923.8	878.3	2.1	4.0	-128.48	-224.1	-282.0	483.1	478.6	4.47	108.052		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Gunnison Energy Corporation	<b>Local Co-ordinate Reference:</b>	Well DGU Hotchkiss Fed 1289 #18-H4
<b>Project:</b>	Gunnison County, CO	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Reference Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 4413- Deadman Gulch Unit - Existing Hotchkiss Federal #18-1H - Existing - Existing													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
4,000.0	3,948.9	4,318.0	4,317.3	11.5		136.05	-134.5	-388.1	482.3	472.9	9.43	51.134		
4,100.0	4,046.8	4,318.0	4,317.3	11.9		136.05	-134.5	-388.1	422.2	412.5	9.73	43.389		
4,200.0	4,144.7	4,318.0	4,317.3	12.3		136.05	-134.5	-388.1	379.3	369.3	10.03	37.821		
4,300.0	4,242.5	4,318.0	4,317.3	12.7		136.05	-134.5	-388.1	359.9	349.6	10.33	34.843		
4,321.9	4,264.0	4,318.0	4,317.3	12.8		136.05	-134.5	-388.1	359.2	348.8	10.39	34.560 CC, ES, SF		
4,400.0	4,340.4	4,332.7	4,332.0	13.1		136.39	-134.1	-388.1	367.4	356.8	10.60	34.669		
4,500.0	4,438.3	4,443.2	4,442.5	13.5		138.49	-134.5	-389.8	382.4	371.7	10.69	35.767		
4,600.0	4,536.2	4,534.7	4,533.9	13.9		140.19	-134.6	-390.6	398.1	387.3	10.81	36.833		
4,700.0	4,634.0	4,631.0	4,630.3	14.3		141.84	-134.1	-391.5	414.8	403.9	10.92	37.993		
4,800.0	4,731.9	4,723.5	4,722.7	14.7		143.50	-132.4	-391.1	433.0	422.0	11.01	39.315		
4,900.0	4,829.8	4,823.0	4,822.2	15.1		145.16	-130.4	-390.4	451.7	440.6	11.10	40.708		
5,000.0	4,927.7	4,921.0	4,920.2	15.5		146.62	-128.8	-390.1	470.4	459.2	11.19	42.031		
5,100.0	5,025.5	5,016.7	5,015.8	15.9		148.21	-127.0	-387.5	489.7	478.4	11.26	43.487		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Gunnison Energy Corporation	<b>Local Co-ordinate Reference:</b>	Well DGU Hotchkiss Fed 1289 #18-H4
<b>Project:</b>	Gunnison County, CO	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Reference Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Deadman Gulch Unit - Existing Hotchkiss Federal #18-2H - Existing - Existing		Offset Site Error: 0.0 usft	
Survey Program: 100-													Offset Well Error: 0.0 usft			
Reference				Offset		Semi Major Axis			Distance				Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor				
0.0	0.0	0.3	0.3	0.0	0.0	-124.16	-102.8	-151.5	183.1							
100.0	100.0	100.3	100.3	0.1	0.0	-124.12	-102.7	-151.6	183.1	182.9	0.14	1,309.267				
200.0	200.0	200.0	200.0	0.3	0.0	-124.15	-102.8	-151.6	183.2	182.9	0.31	582.695				
300.0	300.0	299.2	299.2	0.5	0.0	-124.34	-103.6	-151.6	183.6	183.1	0.49	375.483				
400.0	400.0	399.2	399.2	0.7	0.0	-124.75	-105.0	-151.3	184.2	183.5	0.66	277.595				
500.0	500.0	498.9	498.8	0.8	0.0	-125.38	-107.0	-150.7	184.8	184.0	0.84	220.590				
600.0	600.0	598.5	598.4	1.0	0.0	-126.09	-109.4	-150.1	185.7	184.7	1.01	183.455				
700.0	700.0	698.5	698.4	1.2	0.0	-126.83	-112.0	-149.5	186.8	185.6	1.19	157.352				
800.0	800.0	798.2	798.1	1.4	0.0	-127.43	-114.2	-149.2	187.9	186.5	1.36	137.998				
900.0	900.0	898.8	898.7	1.5	0.0	-127.97	-116.2	-148.9	188.9	187.4	1.54	122.979				
1,000.0	1,000.0	998.0	997.8	1.7	0.0	-128.52	-118.3	-148.6	190.0	188.3	1.71	111.061				
1,100.0	1,100.0	1,098.2	1,098.0	1.9	0.0	-128.96	-120.2	-148.7	191.2	189.4	1.89	101.443				
1,200.0	1,200.0	1,198.6	1,198.4	2.1	0.0	-129.40	-122.1	-148.6	192.3	190.3	2.06	93.381				
1,300.0	1,300.0	1,298.5	1,298.2	2.2	0.0	16.77	-124.0	-148.4	191.7	189.5	2.23	85.831				
1,400.0	1,399.8	1,398.6	1,398.3	2.4	0.0	16.79	-125.8	-148.2	187.7	185.3	2.41	78.014				
1,500.0	1,499.5	1,497.7	1,497.5	2.6	0.0	17.28	-127.3	-148.4	180.5	177.9	2.58	70.000				
1,600.0	1,598.7	1,598.0	1,597.8	2.8	0.0	18.29	-128.6	-148.6	169.9	167.1	2.75	61.729				
1,700.0	1,697.5	1,696.1	1,695.8	3.1	0.0	19.98	-129.6	-149.1	156.0	153.1	2.93	53.259				
1,800.0	1,795.6	1,794.4	1,794.1	3.4	0.0	22.65	-130.6	-149.9	139.5	136.4	3.12	44.715				
1,900.0	1,893.5	1,892.9	1,892.6	3.7	0.0	26.11	-131.7	-150.6	121.9	118.6	3.34	36.533				
2,000.0	1,991.4	1,990.9	1,990.6	4.0	0.0	30.63	-132.8	-151.1	104.7	101.2	3.58	29.231				
2,100.0	2,089.3	2,089.0	2,088.7	4.3	0.0	37.06	-133.7	-151.8	88.6	84.7	3.88	22.817				
2,200.0	2,187.1	2,187.0	2,186.7	4.7	0.0	46.35	-134.3	-152.6	74.1	69.8	4.27	17.345				
2,300.0	2,285.0	2,284.9	2,284.6	5.0	0.0	59.75	-134.5	-153.7	62.6	57.8	4.78	13.095				
2,400.0	2,382.9	2,383.1	2,382.8	5.4	0.0	77.55	-134.8	-154.7	55.9	50.6	5.34	10.481				
2,458.5	2,440.1	2,440.6	2,440.3	5.6	0.0	89.13	-135.1	-155.2	54.8	49.2	5.60	9.785 CC, ES				
2,500.0	2,480.8	2,481.4	2,481.1	5.8	0.0	97.38	-135.5	-155.6	55.4	49.7	5.73	9.658 SF				
2,600.0	2,578.6	2,579.6	2,579.2	6.1	0.0	115.26	-136.4	-156.4	61.1	55.2	5.86	10.422				
2,700.0	2,676.5	2,677.9	2,677.6	6.5	0.0	128.91	-137.7	-157.4	71.4	65.6	5.84	12.223				
2,800.0	2,774.4	2,776.2	2,775.8	6.9	0.0	138.92	-139.1	-158.2	84.6	78.8	5.81	14.570				
2,900.0	2,872.3	2,874.0	2,873.6	7.3	0.0	145.97	-140.4	-159.1	99.8	94.0	5.81	17.171				
3,000.0	2,970.1	2,972.4	2,972.0	7.6	0.0	150.90	-141.5	-160.5	116.2	110.4	5.86	19.825				
3,100.0	3,068.0	3,070.5	3,070.1	8.0	0.0	154.65	-142.8	-161.9	133.1	127.2	5.94	22.400				
3,200.0	3,165.9	3,168.4	3,168.0	8.4	0.0	157.59	-143.8	-163.0	150.7	144.6	6.04	24.934				
3,300.0	3,263.8	3,266.4	3,266.0	8.8	0.0	159.96	-144.7	-164.0	168.7	162.6	6.16	27.397				
3,400.0	3,361.6	3,364.9	3,364.5	9.2	0.0	161.78	-145.6	-165.4	186.9	180.6	6.29	29.716				
3,500.0	3,459.5	3,463.3	3,462.9	9.6	0.0	163.31	-146.7	-166.6	205.1	198.7	6.43	31.898				
3,600.0	3,557.4	3,563.1	3,562.6	10.0	0.0	164.54	-148.0	-168.3	223.1	216.6	6.58	33.921				
3,700.0	3,655.3	3,664.2	3,663.7	10.3	0.0	165.35	-150.0	-171.2	240.2	233.5	6.74	35.639				
3,800.0	3,753.2	3,764.8	3,764.1	10.7	0.0	165.89	-152.7	-175.1	256.3	249.4	6.91	37.083				
3,900.0	3,851.0	3,865.0	3,864.2	11.1	0.0	166.30	-155.9	-179.5	271.9	264.8	7.09	38.358				
4,000.0	3,948.9	3,962.9	3,962.0	11.5	0.0	166.71	-159.3	-183.7	287.1	279.9	7.26	39.540				
4,100.0	4,046.8	4,059.2	4,058.1	11.9	0.0	167.15	-162.1	-187.2	303.1	295.7	7.43	40.780				
4,200.0	4,144.7	4,156.0	4,154.9	12.3	0.0	167.56	-164.4	-190.3	319.9	312.3	7.60	42.066				
4,300.0	4,242.5	4,254.3	4,253.1	12.7	0.0	167.98	-166.4	-193.2	337.0	329.2	7.77	43.343				
4,400.0	4,340.4	4,353.5	4,352.3	13.1	0.0	168.36	-168.6	-196.1	354.0	346.0	7.95	44.552				
4,500.0	4,438.3	4,450.7	4,449.4	13.5	0.0	168.67	-170.8	-199.2	370.9	362.8	8.12	45.687				
4,600.0	4,536.2	4,544.8	4,543.4	13.9	0.0	168.95	-172.1	-201.8	388.7	380.4	8.29	46.875				
4,700.0	4,634.0	4,639.5	4,638.1	14.3	0.0	169.30	-172.7	-203.4	407.6	399.2	8.46	48.175				
4,800.0	4,731.9	4,737.5	4,736.1	14.7	0.0	169.65	-173.0	-204.8	427.0	418.3	8.63	49.476				
4,900.0	4,829.8	4,835.3	4,833.9	15.1	0.0	169.96	-173.4	-206.4	446.1	437.3	8.80	50.701				
5,000.0	4,927.7	4,930.8	4,929.4	15.5	0.0	170.21	-173.3	-207.9	465.9	456.9	8.97	51.927				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Gunnison Energy Corporation	<b>Local Co-ordinate Reference:</b>	Well DGU Hotchkiss Fed 1289 #18-H4
<b>Project:</b>	Gunnison County, CO	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Reference Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b>													<b>Offset Site Error:</b>	0.0 usft
Survey Program: 100- Deadman Gulch Unit - Existing Hotchkiss Federal #18-2H - Existing - Existing													<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis		Distance								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
5,100.0	5,025.5	5,029.6	5,028.1	15.9	0.0	170.45	-173.0	-209.3	485.8	476.6	9.14	53.125		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Gunnison Energy Corporation	<b>Local Co-ordinate Reference:</b>	Well DGU Hotchkiss Fed 1289 #18-H4
<b>Project:</b>	Gunnison County, CO	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Reference Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
DGU Hotchkiss Federal #1289 Pad - DGU Hotchkiss Fed 1289 #18-H3 - HZ - Plan #1														
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	52.66	9.1	11.9	15.0					
100.0	100.0	100.0	100.0	0.1	0.1	52.66	9.1	11.9	15.0	14.7	0.28	53.762		
200.0	200.0	200.0	200.0	0.3	0.3	52.66	9.1	11.9	15.0	14.4	0.63	23.895		
300.0	300.0	300.0	300.0	0.5	0.5	52.66	9.1	11.9	15.0	14.0	0.98	15.361		
400.0	400.0	400.0	400.0	0.7	0.7	52.66	9.1	11.9	15.0	13.7	1.33	11.318		
500.0	500.0	500.0	500.0	0.8	0.8	52.66	9.1	11.9	15.0	13.3	1.68	8.960		
600.0	600.0	600.0	600.0	1.0	1.0	52.66	9.1	11.9	15.0	13.0	2.02	7.416		
700.0	700.0	700.0	700.0	1.2	1.2	52.66	9.1	11.9	15.0	12.6	2.37	6.325		
800.0	800.0	800.0	800.0	1.4	1.4	52.66	9.1	11.9	15.0	12.3	2.72	5.514		
900.0	900.0	900.0	900.0	1.5	1.5	52.66	9.1	11.9	15.0	11.9	3.07	4.888		
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	52.66	9.1	11.9	15.0	11.6	3.42	4.389		
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	52.66	9.1	11.9	15.0	11.2	3.77	3.982		
1,200.0	1,200.0	1,200.0	1,200.0	2.1	2.1	52.66	9.1	11.9	15.0	10.9	4.12	3.645 CC, ES, SF		
1,300.0	1,300.0	1,300.0	1,300.0	2.2	2.2	-162.81	9.1	11.9	16.7	12.2	4.47	3.733		
1,400.0	1,399.8	1,399.8	1,399.8	2.4	2.4	-166.87	9.1	11.9	21.7	16.9	4.81	4.517		
1,500.0	1,499.5	1,498.4	1,498.4	2.6	2.6	-171.02	10.5	12.9	32.0	26.8	5.15	6.211		
1,600.0	1,598.7	1,595.5	1,595.4	2.8	2.8	-174.03	14.6	15.7	49.1	43.6	5.48	8.967		
1,700.0	1,697.5	1,690.6	1,690.1	3.1	2.9	-175.85	21.3	20.2	73.0	67.2	5.79	12.594		
1,800.0	1,795.6	1,783.0	1,781.8	3.4	3.1	-176.94	30.3	26.3	103.4	97.3	6.11	16.934		
1,900.0	1,893.5	1,875.5	1,873.4	3.7	3.3	-177.62	41.2	33.7	137.7	131.2	6.44	21.386		
2,000.0	1,991.4	1,969.3	1,966.2	4.0	3.6	-178.05	52.6	41.4	172.2	165.5	6.77	25.431		
2,100.0	2,089.3	2,063.2	2,059.1	4.3	3.8	-178.33	63.9	49.1	206.8	199.7	7.11	29.097		
2,200.0	2,187.1	2,157.0	2,151.9	4.7	4.0	-178.53	75.2	56.8	241.3	233.9	7.44	32.435		
2,300.0	2,285.0	2,250.8	2,244.7	5.0	4.3	-178.68	86.6	64.5	275.9	268.1	7.77	35.486		
2,400.0	2,382.9	2,344.7	2,337.6	5.4	4.5	-178.80	97.9	72.2	310.5	302.4	8.11	38.287		
2,500.0	2,480.8	2,438.5	2,430.4	5.8	4.8	-178.89	109.2	79.9	345.0	336.6	8.44	40.866		
2,600.0	2,578.6	2,532.4	2,523.2	6.1	5.0	-178.97	120.6	87.6	379.6	370.8	8.78	43.250		
2,700.0	2,676.5	2,626.2	2,616.1	6.5	5.3	-179.03	131.9	95.3	414.1	405.0	9.11	45.459		
2,800.0	2,774.4	2,720.0	2,708.9	6.9	5.6	-179.08	143.2	102.9	448.7	439.3	9.44	47.513		
2,900.0	2,872.3	2,813.9	2,801.7	7.3	5.8	-179.13	154.6	110.6	483.3	473.5	9.78	49.426		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Gunnison Energy Corporation	<b>Local Co-ordinate Reference:</b>	Well DGU Hotchkiss Fed 1289 #18-H4
<b>Project:</b>	Gunnison County, CO	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Reference Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design DGU Hotchkiss Federal #1289 Pad - DGU Hotchkiss Fed 1289 #18-H5 - HZ - Plan #3													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.0	0.0	0.0	0.0	0.0	0.0	-122.64	-8.0	-12.5	14.8					
100.0	100.0	100.0	100.0	0.1	0.1	-122.64	-8.0	-12.5	14.8	14.6	0.28	53.175		
200.0	200.0	200.0	200.0	0.3	0.3	-122.64	-8.0	-12.5	14.8	14.2	0.63	23.634		
300.0	300.0	300.0	300.0	0.5	0.5	-122.64	-8.0	-12.5	14.8	13.9	0.98	15.193		
400.0	400.0	400.0	400.0	0.7	0.7	-122.64	-8.0	-12.5	14.8	13.5	1.33	11.195		
500.0	500.0	500.0	500.0	0.8	0.8	-122.64	-8.0	-12.5	14.8	13.2	1.68	8.863		
600.0	600.0	600.0	600.0	1.0	1.0	-122.64	-8.0	-12.5	14.8	12.8	2.02	7.335		
700.0	700.0	700.0	700.0	1.2	1.2	-122.64	-8.0	-12.5	14.8	12.5	2.37	6.256		
800.0	800.0	800.0	800.0	1.4	1.4	-122.64	-8.0	-12.5	14.8	12.1	2.72	5.454		
900.0	900.0	900.0	900.0	1.5	1.5	-122.64	-8.0	-12.5	14.8	11.8	3.07	4.834		
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	-122.64	-8.0	-12.5	14.8	11.4	3.42	4.341 CC, ES		
1,100.0	1,100.0	1,099.6	1,099.6	1.9	1.9	-127.31	-9.7	-12.8	16.0	12.3	3.77	4.257 SF		
1,200.0	1,200.0	1,199.0	1,198.8	2.1	2.1	-137.67	-14.8	-13.5	20.1	16.0	4.12	4.884		
1,300.0	1,300.0	1,298.0	1,297.5	2.2	2.3	-1.23	-23.3	-14.8	26.0	21.5	4.47	5.817		
1,400.0	1,399.8	1,396.8	1,395.5	2.4	2.5	-10.06	-35.1	-16.5	32.2	27.4	4.81	6.701		
1,500.0	1,499.5	1,495.2	1,492.8	2.6	2.7	-18.06	-50.2	-18.8	39.1	33.9	5.15	7.587		
1,600.0	1,598.7	1,593.3	1,589.1	2.8	3.0	-25.33	-68.6	-21.5	46.7	41.2	5.50	8.499		
1,700.0	1,697.5	1,691.0	1,684.3	3.1	3.4	-31.91	-90.0	-24.7	55.3	49.5	5.87	9.426		
1,800.0	1,795.6	1,788.3	1,778.4	3.4	3.7	-37.80	-114.6	-28.4	65.1	58.8	6.30	10.329		
1,900.0	1,893.5	1,885.1	1,871.1	3.7	4.2	-42.16	-142.2	-32.4	77.4	70.7	6.79	11.406		
2,000.0	1,991.4	1,981.1	1,962.0	4.0	4.7	-44.58	-172.6	-37.0	93.3	86.0	7.31	12.767		
2,100.0	2,089.3	2,076.1	2,051.0	4.3	5.2	-45.67	-205.6	-41.9	112.3	104.4	7.83	14.336		
2,200.0	2,187.1	2,169.9	2,137.6	4.7	5.8	-45.93	-241.0	-47.1	134.3	125.9	8.36	16.071		
2,300.0	2,285.0	2,263.9	2,223.3	5.0	6.5	-45.71	-279.2	-52.8	159.1	150.2	8.87	17.926		
2,400.0	2,382.9	2,360.6	2,311.2	5.4	7.1	-45.47	-319.1	-58.7	184.5	175.1	9.40	19.624		
2,500.0	2,480.8	2,457.3	2,399.1	5.8	7.8	-45.28	-359.0	-64.7	210.0	200.0	9.94	21.125		
2,600.0	2,578.6	2,554.0	2,487.0	6.1	8.5	-45.13	-398.8	-70.6	235.4	225.0	10.48	22.459		
2,700.0	2,676.5	2,650.7	2,574.9	6.5	9.2	-45.01	-438.7	-76.5	260.9	249.9	11.03	23.652		
2,800.0	2,774.4	2,747.4	2,662.8	6.9	9.9	-44.92	-478.6	-82.5	286.4	274.8	11.58	24.722		
2,900.0	2,872.3	2,844.1	2,750.7	7.3	10.6	-44.83	-518.5	-88.4	311.8	299.7	12.14	25.687		
3,000.0	2,970.1	2,940.8	2,838.6	7.6	11.3	-44.77	-558.4	-94.3	337.3	324.6	12.70	26.560		
3,100.0	3,068.0	3,037.5	2,926.5	8.0	12.0	-44.71	-598.3	-100.2	362.8	349.5	13.26	27.354		
3,200.0	3,165.9	3,134.2	3,014.4	8.4	12.7	-44.65	-638.2	-106.2	388.2	374.4	13.83	28.079		
3,300.0	3,263.8	3,230.9	3,102.3	8.8	13.4	-44.61	-678.1	-112.1	413.7	399.3	14.39	28.742		
3,400.0	3,361.6	3,327.6	3,190.2	9.2	14.1	-44.57	-718.0	-118.0	439.1	424.2	14.96	29.351		
3,500.0	3,459.5	3,424.3	3,278.1	9.6	14.8	-44.53	-757.9	-124.0	464.6	449.1	15.53	29.912		
3,600.0	3,557.4	3,521.0	3,366.0	10.0	15.6	-44.50	-797.7	-129.9	490.1	474.0	16.10	30.431		

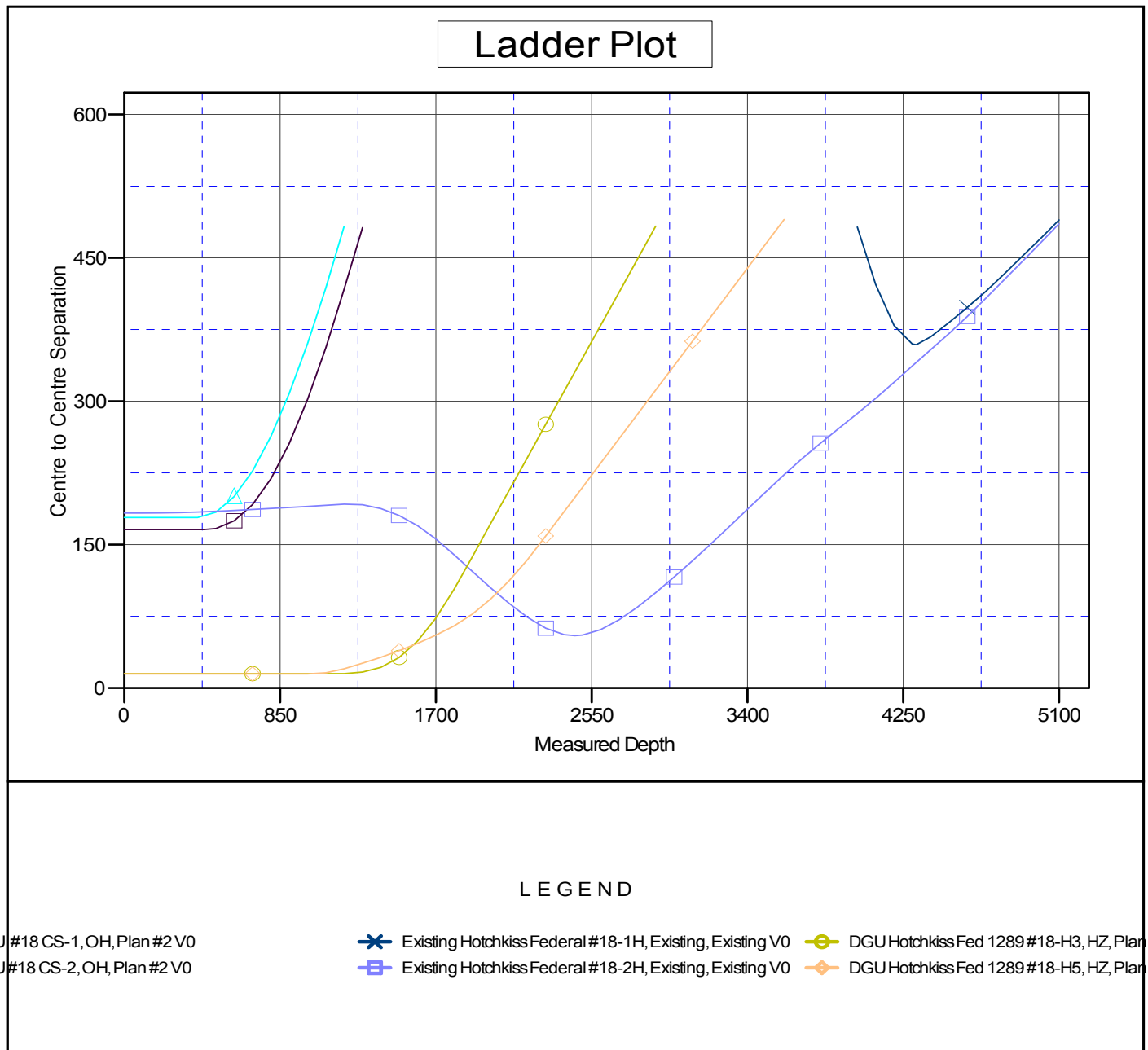
# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Gunnison Energy Corporation	<b>Local Co-ordinate Reference:</b>	Well DGU Hotchkiss Fed 1289 #18-H4
<b>Project:</b>	Gunnison County, CO	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Reference Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site Error:</b>	0.0usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KB=20' @ 7351.7usft (Original Well E  
Offset Depths are relative to Offset Datum  
Central Meridian is 105° 30' 0.000 W °

Coordinates are relative to: DGU Hotchkiss Fed 1289 #18-H4  
Coordinate System is US State Plane 1927 (Exact solution), Colorado South 503  
Grid Convergence at Surface is: -1.15°





# **Gunnison Energy Corporation**

**Gunnison County, CO**

**DGU Hotchkiss Federal #1289 Pad**

**DGU Hotchkiss Fed 1289 #18-H4**

**HZ**

**Plan: Plan #3**

## **Standard Planning Report - Geographic**

**17 December, 2013**



<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well DGU Hotchkiss Fed 1289 #18-H4
<b>Company:</b>	Gunnison Energy Corporation	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Project:</b>	Gunnison County, CO	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>North Reference:</b>	True
<b>Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #3		

<b>Project</b>	Gunnison County, CO		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Colorado South 503		

<b>Site</b>	DGU Hotchkiss Federal #1289 Pad			
<b>Site Position:</b>		<b>Northing:</b>	861,386.70 usft	<b>Latitude:</b> 39° 1' 2.741 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	1,466,590.03 usft	<b>Longitude:</b> 107° 22' 37.481 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> -1.15 °

<b>Well</b>	DGU Hotchkiss Fed 1289 #18-H4			
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	861,386.69 usft
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	1,466,590.03 usft
<b>Position Uncertainty</b>	0.0 usft		<b>Wellhead Elevation:</b>	<b>Ground Level:</b> 7,331.7 usft

<b>Wellbore</b>	HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	10/2/2013	9.72	65.39	51,825

<b>Design</b>	Plan #3			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	135.31

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,791.5	11.83	213.51	1,787.3	-50.7	-33.6	2.00	2.00	0.00	213.51	
6,636.7	11.83	213.51	6,529.6	-878.8	-582.0	0.00	0.00	0.00	0.00	
7,629.1	89.94	126.54	7,146.0	-1,360.9	-147.8	9.00	7.87	-8.76	-87.05	DGU Hotchkiss Fed 1
14,600.0	89.94	126.54	7,153.7	-5,511.3	5,452.8	0.00	0.00	0.00	0.00	DGU Hotchkiss Fed 1

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well DGU Hotchkiss Fed 1289 #18-H4
<b>Company:</b>	Gunnison Energy Corporation	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Project:</b>	Gunnison County, CO	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>North Reference:</b>	True
<b>Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #3		

**Planned Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	861,386.69	1,466,590.03	39° 1' 2.741 N	107° 22' 37.481 W
100.0	0.00	0.00	100.0	0.0	0.0	861,386.69	1,466,590.03	39° 1' 2.741 N	107° 22' 37.481 W
200.0	0.00	0.00	200.0	0.0	0.0	861,386.69	1,466,590.03	39° 1' 2.741 N	107° 22' 37.481 W
300.0	0.00	0.00	300.0	0.0	0.0	861,386.69	1,466,590.03	39° 1' 2.741 N	107° 22' 37.481 W
400.0	0.00	0.00	400.0	0.0	0.0	861,386.69	1,466,590.03	39° 1' 2.741 N	107° 22' 37.481 W
500.0	0.00	0.00	500.0	0.0	0.0	861,386.69	1,466,590.03	39° 1' 2.741 N	107° 22' 37.481 W
600.0	0.00	0.00	600.0	0.0	0.0	861,386.69	1,466,590.03	39° 1' 2.741 N	107° 22' 37.481 W
700.0	0.00	0.00	700.0	0.0	0.0	861,386.69	1,466,590.03	39° 1' 2.741 N	107° 22' 37.481 W
800.0	0.00	0.00	800.0	0.0	0.0	861,386.69	1,466,590.03	39° 1' 2.741 N	107° 22' 37.481 W
900.0	0.00	0.00	900.0	0.0	0.0	861,386.69	1,466,590.03	39° 1' 2.741 N	107° 22' 37.481 W
1,000.0	0.00	0.00	1,000.0	0.0	0.0	861,386.69	1,466,590.03	39° 1' 2.741 N	107° 22' 37.481 W
1,100.0	0.00	0.00	1,100.0	0.0	0.0	861,386.69	1,466,590.03	39° 1' 2.741 N	107° 22' 37.481 W
1,200.0	0.00	0.00	1,200.0	0.0	0.0	861,386.69	1,466,590.03	39° 1' 2.741 N	107° 22' 37.481 W
<b>KOP @ 1,200'</b>									
1,300.0	2.00	213.51	1,300.0	-1.5	-1.0	861,385.25	1,466,589.04	39° 1' 2.726 N	107° 22' 37.493 W
1,400.0	4.00	213.51	1,399.8	-5.8	-3.9	861,380.95	1,466,586.06	39° 1' 2.683 N	107° 22' 37.530 W
1,500.0	6.00	213.51	1,499.5	-13.1	-8.7	861,373.78	1,466,581.10	39° 1' 2.611 N	107° 22' 37.591 W
1,600.0	8.00	213.51	1,598.7	-23.2	-15.4	861,363.75	1,466,574.17	39° 1' 2.511 N	107° 22' 37.676 W
1,700.0	10.00	213.51	1,697.5	-36.3	-24.0	861,350.89	1,466,565.28	39° 1' 2.382 N	107° 22' 37.785 W
1,791.5	11.83	213.51	1,787.3	-50.7	-33.6	861,336.65	1,466,555.43	39° 1' 2.239 N	107° 22' 37.906 W
<b>EOB @ Inc. = 11.83°</b>									
1,800.0	11.83	213.51	1,795.6	-52.2	-34.6	861,335.21	1,466,554.43	39° 1' 2.225 N	107° 22' 37.919 W
1,900.0	11.83	213.51	1,893.5	-69.3	-45.9	861,318.35	1,466,542.77	39° 1' 2.056 N	107° 22' 38.062 W
2,000.0	11.83	213.51	1,991.4	-86.4	-57.2	861,301.48	1,466,531.11	39° 1' 1.887 N	107° 22' 38.205 W
2,100.0	11.83	213.51	2,089.3	-103.5	-68.5	861,284.62	1,466,519.45	39° 1' 1.718 N	107° 22' 38.349 W
2,200.0	11.83	213.51	2,187.1	-120.6	-79.8	861,267.76	1,466,507.79	39° 1' 1.549 N	107° 22' 38.492 W
2,300.0	11.83	213.51	2,285.0	-137.6	-91.2	861,250.90	1,466,496.13	39° 1' 1.380 N	107° 22' 38.635 W
2,400.0	11.83	213.51	2,382.9	-154.7	-102.5	861,234.04	1,466,484.47	39° 1' 1.211 N	107° 22' 38.779 W
2,500.0	11.83	213.51	2,480.8	-171.8	-113.8	861,217.18	1,466,472.81	39° 1' 1.042 N	107° 22' 38.922 W
2,600.0	11.83	213.51	2,578.6	-188.9	-125.1	861,200.32	1,466,461.15	39° 1' 0.874 N	107° 22' 39.066 W
2,700.0	11.83	213.51	2,676.5	-206.0	-136.4	861,183.46	1,466,449.49	39° 1' 0.705 N	107° 22' 39.209 W
2,800.0	11.83	213.51	2,774.4	-223.1	-147.7	861,166.60	1,466,437.83	39° 1' 0.536 N	107° 22' 39.352 W
2,900.0	11.83	213.51	2,872.3	-240.2	-159.1	861,149.74	1,466,426.17	39° 1' 0.367 N	107° 22' 39.496 W
3,000.0	11.83	213.51	2,970.1	-257.3	-170.4	861,132.88	1,466,414.51	39° 1' 0.198 N	107° 22' 39.639 W
3,100.0	11.83	213.51	3,068.0	-274.4	-181.7	861,116.02	1,466,402.85	39° 1' 0.029 N	107° 22' 39.783 W
3,200.0	11.83	213.51	3,165.9	-291.5	-193.0	861,099.16	1,466,391.19	39° 0' 59.860 N	107° 22' 39.926 W
3,300.0	11.83	213.51	3,263.8	-308.6	-204.3	861,082.30	1,466,379.53	39° 0' 59.691 N	107° 22' 40.069 W
3,400.0	11.83	213.51	3,361.6	-325.6	-215.7	861,065.44	1,466,367.87	39° 0' 59.522 N	107° 22' 40.213 W
3,500.0	11.83	213.51	3,459.5	-342.7	-227.0	861,048.58	1,466,356.21	39° 0' 59.353 N	107° 22' 40.356 W
3,600.0	11.83	213.51	3,557.4	-359.8	-238.3	861,031.72	1,466,344.55	39° 0' 59.184 N	107° 22' 40.499 W
3,700.0	11.83	213.51	3,655.3	-376.9	-249.6	861,014.86	1,466,332.89	39° 0' 59.016 N	107° 22' 40.643 W
3,800.0	11.83	213.51	3,753.2	-394.0	-260.9	860,998.00	1,466,321.23	39° 0' 58.847 N	107° 22' 40.786 W
3,900.0	11.83	213.51	3,851.0	-411.1	-272.3	860,981.14	1,466,309.57	39° 0' 58.678 N	107° 22' 40.930 W
4,000.0	11.83	213.51	3,948.9	-428.2	-283.6	860,964.28	1,466,297.91	39° 0' 58.509 N	107° 22' 41.073 W
4,100.0	11.83	213.51	4,046.8	-445.3	-294.9	860,947.41	1,466,286.25	39° 0' 58.340 N	107° 22' 41.216 W
4,200.0	11.83	213.51	4,144.7	-462.4	-306.2	860,930.55	1,466,274.59	39° 0' 58.171 N	107° 22' 41.360 W
4,300.0	11.83	213.51	4,242.5	-479.5	-317.5	860,913.69	1,466,262.93	39° 0' 58.002 N	107° 22' 41.503 W
4,400.0	11.83	213.51	4,340.4	-496.6	-328.8	860,896.83	1,466,251.27	39° 0' 57.833 N	107° 22' 41.646 W
4,500.0	11.83	213.51	4,438.3	-513.7	-340.2	860,879.97	1,466,239.61	39° 0' 57.664 N	107° 22' 41.790 W
4,600.0	11.83	213.51	4,536.2	-530.7	-351.5	860,863.11	1,466,227.95	39° 0' 57.495 N	107° 22' 41.933 W
4,700.0	11.83	213.51	4,634.0	-547.8	-362.8	860,846.25	1,466,216.29	39° 0' 57.326 N	107° 22' 42.077 W
4,800.0	11.83	213.51	4,731.9	-564.9	-374.1	860,829.39	1,466,204.63	39° 0' 57.158 N	107° 22' 42.220 W
4,900.0	11.83	213.51	4,829.8	-582.0	-385.4	860,812.53	1,466,192.97	39° 0' 56.989 N	107° 22' 42.363 W
5,000.0	11.83	213.51	4,927.7	-599.1	-396.8	860,795.67	1,466,181.31	39° 0' 56.820 N	107° 22' 42.507 W

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well DGU Hotchkiss Fed 1289 #18-H4
<b>Company:</b>	Gunnison Energy Corporation	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Project:</b>	Gunnison County, CO	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>North Reference:</b>	True
<b>Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #3		

Planned Survey										
Measured			Vertical			Map	Map			
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
5,100.0	11.83	213.51	5,025.5	-616.2	-408.1	860,778.81	1,466,169.65	39° 0' 56.651 N	107° 22' 42.650 W	
5,200.0	11.83	213.51	5,123.4	-633.3	-419.4	860,761.95	1,466,157.99	39° 0' 56.482 N	107° 22' 42.793 W	
5,300.0	11.83	213.51	5,221.3	-650.4	-430.7	860,745.09	1,466,146.33	39° 0' 56.313 N	107° 22' 42.937 W	
5,400.0	11.83	213.51	5,319.2	-667.5	-442.0	860,728.23	1,466,134.67	39° 0' 56.144 N	107° 22' 43.080 W	
5,500.0	11.83	213.51	5,417.0	-684.6	-453.4	860,711.37	1,466,123.01	39° 0' 55.975 N	107° 22' 43.224 W	
5,600.0	11.83	213.51	5,514.9	-701.7	-464.7	860,694.51	1,466,111.36	39° 0' 55.806 N	107° 22' 43.367 W	
5,700.0	11.83	213.51	5,612.8	-718.7	-476.0	860,677.65	1,466,099.70	39° 0' 55.637 N	107° 22' 43.510 W	
5,800.0	11.83	213.51	5,710.7	-735.8	-487.3	860,660.79	1,466,088.04	39° 0' 55.468 N	107° 22' 43.654 W	
5,900.0	11.83	213.51	5,808.6	-752.9	-498.6	860,643.93	1,466,076.38	39° 0' 55.300 N	107° 22' 43.797 W	
6,000.0	11.83	213.51	5,906.4	-770.0	-509.9	860,627.07	1,466,064.72	39° 0' 55.131 N	107° 22' 43.940 W	
6,100.0	11.83	213.51	6,004.3	-787.1	-521.3	860,610.21	1,466,053.06	39° 0' 54.962 N	107° 22' 44.084 W	
6,200.0	11.83	213.51	6,102.2	-804.2	-532.6	860,593.34	1,466,041.40	39° 0' 54.793 N	107° 22' 44.227 W	
6,300.0	11.83	213.51	6,200.1	-821.3	-543.9	860,576.48	1,466,029.74	39° 0' 54.624 N	107° 22' 44.371 W	
6,400.0	11.83	213.51	6,297.9	-838.4	-555.2	860,559.62	1,466,018.08	39° 0' 54.455 N	107° 22' 44.514 W	
6,500.0	11.83	213.51	6,395.8	-855.5	-566.5	860,542.76	1,466,006.42	39° 0' 54.286 N	107° 22' 44.657 W	
6,600.0	11.83	213.51	6,493.7	-872.6	-577.9	860,525.90	1,465,994.76	39° 0' 54.117 N	107° 22' 44.801 W	
6,636.7	11.83	213.51	6,529.6	-878.8	-582.0	860,519.72	1,465,990.48	39° 0' 54.055 N	107° 22' 44.853 W	
Start 9° Build										
6,650.0	11.95	207.72	6,542.6	-881.2	-583.4	860,517.39	1,465,989.04	39° 0' 54.032 N	107° 22' 44.871 W	
6,700.0	13.38	188.13	6,591.4	-891.5	-586.6	860,507.14	1,465,985.60	39° 0' 53.930 N	107° 22' 44.912 W	
6,750.0	15.97	173.50	6,639.8	-904.1	-586.7	860,494.58	1,465,985.31	39° 0' 53.806 N	107° 22' 44.912 W	
6,800.0	19.26	163.30	6,687.5	-918.8	-583.5	860,479.78	1,465,988.16	39° 0' 53.660 N	107° 22' 44.872 W	
6,850.0	22.95	156.13	6,734.1	-935.6	-577.2	860,462.84	1,465,994.14	39° 0' 53.494 N	107° 22' 44.792 W	
6,900.0	26.88	150.90	6,779.5	-954.4	-567.8	860,443.86	1,466,003.21	39° 0' 53.308 N	107° 22' 44.673 W	
6,950.0	30.95	146.94	6,823.2	-975.1	-555.2	860,422.95	1,466,015.31	39° 0' 53.104 N	107° 22' 44.514 W	
7,000.0	35.12	143.83	6,865.1	-997.5	-539.7	860,400.24	1,466,030.36	39° 0' 52.883 N	107° 22' 44.318 W	
7,050.0	39.35	141.30	6,904.9	-1,021.5	-521.3	860,375.88	1,466,048.29	39° 0' 52.646 N	107° 22' 44.084 W	
7,100.0	43.63	139.20	6,942.4	-1,046.9	-500.1	860,350.02	1,466,068.97	39° 0' 52.394 N	107° 22' 43.816 W	
7,150.0	47.95	137.40	6,977.2	-1,073.7	-476.3	860,322.80	1,466,092.27	39° 0' 52.130 N	107° 22' 43.514 W	
7,200.0	52.28	135.84	7,009.3	-1,101.5	-449.9	860,294.42	1,466,118.06	39° 0' 51.854 N	107° 22' 43.180 W	
7,250.0	56.64	134.44	7,038.4	-1,130.4	-421.2	860,265.02	1,466,146.18	39° 0' 51.570 N	107° 22' 42.816 W	
7,300.0	61.01	133.18	7,064.2	-1,160.0	-390.4	860,234.81	1,466,176.45	39° 0' 51.277 N	107° 22' 42.425 W	
7,350.0	65.39	132.03	7,086.8	-1,190.2	-357.5	860,203.96	1,466,208.68	39° 0' 50.979 N	107° 22' 42.009 W	
7,400.0	69.77	130.95	7,105.8	-1,220.8	-322.9	860,172.66	1,466,242.67	39° 0' 50.676 N	107° 22' 41.571 W	
7,450.0	74.17	129.93	7,121.3	-1,251.6	-286.7	860,141.12	1,466,278.23	39° 0' 50.372 N	107° 22' 41.113 W	
7,500.0	78.57	128.95	7,133.1	-1,282.4	-249.2	860,109.51	1,466,315.12	39° 0' 50.067 N	107° 22' 40.637 W	
7,550.0	82.97	128.01	7,141.1	-1,313.1	-210.6	860,078.04	1,466,353.12	39° 0' 49.763 N	107° 22' 40.148 W	
7,600.0	87.37	127.08	7,145.3	-1,343.5	-171.1	860,046.91	1,466,392.00	39° 0' 49.463 N	107° 22' 39.648 W	
7,629.1	89.94	126.54	7,146.0	-1,360.9	-147.8	860,029.02	1,466,414.93	39° 0' 49.291 N	107° 22' 39.353 W	
LP @ 7,146' TVD, 89.94°										
7,700.0	89.94	126.54	7,146.1	-1,403.1	-90.8	859,985.66	1,466,471.04	39° 0' 48.874 N	107° 22' 38.631 W	
7,800.0	89.94	126.54	7,146.2	-1,462.7	-10.5	859,924.52	1,466,550.17	39° 0' 48.286 N	107° 22' 37.613 W	
7,900.0	89.94	126.54	7,146.3	-1,522.2	69.9	859,863.38	1,466,629.30	39° 0' 47.697 N	107° 22' 36.596 W	
8,000.0	89.94	126.54	7,146.4	-1,581.7	150.2	859,802.24	1,466,708.43	39° 0' 47.109 N	107° 22' 35.578 W	
8,100.0	89.94	126.54	7,146.5	-1,641.3	230.6	859,741.10	1,466,787.56	39° 0' 46.520 N	107° 22' 34.560 W	
8,200.0	89.94	126.54	7,146.6	-1,700.8	310.9	859,679.95	1,466,866.69	39° 0' 45.932 N	107° 22' 33.543 W	
8,300.0	89.94	126.54	7,146.7	-1,760.4	391.2	859,618.81	1,466,945.82	39° 0' 45.343 N	107° 22' 32.525 W	
8,400.0	89.94	126.54	7,146.9	-1,819.9	471.6	859,557.67	1,467,024.95	39° 0' 44.755 N	107° 22' 31.507 W	
8,500.0	89.94	126.54	7,147.0	-1,879.4	551.9	859,496.53	1,467,104.09	39° 0' 44.167 N	107° 22' 30.490 W	
8,600.0	89.94	126.54	7,147.1	-1,939.0	632.3	859,435.39	1,467,183.22	39° 0' 43.578 N	107° 22' 29.472 W	
8,700.0	89.94	126.54	7,147.2	-1,998.5	712.6	859,374.24	1,467,262.35	39° 0' 42.990 N	107° 22' 28.454 W	
8,800.0	89.94	126.54	7,147.3	-2,058.1	793.0	859,313.10	1,467,341.48	39° 0' 42.401 N	107° 22' 27.437 W	
8,900.0	89.94	126.54	7,147.4	-2,117.6	873.3	859,251.96	1,467,420.61	39° 0' 41.813 N	107° 22' 26.419 W	
9,000.0	89.94	126.54	7,147.5	-2,177.1	953.6	859,190.82	1,467,499.74	39° 0' 41.224 N	107° 22' 25.401 W	



<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well DGU Hotchkiss Fed 1289 #18-H4
<b>Company:</b>	Gunnison Energy Corporation	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Project:</b>	Gunnison County, CO	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>North Reference:</b>	True
<b>Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #3		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
9,100.0	89.94	126.54	7,147.6	-2,236.7	1,034.0	859,129.68	1,467,578.87	39° 0' 40.636 N	107° 22' 24.384 W	
9,200.0	89.94	126.54	7,147.7	-2,296.2	1,114.3	859,068.53	1,467,658.00	39° 0' 40.048 N	107° 22' 23.366 W	
9,300.0	89.94	126.54	7,147.8	-2,355.8	1,194.7	859,007.39	1,467,737.13	39° 0' 39.459 N	107° 22' 22.348 W	
9,400.0	89.94	126.54	7,148.0	-2,415.3	1,275.0	858,946.25	1,467,816.26	39° 0' 38.871 N	107° 22' 21.331 W	
9,500.0	89.94	126.54	7,148.1	-2,474.8	1,355.4	858,885.11	1,467,895.39	39° 0' 38.282 N	107° 22' 20.313 W	
9,600.0	89.94	126.54	7,148.2	-2,534.4	1,435.7	858,823.97	1,467,974.52	39° 0' 37.694 N	107° 22' 19.296 W	
9,700.0	89.94	126.54	7,148.3	-2,593.9	1,516.0	858,762.82	1,468,053.65	39° 0' 37.105 N	107° 22' 18.278 W	
9,800.0	89.94	126.54	7,148.4	-2,653.5	1,596.4	858,701.68	1,468,132.78	39° 0' 36.517 N	107° 22' 17.260 W	
9,900.0	89.94	126.54	7,148.5	-2,713.0	1,676.7	858,640.54	1,468,211.91	39° 0' 35.928 N	107° 22' 16.243 W	
10,000.0	89.94	126.54	7,148.6	-2,772.5	1,757.1	858,579.40	1,468,291.04	39° 0' 35.340 N	107° 22' 15.225 W	
10,100.0	89.94	126.54	7,148.7	-2,832.1	1,837.4	858,518.26	1,468,370.17	39° 0' 34.751 N	107° 22' 14.208 W	
10,200.0	89.94	126.54	7,148.8	-2,891.6	1,917.8	858,457.11	1,468,449.31	39° 0' 34.163 N	107° 22' 13.190 W	
10,300.0	89.94	126.54	7,149.0	-2,951.2	1,998.1	858,395.97	1,468,528.44	39° 0' 33.575 N	107° 22' 12.172 W	
10,400.0	89.94	126.54	7,149.1	-3,010.7	2,078.5	858,334.83	1,468,607.57	39° 0' 32.986 N	107° 22' 11.155 W	
10,500.0	89.94	126.54	7,149.2	-3,070.2	2,158.8	858,273.69	1,468,686.70	39° 0' 32.398 N	107° 22' 10.137 W	
10,600.0	89.94	126.54	7,149.3	-3,129.8	2,239.1	858,212.55	1,468,765.83	39° 0' 31.809 N	107° 22' 9.120 W	
10,700.0	89.94	126.54	7,149.4	-3,189.3	2,319.5	858,151.40	1,468,844.96	39° 0' 31.221 N	107° 22' 8.102 W	
10,800.0	89.94	126.54	7,149.5	-3,248.9	2,399.8	858,090.26	1,468,924.09	39° 0' 30.632 N	107° 22' 7.085 W	
10,900.0	89.94	126.54	7,149.6	-3,308.4	2,480.2	858,029.12	1,469,003.22	39° 0' 30.044 N	107° 22' 6.067 W	
11,000.0	89.94	126.54	7,149.7	-3,367.9	2,560.5	857,967.98	1,469,082.35	39° 0' 29.455 N	107° 22' 5.049 W	
11,100.0	89.94	126.54	7,149.8	-3,427.5	2,640.9	857,906.84	1,469,161.48	39° 0' 28.867 N	107° 22' 4.032 W	
11,200.0	89.94	126.54	7,149.9	-3,487.0	2,721.2	857,845.70	1,469,240.61	39° 0' 28.278 N	107° 22' 3.014 W	
11,300.0	89.94	126.54	7,150.1	-3,546.6	2,801.5	857,784.55	1,469,319.74	39° 0' 27.690 N	107° 22' 1.997 W	
11,400.0	89.94	126.54	7,150.2	-3,606.1	2,881.9	857,723.41	1,469,398.87	39° 0' 27.101 N	107° 22' 0.979 W	
11,500.0	89.94	126.54	7,150.3	-3,665.6	2,962.2	857,662.27	1,469,478.00	39° 0' 26.513 N	107° 21' 59.962 W	
11,600.0	89.94	126.54	7,150.4	-3,725.2	3,042.6	857,601.13	1,469,557.13	39° 0' 25.924 N	107° 21' 58.944 W	
11,700.0	89.94	126.54	7,150.5	-3,784.7	3,122.9	857,539.99	1,469,636.26	39° 0' 25.336 N	107° 21' 57.927 W	
11,800.0	89.94	126.54	7,150.6	-3,844.3	3,203.3	857,478.84	1,469,715.39	39° 0' 24.747 N	107° 21' 56.909 W	
11,900.0	89.94	126.54	7,150.7	-3,903.8	3,283.6	857,417.70	1,469,794.53	39° 0' 24.159 N	107° 21' 55.892 W	
12,000.0	89.94	126.54	7,150.8	-3,963.3	3,363.9	857,356.56	1,469,873.66	39° 0' 23.570 N	107° 21' 54.874 W	
12,100.0	89.94	126.54	7,150.9	-4,022.9	3,444.3	857,295.42	1,469,952.79	39° 0' 22.982 N	107° 21' 53.857 W	
12,200.0	89.94	126.54	7,151.0	-4,082.4	3,524.6	857,234.28	1,470,031.92	39° 0' 22.393 N	107° 21' 52.839 W	
12,300.0	89.94	126.54	7,151.2	-4,142.0	3,605.0	857,173.13	1,470,111.05	39° 0' 21.805 N	107° 21' 51.822 W	
12,400.0	89.94	126.54	7,151.3	-4,201.5	3,685.3	857,111.99	1,470,190.18	39° 0' 21.216 N	107° 21' 50.804 W	
12,500.0	89.94	126.54	7,151.4	-4,261.0	3,765.7	857,050.85	1,470,269.31	39° 0' 20.628 N	107° 21' 49.787 W	
12,600.0	89.94	126.54	7,151.5	-4,320.6	3,846.0	856,989.71	1,470,348.44	39° 0' 20.039 N	107° 21' 48.769 W	
12,700.0	89.94	126.54	7,151.6	-4,380.1	3,926.3	856,928.57	1,470,427.57	39° 0' 19.451 N	107° 21' 47.752 W	
12,800.0	89.94	126.54	7,151.7	-4,439.6	4,006.7	856,867.42	1,470,506.70	39° 0' 18.862 N	107° 21' 46.734 W	
12,900.0	89.94	126.54	7,151.8	-4,499.2	4,087.0	856,806.28	1,470,585.83	39° 0' 18.273 N	107° 21' 45.717 W	
13,000.0	89.94	126.54	7,151.9	-4,558.7	4,167.4	856,745.14	1,470,664.96	39° 0' 17.685 N	107° 21' 44.699 W	
13,100.0	89.94	126.54	7,152.0	-4,618.3	4,247.7	856,684.00	1,470,744.09	39° 0' 17.096 N	107° 21' 43.682 W	
13,200.0	89.94	126.54	7,152.2	-4,677.8	4,328.1	856,622.86	1,470,823.22	39° 0' 16.508 N	107° 21' 42.664 W	
13,300.0	89.94	126.54	7,152.3	-4,737.3	4,408.4	856,561.71	1,470,902.35	39° 0' 15.919 N	107° 21' 41.647 W	
13,400.0	89.94	126.54	7,152.4	-4,796.9	4,488.7	856,500.57	1,470,981.48	39° 0' 15.331 N	107° 21' 40.629 W	
13,500.0	89.94	126.54	7,152.5	-4,856.4	4,569.1	856,439.43	1,471,060.62	39° 0' 14.742 N	107° 21' 39.612 W	
13,600.0	89.94	126.54	7,152.6	-4,916.0	4,649.4	856,378.29	1,471,139.75	39° 0' 14.154 N	107° 21' 38.595 W	
13,700.0	89.94	126.54	7,152.7	-4,975.5	4,729.8	856,317.15	1,471,218.88	39° 0' 13.565 N	107° 21' 37.577 W	
13,800.0	89.94	126.54	7,152.8	-5,035.0	4,810.1	856,256.00	1,471,298.01	39° 0' 12.977 N	107° 21' 36.560 W	
13,900.0	89.94	126.54	7,152.9	-5,094.6	4,890.5	856,194.86	1,471,377.14	39° 0' 12.388 N	107° 21' 35.542 W	
14,000.0	89.94	126.54	7,153.0	-5,154.1	4,970.8	856,133.72	1,471,456.27	39° 0' 11.799 N	107° 21' 34.525 W	
14,100.0	89.94	126.54	7,153.1	-5,213.7	5,051.1	856,072.58	1,471,535.40	39° 0' 11.211 N	107° 21' 33.507 W	
14,200.0	89.94	126.54	7,153.3	-5,273.2	5,131.5	856,011.44	1,471,614.53	39° 0' 10.622 N	107° 21' 32.490 W	
14,300.0	89.94	126.54	7,153.4	-5,332.7	5,211.8	855,950.30	1,471,693.66	39° 0' 10.034 N	107° 21' 31.473 W	
14,400.0	89.94	126.54	7,153.5	-5,392.3	5,292.2	855,889.15	1,471,772.79	39° 0' 9.445 N	107° 21' 30.455 W	
14,500.0	89.94	126.54	7,153.6	-5,451.8	5,372.5	855,828.01	1,471,851.92	39° 0' 8.857 N	107° 21' 29.438 W	

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well DGU Hotchkiss Fed 1289 #18-H4
<b>Company:</b>	Gunnison Energy Corporation	<b>TVD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Project:</b>	Gunnison County, CO	<b>MD Reference:</b>	KB=20' @ 7351.7usft (Original Well Elev)
<b>Site:</b>	DGU Hotchkiss Federal #1289 Pad	<b>North Reference:</b>	True
<b>Well:</b>	DGU Hotchkiss Fed 1289 #18-H4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #3		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
14,600.0	89.94	126.54	7,153.7	-5,511.3	5,452.8	855,766.89	1,471,931.03	39° 0' 8.268 N	107° 21' 28.421 W
TD @ 14,600' MD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
DGU Hotchkiss Fed 128	0.00	358.85	7,146.0	-1,360.9	-147.8	860,029.02	1,466,414.93	39° 0' 49.291 N	107° 22' 39.353 W
- plan hits target center									
- Point									
DGU Hotchkiss Fed 128	0.00	358.86	7,153.7	-5,511.3	5,452.8	855,766.89	1,471,931.03	39° 0' 8.268 N	107° 21' 28.421 W
- plan hits target center									
- Point									

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,200.0	1,200.0	0.0	0.0	KOP @ 1,200'	
1,791.5	1,787.3	-50.7	-33.6	EOB @ Inc. = 11.83°	
6,636.7	6,529.6	-878.8	-582.0	Start 9° Build	
7,629.1	7,146.0	-1,360.9	-147.8	LP @ 7,146' TVD, 89.94°	
14,600.0	7,153.7	-5,511.3	5,452.8	TD @ 14,600' MD	