

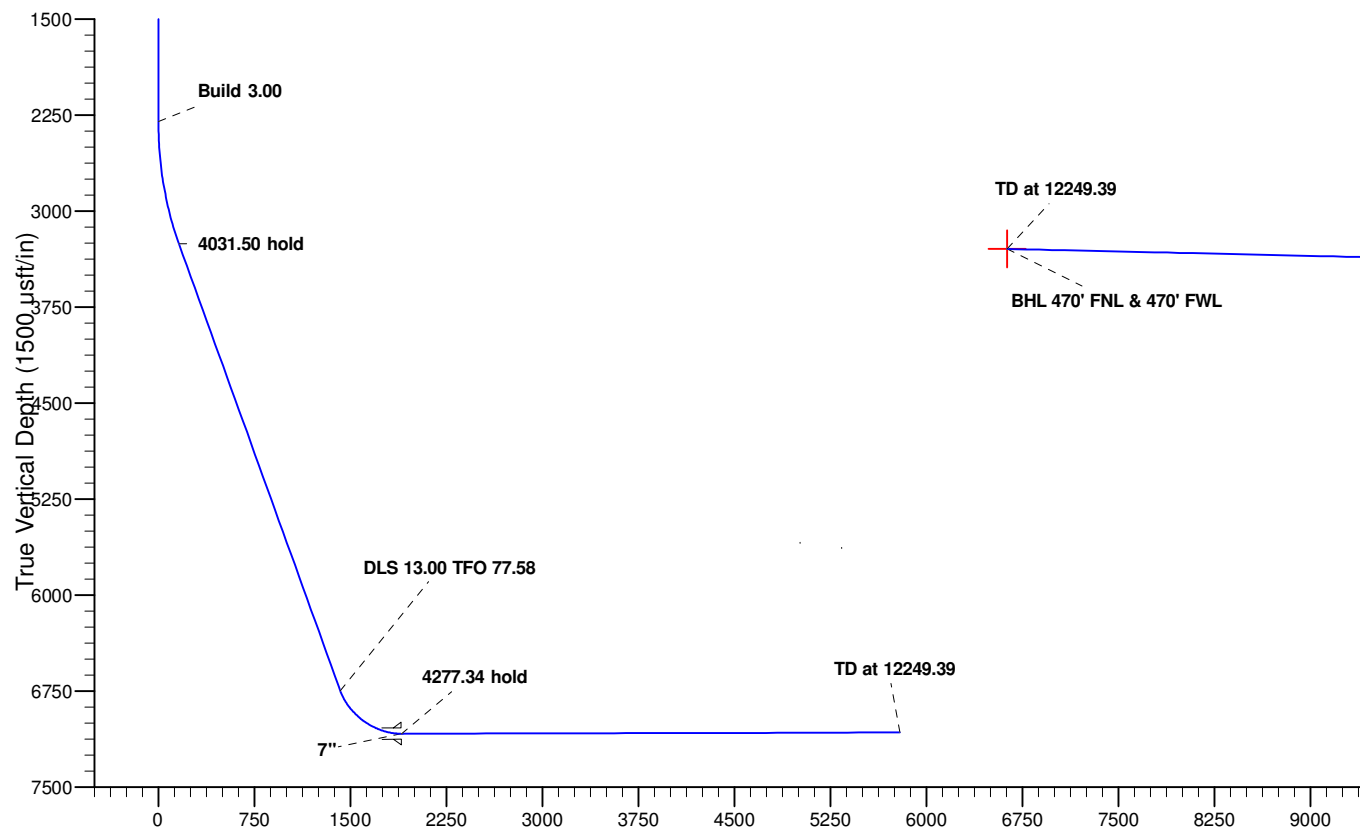


Project: Weld Co., CO
 Site: Sec.10-T6N-R67W
 Well: DeTienne FD 16-022HC
 Wellbore: Wellbore #1
 Design: Design #1
 Lat: 40° 29' 57.548 N
 Long: 104° 53' 12.509 W
 GL: 4838.80
 KB: WELL @ 4855.00usft (Original Well Elev)



T M
 Azimuths to True North
 Magnetic North: 8.54°
 Magnetic Field
 Strength: 52859.3snT
 Dip Angle: 67.01°
 Date: 05/28/2014
 Model: IGRF2010

CASING DETAILS:
 TVD MD Name Size
 7083.00 7972.05 7" 7



Vertical Section at 246.88° (1500 usft/in)

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
BHL 470' FNL & 470' FWL	7073.00	-2274.13	-5326.99	40° 29' 35.070 N	104° 54' 21.460 W	
EP 470' FNL & 460' FEL	7083.00	-2371.96	-1050.77	40° 29' 34.109 N	104° 53' 26.110 W	Point

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	0.00	Build 3.00
3301.60	30.05	195.51	3256.31	-247.33	-68.61	3.00	195.51	160.21	4031.50 hold
7333.09	30.05	195.51	6746.01	-2192.53	-608.25	0.00	0.00	1420.25	DLS 13.00 TFO 77.58
7972.05	90.13	271.31	7083.00	-2371.96	-1050.77	13.00	77.58	1897.69	4277.34 hold
12249.39	90.13	271.31	7073.00	-2274.13	-5326.99	0.00	0.00	5792.10	TD at 12249.39



Great Western Oil & Gas

Weld Co., CO

Sec.10-T6N-R67W

DeTienne FD 16-022HC

Wellbore #1

Plan: Design #1

Standard Planning Report

28 May, 2014



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well DeTienne FD 16-022HC
Company:	Great Western Oil & Gas	TVD Reference:	WELL @ 4855.00usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 4855.00usft (Original Well Elev)
Site:	Sec.10-T6N-R67W	North Reference:	True
Well:	DeTienne FD 16-022HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Weld Co., CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Sec.10-T6N-R67W			
Site Position:		Northing:	1,425,792.79 usft	Latitude:	40° 30' 2.041 N
From:	Lat/Long	Easting:	3,171,409.11 usft	Longitude:	104° 53' 1.072 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.40

Well	DeTienne FD 16-022HC					
Well Position	+N/-S	-454.65 usft	Northing:	1,425,332.01 usft	Latitude:	40° 29' 57.548 N
	+E/-W	-883.53 usft	Easting:	3,170,528.76 usft	Longitude:	104° 53' 12.509 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	4,838.80 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	05/28/14	8.54	67.01	52,859

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	246.88

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,301.60	30.05	195.51	3,256.31	-247.33	-68.61	3.00	3.00	0.00	195.51	
7,333.09	30.05	195.51	6,746.01	-2,192.53	-608.25	0.00	0.00	0.00	0.00	
7,972.05	90.13	271.31	7,083.00	-2,371.96	-1,050.77	13.00	9.40	11.86	77.58	EP 470' FNL & 460' F
12,249.39	90.13	271.31	7,073.00	-2,274.13	-5,326.99	0.00	0.00	0.00	0.00	BHL 470' FNL & 470'

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well DeTienne FD 16-022HC
Company:	Great Western Oil & Gas	TVD Reference:	WELL @ 4855.00usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 4855.00usft (Original Well Elev)
Site:	Sec.10-T6N-R67W	North Reference:	True
Well:	DeTienne FD 16-022HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
Build 3.00									
2,400.00	3.00	195.51	2,399.95	-2.52	-0.70	1.63	3.00	3.00	0.00
2,500.00	6.00	195.51	2,499.63	-10.08	-2.80	6.53	3.00	3.00	0.00
2,600.00	9.00	195.51	2,598.77	-22.66	-6.29	14.68	3.00	3.00	0.00
2,700.00	12.00	195.51	2,697.08	-40.22	-11.16	26.05	3.00	3.00	0.00
2,800.00	15.00	195.51	2,794.31	-62.71	-17.40	40.62	3.00	3.00	0.00
2,900.00	18.00	195.51	2,890.18	-90.07	-24.99	58.35	3.00	3.00	0.00
3,000.00	21.00	195.51	2,984.43	-122.24	-33.91	79.18	3.00	3.00	0.00
3,100.00	24.00	195.51	3,076.81	-159.11	-44.14	103.06	3.00	3.00	0.00
3,200.00	27.00	195.51	3,167.06	-200.59	-55.65	129.93	3.00	3.00	0.00
3,301.60	30.05	195.51	3,256.31	-247.33	-68.61	160.21	3.00	3.00	0.00
4031.50 hold									
3,400.00	30.05	195.51	3,341.49	-294.81	-81.79	190.97	0.00	0.00	0.00
3,500.00	30.05	195.51	3,428.05	-343.06	-95.17	222.22	0.00	0.00	0.00
3,600.00	30.05	195.51	3,514.61	-391.31	-108.56	253.48	0.00	0.00	0.00
3,700.00	30.05	195.51	3,601.17	-439.56	-121.94	284.73	0.00	0.00	0.00
3,800.00	30.05	195.51	3,687.73	-487.81	-135.33	315.99	0.00	0.00	0.00
3,900.00	30.05	195.51	3,774.29	-536.06	-148.71	347.24	0.00	0.00	0.00
4,000.00	30.05	195.51	3,860.86	-584.31	-162.10	378.50	0.00	0.00	0.00
4,100.00	30.05	195.51	3,947.42	-632.56	-175.49	409.75	0.00	0.00	0.00
4,200.00	30.05	195.51	4,033.98	-680.81	-188.87	441.01	0.00	0.00	0.00
4,300.00	30.05	195.51	4,120.54	-729.06	-202.26	472.26	0.00	0.00	0.00
4,400.00	30.05	195.51	4,207.10	-777.31	-215.64	503.52	0.00	0.00	0.00
4,500.00	30.05	195.51	4,293.66	-825.56	-229.03	534.77	0.00	0.00	0.00
4,600.00	30.05	195.51	4,380.22	-873.81	-242.41	566.03	0.00	0.00	0.00
4,700.00	30.05	195.51	4,466.78	-922.06	-255.80	597.28	0.00	0.00	0.00
4,800.00	30.05	195.51	4,553.34	-970.31	-269.18	628.54	0.00	0.00	0.00
4,900.00	30.05	195.51	4,639.90	-1,018.56	-282.57	659.79	0.00	0.00	0.00
5,000.00	30.05	195.51	4,726.46	-1,066.81	-295.95	691.05	0.00	0.00	0.00
5,100.00	30.05	195.51	4,813.02	-1,115.06	-309.34	722.30	0.00	0.00	0.00

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Project:	Weld Co., CO	MD Reference:	WELL @ 4855.00usft (Original Well Elev)
Site:	Sec.10-T6N-R67W	North Reference:	True
Well:	DeTienne FD 16-022HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,200.00	30.05	195.51	4,899.58	-1,163.31	-322.73	753.56	0.00	0.00	0.00	
5,300.00	30.05	195.51	4,986.14	-1,211.56	-336.11	784.81	0.00	0.00	0.00	
5,400.00	30.05	195.51	5,072.71	-1,259.81	-349.50	816.07	0.00	0.00	0.00	
5,500.00	30.05	195.51	5,159.27	-1,308.06	-362.88	847.32	0.00	0.00	0.00	
5,600.00	30.05	195.51	5,245.83	-1,356.31	-376.27	878.58	0.00	0.00	0.00	
5,700.00	30.05	195.51	5,332.39	-1,404.56	-389.65	909.83	0.00	0.00	0.00	
5,800.00	30.05	195.51	5,418.95	-1,452.81	-403.04	941.09	0.00	0.00	0.00	
5,900.00	30.05	195.51	5,505.51	-1,501.06	-416.42	972.34	0.00	0.00	0.00	
6,000.00	30.05	195.51	5,592.07	-1,549.31	-429.81	1,003.60	0.00	0.00	0.00	
6,100.00	30.05	195.51	5,678.63	-1,597.56	-443.20	1,034.85	0.00	0.00	0.00	
6,200.00	30.05	195.51	5,765.19	-1,645.81	-456.58	1,066.11	0.00	0.00	0.00	
6,300.00	30.05	195.51	5,851.75	-1,694.06	-469.97	1,097.36	0.00	0.00	0.00	
6,400.00	30.05	195.51	5,938.31	-1,742.31	-483.35	1,128.62	0.00	0.00	0.00	
6,500.00	30.05	195.51	6,024.87	-1,790.56	-496.74	1,159.87	0.00	0.00	0.00	
6,600.00	30.05	195.51	6,111.43	-1,838.81	-510.12	1,191.13	0.00	0.00	0.00	
6,700.00	30.05	195.51	6,198.00	-1,887.06	-523.51	1,222.38	0.00	0.00	0.00	
6,800.00	30.05	195.51	6,284.56	-1,935.31	-536.89	1,253.64	0.00	0.00	0.00	
6,900.00	30.05	195.51	6,371.12	-1,983.56	-550.28	1,284.89	0.00	0.00	0.00	
7,000.00	30.05	195.51	6,457.68	-2,031.81	-563.67	1,316.15	0.00	0.00	0.00	
7,100.00	30.05	195.51	6,544.24	-2,080.06	-577.05	1,347.40	0.00	0.00	0.00	
7,200.00	30.05	195.51	6,630.80	-2,128.31	-590.44	1,378.66	0.00	0.00	0.00	
7,300.00	30.05	195.51	6,717.36	-2,176.56	-603.82	1,409.91	0.00	0.00	0.00	
7,333.09	30.05	195.51	6,746.01	-2,192.53	-608.25	1,420.25	0.00	0.00	0.00	
DLS 13.00 TFO 77.58										
7,350.00	30.59	199.73	6,760.60	-2,200.66	-610.84	1,425.82	13.00	3.20	24.97	
7,375.00	31.63	205.69	6,782.01	-2,212.56	-615.83	1,435.08	13.00	4.15	23.85	
7,400.00	32.93	211.27	6,803.15	-2,224.27	-622.20	1,445.54	13.00	5.19	22.33	
7,425.00	34.46	216.44	6,823.96	-2,235.77	-629.93	1,457.17	13.00	6.12	20.69	
7,450.00	36.19	221.20	6,844.36	-2,247.02	-638.99	1,469.92	13.00	6.92	19.04	
7,475.00	38.09	225.57	6,864.29	-2,257.97	-649.36	1,483.76	13.00	7.61	17.46	
7,500.00	40.14	229.57	6,883.69	-2,268.60	-661.00	1,498.64	13.00	8.20	15.99	
7,525.00	42.32	233.23	6,902.49	-2,278.87	-673.88	1,514.51	13.00	8.71	14.65	
7,550.00	44.60	236.59	6,920.64	-2,288.74	-687.95	1,531.33	13.00	9.14	13.45	
7,575.00	46.98	239.69	6,938.08	-2,298.19	-703.17	1,549.04	13.00	9.50	12.38	
7,600.00	49.43	242.55	6,954.74	-2,307.18	-719.49	1,567.58	13.00	9.81	11.45	
7,625.00	51.95	245.21	6,970.58	-2,315.68	-736.86	1,586.89	13.00	10.07	10.63	
7,650.00	54.52	247.68	6,985.54	-2,323.68	-755.22	1,606.91	13.00	10.29	9.91	
7,675.00	57.14	250.01	6,999.58	-2,331.14	-774.51	1,627.58	13.00	10.48	9.29	
7,700.00	59.80	252.19	7,012.66	-2,338.03	-794.67	1,648.83	13.00	10.65	8.75	
7,725.00	62.50	254.27	7,024.72	-2,344.34	-815.63	1,670.58	13.00	10.78	8.29	
7,750.00	65.22	256.24	7,035.73	-2,350.05	-837.33	1,692.78	13.00	10.90	7.89	
7,775.00	67.98	258.13	7,045.66	-2,355.14	-859.70	1,715.35	13.00	11.00	7.55	
7,800.00	70.75	259.94	7,054.47	-2,359.58	-882.67	1,738.22	13.00	11.08	7.26	
7,825.00	73.53	261.70	7,062.14	-2,363.38	-906.15	1,761.31	13.00	11.15	7.02	
7,850.00	76.34	263.40	7,068.64	-2,366.50	-930.09	1,784.55	13.00	11.21	6.82	
7,875.00	79.15	265.07	7,073.94	-2,368.96	-954.39	1,807.87	13.00	11.25	6.66	
7,900.00	81.97	266.70	7,078.04	-2,370.72	-978.99	1,831.18	13.00	11.29	6.53	
7,925.00	84.80	268.31	7,080.92	-2,371.80	-1,003.79	1,854.42	13.00	11.32	6.44	
7,950.00	87.63	269.91	7,082.57	-2,372.19	-1,028.73	1,877.51	13.00	11.33	6.39	
7,972.05	90.13	271.31	7,083.00	-2,371.96	-1,050.77	1,897.69	13.00	11.34	6.36	
4277.34 hold										
8,000.00	90.13	271.31	7,082.93	-2,371.32	-1,078.72	1,923.14	0.00	0.00	0.00	
8,100.00	90.13	271.31	7,082.70	-2,369.03	-1,178.69	2,014.18	0.00	0.00	0.00	
8,200.00	90.13	271.31	7,082.47	-2,366.74	-1,278.66	2,105.23	0.00	0.00	0.00	

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Site:	Sec.10-T6N-R67W	North Reference:	True
Well:	DeTienne FD 16-022HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,300.00	90.13	271.31	7,082.23	-2,364.46	-1,378.64	2,196.28	0.00	0.00	0.00
8,400.00	90.13	271.31	7,082.00	-2,362.17	-1,478.61	2,287.33	0.00	0.00	0.00
8,500.00	90.13	271.31	7,081.77	-2,359.88	-1,578.58	2,378.37	0.00	0.00	0.00
8,600.00	90.13	271.31	7,081.53	-2,357.59	-1,678.56	2,469.42	0.00	0.00	0.00
8,700.00	90.13	271.31	7,081.30	-2,355.31	-1,778.53	2,560.47	0.00	0.00	0.00
8,800.00	90.13	271.31	7,081.06	-2,353.02	-1,878.51	2,651.52	0.00	0.00	0.00
8,900.00	90.13	271.31	7,080.83	-2,350.73	-1,978.48	2,742.56	0.00	0.00	0.00
9,000.00	90.13	271.31	7,080.60	-2,348.45	-2,078.45	2,833.61	0.00	0.00	0.00
9,100.00	90.13	271.31	7,080.36	-2,346.16	-2,178.43	2,924.66	0.00	0.00	0.00
9,200.00	90.13	271.31	7,080.13	-2,343.87	-2,278.40	3,015.71	0.00	0.00	0.00
9,300.00	90.13	271.31	7,079.90	-2,341.59	-2,378.37	3,106.75	0.00	0.00	0.00
9,400.00	90.13	271.31	7,079.66	-2,339.30	-2,478.35	3,197.80	0.00	0.00	0.00
9,500.00	90.13	271.31	7,079.43	-2,337.01	-2,578.32	3,288.85	0.00	0.00	0.00
9,600.00	90.13	271.31	7,079.19	-2,334.72	-2,678.29	3,379.90	0.00	0.00	0.00
9,700.00	90.13	271.31	7,078.96	-2,332.44	-2,778.27	3,470.94	0.00	0.00	0.00
9,800.00	90.13	271.31	7,078.73	-2,330.15	-2,878.24	3,561.99	0.00	0.00	0.00
9,900.00	90.13	271.31	7,078.49	-2,327.86	-2,978.21	3,653.04	0.00	0.00	0.00
10,000.00	90.13	271.31	7,078.26	-2,325.58	-3,078.19	3,744.09	0.00	0.00	0.00
10,100.00	90.13	271.31	7,078.03	-2,323.29	-3,178.16	3,835.13	0.00	0.00	0.00
10,200.00	90.13	271.31	7,077.79	-2,321.00	-3,278.14	3,926.18	0.00	0.00	0.00
10,300.00	90.13	271.31	7,077.56	-2,318.72	-3,378.11	4,017.23	0.00	0.00	0.00
10,400.00	90.13	271.31	7,077.32	-2,316.43	-3,478.08	4,108.28	0.00	0.00	0.00
10,500.00	90.13	271.31	7,077.09	-2,314.14	-3,578.06	4,199.32	0.00	0.00	0.00
10,600.00	90.13	271.31	7,076.86	-2,311.85	-3,678.03	4,290.37	0.00	0.00	0.00
10,700.00	90.13	271.31	7,076.62	-2,309.57	-3,778.00	4,381.42	0.00	0.00	0.00
10,800.00	90.13	271.31	7,076.39	-2,307.28	-3,877.98	4,472.47	0.00	0.00	0.00
10,900.00	90.13	271.31	7,076.15	-2,304.99	-3,977.95	4,563.51	0.00	0.00	0.00
11,000.00	90.13	271.31	7,075.92	-2,302.71	-4,077.92	4,654.56	0.00	0.00	0.00
11,100.00	90.13	271.31	7,075.69	-2,300.42	-4,177.90	4,745.61	0.00	0.00	0.00
11,200.00	90.13	271.31	7,075.45	-2,298.13	-4,277.87	4,836.66	0.00	0.00	0.00
11,300.00	90.13	271.31	7,075.22	-2,295.85	-4,377.84	4,927.70	0.00	0.00	0.00
11,400.00	90.13	271.31	7,074.99	-2,293.56	-4,477.82	5,018.75	0.00	0.00	0.00
11,500.00	90.13	271.31	7,074.75	-2,291.27	-4,577.79	5,109.80	0.00	0.00	0.00
11,600.00	90.13	271.31	7,074.52	-2,288.98	-4,677.77	5,200.85	0.00	0.00	0.00
11,700.00	90.13	271.31	7,074.28	-2,286.70	-4,777.74	5,291.90	0.00	0.00	0.00
11,800.00	90.13	271.31	7,074.05	-2,284.41	-4,877.71	5,382.94	0.00	0.00	0.00
11,900.00	90.13	271.31	7,073.82	-2,282.12	-4,977.69	5,473.99	0.00	0.00	0.00
12,000.00	90.13	271.31	7,073.58	-2,279.84	-5,077.66	5,565.04	0.00	0.00	0.00
12,100.00	90.13	271.31	7,073.35	-2,277.55	-5,177.63	5,656.09	0.00	0.00	0.00
12,200.00	90.13	271.31	7,073.12	-2,275.26	-5,277.61	5,747.13	0.00	0.00	0.00
12,249.39	90.13	271.31	7,073.00	-2,274.13	-5,326.99	5,792.10	0.00	0.00	0.00
TD at 12249.39									

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well DeTienne FD 16-022HC
Company:	Great Western Oil & Gas	TVD Reference:	WELL @ 4855.00usft (Original Well Elev)
Project:	Weld Co., CO	MD Reference:	WELL @ 4855.00usft (Original Well Elev)
Site:	Sec.10-T6N-R67W	North Reference:	True
Well:	DeTienne FD 16-022HC	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Design 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
BHL 470' FNL & 470' FV - plan hits target center - Point	0.00	0.00	7,073.00	-2,274.13	-5,326.99	1,423,021.09	3,165,217.63	40° 29' 35.070 N	104° 54' 21.460 W
EP 470' FNL & 460' FEL - plan hits target center - Point	0.00	0.00	7,083.00	-2,371.96	-1,050.77	1,422,952.84	3,169,494.42	40° 29' 34.109 N	104° 53' 26.110 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
7,972.05	7,083.00	7"	7	7-1/2	

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,300.00	2,300.00	0.00	0.00	Build 3.00
3,301.60	3,256.31	-247.33	-68.61	4031.50 hold
7,333.09	6,746.01	-2,192.53	-608.25	DLS 13.00 TFO 77.58
7,972.05	7,083.00	-2,371.96	-1,050.77	4277.34 hold
12,249.39	7,073.00	-2,274.13	-5,326.99	TD at 12249.39