

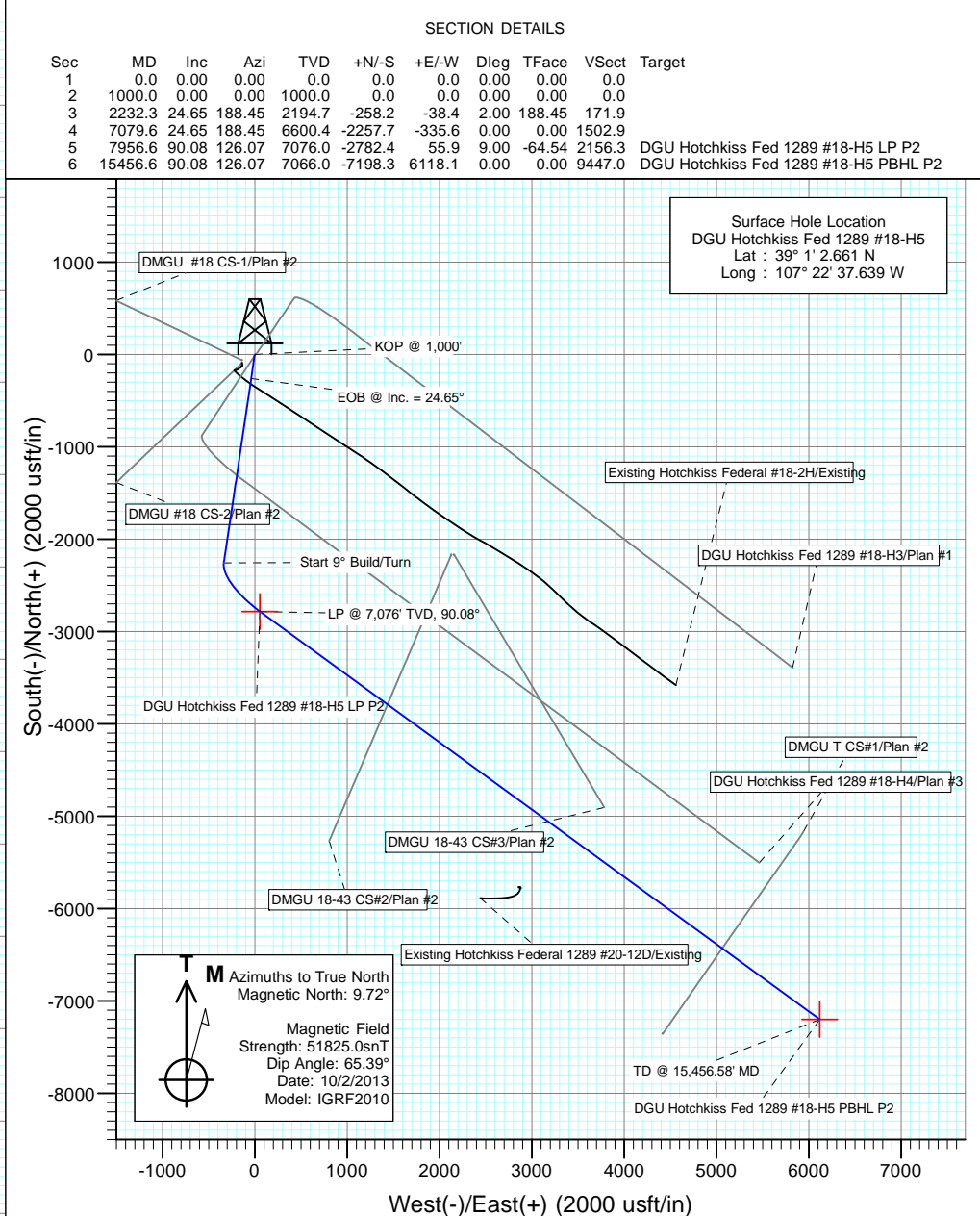
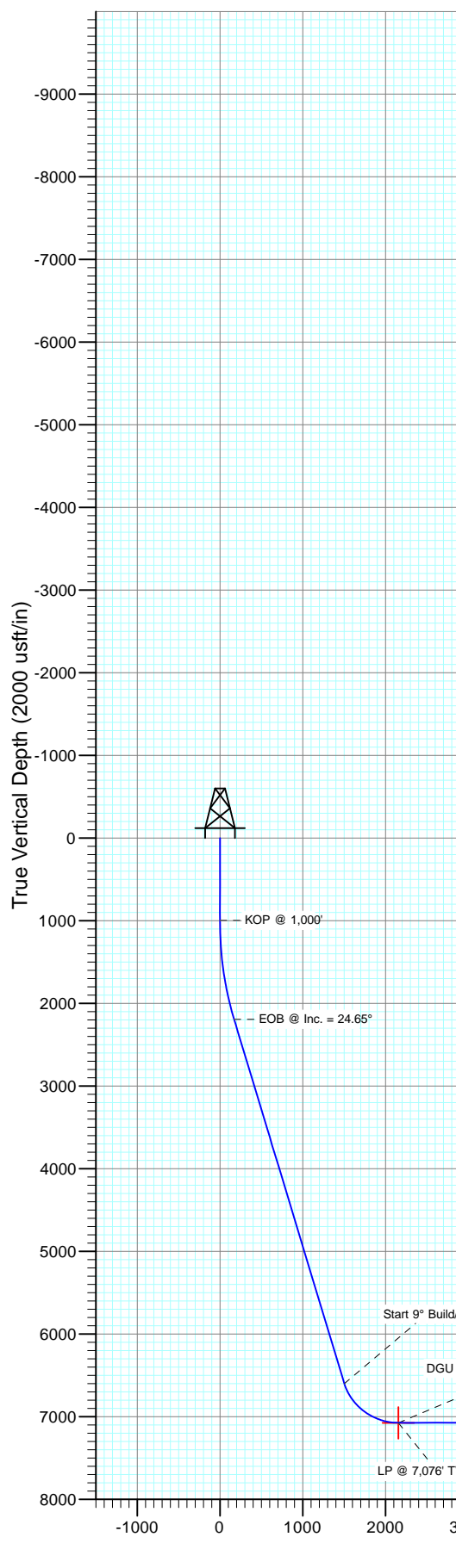


GUNNISON ENERGY CORPORATION

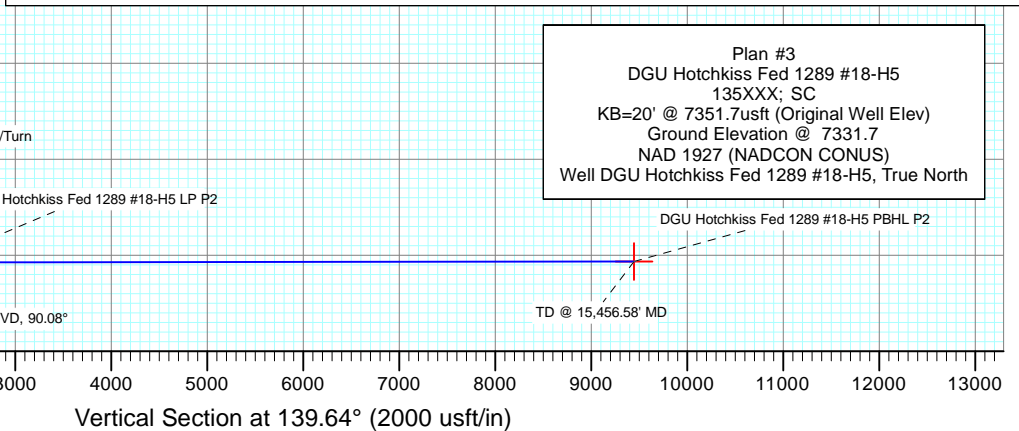
Project: Gunnison County, CO
Site: DGU Hotchkiss Federal #1289 Pad
Well: DGU Hotchkiss Fed 1289 #18-H5
Inflow: HZ
Design: Plan #3



CATHEDRAL



DESIGN TARGET DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
DGU Hotchkiss Fed 1289 #18-H5 PBHL P2	-7198.3	6118.1	854059.11	1472549.55	38° 59' 51.516 N	107° 21' 20.159 W	
DGU Hotchkiss Fed 1289 #18-H5 LP P2	-2782.4	55.9	858595.96	1466577.37	39° 0' 35.164 N	107° 22' 36.931 W	



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DGU Hotchkiss Fed 1289 #18-H5
Company:	Gunnison Energy Corporation	TVD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Project:	Gunnison County, CO	MD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Site:	DGU Hotchkiss Federal #1289 Pad	North Reference:	True
Well:	DGU Hotchkiss Fed 1289 #18-H5	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #3		

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

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

Well	DGU Hotchkiss Fed 1289 #18-H5		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	39° 1' 2.661 N
		Longitude:	107° 22' 37.639 W
		Ground Level:	7,331.7 usft

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

Design	Plan #3			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	139.64

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,232.3	24.65	188.45	2,194.7	-258.2	-38.4	2.00	2.00	0.00	188.45	
7,079.6	24.65	188.45	6,600.4	-2,257.7	-335.6	0.00	0.00	0.00	0.00	
7,956.6	90.08	126.07	7,076.0	-2,782.4	55.9	9.00	7.46	-7.11	-64.54	DGU Hotchkiss Fed 1
15,456.6	90.08	126.07	7,066.0	-7,198.3	6,118.1	0.00	0.00	0.00	0.00	DGU Hotchkiss Fed 1

Cathedral Energy Services

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Project:	Gunnison County, CO	MD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Site:	DGU Hotchkiss Federal #1289 Pad	North Reference:	True
Well:	DGU Hotchkiss Fed 1289 #18-H5	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	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	KOP @ 1,000'
1,100.0	2.00	188.45	1,100.0	-1.7	-0.3	1.1	2.00	2.00	
1,200.0	4.00	188.45	1,199.8	-6.9	-1.0	4.6	2.00	2.00	
1,300.0	6.00	188.45	1,299.5	-15.5	-2.3	10.3	2.00	2.00	
1,400.0	8.00	188.45	1,398.7	-27.6	-4.1	18.4	2.00	2.00	
1,500.0	10.00	188.45	1,497.5	-43.1	-6.4	28.7	2.00	2.00	
1,600.0	12.00	188.45	1,595.6	-61.9	-9.2	41.2	2.00	2.00	
1,700.0	14.00	188.45	1,693.1	-84.2	-12.5	56.0	2.00	2.00	
1,800.0	16.00	188.45	1,789.6	-109.8	-16.3	73.1	2.00	2.00	
1,900.0	18.00	188.45	1,885.3	-138.7	-20.6	92.3	2.00	2.00	
2,000.0	20.00	188.45	1,979.8	-170.9	-25.4	113.8	2.00	2.00	
2,100.0	22.00	188.45	2,073.2	-206.3	-30.7	137.4	2.00	2.00	
2,200.0	24.00	188.45	2,165.2	-245.0	-36.4	163.1	2.00	2.00	
2,232.3	24.65	188.45	2,194.7	-258.2	-38.4	171.9	2.00	2.00	EOB @ Inc. = 24.65°
2,300.0	24.65	188.45	2,256.2	-286.1	-42.5	190.4	0.00	0.00	
2,400.0	24.65	188.45	2,347.1	-327.3	-48.6	217.9	0.00	0.00	
2,500.0	24.65	188.45	2,438.0	-368.6	-54.8	245.4	0.00	0.00	
2,600.0	24.65	188.45	2,528.8	-409.8	-60.9	272.8	0.00	0.00	
2,700.0	24.65	188.45	2,619.7	-451.1	-67.0	300.3	0.00	0.00	
2,800.0	24.65	188.45	2,710.6	-492.3	-73.2	327.7	0.00	0.00	
2,900.0	24.65	188.45	2,801.5	-533.6	-79.3	355.2	0.00	0.00	
3,000.0	24.65	188.45	2,892.4	-574.8	-85.4	382.7	0.00	0.00	
3,100.0	24.65	188.45	2,983.3	-616.1	-91.6	410.1	0.00	0.00	
3,200.0	24.65	188.45	3,074.2	-657.3	-97.7	437.6	0.00	0.00	
3,300.0	24.65	188.45	3,165.1	-698.6	-103.8	465.0	0.00	0.00	
3,400.0	24.65	188.45	3,256.0	-739.8	-110.0	492.5	0.00	0.00	
3,500.0	24.65	188.45	3,346.9	-781.1	-116.1	520.0	0.00	0.00	
3,600.0	24.65	188.45	3,437.7	-822.3	-122.2	547.4	0.00	0.00	
3,700.0	24.65	188.45	3,528.6	-863.6	-128.4	574.9	0.00	0.00	
3,800.0	24.65	188.45	3,619.5	-904.8	-134.5	602.3	0.00	0.00	
3,900.0	24.65	188.45	3,710.4	-946.1	-140.6	629.8	0.00	0.00	
4,000.0	24.65	188.45	3,801.3	-987.3	-146.7	657.3	0.00	0.00	
4,100.0	24.65	188.45	3,892.2	-1,028.6	-152.9	684.7	0.00	0.00	
4,200.0	24.65	188.45	3,983.1	-1,069.8	-159.0	712.2	0.00	0.00	
4,300.0	24.65	188.45	4,074.0	-1,111.1	-165.1	739.6	0.00	0.00	
4,400.0	24.65	188.45	4,164.9	-1,152.3	-171.3	767.1	0.00	0.00	
4,500.0	24.65	188.45	4,255.7	-1,193.6	-177.4	794.6	0.00	0.00	
4,600.0	24.65	188.45	4,346.6	-1,234.8	-183.5	822.0	0.00	0.00	
4,700.0	24.65	188.45	4,437.5	-1,276.1	-189.7	849.5	0.00	0.00	
4,800.0	24.65	188.45	4,528.4	-1,317.3	-195.8	876.9	0.00	0.00	
4,900.0	24.65	188.45	4,619.3	-1,358.6	-201.9	904.4	0.00	0.00	
5,000.0	24.65	188.45	4,710.2	-1,399.8	-208.1	931.9	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DGU Hotchkiss Fed 1289 #18-H5
Company:	Gunnison Energy Corporation	TVD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Project:	Gunnison County, CO	MD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Site:	DGU Hotchkiss Federal #1289 Pad	North Reference:	True
Well:	DGU Hotchkiss Fed 1289 #18-H5	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	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	24.65	188.45	4,801.1	-1,441.1	-214.2	959.3	0.00	0.00	
5,200.0	24.65	188.45	4,892.0	-1,482.3	-220.3	986.8	0.00	0.00	
5,300.0	24.65	188.45	4,982.9	-1,523.6	-226.4	1,014.3	0.00	0.00	
5,400.0	24.65	188.45	5,073.8	-1,564.8	-232.6	1,041.7	0.00	0.00	
5,500.0	24.65	188.45	5,164.6	-1,606.1	-238.7	1,069.2	0.00	0.00	
5,600.0	24.65	188.45	5,255.5	-1,647.3	-244.8	1,096.6	0.00	0.00	
5,700.0	24.65	188.45	5,346.4	-1,688.6	-251.0	1,124.1	0.00	0.00	
5,800.0	24.65	188.45	5,437.3	-1,729.8	-257.1	1,151.6	0.00	0.00	
5,900.0	24.65	188.45	5,528.2	-1,771.1	-263.2	1,179.0	0.00	0.00	
6,000.0	24.65	188.45	5,619.1	-1,812.3	-269.4	1,206.5	0.00	0.00	
6,100.0	24.65	188.45	5,710.0	-1,853.6	-275.5	1,233.9	0.00	0.00	
6,200.0	24.65	188.45	5,800.9	-1,894.8	-281.6	1,261.4	0.00	0.00	
6,300.0	24.65	188.45	5,891.8	-1,936.1	-287.8	1,288.9	0.00	0.00	
6,400.0	24.65	188.45	5,982.6	-1,977.3	-293.9	1,316.3	0.00	0.00	
6,500.0	24.65	188.45	6,073.5	-2,018.6	-300.0	1,343.8	0.00	0.00	
6,600.0	24.65	188.45	6,164.4	-2,059.8	-306.1	1,371.2	0.00	0.00	
6,700.0	24.65	188.45	6,255.3	-2,101.1	-312.3	1,398.7	0.00	0.00	
6,800.0	24.65	188.45	6,346.2	-2,142.3	-318.4	1,426.2	0.00	0.00	
6,900.0	24.65	188.45	6,437.1	-2,183.6	-324.5	1,453.6	0.00	0.00	
7,000.0	24.65	188.45	6,528.0	-2,224.8	-330.7	1,481.1	0.00	0.00	
7,079.6	24.65	188.45	6,600.4	-2,257.7	-335.6	1,502.9	0.00	0.00	Start 9° Build/Turn
7,100.0	25.49	184.61	6,618.8	-2,266.2	-336.5	1,508.8	9.00	4.12	
7,150.0	27.92	176.18	6,663.5	-2,288.6	-336.6	1,525.9	9.00	4.88	
7,200.0	30.79	169.10	6,707.1	-2,312.9	-333.4	1,546.4	9.00	5.74	
7,250.0	33.99	163.17	6,749.3	-2,338.9	-326.9	1,570.4	9.00	6.39	
7,300.0	37.42	158.18	6,789.9	-2,366.4	-317.2	1,597.6	9.00	6.87	
7,350.0	41.04	153.94	6,828.6	-2,395.2	-304.4	1,628.0	9.00	7.23	
7,400.0	44.78	150.28	6,865.3	-2,425.3	-288.4	1,661.2	9.00	7.49	
7,450.0	48.63	147.07	6,899.5	-2,456.3	-269.5	1,697.1	9.00	7.70	
7,500.0	52.56	144.23	6,931.3	-2,488.2	-247.7	1,735.5	9.00	7.86	
7,550.0	56.55	141.68	6,960.3	-2,520.7	-223.1	1,776.2	9.00	7.98	
7,600.0	60.59	139.35	6,986.3	-2,553.6	-196.0	1,818.8	9.00	8.08	
7,650.0	64.67	137.20	7,009.3	-2,586.7	-166.4	1,863.2	9.00	8.15	
7,700.0	68.77	135.19	7,029.1	-2,619.8	-134.6	1,909.0	9.00	8.21	
7,750.0	72.90	133.29	7,045.5	-2,652.8	-100.8	1,956.0	9.00	8.25	
7,800.0	77.04	131.47	7,058.5	-2,685.3	-65.1	2,003.9	9.00	8.29	
7,850.0	81.20	129.71	7,067.9	-2,717.2	-27.9	2,052.4	9.00	8.31	
7,900.0	85.36	127.99	7,073.7	-2,748.4	10.8	2,101.2	9.00	8.33	
7,950.0	89.53	126.29	7,076.0	-2,778.5	50.6	2,149.9	9.00	8.34	
7,956.6	90.08	126.07	7,076.0	-2,782.4	55.9	2,156.3	9.00	8.34	LP @ 7,076' TVD, 90.08°
8,000.0	90.08	126.07	7,075.9	-2,808.0	91.0	2,198.5	0.00	0.00	
8,100.0	90.08	126.07	7,075.8	-2,866.9	171.9	2,295.7	0.00	0.00	
8,200.0	90.08	126.07	7,075.7	-2,925.7	252.7	2,393.0	0.00	0.00	
8,300.0	90.08	126.07	7,075.5	-2,984.6	333.5	2,490.2	0.00	0.00	
8,400.0	90.08	126.07	7,075.4	-3,043.5	414.3	2,587.4	0.00	0.00	
8,500.0	90.08	126.07	7,075.3	-3,102.4	495.2	2,684.6	0.00	0.00	
8,600.0	90.08	126.07	7,075.1	-3,161.3	576.0	2,781.8	0.00	0.00	
8,700.0	90.08	126.07	7,075.0	-3,220.1	656.8	2,879.0	0.00	0.00	
8,800.0	90.08	126.07	7,074.9	-3,279.0	737.6	2,976.2	0.00	0.00	
8,900.0	90.08	126.07	7,074.7	-3,337.9	818.5	3,073.4	0.00	0.00	
9,000.0	90.08	126.07	7,074.6	-3,396.8	899.3	3,170.6	0.00	0.00	
9,100.0	90.08	126.07	7,074.5	-3,455.6	980.1	3,267.8	0.00	0.00	

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Well:	DGU Hotchkiss Fed 1289 #18-H5	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	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
9,200.0	90.08	126.07	7,074.3	-3,514.5	1,061.0	3,365.0	0.00	0.00	
9,300.0	90.08	126.07	7,074.2	-3,573.4	1,141.8	3,462.3	0.00	0.00	
9,400.0	90.08	126.07	7,074.1	-3,632.3	1,222.6	3,559.5	0.00	0.00	
9,500.0	90.08	126.07	7,073.9	-3,691.2	1,303.4	3,656.7	0.00	0.00	
9,600.0	90.08	126.07	7,073.8	-3,750.0	1,384.3	3,753.9	0.00	0.00	
9,700.0	90.08	126.07	7,073.7	-3,808.9	1,465.1	3,851.1	0.00	0.00	
9,800.0	90.08	126.07	7,073.5	-3,867.8	1,545.9	3,948.3	0.00	0.00	
9,900.0	90.08	126.07	7,073.4	-3,926.7	1,626.8	4,045.5	0.00	0.00	
10,000.0	90.08	126.07	7,073.3	-3,985.6	1,707.6	4,142.7	0.00	0.00	
10,100.0	90.08	126.07	7,073.1	-4,044.4	1,788.4	4,239.9	0.00	0.00	
10,200.0	90.08	126.07	7,073.0	-4,103.3	1,869.2	4,337.1	0.00	0.00	
10,300.0	90.08	126.07	7,072.9	-4,162.2	1,950.1	4,434.4	0.00	0.00	
10,400.0	90.08	126.07	7,072.7	-4,221.1	2,030.9	4,531.6	0.00	0.00	
10,500.0	90.08	126.07	7,072.6	-4,280.0	2,111.7	4,628.8	0.00	0.00	
10,600.0	90.08	126.07	7,072.5	-4,338.8	2,192.6	4,726.0	0.00	0.00	
10,700.0	90.08	126.07	7,072.3	-4,397.7	2,273.4	4,823.2	0.00	0.00	
10,800.0	90.08	126.07	7,072.2	-4,456.6	2,354.2	4,920.4	0.00	0.00	
10,900.0	90.08	126.07	7,072.1	-4,515.5	2,435.0	5,017.6	0.00	0.00	
11,000.0	90.08	126.07	7,071.9	-4,574.3	2,515.9	5,114.8	0.00	0.00	
11,100.0	90.08	126.07	7,071.8	-4,633.2	2,596.7	5,212.0	0.00	0.00	
11,200.0	90.08	126.07	7,071.7	-4,692.1	2,677.5	5,309.2	0.00	0.00	
11,300.0	90.08	126.07	7,071.5	-4,751.0	2,758.4	5,406.5	0.00	0.00	
11,400.0	90.08	126.07	7,071.4	-4,809.9	2,839.2	5,503.7	0.00	0.00	
11,500.0	90.08	126.07	7,071.3	-4,868.7	2,920.0	5,600.9	0.00	0.00	
11,600.0	90.08	126.07	7,071.1	-4,927.6	3,000.8	5,698.1	0.00	0.00	
11,700.0	90.08	126.07	7,071.0	-4,986.5	3,081.7	5,795.3	0.00	0.00	
11,800.0	90.08	126.07	7,070.9	-5,045.4	3,162.5	5,892.5	0.00	0.00	
11,900.0	90.08	126.07	7,070.7	-5,104.3	3,243.3	5,989.7	0.00	0.00	
12,000.0	90.08	126.07	7,070.6	-5,163.1	3,324.2	6,086.9	0.00	0.00	
12,100.0	90.08	126.07	7,070.5	-5,222.0	3,405.0	6,184.1	0.00	0.00	
12,200.0	90.08	126.07	7,070.3	-5,280.9	3,485.8	6,281.3	0.00	0.00	
12,300.0	90.08	126.07	7,070.2	-5,339.8	3,566.6	6,378.5	0.00	0.00	
12,400.0	90.08	126.07	7,070.1	-5,398.7	3,647.5	6,475.8	0.00	0.00	
12,500.0	90.08	126.07	7,069.9	-5,457.5	3,728.3	6,573.0	0.00	0.00	
12,600.0	90.08	126.07	7,069.8	-5,516.4	3,809.1	6,670.2	0.00	0.00	
12,700.0	90.08	126.07	7,069.7	-5,575.3	3,890.0	6,767.4	0.00	0.00	
12,800.0	90.08	126.07	7,069.5	-5,634.2	3,970.8	6,864.6	0.00	0.00	
12,900.0	90.08	126.07	7,069.4	-5,693.0	4,051.6	6,961.8	0.00	0.00	
13,000.0	90.08	126.07	7,069.3	-5,751.9	4,132.4	7,059.0	0.00	0.00	
13,100.0	90.08	126.07	7,069.1	-5,810.8	4,213.3	7,156.2	0.00	0.00	
13,200.0	90.08	126.07	7,069.0	-5,869.7	4,294.1	7,253.4	0.00	0.00	
13,300.0	90.08	126.07	7,068.9	-5,928.6	4,374.9	7,350.6	0.00	0.00	
13,400.0	90.08	126.07	7,068.7	-5,987.4	4,455.8	7,447.9	0.00	0.00	
13,500.0	90.08	126.07	7,068.6	-6,046.3	4,536.6	7,545.1	0.00	0.00	
13,600.0	90.08	126.07	7,068.5	-6,105.2	4,617.4	7,642.3	0.00	0.00	
13,700.0	90.08	126.07	7,068.3	-6,164.1	4,698.2	7,739.5	0.00	0.00	
13,800.0	90.08	126.07	7,068.2	-6,223.0	4,779.1	7,836.7	0.00	0.00	
13,900.0	90.08	126.07	7,068.1	-6,281.8	4,859.9	7,933.9	0.00	0.00	
14,000.0	90.08	126.07	7,067.9	-6,340.7	4,940.7	8,031.1	0.00	0.00	
14,100.0	90.08	126.07	7,067.8	-6,399.6	5,021.6	8,128.3	0.00	0.00	
14,200.0	90.08	126.07	7,067.7	-6,458.5	5,102.4	8,225.5	0.00	0.00	
14,300.0	90.08	126.07	7,067.5	-6,517.4	5,183.2	8,322.7	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DGU Hotchkiss Fed 1289 #18-H5
Company:	Gunnison Energy Corporation	TVD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Project:	Gunnison County, CO	MD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Site:	DGU Hotchkiss Federal #1289 Pad	North Reference:	True
Well:	DGU Hotchkiss Fed 1289 #18-H5	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	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
14,400.0	90.08	126.07	7,067.4	-6,576.2	5,264.0	8,420.0	0.00	0.00	
14,500.0	90.08	126.07	7,067.3	-6,635.1	5,344.9	8,517.2	0.00	0.00	
14,600.0	90.08	126.07	7,067.1	-6,694.0	5,425.7	8,614.4	0.00	0.00	
14,700.0	90.08	126.07	7,067.0	-6,752.9	5,506.5	8,711.6	0.00	0.00	
14,800.0	90.08	126.07	7,066.9	-6,811.8	5,587.4	8,808.8	0.00	0.00	
14,900.0	90.08	126.07	7,066.7	-6,870.6	5,668.2	8,906.0	0.00	0.00	
15,000.0	90.08	126.07	7,066.6	-6,929.5	5,749.0	9,003.2	0.00	0.00	
15,100.0	90.08	126.07	7,066.5	-6,988.4	5,829.8	9,100.4	0.00	0.00	
15,200.0	90.08	126.07	7,066.3	-7,047.3	5,910.7	9,197.6	0.00	0.00	
15,300.0	90.08	126.07	7,066.2	-7,106.1	5,991.5	9,294.8	0.00	0.00	
15,400.0	90.08	126.07	7,066.1	-7,165.0	6,072.3	9,392.0	0.00	0.00	
15,456.6	90.08	126.07	7,066.0	-7,198.3	6,118.1	9,447.0	0.00	0.00	TD @ 15,456.58' 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 misses target center by 648.9usft at 15456.6usft MD (7066.0 TVD, -7198.3 N, 6118.1 E) - Point	0.00	358.86	7,066.0	-7,580.4	6,642.6	853,666.58	1,473,066.26	38° 59' 47.738 N	107° 21' 13.518 W
DGU Hotchkiss Fed 128 - plan hits target center - Point	0.00	358.85	7,076.0	-2,782.4	55.9	858,595.96	1,466,577.37	39° 0' 35.164 N	107° 22' 36.931 W
DGU Hotchkiss Fed 128 - plan misses target center by 436.0usft at 7350.4usft MD (6828.9 TVD, -2395.4 N, -304.3 E) - Point	0.00	358.85	7,076.0	-2,273.8	-642.3	859,118.52	1,465,889.48	39° 0' 40.190 N	107° 22' 45.775 W
DGU Hotchkiss Fed 128 - plan hits target center - Point	0.00	358.86	7,066.0	-7,198.3	6,118.1	854,059.11	1,472,549.55	38° 59' 51.516 N	107° 21' 20.159 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
1,000.0	1,000.0	0.0	0.0	KOP @ 1,000'
2,232.3	2,194.7	-258.2	-38.4	EOB @ Inc. = 24.65°
7,079.6	6,600.4	-2,257.7	-335.6	Start 9° Build/Turn
7,956.6	7,076.0	-2,782.4	55.9	LP @ 7,076' TVD, 90.08°
15,456.6	7,066.0	-7,198.3	6,118.1	TD @ 15,456.58' MD

Gunnison Energy Corporation

Gunnison County, CO

DGU Hotchkiss Federal #1289 Pad

DGU Hotchkiss Fed 1289 #18-H5

HZ

Plan #3

Anticollision Report

17 December, 2013

Cathedral Energy Services

Anticollision Report

Company:	Gunnison Energy Corporation	Local Co-ordinate Reference:	Well DGU Hotchkiss Fed 1289 #18-H5
Project:	Gunnison County, CO	TVD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Reference Site:	DGU Hotchkiss Federal #1289 Pad	MD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	True
Reference Well:	DGU Hotchkiss Fed 1289 #18-H5	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	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	15,456.6	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
Offet Well - Wellbore - Design						
Deadman Gulch Unit						
DMGU #18 CS-1 - OH - Plan #2	433.2	433.5	151.2	149.7	104.791	CC, ES
DMGU #18 CS-1 - OH - Plan #2	800.0	740.7	205.8	202.9	71.033	SF
DMGU #18 CS-2 - OH - Plan #2	366.6	366.9	163.6	162.4	135.212	CC
DMGU #18 CS-2 - OH - Plan #2	400.0	400.0	163.7	162.3	123.370	ES
DMGU #18 CS-2 - OH - Plan #2	700.0	636.2	213.0	210.8	94.077	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 #18-2H - Existing - Existing	1,905.2	1,890.5	118.4	114.1	27.606	CC, ES
Existing Hotchkiss Federal #18-2H - Existing - Existing	2,000.0	1,980.2	122.2	117.4	25.831	SF
Existing Hotchkiss Federal 1289 #20-12D - Existing - Exi						Out of range
DGU Hotchkiss Federal #1289 Pad						
DGU Hotchkiss Fed 1289 #18-H3 - HZ - Plan #1	1,000.0	1,000.0	29.8	26.4	8.722	CC, ES
DGU Hotchkiss Fed 1289 #18-H3 - HZ - Plan #1	1,100.0	1,100.0	31.1	27.3	8.241	SF
DGU Hotchkiss Fed 1289 #18-H4 - HZ - Plan #3	1,000.0	1,000.0	14.8	11.4	4.341	CC, ES
DGU Hotchkiss Fed 1289 #18-H4 - HZ - Plan #3	1,100.0	1,100.0	16.1	12.3	4.258	SF

Cathedral Energy Services

Anticollision Report

Company:	Gunnison Energy Corporation	Local Co-ordinate Reference:	Well DGU Hotchkiss Fed 1289 #18-H5
Project:	Gunnison County, CO	TVD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Reference Site:	DGU Hotchkiss Federal #1289 Pad	MD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	True
Reference Well:	DGU Hotchkiss Fed 1289 #18-H5	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	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	-113.74	-60.9	-138.4	151.2					
100.0	100.0	100.3	100.3	0.1	0.1	-113.74	-60.9	-138.4	151.2	150.9	0.28	540.296		
200.0	200.0	200.3	200.3	0.3	0.3	-113.74	-60.9	-138.4	151.2	150.6	0.63	240.406		
300.0	300.0	300.3	300.3	0.5	0.5	-113.74	-60.9	-138.4	151.2	150.2	0.98	154.597		
400.0	400.0	400.3	400.3	0.7	0.7	-113.74	-60.9	-138.4	151.2	149.9	1.33	113.931		
433.2	433.2	433.5	433.5	0.7	0.7	-113.74	-60.9	-138.4	151.2	149.7	1.44	104.791 CC, ES		
500.0	500.0	494.1	494.1	0.8	0.8	-113.35	-60.3	-139.6	152.2	150.5	1.67	91.326		
600.0	600.0	580.6	579.9	1.0	1.0	-110.51	-55.8	-149.1	160.5	158.5	2.02	79.407		
700.0	700.0	663.4	660.2	1.2	1.3	-105.84	-47.4	-166.9	178.1	175.6	2.43	73.157		
800.0	800.0	740.7	732.7	1.4	1.8	-100.67	-36.0	-191.0	205.8	202.9	2.90	71.033 SF		
900.0	900.0	811.4	796.3	1.5	2.3	-95.91	-22.7	-219.1	243.6	240.2	3.38	72.166		
1,000.0	1,000.0	875.2	850.7	1.7	2.9	-91.93	-8.4	-249.2	290.8	286.9	3.84	75.678		
1,100.0	1,100.0	932.0	896.4	1.9	3.6	81.68	5.9	-279.6	345.9	341.8	4.03	85.921		
1,200.0	1,199.8	984.6	936.3	2.1	4.3	83.26	20.6	-310.5	407.6	403.2	4.42	92.278		
1,300.0	1,299.5	1,051.7	985.6	2.3	5.2	85.28	40.1	-351.7	473.2	468.3	4.86	97.398		

Cathedral Energy Services

Anticollision Report

Company:	Gunnison Energy Corporation	Local Co-ordinate Reference:	Well DGU Hotchkiss Fed 1289 #18-H5
Project:	Gunnison County, CO	TVD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Reference Site:	DGU Hotchkiss Federal #1289 Pad	MD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	True
Reference Well:	DGU Hotchkiss Fed 1289 #18-H5	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	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						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	-123.35	-90.0	-136.7	163.6					
100.0	100.0	100.3	100.3	0.1	0.1	-123.35	-90.0	-136.7	163.6	163.4	0.28	584.824		
200.0	200.0	200.3	200.3	0.3	0.3	-123.35	-90.0	-136.7	163.6	163.0	0.63	260.219		
300.0	300.0	300.3	300.3	0.5	0.5	-123.35	-90.0	-136.7	163.6	162.7	0.98	167.338		
366.6	366.6	366.9	366.9	0.6	0.6	-123.35	-90.0	-136.7	163.6	162.4	1.21	135.212 CC		
400.0	400.0	400.0	400.0	0.7	0.7	-123.35	-90.0	-136.7	163.7	162.3	1.33	123.370 ES		
500.0	500.0	481.5	481.4	0.8	0.8	-123.63	-93.2	-140.1	169.3	167.6	1.64	102.956		
600.0	600.0	560.8	559.4	1.0	1.0	-124.36	-102.4	-149.7	185.9	184.0	1.96	94.963		
700.0	700.0	636.2	631.9	1.2	1.4	-125.29	-116.6	-164.7	213.0	210.8	2.26	94.077 SF		
800.0	800.0	706.6	697.3	1.4	1.8	-126.23	-134.5	-183.6	249.8	247.2	2.56	97.527		
900.0	900.0	771.2	754.8	1.5	2.3	-127.06	-154.8	-204.9	295.1	292.3	2.85	103.517		
1,000.0	1,000.0	829.8	804.5	1.7	2.9	-127.76	-176.2	-227.4	348.0	344.9	3.13	111.151		
1,100.0	1,100.0	883.0	847.2	1.9	3.5	42.37	-198.0	-250.4	406.3	402.9	3.40	119.543		
1,200.0	1,199.8	931.8	884.3	2.1	4.1	41.19	-219.8	-273.4	468.3	464.6	3.66	128.043		

Cathedral Energy Services

Anticollision Report

Company:	Gunnison Energy Corporation	Local Co-ordinate Reference:	Well DGU Hotchkiss Fed 1289 #18-H5
Project:	Gunnison County, CO	TVD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Reference Site:	DGU Hotchkiss Federal #1289 Pad	MD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	True
Reference Well:	DGU Hotchkiss Fed 1289 #18-H5	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	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	-124.30	-94.8	-139.0	168.2								
100.0	100.0	100.3	100.3	0.1	0.0	-124.25	-94.7	-139.1	168.2	168.1	0.14	1,202.886					
200.0	200.0	200.0	200.0	0.3	0.0	-124.29	-94.8	-139.1	168.3	168.0	0.31	535.432					
300.0	300.0	299.3	299.3	0.5	0.0	-124.49	-95.5	-139.1	168.7	168.2	0.49	345.107					
400.0	400.0	399.3	399.3	0.7	0.0	-124.93	-97.0	-138.8	169.3	168.7	0.66	255.219					
500.0	500.0	499.0	499.0	0.8	0.0	-125.62	-99.0	-138.2	170.0	169.2	0.84	202.886					
600.0	600.0	598.6	598.5	1.0	0.0	-126.39	-101.4	-137.6	170.9	169.9	1.01	168.815					
700.0	700.0	698.6	698.5	1.2	0.0	-127.20	-104.0	-137.0	172.0	170.8	1.19	144.876					
800.0	800.0	798.4	798.3	1.4	0.0	-127.84	-106.2	-136.7	173.1	171.7	1.36	127.131					
900.0	900.0	899.0	898.8	1.5	0.0	-128.43	-108.2	-136.4	174.1	172.6	1.54	113.356					
1,000.0	1,000.0	998.2	998.0	1.7	0.0	-129.02	-110.3	-136.1	175.2	173.5	1.71	102.429					
1,100.0	1,100.0	1,098.4	1,098.2	1.9	0.0	42.43	-112.2	-136.2	175.2	173.3	1.89	92.929					
1,200.0	1,199.8	1,198.7	1,198.4	2.1	0.0	43.16	-114.1	-136.1	172.4	170.4	2.06	83.629					
1,300.0	1,299.5	1,298.4	1,298.1	2.3	0.0	44.73	-115.9	-135.9	167.1	164.9	2.25	74.426					
1,400.0	1,398.7	1,397.9	1,397.7	2.5	0.0	47.36	-117.7	-135.7	159.6	157.1	2.44	65.267					
1,500.0	1,497.5	1,496.4	1,496.1	2.7	0.0	51.39	-119.3	-135.9	150.3	147.6	2.67	56.219					
1,600.0	1,595.6	1,595.4	1,595.2	3.0	0.0	57.26	-120.6	-136.1	139.8	136.9	2.95	47.370					
1,700.0	1,693.1	1,692.3	1,692.1	3.4	0.0	65.30	-121.6	-136.5	129.5	126.2	3.31	39.167					
1,800.0	1,789.6	1,789.0	1,788.7	3.8	0.0	75.90	-122.5	-137.3	121.7	118.0	3.75	32.415					
1,900.0	1,885.3	1,885.5	1,885.3	4.3	0.0	88.87	-123.6	-138.0	118.4	114.1	4.26	27.787					
1,905.2	1,890.2	1,890.5	1,890.2	4.3	0.0	89.59	-123.7	-138.1	118.4	114.1	4.29	27.606	CC, ES				
2,000.0	1,979.8	1,980.2	1,979.9	4.8	0.0	102.92	-124.7	-138.5	122.2	117.4	4.73	25.831	SF				
2,100.0	2,073.2	2,073.6	2,073.3	5.4	0.0	116.42	-125.5	-139.2	135.3	130.2	5.07	26.688					
2,200.0	2,165.2	2,165.5	2,165.2	6.0	0.0	127.90	-126.2	-139.9	157.6	152.3	5.27	29.886					
2,300.0	2,256.2	2,256.1	2,255.8	6.7	0.0	137.13	-126.5	-140.8	187.4	182.1	5.38	34.858					
2,400.0	2,347.1	2,347.3	2,347.0	7.4	0.0	144.05	-126.6	-141.9	221.3	215.8	5.45	40.610					
2,500.0	2,438.0	2,439.6	2,439.3	8.1	0.0	149.23	-127.1	-142.7	257.0	251.5	5.52	46.550					
2,600.0	2,528.8	2,531.7	2,531.3	8.8	0.0	153.17	-127.9	-143.4	293.7	288.1	5.60	52.422					
2,700.0	2,619.7	2,623.7	2,623.4	9.6	0.0	156.19	-129.0	-144.4	331.3	325.6	5.70	58.073					
2,800.0	2,710.6	2,716.0	2,715.6	10.3	0.0	158.61	-130.3	-145.2	369.2	363.4	5.81	63.496					
2,900.0	2,801.5	2,807.4	2,807.1	11.0	0.0	160.59	-131.6	-145.9	407.5	401.6	5.93	68.673					
3,000.0	2,892.4	2,896.4	2,896.0	11.7	0.0	162.15	-132.6	-146.9	446.4	440.4	6.07	73.561					
3,100.0	2,983.3	2,989.7	2,989.3	12.5	0.0	163.49	-133.7	-148.3	485.7	479.5	6.21	78.249					

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

Cathedral Energy Services

Anticollision Report

Company:	Gunnison Energy Corporation	Local Co-ordinate Reference:	Well DGU Hotchkiss Fed 1289 #18-H5
Project:	Gunnison County, CO	TVD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Reference Site:	DGU Hotchkiss Federal #1289 Pad	MD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	True
Reference Well:	DGU Hotchkiss Fed 1289 #18-H5	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design												DGU Hotchkiss Federal #1289 Pad - DGU Hotchkiss Fed 1289 #18-H3 - HZ - Plan #1		Offset Site Error:		0.0 usft		
Survey Program:		0-MWD														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	0.0	0.0	0.0	0.0	55.00	17.1	24.4	29.8									
100.0	100.0	100.0	100.0	0.1	0.1	55.00	17.1	24.4	29.8	29.6	0.28	106.829						
200.0	200.0	200.0	200.0	0.3	0.3	55.00	17.1	24.4	29.8	29.2	0.63	47.484						
300.0	300.0	300.0	300.0	0.5	0.5	55.00	17.1	24.4	29.8	28.9	0.98	30.527						
400.0	400.0	400.0	400.0	0.7	0.7	55.00	17.1	24.4	29.8	28.5	1.33	22.494						
500.0	500.0	500.0	500.0	0.8	0.8	55.00	17.1	24.4	29.8	28.2	1.68	17.808						
600.0	600.0	600.0	600.0	1.0	1.0	55.00	17.1	24.4	29.8	27.8	2.02	14.737						
700.0	700.0	700.0	700.0	1.2	1.2	55.00	17.1	24.4	29.8	27.5	2.37	12.570						
800.0	800.0	800.0	800.0	1.4	1.4	55.00	17.1	24.4	29.8	27.1	2.72	10.959						
900.0	900.0	900.0	900.0	1.5	1.5	55.00	17.1	24.4	29.8	26.8	3.07	9.713						
1,000.0	1,000.0	1,000.0	1,000.0	1.7	1.7	55.00	17.1	24.4	29.8	26.4	3.42	8.722 CC, ES						
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	-135.78	17.1	24.4	31.1	27.3	3.77	8.241 SF						
1,200.0	1,199.8	1,199.8	1,199.8	2.1	2.1	-141.71	17.1	24.4	35.0	30.9	4.12	8.501						
1,300.0	1,299.5	1,299.5	1,299.5	2.3	2.2	-148.98	17.1	24.4	42.2	37.7	4.46	9.453						
1,400.0	1,398.7	1,398.7	1,398.7	2.5	2.4	-155.68	17.1	24.4	53.0	48.2	4.81	11.036						
1,500.0	1,497.5	1,495.2	1,495.2	2.7	2.6	-160.78	18.4	25.3	69.2	64.1	5.14	13.478						
1,600.0	1,595.6	1,589.8	1,589.6	3.0	2.7	-164.10	22.3	28.0	92.3	86.8	5.46	16.908						
1,700.0	1,693.1	1,681.8	1,681.4	3.4	2.9	-166.10	28.6	32.2	121.9	116.1	5.77	21.117						
1,800.0	1,789.6	1,770.9	1,769.9	3.8	3.1	-167.25	37.0	37.9	157.7	151.6	6.08	25.949						
1,900.0	1,885.3	1,859.1	1,857.1	4.3	3.3	-167.94	47.3	44.9	199.2	192.8	6.38	31.231						
2,000.0	1,979.8	1,948.3	1,945.4	4.8	3.5	-168.49	58.0	52.2	244.2	237.5	6.68	36.578						
2,100.0	2,073.2	2,036.0	2,032.1	5.4	3.7	-168.95	68.6	59.4	292.2	285.3	6.97	41.947						
2,200.0	2,165.2	2,121.9	2,117.1	6.0	3.9	-169.33	79.0	66.4	343.3	336.1	7.25	47.346						
2,300.0	2,256.2	2,206.4	2,200.8	6.7	4.2	-169.78	89.2	73.4	396.7	389.1	7.57	52.412						
2,400.0	2,347.1	2,290.8	2,284.3	7.4	4.4	-170.19	99.4	80.3	450.2	442.3	7.90	56.951						

Cathedral Energy Services

Anticollision Report

Company:	Gunnison Energy Corporation	Local Co-ordinate Reference:	Well DGU Hotchkiss Fed 1289 #18-H5
Project:	Gunnison County, CO	TVD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Reference Site:	DGU Hotchkiss Federal #1289 Pad	MD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	True
Reference Well:	DGU Hotchkiss Fed 1289 #18-H5	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design DGU Hotchkiss Federal #1289 Pad - DGU Hotchkiss Fed 1289 #18-H4 - 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	57.36	8.0	12.5	14.8						
100.0	100.0	100.0	100.0	0.1	0.1	57.36	8.0	12.5	14.8	14.6	0.28	53.166			
200.0	200.0	200.0	200.0	0.3	0.3	57.36	8.0	12.5	14.8	14.2	0.63	23.632			
300.0	300.0	300.0	300.0	0.5	0.5	57.36	8.0	12.5	14.8	13.9	0.98	15.192			
400.0	400.0	400.0	400.0	0.7	0.7	57.36	8.0	12.5	14.8	13.5	1.33	11.194			
500.0	500.0	500.0	500.0	0.8	0.8	57.36	8.0	12.5	14.8	13.2	1.68	8.862			
600.0	600.0	600.0	600.0	1.0	1.0	57.36	8.0	12.5	14.8	12.8	2.02	7.334			
700.0	700.0	700.0	700.0	1.2	1.2	57.36	8.0	12.5	14.8	12.5	2.37	6.256			
800.0	800.0	800.0	800.0	1.4	1.4	57.36	8.0	12.5	14.8	12.1	2.72	5.454			
900.0	900.0	900.0	900.0	1.5	1.5	57.36	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	57.36	8.0	12.5	14.8	11.4	3.42	4.341 CC, ES			
1,100.0	1,100.0	1,100.0	1,100.0	1.9	1.9	-135.78	8.0	12.5	16.1	12.3	3.77	4.258 SF			
1,200.0	1,199.8	1,199.9	1,199.9	2.1	2.1	-146.17	8.0	12.5	20.1	16.0	4.12	4.891			
1,300.0	1,299.5	1,300.4	1,300.4	2.3	2.2	-156.33	6.5	11.5	26.1	21.6	4.46	5.842			
1,400.0	1,398.7	1,401.1	1,401.0	2.5	2.4	-165.30	2.1	8.6	32.4	27.6	4.80	6.748			
1,500.0	1,497.5	1,502.0	1,501.4	2.7	2.6	-173.48	-5.2	3.7	39.3	34.2	5.13	7.663			
1,600.0	1,595.6	1,602.9	1,601.6	3.0	2.8	179.04	-15.6	-3.1	47.1	41.7	5.47	8.612			
1,700.0	1,693.1	1,703.9	1,701.3	3.4	3.1	172.23	-28.8	-11.9	55.9	50.1	5.84	9.582			
1,800.0	1,789.6	1,804.7	1,800.2	3.8	3.4	166.11	-45.0	-22.6	65.9	59.7	6.26	10.535			
1,900.0	1,885.3	1,903.7	1,897.2	4.3	3.7	161.81	-61.9	-33.8	78.8	72.1	6.73	11.713			
2,000.0	1,979.8	2,002.3	1,993.7	4.8	4.0	159.44	-78.8	-45.0	95.2	88.0	7.22	13.184			
2,100.0	2,073.2	2,100.4	2,089.6	5.4	4.3	158.36	-95.5	-56.1	114.9	107.2	7.72	14.881			
2,200.0	2,165.2	2,197.7	2,184.9	6.0	4.7	158.08	-112.1	-67.1	137.7	129.5	8.21	16.770			
2,300.0	2,256.2	2,294.4	2,279.6	6.7	5.0	158.32	-128.7	-78.0	163.0	154.3	8.73	18.682			
2,400.0	2,347.1	2,391.1	2,374.2	7.4	5.4	158.55	-145.2	-89.0	188.5	179.2	9.26	20.355			
2,500.0	2,438.0	2,487.9	2,468.9	8.1	5.7	158.73	-161.7	-99.9	213.9	204.1	9.80	21.830			
2,600.0	2,528.8	2,584.6	2,563.5	8.8	6.1	158.87	-178.3	-110.9	239.4	229.1	10.35	23.138			
2,700.0	2,619.7	2,681.3	2,658.2	9.6	6.4	158.99	-194.8	-121.8	264.9	254.0	10.90	24.304			
2,800.0	2,710.6	2,778.0	2,752.8	10.3	6.8	159.08	-211.3	-132.7	290.3	278.9	11.45	25.349			
2,900.0	2,801.5	2,874.7	2,847.5	11.0	7.2	159.16	-227.9	-143.7	315.8	303.8	12.01	26.289			
3,000.0	2,892.4	2,971.4	2,942.1	11.7	7.5	159.23	-244.4	-154.6	341.2	328.7	12.57	27.139			
3,100.0	2,983.3	3,068.1	3,036.8	12.5	7.9	159.29	-260.9	-165.6	366.7	353.6	13.14	27.911			
3,200.0	3,074.2	3,164.8	3,131.4	13.2	8.3	159.34	-277.4	-176.5	392.2	378.5	13.71	28.614			
3,300.0	3,165.1	3,261.5	3,226.1	13.9	8.6	159.38	-294.0	-187.5	417.6	403.4	14.27	29.258			
3,400.0	3,256.0	3,358.2	3,320.7	14.7	9.0	159.42	-310.5	-198.4	443.1	428.3	14.85	29.848			
3,500.0	3,346.9	3,454.9	3,415.4	15.4	9.4	159.46	-327.0	-209.4	468.6	453.1	15.42	30.391			
3,600.0	3,437.7	3,551.6	3,510.0	16.1	9.8	159.49	-343.5	-220.3	494.0	478.0	15.99	30.893			

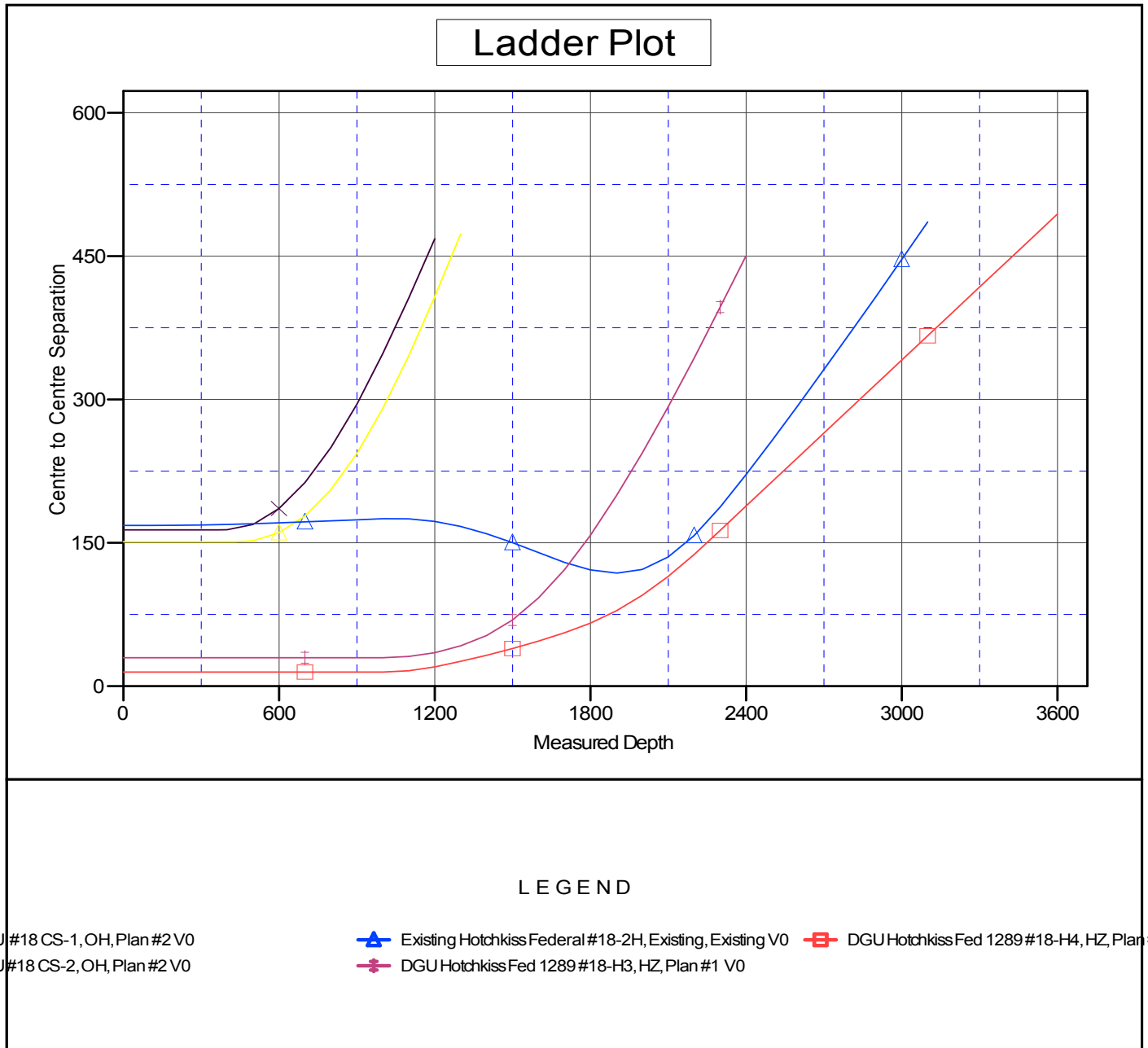
Cathedral Energy Services

Anticollision Report

Company:	Gunnison Energy Corporation	Local Co-ordinate Reference:	Well DGU Hotchkiss Fed 1289 #18-H5
Project:	Gunnison County, CO	TVD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Reference Site:	DGU Hotchkiss Federal #1289 Pad	MD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Site Error:	0.0usft	North Reference:	True
Reference Well:	DGU Hotchkiss Fed 1289 #18-H5	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0usft	Output errors are at	2.00 sigma
Reference Wellbore	HZ	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	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-H5
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-H5

HZ

Plan: Plan #3

Standard Planning Report - Geographic

17 December, 2013



Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DGU Hotchkiss Fed 1289 #18-H5
Company:	Gunnison Energy Corporation	TVD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Project:	Gunnison County, CO	MD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Site:	DGU Hotchkiss Federal #1289 Pad	North Reference:	True
Well:	DGU Hotchkiss Fed 1289 #18-H5	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #3		

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

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

Well	DGU Hotchkiss Fed 1289 #18-H5					
Well Position	+N/-S	0.0 usft	Northing:	861,378.93 usft	Latitude:	39° 1' 2.661 N
	+E/-W	0.0 usft	Easting:	1,466,577.37 usft	Longitude:	107° 22' 37.639 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	7,331.7 usft

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

Design	Plan #3			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	139.64

Plan Sections										
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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,232.3	24.65	188.45	2,194.7	-258.2	-38.4	2.00	2.00	0.00	188.45	
7,079.6	24.65	188.45	6,600.4	-2,257.7	-335.6	0.00	0.00	0.00	0.00	
7,956.6	90.08	126.07	7,076.0	-2,782.4	55.9	9.00	7.46	-7.11	-64.54	DGU Hotchkiss Fed 1
15,456.6	90.08	126.07	7,066.0	-7,198.3	6,118.1	0.00	0.00	0.00	0.00	DGU Hotchkiss Fed 1

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DGU Hotchkiss Fed 1289 #18-H5
Company:	Gunnison Energy Corporation	TVD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Project:	Gunnison County, CO	MD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Site:	DGU Hotchkiss Federal #1289 Pad	North Reference:	True
Well:	DGU Hotchkiss Fed 1289 #18-H5	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	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	861,378.93	1,466,577.37	39° 1' 2.661 N	107° 22' 37.639 W
100.0	0.00	0.00	100.0	0.0	0.0	861,378.93	1,466,577.37	39° 1' 2.661 N	107° 22' 37.639 W
200.0	0.00	0.00	200.0	0.0	0.0	861,378.93	1,466,577.37	39° 1' 2.661 N	107° 22' 37.639 W
300.0	0.00	0.00	300.0	0.0	0.0	861,378.93	1,466,577.37	39° 1' 2.661 N	107° 22' 37.639 W
400.0	0.00	0.00	400.0	0.0	0.0	861,378.93	1,466,577.37	39° 1' 2.661 N	107° 22' 37.639 W
500.0	0.00	0.00	500.0	0.0	0.0	861,378.93	1,466,577.37	39° 1' 2.661 N	107° 22' 37.639 W
600.0	0.00	0.00	600.0	0.0	0.0	861,378.93	1,466,577.37	39° 1' 2.661 N	107° 22' 37.639 W
700.0	0.00	0.00	700.0	0.0	0.0	861,378.93	1,466,577.37	39° 1' 2.661 N	107° 22' 37.639 W
800.0	0.00	0.00	800.0	0.0	0.0	861,378.93	1,466,577.37	39° 1' 2.661 N	107° 22' 37.639 W
900.0	0.00	0.00	900.0	0.0	0.0	861,378.93	1,466,577.37	39° 1' 2.661 N	107° 22' 37.639 W
1,000.0	0.00	0.00	1,000.0	0.0	0.0	861,378.93	1,466,577.37	39° 1' 2.661 N	107° 22' 37.639 W
KOP @ 1,000'									
1,100.0	2.00	188.45	1,100.0	-1.7	-0.3	861,377.21	1,466,577.08	39° 1' 2.644 N	107° 22' 37.642 W
1,200.0	4.00	188.45	1,199.8	-6.9	-1.0	861,372.05	1,466,576.20	39° 1' 2.593 N	107° 22' 37.652 W
1,300.0	6.00	188.45	1,299.5	-15.5	-2.3	861,363.46	1,466,574.75	39° 1' 2.508 N	107° 22' 37.668 W
1,400.0	8.00	188.45	1,398.7	-27.6	-4.1	861,351.44	1,466,572.72	39° 1' 2.389 N	107° 22' 37.691 W
1,500.0	10.00	188.45	1,497.5	-43.1	-6.4	861,336.02	1,466,570.11	39° 1' 2.236 N	107° 22' 37.720 W
1,600.0	12.00	188.45	1,595.6	-61.9	-9.2	861,317.20	1,466,566.92	39° 1' 2.049 N	107° 22' 37.756 W
1,700.0	14.00	188.45	1,693.1	-84.2	-12.5	861,295.03	1,466,563.17	39° 1' 1.830 N	107° 22' 37.798 W
1,800.0	16.00	188.45	1,789.6	-109.8	-16.3	861,269.51	1,466,558.85	39° 1' 1.577 N	107° 22' 37.846 W
1,900.0	18.00	188.45	1,885.3	-138.7	-20.6	861,240.68	1,466,553.97	39° 1' 1.291 N	107° 22' 37.900 W
2,000.0	20.00	188.45	1,979.8	-170.9	-25.4	861,208.58	1,466,548.54	39° 1' 0.973 N	107° 22' 37.961 W
2,100.0	22.00	188.45	2,073.2	-206.3	-30.7	861,173.25	1,466,542.56	39° 1' 0.622 N	107° 22' 38.028 W
2,200.0	24.00	188.45	2,165.2	-245.0	-36.4	861,134.73	1,466,536.04	39° 1' 0.240 N	107° 22' 38.100 W
2,232.3	24.65	188.45	2,194.7	-258.2	-38.4	861,121.59	1,466,533.82	39° 1' 0.110 N	107° 22' 38.125 W
EOB @ Inc. = 24.65°									
2,300.0	24.65	188.45	2,256.2	-286.1	-42.5	861,093.77	1,466,529.11	39° 0' 59.834 N	107° 22' 38.178 W
2,400.0	24.65	188.45	2,347.1	-327.3	-48.6	861,052.65	1,466,522.15	39° 0' 59.427 N	107° 22' 38.255 W
2,500.0	24.65	188.45	2,438.0	-368.6	-54.8	861,011.54	1,466,515.19	39° 0' 59.019 N	107° 22' 38.333 W
2,600.0	24.65	188.45	2,528.8	-409.8	-60.9	860,970.42	1,466,508.23	39° 0' 58.611 N	107° 22' 38.411 W
2,700.0	24.65	188.45	2,619.7	-451.1	-67.0	860,929.30	1,466,501.28	39° 0' 58.204 N	107° 22' 38.488 W
2,800.0	24.65	188.45	2,710.6	-492.3	-73.2	860,888.18	1,466,494.32	39° 0' 57.796 N	107° 22' 38.566 W
2,900.0	24.65	188.45	2,801.5	-533.6	-79.3	860,847.06	1,466,487.36	39° 0' 57.388 N	107° 22' 38.644 W
3,000.0	24.65	188.45	2,892.4	-574.8	-85.4	860,805.95	1,466,480.40	39° 0' 56.981 N	107° 22' 38.721 W
3,100.0	24.65	188.45	2,983.3	-616.1	-91.6	860,764.83	1,466,473.44	39° 0' 56.573 N	107° 22' 38.799 W
3,200.0	24.65	188.45	3,074.2	-657.3	-97.7	860,723.71	1,466,466.48	39° 0' 56.165 N	107° 22' 38.877 W
3,300.0	24.65	188.45	3,165.1	-698.6	-103.8	860,682.59	1,466,459.52	39° 0' 55.758 N	107° 22' 38.954 W
3,400.0	24.65	188.45	3,256.0	-739.8	-110.0	860,641.47	1,466,452.57	39° 0' 55.350 N	107° 22' 39.032 W
3,500.0	24.65	188.45	3,346.9	-781.1	-116.1	860,600.35	1,466,445.61	39° 0' 54.942 N	107° 22' 39.110 W
3,600.0	24.65	188.45	3,437.7	-822.3	-122.2	860,559.24	1,466,438.65	39° 0' 54.535 N	107° 22' 39.187 W
3,700.0	24.65	188.45	3,528.6	-863.6	-128.4	860,518.12	1,466,431.69	39° 0' 54.127 N	107° 22' 39.265 W
3,800.0	24.65	188.45	3,619.5	-904.8	-134.5	860,477.00	1,466,424.73	39° 0' 53.719 N	107° 22' 39.343 W
3,900.0	24.65	188.45	3,710.4	-946.1	-140.6	860,435.88	1,466,417.77	39° 0' 53.312 N	107° 22' 39.420 W
4,000.0	24.65	188.45	3,801.3	-987.3	-146.7	860,394.76	1,466,410.81	39° 0' 52.904 N	107° 22' 39.498 W
4,100.0	24.65	188.45	3,892.2	-1,028.6	-152.9	860,353.65	1,466,403.86	39° 0' 52.496 N	107° 22' 39.576 W
4,200.0	24.65	188.45	3,983.1	-1,069.8	-159.0	860,312.53	1,466,396.90	39° 0' 52.089 N	107° 22' 39.653 W
4,300.0	24.65	188.45	4,074.0	-1,111.1	-165.1	860,271.41	1,466,389.94	39° 0' 51.681 N	107° 22' 39.731 W
4,400.0	24.65	188.45	4,164.9	-1,152.3	-171.3	860,230.29	1,466,382.98	39° 0' 51.274 N	107° 22' 39.809 W
4,500.0	24.65	188.45	4,255.7	-1,193.6	-177.4	860,189.17	1,466,376.02	39° 0' 50.866 N	107° 22' 39.886 W
4,600.0	24.65	188.45	4,346.6	-1,234.8	-183.5	860,148.06	1,466,369.06	39° 0' 50.458 N	107° 22' 39.964 W
4,700.0	24.65	188.45	4,437.5	-1,276.1	-189.7	860,106.94	1,466,362.10	39° 0' 50.051 N	107° 22' 40.042 W
4,800.0	24.65	188.45	4,528.4	-1,317.3	-195.8	860,065.82	1,466,355.15	39° 0' 49.643 N	107° 22' 40.119 W
4,900.0	24.65	188.45	4,619.3	-1,358.6	-201.9	860,024.70	1,466,348.19	39° 0' 49.235 N	107° 22' 40.197 W
5,000.0	24.65	188.45	4,710.2	-1,399.8	-208.1	859,983.58	1,466,341.23	39° 0' 48.828 N	107° 22' 40.275 W



Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DGU Hotchkiss Fed 1289 #18-H5
Company:	Gunnison Energy Corporation	TVD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Project:	Gunnison County, CO	MD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Site:	DGU Hotchkiss Federal #1289 Pad	North Reference:	True
Well:	DGU Hotchkiss Fed 1289 #18-H5	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	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
5,100.0	24.65	188.45	4,801.1	-1,441.1	-214.2	859,942.47	1,466,334.27	39° 0' 48.420 N	107° 22' 40.352 W
5,200.0	24.65	188.45	4,892.0	-1,482.3	-220.3	859,901.35	1,466,327.31	39° 0' 48.012 N	107° 22' 40.430 W
5,300.0	24.65	188.45	4,982.9	-1,523.6	-226.4	859,860.23	1,466,320.35	39° 0' 47.605 N	107° 22' 40.508 W
5,400.0	24.65	188.45	5,073.8	-1,564.8	-232.6	859,819.11	1,466,313.39	39° 0' 47.197 N	107° 22' 40.585 W
5,500.0	24.65	188.45	5,164.6	-1,606.1	-238.7	859,777.99	1,466,306.44	39° 0' 46.789 N	107° 22' 40.663 W
5,600.0	24.65	188.45	5,255.5	-1,647.3	-244.8	859,736.87	1,466,299.48	39° 0' 46.382 N	107° 22' 40.741 W
5,700.0	24.65	188.45	5,346.4	-1,688.6	-251.0	859,695.76	1,466,292.52	39° 0' 45.974 N	107° 22' 40.818 W
5,800.0	24.65	188.45	5,437.3	-1,729.8	-257.1	859,654.64	1,466,285.56	39° 0' 45.566 N	107° 22' 40.896 W
5,900.0	24.65	188.45	5,528.2	-1,771.1	-263.2	859,613.52	1,466,278.60	39° 0' 45.159 N	107° 22' 40.973 W
6,000.0	24.65	188.45	5,619.1	-1,812.3	-269.4	859,572.40	1,466,271.64	39° 0' 44.751 N	107° 22' 41.051 W
6,100.0	24.65	188.45	5,710.0	-1,853.6	-275.5	859,531.28	1,466,264.68	39° 0' 44.343 N	107° 22' 41.129 W
6,200.0	24.65	188.45	5,800.9	-1,894.8	-281.6	859,490.17	1,466,257.73	39° 0' 43.936 N	107° 22' 41.206 W
6,300.0	24.65	188.45	5,891.8	-1,936.1	-287.8	859,449.05	1,466,250.77	39° 0' 43.528 N	107° 22' 41.284 W
6,400.0	24.65	188.45	5,982.6	-1,977.3	-293.9	859,407.93	1,466,243.81	39° 0' 43.120 N	107° 22' 41.362 W
6,500.0	24.65	188.45	6,073.5	-2,018.6	-300.0	859,366.81	1,466,236.85	39° 0' 42.713 N	107° 22' 41.439 W
6,600.0	24.65	188.45	6,164.4	-2,059.8	-306.1	859,325.69	1,466,229.89	39° 0' 42.305 N	107° 22' 41.517 W
6,700.0	24.65	188.45	6,255.3	-2,101.1	-312.3	859,284.58	1,466,222.93	39° 0' 41.897 N	107° 22' 41.595 W
6,800.0	24.65	188.45	6,346.2	-2,142.3	-318.4	859,243.46	1,466,215.97	39° 0' 41.490 N	107° 22' 41.672 W
6,900.0	24.65	188.45	6,437.1	-2,183.6	-324.5	859,202.34	1,466,209.02	39° 0' 41.082 N	107° 22' 41.750 W
7,000.0	24.65	188.45	6,528.0	-2,224.8	-330.7	859,161.22	1,466,202.06	39° 0' 40.674 N	107° 22' 41.828 W
7,079.6	24.65	188.45	6,600.4	-2,257.7	-335.6	859,128.48	1,466,196.52	39° 0' 40.350 N	107° 22' 41.890 W
Start 9° Build/Turn									
7,100.0	25.49	184.61	6,618.8	-2,266.2	-336.5	859,119.93	1,466,195.37	39° 0' 40.265 N	107° 22' 41.902 W
7,150.0	27.92	176.18	6,663.5	-2,288.6	-336.6	859,097.52	1,466,194.83	39° 0' 40.044 N	107° 22' 41.903 W
7,200.0	30.79	169.10	6,707.1	-2,312.9	-333.4	859,073.20	1,466,197.55	39° 0' 39.804 N	107° 22' 41.862 W
7,250.0	33.99	163.17	6,749.3	-2,338.9	-326.9	859,047.12	1,466,203.50	39° 0' 39.547 N	107° 22' 41.780 W
7,300.0	37.42	158.18	6,789.9	-2,366.4	-317.2	859,019.43	1,466,212.64	39° 0' 39.276 N	107° 22' 41.658 W
7,350.0	41.04	153.94	6,828.6	-2,395.2	-304.4	858,990.31	1,466,224.92	39° 0' 38.990 N	107° 22' 41.495 W
7,400.0	44.78	150.28	6,865.3	-2,425.3	-288.4	858,959.95	1,466,240.26	39° 0' 38.693 N	107° 22' 41.293 W
7,450.0	48.63	147.07	6,899.5	-2,456.3	-269.5	858,928.51	1,466,258.58	39° 0' 38.386 N	107° 22' 41.053 W
7,500.0	52.56	144.23	6,931.3	-2,488.2	-247.7	858,896.21	1,466,279.74	39° 0' 38.071 N	107° 22' 40.776 W
7,550.0	56.55	141.68	6,960.3	-2,520.7	-223.1	858,863.23	1,466,303.64	39° 0' 37.750 N	107° 22' 40.465 W
7,600.0	60.59	139.35	6,986.3	-2,553.6	-196.0	858,829.79	1,466,330.11	39° 0' 37.425 N	107° 22' 40.122 W
7,650.0	64.67	137.20	7,009.3	-2,586.7	-166.4	858,796.09	1,466,358.99	39° 0' 37.098 N	107° 22' 39.747 W
7,700.0	68.77	135.19	7,029.1	-2,619.8	-134.6	858,762.33	1,466,390.11	39° 0' 36.770 N	107° 22' 39.345 W
7,750.0	72.90	133.29	7,045.5	-2,652.8	-100.8	858,728.72	1,466,423.28	39° 0' 36.445 N	107° 22' 38.916 W
7,800.0	77.04	131.47	7,058.5	-2,685.3	-65.1	858,695.48	1,466,458.29	39° 0' 36.123 N	107° 22' 38.464 W
7,850.0	81.20	129.71	7,067.9	-2,717.2	-27.9	858,662.80	1,466,494.92	39° 0' 35.808 N	107° 22' 37.992 W
7,900.0	85.36	127.99	7,073.7	-2,748.4	10.8	858,630.89	1,466,532.95	39° 0' 35.500 N	107° 22' 37.502 W
7,950.0	89.53	126.29	7,076.0	-2,778.5	50.6	858,599.95	1,466,572.14	39° 0' 35.202 N	107° 22' 36.998 W
7,956.6	90.08	126.07	7,076.0	-2,782.4	55.9	858,595.96	1,466,577.37	39° 0' 35.164 N	107° 22' 36.931 W
LP @ 7,076' TVD, 90.08°									
8,000.0	90.08	126.07	7,075.9	-2,808.0	91.0	858,569.69	1,466,611.95	39° 0' 34.911 N	107° 22' 36.486 W
8,100.0	90.08	126.07	7,075.8	-2,866.9	171.9	858,509.20	1,466,691.58	39° 0' 34.329 N	107° 22' 35.463 W
8,200.0	90.08	126.07	7,075.7	-2,925.7	252.7	858,448.71	1,466,771.21	39° 0' 33.747 N	107° 22' 34.439 W
8,300.0	90.08	126.07	7,075.5	-2,984.6	333.5	858,388.22	1,466,850.83	39° 0' 33.165 N	107° 22' 33.415 W
8,400.0	90.08	126.07	7,075.4	-3,043.5	414.3	858,327.72	1,466,930.46	39° 0' 32.584 N	107° 22' 32.391 W
8,500.0	90.08	126.07	7,075.3	-3,102.4	495.2	858,267.23	1,467,010.09	39° 0' 32.002 N	107° 22' 31.367 W
8,600.0	90.08	126.07	7,075.1	-3,161.3	576.0	858,206.74	1,467,089.72	39° 0' 31.420 N	107° 22' 30.344 W
8,700.0	90.08	126.07	7,075.0	-3,220.1	656.8	858,146.25	1,467,169.35	39° 0' 30.838 N	107° 22' 29.320 W
8,800.0	90.08	126.07	7,074.9	-3,279.0	737.6	858,085.76	1,467,248.98	39° 0' 30.256 N	107° 22' 28.296 W
8,900.0	90.08	126.07	7,074.7	-3,337.9	818.5	858,025.27	1,467,328.61	39° 0' 29.674 N	107° 22' 27.272 W
9,000.0	90.08	126.07	7,074.6	-3,396.8	899.3	857,964.78	1,467,408.24	39° 0' 29.092 N	107° 22' 26.249 W
9,100.0	90.08	126.07	7,074.5	-3,455.6	980.1	857,904.29	1,467,487.87	39° 0' 28.510 N	107° 22' 25.225 W



Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DGU Hotchkiss Fed 1289 #18-H5
Company:	Gunnison Energy Corporation	TVD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Project:	Gunnison County, CO	MD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Site:	DGU Hotchkiss Federal #1289 Pad	North Reference:	True
Well:	DGU Hotchkiss Fed 1289 #18-H5	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	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	
9,200.0	90.08	126.07	7,074.3	-3,514.5	1,061.0	857,843.79	1,467,567.50	39° 0' 27.928 N	107° 22' 24.201 W	
9,300.0	90.08	126.07	7,074.2	-3,573.4	1,141.8	857,783.30	1,467,647.13	39° 0' 27.346 N	107° 22' 23.177 W	
9,400.0	90.08	126.07	7,074.1	-3,632.3	1,222.6	857,722.81	1,467,726.75	39° 0' 26.764 N	107° 22' 22.154 W	
9,500.0	90.08	126.07	7,073.9	-3,691.2	1,303.4	857,662.32	1,467,806.38	39° 0' 26.183 N	107° 22' 21.130 W	
9,600.0	90.08	126.07	7,073.8	-3,750.0	1,384.3	857,601.83	1,467,886.01	39° 0' 25.601 N	107° 22' 20.106 W	
9,700.0	90.08	126.07	7,073.7	-3,808.9	1,465.1	857,541.34	1,467,965.64	39° 0' 25.019 N	107° 22' 19.082 W	
9,800.0	90.08	126.07	7,073.5	-3,867.8	1,545.9	857,480.85	1,468,045.27	39° 0' 24.437 N	107° 22' 18.059 W	
9,900.0	90.08	126.07	7,073.4	-3,926.7	1,626.8	857,420.36	1,468,124.90	39° 0' 23.855 N	107° 22' 17.035 W	
10,000.0	90.08	126.07	7,073.3	-3,985.6	1,707.6	857,359.86	1,468,204.53	39° 0' 23.273 N	107° 22' 16.011 W	
10,100.0	90.08	126.07	7,073.1	-4,044.4	1,788.4	857,299.37	1,468,284.16	39° 0' 22.691 N	107° 22' 14.988 W	
10,200.0	90.08	126.07	7,073.0	-4,103.3	1,869.2	857,238.88	1,468,363.79	39° 0' 22.109 N	107° 22' 13.964 W	
10,300.0	90.08	126.07	7,072.9	-4,162.2	1,950.1	857,178.39	1,468,443.42	39° 0' 21.527 N	107° 22' 12.940 W	
10,400.0	90.08	126.07	7,072.7	-4,221.1	2,030.9	857,117.90	1,468,523.04	39° 0' 20.945 N	107° 22' 11.917 W	
10,500.0	90.08	126.07	7,072.6	-4,280.0	2,111.7	857,057.41	1,468,602.67	39° 0' 20.363 N	107° 22' 10.893 W	
10,600.0	90.08	126.07	7,072.5	-4,338.8	2,192.6	856,996.92	1,468,682.30	39° 0' 19.781 N	107° 22' 9.869 W	
10,700.0	90.08	126.07	7,072.3	-4,397.7	2,273.4	856,936.42	1,468,761.93	39° 0' 19.199 N	107° 22' 8.846 W	
10,800.0	90.08	126.07	7,072.2	-4,456.6	2,354.2	856,875.93	1,468,841.56	39° 0' 18.617 N	107° 22' 7.822 W	
10,900.0	90.08	126.07	7,072.1	-4,515.5	2,435.0	856,815.44	1,468,921.19	39° 0' 18.035 N	107° 22' 6.798 W	
11,000.0	90.08	126.07	7,071.9	-4,574.3	2,515.9	856,754.95	1,469,000.82	39° 0' 17.453 N	107° 22' 5.775 W	
11,100.0	90.08	126.07	7,071.8	-4,633.2	2,596.7	856,694.46	1,469,080.45	39° 0' 16.871 N	107° 22' 4.751 W	
11,200.0	90.08	126.07	7,071.7	-4,692.1	2,677.5	856,633.97	1,469,160.08	39° 0' 16.290 N	107° 22' 3.727 W	
11,300.0	90.08	126.07	7,071.5	-4,751.0	2,758.4	856,573.48	1,469,239.71	39° 0' 15.708 N	107° 22' 2.704 W	
11,400.0	90.08	126.07	7,071.4	-4,809.9	2,839.2	856,512.99	1,469,319.34	39° 0' 15.126 N	107° 22' 1.680 W	
11,500.0	90.08	126.07	7,071.3	-4,868.7	2,920.0	856,452.49	1,469,398.96	39° 0' 14.544 N	107° 22' 0.656 W	
11,600.0	90.08	126.07	7,071.1	-4,927.6	3,000.8	856,392.00	1,469,478.59	39° 0' 13.962 N	107° 21' 59.633 W	
11,700.0	90.08	126.07	7,071.0	-4,986.5	3,081.7	856,331.51	1,469,558.22	39° 0' 13.380 N	107° 21' 58.609 W	
11,800.0	90.08	126.07	7,070.9	-5,045.4	3,162.5	856,271.02	1,469,637.85	39° 0' 12.798 N	107° 21' 57.585 W	
11,900.0	90.08	126.07	7,070.7	-5,104.3	3,243.3	856,210.53	1,469,717.48	39° 0' 12.216 N	107° 21' 56.562 W	
12,000.0	90.08	126.07	7,070.6	-5,163.1	3,324.2	856,150.04	1,469,797.11	39° 0' 11.634 N	107° 21' 55.538 W	
12,100.0	90.08	126.07	7,070.5	-5,222.0	3,405.0	856,089.55	1,469,876.74	39° 0' 11.052 N	107° 21' 54.515 W	
12,200.0	90.08	126.07	7,070.3	-5,280.9	3,485.8	856,029.05	1,469,956.37	39° 0' 10.470 N	107° 21' 53.491 W	
12,300.0	90.08	126.07	7,070.2	-5,339.8	3,566.6	855,968.56	1,470,036.00	39° 0' 9.888 N	107° 21' 52.467 W	
12,400.0	90.08	126.07	7,070.1	-5,398.7	3,647.5	855,908.07	1,470,115.63	39° 0' 9.306 N	107° 21' 51.444 W	
12,500.0	90.08	126.07	7,069.9	-5,457.5	3,728.3	855,847.58	1,470,195.25	39° 0' 8.724 N	107° 21' 50.420 W	
12,600.0	90.08	126.07	7,069.8	-5,516.4	3,809.1	855,787.09	1,470,274.88	39° 0' 8.142 N	107° 21' 49.397 W	
12,700.0	90.08	126.07	7,069.7	-5,575.3	3,890.0	855,726.60	1,470,354.51	39° 0' 7.560 N	107° 21' 48.373 W	
12,800.0	90.08	126.07	7,069.5	-5,634.2	3,970.8	855,666.11	1,470,434.14	39° 0' 6.978 N	107° 21' 47.350 W	
12,900.0	90.08	126.07	7,069.4	-5,693.0	4,051.6	855,605.62	1,470,513.77	39° 0' 6.396 N	107° 21' 46.326 W	
13,000.0	90.08	126.07	7,069.3	-5,751.9	4,132.4	855,545.12	1,470,593.40	39° 0' 5.814 N	107° 21' 45.302 W	
13,100.0	90.08	126.07	7,069.1	-5,810.8	4,213.3	855,484.63	1,470,673.03	39° 0' 5.232 N	107° 21' 44.279 W	
13,200.0	90.08	126.07	7,069.0	-5,869.7	4,294.1	855,424.14	1,470,752.66	39° 0' 4.650 N	107° 21' 43.255 W	
13,300.0	90.08	126.07	7,068.9	-5,928.6	4,374.9	855,363.65	1,470,832.29	39° 0' 4.068 N	107° 21' 42.232 W	
13,400.0	90.08	126.07	7,068.7	-5,987.4	4,455.8	855,303.16	1,470,911.92	39° 0' 3.486 N	107° 21' 41.208 W	
13,500.0	90.08	126.07	7,068.6	-6,046.3	4,536.6	855,242.67	1,470,991.54	39° 0' 2.904 N	107° 21' 40.185 W	
13,600.0	90.08	126.07	7,068.5	-6,105.2	4,617.4	855,182.18	1,471,071.17	39° 0' 2.322 N	107° 21' 39.161 W	
13,700.0	90.08	126.07	7,068.3	-6,164.1	4,698.2	855,121.69	1,471,150.80	39° 0' 1.740 N	107° 21' 38.138 W	
13,800.0	90.08	126.07	7,068.2	-6,223.0	4,779.1	855,061.19	1,471,230.43	39° 0' 1.158 N	107° 21' 37.114 W	
13,900.0	90.08	126.07	7,068.1	-6,281.8	4,859.9	855,000.70	1,471,310.06	39° 0' 0.576 N	107° 21' 36.090 W	
14,000.0	90.08	126.07	7,067.9	-6,340.7	4,940.7	854,940.21	1,471,389.69	38° 59' 59.994 N	107° 21' 35.067 W	
14,100.0	90.08	126.07	7,067.8	-6,399.6	5,021.6	854,879.72	1,471,469.32	38° 59' 59.412 N	107° 21' 34.043 W	
14,200.0	90.08	126.07	7,067.7	-6,458.5	5,102.4	854,819.23	1,471,548.95	38° 59' 58.829 N	107° 21' 33.020 W	
14,300.0	90.08	126.07	7,067.5	-6,517.4	5,183.2	854,758.74	1,471,628.58	38° 59' 58.247 N	107° 21' 31.996 W	
14,400.0	90.08	126.07	7,067.4	-6,576.2	5,264.0	854,698.25	1,471,708.21	38° 59' 57.665 N	107° 21' 30.973 W	
14,500.0	90.08	126.07	7,067.3	-6,635.1	5,344.9	854,637.75	1,471,787.84	38° 59' 57.083 N	107° 21' 29.949 W	
14,600.0	90.08	126.07	7,067.1	-6,694.0	5,425.7	854,577.26	1,471,867.46	38° 59' 56.501 N	107° 21' 28.926 W	

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DGU Hotchkiss Fed 1289 #18-H5
Company:	Gunnison Energy Corporation	TVD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Project:	Gunnison County, CO	MD Reference:	KB=20' @ 7351.7usft (Original Well Elev)
Site:	DGU Hotchkiss Federal #1289 Pad	North Reference:	True
Well:	DGU Hotchkiss Fed 1289 #18-H5	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	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	
14,700.0	90.08	126.07	7,067.0	-6,752.9	5,506.5	854,516.77	1,471,947.09	38° 59' 55.919 N	107° 21' 27.902 W	
14,800.0	90.08	126.07	7,066.9	-6,811.8	5,587.4	854,456.28	1,472,026.72	38° 59' 55.337 N	107° 21' 26.879 W	
14,900.0	90.08	126.07	7,066.7	-6,870.6	5,668.2	854,395.79	1,472,106.35	38° 59' 54.755 N	107° 21' 25.855 W	
15,000.0	90.08	126.07	7,066.6	-6,929.5	5,749.0	854,335.30	1,472,185.98	38° 59' 54.173 N	107° 21' 24.832 W	
15,100.0	90.08	126.07	7,066.5	-6,988.4	5,829.8	854,274.81	1,472,265.61	38° 59' 53.591 N	107° 21' 23.809 W	
15,200.0	90.08	126.07	7,066.3	-7,047.3	5,910.7	854,214.32	1,472,345.24	38° 59' 53.009 N	107° 21' 22.785 W	
15,300.0	90.08	126.07	7,066.2	-7,106.1	5,991.5	854,153.82	1,472,424.87	38° 59' 52.427 N	107° 21' 21.762 W	
15,400.0	90.08	126.07	7,066.1	-7,165.0	6,072.3	854,093.33	1,472,504.50	38° 59' 51.845 N	107° 21' 20.738 W	
15,456.6	90.08	126.07	7,066.0	-7,198.3	6,118.1	854,059.11	1,472,549.55	38° 59' 51.515 N	107° 21' 20.159 W	
TD @ 15,456.58' 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 - plan hits target center - Point	0.00	358.86	7,066.0	-7,198.3	6,118.1	854,059.11	1,472,549.55	38° 59' 51.515 N	107° 21' 20.159 W	
DGU Hotchkiss Fed 128 - plan hits target center - Point	0.00	358.85	7,076.0	-2,782.4	55.9	858,595.96	1,466,577.37	39° 0' 35.164 N	107° 22' 36.931 W	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,000.0	1,000.0	0.0	0.0	KOP @ 1,000'	
2,232.3	2,194.7	-258.2	-38.4	EOB @ Inc. = 24.65°	
7,079.6	6,600.4	-2,257.7	-335.6	Start 9° Build/Turn	
7,956.6	7,076.0	-2,782.4	55.9	LP @ 7,076' TVD, 90.08°	
15,456.6	7,066.0	-7,198.3	6,118.1	TD @ 15,456.58' MD	