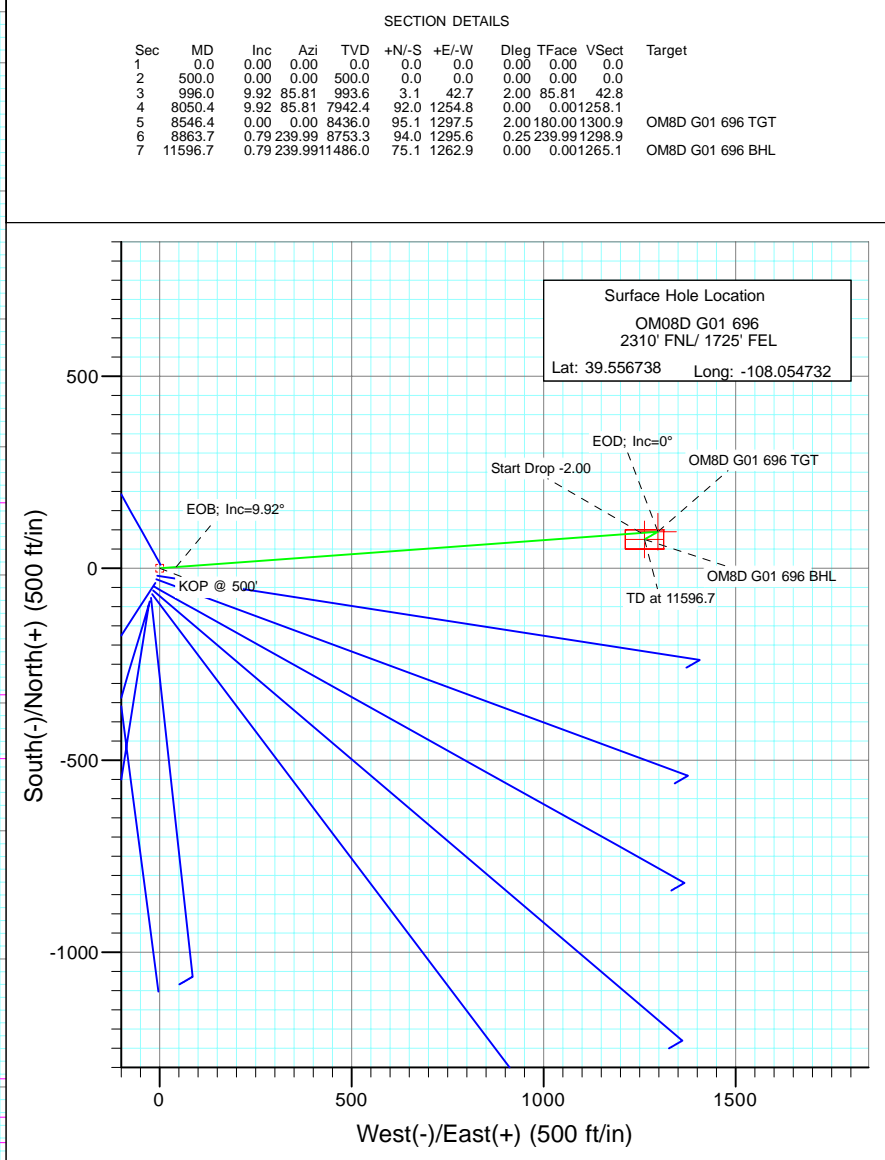
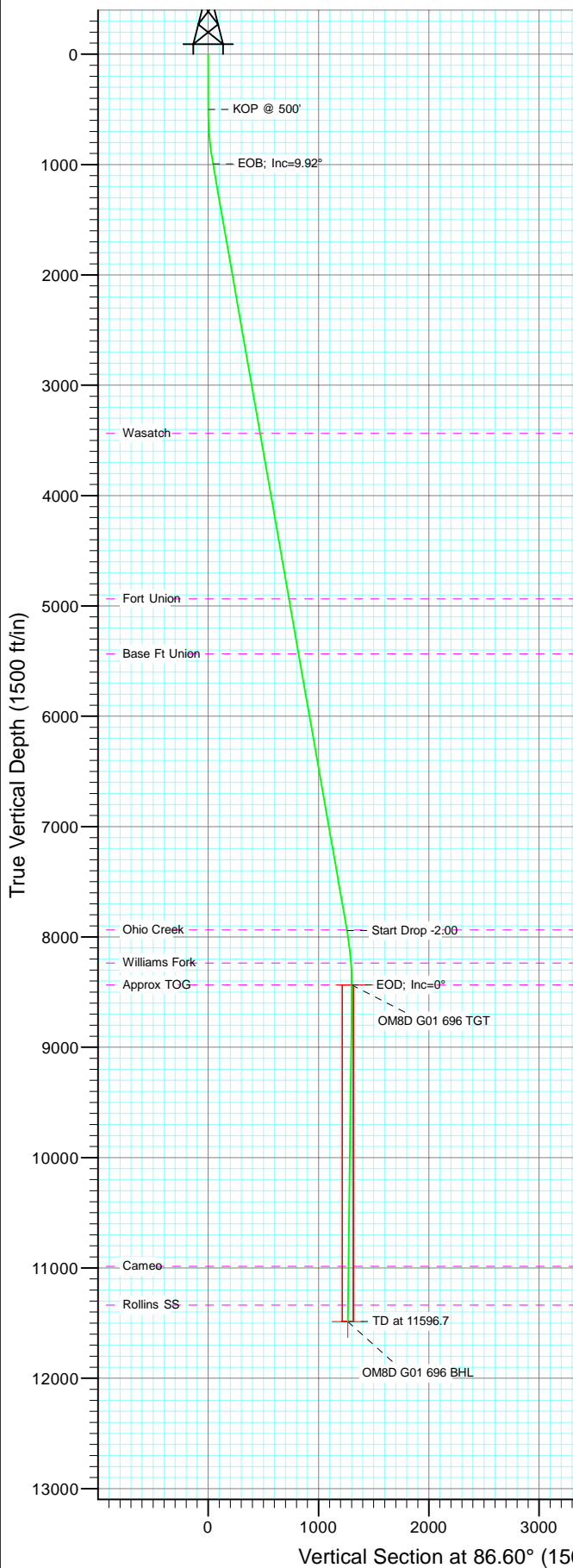




Project: Garfield County
Site: G01 696 Pad
Well: OM08D G01 696
Wellbore: DD
Design: Plan #1



Azimuths to True North
Magnetic North: 10.47°

Magnetic Field
Strength: 52371.7snT
Dip Angle: 65.81°
Date: 8/12/2010
Model: IGRF200510

FORMATION TOP DETAILS		
TVDPPath	MDPath	Formation
3436.0	3475.6	Wasatch
4936.0	4998.3	Fort Union
5436.0	5505.9	Base Ft Union
7936.0	8043.9	Ohio Creek
8236.0	8346.3	Williams Fork
8436.0	8546.4	Approx TOG
10986.0	11096.7	Cameo
11336.0	11446.7	Rollins SS

DESIGN DETAILS: Plan #1

105XXX; BH
KBE @ 8352.0ft (Patterson 302)

Target	Azimuth	Origin	N/S	E/W	From TVD
OM8D G01 696 BHL	86.60	Slot	0.0	0.0	0.0

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well OM08D G01 696
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site:	G01 696 Pad	North Reference:	True
Well:	OM08D G01 696	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Project	Garfield County		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		G01 696 Pad			
Site Position:		Northing:	1,636,699.44 ft	Latitude:	39.553712
From:	Lat/Long	Easting:	2,279,741.26 ft	Longitude:	-108.054742
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.61 °

Well	OM08D G01 696					
Well Position	+N/-S	0.0 ft	Northing:	1,637,801.12 ft	Latitude:	39.556738
	+E/-W	0.0 ft	Easting:	2,279,775.07 ft	Longitude:	-108.054732
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,337.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	8/12/2010	10.47	65.81	52,372

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	86.60

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
996.0	9.92	85.81	993.6	3.1	42.7	2.00	2.00	0.00	85.81	
8,050.4	9.92	85.81	7,942.4	92.0	1,254.8	0.00	0.00	0.00	0.00	
8,546.4	0.00	0.00	8,436.0	95.1	1,297.5	2.00	-2.00	0.00	180.00	OM8D G01 696 TGT
8,863.7	0.79	239.99	8,753.3	94.0	1,295.6	0.25	0.25	-37.82	239.99	
11,596.7	0.79	239.99	11,486.0	75.1	1,262.9	0.00	0.00	0.00	0.00	OM8D G01 696 BHL

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well OM08D G01 696
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site:	G01 696 Pad	North Reference:	True
Well:	OM08D G01 696	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
30.0	0.00	0.00	30.0	0.0	0.0	0.0	0.00	0.00	
60.0	0.00	0.00	60.0	0.0	0.0	0.0	0.00	0.00	
90.0	0.00	0.00	90.0	0.0	0.0	0.0	0.00	0.00	
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	
150.0	0.00	0.00	150.0	0.0	0.0	0.0	0.00	0.00	
180.0	0.00	0.00	180.0	0.0	0.0	0.0	0.00	0.00	
210.0	0.00	0.00	210.0	0.0	0.0	0.0	0.00	0.00	
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	
270.0	0.00	0.00	270.0	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	
330.0	0.00	0.00	330.0	0.0	0.0	0.0	0.00	0.00	
360.0	0.00	0.00	360.0	0.0	0.0	0.0	0.00	0.00	
390.0	0.00	0.00	390.0	0.0	0.0	0.0	0.00	0.00	
420.0	0.00	0.00	420.0	0.0	0.0	0.0	0.00	0.00	
450.0	0.00	0.00	450.0	0.0	0.0	0.0	0.00	0.00	
480.0	0.00	0.00	480.0	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	KOP @ 500'
510.0	0.20	85.81	510.0	0.0	0.0	0.0	2.00	2.00	
540.0	0.80	85.81	540.0	0.0	0.3	0.3	2.00	2.00	
570.0	1.40	85.81	570.0	0.1	0.9	0.9	2.00	2.00	
600.0	2.00	85.81	600.0	0.1	1.7	1.7	2.00	2.00	
630.0	2.60	85.81	630.0	0.2	2.9	2.9	2.00	2.00	
660.0	3.20	85.81	659.9	0.3	4.5	4.5	2.00	2.00	
690.0	3.80	85.81	689.9	0.5	6.3	6.3	2.00	2.00	
720.0	4.40	85.81	719.8	0.6	8.4	8.4	2.00	2.00	
750.0	5.00	85.81	749.7	0.8	10.9	10.9	2.00	2.00	
780.0	5.60	85.81	779.6	1.0	13.6	13.7	2.00	2.00	
810.0	6.20	85.81	809.4	1.2	16.7	16.8	2.00	2.00	
840.0	6.80	85.81	839.2	1.5	20.1	20.2	2.00	2.00	
870.0	7.40	85.81	869.0	1.7	23.8	23.9	2.00	2.00	
900.0	8.00	85.81	898.7	2.0	27.8	27.9	2.00	2.00	
930.0	8.60	85.81	928.4	2.4	32.1	32.2	2.00	2.00	
960.0	9.20	85.81	958.0	2.7	36.8	36.8	2.00	2.00	
990.0	9.80	85.81	987.6	3.1	41.7	41.8	2.00	2.00	
996.0	9.92	85.81	993.6	3.1	42.7	42.8	2.00	2.00	EOB; Inc=9.92°
1,020.0	9.92	85.81	1,017.2	3.4	46.8	47.0	0.00	0.00	
1,050.0	9.92	85.81	1,046.7	3.8	52.0	52.1	0.00	0.00	
1,080.0	9.92	85.81	1,076.3	4.2	57.1	57.3	0.00	0.00	
1,110.0	9.92	85.81	1,105.8	4.6	62.3	62.5	0.00	0.00	
1,140.0	9.92	85.81	1,135.4	4.9	67.5	67.6	0.00	0.00	
1,170.0	9.92	85.81	1,164.9	5.3	72.6	72.8	0.00	0.00	
1,200.0	9.92	85.81	1,194.5	5.7	77.8	78.0	0.00	0.00	
1,230.0	9.92	85.81	1,224.0	6.1	82.9	83.1	0.00	0.00	
1,260.0	9.92	85.81	1,253.6	6.5	88.1	88.3	0.00	0.00	
1,290.0	9.92	85.81	1,283.1	6.8	93.2	93.5	0.00	0.00	
1,320.0	9.92	85.81	1,312.7	7.2	98.4	98.6	0.00	0.00	
1,350.0	9.92	85.81	1,342.2	7.6	103.5	103.8	0.00	0.00	
1,380.0	9.92	85.81	1,371.8	8.0	108.7	109.0	0.00	0.00	
1,410.0	9.92	85.81	1,401.3	8.3	113.9	114.1	0.00	0.00	
1,440.0	9.92	85.81	1,430.9	8.7	119.0	119.3	0.00	0.00	
1,470.0	9.92	85.81	1,460.4	9.1	124.2	124.5	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well OM08D G01 696
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site:	G01 696 Pad	North Reference:	True
Well:	OM08D G01 696	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
1,500.0	9.92	85.81	1,490.0	9.5	129.3	129.6	0.00	0.00	
1,530.0	9.92	85.81	1,519.5	9.9	134.5	134.8	0.00	0.00	
1,560.0	9.92	85.81	1,549.1	10.2	139.6	140.0	0.00	0.00	
1,590.0	9.92	85.81	1,578.6	10.6	144.8	145.2	0.00	0.00	
1,620.0	9.92	85.81	1,608.2	11.0	149.9	150.3	0.00	0.00	
1,650.0	9.92	85.81	1,637.7	11.4	155.1	155.5	0.00	0.00	
1,680.0	9.92	85.81	1,667.3	11.7	160.2	160.7	0.00	0.00	
1,710.0	9.92	85.81	1,696.8	12.1	165.4	165.8	0.00	0.00	
1,740.0	9.92	85.81	1,726.4	12.5	170.6	171.0	0.00	0.00	
1,770.0	9.92	85.81	1,756.0	12.9	175.7	176.2	0.00	0.00	
1,800.0	9.92	85.81	1,785.5	13.3	180.9	181.3	0.00	0.00	
1,830.0	9.92	85.81	1,815.1	13.6	186.0	186.5	0.00	0.00	
1,860.0	9.92	85.81	1,844.6	14.0	191.2	191.7	0.00	0.00	
1,890.0	9.92	85.81	1,874.2	14.4	196.3	196.8	0.00	0.00	
1,920.0	9.92	85.81	1,903.7	14.8	201.5	202.0	0.00	0.00	
1,950.0	9.92	85.81	1,933.3	15.1	206.6	207.2	0.00	0.00	
1,980.0	9.92	85.81	1,962.8	15.5	211.8	212.3	0.00	0.00	
2,010.0	9.92	85.81	1,992.4	15.9	216.9	217.5	0.00	0.00	
2,040.0	9.92	85.81	2,021.9	16.3	222.1	222.7	0.00	0.00	
2,070.0	9.92	85.81	2,051.5	16.7	227.3	227.8	0.00	0.00	
2,100.0	9.92	85.81	2,081.0	17.0	232.4	233.0	0.00	0.00	
2,130.0	9.92	85.81	2,110.6	17.4	237.6	238.2	0.00	0.00	
2,160.0	9.92	85.81	2,140.1	17.8	242.7	243.3	0.00	0.00	
2,190.0	9.92	85.81	2,169.7	18.2	247.9	248.5	0.00	0.00	
2,220.0	9.92	85.81	2,199.2	18.5	253.0	253.7	0.00	0.00	
2,250.0	9.92	85.81	2,228.8	18.9	258.2	258.9	0.00	0.00	
2,280.0	9.92	85.81	2,258.3	19.3	263.3	264.0	0.00	0.00	
2,310.0	9.92	85.81	2,287.9	19.7	268.5	269.2	0.00	0.00	
2,340.0	9.92	85.81	2,317.4	20.1	273.6	274.4	0.00	0.00	
2,370.0	9.92	85.81	2,347.0	20.4	278.8	279.5	0.00	0.00	
2,400.0	9.92	85.81	2,376.5	20.8	284.0	284.7	0.00	0.00	
2,430.0	9.92	85.81	2,406.1	21.2	289.1	289.9	0.00	0.00	
2,460.0	9.92	85.81	2,435.6	21.6	294.3	295.0	0.00	0.00	
2,490.0	9.92	85.81	2,465.2	21.9	299.4	300.2	0.00	0.00	

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
OM8D G01 696 BHL	0.00	0.00	11,486.0	75.1	1,262.9	1,637,840.66	2,281,039.56	39.556944	-108.050253
- hit/miss target									
- Shape									
- plan misses target center by 9072.3ft at 2490.0ft MD (2465.2 TVD, 21.9 N, 299.4 E)									
- Rectangle (sides W50.0 H100.0 D0.0)									
OM8D G01 696 TGT	0.00	0.00	8,436.0	95.1	1,297.5	1,637,859.70	2,281,074.78	39.556999	-108.050130
- hit/miss target									
- Shape									
- plan misses target center by 6054.1ft at 2490.0ft MD (2465.2 TVD, 21.9 N, 299.4 E)									
- Point									

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well OM08D G01 696
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site:	G01 696 Pad	North Reference:	True
Well:	OM08D G01 696	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
2,500.0	9.92	85.81	2,475.0	22.1	301.1	301.9	0.00	0.00	
2,600.0	9.92	85.81	2,573.5	23.3	318.3	319.1	0.00	0.00	
2,700.0	9.92	85.81	2,672.0	24.6	335.5	336.4	0.00	0.00	
2,800.0	9.92	85.81	2,770.6	25.9	352.7	353.6	0.00	0.00	
2,900.0	9.92	85.81	2,869.1	27.1	369.9	370.8	0.00	0.00	
3,000.0	9.92	85.81	2,967.6	28.4	387.1	388.1	0.00	0.00	
3,100.0	9.92	85.81	3,066.1	29.6	404.2	405.3	0.00	0.00	
3,200.0	9.92	85.81	3,164.6	30.9	421.4	422.5	0.00	0.00	
3,300.0	9.92	85.81	3,263.1	32.1	438.6	439.7	0.00	0.00	
3,400.0	9.92	85.81	3,361.6	33.4	455.8	457.0	0.00	0.00	
3,475.6	9.92	85.81	3,436.0	34.4	468.8	470.0	0.00	0.00	Wasatch
3,500.0	9.92	85.81	3,460.1	34.7	473.0	474.2	0.00	0.00	
3,600.0	9.92	85.81	3,558.6	35.9	490.1	491.4	0.00	0.00	
3,700.0	9.92	85.81	3,657.1	37.2	507.3	508.6	0.00	0.00	
3,800.0	9.92	85.81	3,755.6	38.4	524.5	525.9	0.00	0.00	
3,900.0	9.92	85.81	3,854.1	39.7	541.7	543.1	0.00	0.00	
4,000.0	9.92	85.81	3,952.6	41.0	558.9	560.3	0.00	0.00	
4,100.0	9.92	85.81	4,051.1	42.2	576.1	577.5	0.00	0.00	
4,200.0	9.92	85.81	4,149.6	43.5	593.2	594.8	0.00	0.00	
4,300.0	9.92	85.81	4,248.1	44.7	610.4	612.0	0.00	0.00	
4,400.0	9.92	85.81	4,346.6	46.0	627.6	629.2	0.00	0.00	
4,500.0	9.92	85.81	4,445.1	47.3	644.8	646.5	0.00	0.00	
4,600.0	9.92	85.81	4,543.6	48.5	662.0	663.7	0.00	0.00	
4,700.0	9.92	85.81	4,642.1	49.8	679.2	680.9	0.00	0.00	
4,800.0	9.92	85.81	4,740.6	51.0	696.3	698.1	0.00	0.00	
4,900.0	9.92	85.81	4,839.2	52.3	713.5	715.4	0.00	0.00	
4,998.3	9.92	85.81	4,936.0	53.5	730.4	732.3	0.00	0.00	Fort Union
5,000.0	9.92	85.81	4,937.7	53.6	730.7	732.6	0.00	0.00	
5,100.0	9.92	85.81	5,036.2	54.8	747.9	749.8	0.00	0.00	
5,200.0	9.92	85.81	5,134.7	56.1	765.1	767.0	0.00	0.00	
5,300.0	9.92	85.81	5,233.2	57.3	782.2	784.3	0.00	0.00	
5,400.0	9.92	85.81	5,331.7	58.6	799.4	801.5	0.00	0.00	
5,500.0	9.92	85.81	5,430.2	59.9	816.6	818.7	0.00	0.00	
5,505.9	9.92	85.81	5,436.0	59.9	817.6	819.7	0.00	0.00	Base Ft Union
5,600.0	9.92	85.81	5,528.7	61.1	833.8	835.9	0.00	0.00	
5,700.0	9.92	85.81	5,627.2	62.4	851.0	853.2	0.00	0.00	
5,800.0	9.92	85.81	5,725.7	63.6	868.2	870.4	0.00	0.00	
5,900.0	9.92	85.81	5,824.2	64.9	885.3	887.6	0.00	0.00	
6,000.0	9.92	85.81	5,922.7	66.2	902.5	904.9	0.00	0.00	
6,100.0	9.92	85.81	6,021.2	67.4	919.7	922.1	0.00	0.00	
6,200.0	9.92	85.81	6,119.7	68.7	936.9	939.3	0.00	0.00	
6,300.0	9.92	85.81	6,218.2	69.9	954.1	956.5	0.00	0.00	
6,400.0	9.92	85.81	6,316.7	71.2	971.3	973.8	0.00	0.00	
6,500.0	9.92	85.81	6,415.2	72.4	988.4	991.0	0.00	0.00	
6,600.0	9.92	85.81	6,513.7	73.7	1,005.6	1,008.2	0.00	0.00	
6,700.0	9.92	85.81	6,612.2	75.0	1,022.8	1,025.4	0.00	0.00	
6,800.0	9.92	85.81	6,710.7	76.2	1,040.0	1,042.7	0.00	0.00	
6,900.0	9.92	85.81	6,809.2	77.5	1,057.2	1,059.9	0.00	0.00	
7,000.0	9.92	85.81	6,907.7	78.7	1,074.3	1,077.1	0.00	0.00	
7,100.0	9.92	85.81	7,006.3	80.0	1,091.5	1,094.4	0.00	0.00	
7,200.0	9.92	85.81	7,104.8	81.3	1,108.7	1,111.6	0.00	0.00	
7,300.0	9.92	85.81	7,203.3	82.5	1,125.9	1,128.8	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well OM08D G01 696
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site:	G01 696 Pad	North Reference:	True
Well:	OM08D G01 696	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
7,400.0	9.92	85.81	7,301.8	83.8	1,143.1	1,146.0	0.00	0.00	
7,500.0	9.92	85.81	7,400.3	85.0	1,160.3	1,163.3	0.00	0.00	
7,600.0	9.92	85.81	7,498.8	86.3	1,177.4	1,180.5	0.00	0.00	
7,700.0	9.92	85.81	7,597.3	87.6	1,194.6	1,197.7	0.00	0.00	
7,800.0	9.92	85.81	7,695.8	88.8	1,211.8	1,214.9	0.00	0.00	
7,900.0	9.92	85.81	7,794.3	90.1	1,229.0	1,232.2	0.00	0.00	
8,000.0	9.92	85.81	7,892.8	91.3	1,246.2	1,249.4	0.00	0.00	
8,043.9	9.92	85.81	7,936.0	91.9	1,253.7	1,256.9	0.00	0.00	Ohio Creek
8,050.4	9.92	85.81	7,942.4	92.0	1,254.8	1,258.1	0.00	0.00	Start Drop -2.00
8,100.0	8.93	85.81	7,991.4	92.6	1,262.9	1,266.2	2.00	-2.00	
8,200.0	6.93	85.81	8,090.4	93.6	1,276.7	1,280.0	2.00	-2.00	
8,300.0	4.93	85.81	8,189.9	94.3	1,287.0	1,290.3	2.00	-2.00	
8,346.3	4.00	85.81	8,236.0	94.6	1,290.6	1,293.9	2.00	-2.00	Williams Fork
8,400.0	2.93	85.81	8,289.6	94.8	1,293.8	1,297.2	2.00	-2.00	
8,500.0	0.93	85.81	8,389.6	95.1	1,297.2	1,300.5	2.00	-2.00	
8,546.4	0.00	0.00	8,436.0	95.1	1,297.5	1,300.9	2.00	-2.00	EOD; Inc=0° - Approx TOG - OM8D G01 696 T
8,600.0	0.13	239.99	8,489.6	95.1	1,297.5	1,300.9	0.25	0.25	
8,700.0	0.38	239.99	8,589.6	94.8	1,297.1	1,300.4	0.25	0.25	
8,800.0	0.63	239.99	8,689.6	94.4	1,296.3	1,299.7	0.25	0.25	
8,863.7	0.79	239.99	8,753.3	94.0	1,295.6	1,298.9	0.25	0.25	
8,900.0	0.79	239.99	8,789.6	93.8	1,295.2	1,298.5	0.00	0.00	
9,000.0	0.79	239.99	8,889.5	93.1	1,294.0	1,297.3	0.00	0.00	
9,100.0	0.79	239.99	8,989.5	92.4	1,292.8	1,296.0	0.00	0.00	
9,200.0	0.79	239.99	9,089.5	91.7	1,291.6	1,294.8	0.00	0.00	
9,300.0	0.79	239.99	9,189.5	91.0	1,290.4	1,293.5	0.00	0.00	
9,400.0	0.79	239.99	9,289.5	90.3	1,289.2	1,292.3	0.00	0.00	
9,500.0	0.79	239.99	9,389.5	89.6	1,288.0	1,291.1	0.00	0.00	
9,600.0	0.79	239.99	9,489.5	88.9	1,286.8	1,289.8	0.00	0.00	
9,700.0	0.79	239.99	9,589.5	88.2	1,285.6	1,288.6	0.00	0.00	
9,800.0	0.79	239.99	9,689.5	87.5	1,284.4	1,287.4	0.00	0.00	
9,900.0	0.79	239.99	9,789.5	86.8	1,283.2	1,286.1	0.00	0.00	
10,000.0	0.79	239.99	9,889.4	86.1	1,282.0	1,284.9	0.00	0.00	
10,100.0	0.79	239.99	9,989.4	85.4	1,280.8	1,283.6	0.00	0.00	
10,200.0	0.79	239.99	10,089.4	84.8	1,279.6	1,282.4	0.00	0.00	
10,300.0	0.79	239.99	10,189.4	84.1	1,278.4	1,281.2	0.00	0.00	
10,400.0	0.79	239.99	10,289.4	83.4	1,277.2	1,279.9	0.00	0.00	
10,500.0	0.79	239.99	10,389.4	82.7	1,276.0	1,278.7	0.00	0.00	
10,600.0	0.79	239.99	10,489.4	82.0	1,274.8	1,277.5	0.00	0.00	
10,700.0	0.79	239.99	10,589.4	81.3	1,273.6	1,276.2	0.00	0.00	
10,800.0	0.79	239.99	10,689.4	80.6	1,272.4	1,275.0	0.00	0.00	
10,900.0	0.79	239.99	10,789.4	79.9	1,271.2	1,273.7	0.00	0.00	
11,000.0	0.79	239.99	10,889.4	79.2	1,270.0	1,272.5	0.00	0.00	
11,096.7	0.79	239.99	10,986.0	78.5	1,268.9	1,271.3	0.00	0.00	Cameo
11,100.0	0.79	239.99	10,989.3	78.5	1,268.8	1,271.3	0.00	0.00	
11,200.0	0.79	239.99	11,089.3	77.8	1,267.6	1,270.0	0.00	0.00	
11,300.0	0.79	239.99	11,189.3	77.1	1,266.4	1,268.8	0.00	0.00	
11,400.0	0.79	239.99	11,289.3	76.4	1,265.2	1,267.5	0.00	0.00	
11,446.7	0.79	239.99	11,336.0	76.1	1,264.7	1,267.0	0.00	0.00	Rollins SS
11,500.0	0.79	239.99	11,389.3	75.7	1,264.0	1,266.3	0.00	0.00	
11,596.7	0.79	239.99	11,486.0	75.1	1,262.9	1,265.1	0.00	0.00	TD at 11596.7 - OM8D G01 696 BHL

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well OM08D G01 696
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site:	G01 696 Pad	North Reference:	True
Well:	OM08D G01 696	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
OM8D G01 696 BHL	0.00	0.00	11,486.0	75.1	1,262.9	1,637,840.66	2,281,039.56	39.556944	-108.050253
- plan hits target center									
- Rectangle (sides W50.0 H100.0 D0.0)									
OM8D G01 696 TGT	0.00	0.00	8,436.0	95.1	1,297.5	1,637,859.70	2,281,074.78	39.556999	-108.050130
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
3,475.6	3,436.0	Wasatch		0.00		
4,998.3	4,936.0	Fort Union		0.00		
5,505.9	5,436.0	Base Ft Union		0.00		
8,043.9	7,936.0	Ohio Creek		0.00		
8,346.3	8,236.0	Williams Fork		0.00		
8,546.4	8,436.0	Approx TOG		0.00		
11,096.7	10,986.0	Cameo		0.00		
11,446.7	11,336.0	Rollins SS		0.00		

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
(ft)	(ft)	(ft)	(ft)		
500.0	500.0	0.0	0.0	KOP @ 500'	
996.0	993.6	3.1	42.7	EOB; Inc=9.92°	
8,050.4	7,942.4	92.0	1,254.8	Start Drop -2.00	
8,546.4	8,436.0	95.1	1,297.5	EOD; Inc=0°	
11,596.7	11,486.0	94.0	1,295.6	TD at 11596.7	

Berry Petroleum Company (NAD 83)

Garfield County

G01 696 Pad

OM08D G01 696

DD

Plan #1

Anticollision Report

12 August, 2010

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM08D G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM08D G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 100.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	8/12/2010		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,596.7	Plan #1 (DD)	MWD	Geolink MWD	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
G01 696 Pad						
OM07C G01 696 - DD - Plan #1						Out of range
OM07D G01 696 - DD - Plan #1	641.7	641.7	9.2	7.0	4.210	CC, ES
OM07D G01 696 - DD - Plan #1	700.0	699.8	9.9	7.5	4.108	SF
OM08C G01 696 - DD - Plan #1	322.2	322.2	19.9	18.9	18.595	CC, ES
OM08C G01 696 - DD - Plan #1	2,000.0	1,994.3	97.0	87.2	9.873	SF
OM09A G01 696 - DD - Plan #1	200.0	200.0	30.0	29.3	46.445	CC
OM09A G01 696 - DD - Plan #1	300.0	299.9	30.2	29.2	30.323	ES
OM09A G01 696 - DD - Plan #1	1,200.0	1,192.8	92.8	87.7	17.948	SF
OM09B G01 696 - DD - Plan #1	200.0	200.0	50.0	49.4	77.461	CC, ES
OM09B G01 696 - DD - Plan #1	900.0	890.5	95.4	91.8	27.088	SF
OM09C G01 696 - DD - Plan #1	200.0	200.0	70.1	69.5	108.605	CC, ES
OM09C G01 696 - DD - Plan #1	600.0	591.9	89.5	87.4	42.639	SF
OM09D G01 696 - DD - Plan #1	200.0	200.0	59.9	59.3	92.762	CC, ES
OM09D G01 696 - DD - Plan #1	800.0	788.2	99.8	96.8	33.354	SF
OM10A G01 696 - DD - Plan #1	200.0	200.0	80.0	79.4	123.905	CC, ES
OM10A G01 696 - DD - Plan #1	500.0	491.4	94.3	92.6	54.250	SF
OM10B G01 696 - DD - Plan #1	500.0	500.0	39.8	38.1	23.504	CC, ES
OM10B G01 696 - DD - Plan #1	600.0	598.6	42.1	40.1	20.624	SF
OM10C G01 696 - DD - Plan #1	200.0	200.0	89.9	89.2	139.207	CC, ES
OM10C G01 696 - DD - Plan #1	400.0	393.6	96.7	95.3	71.297	SF
OM10D G01 696 - DD - Plan #1						Out of range

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM08D G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM08D G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM07D G01 696 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance					Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	16.58	9.5	2.8	9.9					
100.0	100.0	100.0	100.0	0.1	0.1	16.58	9.5	2.8	9.9	9.6	0.30	33.303		
200.0	200.0	200.0	200.0	0.3	0.3	16.58	9.5	2.8	9.9	9.2	0.65	15.301		
300.0	300.0	300.0	300.0	0.5	0.5	16.58	9.5	2.8	9.9	8.9	0.99	9.933		
400.0	400.0	400.0	400.0	0.7	0.7	16.58	9.5	2.8	9.9	8.5	1.34	7.353		
500.0	500.0	500.0	500.0	0.8	0.8	16.58	9.5	2.8	9.9	8.2	1.69	5.837		
600.0	600.0	600.0	600.0	1.0	1.0	-79.23	9.5	2.8	9.4	7.4	2.04	4.602		
641.7	641.7	641.7	641.7	1.1	1.1	-90.00	9.5	2.8	9.2	7.0	2.19	4.210 CC, ES		
700.0	699.8	699.8	699.8	1.2	1.2	-110.56	9.5	2.8	9.9	7.5	2.40	4.108 SF		
800.0	799.5	799.5	799.5	1.4	1.4	-142.69	9.5	2.8	15.3	12.5	2.75	5.558		
900.0	898.7	898.7	898.7	1.7	1.5	-159.06	9.5	2.8	26.1	23.0	3.09	8.441		
996.0	993.6	993.6	993.6	1.9	1.7	-166.59	9.5	2.8	40.4	37.0	3.41	11.856		
1,000.0	997.5	997.5	997.5	1.9	1.7	-166.81	9.5	2.8	41.1	37.6	3.42	12.004		
1,100.0	1,096.0	1,094.9	1,094.8	2.3	1.9	-169.38	10.8	2.1	58.9	55.1	3.77	15.638		
1,200.0	1,194.5	1,191.5	1,191.4	2.6	2.1	-168.74	15.1	-0.3	78.7	74.6	4.12	19.097		
1,300.0	1,293.0	1,289.0	1,288.6	2.9	2.2	-167.35	21.1	-3.7	99.8	95.3	4.49	22.244		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM08D G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM08D G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM08C G01 696 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance					Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-163.72	-19.3	-5.6	20.1					
100.0	100.0	100.0	100.0	0.1	0.1	-163.72	-19.3	-5.6	20.1	19.8	0.30	67.784		
200.0	200.0	200.0	200.0	0.3	0.3	-163.72	-19.3	-5.6	20.1	19.5	0.65	31.144		
300.0	300.0	300.1	300.0	0.5	0.5	-168.69	-19.6	-3.9	20.0	19.0	0.99	20.061		
322.2	322.2	322.2	322.2	0.5	0.5	-171.16	-19.7	-3.1	19.9	18.9	1.07	18.595 CC, ES		
400.0	400.0	399.9	399.7	0.7	0.7	176.50	-20.4	1.2	20.4	19.1	1.34	15.188		
500.0	500.0	499.2	498.6	0.8	0.9	155.73	-21.7	9.8	23.8	22.1	1.71	13.947		
600.0	600.0	598.0	596.7	1.0	1.2	53.99	-23.5	21.6	31.1	29.0	2.11	14.703		
700.0	699.8	696.5	694.0	1.2	1.5	45.39	-25.9	36.8	40.2	37.8	2.49	16.180		
800.0	799.5	795.6	791.4	1.4	1.8	41.18	-28.7	54.5	49.6	46.8	2.87	17.288		
900.0	898.7	895.3	889.5	1.7	2.2	40.43	-31.5	72.6	56.7	53.4	3.29	17.234		
996.0	993.6	991.2	983.8	1.9	2.5	41.86	-34.2	89.9	60.9	57.2	3.74	16.294		
1,000.0	997.5	995.2	987.7	1.9	2.5	41.96	-34.3	90.6	61.1	57.3	3.76	16.242		
1,100.0	1,096.0	1,095.1	1,085.9	2.3	2.9	44.32	-37.1	108.7	64.3	60.1	4.28	15.028		
1,200.0	1,194.5	1,195.0	1,184.2	2.6	3.3	46.45	-39.9	126.8	67.7	62.9	4.83	14.015		
1,300.0	1,293.0	1,294.9	1,282.4	2.9	3.6	48.37	-42.7	144.8	71.2	65.8	5.41	13.166		
1,400.0	1,391.5	1,394.9	1,380.6	3.2	4.0	50.11	-45.5	162.9	74.7	68.7	6.00	12.452		
1,500.0	1,490.0	1,494.8	1,478.8	3.6	4.3	51.69	-48.3	181.0	78.3	71.7	6.61	11.846		
1,600.0	1,588.5	1,594.7	1,577.1	3.9	4.7	53.14	-51.1	199.1	82.0	74.7	7.24	11.329		
1,700.0	1,687.0	1,694.6	1,675.3	4.2	5.1	54.46	-53.9	217.1	85.7	77.8	7.87	10.885		
1,800.0	1,785.5	1,794.5	1,773.5	4.6	5.4	55.67	-56.8	235.2	89.4	80.9	8.52	10.501		
1,900.0	1,884.0	1,894.4	1,871.7	4.9	5.8	56.78	-59.6	253.3	93.2	84.0	9.17	10.166		
2,000.0	1,982.5	1,994.3	1,970.0	5.3	6.2	57.80	-62.4	271.3	97.0	87.2	9.83	9.873 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM08D G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM08D G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM09A G01 696 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-163.62	-28.8	-8.5	30.0					
100.0	100.0	100.0	100.0	0.1	0.1	-163.62	-28.8	-8.5	30.0	29.7	0.30	101.087		
200.0	200.0	200.0	200.0	0.3	0.3	-163.62	-28.8	-8.5	30.0	29.3	0.65	46.445 CC		
300.0	300.0	299.9	299.9	0.5	0.5	-166.92	-29.4	-6.8	30.2	29.2	0.99	30.323 ES		
400.0	400.0	399.5	399.4	0.7	0.7	-176.43	-31.2	-1.9	31.2	29.9	1.34	23.246		
500.0	500.0	498.7	498.2	0.8	0.9	169.82	-34.2	6.1	34.8	33.1	1.71	20.377		
600.0	600.0	597.3	596.1	1.0	1.2	71.92	-38.3	17.3	41.7	39.5	2.13	19.538		
700.0	699.8	695.6	693.1	1.2	1.5	64.52	-43.6	31.7	51.0	48.5	2.53	20.152		
800.0	799.5	794.2	790.0	1.4	1.8	60.54	-49.9	48.8	61.6	58.6	2.95	20.882		
900.0	898.7	893.8	887.8	1.7	2.2	59.88	-56.5	66.5	71.0	67.6	3.42	20.771		
996.0	993.6	989.5	981.8	1.9	2.5	61.45	-62.7	83.5	78.4	74.4	3.94	19.913		
1,000.0	997.5	993.4	985.6	1.9	2.6	61.56	-63.0	84.2	78.7	74.7	3.96	19.867		
1,100.0	1,096.0	1,093.1	1,083.5	2.3	2.9	64.01	-69.6	101.9	85.7	81.1	4.55	18.818		
1,200.0	1,194.5	1,192.8	1,181.4	2.6	3.3	66.08	-76.1	119.7	92.8	87.7	5.17	17.948 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM08D G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM08D G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM09B G01 696 - DD - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-163.97	-48.1	-13.8	50.0				
100.0	100.0	100.0	100.0	0.1	0.1	-163.97	-48.1	-13.8	50.0	49.7	0.30	168.591	
200.0	200.0	200.0	200.0	0.3	0.3	-163.97	-48.1	-13.8	50.0	49.4	0.65	77.461 CC, ES	
300.0	300.0	299.6	299.5	0.5	0.5	-165.88	-48.9	-12.3	50.4	49.5	0.99	50.739	
400.0	400.0	398.9	398.7	0.7	0.7	-171.39	-51.4	-7.8	52.0	50.7	1.34	38.723	
500.0	500.0	497.7	497.2	0.8	0.9	-179.67	-55.6	-0.3	55.7	54.0	1.70	32.707	
600.0	600.0	596.1	594.8	1.0	1.2	86.34	-61.4	10.0	62.3	60.2	2.14	29.047	
700.0	699.8	693.9	691.5	1.2	1.5	80.51	-68.8	23.3	71.7	69.1	2.57	27.942	
800.0	799.5	791.3	787.1	1.4	1.8	76.71	-77.7	39.3	83.2	80.2	3.02	27.576	
900.0	898.7	890.5	884.3	1.7	2.2	75.11	-87.6	57.0	95.4	91.8	3.52	27.088 SF	

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM08D G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM08D G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM09C G01 696 - DD - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-163.89	-67.4	-19.5	70.1				
100.0	100.0	100.0	100.0	0.1	0.1	-163.89	-67.4	-19.5	70.1	69.8	0.30	236.374	
200.0	200.0	200.0	200.0	0.3	0.3	-163.89	-67.4	-19.5	70.1	69.5	0.65	108.605 CC, ES	
300.0	300.0	298.5	298.5	0.5	0.5	-164.99	-68.7	-18.4	71.2	70.2	0.99	71.651	
400.0	400.0	396.8	396.6	0.7	0.7	-168.06	-72.8	-15.4	74.5	73.1	1.35	55.276	
500.0	500.0	494.6	494.1	0.8	0.9	-172.59	-79.5	-10.3	80.3	78.6	1.72	46.817	
600.0	600.0	591.9	590.6	1.0	1.2	97.25	-88.7	-3.3	89.5	87.4	2.10	42.639 SF	

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM08D G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM08D G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM09D G01 696 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance					Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-163.88	-57.5	-16.6	59.9					
100.0	100.0	100.0	100.0	0.1	0.1	-163.88	-57.5	-16.6	59.9	59.6	0.30	201.893		
200.0	200.0	200.0	200.0	0.3	0.3	-163.88	-57.5	-16.6	59.9	59.3	0.65	92.762 CC, ES		
300.0	300.0	299.1	299.1	0.5	0.5	-165.35	-58.7	-15.3	60.6	59.6	0.99	61.013		
400.0	400.0	398.0	397.8	0.7	0.7	-169.55	-62.0	-11.4	63.1	61.7	1.35	46.884		
500.0	500.0	496.4	495.9	0.8	0.9	-175.79	-67.5	-5.0	67.8	66.1	1.71	39.684		
600.0	600.0	594.2	593.0	1.0	1.2	92.29	-75.1	4.0	75.6	73.5	2.13	35.552		
700.0	699.8	691.6	689.1	1.2	1.5	88.04	-84.8	15.4	86.4	83.9	2.54	34.018		
800.0	799.5	788.2	784.1	1.4	1.8	85.39	-96.5	29.2	99.8	96.8	2.99	33.354 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM08D G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM08D G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM10A G01 696 - DD - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-163.84	-76.9	-22.3	80.0				
100.0	100.0	100.0	100.0	0.1	0.1	-163.84	-76.9	-22.3	80.0	79.7	0.30	269.676	
200.0	200.0	200.0	200.0	0.3	0.3	-163.84	-76.9	-22.3	80.0	79.4	0.65	123.905 CC, ES	
300.0	300.0	297.4	297.4	0.5	0.5	-164.28	-78.5	-22.1	81.6	80.6	0.99	82.139	
400.0	400.0	394.7	394.5	0.7	0.7	-165.51	-83.4	-21.6	86.3	85.0	1.35	63.773	
500.0	500.0	491.4	490.9	0.8	0.9	-167.29	-91.6	-20.7	94.3	92.6	1.74	54.250 SF	

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM08D G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM08D G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM10B G01 696 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-163.96	-38.2	-11.0	39.8					
100.0	100.0	100.0	100.0	0.1	0.1	-163.96	-38.2	-11.0	39.8	39.5	0.30	134.110		
200.0	200.0	200.0	200.0	0.3	0.3	-163.96	-38.2	-11.0	39.8	39.1	0.65	61.618		
300.0	300.0	300.0	300.0	0.5	0.5	-163.96	-38.2	-11.0	39.8	38.8	0.99	39.998		
400.0	400.0	400.0	400.0	0.7	0.7	-163.96	-38.2	-11.0	39.8	38.4	1.34	29.609		
500.0	500.0	500.0	500.0	0.8	0.8	-163.96	-38.2	-11.0	39.8	38.1	1.69	23.504 CC, ES		
600.0	600.0	598.6	598.6	1.0	1.0	113.06	-39.7	-11.9	42.1	40.1	2.04	20.624 SF		
700.0	699.8	696.6	696.5	1.2	1.2	119.86	-43.9	-14.7	49.5	47.1	2.39	20.673		
800.0	799.5	793.5	793.0	1.4	1.4	127.36	-50.8	-19.2	62.9	60.2	2.76	22.829		
900.0	898.7	891.3	890.3	1.7	1.6	133.83	-59.4	-24.7	81.3	78.2	3.13	26.004		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM08D G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM08D G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM10C G01 696 - DD - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis				Distance					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-163.79	-86.3	-25.1	89.9				
100.0	100.0	100.0	100.0	0.1	0.1	-163.79	-86.3	-25.1	89.9	89.6	0.30	302.979	
200.0	200.0	200.0	200.0	0.3	0.3	-163.79	-86.3	-25.1	89.9	89.2	0.65	139.207 CC, ES	
300.0	300.0	296.9	296.9	0.5	0.5	-163.78	-87.9	-25.6	91.6	90.6	0.99	92.230	
400.0	400.0	393.6	393.5	0.7	0.7	-163.76	-92.6	-27.0	96.7	95.3	1.36	71.297 SF	

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM08D G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM08D G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KBE @ 8352.0ft (Patterson 302)

Offset Depths are relative to Offset Datum

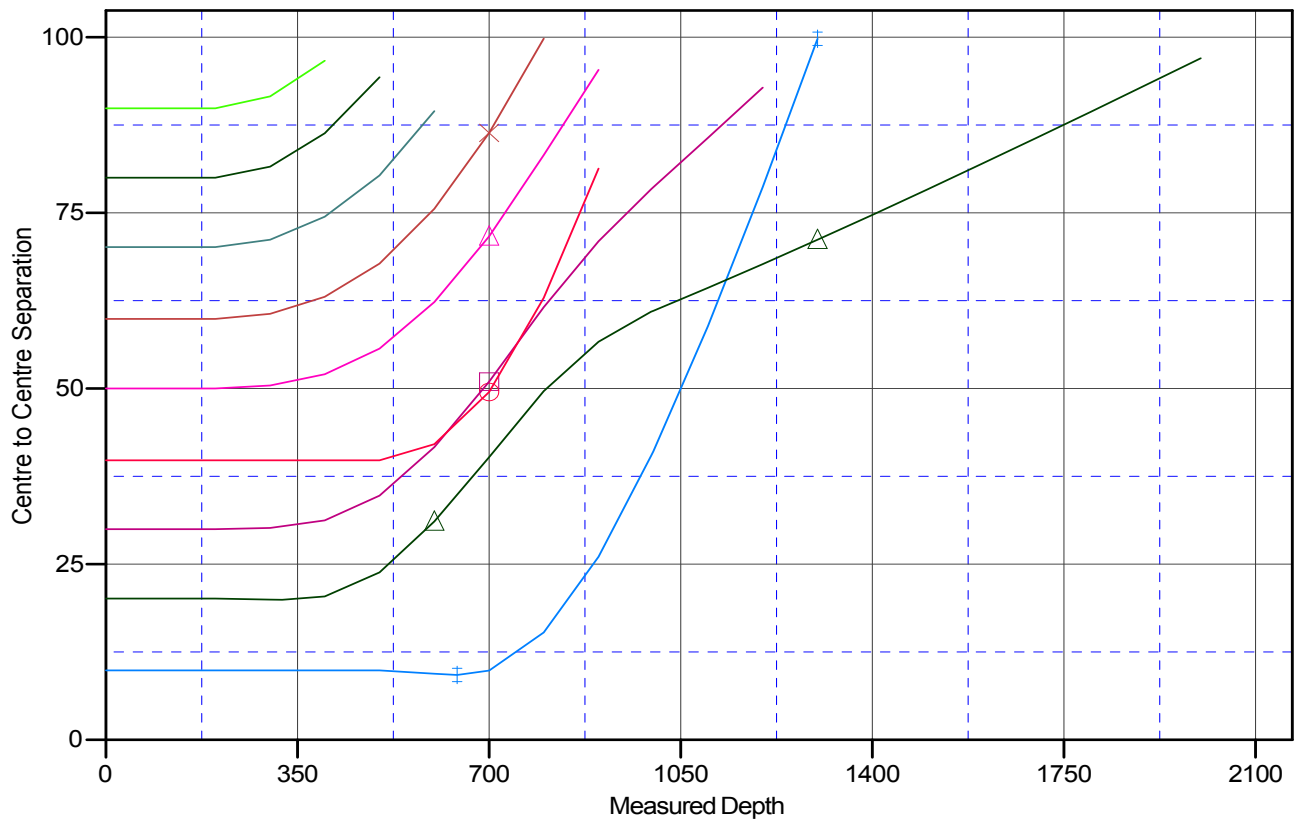
Central Meridian is -105.500000 °

Coordinates are relative to: OM08D G01 696

Coordinate System is US State Plane 1983, Colorado Central Zone

Grid Convergence at Surface is: -1.61°

Ladder Plot



LEGEND

- OM07D G01 696, DD, Plan #1 V0
- OM08C G01 696, DD, Plan #1 V0
- OM09AG01 696, DD, Plan #1 V0
- OM09B G01 696, DD, Plan #1 V0
- OM09C G01 696, DD, Plan #1 V0
- OM09D G01 696, DD, Plan #1 V0
- OM10AG01 696, DD, Plan #1 V0
- OM10B G01 696, DD, Plan #1 V0
- OM10C G01 696, DD, Plan #1 V0