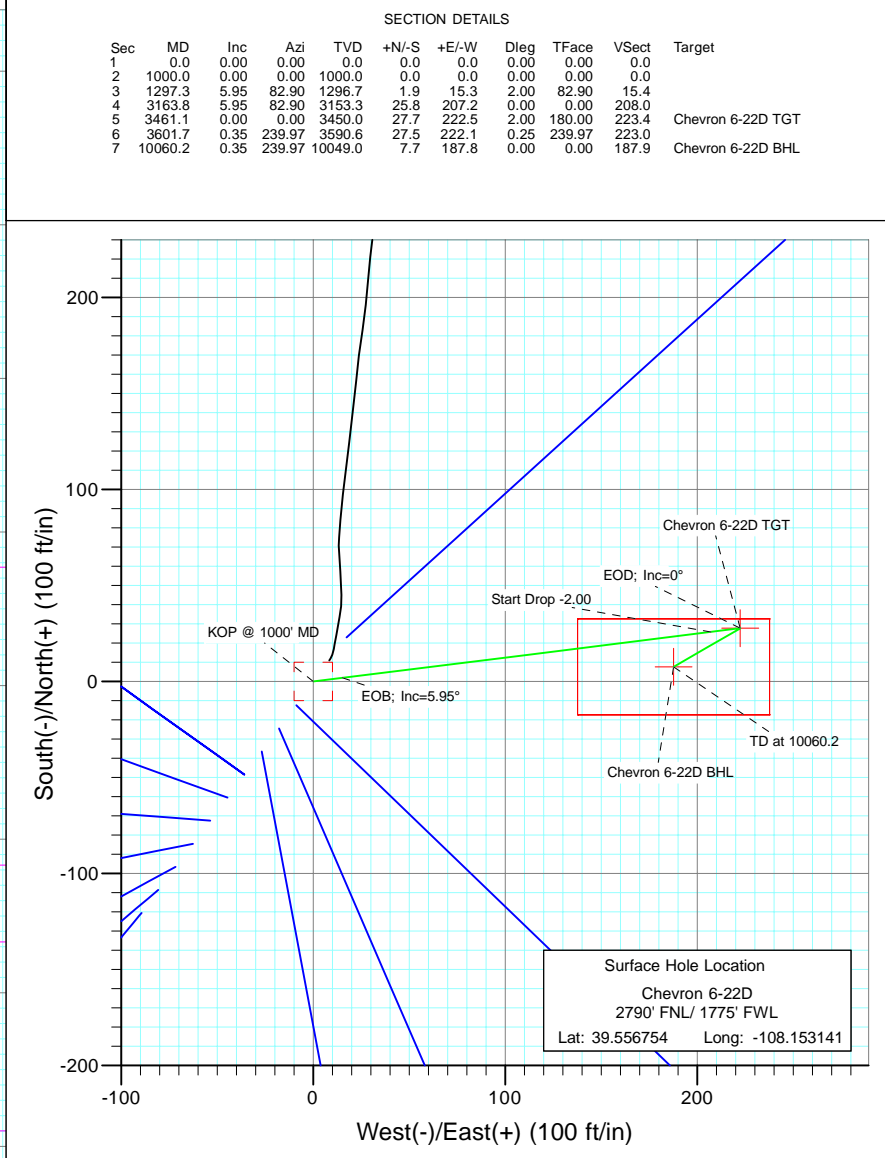
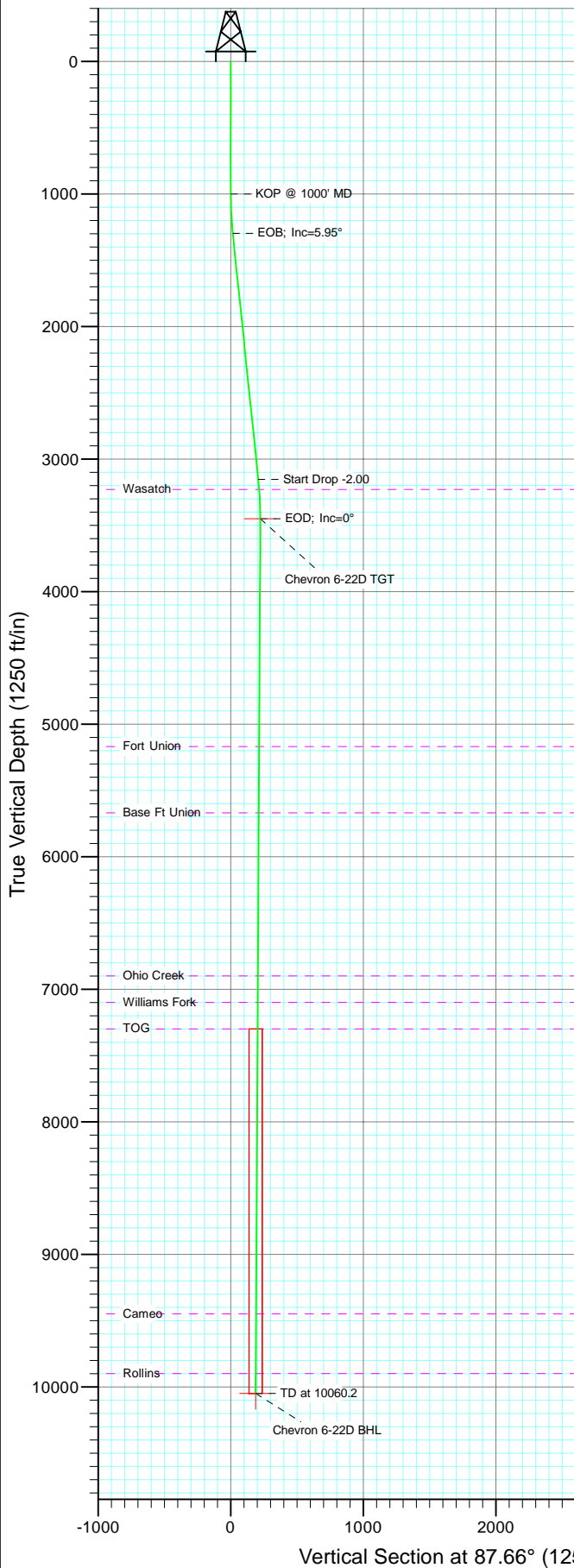




Project: Garfield County  
Site: Sec 6 T6S R96W (F06 696)  
Well: Chevron 6-22D  
Wellbore: DD  
Design: Plan #3



Azimuths to True North  
Magnetic North: 10.61°  
Magnetic Field  
Strength: 52427.1snT  
Dip Angle: 65.81°  
Date: 12/2/2009  
Model: IGRF200510

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3229.0	3239.9	Wasatch
5169.0	5180.1	Fort Union
5669.0	5680.1	Base Ft Union
6899.0	6910.2	Ohio Creek
7099.0	7110.2	Williams Fork
7299.0	7310.2	TOG
9449.0	9460.2	Cameo
9899.0	9910.2	Rollins

#### DESIGN DETAILS: Plan #3

95XXX; BH  
KBE @ 8244.0ft (Original Well Elev)

Target	Azimuth	Origin	N/S	E/W	From TVD
Chevron 6-22D BHL	87.66	Slot	0.0	0.0	0.0

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Project:</b>	Garfield County	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site:</b>	Sec 6 T6S R96W (F06 696)	<b>North Reference:</b>	True
<b>Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #3		

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

Site		Sec 6 T6S R96W (F06 696)			
Site Position:		Northing:	1,638,592.01 ft	Latitude:	39.556729
From:	Lat/Long	Easting:	2,252,075.57 ft	Longitude:	-108.153012
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.67 °

Well		Chevron 6-22D				
Well Position	+N/-S	0.0 ft	Northing:	1,638,602.16 ft	Latitude:	39.556754
	+E/-W	0.0 ft	Easting:	2,252,039.48 ft	Longitude:	-108.153141
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,222.0 ft

<b>Wellbore</b>	DD				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	12/2/2009	10.60	65.81	52,427

<b>Design</b>	Plan #3			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	87.66

<b>Plan Sections</b>										
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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,297.3	5.95	82.90	1,296.7	1.9	15.3	2.00	2.00	0.00	82.90	
3,163.8	5.95	82.90	3,153.3	25.8	207.2	0.00	0.00	0.00	0.00	
3,461.1	0.00	0.00	3,450.0	27.7	222.5	2.00	-2.00	0.00	180.00	Chevron 6-22D TGT
3,601.7	0.35	239.97	3,590.6	27.5	222.1	0.25	0.25	-85.39	239.97	
10,060.2	0.35	239.97	10,049.0	7.7	187.8	0.00	0.00	0.00	0.00	Chevron 6-22D BHL

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Project:</b>	Garfield County	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site:</b>	Sec 6 T6S R96W (F06 696)	<b>North Reference:</b>	True
<b>Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #3		

### 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	
510.0	0.00	0.00	510.0	0.0	0.0	0.0	0.00	0.00	
540.0	0.00	0.00	540.0	0.0	0.0	0.0	0.00	0.00	
570.0	0.00	0.00	570.0	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	
630.0	0.00	0.00	630.0	0.0	0.0	0.0	0.00	0.00	
660.0	0.00	0.00	660.0	0.0	0.0	0.0	0.00	0.00	
690.0	0.00	0.00	690.0	0.0	0.0	0.0	0.00	0.00	
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	
750.0	0.00	0.00	750.0	0.0	0.0	0.0	0.00	0.00	
780.0	0.00	0.00	780.0	0.0	0.0	0.0	0.00	0.00	
810.0	0.00	0.00	810.0	0.0	0.0	0.0	0.00	0.00	
840.0	0.00	0.00	840.0	0.0	0.0	0.0	0.00	0.00	
870.0	0.00	0.00	870.0	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	
930.0	0.00	0.00	930.0	0.0	0.0	0.0	0.00	0.00	
960.0	0.00	0.00	960.0	0.0	0.0	0.0	0.00	0.00	
990.0	0.00	0.00	990.0	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 @ 1000' MD
1,020.0	0.40	82.90	1,020.0	0.0	0.1	0.1	2.00	2.00	
1,050.0	1.00	82.90	1,050.0	0.1	0.4	0.4	2.00	2.00	
1,080.0	1.60	82.90	1,080.0	0.1	1.1	1.1	2.00	2.00	
1,110.0	2.20	82.90	1,110.0	0.3	2.1	2.1	2.00	2.00	
1,140.0	2.80	82.90	1,139.9	0.4	3.4	3.4	2.00	2.00	
1,170.0	3.40	82.90	1,169.9	0.6	5.0	5.0	2.00	2.00	
1,200.0	4.00	82.90	1,199.8	0.9	6.9	7.0	2.00	2.00	
1,230.0	4.60	82.90	1,229.8	1.1	9.2	9.2	2.00	2.00	
1,260.0	5.20	82.90	1,259.6	1.5	11.7	11.7	2.00	2.00	
1,290.0	5.80	82.90	1,289.5	1.8	14.6	14.6	2.00	2.00	
1,297.3	5.95	82.90	1,296.7	1.9	15.3	15.4	2.00	2.00	EOB; Inc=5.95°
1,320.0	5.95	82.90	1,319.3	2.2	17.6	17.7	0.00	0.00	
1,350.0	5.95	82.90	1,349.2	2.6	20.7	20.8	0.00	0.00	
1,380.0	5.95	82.90	1,379.0	3.0	23.8	23.9	0.00	0.00	
1,410.0	5.95	82.90	1,408.9	3.3	26.9	27.0	0.00	0.00	
1,440.0	5.95	82.90	1,438.7	3.7	30.0	30.1	0.00	0.00	
1,470.0	5.95	82.90	1,468.5	4.1	33.0	33.2	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Project:</b>	Garfield County	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site:</b>	Sec 6 T6S R96W (F06 696)	<b>North Reference:</b>	True
<b>Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #3		

### 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	5.95	82.90	1,498.4	4.5	36.1	36.3	0.00	0.00	
1,530.0	5.95	82.90	1,528.2	4.9	39.2	39.4	0.00	0.00	
1,560.0	5.95	82.90	1,558.1	5.3	42.3	42.5	0.00	0.00	
1,590.0	5.95	82.90	1,587.9	5.7	45.4	45.6	0.00	0.00	
1,620.0	5.95	82.90	1,617.7	6.0	48.5	48.7	0.00	0.00	
1,650.0	5.95	82.90	1,647.6	6.4	51.5	51.8	0.00	0.00	
1,680.0	5.95	82.90	1,677.4	6.8	54.6	54.9	0.00	0.00	
1,710.0	5.95	82.90	1,707.2	7.2	57.7	58.0	0.00	0.00	
1,740.0	5.95	82.90	1,737.1	7.6	60.8	61.1	0.00	0.00	
1,770.0	5.95	82.90	1,766.9	8.0	63.9	64.2	0.00	0.00	
1,800.0	5.95	82.90	1,796.8	8.3	67.0	67.3	0.00	0.00	
1,830.0	5.95	82.90	1,826.6	8.7	70.1	70.3	0.00	0.00	
1,860.0	5.95	82.90	1,856.4	9.1	73.1	73.4	0.00	0.00	
1,890.0	5.95	82.90	1,886.3	9.5	76.2	76.5	0.00	0.00	
1,920.0	5.95	82.90	1,916.1	9.9	79.3	79.6	0.00	0.00	
1,950.0	5.95	82.90	1,946.0	10.3	82.4	82.7	0.00	0.00	
1,980.0	5.95	82.90	1,975.8	10.6	85.5	85.8	0.00	0.00	
2,010.0	5.95	82.90	2,005.6	11.0	88.6	88.9	0.00	0.00	
2,040.0	5.95	82.90	2,035.5	11.4	91.6	92.0	0.00	0.00	
2,070.0	5.95	82.90	2,065.3	11.8	94.7	95.1	0.00	0.00	
2,100.0	5.95	82.90	2,095.1	12.2	97.8	98.2	0.00	0.00	
2,130.0	5.95	82.90	2,125.0	12.6	100.9	101.3	0.00	0.00	
2,160.0	5.95	82.90	2,154.8	12.9	104.0	104.4	0.00	0.00	
2,190.0	5.95	82.90	2,184.7	13.3	107.1	107.5	0.00	0.00	
2,220.0	5.95	82.90	2,214.5	13.7	110.1	110.6	0.00	0.00	
2,250.0	5.95	82.90	2,244.3	14.1	113.2	113.7	0.00	0.00	
2,280.0	5.95	82.90	2,274.2	14.5	116.3	116.8	0.00	0.00	
2,310.0	5.95	82.90	2,304.0	14.9	119.4	119.9	0.00	0.00	
2,340.0	5.95	82.90	2,333.9	15.3	122.5	123.0	0.00	0.00	
2,370.0	5.95	82.90	2,363.7	15.6	125.6	126.1	0.00	0.00	
2,400.0	5.95	82.90	2,393.5	16.0	128.6	129.2	0.00	0.00	
2,430.0	5.95	82.90	2,423.4	16.4	131.7	132.3	0.00	0.00	
2,460.0	5.95	82.90	2,453.2	16.8	134.8	135.4	0.00	0.00	
2,490.0	5.95	82.90	2,483.1	17.2	137.9	138.5	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
- hit/miss target									
- Shape									
Chevron 6-22D TGT	0.00	0.00	3,450.0	27.7	222.5	1,638,623.36	2,252,262.64	39.556830	-108.152352
- plan misses target center by 970.7ft at 2490.0ft MD (2483.1 TVD, 17.2 N, 137.9 E)									
- Point									
Chevron 6-22D BHL	0.00	0.00	10,049.0	7.7	187.8	1,638,604.33	2,252,227.41	39.556775	-108.152475
- plan misses target center by 7566.1ft at 2490.0ft MD (2483.1 TVD, 17.2 N, 137.9 E)									
- Rectangle (sides W50.0 H100.0 D0.0)									

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Project:</b>	Garfield County	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site:</b>	Sec 6 T6S R96W (F06 696)	<b>North Reference:</b>	True
<b>Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #3		

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	5.95	82.90	2,493.0	17.3	138.9	139.5	0.00	0.00	
2,600.0	5.95	82.90	2,592.5	18.6	149.2	149.8	0.00	0.00	
2,700.0	5.95	82.90	2,691.9	19.9	159.5	160.2	0.00	0.00	
2,800.0	5.95	82.90	2,791.4	21.1	169.8	170.5	0.00	0.00	
2,900.0	5.95	82.90	2,890.8	22.4	180.0	180.8	0.00	0.00	
3,000.0	5.95	82.90	2,990.3	23.7	190.3	191.1	0.00	0.00	
3,100.0	5.95	82.90	3,089.8	25.0	200.6	201.4	0.00	0.00	
3,163.8	5.95	82.90	3,153.3	25.8	207.2	208.0	0.00	0.00	Start Drop -2.00
3,200.0	5.22	82.90	3,189.3	26.2	210.7	211.5	2.00	-2.00	
3,239.9	4.42	82.90	3,229.0	26.6	214.0	214.9	2.00	-2.00	Wasatch
3,300.0	3.22	82.90	3,289.0	27.1	218.0	218.9	2.00	-2.00	
3,400.0	1.22	82.90	3,388.9	27.6	221.8	222.7	2.00	-2.00	
3,461.1	0.00	0.00	3,450.0	27.7	222.5	223.4	2.00	-2.00	EOD; Inc=0° - Chevron 6-22D TGT
3,500.0	0.10	239.97	3,488.9	27.7	222.4	223.4	0.25	0.25	
3,600.0	0.35	239.97	3,588.9	27.5	222.1	223.0	0.25	0.25	
3,601.7	0.35	239.97	3,590.6	27.5	222.1	223.0	0.25	0.25	
3,700.0	0.35	239.97	3,688.9	27.2	221.6	222.5	0.00	0.00	
3,800.0	0.35	239.97	3,788.9	26.9	221.0	221.9	0.00	0.00	
3,900.0	0.35	239.97	3,888.9	26.6	220.5	221.4	0.00	0.00	
4,000.0	0.35	239.97	3,988.9	26.3	220.0	220.8	0.00	0.00	
4,100.0	0.35	239.97	4,088.9	26.0	219.4	220.3	0.00	0.00	
4,200.0	0.35	239.97	4,188.9	25.6	218.9	219.8	0.00	0.00	
4,300.0	0.35	239.97	4,288.9	25.3	218.4	219.2	0.00	0.00	
4,400.0	0.35	239.97	4,388.9	25.0	217.8	218.7	0.00	0.00	
4,500.0	0.35	239.97	4,488.9	24.7	217.3	218.1	0.00	0.00	
4,600.0	0.35	239.97	4,588.9	24.4	216.8	217.6	0.00	0.00	
4,700.0	0.35	239.97	4,688.9	24.1	216.2	217.0	0.00	0.00	
4,800.0	0.35	239.97	4,788.9	23.8	215.7	216.5	0.00	0.00	
4,900.0	0.35	239.97	4,888.9	23.5	215.2	216.0	0.00	0.00	
5,000.0	0.35	239.97	4,988.9	23.2	214.7	215.4	0.00	0.00	
5,100.0	0.35	239.97	5,088.9	22.9	214.1	214.9	0.00	0.00	
5,180.1	0.35	239.97	5,169.0	22.6	213.7	214.4	0.00	0.00	Fort Union
5,200.0	0.35	239.97	5,188.9	22.6	213.6	214.3	0.00	0.00	
5,300.0	0.35	239.97	5,288.9	22.3	213.1	213.8	0.00	0.00	
5,400.0	0.35	239.97	5,388.9	22.0	212.5	213.2	0.00	0.00	
5,500.0	0.35	239.97	5,488.9	21.7	212.0	212.7	0.00	0.00	
5,600.0	0.35	239.97	5,588.9	21.4	211.5	212.2	0.00	0.00	
5,680.1	0.35	239.97	5,669.0	21.1	211.0	211.7	0.00	0.00	Base Ft Union
5,700.0	0.35	239.97	5,688.9	21.0	210.9	211.6	0.00	0.00	
5,800.0	0.35	239.97	5,788.9	20.7	210.4	211.1	0.00	0.00	
5,900.0	0.35	239.97	5,888.8	20.4	209.9	210.5	0.00	0.00	
6,000.0	0.35	239.97	5,988.8	20.1	209.3	210.0	0.00	0.00	
6,100.0	0.35	239.97	6,088.8	19.8	208.8	209.4	0.00	0.00	
6,200.0	0.35	239.97	6,188.8	19.5	208.3	208.9	0.00	0.00	
6,300.0	0.35	239.97	6,288.8	19.2	207.7	208.4	0.00	0.00	
6,400.0	0.35	239.97	6,388.8	18.9	207.2	207.8	0.00	0.00	
6,500.0	0.35	239.97	6,488.8	18.6	206.7	207.3	0.00	0.00	
6,600.0	0.35	239.97	6,588.8	18.3	206.2	206.7	0.00	0.00	
6,700.0	0.35	239.97	6,688.8	18.0	205.6	206.2	0.00	0.00	
6,800.0	0.35	239.97	6,788.8	17.7	205.1	205.6	0.00	0.00	
6,900.0	0.35	239.97	6,888.8	17.4	204.6	205.1	0.00	0.00	
6,910.2	0.35	239.97	6,899.0	17.3	204.5	205.0	0.00	0.00	Ohio Creek

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Project:</b>	Garfield County	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site:</b>	Sec 6 T6S R96W (F06 696)	<b>North Reference:</b>	True
<b>Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #3		

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
7,000.0	0.35	239.97	6,988.8	17.1	204.0	204.6	0.00	0.00	
7,100.0	0.35	239.97	7,088.8	16.7	203.5	204.0	0.00	0.00	
7,110.2	0.35	239.97	7,099.0	16.7	203.4	204.0	0.00	0.00	Williams Fork
7,200.0	0.35	239.97	7,188.8	16.4	203.0	203.5	0.00	0.00	
7,300.0	0.35	239.97	7,288.8	16.1	202.4	202.9	0.00	0.00	
7,310.2	0.35	239.97	7,299.0	16.1	202.4	202.9	0.00	0.00	TOG
7,400.0	0.35	239.97	7,388.8	15.8	201.9	202.4	0.00	0.00	
7,500.0	0.35	239.97	7,488.8	15.5	201.4	201.8	0.00	0.00	
7,600.0	0.35	239.97	7,588.8	15.2	200.8	201.3	0.00	0.00	
7,700.0	0.35	239.97	7,688.8	14.9	200.3	200.8	0.00	0.00	
7,800.0	0.35	239.97	7,788.8	14.6	199.8	200.2	0.00	0.00	
7,900.0	0.35	239.97	7,888.8	14.3	199.3	199.7	0.00	0.00	
8,000.0	0.35	239.97	7,988.8	14.0	198.7	199.1	0.00	0.00	
8,100.0	0.35	239.97	8,088.8	13.7	198.2	198.6	0.00	0.00	
8,200.0	0.35	239.97	8,188.8	13.4	197.7	198.0	0.00	0.00	
8,300.0	0.35	239.97	8,288.8	13.1	197.1	197.5	0.00	0.00	
8,400.0	0.35	239.97	8,388.8	12.8	196.6	197.0	0.00	0.00	
8,500.0	0.35	239.97	8,488.8	12.4	196.1	196.4	0.00	0.00	
8,600.0	0.35	239.97	8,588.8	12.1	195.5	195.9	0.00	0.00	
8,700.0	0.35	239.97	8,688.8	11.8	195.0	195.3	0.00	0.00	
8,800.0	0.35	239.97	8,788.8	11.5	194.5	194.8	0.00	0.00	
8,900.0	0.35	239.97	8,888.8	11.2	193.9	194.2	0.00	0.00	
9,000.0	0.35	239.97	8,988.8	10.9	193.4	193.7	0.00	0.00	
9,100.0	0.35	239.97	9,088.8	10.6	192.9	193.2	0.00	0.00	
9,200.0	0.35	239.97	9,188.8	10.3	192.4	192.6	0.00	0.00	
9,300.0	0.35	239.97	9,288.8	10.0	191.8	192.1	0.00	0.00	
9,400.0	0.35	239.97	9,388.8	9.7	191.3	191.5	0.00	0.00	
9,460.2	0.35	239.97	9,449.0	9.5	191.0	191.2	0.00	0.00	Cameo
9,500.0	0.35	239.97	9,488.8	9.4	190.8	191.0	0.00	0.00	
9,600.0	0.35	239.97	9,588.8	9.1	190.2	190.4	0.00	0.00	
9,700.0	0.35	239.97	9,688.8	8.8	189.7	189.9	0.00	0.00	
9,800.0	0.35	239.97	9,788.8	8.5	189.2	189.4	0.00	0.00	
9,900.0	0.35	239.97	9,888.8	8.2	188.6	188.8	0.00	0.00	
9,910.2	0.35	239.97	9,899.0	8.1	188.6	188.8	0.00	0.00	Rollins
10,000.0	0.35	239.97	9,988.8	7.8	188.1	188.3	0.00	0.00	
10,060.2	0.35	239.97	10,049.0	7.7	187.8	187.9	0.00	0.00	TD at 10060.2 - Chevron 6-22D BHL

Targets									
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	
- Shape									Latitude Longitude
Chevron 6-22D TGT		0.00	0.00	3,450.0	27.7	222.5	1,638,623.36	2,252,262.64	39.556830 -108.152352
- plan hits target center									
- Point									
Chevron 6-22D BHL		0.00	0.00	10,049.0	7.7	187.8	1,638,604.33	2,252,227.41	39.556775 -108.152475
- plan hits target center									
- Rectangle (sides W50.0 H100.0 D0.0)									

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Project:</b>	Garfield County	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site:</b>	Sec 6 T6S R96W (F06 696)	<b>North Reference:</b>	True
<b>Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #3		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,239.9	3,229.0	Wasatch		0.00		
5,180.1	5,169.0	Fort Union		0.00		
5,680.1	5,669.0	Base Ft Union		0.00		
6,910.2	6,899.0	Ohio Creek		0.00		
7,110.2	7,099.0	Williams Fork		0.00		
7,310.2	7,299.0	TOG		0.00		
9,460.2	9,449.0	Cameo		0.00		
9,910.2	9,899.0	Rollins		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,000.0	1,000.0	0.0	0.0	KOP @ 1000' MD	
1,297.3	1,296.7	1.9	15.3	EOB; Inc=5.95°	
3,163.8	3,153.3	25.8	207.2	Start Drop -2.00	
3,461.1	3,450.0	27.7	222.5	EOD; Inc=0°	
10,060.2	10,049.0	27.5	222.1	TD at 10060.2	

# **Berry Petroleum Company (NAD 83)**

**Garfield County**

**Sec 6 T6S R96W (F06 696)**

**Chevron 6-22D**

**DD**

**Plan #3**

## **Anticollision Report**

**17 November, 2010**

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #3		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD Interval 100.0ft	<b>Error Model:</b>	Systematic Ellipse
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 1,221.6ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>		<b>Date</b>	11/17/2010		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
0.0	10,060.2	Plan #3 (DD)	MWD	Geolink MWD	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

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						
Chevron C06 696 (NWNW S6-T6S-R96W)						
Chevron 6-24D - DD - Plan #1	7,444.2	7,471.4	582.1	555.1	21.570	CC
Chevron 6-24D - DD - Plan #1	10,060.2	10,085.5	590.4	554.4	16.426	ES, SF
Sec 6 T6S R96W (F06 696)						
Chevron 6-19D - DD - Plan #2	200.0	200.0	30.2	29.6	48.580	CC, ES
Chevron 6-19D - DD - Plan #2	10,060.2	10,061.3	654.4	618.7	18.328	SF
Chevron 6-20D - DD - Plan #2	500.0	500.0	15.2	13.5	9.085	CC, ES
Chevron 6-20D - DD - Plan #2	700.0	699.5	17.6	15.2	7.439	SF
Chevron 6-21D - DD - Plan #2	200.0	200.0	45.2	44.6	72.768	CC, ES
Chevron 6-21D - DD - Plan #2	10,060.2	10,082.1	1,012.5	976.7	28.332	SF
Chevron 6-23D - DD - Plan #2	200.0	200.0	28.8	28.2	46.423	CC, ES
Chevron 6-23D - DD - Plan #2	10,060.2	10,065.4	279.6	244.1	7.865	SF
Chevron 6-25D - DD - DD	0.0	0.0	13.8			
Chevron 6-25D - DD - DD	400.0	398.2	25.5	24.1	18.637	SF
Chevron 6-32D - DD - Plan #2	200.0	200.0	150.1	149.5	241.549	CC, ES
Chevron 6-32D - DD - Plan #2	1,000.0	949.4	253.4	249.2	60.441	SF
Chevron 6-33D - DD - Plan #2	300.0	300.0	135.2	134.3	139.346	CC, ES
Chevron 6-33D - DD - Plan #2	1,000.0	963.3	213.4	209.4	54.327	SF
Chevron 6-34D - DD - Plan #2	500.0	500.0	120.2	118.5	72.035	CC, ES
Chevron 6-34D - DD - Plan #2	1,000.0	977.2	159.0	155.4	44.539	SF
Chevron 6-35D - DD - Plan #2	300.0	300.0	105.2	104.2	108.370	CC, ES
Chevron 6-35D - DD - Plan #2	1,000.0	979.2	169.2	165.3	43.719	SF
Chevron 6-36D - DD - Plan #2	200.0	200.0	90.1	89.5	145.064	CC, ES
Chevron 6-36D - DD - Plan #2	1,000.0	984.1	158.0	153.9	39.435	SF
Chevron 6-37D - DD - Plan #2	300.0	300.0	75.1	74.1	77.395	CC, ES
Chevron 6-37D - DD - Plan #2	1,000.0	987.8	123.0	119.2	31.970	SF
Chevron 6-38D - DD - Plan #1	200.0	200.0	60.2	59.6	96.956	CC
Chevron 6-38D - DD - Plan #1	300.0	299.9	60.3	59.3	62.139	ES
Chevron 6-38D - DD - Plan #1	1,000.0	989.3	115.9	111.9	28.353	SF
Chevron 6-38D - DD - Plan #2	200.0	200.0	60.2	59.6	96.956	CC
Chevron 6-38D - DD - Plan #2	300.0	299.9	60.3	59.3	62.139	ES
Chevron 6-38D - DD - Plan #2	1,000.0	989.3	115.9	111.9	28.353	SF
Section 6 T6S R96W						
Chevron 6-25D - DD - Plan #1	10,060.2	10,039.8	920.1	884.8	26.083	CC, ES, SF
Chevron 6-26D - DD - Plan #1	6,646.9	6,628.0	947.0	921.6	37.312	CC, ES
Chevron 6-26D - DD - Plan #1	9,900.0	9,771.8	1,214.5	1,179.1	34.328	SF

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Chevron C06 696 (NWNW S6-T6S-R96W) - Chevron 6-24D - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-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		
4,000.0	3,988.9	4,211.3	4,136.2	8.0	15.1	114.50	1,200.7	104.9	1,205.7	1,190.4	15.28	78.889		
4,100.0	4,088.9	4,309.3	4,232.0	8.1	15.4	114.60	1,180.8	108.2	1,185.4	1,169.8	15.61	75.962		
4,200.0	4,188.9	4,407.2	4,327.8	8.3	15.8	114.70	1,161.0	111.5	1,165.1	1,149.2	15.93	73.148		
4,300.0	4,288.9	4,505.1	4,423.7	8.4	16.2	114.80	1,141.1	114.9	1,144.9	1,128.6	16.25	70.439		
4,400.0	4,388.9	4,603.0	4,519.5	8.6	16.6	114.91	1,121.3	118.2	1,124.6	1,108.1	16.58	67.832		
4,500.0	4,488.9	4,700.9	4,615.3	8.7	17.0	115.02	1,101.4	121.6	1,104.4	1,087.5	16.91	65.321		
4,600.0	4,588.9	4,798.8	4,711.1	8.9	17.4	115.13	1,081.6	124.9	1,084.1	1,066.9	17.24	62.900		
4,700.0	4,688.9	4,896.7	4,806.9	9.0	17.8	115.25	1,061.7	128.3	1,063.9	1,046.3	17.57	60.565		
4,800.0	4,788.9	4,994.6	4,902.7	9.2	18.2	115.38	1,041.9	131.6	1,043.7	1,025.8	17.90	58.313		
4,900.0	4,888.9	5,092.5	4,998.5	9.3	18.6	115.50	1,022.0	134.9	1,023.4	1,005.2	18.23	56.139		
5,000.0	4,988.9	5,190.4	5,094.4	9.5	19.0	115.64	1,002.2	138.3	1,003.2	984.6	18.56	54.039		
5,100.0	5,088.9	5,288.3	5,190.2	9.6	19.3	115.78	982.3	141.6	983.0	964.1	18.90	52.009		
5,200.0	5,188.9	5,386.2	5,286.0	9.8	19.7	115.92	962.5	145.0	962.8	943.5	19.24	50.047		
5,300.0	5,288.9	5,484.1	5,381.8	10.0	20.1	116.07	942.6	148.3	942.6	923.0	19.58	48.150		
5,400.0	5,388.9	5,582.0	5,477.6	10.1	20.5	116.23	922.7	151.7	922.4	902.4	19.92	46.313		
5,500.0	5,488.9	5,679.9	5,573.4	10.3	20.9	116.40	902.9	155.0	902.2	881.9	20.26	44.535		
5,600.0	5,588.9	5,777.8	5,669.2	10.4	21.3	116.57	883.0	158.3	882.0	861.4	20.60	42.813		
5,700.0	5,688.9	5,875.7	5,765.1	10.6	21.7	116.75	863.2	161.7	861.8	840.8	20.95	41.144		
5,800.0	5,788.9	5,973.6	5,860.9	10.7	22.1	116.94	843.3	165.0	841.6	820.3	21.29	39.527		
5,900.0	5,888.8	6,071.6	5,956.7	10.9	22.5	117.14	823.5	168.4	821.5	799.8	21.64	37.958		
6,000.0	5,988.8	6,169.5	6,052.5	11.1	22.9	117.35	803.6	171.7	801.3	779.3	21.99	36.435		
6,100.0	6,088.8	6,267.4	6,148.3	11.2	23.3	117.57	783.8	175.1	781.2	758.8	22.35	34.957		
6,200.0	6,188.8	6,365.3	6,244.1	11.4	23.6	117.80	763.9	178.4	761.0	738.3	22.70	33.522		
6,300.0	6,288.8	6,463.2	6,339.9	11.6	24.0	118.04	744.1	181.7	740.9	717.9	23.06	32.128		
6,400.0	6,388.8	6,561.1	6,435.7	11.7	24.4	118.30	724.2	185.1	720.8	697.4	23.42	30.774		
6,500.0	6,488.8	6,659.0	6,531.6	11.9	24.8	118.57	704.4	188.4	700.7	676.9	23.79	29.457		
6,600.0	6,588.8	6,756.9	6,627.4	12.0	25.2	118.86	684.5	191.8	680.7	656.5	24.16	28.176		
6,700.0	6,688.8	6,854.8	6,723.2	12.2	25.6	119.17	664.7	195.1	660.6	636.1	24.53	26.930		
6,800.0	6,788.8	6,940.9	6,807.5	12.4	25.9	119.44	647.7	198.0	641.2	616.3	24.88	25.771		
6,900.0	6,888.8	7,021.7	6,887.2	12.5	26.2	119.69	633.9	200.3	624.3	599.1	25.22	24.759		
7,000.0	6,988.8	7,100.0	6,964.6	12.7	26.4	119.90	622.6	202.2	610.3	584.8	25.54	23.892		
7,100.0	7,088.8	7,185.6	7,049.5	12.9	26.6	120.10	612.7	203.9	599.0	573.2	25.88	23.145		
7,200.0	7,188.8	7,268.3	7,131.9	13.0	26.8	120.26	605.5	205.1	590.6	564.4	26.21	22.535		
7,300.0	7,288.8	7,351.3	7,214.8	13.2	26.9	120.39	600.6	205.9	585.1	558.5	26.53	22.051		
7,400.0	7,388.8	7,434.6	7,298.0	13.4	27.0	120.47	598.1	206.3	582.4	555.5	26.85	21.691		
7,444.2	7,433.0	7,471.4	7,334.9	13.4	27.0	120.50	597.8	206.4	582.1	555.1	26.99	21.570 CC		
7,500.0	7,488.8	7,525.4	7,388.8	13.5	27.0	120.53	597.7	206.4	582.2	555.1	27.17	21.427		
7,600.0	7,588.8	7,625.4	7,488.8	13.7	27.1	120.58	597.7	206.4	582.6	555.0	27.51	21.174		
7,700.0	7,688.8	7,725.3	7,588.8	13.9	27.2	120.63	597.7	206.4	582.9	555.0	27.85	20.926		
7,800.0	7,788.8	7,825.3	7,688.8	14.0	27.3	120.68	597.7	206.4	583.2	555.0	28.19	20.685		
7,900.0	7,888.8	7,925.3	7,788.8	14.2	27.4	120.73	597.7	206.4	583.5	555.0	28.53	20.449		
8,000.0	7,988.8	8,025.3	7,888.8	14.4	27.5	120.79	597.7	206.4	583.8	554.9	28.88	20.218		
8,100.0	8,088.8	8,125.3	7,988.8	14.5	27.6	120.84	597.7	206.4	584.1	554.9	29.22	19.993		
8,200.0	8,188.8	8,225.3	8,088.8	14.7	27.7	120.89	597.7	206.4	584.4	554.9	29.56	19.772		
8,300.0	8,288.8	8,325.3	8,188.8	14.9	27.7	120.94	597.7	206.4	584.8	554.9	29.90	19.557		
8,400.0	8,388.8	8,425.3	8,288.8	15.0	27.8	120.99	597.7	206.4	585.1	554.8	30.24	19.346		
8,500.0	8,488.8	8,525.3	8,388.8	15.2	27.9	121.04	597.7	206.4	585.4	554.8	30.58	19.140		
8,600.0	8,588.8	8,625.3	8,488.8	15.4	28.0	121.09	597.7	206.4	585.7	554.8	30.93	18.939		
8,700.0	8,688.8	8,725.3	8,588.8	15.5	28.1	121.15	597.7	206.4	586.0	554.7	31.27	18.742		
8,800.0	8,788.8	8,825.3	8,688.8	15.7	28.2	121.20	597.7	206.4	586.3	554.7	31.61	18.549		
8,900.0	8,888.8	8,925.3	8,788.8	15.9	28.3	121.25	597.7	206.4	586.7	554.7	31.95	18.360		
9,000.0	8,988.8	9,025.3	8,888.8	16.0	28.4	121.30	597.7	206.4	587.0	554.7	32.30	18.175		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Chevron C06 696 (NWNW S6-T6S-R96W) - Chevron 6-24D - 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			
9,100.0	9,088.8	9,125.3	8,988.8	16.2	28.5	121.35	597.7	206.4	587.3	554.6	32.64	17.993			
9,200.0	9,188.8	9,225.3	9,088.8	16.4	28.6	121.40	597.7	206.4	587.6	554.6	32.98	17.816			
9,300.0	9,288.8	9,325.3	9,188.8	16.5	28.7	121.45	597.7	206.4	587.9	554.6	33.33	17.642			
9,400.0	9,388.8	9,425.3	9,288.8	16.7	28.8	121.50	597.7	206.4	588.2	554.6	33.67	17.471			
9,500.0	9,488.8	9,525.3	9,388.8	16.9	28.9	121.55	597.7	206.4	588.6	554.6	34.01	17.304			
9,600.0	9,588.8	9,625.3	9,488.8	17.1	29.0	121.61	597.7	206.4	588.9	554.5	34.36	17.140			
9,700.0	9,688.8	9,725.3	9,588.8	17.2	29.1	121.66	597.7	206.4	589.2	554.5	34.70	16.980			
9,800.0	9,788.8	9,825.3	9,688.8	17.4	29.2	121.71	597.7	206.4	589.5	554.5	35.04	16.822			
9,900.0	9,888.8	9,925.3	9,788.8	17.6	29.3	121.76	597.7	206.4	589.9	554.5	35.39	16.668			
10,000.0	9,988.8	10,025.3	9,888.8	17.7	29.4	121.81	597.7	206.4	590.2	554.4	35.73	16.516			
10,060.2	10,049.0	10,085.5	9,949.0	17.8	29.5	121.84	597.7	206.4	590.4	554.4	35.94	16.426 ES, SF			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design      Sec 6 T6S R96W (F06 696) - Chevron 6-19D - DD - Plan #2														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	-143.95	-24.4	-17.8	30.2						
100.0	100.0	100.0	100.0	0.1	0.1	-143.95	-24.4	-17.8	30.2	29.9	0.27	110.863			
200.0	200.0	200.0	200.0	0.3	0.3	-143.95	-24.4	-17.8	30.2	29.6	0.62	48.580 CC, ES			
300.0	300.0	299.4	299.4	0.5	0.5	-146.69	-26.0	-17.1	31.1	30.1	0.97	32.060			
400.0	400.0	398.6	398.5	0.7	0.7	-153.92	-30.7	-15.0	34.2	32.9	1.32	25.847			
500.0	500.0	497.6	497.0	0.8	0.9	-163.13	-38.5	-11.7	40.3	38.6	1.70	23.773			
600.0	600.0	597.1	596.1	1.0	1.1	-170.52	-47.3	-7.9	48.1	46.0	2.09	23.037			
700.0	700.0	696.6	695.2	1.2	1.4	-175.81	-56.0	-4.1	56.4	53.9	2.49	22.673			
800.0	800.0	796.2	794.3	1.4	1.6	-179.72	-64.8	-0.3	65.0	62.2	2.89	22.488			
900.0	900.0	895.7	893.4	1.5	1.8	177.30	-73.6	3.5	73.9	70.6	3.30	22.397			
1,000.0	1,000.0	995.3	992.4	1.7	2.1	174.96	-82.3	7.3	83.0	79.3	3.71	22.355			
1,100.0	1,100.0	1,094.8	1,091.5	1.9	2.3	91.09	-91.1	11.0	92.2	88.4	3.80	24.278			
1,200.0	1,199.8	1,194.4	1,190.6	2.1	2.5	92.24	-99.8	14.8	101.4	97.3	4.16	24.361			
1,300.0	1,299.5	1,293.8	1,289.6	2.3	2.8	94.97	-108.6	18.6	111.0	106.5	4.56	24.355			
1,400.0	1,398.9	1,393.0	1,388.4	2.5	3.0	98.19	-117.3	22.4	121.1	116.1	4.97	24.345			
1,500.0	1,498.4	1,492.3	1,487.2	2.7	3.3	100.91	-126.1	26.2	131.4	126.0	5.40	24.352			
1,600.0	1,597.8	1,591.6	1,586.0	2.9	3.5	103.23	-134.8	29.9	142.1	136.2	5.83	24.373			
1,700.0	1,697.3	1,690.9	1,684.9	3.1	3.7	105.22	-143.6	33.7	152.9	146.6	6.26	24.403			
1,800.0	1,796.8	1,790.2	1,783.7	3.4	4.0	106.95	-152.3	37.5	163.9	157.1	6.70	24.442			
1,900.0	1,896.2	1,889.4	1,882.5	3.6	4.2	108.47	-161.0	41.3	175.0	167.8	7.15	24.486			
2,000.0	1,995.7	1,988.7	1,981.3	3.8	4.5	109.80	-169.8	45.0	186.2	178.6	7.59	24.534			
2,100.0	2,095.1	2,088.0	2,080.2	4.1	4.7	110.98	-178.5	48.8	197.5	189.4	8.03	24.584			
2,200.0	2,194.6	2,187.3	2,179.0	4.3	4.9	112.03	-187.3	52.6	208.8	200.4	8.48	24.636			
2,300.0	2,294.1	2,286.6	2,277.8	4.5	5.2	112.97	-196.0	56.4	220.3	211.4	8.92	24.688			
2,400.0	2,393.5	2,385.9	2,376.6	4.8	5.4	113.82	-204.8	60.1	231.8	222.4	9.37	24.739			
2,500.0	2,493.0	2,485.1	2,475.4	5.0	5.7	114.59	-213.5	63.9	243.3	233.5	9.81	24.790			
2,600.0	2,592.5	2,584.4	2,574.3	5.3	5.9	115.29	-222.2	67.7	254.9	244.6	10.26	24.840			
2,700.0	2,691.9	2,683.7	2,673.1	5.5	6.1	115.93	-231.0	71.5	266.5	255.8	10.71	24.889			
2,800.0	2,791.4	2,783.0	2,771.9	5.7	6.4	116.52	-239.7	75.2	278.1	267.0	11.15	24.937			
2,900.0	2,890.8	2,882.3	2,870.7	6.0	6.6	117.06	-248.5	79.0	289.8	278.2	11.60	24.983			
3,000.0	2,990.3	2,981.5	2,969.6	6.2	6.9	117.55	-257.2	82.8	301.5	289.4	12.05	25.027			
3,100.0	3,089.8	3,080.8	3,068.4	6.5	7.1	118.01	-265.9	86.6	313.2	300.7	12.49	25.071			
3,200.0	3,189.3	3,180.1	3,167.2	6.7	7.3	118.48	-274.7	90.3	324.8	311.9	12.94	25.103			
3,300.0	3,289.0	3,279.6	3,266.2	6.9	7.6	118.60	-283.4	94.1	335.1	321.8	13.35	25.098			
3,400.0	3,388.9	3,379.2	3,365.3	7.1	7.8	118.19	-292.2	97.9	343.8	330.1	13.73	25.045			
3,500.0	3,488.9	3,478.7	3,464.4	7.2	8.1	-39.79	-301.0	101.7	351.0	336.9	14.07	24.944			
3,600.0	3,588.9	3,578.2	3,563.5	7.4	8.3	-40.88	-309.7	105.5	357.7	343.3	14.40	24.834			
3,700.0	3,688.9	3,677.8	3,662.6	7.5	8.5	-41.96	-318.5	109.3	364.4	349.7	14.73	24.731			
3,800.0	3,788.9	3,777.3	3,761.7	7.7	8.8	-43.00	-327.3	113.1	371.2	356.2	15.06	24.644			
3,900.0	3,888.9	3,876.9	3,860.8	7.8	9.0	-44.00	-336.0	116.8	378.2	362.8	15.39	24.571			
4,000.0	3,988.9	3,976.4	3,959.9	8.0	9.3	-44.96	-344.8	120.6	385.2	369.5	15.72	24.510			
4,100.0	4,088.9	4,076.0	4,058.9	8.1	9.5	-45.89	-353.6	124.4	392.4	376.3	16.04	24.460			
4,200.0	4,188.9	4,175.5	4,158.0	8.3	9.7	-46.79	-362.3	128.2	399.6	383.3	16.37	24.419			
4,300.0	4,288.9	4,275.1	4,257.1	8.4	10.0	-47.65	-371.1	132.0	407.0	390.3	16.69	24.386			
4,400.0	4,388.9	4,374.6	4,356.2	8.6	10.2	-48.49	-379.9	135.8	414.4	397.4	17.01	24.361			
4,500.0	4,488.9	4,474.1	4,455.3	8.7	10.5	-49.29	-388.6	139.6	421.9	404.6	17.33	24.342			
4,600.0	4,588.9	4,573.7	4,554.4	8.9	10.7	-50.07	-397.4	143.3	429.5	411.9	17.66	24.329			
4,700.0	4,688.9	4,673.2	4,653.5	9.0	10.9	-50.82	-406.1	147.1	437.2	419.2	17.98	24.321			
4,800.0	4,788.9	4,772.8	4,752.5	9.2	11.2	-51.54	-414.9	150.9	445.0	426.7	18.30	24.317			
4,900.0	4,888.9	4,872.3	4,851.6	9.3	11.4	-52.24	-423.7	154.7	452.8	434.2	18.62	24.318			
5,000.0	4,988.9	4,971.9	4,950.7	9.5	11.7	-52.92	-432.4	158.5	460.7	441.7	18.94	24.321			
5,100.0	5,088.9	5,071.4	5,049.8	9.6	11.9	-53.57	-441.2	162.3	468.6	449.3	19.26	24.328			

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design      Sec 6 T6S R96W (F06 696) - Chevron 6-19D - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program:    O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	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)				
5,200.0	5,188.9	5,170.9	5,148.9	9.8	12.1	-54.20	-450.0	166.1	476.6	457.0	19.58	24.337		
5,300.0	5,288.9	5,270.5	5,248.0	10.0	12.4	-54.81	-458.7	169.8	484.7	464.8	19.91	24.349		
5,400.0	5,388.9	5,370.0	5,347.0	10.1	12.6	-55.40	-467.5	173.6	492.8	472.6	20.23	24.363		
5,500.0	5,488.9	5,469.6	5,446.1	10.3	12.9	-55.97	-476.3	177.4	500.9	480.4	20.55	24.378		
5,600.0	5,588.9	5,569.1	5,545.2	10.4	13.1	-56.52	-485.0	181.2	509.2	488.3	20.87	24.395		
5,700.0	5,688.9	5,668.7	5,644.3	10.6	13.4	-57.06	-493.8	185.0	517.4	496.2	21.19	24.413		
5,800.0	5,788.9	5,768.2	5,743.4	10.7	13.6	-57.57	-502.6	188.8	525.7	504.2	21.52	24.432		
5,900.0	5,888.8	5,867.8	5,842.5	10.9	13.8	-58.08	-511.3	192.6	534.0	512.2	21.84	24.452		
6,000.0	5,988.8	5,967.3	5,941.6	11.1	14.1	-58.56	-520.1	196.3	542.4	520.3	22.16	24.473		
6,100.0	6,088.8	6,066.8	6,040.6	11.2	14.3	-59.03	-528.8	200.1	550.8	528.4	22.49	24.495		
6,200.0	6,188.8	6,166.4	6,139.7	11.4	14.6	-59.49	-537.6	203.9	559.3	536.5	22.81	24.517		
6,300.0	6,288.8	6,265.9	6,238.8	11.6	14.8	-59.94	-546.4	207.7	567.8	544.6	23.14	24.540		
6,400.0	6,388.8	6,365.5	6,337.9	11.7	15.0	-60.37	-555.1	211.5	576.3	552.8	23.46	24.563		
6,500.0	6,488.8	6,465.0	6,437.0	11.9	15.3	-60.78	-563.9	215.3	584.9	561.1	23.79	24.586		
6,600.0	6,588.8	6,564.6	6,536.1	12.0	15.5	-61.19	-572.7	219.1	593.4	569.3	24.11	24.610		
6,700.0	6,688.8	6,664.1	6,635.2	12.2	15.8	-61.59	-581.4	222.8	602.1	577.6	24.44	24.634		
6,800.0	6,788.8	6,763.7	6,734.2	12.4	16.0	-61.97	-590.2	226.6	610.7	585.9	24.77	24.657		
6,900.0	6,888.8	6,863.2	6,833.3	12.5	16.2	-62.34	-599.0	230.4	619.4	594.3	25.09	24.681		
7,000.0	6,988.8	6,962.7	6,932.4	12.7	16.5	-62.70	-607.7	234.2	628.0	602.6	25.42	24.705		
7,100.0	7,088.8	7,069.5	7,038.7	12.9	16.7	-63.08	-616.9	238.2	636.6	610.8	25.76	24.713		
7,200.0	7,188.8	7,195.8	7,164.7	13.0	17.0	-63.38	-624.1	241.3	642.1	616.0	26.13	24.576		
7,300.0	7,288.8	7,319.8	7,288.7	13.2	17.1	-63.51	-626.2	242.2	643.6	617.1	26.49	24.290		
7,400.0	7,388.8	7,418.6	7,387.5	13.4	17.3	-63.54	-626.3	242.0	643.4	616.6	26.82	23.988		
7,433.0	7,421.8	7,451.1	7,420.0	13.4	17.3	-63.54	-626.4	241.8	643.4	616.5	26.93	23.891		
7,500.0	7,488.8	7,517.3	7,486.2	13.5	17.4	-63.53	-626.7	241.4	643.4	616.3	27.15	23.700		
7,600.0	7,588.8	7,616.1	7,585.0	13.7	17.5	-63.49	-627.2	240.4	643.7	616.2	27.48	23.425		
7,700.0	7,688.8	7,715.5	7,684.3	13.9	17.7	-63.42	-628.0	239.1	644.1	616.2	27.81	23.161		
7,800.0	7,788.8	7,815.4	7,784.3	14.0	17.8	-63.34	-628.7	237.8	644.5	616.3	28.14	22.903		
7,900.0	7,888.8	7,915.4	7,884.3	14.2	17.9	-63.27	-629.5	236.4	644.9	616.4	28.47	22.651		
8,000.0	7,988.8	8,015.4	7,984.3	14.4	18.1	-63.20	-630.3	235.1	645.3	616.5	28.80	22.404		
8,100.0	8,088.8	8,115.4	8,084.3	14.5	18.2	-63.12	-631.1	233.7	645.7	616.6	29.14	22.162		
8,200.0	8,188.8	8,215.4	8,184.3	14.7	18.3	-63.05	-631.8	232.4	646.2	616.7	29.47	21.926		
8,300.0	8,288.8	8,315.4	8,284.2	14.9	18.5	-62.97	-632.6	231.0	646.6	616.8	29.80	21.694		
8,400.0	8,388.8	8,415.4	8,384.2	15.0	18.6	-62.90	-633.4	229.7	647.0	616.9	30.14	21.468		
8,500.0	8,488.8	8,515.4	8,484.2	15.2	18.8	-62.82	-634.2	228.3	647.4	617.0	30.47	21.246		
8,600.0	8,588.8	8,615.4	8,584.2	15.4	18.9	-62.75	-635.0	227.0	647.9	617.1	30.81	21.029		
8,700.0	8,688.8	8,715.4	8,684.2	15.5	19.0	-62.67	-635.7	225.7	648.3	617.2	31.14	20.817		
8,800.0	8,788.8	8,815.4	8,784.2	15.7	19.2	-62.60	-636.5	224.3	648.7	617.3	31.48	20.609		
8,900.0	8,888.8	8,915.4	8,884.1	15.9	19.3	-62.53	-637.3	223.0	649.2	617.4	31.81	20.405		
9,000.0	8,988.8	9,015.4	8,984.1	16.0	19.5	-62.45	-638.1	221.6	649.6	617.4	32.15	20.205		
9,100.0	9,088.8	9,115.4	9,084.1	16.2	19.6	-62.38	-638.8	220.3	650.0	617.5	32.49	20.009		
9,200.0	9,188.8	9,215.4	9,184.1	16.4	19.8	-62.31	-639.6	218.9	650.5	617.6	32.82	19.817		
9,300.0	9,288.8	9,315.4	9,284.1	16.5	19.9	-62.23	-640.4	217.6	650.9	617.7	33.16	19.629		
9,400.0	9,388.8	9,415.4	9,384.1	16.7	20.0	-62.16	-641.2	216.2	651.3	617.8	33.50	19.444		
9,500.0	9,488.8	9,515.4	9,484.1	16.9	20.2	-62.09	-641.9	214.9	651.8	617.9	33.83	19.263		
9,600.0	9,588.8	9,615.4	9,584.0	17.1	20.3	-62.01	-642.7	213.5	652.2	618.0	34.17	19.086		
9,700.0	9,688.8	9,715.4	9,684.0	17.2	20.5	-61.94	-643.5	212.2	652.7	618.1	34.51	18.912		
9,800.0	9,788.8	9,815.4	9,784.0	17.4	20.6	-61.87	-644.3	210.8	653.1	618.2	34.85	18.741		
9,900.0	9,888.8	9,915.4	9,884.0	17.6	20.8	-61.79	-645.0	209.5	653.5	618.4	35.19	18.573		
10,000.0	9,988.8	10,015.4	9,984.0	17.7	20.9	-61.72	-645.8	208.1	654.0	618.5	35.53	18.409		
10,060.2	10,049.0	10,061.3	10,030.0	17.8	21.0	-61.69	-646.2	207.5	654.4	618.7	35.71	18.328 SF		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Sec 6 T6S R96W (F06 696) - Chevron 6-20D - DD - Plan #2														Offset Site Error:	0.0 ft
Survey Program: O-MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance					Total Uncertainty Axis	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)					
0.0	0.0	0.0	0.0	0.0	0.0	-144.79	-12.4	-8.7	15.2						
100.0	100.0	100.0	100.0	0.1	0.1	-144.79	-12.4	-8.7	15.2	14.9	0.27	55.673			
200.0	200.0	200.0	200.0	0.3	0.3	-144.79	-12.4	-8.7	15.2	14.5	0.62	24.396			
300.0	300.0	300.0	300.0	0.5	0.5	-144.79	-12.4	-8.7	15.2	14.2	0.97	15.621			
400.0	400.0	400.0	400.0	0.7	0.7	-144.79	-12.4	-8.7	15.2	13.8	1.32	11.488			
500.0	500.0	500.0	500.0	0.8	0.8	-144.79	-12.4	-8.7	15.2	13.5	1.67	9.085 CC, ES			
600.0	600.0	599.9	599.9	1.0	1.0	-151.15	-13.6	-7.5	15.5	13.5	2.02	7.692			
700.0	700.0	699.5	699.4	1.2	1.2	-167.73	-17.2	-3.7	17.6	15.2	2.37	7.439 SF			
800.0	800.0	799.0	798.5	1.4	1.4	174.77	-22.8	2.1	23.0	20.2	2.73	8.407			
900.0	900.0	898.7	897.8	1.5	1.6	164.11	-28.7	8.2	29.9	26.8	3.11	9.618			
1,000.0	1,000.0	998.3	997.1	1.7	1.8	157.59	-34.5	14.2	37.5	34.0	3.49	10.726			
1,100.0	1,100.0	1,098.0	1,096.4	1.9	2.0	72.36	-40.4	20.3	44.8	41.0	3.78	11.850			
1,200.0	1,199.8	1,197.8	1,195.9	2.1	2.2	74.38	-46.3	26.4	51.1	47.0	4.15	12.331			
1,300.0	1,299.5	1,297.5	1,295.2	2.3	2.5	79.35	-52.1	32.5	56.8	52.3	4.54	12.505			
1,400.0	1,398.9	1,397.2	1,394.5	2.5	2.7	84.98	-58.0	38.6	62.7	57.7	4.96	12.633			
1,500.0	1,498.4	1,496.8	1,493.8	2.7	2.9	89.61	-63.8	44.6	69.0	63.6	5.39	12.803			
1,600.0	1,597.8	1,596.5	1,593.1	2.9	3.1	93.44	-69.7	50.7	75.7	69.9	5.83	12.994			
1,700.0	1,697.3	1,696.1	1,692.4	3.1	3.4	96.64	-75.6	56.8	82.8	76.5	6.27	13.191			
1,800.0	1,796.8	1,795.8	1,791.7	3.4	3.6	99.33	-81.4	62.9	90.0	83.3	6.72	13.387			
1,900.0	1,896.2	1,895.4	1,891.0	3.6	3.8	101.62	-87.3	68.9	97.4	90.2	7.17	13.579			
2,000.0	1,995.7	1,995.1	1,990.3	3.8	4.0	103.59	-93.1	75.0	104.9	97.3	7.62	13.762			
2,100.0	2,095.1	2,094.8	2,089.6	4.1	4.3	105.28	-99.0	81.1	112.5	104.5	8.08	13.937			
2,200.0	2,194.6	2,194.4	2,188.9	4.3	4.5	106.77	-104.8	87.2	120.3	111.7	8.53	14.102			
2,300.0	2,294.1	2,294.1	2,288.2	4.5	4.7	108.07	-110.7	93.2	128.1	119.1	8.98	14.259			
2,400.0	2,393.5	2,393.7	2,387.5	4.8	4.9	109.22	-116.6	99.3	135.9	126.5	9.43	14.406			
2,500.0	2,493.0	2,493.4	2,486.8	5.0	5.2	110.25	-122.4	105.4	143.8	133.9	9.89	14.544			
2,600.0	2,592.5	2,593.0	2,586.1	5.3	5.4	111.17	-128.3	111.5	151.7	141.4	10.34	14.674			
2,700.0	2,691.9	2,692.7	2,685.4	5.5	5.6	112.00	-134.1	117.6	159.7	148.9	10.79	14.797			
2,800.0	2,791.4	2,792.4	2,784.7	5.7	5.8	112.75	-140.0	123.6	167.7	156.5	11.25	14.913			
2,900.0	2,890.8	2,892.0	2,884.0	6.0	6.1	113.43	-145.8	129.7	175.8	164.1	11.70	15.021			
3,000.0	2,990.3	2,991.7	2,983.3	6.2	6.3	114.05	-151.7	135.8	183.8	171.7	12.15	15.124			
3,100.0	3,089.8	3,091.3	3,082.6	6.5	6.5	114.62	-157.6	141.9	191.9	179.3	12.61	15.221			
3,200.0	3,189.3	3,191.0	3,181.9	6.7	6.8	115.13	-163.4	147.9	199.9	186.8	13.06	15.307			
3,300.0	3,289.0	3,290.7	3,281.3	6.9	7.0	114.99	-169.3	154.0	206.7	193.2	13.48	15.339			
3,400.0	3,388.9	3,390.5	3,380.7	7.1	7.2	113.98	-175.1	160.1	212.1	198.2	13.86	15.303			
3,500.0	3,488.9	3,490.2	3,480.0	7.2	7.4	-44.88	-181.0	166.2	216.3	202.1	14.22	15.214			
3,600.0	3,588.9	3,589.8	3,579.3	7.4	7.7	-46.87	-186.9	172.3	220.3	205.7	14.56	15.124			
3,700.0	3,688.9	3,689.4	3,678.6	7.5	7.9	-48.83	-192.7	178.3	224.3	209.4	14.90	15.052			
3,800.0	3,788.9	3,789.1	3,777.8	7.7	8.1	-50.73	-198.6	184.4	228.7	213.4	15.24	15.006			
3,900.0	3,888.9	3,888.7	3,877.1	7.8	8.3	-52.55	-204.4	190.5	233.2	217.7	15.57	14.982			
4,000.0	3,988.9	3,988.3	3,976.4	8.0	8.6	-54.30	-210.3	196.5	238.0	222.1	15.89	14.977			
4,100.0	4,088.9	4,087.9	4,075.6	8.1	8.8	-55.98	-216.1	202.6	243.0	226.8	16.21	14.990			
4,200.0	4,188.9	4,187.6	4,174.9	8.3	9.0	-57.59	-222.0	208.7	248.2	231.7	16.53	15.017			
4,300.0	4,288.9	4,287.2	4,274.2	8.4	9.3	-59.14	-227.8	214.8	253.6	236.8	16.85	15.056			
4,400.0	4,388.9	4,386.8	4,373.4	8.6	9.5	-60.62	-233.7	220.8	259.2	242.1	17.16	15.106			
4,500.0	4,488.9	4,486.4	4,472.7	8.7	9.7	-62.03	-239.6	226.9	264.9	247.5	17.47	15.166			
4,600.0	4,588.9	4,586.1	4,572.0	8.9	9.9	-63.39	-245.4	233.0	270.8	253.1	17.78	15.233			
4,700.0	4,688.9	4,685.7	4,671.2	9.0	10.2	-64.69	-251.3	239.1	276.9	258.8	18.09	15.306			
4,800.0	4,788.9	4,785.3	4,770.5	9.2	10.4	-65.93	-257.1	245.1	283.1	264.7	18.40	15.385			
4,900.0	4,888.9	4,884.9	4,869.8	9.3	10.6	-67.12	-263.0	251.2	289.4	270.7	18.71	15.468			
5,000.0	4,988.9	4,984.6	4,969.0	9.5	10.8	-68.25	-268.8	257.3	295.8	276.8	19.02	15.555			
5,100.0	5,088.9	5,085.2	5,069.3	9.6	11.1	-69.35	-274.7	263.4	302.3	283.0	19.32	15.643			

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		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)	Uncertainty Axis			
5,200.0	5,188.9	5,194.4	5,178.3	9.8	11.3	-70.22	-279.4	268.2	307.1	287.4	19.64	15.633		
5,300.0	5,288.9	5,303.9	5,287.8	10.0	11.4	-70.61	-281.2	270.1	308.8	288.8	19.96	15.467		
5,400.0	5,388.9	5,404.6	5,388.5	10.1	11.6	-70.69	-281.3	270.0	308.6	288.3	20.28	15.221		
5,452.4	5,441.2	5,456.8	5,440.6	10.2	11.7	-70.70	-281.4	269.7	308.6	288.2	20.44	15.098		
5,500.0	5,488.9	5,504.2	5,488.0	10.3	11.7	-70.69	-281.6	269.4	308.6	288.0	20.59	14.988		
5,600.0	5,588.9	5,604.1	5,588.0	10.4	11.9	-70.65	-282.0	268.7	308.7	287.8	20.91	14.765		
5,700.0	5,688.9	5,704.1	5,688.0	10.6	12.0	-70.61	-282.4	267.9	308.8	287.6	21.23	14.547		
5,800.0	5,788.9	5,804.1	5,788.0	10.7	12.1	-70.56	-282.9	267.2	308.9	287.3	21.55	14.335		
5,900.0	5,888.8	5,904.1	5,888.0	10.9	12.3	-70.52	-283.3	266.5	309.0	287.1	21.87	14.129		
6,000.0	5,988.8	6,004.1	5,988.0	11.1	12.4	-70.48	-283.7	265.7	309.0	286.8	22.19	13.928		
6,100.0	6,088.8	6,104.1	6,088.0	11.2	12.6	-70.43	-284.2	265.0	309.1	286.6	22.51	13.733		
6,200.0	6,188.8	6,204.1	6,187.9	11.4	12.7	-70.39	-284.6	264.2	309.2	286.4	22.83	13.542		
6,300.0	6,288.8	6,304.1	6,287.9	11.6	12.9	-70.34	-285.0	263.5	309.3	286.1	23.16	13.356		
6,400.0	6,388.8	6,404.1	6,387.9	11.7	13.0	-70.30	-285.5	262.7	309.4	285.9	23.48	13.175		
6,500.0	6,488.8	6,504.1	6,487.9	11.9	13.2	-70.26	-285.9	262.0	309.5	285.6	23.81	12.999		
6,600.0	6,588.8	6,604.1	6,587.9	12.0	13.3	-70.21	-286.3	261.2	309.5	285.4	24.13	12.827		
6,700.0	6,688.8	6,704.1	6,687.9	12.2	13.5	-70.17	-286.8	260.5	309.6	285.2	24.46	12.659		
6,800.0	6,788.8	6,804.1	6,787.9	12.4	13.6	-70.13	-287.2	259.7	309.7	284.9	24.79	12.495		
6,900.0	6,888.8	6,904.1	6,887.9	12.5	13.8	-70.08	-287.6	259.0	309.8	284.7	25.11	12.336		
7,000.0	6,988.8	7,004.1	6,987.9	12.7	13.9	-70.04	-288.0	258.2	309.9	284.4	25.44	12.180		
7,100.0	7,088.8	7,104.1	7,087.9	12.9	14.1	-70.00	-288.5	257.5	310.0	284.2	25.77	12.028		
7,200.0	7,188.8	7,204.1	7,187.9	13.0	14.2	-69.95	-288.9	256.7	310.0	283.9	26.10	11.879		
7,300.0	7,288.8	7,304.1	7,287.9	13.2	14.4	-69.91	-289.3	256.0	310.1	283.7	26.43	11.734		
7,400.0	7,388.8	7,404.1	7,387.9	13.4	14.5	-69.87	-289.8	255.2	310.2	283.5	26.76	11.592		
7,500.0	7,488.8	7,504.1	7,487.9	13.5	14.7	-69.82	-290.2	254.5	310.3	283.2	27.09	11.454		
7,600.0	7,588.8	7,604.1	7,587.9	13.7	14.8	-69.78	-290.6	253.8	310.4	283.0	27.42	11.319		
7,700.0	7,688.8	7,704.1	7,687.9	13.9	15.0	-69.74	-291.1	253.0	310.5	282.7	27.75	11.186		
7,800.0	7,788.8	7,804.1	7,787.9	14.0	15.1	-69.69	-291.5	252.3	310.6	282.5	28.09	11.057		
7,900.0	7,888.8	7,904.1	7,887.9	14.2	15.3	-69.65	-291.9	251.5	310.7	282.2	28.42	10.931		
8,000.0	7,988.8	8,004.1	7,987.9	14.4	15.4	-69.61	-292.4	250.8	310.7	282.0	28.75	10.807		
8,100.0	8,088.8	8,104.1	8,087.9	14.5	15.6	-69.56	-292.8	250.0	310.8	281.7	29.09	10.686		
8,200.0	8,188.8	8,204.1	8,187.9	14.7	15.8	-69.52	-293.2	249.3	310.9	281.5	29.42	10.568		
8,300.0	8,288.8	8,304.1	8,287.9	14.9	15.9	-69.48	-293.7	248.5	311.0	281.2	29.75	10.452		
8,400.0	8,388.8	8,404.1	8,387.9	15.0	16.1	-69.43	-294.1	247.8	311.1	281.0	30.09	10.339		
8,500.0	8,488.8	8,504.1	8,487.9	15.2	16.2	-69.39	-294.5	247.0	311.2	280.8	30.42	10.228		
8,600.0	8,588.8	8,604.1	8,587.9	15.4	16.4	-69.35	-295.0	246.3	311.3	280.5	30.76	10.119		
8,700.0	8,688.8	8,704.1	8,687.8	15.5	16.5	-69.31	-295.4	245.5	311.4	280.3	31.09	10.013		
8,800.0	8,788.8	8,804.1	8,787.8	15.7	16.7	-69.26	-295.8	244.8	311.4	280.0	31.43	9.909		
8,900.0	8,888.8	8,904.1	8,887.8	15.9	16.9	-69.22	-296.3	244.0	311.5	279.8	31.77	9.807		
9,000.0	8,988.8	9,004.1	8,987.8	16.0	17.0	-69.18	-296.7	243.3	311.6	279.5	32.10	9.707		
9,100.0	9,088.8	9,104.1	9,087.8	16.2	17.2	-69.13	-297.1	242.5	311.7	279.3	32.44	9.609		
9,200.0	9,188.8	9,204.1	9,187.8	16.4	17.3	-69.09	-297.5	241.8	311.8	279.0	32.78	9.512		
9,300.0	9,288.8	9,304.1	9,287.8	16.5	17.5	-69.05	-298.0	241.1	311.9	278.8	33.11	9.418		
9,400.0	9,388.8	9,404.1	9,387.8	16.7	17.7	-69.01	-298.4	240.3	312.0	278.5	33.45	9.326		
9,500.0	9,488.8	9,504.1	9,487.8	16.9	17.8	-68.96	-298.8	239.6	312.1	278.3	33.79	9.235		
9,600.0	9,588.8	9,604.1	9,587.8	17.1	18.0	-68.92	-299.3	238.8	312.2	278.0	34.13	9.146		
9,700.0	9,688.8	9,704.1	9,687.8	17.2	18.2	-68.88	-299.7	238.1	312.2	277.8	34.47	9.059		
9,800.0	9,788.8	9,804.1	9,787.8	17.4	18.3	-68.83	-300.1	237.3	312.3	277.5	34.80	8.974		
9,900.0	9,888.8	9,904.1	9,887.8	17.6	18.5	-68.79	-300.6	236.6	312.4	277.3	35.14	8.890		
10,000.0	9,988.8	10,004.1	9,987.8	17.7	18.6	-68.75	-301.0	235.8	312.5	277.0	35.48	8.808		
10,029.8	10,018.6	10,033.9	10,017.6	17.8	18.7	-68.74	-301.1	235.6	312.5	277.0	35.58	8.783		
10,060.2	10,049.0	10,055.3	10,039.0	17.8	18.7	-68.73	-301.2	235.4	312.7	277.0	35.67	8.766		

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

## Cathedral Energy Services

### Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		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)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-143.67	-36.4	-26.8	45.2					
100.0	100.0	100.0	100.0	0.1	0.1	-143.67	-36.4	-26.8	45.2	44.9	0.27	166.060		
200.0	200.0	200.0	200.0	0.3	0.3	-143.67	-36.4	-26.8	45.2	44.6	0.62	72.768 CC, ES		
300.0	300.0	298.9	298.9	0.5	0.5	-145.21	-38.1	-26.5	46.4	45.4	0.97	47.849		
400.0	400.0	397.6	397.4	0.7	0.7	-149.37	-43.1	-25.5	50.2	48.8	1.33	37.837		
500.0	500.0	495.7	495.2	0.8	0.9	-155.01	-51.4	-24.0	56.9	55.2	1.70	33.448		
600.0	600.0	593.2	592.0	1.0	1.2	-160.88	-62.9	-21.8	67.1	64.9	2.11	31.738		
700.0	700.0	691.9	689.6	1.2	1.4	-165.94	-76.7	-19.2	79.8	77.2	2.55	31.254		
800.0	800.0	790.8	787.6	1.4	1.7	-169.62	-90.6	-16.6	93.0	90.0	3.01	30.933		
900.0	900.0	889.8	885.5	1.5	2.0	-172.38	-104.6	-14.0	106.5	103.0	3.47	30.712		
1,000.0	1,000.0	988.8	983.5	1.7	2.3	-174.52	-118.5	-11.4	120.2	116.2	3.93	30.556		
1,100.0	1,100.0	1,087.7	1,081.4	1.9	2.6	101.34	-132.4	-8.7	134.3	130.5	3.80	35.368		
1,200.0	1,199.8	1,186.6	1,179.3	2.1	2.9	101.60	-146.3	-6.1	149.2	145.0	4.16	35.837		
1,300.0	1,299.5	1,285.3	1,276.9	2.3	3.2	102.95	-160.2	-3.5	164.8	160.2	4.55	36.202		
1,400.0	1,398.9	1,383.8	1,374.4	2.5	3.5	104.82	-174.0	-0.9	180.9	176.0	4.96	36.453		
1,500.0	1,498.4	1,482.3	1,472.0	2.7	3.8	106.39	-187.9	1.7	197.2	191.8	5.38	36.630		
1,600.0	1,597.8	1,580.9	1,569.5	2.9	4.1	107.72	-201.7	4.3	213.6	207.8	5.81	36.758		
1,700.0	1,697.3	1,679.4	1,667.0	3.1	4.4	108.86	-215.6	6.9	230.2	223.9	6.25	36.852		
1,800.0	1,796.8	1,777.9	1,764.5	3.4	4.7	109.85	-229.5	9.5	246.8	240.1	6.68	36.923		
1,900.0	1,896.2	1,876.5	1,862.0	3.6	5.0	110.71	-243.3	12.1	263.4	256.3	7.12	36.977		
2,000.0	1,995.7	1,975.0	1,959.5	3.8	5.3	111.47	-257.2	14.7	280.1	272.6	7.57	37.020		
2,100.0	2,095.1	2,073.5	2,057.1	4.1	5.6	112.14	-271.0	17.3	296.9	288.9	8.01	37.054		
2,200.0	2,194.6	2,172.0	2,154.6	4.3	5.9	112.74	-284.9	19.9	313.7	305.2	8.46	37.082		
2,300.0	2,294.1	2,270.6	2,252.1	4.5	6.2	113.29	-298.7	22.5	330.5	321.6	8.91	37.105		
2,400.0	2,393.5	2,369.1	2,349.6	4.8	6.5	113.77	-312.6	25.1	347.3	338.0	9.36	37.124		
2,500.0	2,493.0	2,467.6	2,447.1	5.0	6.8	114.22	-326.5	27.7	364.2	354.4	9.81	37.140		
2,600.0	2,592.5	2,566.2	2,544.6	5.3	7.1	114.62	-340.3	30.3	381.1	370.8	10.26	37.155		
2,700.0	2,691.9	2,664.7	2,642.2	5.5	7.4	114.99	-354.2	32.9	398.0	387.3	10.71	37.167		
2,800.0	2,791.4	2,763.2	2,739.7	5.7	7.7	115.33	-368.0	35.5	414.9	403.7	11.16	37.178		
2,900.0	2,890.8	2,861.8	2,837.2	6.0	8.0	115.64	-381.9	38.1	431.8	420.2	11.61	37.187		
3,000.0	2,990.3	2,960.3	2,934.7	6.2	8.3	115.93	-395.7	40.7	448.8	436.7	12.06	37.196		
3,100.0	3,089.8	3,058.8	3,032.2	6.5	8.6	116.20	-409.6	43.4	465.7	453.2	12.52	37.203		
3,200.0	3,189.3	3,157.4	3,129.8	6.7	8.9	116.54	-423.4	46.0	482.6	469.6	12.98	37.189		
3,300.0	3,289.0	3,256.1	3,227.5	6.9	9.2	116.74	-437.3	48.6	498.2	484.8	13.40	37.175		
3,400.0	3,388.9	3,355.1	3,325.4	7.1	9.5	116.57	-451.3	51.2	512.3	498.5	13.78	37.176		
3,500.0	3,488.9	3,454.0	3,423.4	7.2	9.8	-41.07	-465.2	53.8	525.0	510.9	14.12	37.186		
3,600.0	3,588.9	3,553.0	3,521.3	7.4	10.1	-41.83	-479.1	56.4	537.2	522.8	14.44	37.207		
3,700.0	3,688.9	3,652.0	3,619.3	7.5	10.4	-42.59	-493.0	59.0	549.4	534.7	14.76	37.230		
3,800.0	3,788.9	3,751.0	3,717.3	7.7	10.7	-43.31	-506.9	61.6	561.7	546.6	15.07	37.260		
3,900.0	3,888.9	3,850.0	3,815.3	7.8	11.0	-44.01	-520.9	64.3	574.0	558.6	15.39	37.295		
4,000.0	3,988.9	3,949.0	3,913.3	8.0	11.3	-44.67	-534.8	66.9	586.4	570.7	15.71	37.334		
4,100.0	4,088.9	4,048.0	4,011.2	8.1	11.6	-45.31	-548.7	69.5	598.9	582.9	16.02	37.377		
4,200.0	4,188.9	4,147.0	4,109.2	8.3	11.9	-45.92	-562.6	72.1	611.5	595.2	16.34	37.423		
4,300.0	4,288.9	4,246.0	4,207.2	8.4	12.2	-46.51	-576.5	74.7	624.2	607.5	16.66	37.471		
4,400.0	4,388.9	4,345.0	4,305.2	8.6	12.5	-47.08	-590.5	77.3	636.9	619.9	16.97	37.520		
4,500.0	4,488.9	4,444.0	4,403.1	8.7	12.8	-47.62	-604.4	80.0	649.6	632.3	17.29	37.571		
4,600.0	4,588.9	4,543.0	4,501.1	8.9	13.1	-48.14	-618.3	82.6	662.4	644.8	17.61	37.622		
4,700.0	4,688.9	4,642.0	4,599.1	9.0	13.4	-48.64	-632.2	85.2	675.3	657.4	17.92	37.674		
4,800.0	4,788.9	4,741.0	4,697.1	9.2	13.7	-49.12	-646.2	87.8	688.2	670.0	18.24	37.726		
4,900.0	4,888.9	4,840.0	4,795.1	9.3	14.0	-49.59	-660.1	90.4	701.2	682.6	18.56	37.778		
5,000.0	4,988.9	4,939.0	4,893.0	9.5	14.3	-50.04	-674.0	93.0	714.2	695.3	18.88	37.830		
5,100.0	5,088.9	5,038.0	4,991.0	9.6	14.6	-50.47	-687.9	95.7	727.2	708.0	19.20	37.882		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error: 0.0 ft	
Survey Program: O-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		
5,200.0	5,188.9	5,137.0	5,089.0	9.8	14.9	-50.89	-701.8	98.3	740.3	720.8	19.52	37.933		
5,300.0	5,288.9	5,236.0	5,187.0	10.0	15.2	-51.29	-715.8	100.9	753.4	733.6	19.84	37.983		
5,400.0	5,388.9	5,335.0	5,285.0	10.1	15.5	-51.68	-729.7	103.5	766.6	746.4	20.16	38.033		
5,500.0	5,488.9	5,434.0	5,382.9	10.3	15.8	-52.05	-743.6	106.1	779.8	759.3	20.48	38.082		
5,600.0	5,588.9	5,533.0	5,480.9	10.4	16.1	-52.42	-757.5	108.7	793.0	772.2	20.80	38.130		
5,700.0	5,688.9	5,632.0	5,578.9	10.6	16.4	-52.77	-771.5	111.4	806.3	785.1	21.12	38.177		
5,800.0	5,788.9	5,731.0	5,676.9	10.7	16.7	-53.11	-785.4	114.0	819.5	798.1	21.44	38.223		
5,900.0	5,888.8	5,830.0	5,774.9	10.9	17.0	-53.44	-799.3	116.6	832.9	811.1	21.76	38.269		
6,000.0	5,988.8	5,929.0	5,872.8	11.1	17.3	-53.76	-813.2	119.2	846.2	824.1	22.09	38.313		
6,100.0	6,088.8	6,028.0	5,970.8	11.2	17.6	-54.06	-827.1	121.8	859.6	837.1	22.41	38.357		
6,200.0	6,188.8	6,127.0	6,068.8	11.4	17.9	-54.36	-841.1	124.4	872.9	850.2	22.73	38.399		
6,300.0	6,288.8	6,226.0	6,166.8	11.6	18.2	-54.65	-855.0	127.1	886.4	863.3	23.06	38.441		
6,400.0	6,388.8	6,325.0	6,264.8	11.7	18.5	-54.94	-868.9	129.7	899.8	876.4	23.38	38.482		
6,500.0	6,488.8	6,424.0	6,362.7	11.9	18.8	-55.21	-882.8	132.3	913.2	889.5	23.71	38.521		
6,600.0	6,588.8	6,523.0	6,460.7	12.0	19.1	-55.48	-896.8	134.9	926.7	902.7	24.03	38.560		
6,700.0	6,688.8	6,622.0	6,558.7	12.2	19.4	-55.73	-910.7	137.5	940.2	915.8	24.36	38.598		
6,800.0	6,788.8	6,721.0	6,656.7	12.4	19.7	-55.98	-924.6	140.1	953.7	929.0	24.69	38.635		
6,900.0	6,888.8	6,820.0	6,754.7	12.5	20.0	-56.23	-938.5	142.8	967.2	942.2	25.01	38.671		
7,000.0	6,988.8	6,919.0	6,852.6	12.7	20.3	-56.46	-952.4	145.4	980.8	955.4	25.34	38.706		
7,100.0	7,088.8	7,067.4	7,000.1	12.9	20.7	-56.76	-969.7	148.6	991.9	966.2	25.74	38.529		
7,200.0	7,188.8	7,218.1	7,150.4	13.0	21.0	-56.94	-979.4	150.4	998.0	971.8	26.15	38.158		
7,300.0	7,288.8	7,356.0	7,288.2	13.2	21.1	-57.01	-981.6	150.9	999.1	972.6	26.54	37.639		
7,400.0	7,388.8	7,453.7	7,385.9	13.4	21.2	-57.02	-981.8	150.6	998.9	972.1	26.87	37.176		
7,419.1	7,407.9	7,472.4	7,404.6	13.4	21.2	-57.02	-981.8	150.5	998.9	972.0	26.93	37.090		
7,500.0	7,488.8	7,551.4	7,483.6	13.5	21.3	-57.02	-982.2	150.0	999.0	971.8	27.20	36.733		
7,600.0	7,588.8	7,649.0	7,581.3	13.7	21.4	-56.99	-982.7	149.0	999.3	971.8	27.52	36.308		
7,700.0	7,688.8	7,748.1	7,680.3	13.9	21.6	-56.95	-983.5	147.7	999.8	972.0	27.85	35.895		
7,800.0	7,788.8	7,848.1	7,780.3	14.0	21.7	-56.90	-984.3	146.3	1,000.3	972.1	28.19	35.491		
7,900.0	7,888.8	7,948.1	7,880.3	14.2	21.8	-56.85	-985.0	145.0	1,000.8	972.3	28.52	35.095		
8,000.0	7,988.8	8,048.1	7,980.3	14.4	21.9	-56.81	-985.8	143.6	1,001.4	972.5	28.85	34.708		
8,100.0	8,088.8	8,148.1	8,080.3	14.5	22.0	-56.76	-986.6	142.3	1,001.9	972.7	29.18	34.330		
8,200.0	8,188.8	8,248.1	8,180.2	14.7	22.2	-56.72	-987.4	140.9	1,002.4	972.9	29.52	33.959		
8,300.0	8,288.8	8,348.1	8,280.2	14.9	22.3	-56.67	-988.2	139.6	1,002.9	973.1	29.85	33.596		
8,400.0	8,388.8	8,448.1	8,380.2	15.0	22.4	-56.63	-988.9	138.2	1,003.4	973.2	30.19	33.241		
8,500.0	8,488.8	8,548.1	8,480.2	15.2	22.5	-56.58	-989.7	136.9	1,003.9	973.4	30.52	32.894		
8,600.0	8,588.8	8,648.1	8,580.2	15.4	22.6	-56.54	-990.5	135.5	1,004.5	973.6	30.86	32.554		
8,700.0	8,688.8	8,748.0	8,680.2	15.5	22.8	-56.49	-991.3	134.2	1,005.0	973.8	31.19	32.220		
8,800.0	8,788.8	8,848.0	8,780.1	15.7	22.9	-56.45	-992.1	132.8	1,005.5	974.0	31.53	31.894		
8,900.0	8,888.8	8,948.0	8,880.1	15.9	23.0	-56.40	-992.8	131.5	1,006.0	974.2	31.86	31.574		
9,000.0	8,988.8	9,048.0	8,980.1	16.0	23.1	-56.36	-993.6	130.1	1,006.6	974.4	32.20	31.260		
9,100.0	9,088.8	9,148.0	9,080.1	16.2	23.3	-56.31	-994.4	128.8	1,007.1	974.5	32.54	30.953		
9,200.0	9,188.8	9,248.0	9,180.1	16.4	23.4	-56.27	-995.2	127.4	1,007.6	974.7	32.87	30.652		
9,300.0	9,288.8	9,348.0	9,280.1	16.5	23.5	-56.23	-995.9	126.1	1,008.1	974.9	33.21	30.356		
9,400.0	9,388.8	9,448.0	9,380.0	16.7	23.6	-56.18	-996.7	124.7	1,008.7	975.1	33.55	30.067		
9,500.0	9,488.8	9,548.0	9,480.0	16.9	23.8	-56.14	-997.5	123.4	1,009.2	975.3	33.88	29.783		
9,600.0	9,588.8	9,648.0	9,580.0	17.1	23.9	-56.09	-998.3	122.0	1,009.7	975.5	34.22	29.504		
9,700.0	9,688.8	9,748.0	9,680.0	17.2	24.0	-56.05	-999.1	120.7	1,010.2	975.7	34.56	29.231		
9,800.0	9,788.8	9,848.0	9,780.0	17.4	24.2	-56.00	-999.8	119.3	1,010.8	975.9	34.90	28.962		
9,900.0	9,888.8	9,948.0	9,880.0	17.6	24.3	-55.96	-1,000.6	118.0	1,011.3	976.0	35.24	28.699		
10,000.0	9,988.8	10,048.0	9,979.9	17.7	24.4	-55.91	-1,001.4	116.6	1,011.8	976.2	35.58	28.441		
10,060.2	10,049.0	10,082.1	10,014.0	17.8	24.5	-55.90	-1,001.7	116.2	1,012.5	976.7	35.74	28.332 SF		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Sec 6 T6S R96W (F06 696) - Chevron 6-23D - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance					Total Uncertainty Axis	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)				
0.0	0.0	0.0	0.0	0.0	0.0	37.31	22.9	17.5	28.8					
100.0	100.0	100.0	100.0	0.1	0.1	37.31	22.9	17.5	28.8	28.6	0.27	105.939		
200.0	200.0	200.0	200.0	0.3	0.3	37.31	22.9	17.5	28.8	28.2	0.62	46.423 CC, ES		
300.0	300.0	299.0	299.0	0.5	0.5	37.89	24.1	18.7	30.5	29.6	0.97	31.413		
400.0	400.0	397.7	397.6	0.7	0.7	39.30	27.5	22.5	35.7	34.3	1.34	26.596		
500.0	500.0	497.4	497.0	0.8	0.9	40.71	32.3	27.8	42.7	41.0	1.72	24.849		
600.0	600.0	597.1	596.5	1.0	1.1	41.72	37.1	33.1	49.8	47.7	2.10	23.699		
700.0	700.0	696.9	696.0	1.2	1.3	42.48	41.9	38.3	56.9	54.4	2.49	22.890		
800.0	800.0	796.6	795.5	1.4	1.5	43.07	46.6	43.6	64.0	61.1	2.87	22.292		
900.0	900.0	896.4	894.9	1.5	1.7	43.54	51.4	48.9	71.1	67.9	3.26	21.833		
1,000.0	1,000.0	996.1	994.4	1.7	1.9	43.93	56.2	54.1	78.2	74.6	3.64	21.469		
1,100.0	1,100.0	1,095.9	1,094.0	1.9	2.1	-39.33	61.0	59.4	84.0	80.2	3.76	22.349		
1,200.0	1,199.8	1,195.9	1,193.7	2.1	2.4	-41.12	65.8	64.7	87.1	83.0	4.11	21.185		
1,300.0	1,299.5	1,295.7	1,293.3	2.3	2.6	-44.36	70.6	69.9	87.8	83.3	4.48	19.610		
1,387.2	1,386.2	1,382.8	1,380.1	2.4	2.8	-47.84	74.7	74.5	87.6	82.8	4.81	18.219		
1,400.0	1,398.9	1,395.5	1,392.8	2.5	2.8	-48.35	75.3	75.2	87.6	82.7	4.86	18.035		
1,500.0	1,498.4	1,495.3	1,492.4	2.7	3.0	-52.33	80.1	80.5	87.9	82.6	5.25	16.722		
1,600.0	1,597.8	1,595.2	1,592.0	2.9	3.2	-56.27	84.9	85.8	88.6	82.9	5.67	15.626		
1,700.0	1,697.3	1,695.0	1,691.5	3.1	3.4	-60.13	89.7	91.0	89.7	83.6	6.10	14.709		
1,800.0	1,796.8	1,794.8	1,791.1	3.4	3.6	-63.88	94.5	96.3	91.2	84.6	6.54	13.944		
1,900.0	1,896.2	1,894.6	1,890.6	3.6	3.9	-67.49	99.2	101.6	93.0	86.0	6.99	13.308		
2,000.0	1,995.7	1,994.4	1,990.2	3.8	4.1	-70.95	104.0	106.8	95.3	87.8	7.45	12.781		
2,100.0	2,095.1	2,094.2	2,089.7	4.1	4.3	-74.24	108.8	112.1	97.8	89.9	7.92	12.346		
2,200.0	2,194.6	2,194.0	2,189.3	4.3	4.5	-77.35	113.6	117.4	100.7	92.3	8.40	11.990		
2,300.0	2,294.1	2,293.8	2,288.9	4.5	4.7	-80.28	118.4	122.7	103.9	95.0	8.88	11.699		
2,400.0	2,393.5	2,393.7	2,388.4	4.8	4.9	-83.04	123.2	127.9	107.3	97.9	9.36	11.464		
2,500.0	2,493.0	2,493.5	2,488.0	5.0	5.1	-85.61	127.9	133.2	110.9	101.1	9.84	11.275		
2,600.0	2,592.5	2,593.3	2,587.5	5.3	5.4	-88.03	132.7	138.5	114.8	104.4	10.32	11.124		
2,700.0	2,691.9	2,693.1	2,687.1	5.5	5.6	-90.28	137.5	143.7	118.8	108.0	10.79	11.007		
2,800.0	2,791.4	2,792.9	2,786.7	5.7	5.8	-92.38	142.3	149.0	123.0	111.7	11.27	10.916		
2,900.0	2,890.8	2,892.7	2,886.2	6.0	6.0	-94.33	147.1	154.3	127.4	115.6	11.74	10.848		
3,000.0	2,990.3	2,992.5	2,985.8	6.2	6.2	-96.16	151.9	159.6	131.9	119.7	12.21	10.799		
3,100.0	3,089.8	3,092.4	3,085.3	6.5	6.4	-97.87	156.6	164.8	136.5	123.8	12.68	10.766		
3,200.0	3,189.3	3,192.2	3,184.9	6.7	6.6	-99.40	161.4	170.1	141.2	128.1	13.14	10.746		
3,300.0	3,289.0	3,292.1	3,284.6	6.9	6.9	-99.81	166.2	175.4	145.5	132.0	13.55	10.738		
3,400.0	3,388.9	3,392.0	3,384.2	7.1	7.1	-98.88	171.0	180.7	149.2	135.3	13.92	10.724		
3,500.0	3,488.9	3,491.7	3,483.7	7.2	7.3	106.18	175.8	185.9	152.6	138.4	14.24	10.714		
3,600.0	3,588.9	3,591.5	3,583.2	7.4	7.5	108.61	180.6	191.2	156.3	141.7	14.56	10.735		
3,700.0	3,688.9	3,691.2	3,682.6	7.5	7.7	111.00	185.3	196.5	160.3	145.4	14.86	10.783		
3,800.0	3,788.9	3,790.9	3,782.1	7.7	7.9	113.27	190.1	201.7	164.5	149.4	15.16	10.851		
3,900.0	3,888.9	3,890.6	3,881.5	7.8	8.1	115.43	194.9	207.0	169.0	153.6	15.46	10.934		
4,000.0	3,988.9	3,990.3	3,981.0	8.0	8.3	117.47	199.7	212.2	173.8	158.0	15.75	11.030		
4,100.0	4,088.9	4,090.0	4,080.4	8.1	8.6	119.40	204.4	217.5	178.7	162.7	16.05	11.137		
4,200.0	4,188.9	4,189.7	4,179.9	8.3	8.8	121.23	209.2	222.8	183.8	167.5	16.34	11.252		
4,300.0	4,288.9	4,289.4	4,279.3	8.4	9.0	122.95	214.0	228.0	189.1	172.5	16.63	11.374		
4,400.0	4,388.9	4,389.1	4,378.8	8.6	9.2	124.58	218.8	233.3	194.6	177.7	16.92	11.501		
4,500.0	4,488.9	4,488.8	4,478.2	8.7	9.4	126.12	223.6	238.6	200.2	183.0	17.22	11.631		
4,600.0	4,588.9	4,588.5	4,577.6	8.9	9.6	127.58	228.3	243.8	206.0	188.5	17.51	11.764		
4,700.0	4,688.9	4,688.2	4,677.1	9.0	9.8	128.95	233.1	249.1	211.9	194.1	17.81	11.899		
4,800.0	4,788.9	4,787.9	4,776.5	9.2	10.1	130.25	237.9	254.4	217.9	199.8	18.10	12.035		
4,900.0	4,888.9	4,887.6	4,876.0	9.3	10.3	131.48	242.7	259.6	224.0	205.6	18.40	12.171		
5,000.0	4,988.9	4,987.3	4,975.4	9.5	10.5	132.65	247.4	264.9	230.2	211.5	18.70	12.307		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design      Sec 6 T6S R96W (F06 696) - Chevron 6-23D - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program:    O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	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)				
5,100.0	5,088.9	5,087.0	5,074.9	9.6	10.7	133.75	252.2	270.2	236.5	217.5	19.01	12.442		
5,200.0	5,188.9	5,186.7	5,174.3	9.8	10.9	134.80	257.0	275.4	242.9	223.6	19.31	12.576		
5,300.0	5,288.9	5,286.4	5,273.8	10.0	11.1	135.79	261.8	280.7	249.3	229.7	19.62	12.709		
5,400.0	5,388.9	5,386.1	5,373.2	10.1	11.3	136.73	266.6	286.0	255.9	235.9	19.93	12.840		
5,500.0	5,488.9	5,485.8	5,472.7	10.3	11.6	137.62	271.3	291.2	262.4	242.2	20.24	12.969		
5,600.0	5,588.9	5,585.5	5,572.1	10.4	11.8	138.47	276.1	296.5	269.1	248.5	20.55	13.096		
5,700.0	5,688.9	5,685.2	5,671.6	10.6	12.0	139.28	280.9	301.8	275.8	254.9	20.86	13.221		
5,800.0	5,788.9	5,784.9	5,771.0	10.7	12.2	140.06	285.7	307.0	282.6	261.4	21.18	13.343		
5,900.0	5,888.8	5,892.0	5,877.9	10.9	12.4	140.74	290.0	311.8	288.4	266.9	21.50	13.413		
6,000.0	5,988.8	6,001.8	5,987.7	11.1	12.6	141.05	291.7	313.7	291.0	269.1	21.84	13.324		
6,100.0	6,088.8	6,103.8	6,089.7	11.2	12.7	141.11	291.7	313.6	291.3	269.2	22.17	13.141		
6,200.0	6,188.8	6,204.8	6,190.7	11.4	12.9	141.11	291.4	313.0	291.3	268.8	22.50	12.948		
6,300.0	6,288.8	6,305.2	6,291.1	11.6	13.0	141.07	290.9	312.2	291.1	268.2	22.83	12.747		
6,400.0	6,388.8	6,405.2	6,391.1	11.7	13.1	141.02	290.4	311.3	290.7	267.6	23.17	12.551		
6,500.0	6,488.8	6,505.2	6,491.1	11.9	13.3	140.97	289.8	310.5	290.4	266.9	23.50	12.360		
6,600.0	6,588.8	6,605.2	6,591.1	12.0	13.4	140.92	289.3	309.6	290.1	266.3	23.83	12.174		
6,700.0	6,688.8	6,705.2	6,691.1	12.2	13.5	140.87	288.8	308.7	289.8	265.7	24.17	11.993		
6,800.0	6,788.8	6,805.2	6,791.1	12.4	13.7	140.82	288.3	307.8	289.5	265.0	24.50	11.817		
6,900.0	6,888.8	6,905.2	6,891.1	12.5	13.8	140.77	287.8	307.0	289.2	264.4	24.83	11.646		
7,000.0	6,988.8	7,005.2	6,991.1	12.7	14.0	140.72	287.3	306.1	288.9	263.7	25.17	11.478		
7,100.0	7,088.8	7,105.2	7,091.1	12.9	14.1	140.67	286.8	305.2	288.6	263.1	25.50	11.315		
7,200.0	7,188.8	7,205.2	7,191.1	13.0	14.3	140.62	286.3	304.3	288.3	262.4	25.84	11.157		
7,300.0	7,288.8	7,305.2	7,291.1	13.2	14.4	140.57	285.8	303.5	288.0	261.8	26.18	11.002		
7,400.0	7,388.8	7,405.2	7,391.1	13.4	14.6	140.52	285.3	302.6	287.7	261.2	26.51	10.851		
7,500.0	7,488.8	7,505.2	7,491.1	13.5	14.7	140.47	284.8	301.7	287.4	260.5	26.85	10.703		
7,600.0	7,588.8	7,605.2	7,591.1	13.7	14.9	140.42	284.3	300.8	287.1	259.9	27.19	10.559		
7,700.0	7,688.8	7,705.2	7,691.0	13.9	15.0	140.37	283.8	300.0	286.8	259.2	27.52	10.419		
7,800.0	7,788.8	7,805.2	7,791.0	14.0	15.1	140.32	283.3	299.1	286.5	258.6	27.86	10.282		
7,900.0	7,888.8	7,905.2	7,891.0	14.2	15.3	140.27	282.8	298.2	286.1	258.0	28.20	10.148		
8,000.0	7,988.8	8,005.2	7,991.0	14.4	15.4	140.22	282.3	297.3	285.8	257.3	28.54	10.017		
8,100.0	8,088.8	8,105.2	8,091.0	14.5	15.6	140.17	281.8	296.5	285.5	256.7	28.88	9.889		
8,200.0	8,188.8	8,205.2	8,191.0	14.7	15.7	140.12	281.3	295.6	285.2	256.0	29.21	9.764		
8,300.0	8,288.8	8,305.2	8,291.0	14.9	15.9	140.06	280.8	294.7	284.9	255.4	29.55	9.641		
8,400.0	8,388.8	8,405.2	8,391.0	15.0	16.1	140.01	280.2	293.8	284.6	254.7	29.89	9.522		
8,500.0	8,488.8	8,505.2	8,491.0	15.2	16.2	139.96	279.7	293.0	284.3	254.1	30.23	9.405		
8,600.0	8,588.8	8,605.2	8,591.0	15.4	16.4	139.91	279.2	292.1	284.0	253.4	30.57	9.291		
8,700.0	8,688.8	8,705.2	8,691.0	15.5	16.5	139.86	278.7	291.2	283.7	252.8	30.91	9.179		
8,800.0	8,788.8	8,805.2	8,791.0	15.7	16.7	139.81	278.2	290.3	283.4	252.2	31.25	9.069		
8,900.0	8,888.8	8,905.2	8,891.0	15.9	16.8	139.76	277.7	289.5	283.1	251.5	31.59	8.962		
9,000.0	8,988.8	9,005.2	8,991.0	16.0	17.0	139.70	277.2	288.6	282.8	250.9	31.93	8.857		
9,100.0	9,088.8	9,105.2	9,091.0	16.2	17.1	139.65	276.7	287.7	282.5	250.2	32.27	8.754		
9,200.0	9,188.8	9,205.2	9,191.0	16.4	17.3	139.60	276.2	286.9	282.2	249.6	32.61	8.653		
9,300.0	9,288.8	9,305.2	9,291.0	16.5	17.4	139.55	275.7	286.0	281.9	248.9	32.95	8.555		
9,400.0	9,388.8	9,405.2	9,390.9	16.7	17.6	139.50	275.2	285.1	281.6	248.3	33.29	8.458		
9,500.0	9,488.8	9,505.2	9,490.9	16.9	17.8	139.44	274.7	284.2	281.3	247.7	33.64	8.363		
9,600.0	9,588.8	9,605.2	9,590.9	17.1	17.9	139.39	274.2	283.4	281.0	247.0	33.98	8.270		
9,700.0	9,688.8	9,705.2	9,690.9	17.2	18.1	139.34	273.7	282.5	280.7	246.4	34.32	8.179		
9,800.0	9,788.8	9,805.2	9,790.9	17.4	18.2	139.28	273.2	281.6	280.4	245.7	34.66	8.090		
9,900.0	9,888.8	9,905.2	9,890.9	17.6	18.4	139.23	272.7	280.7	280.1	245.1	35.00	8.002		
10,000.0	9,988.8	10,005.2	9,990.9	17.7	18.5	139.18	272.2	279.9	279.8	244.5	35.34	7.916		
10,060.2	10,049.0	10,065.4	10,051.1	17.8	18.6	139.15	271.9	279.3	279.6	244.1	35.55	7.865 SF		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 139-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		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)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	37.77	10.9	8.5	13.8					
100.0	100.0	99.9	99.9	0.1	0.1	37.57	11.3	8.7	14.3	14.0	0.28	50.357		
200.0	200.0	199.6	199.6	0.3	0.3	36.65	12.8	9.5	16.0	15.3	0.63	25.472		
300.0	300.0	299.2	299.1	0.5	0.5	33.30	16.2	10.6	19.4	18.4	0.99	19.645		
400.0	400.0	398.2	397.9	0.7	0.7	27.56	22.5	11.8	25.5	24.1	1.37	18.637 SF		
500.0	500.0	496.6	495.8	0.8	1.0	22.67	32.6	13.6	35.5	33.8	1.78	19.912		
600.0	600.0	595.6	594.0	1.0	1.2	18.11	45.1	14.7	47.8	45.6	2.22	21.535		
700.0	700.0	694.2	691.6	1.2	1.5	13.37	58.8	14.0	61.1	58.4	2.68	22.817		
800.0	800.0	793.1	789.4	1.4	1.8	10.37	73.0	13.4	75.0	71.9	3.14	23.875		
900.0	900.0	891.7	887.1	1.5	2.1	9.51	87.1	14.6	89.3	85.7	3.61	24.727		
1,000.0	1,000.0	990.2	984.5	1.7	2.4	8.90	101.6	15.9	104.0	99.9	4.09	25.437		
1,100.0	1,100.0	1,088.1	1,081.3	1.9	2.7	-74.70	116.4	17.9	118.8	115.1	3.74	31.732		
1,200.0	1,199.8	1,186.3	1,178.1	2.1	3.0	-76.81	132.2	19.5	133.7	129.7	4.09	32.668		
1,300.0	1,299.5	1,286.6	1,277.2	2.3	3.3	-79.71	147.9	21.6	147.7	143.3	4.47	33.077		
1,400.0	1,398.9	1,386.8	1,376.3	2.5	3.7	-83.12	162.3	23.0	160.7	155.9	4.86	33.067		
1,500.0	1,498.4	1,485.9	1,474.4	2.7	3.9	-85.89	176.2	24.7	173.7	168.5	5.27	32.959		
1,600.0	1,597.8	1,585.0	1,572.5	2.9	4.2	-88.19	190.0	26.7	187.0	181.3	5.69	32.831		
1,700.0	1,697.3	1,684.7	1,671.3	3.1	4.5	-90.38	203.5	28.2	200.2	194.1	6.13	32.667		
1,800.0	1,796.8	1,784.4	1,770.2	3.4	4.8	-92.41	216.5	29.3	213.2	206.7	6.57	32.437		
1,900.0	1,896.2	1,884.3	1,869.2	3.6	5.1	-94.14	229.2	30.7	226.1	219.1	7.02	32.190		
2,000.0	1,995.7	1,984.3	1,968.5	3.8	5.4	-95.59	241.6	32.6	238.7	231.3	7.48	31.903		
2,100.0	2,095.1	2,082.9	2,066.3	4.1	5.7	-96.71	253.8	35.2	251.3	243.3	7.94	31.644		
2,200.0	2,194.6	2,182.5	2,165.0	4.3	5.9	-97.77	266.2	37.7	264.0	255.6	8.40	31.429		
2,300.0	2,294.1	2,281.7	2,263.4	4.5	6.2	-98.83	278.2	39.7	276.7	267.8	8.86	31.223		
2,400.0	2,393.5	2,379.4	2,360.4	4.8	6.5	-99.75	290.3	41.7	289.7	280.3	9.33	31.053		
2,500.0	2,493.0	2,474.1	2,454.2	5.0	6.8	-100.47	303.0	44.0	303.6	293.8	9.78	31.031		
2,600.0	2,592.5	2,568.0	2,547.1	5.3	7.1	-101.10	317.0	45.8	319.1	308.8	10.24	31.155		
2,700.0	2,691.9	2,668.5	2,646.3	5.5	7.4	-101.64	332.8	48.1	335.3	324.6	10.71	31.291		
2,800.0	2,791.4	2,766.7	2,743.3	5.7	7.7	-102.19	347.6	49.9	351.1	339.9	11.18	31.405		
2,900.0	2,890.8	2,863.1	2,838.6	6.0	8.0	-102.80	362.3	50.9	367.3	355.7	11.64	31.557		
3,000.0	2,990.3	2,961.2	2,935.5	6.2	8.3	-103.43	377.5	51.5	384.0	371.9	12.10	31.721		
3,100.0	3,089.8	3,064.7	3,037.9	6.5	8.6	-104.13	392.6	51.6	400.0	387.5	12.58	31.803		
3,200.0	3,189.3	3,161.6	3,133.8	6.7	8.9	-104.74	406.7	52.4	415.7	402.7	13.05	31.851		
3,300.0	3,289.0	3,258.1	3,229.0	6.9	9.3	-104.85	422.0	55.1	431.4	417.9	13.49	31.979		
3,400.0	3,388.9	3,360.7	3,330.3	7.1	9.6	-104.44	438.2	58.4	445.8	431.9	13.87	32.150		
3,500.0	3,488.9	3,458.2	3,426.7	7.2	9.9	99.11	452.6	60.1	459.1	444.9	14.18	32.369		
3,600.0	3,588.9	3,551.9	3,519.2	7.4	10.2	99.96	467.6	61.7	473.6	459.1	14.48	32.698		
3,700.0	3,688.9	3,652.6	3,618.6	7.5	10.6	100.94	483.5	64.0	487.9	473.1	14.79	32.985		
3,800.0	3,788.9	3,740.7	3,705.3	7.7	10.9	101.85	498.8	66.5	503.5	488.4	15.08	33.385		
3,900.0	3,888.9	3,831.4	3,794.2	7.8	11.2	102.91	516.5	70.1	521.2	505.8	15.38	33.891		
4,000.0	3,988.9	3,928.3	3,889.0	8.0	11.6	103.95	535.9	73.6	539.5	523.9	15.67	34.425		
4,100.0	4,088.9	4,022.7	3,981.4	8.1	12.0	104.77	555.2	75.7	558.8	542.8	15.97	35.000		
4,200.0	4,188.9	4,127.9	4,084.6	8.3	12.4	105.57	575.6	77.7	577.2	561.0	16.28	35.465		
4,300.0	4,288.9	4,218.8	4,173.7	8.4	12.7	106.18	593.3	79.0	596.1	579.5	16.57	35.978		
4,400.0	4,388.9	4,312.1	4,265.0	8.6	13.1	106.79	612.8	80.2	616.3	599.4	16.86	36.544		
4,500.0	4,488.9	4,421.0	4,371.7	8.7	13.5	107.46	634.4	82.0	635.4	618.3	17.18	36.979		
4,600.0	4,588.9	4,523.8	4,472.7	8.9	13.9	108.03	653.9	83.6	653.9	636.4	17.50	37.374		
4,700.0	4,688.9	4,628.3	4,575.4	9.0	14.3	108.55	672.6	85.2	671.3	653.5	17.81	37.690		
4,800.0	4,788.9	4,733.4	4,679.0	9.2	14.6	109.03	690.6	86.7	688.0	669.9	18.13	37.953		
4,900.0	4,888.9	4,827.8	4,772.0	9.3	14.9	109.42	706.2	88.0	704.2	685.8	18.43	38.206		
5,000.0	4,988.9	4,930.0	4,872.7	9.5	15.3	109.85	723.8	89.5	721.1	702.3	18.75	38.464		
5,100.0	5,088.9	5,034.6	4,975.9	9.6	15.6	110.26	740.7	91.1	736.9	717.9	19.07	38.647		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 139-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
5,200.0	5,188.9	5,121.5	5,061.7	9.8	15.9	110.59	754.9	92.5	753.1	733.8	19.36	38.895	
5,300.0	5,288.9	5,220.5	5,159.1	10.0	16.3	110.94	772.3	93.8	770.5	750.8	19.68	39.156	
5,400.0	5,388.9	5,330.8	5,267.8	10.1	16.6	111.32	790.6	95.4	786.8	766.8	20.01	39.324	
5,500.0	5,488.9	5,432.6	5,368.4	10.3	17.0	111.62	806.4	96.6	802.2	781.9	20.33	39.467	
5,600.0	5,588.9	5,531.1	5,465.8	10.4	17.3	111.85	821.3	97.1	817.4	796.8	20.64	39.600	
5,700.0	5,688.9	5,617.0	5,550.6	10.6	17.6	112.04	835.0	97.4	833.4	812.4	20.94	39.797	
5,800.0	5,788.9	5,711.0	5,643.2	10.7	17.9	112.31	851.1	98.6	850.4	829.1	21.26	40.008	
5,900.0	5,888.8	5,817.6	5,748.2	10.9	18.3	112.66	869.5	100.9	867.5	845.9	21.59	40.186	
6,000.0	5,988.8	5,927.4	5,856.6	11.1	18.6	112.98	886.6	102.9	882.9	861.0	21.92	40.274	
6,100.0	6,088.8	6,012.9	5,941.0	11.2	18.9	113.20	900.2	104.1	898.8	876.6	22.22	40.446	
6,200.0	6,188.8	6,094.3	6,021.1	11.4	19.2	113.42	914.6	105.4	916.5	894.0	22.52	40.702	
6,300.0	6,288.8	6,205.4	6,130.4	11.6	19.6	113.71	934.4	107.2	934.3	911.4	22.86	40.873	
6,400.0	6,388.8	6,306.1	6,229.7	11.7	19.9	113.95	951.6	108.7	951.3	928.1	23.18	41.035	
6,500.0	6,488.8	6,415.2	6,337.2	11.9	20.3	114.18	969.9	110.1	968.1	944.6	23.52	41.158	
6,600.0	6,588.8	6,542.2	6,462.8	12.0	20.7	114.44	988.1	111.9	982.5	958.6	23.89	41.117	
6,700.0	6,688.8	6,665.7	6,585.5	12.2	21.0	114.69	1,002.7	114.2	994.4	970.1	24.26	40.993	
6,800.0	6,788.8	6,791.6	6,710.8	12.4	21.3	114.83	1,013.9	114.8	1,003.4	978.7	24.62	40.746	
6,900.0	6,888.8	6,906.5	6,825.4	12.5	21.5	114.93	1,022.3	115.1	1,010.9	985.9	24.98	40.470	
7,000.0	6,988.8	7,038.8	6,957.6	12.7	21.7	115.07	1,028.7	116.3	1,015.9	990.6	25.36	40.054	
7,100.0	7,088.8	7,144.2	7,062.9	12.9	21.8	115.17	1,031.7	117.2	1,019.0	993.3	25.70	39.647	
7,200.0	7,188.8	7,245.2	7,163.8	13.0	22.0	115.23	1,034.3	117.6	1,021.8	995.7	26.03	39.249	
7,300.0	7,288.8	7,351.4	7,270.1	13.2	22.1	115.24	1,036.5	116.9	1,024.1	997.7	26.37	38.831	
7,400.0	7,388.8	7,461.2	7,379.8	13.4	22.2	115.22	1,038.1	116.0	1,025.9	999.2	26.72	38.393	
7,500.0	7,488.8	7,568.3	7,487.0	13.5	22.3	115.19	1,038.3	114.7	1,026.5	999.4	27.07	37.925	
7,600.0	7,588.8	7,672.2	7,590.8	13.7	22.4	115.14	1,038.3	113.2	1,026.8	999.4	27.40	37.468	
7,700.0	7,688.8	7,777.9	7,696.5	13.9	22.5	115.07	1,037.6	111.5	1,026.6	998.8	27.75	36.997	
7,800.0	7,788.8	7,878.4	7,797.0	14.0	22.6	114.97	1,036.6	109.2	1,026.0	997.9	28.08	36.538	
7,900.0	7,888.8	7,982.4	7,900.9	14.2	22.7	114.85	1,035.3	106.6	1,025.3	996.9	28.42	36.073	
7,963.5	7,952.3	8,036.4	7,954.9	14.3	22.8	114.82	1,034.9	105.8	1,025.0	996.4	28.62	35.810	
8,000.0	7,988.8	8,067.3	7,985.8	14.4	22.8	114.82	1,034.9	105.7	1,025.1	996.4	28.74	35.672	
8,100.0	8,088.8	8,169.8	8,088.3	14.5	22.9	114.84	1,035.1	105.4	1,025.7	996.6	29.08	35.276	
8,200.0	8,188.8	8,276.8	8,195.3	14.7	23.0	114.87	1,034.8	105.4	1,025.6	996.2	29.42	34.856	
8,300.0	8,288.8	8,378.5	8,297.1	14.9	23.1	114.92	1,034.0	105.7	1,025.0	995.3	29.76	34.440	
8,339.1	8,327.9	8,412.0	8,330.5	14.9	23.2	114.93	1,033.8	105.8	1,024.9	995.0	29.89	34.295	
8,400.0	8,388.8	8,465.6	8,384.2	15.0	23.2	114.97	1,033.9	106.1	1,025.2	995.1	30.08	34.084	
8,500.0	8,488.8	8,574.9	8,493.5	15.2	23.3	115.02	1,033.9	106.5	1,025.4	995.0	30.43	33.699	
8,600.0	8,588.8	8,680.0	8,598.5	15.4	23.4	115.02	1,033.1	106.0	1,024.9	994.1	30.77	33.305	
8,700.0	8,688.8	8,784.3	8,702.9	15.5	23.5	114.99	1,031.9	105.0	1,024.1	993.0	31.12	32.912	
8,800.0	8,788.8	8,902.9	8,821.3	15.7	23.6	114.93	1,029.2	103.3	1,022.3	990.8	31.49	32.467	
8,900.0	8,888.8	8,985.4	8,903.8	15.9	23.7	114.88	1,026.8	102.3	1,019.8	988.0	31.79	32.076	
8,950.9	8,939.7	9,024.0	8,942.4	16.0	23.7	114.84	1,026.4	101.4	1,019.5	987.6	31.94	31.916	
9,000.0	8,988.8	9,072.8	8,991.2	16.0	23.8	114.77	1,026.2	99.9	1,019.6	987.5	32.11	31.756	
9,044.9	9,033.7	9,118.0	9,036.4	16.1	23.8	114.68	1,025.9	98.1	1,019.5	987.3	32.26	31.606	
9,100.0	9,088.8	9,163.3	9,081.6	16.2	23.9	114.59	1,025.7	96.2	1,019.8	987.3	32.43	31.446	
9,200.0	9,188.8	9,264.2	9,182.4	16.4	24.0	114.41	1,026.7	92.4	1,021.4	988.6	32.77	31.165	
9,300.0	9,288.8	9,381.4	9,299.6	16.5	24.1	114.38	1,026.0	91.1	1,021.0	987.9	33.14	30.810	
9,400.0	9,388.8	9,479.0	9,397.2	16.7	24.2	114.31	1,024.8	89.4	1,020.3	986.8	33.47	30.480	
9,493.2	9,482.0	9,566.4	9,484.5	16.9	24.3	114.24	1,024.2	87.8	1,020.0	986.2	33.78	30.193	
9,500.0	9,488.8	9,572.7	9,490.9	16.9	24.3	114.23	1,024.1	87.7	1,020.0	986.2	33.80	30.173	
9,600.0	9,588.8	9,678.3	9,596.5	17.1	24.5	114.23	1,023.7	87.0	1,019.9	985.7	34.15	29.863	
9,700.0	9,688.8	9,793.8	9,711.9	17.2	24.6	114.12	1,021.7	84.7	1,018.6	984.1	34.52	29.512	
9,800.0	9,788.8	9,901.6	9,819.6	17.4	24.6	113.99	1,018.5	82.1	1,016.2	981.3	34.87	29.144	

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Sec 6 T6S R96W (F06 696) - Chevron 6-25D - DD - DD													<b>Offset Site Error:</b>	0.0 ft
Survey Program: 139-MWD													<b>Offset Well Error:</b>	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		
9,900.0	9,888.8	10,010.7	9,928.7	17.6	24.7	113.83	1,014.4	79.1	1,013.0	977.8	35.22	28.760		
10,000.0	9,988.8	10,119.0	10,036.8	17.7	24.8	113.64	1,009.2	75.6	1,008.8	973.3	35.58	28.356		
10,060.2	10,049.0	10,180.8	10,098.4	17.8	24.8	113.52	1,006.0	73.6	1,006.0	970.3	35.78	28.114		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Sec 6 T6S R96W (F06 696) - Chevron 6-32D - DD - Plan #2														Offset Site Error:	0.0 ft
Survey Program: 0-MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		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)	Uncertainty Axis	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	-143.45	-120.6	-89.4	150.1						
100.0	100.0	100.0	100.0	0.1	0.1	-143.45	-120.6	-89.4	150.1	149.8	0.27	551.226			
200.0	200.0	200.0	200.0	0.3	0.3	-143.45	-120.6	-89.4	150.1	149.5	0.62	241.549 CC, ES			
300.0	300.0	295.0	295.0	0.5	0.5	-143.41	-121.8	-90.4	151.7	150.8	0.97	157.207			
400.0	400.0	389.8	389.6	0.7	0.7	-143.31	-125.4	-93.4	156.7	155.4	1.32	118.353			
500.0	500.0	484.2	483.7	0.8	0.9	-143.16	-131.4	-98.4	165.0	163.2	1.71	96.547			
600.0	600.0	577.9	576.8	1.0	1.1	-142.97	-139.7	-105.3	176.5	174.3	2.13	82.970			
700.0	700.0	670.9	668.7	1.2	1.4	-142.76	-150.2	-114.1	191.2	188.6	2.58	73.993			
800.0	800.0	762.8	759.2	1.4	1.7	-142.55	-162.8	-124.7	209.1	206.1	3.08	67.840			
900.0	900.0	853.6	848.0	1.5	2.1	-142.34	-177.5	-137.0	230.2	226.6	3.62	63.659			
1,000.0	1,000.0	949.4	941.1	1.7	2.5	-142.14	-194.6	-151.2	253.4	249.2	4.19	60.441 SF			
1,100.0	1,100.0	1,046.3	1,035.4	1.9	2.9	135.03	-211.9	-165.7	277.8	274.2	3.66	75.823			
1,200.0	1,199.8	1,142.5	1,128.9	2.1	3.3	135.48	-229.0	-180.1	304.7	300.7	4.00	76.154			
1,300.0	1,299.5	1,237.9	1,221.7	2.3	3.7	136.20	-246.1	-194.3	334.1	329.7	4.34	76.973			
1,400.0	1,398.9	1,332.9	1,314.1	2.5	4.2	137.33	-263.0	-208.5	364.7	360.0	4.69	77.762			
1,500.0	1,498.4	1,427.9	1,406.5	2.7	4.6	138.29	-280.0	-222.7	395.4	390.4	5.04	78.395			
1,600.0	1,597.8	1,522.8	1,498.8	2.9	5.0	139.11	-296.9	-236.8	426.2	420.8	5.40	78.910			
1,700.0	1,697.3	1,617.8	1,591.2	3.1	5.4	139.82	-313.9	-251.0	457.1	451.3	5.76	79.335			
1,800.0	1,796.8	1,712.8	1,683.6	3.4	5.8	140.44	-330.8	-265.2	488.0	481.9	6.12	79.690			
1,900.0	1,896.2	1,807.7	1,775.9	3.6	6.2	140.99	-347.8	-279.3	519.0	512.5	6.49	79.988			
2,000.0	1,995.7	1,902.7	1,868.3	3.8	6.7	141.48	-364.7	-293.5	550.0	543.2	6.85	80.242			
2,100.0	2,095.1	1,997.7	1,960.6	4.1	7.1	141.91	-381.7	-307.7	581.1	573.9	7.22	80.460			
2,200.0	2,194.6	2,092.6	2,053.0	4.3	7.5	142.30	-398.6	-321.9	612.2	604.6	7.59	80.648			
2,300.0	2,294.1	2,187.6	2,145.4	4.5	7.9	142.65	-415.6	-336.0	643.3	635.3	7.96	80.812			
2,400.0	2,393.5	2,282.6	2,237.7	4.8	8.4	142.97	-432.5	-350.2	674.4	666.0	8.33	80.956			
2,500.0	2,493.0	2,377.6	2,330.1	5.0	8.8	143.26	-449.5	-364.4	705.5	696.8	8.70	81.082			
2,600.0	2,592.5	2,472.5	2,422.5	5.3	9.2	143.53	-466.4	-378.6	736.7	727.6	9.07	81.194			
2,700.0	2,691.9	2,567.5	2,514.8	5.5	9.6	143.77	-483.4	-392.7	767.8	758.4	9.45	81.293			
2,800.0	2,791.4	2,662.5	2,607.2	5.7	10.0	144.00	-500.3	-406.9	799.0	789.2	9.82	81.382			
2,900.0	2,890.8	2,757.4	2,699.6	6.0	10.5	144.21	-517.3	-421.1	830.2	820.0	10.19	81.462			
3,000.0	2,990.3	2,852.4	2,791.9	6.2	10.9	144.40	-534.2	-435.2	861.4	850.8	10.56	81.533			
3,100.0	3,089.8	2,947.4	2,884.3	6.5	11.3	144.58	-551.2	-449.4	892.6	881.7	10.94	81.598			
3,200.0	3,189.3	3,042.4	2,976.7	6.7	11.7	144.88	-568.2	-463.6	923.6	912.3	11.33	81.541			
3,300.0	3,289.0	3,138.1	3,069.8	6.9	12.2	145.27	-585.2	-477.9	952.5	940.8	11.72	81.248			
3,400.0	3,388.9	3,234.7	3,163.7	7.1	12.6	145.50	-602.5	-492.3	978.6	966.5	12.10	80.880			
3,500.0	3,488.9	3,331.8	3,258.2	7.2	13.0	-11.57	-619.8	-506.8	1,002.1	989.7	12.45	80.482			
3,600.0	3,588.9	3,429.2	3,352.8	7.4	13.5	-11.75	-637.2	-521.3	1,024.8	1,012.0	12.79	80.140			
3,700.0	3,688.9	3,526.5	3,447.5	7.5	13.9	-11.94	-654.6	-535.8	1,047.2	1,034.1	13.12	79.814			
3,800.0	3,788.9	3,623.9	3,542.3	7.7	14.3	-12.12	-672.0	-550.4	1,069.7	1,056.2	13.45	79.505			
3,900.0	3,888.9	3,721.3	3,637.0	7.8	14.8	-12.30	-689.3	-564.9	1,092.2	1,078.4	13.79	79.210			
4,000.0	3,988.9	3,818.7	3,731.7	8.0	15.2	-12.47	-706.7	-579.4	1,114.7	1,100.5	14.12	78.930			
4,100.0	4,088.9	3,916.1	3,826.4	8.1	15.6	-12.63	-724.1	-594.0	1,137.2	1,122.7	14.46	78.663			
4,200.0	4,188.9	4,013.5	3,921.1	8.3	16.1	-12.78	-741.5	-608.5	1,159.7	1,144.9	14.79	78.407			
4,300.0	4,288.9	4,110.9	4,015.8	8.4	16.5	-12.93	-758.9	-623.0	1,182.2	1,167.0	15.12	78.163			
4,400.0	4,388.9	4,208.3	4,110.6	8.6	16.9	-13.08	-776.3	-637.6	1,204.7	1,189.2	15.46	77.929			

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design      Sec 6 T6S R96W (F06 696) - Chevron 6-33D - DD - Plan #2													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	-143.39	-108.5	-80.6	135.2					
100.0	100.0	100.0	100.0	0.1	0.1	-143.39	-108.5	-80.6	135.2	134.9	0.27	496.643		
200.0	200.0	200.0	200.0	0.3	0.3	-143.39	-108.5	-80.6	135.2	134.6	0.62	217.630		
300.0	300.0	300.0	300.0	0.5	0.5	-143.39	-108.5	-80.6	135.2	134.3	0.97	139.346	CC, ES	
400.0	400.0	395.6	395.6	0.7	0.7	-143.24	-109.6	-81.9	136.8	135.5	1.31	104.116		
500.0	500.0	490.9	490.8	0.8	0.8	-142.79	-112.6	-85.5	141.7	140.0	1.67	84.830		
600.0	600.0	585.9	585.4	1.0	1.0	-142.12	-117.7	-91.6	149.8	147.8	2.05	73.088		
700.0	700.0	680.2	679.1	1.2	1.3	-141.30	-124.7	-99.9	161.2	158.7	2.46	65.470		
800.0	800.0	773.7	771.5	1.4	1.6	-140.40	-133.7	-110.6	175.8	172.9	2.91	60.339		
900.0	900.0	866.2	862.5	1.5	1.9	-139.49	-144.4	-123.4	193.6	190.2	3.40	56.916		
1,000.0	1,000.0	963.3	957.6	1.7	2.2	-138.60	-156.9	-138.3	213.4	209.4	3.93	54.327	SF	
1,100.0	1,100.0	1,060.9	1,053.3	1.9	2.6	139.23	-169.5	-153.3	234.5	230.8	3.71	63.259		
1,200.0	1,199.8	1,157.9	1,148.3	2.1	2.9	140.28	-182.0	-168.2	258.4	254.3	4.05	63.862		
1,300.0	1,299.5	1,254.0	1,242.4	2.3	3.3	141.52	-194.4	-183.0	285.0	280.6	4.38	65.029		
1,400.0	1,398.9	1,349.7	1,336.2	2.5	3.7	143.02	-206.7	-197.7	313.0	308.3	4.73	66.236		
1,500.0	1,498.4	1,445.4	1,429.9	2.7	4.1	144.27	-219.1	-212.4	341.2	336.2	5.07	67.276		
1,600.0	1,597.8	1,541.1	1,523.7	2.9	4.4	145.34	-231.4	-227.1	369.6	364.2	5.42	68.181		
1,700.0	1,697.3	1,636.8	1,617.4	3.1	4.8	146.25	-243.7	-241.9	398.0	392.2	5.77	68.974		
1,800.0	1,796.8	1,732.5	1,711.2	3.4	5.2	147.04	-256.1	-256.6	426.5	420.4	6.12	69.675		
1,900.0	1,896.2	1,828.2	1,804.9	3.6	5.5	147.73	-268.4	-271.3	455.1	448.6	6.47	70.297		
2,000.0	1,995.7	1,923.8	1,898.7	3.8	5.9	148.34	-280.8	-286.0	483.7	476.9	6.83	70.853		
2,100.0	2,095.1	2,019.5	1,992.4	4.1	6.3	148.88	-293.1	-300.7	512.4	505.2	7.18	71.352		
2,200.0	2,194.6	2,115.2	2,086.1	4.3	6.7	149.37	-305.4	-315.4	541.1	533.6	7.54	71.803		
2,300.0	2,294.1	2,210.9	2,179.9	4.5	7.0	149.80	-317.8	-330.2	569.9	562.0	7.89	72.211		
2,400.0	2,393.5	2,306.6	2,273.6	4.8	7.4	150.20	-330.1	-344.9	598.7	590.4	8.25	72.583		
2,500.0	2,493.0	2,402.3	2,367.4	5.0	7.8	150.55	-342.5	-359.6	627.5	618.9	8.60	72.923		
2,600.0	2,592.5	2,498.0	2,461.1	5.3	8.2	150.88	-354.8	-374.3	656.3	647.3	8.96	73.234		
2,700.0	2,691.9	2,593.7	2,554.9	5.5	8.5	151.18	-367.1	-389.0	685.1	675.8	9.32	73.521		
2,800.0	2,791.4	2,689.4	2,648.6	5.7	8.9	151.45	-379.5	-403.8	714.0	704.3	9.68	73.785		
2,900.0	2,890.8	2,785.1	2,742.4	6.0	9.3	151.71	-391.8	-418.5	742.9	732.8	10.03	74.029		
3,000.0	2,990.3	2,880.8	2,836.1	6.2	9.7	151.94	-404.2	-433.2	771.7	761.4	10.39	74.256		
3,100.0	3,089.8	2,976.5	2,929.8	6.5	10.1	152.16	-416.5	-447.9	800.6	789.9	10.75	74.467		
3,200.0	3,189.3	3,072.2	3,023.7	6.7	10.4	152.45	-428.8	-462.6	829.3	818.2	11.12	74.573		
3,300.0	3,289.0	3,168.7	3,118.1	6.9	10.8	152.80	-441.3	-477.5	855.7	844.2	11.50	74.410		
3,400.0	3,388.9	3,265.9	3,213.4	7.1	11.2	153.00	-453.8	-492.4	879.0	867.2	11.86	74.086		
3,500.0	3,488.9	3,363.8	3,309.3	7.2	11.6	-4.06	-466.4	-507.5	899.5	887.3	12.21	73.643		
3,600.0	3,588.9	3,461.8	3,405.3	7.4	12.0	-4.19	-479.1	-522.5	919.1	906.6	12.56	73.204		
3,700.0	3,688.9	3,559.9	3,501.4	7.5	12.4	-4.31	-491.7	-537.6	938.5	925.6	12.89	72.781		
3,800.0	3,788.9	3,658.0	3,597.5	7.7	12.7	-4.44	-504.4	-552.7	957.9	944.6	13.23	72.379		
3,900.0	3,888.9	3,756.1	3,693.6	7.8	13.1	-4.55	-517.0	-567.8	977.3	963.7	13.57	71.997		
4,000.0	3,988.9	3,854.1	3,789.7	8.0	13.5	-4.66	-529.7	-582.9	996.7	982.7	13.91	71.633		
4,100.0	4,088.9	3,952.2	3,885.8	8.1	13.9	-4.77	-542.3	-598.0	1,016.0	1,001.8	14.25	71.287		
4,200.0	4,188.9	4,050.3	3,981.8	8.3	14.3	-4.87	-555.0	-613.1	1,035.4	1,020.8	14.59	70.956		
4,300.0	4,288.9	4,148.4	4,077.9	8.4	14.7	-4.97	-567.6	-628.1	1,054.8	1,039.9	14.93	70.640		
4,400.0	4,388.9	4,246.5	4,174.0	8.6	15.1	-5.07	-580.3	-643.2	1,074.2	1,059.0	15.27	70.338		
4,500.0	4,488.9	4,344.6	4,270.1	8.7	15.4	-5.16	-592.9	-658.3	1,093.6	1,078.0	15.61	70.049		
4,600.0	4,588.9	4,442.6	4,366.2	8.9	15.8	-5.25	-605.6	-673.4	1,113.0	1,097.1	15.95	69.772		
4,700.0	4,688.9	4,540.7	4,462.3	9.0	16.2	-5.33	-618.2	-688.5	1,132.5	1,116.2	16.29	69.506		
4,800.0	4,788.9	4,638.8	4,558.4	9.2	16.6	-5.42	-630.9	-703.6	1,151.9	1,135.2	16.63	69.251		
4,900.0	4,888.9	4,736.9	4,654.5	9.3	17.0	-5.50	-643.5	-718.7	1,171.3	1,154.3	16.97	69.006		
5,000.0	4,988.9	4,835.0	4,750.6	9.5	17.4	-5.57	-656.2	-733.7	1,190.7	1,173.4	17.31	68.770		
5,100.0	5,088.9	4,933.1	4,846.6	9.6	17.8	-5.65	-668.8	-748.8	1,210.1	1,192.5	17.65	68.544		

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

## Cathedral Energy Services

### Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total	Separation	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)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-143.43	-96.5	-71.6	120.2					
100.0	100.0	100.0	100.0	0.1	0.1	-143.43	-96.5	-71.6	120.2	119.9	0.27	441.443		
200.0	200.0	200.0	200.0	0.3	0.3	-143.43	-96.5	-71.6	120.2	119.6	0.62	193.441		
300.0	300.0	300.0	300.0	0.5	0.5	-143.43	-96.5	-71.6	120.2	119.2	0.97	123.858		
400.0	400.0	400.0	400.0	0.7	0.7	-143.43	-96.5	-71.6	120.2	118.9	1.32	91.091		
500.0	500.0	500.0	500.0	0.8	0.8	-143.43	-96.5	-71.6	120.2	118.5	1.67	72.035 CC, ES		
600.0	600.0	596.3	596.3	1.0	1.0	-143.10	-97.3	-73.0	121.7	119.7	2.01	60.474		
700.0	700.0	692.4	692.2	1.2	1.2	-142.19	-99.6	-77.3	126.3	123.9	2.37	53.403		
800.0	800.0	788.0	787.5	1.4	1.4	-140.80	-103.4	-84.3	134.0	131.3	2.74	48.989		
900.0	900.0	883.0	881.9	1.5	1.6	-139.12	-108.7	-94.1	144.9	141.8	3.13	46.230		
1,000.0	1,000.0	977.2	975.0	1.7	1.9	-137.30	-115.4	-106.5	159.0	155.4	3.57	44.539 SF		
1,100.0	1,100.0	1,071.3	1,067.5	1.9	2.2	141.72	-123.5	-121.5	177.6	173.9	3.74	47.472		
1,200.0	1,199.8	1,168.4	1,162.8	2.1	2.5	143.95	-132.3	-137.7	200.1	196.0	4.09	48.969		
1,300.0	1,299.5	1,264.6	1,257.3	2.3	2.8	146.16	-141.1	-153.9	225.7	221.3	4.42	51.010		
1,400.0	1,398.9	1,360.4	1,351.3	2.5	3.2	148.36	-149.8	-169.9	253.0	248.2	4.77	53.075		
1,500.0	1,498.4	1,456.2	1,445.4	2.7	3.5	150.13	-158.5	-186.0	280.5	275.4	5.11	54.917		
1,600.0	1,597.8	1,552.0	1,539.4	2.9	3.9	151.58	-167.2	-202.0	308.3	302.9	5.45	56.564		
1,700.0	1,697.3	1,647.8	1,633.5	3.1	4.2	152.80	-175.9	-218.1	336.2	330.4	5.79	58.041		
1,800.0	1,796.8	1,743.6	1,727.5	3.4	4.6	153.83	-184.6	-234.2	364.3	358.1	6.14	59.370		
1,900.0	1,896.2	1,839.4	1,821.5	3.6	4.9	154.71	-193.3	-250.2	392.4	385.9	6.48	60.571		
2,000.0	1,995.7	1,935.2	1,915.6	3.8	5.3	155.47	-202.0	-266.3	420.6	413.8	6.82	61.660		
2,100.0	2,095.1	2,031.0	2,009.6	4.1	5.6	156.14	-210.7	-282.3	448.9	441.7	7.16	62.650		
2,200.0	2,194.6	2,126.8	2,103.7	4.3	6.0	156.73	-219.3	-298.4	477.2	469.7	7.51	63.554		
2,300.0	2,294.1	2,222.6	2,197.7	4.5	6.3	157.25	-228.0	-314.4	505.5	497.7	7.85	64.382		
2,400.0	2,393.5	2,318.4	2,291.8	4.8	6.7	157.72	-236.7	-330.5	533.9	525.7	8.20	65.143		
2,500.0	2,493.0	2,414.2	2,385.8	5.0	7.1	158.14	-245.4	-346.6	562.3	553.8	8.54	65.844		
2,600.0	2,592.5	2,510.0	2,479.8	5.3	7.4	158.52	-254.1	-362.6	590.8	581.9	8.88	66.492		
2,700.0	2,691.9	2,605.8	2,573.9	5.5	7.8	158.87	-262.8	-378.7	619.2	610.0	9.23	67.092		
2,800.0	2,791.4	2,701.6	2,667.9	5.7	8.1	159.18	-271.5	-394.7	647.7	638.2	9.57	67.650		
2,900.0	2,890.8	2,797.4	2,762.0	6.0	8.5	159.47	-280.2	-410.8	676.2	666.3	9.92	68.169		
3,000.0	2,990.3	2,893.2	2,856.0	6.2	8.9	159.73	-288.9	-426.8	704.7	694.5	10.27	68.654		
3,100.0	3,089.8	2,989.0	2,950.1	6.5	9.2	159.98	-297.6	-442.9	733.3	722.7	10.61	69.107		
3,200.0	3,189.3	3,084.8	3,044.2	6.7	9.6	160.27	-306.3	-459.0	761.6	750.6	10.97	69.449		
3,300.0	3,289.0	3,181.4	3,139.0	6.9	9.9	160.58	-315.1	-475.2	787.4	776.1	11.33	69.777		
3,400.0	3,388.9	3,278.8	3,234.6	7.1	10.3	160.78	-323.9	-491.5	810.1	798.4	11.69	69.278		
3,500.0	3,488.9	3,376.9	3,330.8	7.2	10.7	3.76	-332.8	-507.9	829.7	817.6	12.04	68.899		
3,600.0	3,588.9	3,475.1	3,427.3	7.4	11.1	3.71	-341.8	-524.4	848.3	836.0	12.39	68.496		
3,700.0	3,688.9	3,573.4	3,523.8	7.5	11.4	3.67	-350.7	-540.9	866.8	854.1	12.73	68.104		
3,800.0	3,788.9	3,671.7	3,620.2	7.7	11.8	3.62	-359.6	-557.3	885.2	872.2	13.07	67.732		
3,900.0	3,888.9	3,770.0	3,716.7	7.8	12.2	3.58	-368.5	-573.8	903.7	890.3	13.41	67.378		
4,000.0	3,988.9	3,868.3	3,813.2	8.0	12.5	3.54	-377.4	-590.3	922.1	908.4	13.75	67.042		
4,100.0	4,088.9	3,966.5	3,909.7	8.1	12.9	3.51	-386.4	-606.8	940.6	926.5	14.10	66.721		
4,200.0	4,188.9	4,064.8	4,006.2	8.3	13.3	3.47	-395.3	-623.2	959.0	944.6	14.44	66.416		
4,300.0	4,288.9	4,163.1	4,102.6	8.4	13.7	3.44	-404.2	-639.7	977.5	962.7	14.78	66.124		
4,400.0	4,388.9	4,261.4	4,199.1	8.6	14.0	3.40	-413.1	-656.2	995.9	980.8	15.13	65.845		
4,500.0	4,488.9	4,359.7	4,295.6	8.7	14.4	3.37	-422.1	-672.7	1,014.4	998.9	15.47	65.579		
4,600.0	4,588.9	4,457.9	4,392.1	8.9	14.8	3.34	-431.0	-689.1	1,032.9	1,017.0	15.81	65.323		
4,700.0	4,688.9	4,556.2	4,488.6	9.0	15.1	3.31	-439.9	-705.6	1,051.3	1,035.1	16.15	65.078		
4,800.0	4,788.9	4,654.5	4,585.0	9.2	15.5	3.28	-448.8	-722.1	1,069.8	1,053.3	16.50	64.843		
4,900.0	4,888.9	4,752.8	4,681.5	9.3	15.9	3.25	-457.7	-738.5	1,088.2	1,071.4	16.84	64.618		
5,000.0	4,988.9	4,851.1	4,778.0	9.5	16.3	3.23	-466.7	-755.0	1,106.7	1,089.5	17.18	64.401		
5,100.0	5,088.9	4,949.3	4,874.5	9.6	16.6	3.20	-475.6	-771.5	1,125.1	1,107.6	17.53	64.193		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Sec 6 T6S R96W (F06 696) - Chevron 6-34D - DD - Plan #2		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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis						
5,200.0	5,188.9	5,047.6	4,971.0	9.8	17.0	3.18	-484.5	-788.0	1,143.6	1,125.7	17.87	63.992					
5,300.0	5,288.9	5,145.9	5,067.4	10.0	17.4	3.15	-493.4	-804.4	1,162.0	1,143.8	18.21	63.799					
5,400.0	5,388.9	5,244.2	5,163.9	10.1	17.8	3.13	-502.4	-820.9	1,180.5	1,161.9	18.56	63.613					
5,500.0	5,488.9	5,342.5	5,260.4	10.3	18.1	3.11	-511.3	-837.4	1,198.9	1,180.0	18.90	63.433					
5,600.0	5,588.9	5,440.8	5,356.9	10.4	18.5	3.08	-520.2	-853.9	1,217.4	1,198.1	19.24	63.260					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total	Separation	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)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-143.47	-84.5	-62.6	105.2					
100.0	100.0	100.0	100.0	0.1	0.1	-143.47	-84.5	-62.6	105.2	104.9	0.27	386.243		
200.0	200.0	200.0	200.0	0.3	0.3	-143.47	-84.5	-62.6	105.2	104.5	0.62	169.252		
300.0	300.0	300.0	300.0	0.5	0.5	-143.47	-84.5	-62.6	105.2	104.2	0.97	108.370	CC, ES	
400.0	400.0	397.3	397.3	0.7	0.7	-142.87	-84.8	-64.2	106.4	105.1	1.32	80.831		
500.0	500.0	494.4	494.3	0.8	0.8	-141.16	-85.8	-69.1	110.3	108.6	1.67	65.952		
600.0	600.0	591.1	590.6	1.0	1.1	-138.58	-87.4	-77.1	116.9	114.8	2.05	57.098		
700.0	700.0	687.1	685.9	1.2	1.3	-135.44	-89.6	-88.2	126.5	124.0	2.45	51.546		
800.0	800.0	782.2	779.9	1.4	1.6	-132.07	-92.3	-102.3	139.3	136.4	2.90	48.052		
900.0	900.0	880.6	877.0	1.5	1.9	-128.86	-95.6	-118.6	154.0	150.6	3.38	45.603		
1,000.0	1,000.0	979.2	974.1	1.7	2.2	-126.22	-98.8	-134.9	169.2	165.3	3.87	43.719	SF	
1,100.0	1,100.0	1,077.5	1,071.0	1.9	2.5	153.18	-102.0	-151.1	186.1	182.3	3.84	48.507		
1,200.0	1,199.8	1,175.0	1,167.1	2.1	2.9	155.45	-105.1	-167.2	206.5	202.3	4.18	49.430		
1,300.0	1,299.5	1,271.8	1,262.5	2.3	3.2	157.61	-108.3	-183.2	230.3	225.8	4.51	51.087		
1,400.0	1,398.9	1,368.1	1,357.4	2.5	3.5	159.65	-111.4	-199.1	255.9	251.0	4.84	52.841		
1,500.0	1,498.4	1,464.4	1,452.3	2.7	3.8	161.32	-114.6	-215.0	281.7	276.6	5.18	54.414		
1,600.0	1,597.8	1,560.7	1,547.3	2.9	4.2	162.71	-117.7	-230.9	307.8	302.3	5.51	55.830		
1,700.0	1,697.3	1,657.0	1,642.2	3.1	4.5	163.89	-120.9	-246.8	334.0	328.1	5.85	57.106		
1,800.0	1,796.8	1,753.3	1,737.1	3.4	4.8	164.89	-124.0	-262.8	360.3	354.1	6.18	58.260		
1,900.0	1,896.2	1,849.6	1,832.0	3.6	5.1	165.76	-127.1	-278.7	386.6	380.1	6.52	59.308		
2,000.0	1,995.7	1,945.9	1,927.0	3.8	5.5	166.52	-130.3	-294.6	413.1	406.3	6.86	60.262		
2,100.0	2,095.1	2,042.2	2,021.9	4.1	5.8	167.18	-133.4	-310.5	439.6	432.4	7.19	61.133		
2,200.0	2,194.6	2,138.5	2,116.8	4.3	6.1	167.77	-136.6	-326.4	466.2	458.7	7.53	61.932		
2,300.0	2,294.1	2,234.8	2,211.7	4.5	6.5	168.30	-139.7	-342.3	492.8	484.9	7.86	62.666		
2,400.0	2,393.5	2,331.1	2,306.7	4.8	6.8	168.77	-142.8	-358.2	519.4	511.2	8.20	63.343		
2,500.0	2,493.0	2,427.4	2,401.6	5.0	7.1	169.20	-146.0	-374.1	546.1	537.6	8.54	63.969		
2,600.0	2,592.5	2,523.7	2,496.5	5.3	7.5	169.59	-149.1	-390.0	572.8	563.9	8.87	64.549		
2,700.0	2,691.9	2,620.0	2,591.5	5.5	7.8	169.94	-152.2	-406.0	599.5	590.3	9.21	65.088		
2,800.0	2,791.4	2,716.3	2,686.4	5.7	8.1	170.26	-155.4	-421.9	626.3	616.7	9.55	65.590		
2,900.0	2,890.8	2,812.6	2,781.3	6.0	8.4	170.56	-158.5	-437.8	653.0	643.1	9.89	66.059		
3,000.0	2,990.3	2,908.9	2,876.2	6.2	8.8	170.83	-161.7	-453.7	679.8	669.6	10.22	66.497		
3,100.0	3,089.8	3,005.2	2,971.2	6.5	9.1	171.08	-164.8	-469.6	706.6	696.0	10.56	66.908		
3,200.0	3,189.3	3,101.5	3,066.1	6.7	9.4	171.34	-167.9	-485.5	733.2	722.2	10.91	67.206		
3,300.0	3,289.0	3,198.6	3,161.8	6.9	9.8	171.60	-171.1	-501.6	757.1	745.8	11.27	67.154		
3,400.0	3,388.9	3,296.4	3,258.3	7.1	10.1	171.79	-174.3	-517.7	777.7	766.0	11.63	66.848		
3,500.0	3,488.9	3,394.9	3,355.3	7.2	10.5	14.85	-177.5	-534.0	795.1	783.1	11.98	66.340		
3,600.0	3,588.9	3,493.5	3,452.5	7.4	10.8	14.93	-180.7	-550.3	811.5	799.2	12.33	65.811		
3,700.0	3,688.9	3,592.2	3,549.8	7.5	11.1	15.02	-183.9	-566.6	827.7	815.0	12.68	65.300		
3,800.0	3,788.9	3,690.9	3,647.1	7.7	11.5	15.11	-187.2	-582.9	843.9	830.9	13.02	64.817		
3,900.0	3,888.9	3,789.5	3,744.3	7.8	11.8	15.19	-190.4	-599.2	860.1	846.8	13.36	64.358		
4,000.0	3,988.9	3,888.2	3,841.6	8.0	12.2	15.27	-193.6	-615.5	876.4	862.7	13.71	63.923		
4,100.0	4,088.9	3,986.9	3,938.8	8.1	12.5	15.35	-196.8	-631.8	892.6	878.5	14.05	63.509		
4,200.0	4,188.9	4,085.5	4,036.1	8.3	12.8	15.43	-200.0	-648.1	908.8	894.4	14.40	63.114		
4,300.0	4,288.9	4,184.2	4,133.4	8.4	13.2	15.50	-203.2	-664.4	925.1	910.3	14.74	62.738		
4,400.0	4,388.9	4,282.9	4,230.6	8.6	13.5	15.57	-206.5	-680.7	941.3	926.2	15.09	62.379		
4,500.0	4,488.9	4,381.5	4,327.9	8.7	13.9	15.64	-209.7	-697.0	957.5	942.1	15.43	62.037		
4,600.0	4,588.9	4,480.2	4,425.1	8.9	14.2	15.70	-212.9	-713.3	973.8	958.0	15.78	61.709		
4,700.0	4,688.9	4,578.9	4,522.4	9.0	14.5	15.77	-216.1	-729.6	990.0	973.9	16.12	61.395		
4,800.0	4,788.9	4,677.6	4,619.6	9.2	14.9	15.83	-219.3	-745.9	1,006.2	989.8	16.47	61.094		
4,900.0	4,888.9	4,776.2	4,716.9	9.3	15.2	15.89	-222.5	-762.2	1,022.5	1,005.6	16.82	60.806		
5,000.0	4,988.9	4,874.9	4,814.2	9.5	15.6	15.95	-225.8	-778.5	1,038.7	1,021.5	17.16	60.529		
5,100.0	5,088.9	4,973.6	4,911.4	9.6	15.9	16.00	-229.0	-794.8	1,054.9	1,037.4	17.51	60.263		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Sec 6 T6S R96W (F06 696) - Chevron 6-35D - DD - Plan #2		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						
5,200.0	5,188.9	5,072.2	5,008.7	9.8	16.2	16.06	-232.2	-811.1	1,071.2	1,053.3	17.85	60.007						
5,300.0	5,288.9	5,170.9	5,105.9	10.0	16.6	16.11	-235.4	-827.4	1,087.4	1,069.2	18.20	59.761						
5,400.0	5,388.9	5,269.6	5,203.2	10.1	16.9	16.16	-238.6	-843.7	1,103.7	1,085.1	18.54	59.524						
5,500.0	5,488.9	5,368.2	5,300.5	10.3	17.3	16.21	-241.8	-860.0	1,119.9	1,101.0	18.89	59.296						
5,600.0	5,588.9	5,466.9	5,397.7	10.4	17.6	16.26	-245.0	-876.3	1,136.1	1,116.9	19.23	59.076						
5,700.0	5,688.9	5,565.6	5,495.0	10.6	17.9	16.30	-248.3	-892.6	1,152.4	1,132.8	19.58	58.864						
5,800.0	5,788.9	5,664.2	5,592.2	10.7	18.3	16.35	-251.5	-908.9	1,168.6	1,148.7	19.92	58.659						
5,900.0	5,888.8	5,762.9	5,689.5	10.9	18.6	16.39	-254.7	-925.2	1,184.9	1,164.6	20.27	58.461						
6,000.0	5,988.8	5,861.6	5,786.7	11.1	19.0	16.43	-257.9	-941.5	1,201.1	1,180.5	20.61	58.270						
6,100.0	6,088.8	5,960.2	5,884.0	11.2	19.3	16.48	-261.1	-957.8	1,217.4	1,196.4	20.96	58.085						

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Sec 6 T6S R96W (F06 696) - Chevron 6-36D - DD - Plan #2		Offset Site Error:		0.0 ft
Survey Program: O-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		Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor					
							+N/-S (ft)	+E/-W (ft)									
0.0	0.0	0.0	0.0	0.0	0.0	-143.53	-72.5	-53.6	90.1								
100.0	100.0	100.0	100.0	0.1	0.1	-143.53	-72.5	-53.6	90.1	89.9	0.27	331.043					
200.0	200.0	200.0	200.0	0.3	0.3	-143.53	-72.5	-53.6	90.1	89.5	0.62	145.064	CC, ES				
300.0	300.0	298.3	298.3	0.5	0.5	-142.63	-72.4	-55.3	91.1	90.1	0.97	93.967					
400.0	400.0	396.4	396.2	0.7	0.7	-140.05	-72.0	-60.3	94.0	92.6	1.32	70.943					
500.0	500.0	494.0	493.5	0.8	0.9	-136.12	-71.3	-68.6	99.2	97.5	1.70	58.417					
600.0	600.0	591.0	589.8	1.0	1.2	-131.33	-70.5	-80.1	107.2	105.1	2.10	50.951					
700.0	700.0	687.9	685.6	1.2	1.4	-126.20	-69.3	-94.8	118.3	115.8	2.55	46.417					
800.0	800.0	786.6	783.0	1.4	1.8	-121.67	-68.1	-110.5	130.9	127.9	3.02	43.305					
900.0	900.0	885.3	880.5	1.5	2.1	-117.95	-67.0	-126.2	144.2	140.7	3.51	41.075					
1,000.0	1,000.0	984.1	977.9	1.7	2.4	-114.86	-65.8	-141.9	158.0	153.9	4.01	39.435	SF				
1,100.0	1,100.0	1,082.5	1,075.1	1.9	2.7	164.89	-64.6	-157.6	173.8	169.8	3.93	44.272					
1,200.0	1,199.8	1,180.2	1,171.6	2.1	3.0	167.31	-63.4	-173.1	193.3	189.0	4.26	45.360					
1,300.0	1,299.5	1,277.2	1,267.3	2.3	3.3	169.44	-62.2	-188.6	216.4	211.8	4.59	47.182					
1,400.0	1,398.9	1,373.8	1,362.6	2.5	3.7	171.30	-61.0	-204.0	241.4	236.4	4.92	49.053					
1,500.0	1,498.4	1,470.3	1,458.0	2.7	4.0	172.81	-59.9	-219.3	266.5	261.3	5.26	50.715					
1,600.0	1,597.8	1,566.9	1,553.3	2.9	4.3	174.06	-58.7	-234.7	291.8	286.2	5.59	52.199					
1,700.0	1,697.3	1,663.5	1,648.6	3.1	4.6	175.11	-57.5	-250.1	317.3	311.3	5.93	53.528					
1,800.0	1,796.8	1,760.0	1,743.9	3.4	4.9	176.00	-56.3	-265.5	342.8	336.5	6.26	54.724					
1,900.0	1,896.2	1,856.6	1,839.3	3.6	5.2	176.77	-55.2	-280.8	368.3	361.7	6.60	55.804					
2,000.0	1,995.7	1,953.2	1,934.6	3.8	5.6	177.44	-54.0	-296.2	393.9	387.0	6.94	56.783					
2,100.0	2,095.1	2,049.7	2,029.9	4.1	5.9	178.03	-52.8	-311.6	419.6	412.3	7.28	57.675					
2,200.0	2,194.6	2,146.3	2,125.2	4.3	6.2	178.55	-51.7	-327.0	445.3	437.7	7.61	58.490					
2,300.0	2,294.1	2,242.9	2,220.6	4.5	6.5	179.02	-50.5	-342.3	471.1	463.1	7.95	59.237					
2,400.0	2,393.5	2,339.4	2,315.9	4.8	6.8	179.43	-49.3	-357.7	496.8	488.5	8.29	59.925					
2,500.0	2,493.0	2,436.0	2,411.2	5.0	7.2	179.81	-48.1	-373.1	522.6	514.0	8.63	60.558					
2,600.0	2,592.5	2,532.6	2,506.6	5.3	7.5	-179.85	-47.0	-388.5	548.4	539.4	8.97	61.145					
2,700.0	2,691.9	2,629.1	2,601.9	5.5	7.8	-179.54	-45.8	-403.8	574.2	564.9	9.31	61.689					
2,800.0	2,791.4	2,725.7	2,697.2	5.7	8.1	-179.26	-44.6	-419.2	600.1	590.4	9.65	62.195					
2,900.0	2,890.8	2,822.2	2,792.5	6.0	8.4	-179.00	-43.5	-434.6	625.9	615.9	9.99	62.667					
3,000.0	2,990.3	2,918.8	2,887.9	6.2	8.8	-178.76	-42.3	-449.9	651.8	641.4	10.33	63.108					
3,100.0	3,089.8	3,015.4	2,983.2	6.5	9.1	-178.54	-41.1	-465.3	677.6	667.0	10.67	63.521					
3,200.0	3,189.3	3,112.0	3,078.6	6.7	9.4	-178.34	-39.9	-480.7	703.3	692.3	11.02	63.816					
3,300.0	3,289.0	3,209.3	3,174.6	6.9	9.7	-178.16	-38.8	-496.2	726.2	714.9	11.39	63.758					
3,400.0	3,388.9	3,307.3	3,271.4	7.1	10.0	-177.97	-37.6	-511.8	745.8	734.1	11.75	63.452					
3,500.0	3,488.9	3,405.9	3,368.7	7.2	10.4	25.14	-36.4	-527.5	762.2	750.1	12.11	62.952					
3,600.0	3,588.9	3,504.7	3,466.2	7.4	10.7	25.33	-35.2	-543.2	777.6	765.2	12.45	62.438					
3,700.0	3,688.9	3,603.5	3,563.8	7.5	11.0	25.53	-34.0	-559.0	792.8	780.0	12.80	61.944					
3,800.0	3,788.9	3,702.3	3,661.3	7.7	11.4	25.72	-32.8	-574.7	808.1	794.9	13.14	61.478					
3,900.0	3,888.9	3,801.1	3,758.8	7.8	11.7	25.91	-31.6	-590.4	823.3	809.8	13.49	61.037					
4,000.0	3,988.9	3,899.9	3,856.3	8.0	12.0	26.09	-30.4	-606.1	838.6	824.8	13.83	60.619					
4,100.0	4,088.9	3,998.7	3,953.9	8.1	12.3	26.26	-29.2	-621.9	853.9	839.7	14.18	60.222					
4,200.0	4,188.9	4,097.5	4,051.4	8.3	12.7	26.43	-28.0	-637.6	869.1	854.6	14.52	59.844					
4,300.0	4,288.9	4,196.3	4,148.9	8.4	13.0	26.59	-26.8	-653.3	884.4	869.5	14.87	59.484					
4,400.0	4,388.9	4,295.1	4,246.5	8.6	13.3	26.74	-25.6	-669.1	899.7	884.5	15.21	59.141					
4,500.0	4,488.9	4,393.9	4,344.0	8.7	13.6	26.89	-24.4	-684.8	915.0	899.4	15.56	58.814					
4,600.0	4,588.9	4,492.7	4,441.5	8.9	14.0	27.04	-23.2	-700.5	930.3	914.4	15.90	58.502					
4,700.0	4,688.9	4,591.5	4,539.0	9.0	14.3	27.18	-22.0	-716.3	945.6	929.3	16.25	58.203					
4,800.0	4,788.9	4,690.3	4,636.6	9.2	14.6	27.31	-20.8	-732.0	960.9	944.3	16.59	57.917					
4,900.0	4,888.9	4,789.0	4,734.1	9.3	15.0	27.44	-19.6	-747.7	976.2	959.3	16.94	57.643					
5,000.0	4,988.9	4,887.8	4,831.6	9.5	15.3	27.57	-18.4	-763.4	991.5	974.2	17.28	57.381					
5,100.0	5,088.9	4,986.6	4,929.2	9.6	15.6	27.70	-17.2	-779.2	1,006.9	989.2	17.62	57.128					

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Sec 6 T6S R96W (F06 696) - Chevron 6-36D - DD - Plan #2												<b>Offset Site Error:</b>	0.0 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	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	
5,200.0	5,188.9	5,085.4	5,026.7	9.8	15.9	27.82	-16.0	-794.9	1,022.2	1,004.2	17.97	56.886	
5,300.0	5,288.9	5,184.2	5,124.2	10.0	16.3	27.93	-14.8	-810.6	1,037.5	1,019.2	18.31	56.653	
5,400.0	5,388.9	5,283.0	5,221.7	10.1	16.6	28.05	-13.6	-826.4	1,052.8	1,034.2	18.66	56.429	
5,500.0	5,488.9	5,381.8	5,319.3	10.3	16.9	28.16	-12.4	-842.1	1,068.2	1,049.2	19.00	56.213	
5,600.0	5,588.9	5,480.6	5,416.8	10.4	17.3	28.26	-11.2	-857.8	1,083.5	1,064.2	19.35	56.005	
5,700.0	5,688.9	5,579.4	5,514.3	10.6	17.6	28.37	-10.0	-873.6	1,098.9	1,079.2	19.69	55.805	
5,800.0	5,788.9	5,678.2	5,611.9	10.7	17.9	28.47	-8.8	-889.3	1,114.2	1,094.2	20.04	55.611	
5,900.0	5,888.8	5,777.0	5,709.4	10.9	18.2	28.57	-7.6	-905.0	1,129.6	1,109.2	20.38	55.425	
6,000.0	5,988.8	5,875.8	5,806.9	11.1	18.6	28.66	-6.4	-920.7	1,144.9	1,124.2	20.73	55.244	
6,100.0	6,088.8	5,974.6	5,904.4	11.2	18.9	28.75	-5.2	-936.5	1,160.3	1,139.2	21.07	55.070	
6,200.0	6,188.8	6,073.4	6,002.0	11.4	19.2	28.84	-4.0	-952.2	1,175.7	1,154.3	21.41	54.901	
6,300.0	6,288.8	6,172.2	6,099.5	11.6	19.5	28.93	-2.8	-967.9	1,191.0	1,169.3	21.76	54.738	
6,400.0	6,388.8	6,271.0	6,197.0	11.7	19.9	29.02	-1.6	-983.7	1,206.4	1,184.3	22.10	54.580	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design      Sec 6 T6S R96W (F06 696) - Chevron 6-37D - DD - Plan #2													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 Depth (ft)	Vertical Depth (ft)	Measured Depth 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	-143.62	-60.5	-44.5	75.1					
100.0	100.0	100.0	100.0	0.1	0.1	-143.62	-60.5	-44.5	75.1	74.8	0.27	275.843		
200.0	200.0	200.0	200.0	0.3	0.3	-143.62	-60.5	-44.5	75.1	74.5	0.62	120.875		
300.0	300.0	300.0	300.0	0.5	0.5	-143.62	-60.5	-44.5	75.1	74.1	0.97	77.395	CC, ES	
400.0	400.0	399.2	399.2	0.7	0.7	-142.37	-59.9	-46.2	75.6	74.3	1.32	57.346		
500.0	500.0	498.2	498.0	0.8	0.9	-138.75	-58.1	-51.0	77.4	75.7	1.67	46.328		
600.0	600.0	596.7	596.2	1.0	1.1	-133.13	-55.3	-59.0	80.9	78.9	2.03	39.822		
700.0	700.0	694.5	693.3	1.2	1.3	-126.20	-51.3	-70.1	87.1	84.7	2.42	35.966		
800.0	800.0	791.4	789.0	1.4	1.6	-118.79	-46.2	-84.1	96.6	93.7	2.86	33.769		
900.0	900.0	889.4	885.5	1.5	1.9	-111.91	-40.4	-100.4	109.2	105.8	3.34	32.666		
1,000.0	1,000.0	987.8	982.3	1.7	2.3	-106.44	-34.5	-116.8	123.0	119.2	3.85	31.970	SF	
1,100.0	1,100.0	1,086.0	1,078.9	1.9	2.6	175.01	-28.6	-133.1	139.5	135.5	3.97	35.169		
1,200.0	1,199.8	1,183.4	1,174.8	2.1	2.9	178.49	-22.7	-149.4	160.0	155.7	4.31	37.170		
1,300.0	1,299.5	1,280.1	1,270.0	2.3	3.3	-178.83	-16.9	-165.5	184.4	179.8	4.63	39.784		
1,400.0	1,398.9	1,376.3	1,364.7	2.5	3.6	-176.80	-11.2	-181.5	210.6	205.7	4.98	42.325		
1,500.0	1,498.4	1,472.6	1,459.4	2.7	3.9	-175.22	-5.4	-197.5	237.1	231.8	5.32	44.567		
1,600.0	1,597.8	1,568.8	1,554.2	2.9	4.3	-173.96	0.4	-213.6	263.7	258.0	5.66	46.551		
1,700.0	1,697.3	1,665.1	1,648.9	3.1	4.6	-172.92	6.1	-229.6	290.4	284.4	6.01	48.317		
1,800.0	1,796.8	1,761.3	1,743.6	3.4	5.0	-172.06	11.9	-245.6	317.1	310.8	6.36	49.895		
1,900.0	1,896.2	1,857.6	1,838.4	3.6	5.3	-171.34	17.7	-261.7	343.9	337.2	6.70	51.312		
2,000.0	1,995.7	1,953.9	1,933.1	3.8	5.7	-170.72	23.5	-277.7	370.8	363.7	7.05	52.592		
2,100.0	2,095.1	2,050.1	2,027.8	4.1	6.0	-170.18	29.2	-293.8	397.7	390.3	7.40	53.751		
2,200.0	2,194.6	2,146.4	2,122.6	4.3	6.3	-169.71	35.0	-309.8	424.6	416.8	7.75	54.805		
2,300.0	2,294.1	2,242.6	2,217.3	4.5	6.7	-169.30	40.8	-325.8	451.5	443.4	8.10	55.769		
2,400.0	2,393.5	2,338.9	2,312.0	4.8	7.0	-168.93	46.6	-341.9	478.5	470.0	8.45	56.652		
2,500.0	2,493.0	2,435.1	2,406.8	5.0	7.4	-168.61	52.3	-357.9	505.5	496.7	8.80	57.464		
2,600.0	2,592.5	2,531.4	2,501.5	5.3	7.7	-168.31	58.1	-373.9	532.4	523.3	9.15	58.214		
2,700.0	2,691.9	2,627.6	2,596.2	5.5	8.1	-168.05	63.9	-390.0	559.5	550.0	9.50	58.907		
2,800.0	2,791.4	2,723.9	2,691.0	5.7	8.4	-167.80	69.6	-406.0	586.5	576.6	9.85	59.551		
2,900.0	2,890.8	2,820.2	2,785.7	6.0	8.7	-167.58	75.4	-422.0	613.5	603.3	10.20	60.149		
3,000.0	2,990.3	2,916.4	2,880.4	6.2	9.1	-167.38	81.2	-438.1	640.5	630.0	10.55	60.707		
3,100.0	3,089.8	3,012.7	2,975.2	6.5	9.4	-167.20	87.0	-454.1	667.5	656.6	10.90	61.229		
3,200.0	3,189.3	3,109.0	3,070.0	6.7	9.8	-167.07	92.7	-470.2	694.4	683.1	11.27	61.622		
3,300.0	3,289.0	3,206.0	3,165.4	6.9	10.1	-166.97	98.6	-486.3	718.6	706.9	11.65	61.679		
3,400.0	3,388.9	3,303.7	3,261.6	7.1	10.5	-166.80	104.4	-502.6	739.5	727.5	12.02	61.518		
3,500.0	3,488.9	3,402.0	3,358.4	7.2	10.8	36.38	110.3	-519.0	757.3	744.9	12.38	61.193		
3,600.0	3,588.9	3,500.5	3,455.3	7.4	11.2	36.68	116.2	-535.4	774.3	761.5	12.72	60.866		
3,700.0	3,688.9	3,599.0	3,552.2	7.5	11.5	37.00	122.1	-551.8	791.0	778.0	13.06	60.557		
3,800.0	3,788.9	3,697.4	3,649.1	7.7	11.9	37.30	128.0	-568.2	807.9	794.4	13.40	60.266		
3,900.0	3,888.9	3,795.9	3,746.1	7.8	12.2	37.59	133.9	-584.6	824.7	810.9	13.75	59.993		
4,000.0	3,988.9	3,894.4	3,843.0	8.0	12.6	37.87	139.8	-601.0	841.5	827.4	14.09	59.735		
4,100.0	4,088.9	3,992.9	3,939.9	8.1	12.9	38.14	145.7	-617.4	858.4	844.0	14.43	59.491		
4,200.0	4,188.9	4,091.4	4,036.9	8.3	13.3	38.40	151.6	-633.8	875.3	860.5	14.77	59.260		
4,300.0	4,288.9	4,189.9	4,133.8	8.4	13.6	38.65	157.6	-650.2	892.2	877.1	15.11	59.042		
4,400.0	4,388.9	4,288.4	4,230.7	8.6	14.0	38.89	163.5	-666.6	909.1	893.7	15.45	58.834		
4,500.0	4,488.9	4,386.9	4,327.7	8.7	14.3	39.12	169.4	-683.1	926.0	910.3	15.79	58.637		
4,600.0	4,588.9	4,485.3	4,424.6	8.9	14.7	39.34	175.3	-699.5	943.0	926.9	16.13	58.449		
4,700.0	4,688.9	4,583.8	4,521.5	9.0	15.1	39.56	181.2	-715.9	960.0	943.5	16.47	58.270		
4,800.0	4,788.9	4,682.3	4,618.5	9.2	15.4	39.77	187.1	-732.3	976.9	960.1	16.81	58.099		
4,900.0	4,888.9	4,780.8	4,715.4	9.3	15.8	39.97	193.0	-748.7	993.9	976.8	17.16	57.936		
5,000.0	4,988.9	4,879.3	4,812.3	9.5	16.1	40.16	198.9	-765.1	1,010.9	993.4	17.50	57.779		
5,100.0	5,088.9	4,977.8	4,909.2	9.6	16.5	40.35	204.8	-781.5	1,027.9	1,010.1	17.84	57.630		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Sec 6 T6S R96W (F06 696) - Chevron 6-37D - DD - Plan #2		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					
5,200.0	5,188.9	5,076.3	5,006.2	9.8	16.8	40.53	210.7	-797.9	1,044.9	1,026.8	18.18	57.486					
5,300.0	5,288.9	5,174.8	5,103.1	10.0	17.2	40.70	216.6	-814.3	1,062.0	1,043.4	18.52	57.348					
5,400.0	5,388.9	5,273.3	5,200.0	10.1	17.5	40.87	222.5	-830.7	1,079.0	1,060.1	18.86	57.216					
5,500.0	5,488.9	5,371.7	5,297.0	10.3	17.9	41.04	228.4	-847.1	1,096.0	1,076.9	19.20	57.089					
5,600.0	5,588.9	5,470.2	5,393.9	10.4	18.2	41.20	234.3	-863.5	1,113.1	1,093.6	19.54	56.966					
5,700.0	5,688.9	5,568.7	5,490.8	10.6	18.6	41.35	240.2	-879.9	1,130.2	1,110.3	19.88	56.849					
5,800.0	5,788.9	5,667.2	5,587.8	10.7	18.9	41.50	246.1	-896.4	1,147.2	1,127.0	20.22	56.735					
5,900.0	5,888.8	5,765.7	5,684.7	10.9	19.3	41.65	252.1	-912.8	1,164.3	1,143.8	20.56	56.625					
6,000.0	5,988.8	5,864.2	5,781.6	11.1	19.6	41.79	258.0	-929.2	1,181.4	1,160.5	20.90	56.519					
6,100.0	6,088.8	5,962.7	5,878.6	11.2	20.0	41.93	263.9	-945.6	1,198.5	1,177.3	21.24	56.417					
6,200.0	6,188.8	6,061.2	5,975.5	11.4	20.3	42.06	269.8	-962.0	1,215.6	1,194.0	21.58	56.318					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Sec 6 T6S R96W (F06 696) - Chevron 6-38D - 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	-143.53	-48.4	-35.8	60.2					
100.0	100.0	100.0	100.0	0.1	0.1	-143.53	-48.4	-35.8	60.2	60.0	0.27	221.259		
200.0	200.0	200.0	200.0	0.3	0.3	-143.53	-48.4	-35.8	60.2	59.6	0.62	96.956 CC		
300.0	300.0	299.9	299.9	0.5	0.5	-141.87	-47.4	-37.2	60.3	59.3	0.97	62.139 ES		
400.0	400.0	399.6	399.4	0.7	0.7	-136.96	-44.4	-41.5	60.8	59.4	1.32	46.021		
500.0	500.0	498.8	498.3	0.8	0.9	-129.11	-39.4	-48.5	62.5	60.8	1.68	37.252		
600.0	600.0	597.3	596.0	1.0	1.2	-119.17	-32.5	-58.2	66.8	64.7	2.06	32.358		
700.0	700.0	694.8	692.4	1.2	1.5	-108.59	-23.7	-70.5	74.8	72.3	2.51	29.816		
800.0	800.0	792.6	788.6	1.4	1.8	-98.99	-13.4	-85.0	86.8	83.8	3.01	28.796		
900.0	900.0	891.0	885.2	1.5	2.2	-91.73	-3.0	-99.6	100.8	97.2	3.55	28.409		
1,000.0	1,000.0	989.3	981.9	1.7	2.5	-86.28	7.4	-114.3	115.9	111.9	4.09	28.353 SF		
1,100.0	1,100.0	1,087.3	1,078.3	1.9	2.9	-165.13	17.8	-128.9	133.6	129.6	3.99	33.495		
1,200.0	1,199.8	1,184.8	1,174.1	2.1	3.2	-162.36	28.2	-143.4	155.0	150.6	4.32	35.863		
1,300.0	1,299.5	1,281.5	1,269.2	2.3	3.6	-160.58	38.4	-157.8	179.8	175.1	4.66	38.607		
1,400.0	1,398.9	1,377.9	1,364.0	2.5	3.9	-159.52	48.7	-172.2	206.2	201.2	5.01	41.123		
1,500.0	1,498.4	1,474.3	1,458.7	2.7	4.3	-158.70	58.9	-186.6	232.7	227.3	5.37	43.293		
1,600.0	1,597.8	1,570.7	1,553.5	2.9	4.6	-158.04	69.1	-200.9	259.2	253.4	5.74	45.180		
1,700.0	1,697.3	1,667.1	1,648.3	3.1	5.0	-157.51	79.4	-215.3	285.7	279.6	6.10	46.833		
1,800.0	1,796.8	1,763.5	1,743.0	3.4	5.3	-157.07	89.6	-229.7	312.2	305.8	6.47	48.291		
1,900.0	1,896.2	1,859.9	1,837.8	3.6	5.7	-156.70	99.8	-244.0	338.8	332.0	6.83	49.587		
2,000.0	1,995.7	1,956.3	1,932.5	3.8	6.0	-156.38	110.1	-258.4	365.4	358.2	7.20	50.745		
2,100.0	2,095.1	2,052.6	2,027.3	4.1	6.4	-156.10	120.3	-272.8	392.0	384.4	7.57	51.785		
2,200.0	2,194.6	2,149.0	2,122.0	4.3	6.7	-155.86	130.5	-287.2	418.5	410.6	7.94	52.725		
2,300.0	2,294.1	2,245.4	2,216.8	4.5	7.1	-155.65	140.8	-301.5	445.1	436.8	8.31	53.577		
2,400.0	2,393.5	2,341.8	2,311.6	4.8	7.4	-155.46	151.0	-315.9	471.7	463.1	8.68	54.354		
2,500.0	2,493.0	2,438.2	2,406.3	5.0	7.8	-155.29	161.2	-330.3	498.3	489.3	9.05	55.064		
2,600.0	2,592.5	2,534.6	2,501.1	5.3	8.1	-155.14	171.4	-344.6	525.0	515.5	9.42	55.716		
2,700.0	2,691.9	2,631.0	2,595.8	5.5	8.5	-155.01	181.7	-359.0	551.6	541.8	9.79	56.317		
2,800.0	2,791.4	2,727.3	2,690.6	5.7	8.8	-154.88	191.9	-373.4	578.2	568.0	10.17	56.872		
2,900.0	2,890.8	2,823.7	2,785.4	6.0	9.2	-154.77	202.1	-387.7	604.8	594.3	10.54	57.386		
3,000.0	2,990.3	2,920.1	2,880.1	6.2	9.5	-154.67	212.4	-402.1	631.4	620.5	10.91	57.864		
3,100.0	3,089.8	3,016.5	2,974.9	6.5	9.9	-154.57	222.6	-416.5	658.0	646.7	11.29	58.309		
3,200.0	3,189.3	3,112.9	3,069.7	6.7	10.2	-154.56	232.8	-430.8	684.5	672.8	11.67	58.631		
3,300.0	3,289.0	3,210.0	3,165.1	6.9	10.6	-154.58	243.1	-445.3	708.5	696.4	12.07	58.679		
3,400.0	3,388.9	3,307.7	3,261.2	7.1	11.0	-154.47	253.5	-459.9	729.4	716.9	12.45	58.575		
3,500.0	3,488.9	3,405.9	3,357.7	7.2	11.3	48.75	263.9	-474.5	747.5	734.7	12.81	58.366		
3,600.0	3,588.9	3,504.3	3,454.4	7.4	11.7	49.13	274.4	-489.2	764.8	751.6	13.15	58.177		
3,700.0	3,688.9	3,602.6	3,551.1	7.5	12.0	49.54	284.8	-503.8	782.0	768.5	13.48	58.004		
3,800.0	3,788.9	3,701.0	3,647.8	7.7	12.4	49.93	295.2	-518.5	799.3	785.4	13.82	57.845		
3,900.0	3,888.9	3,799.3	3,744.5	7.8	12.8	50.31	305.7	-533.1	816.5	802.4	14.15	57.696		
4,000.0	3,988.9	3,897.7	3,841.2	8.0	13.1	50.67	316.1	-547.8	833.8	819.4	14.49	57.558		
4,100.0	4,088.9	3,996.0	3,937.9	8.1	13.5	51.01	326.6	-562.5	851.2	836.4	14.82	57.429		
4,200.0	4,188.9	4,094.4	4,034.6	8.3	13.8	51.35	337.0	-577.1	868.6	853.4	15.16	57.307		
4,300.0	4,288.9	4,192.8	4,131.3	8.4	14.2	51.66	347.4	-591.8	886.0	870.5	15.49	57.194		
4,400.0	4,388.9	4,291.1	4,228.0	8.6	14.6	51.97	357.9	-606.5	903.4	887.6	15.83	57.086		
4,500.0	4,488.9	4,389.5	4,324.7	8.7	14.9	52.27	368.3	-621.1	920.9	904.7	16.16	56.985		
4,600.0	4,588.9	4,487.8	4,421.4	8.9	15.3	52.55	378.8	-635.8	938.3	921.8	16.49	56.890		
4,700.0	4,688.9	4,586.2	4,518.1	9.0	15.6	52.83	389.2	-650.4	955.8	939.0	16.83	56.799		
4,800.0	4,788.9	4,684.5	4,614.7	9.2	16.0	53.09	399.6	-665.1	973.3	956.2	17.16	56.713		
4,900.0	4,888.9	4,782.9	4,711.4	9.3	16.4	53.34	410.1	-679.8	990.9	973.4	17.50	56.631		
5,000.0	4,988.9	4,881.2	4,808.1	9.5	16.7	53.59	420.5	-694.4	1,008.4	990.6	17.83	56.553		
5,100.0	5,088.9	4,979.6	4,904.8	9.6	17.1	53.83	430.9	-709.1	1,026.0	1,007.8	18.17	56.479		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design											Sec 6 T6S R96W (F06 696) - Chevron 6-38D - 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	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore	Centre	Between	Between	Total	Separation	Warning				
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses	Uncertainty	Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	Axis						
5,200.0	5,188.9	5,078.0	5,001.5	9.8	17.4	54.06	441.4	-723.7	1,043.6	1,025.1	18.50	56.408					
5,300.0	5,288.9	5,176.3	5,098.2	10.0	17.8	54.28	451.8	-738.4	1,061.2	1,042.4	18.84	56.340					
5,400.0	5,388.9	5,274.7	5,194.9	10.1	18.2	54.49	462.3	-753.1	1,078.8	1,059.6	19.17	56.275					
5,500.0	5,488.9	5,373.0	5,291.6	10.3	18.5	54.70	472.7	-767.7	1,096.5	1,076.9	19.51	56.212					
5,600.0	5,588.9	5,471.4	5,388.3	10.4	18.9	54.90	483.1	-782.4	1,114.1	1,094.3	19.84	56.152					
5,700.0	5,688.9	5,569.7	5,485.0	10.6	19.3	55.10	493.6	-797.0	1,131.8	1,111.6	20.18	56.095					
5,800.0	5,788.9	5,668.1	5,581.7	10.7	19.6	55.29	504.0	-811.7	1,149.4	1,128.9	20.51	56.039					
5,900.0	5,888.8	5,766.5	5,678.4	10.9	20.0	55.47	514.5	-826.4	1,167.1	1,146.3	20.85	55.986					
6,000.0	5,988.8	5,864.8	5,775.1	11.1	20.3	55.65	524.9	-841.0	1,184.8	1,163.6	21.18	55.934					
6,100.0	6,088.8	5,963.2	5,871.8	11.2	20.7	55.82	535.3	-855.7	1,202.5	1,181.0	21.52	55.884					
6,200.0	6,188.8	6,061.5	5,968.5	11.4	21.1	55.99	545.8	-870.4	1,220.2	1,198.4	21.85	55.836					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design      Sec 6 T6S R96W (F06 696) - Chevron 6-38D - DD - Plan #2														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	-143.53	-48.4	-35.8	60.2						
100.0	100.0	100.0	100.0	0.1	0.1	-143.53	-48.4	-35.8	60.2	60.0	0.27	221.259			
200.0	200.0	200.0	200.0	0.3	0.3	-143.53	-48.4	-35.8	60.2	59.6	0.62	96.956 CC			
300.0	300.0	299.9	299.9	0.5	0.5	-141.87	-47.4	-37.2	60.3	59.3	0.97	62.139 ES			
400.0	400.0	399.6	399.4	0.7	0.7	-136.96	-44.4	-41.5	60.8	59.4	1.32	46.021			
500.0	500.0	498.8	498.3	0.8	0.9	-129.11	-39.4	-48.5	62.5	60.8	1.68	37.252			
600.0	600.0	597.3	596.0	1.0	1.2	-119.17	-32.5	-58.2	66.8	64.7	2.06	32.358			
700.0	700.0	694.8	692.4	1.2	1.5	-108.59	-23.7	-70.5	74.8	72.3	2.51	29.816			
800.0	800.0	792.6	788.6	1.4	1.8	-98.99	-13.4	-85.0	86.8	83.8	3.01	28.796			
900.0	900.0	891.0	885.2	1.5	2.2	-91.73	-3.0	-99.6	100.8	97.2	3.55	28.409			
1,000.0	1,000.0	989.3	981.9	1.7	2.5	-86.28	7.4	-114.3	115.9	111.9	4.09	28.353 SF			
1,100.0	1,100.0	1,087.3	1,078.3	1.9	2.9	-165.13	17.8	-128.9	133.6	129.6	3.99	33.495			
1,200.0	1,199.8	1,184.8	1,174.1	2.1	3.2	-162.36	28.2	-143.4	155.0	150.6	4.32	35.863			
1,300.0	1,299.5	1,281.5	1,269.2	2.3	3.6	-160.58	38.4	-157.8	179.8	175.1	4.66	38.607			
1,400.0	1,398.9	1,377.9	1,364.0	2.5	3.9	-159.52	48.7	-172.2	206.2	201.2	5.01	41.123			
1,500.0	1,498.4	1,474.3	1,458.7	2.7	4.3	-158.70	58.9	-186.6	232.7	227.3	5.37	43.293			
1,600.0	1,597.8	1,570.7	1,553.5	2.9	4.6	-158.04	69.1	-200.9	259.2	253.4	5.74	45.180			
1,700.0	1,697.3	1,667.1	1,648.3	3.1	5.0	-157.51	79.4	-215.3	285.7	279.6	6.10	46.833			
1,800.0	1,796.8	1,763.5	1,743.0	3.4	5.3	-157.07	89.6	-229.7	312.2	305.8	6.47	48.291			
1,900.0	1,896.2	1,859.9	1,837.8	3.6	5.7	-156.70	99.8	-244.0	338.8	332.0	6.83	49.587			
2,000.0	1,995.7	1,956.3	1,932.5	3.8	6.0	-156.38	110.1	-258.4	365.4	358.2	7.20	50.745			
2,100.0	2,095.1	2,052.6	2,027.3	4.1	6.4	-156.10	120.3	-272.8	392.0	384.4	7.57	51.785			
2,200.0	2,194.6	2,149.0	2,122.0	4.3	6.7	-155.86	130.5	-287.2	418.5	410.6	7.94	52.725			
2,300.0	2,294.1	2,245.4	2,216.8	4.5	7.1	-155.65	140.8	-301.5	445.1	436.8	8.31	53.577			
2,400.0	2,393.5	2,341.8	2,311.6	4.8	7.4	-155.46	151.0	-315.9	471.7	463.1	8.68	54.354			
2,500.0	2,493.0	2,438.2	2,406.3	5.0	7.8	-155.29	161.2	-330.3	498.3	489.3	9.05	55.064			
2,600.0	2,592.5	2,534.6	2,501.1	5.3	8.1	-155.14	171.4	-344.6	525.0	515.5	9.42	55.716			
2,700.0	2,691.9	2,631.0	2,595.8	5.5	8.5	-155.01	181.7	-359.0	551.6	541.8	9.79	56.317			
2,800.0	2,791.4	2,727.3	2,690.6	5.7	8.8	-154.88	191.9	-373.4	578.2	568.0	10.17	56.872			
2,900.0	2,890.8	2,823.7	2,785.4	6.0	9.2	-154.77	202.1	-387.7	604.8	594.3	10.54	57.386			
3,000.0	2,990.3	2,920.1	2,880.1	6.2	9.5	-154.67	212.4	-402.1	631.4	620.5	10.91	57.864			
3,100.0	3,089.8	3,016.5	2,974.9	6.5	9.9	-154.57	222.6	-416.5	658.0	646.7	11.29	58.309			
3,200.0	3,189.3	3,112.9	3,069.7	6.7	10.2	-154.56	232.8	-430.8	684.5	672.8	11.67	58.631			
3,300.0	3,289.0	3,210.0	3,165.1	6.9	10.6	-154.58	243.1	-445.3	708.5	696.4	12.07	58.679			
3,400.0	3,388.9	3,307.7	3,261.2	7.1	11.0	-154.47	253.5	-459.9	729.4	716.9	12.45	58.575			
3,500.0	3,488.9	3,405.9	3,357.7	7.2	11.3	48.75	263.9	-474.5	747.5	734.7	12.81	58.366			
3,600.0	3,588.9	3,504.3	3,454.4	7.4	11.7	49.13	274.4	-489.2	764.8	751.6	13.15	58.177			
3,700.0	3,688.9	3,602.6	3,551.1	7.5	12.0	49.54	284.8	-503.8	782.0	768.5	13.48	58.004			
3,800.0	3,788.9	3,701.0	3,647.8	7.7	12.4	49.93	295.2	-518.5	799.3	785.4	13.82	57.845			
3,900.0	3,888.9	3,799.3	3,744.5	7.8	12.8	50.31	305.7	-533.1	816.5	802.4	14.15	57.696			
4,000.0	3,988.9	3,897.7	3,841.2	8.0	13.1	50.67	316.1	-547.8	833.8	819.4	14.49	57.558			
4,100.0	4,088.9	3,996.0	3,937.9	8.1	13.5	51.01	326.6	-562.5	851.2	836.4	14.82	57.429			
4,200.0	4,188.9	4,094.4	4,034.6	8.3	13.8	51.35	337.0	-577.1	868.6	853.4	15.16	57.307			
4,300.0	4,288.9	4,192.8	4,131.3	8.4	14.2	51.66	347.4	-591.8	886.0	870.5	15.49	57.194			
4,400.0	4,388.9	4,291.1	4,228.0	8.6	14.6	51.97	357.9	-606.5	903.4	887.6	15.83	57.086			
4,500.0	4,488.9	4,389.5	4,324.7	8.7	14.9	52.27	368.3	-621.1	920.9	904.7	16.16	56.985			
4,600.0	4,588.9	4,487.8	4,421.4	8.9	15.3	52.55	378.8	-635.8	938.3	921.8	16.49	56.890			
4,700.0	4,688.9	4,586.2	4,518.1	9.0	15.6	52.83	389.2	-650.4	955.8	939.0	16.83	56.799			
4,800.0	4,788.9	4,684.5	4,614.7	9.2	16.0	53.09	399.6	-665.1	973.3	956.2	17.16	56.713			
4,900.0	4,888.9	4,782.9	4,711.4	9.3	16.4	53.34	410.1	-679.8	990.9	973.4	17.50	56.631			
5,000.0	4,988.9	4,881.2	4,808.1	9.5	16.7	53.59	420.5	-694.4	1,008.4	990.6	17.83	56.553			
5,100.0	5,088.9	4,979.6	4,904.8	9.6	17.1	53.83	430.9	-709.1	1,026.0	1,007.8	18.17	56.479			

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Sec 6 T6S R96W (F06 696) - Chevron 6-38D - DD - Plan #2		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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)							
5,200.0	5,188.9	5,078.0	5,001.5	9.8	17.4	54.06	441.4	-723.7	1,043.6	1,025.1	18.50	56.408					
5,300.0	5,288.9	5,176.3	5,098.2	10.0	17.8	54.28	451.8	-738.4	1,061.2	1,042.4	18.84	56.340					
5,400.0	5,388.9	5,274.7	5,194.9	10.1	18.2	54.49	462.3	-753.1	1,078.8	1,059.6	19.17	56.275					
5,500.0	5,488.9	5,373.0	5,291.6	10.3	18.5	54.70	472.7	-767.7	1,096.5	1,076.9	19.51	56.212					
5,600.0	5,588.9	5,471.4	5,388.3	10.4	18.9	54.90	483.1	-782.4	1,114.1	1,094.3	19.84	56.152					
5,700.0	5,688.9	5,569.7	5,485.0	10.6	19.3	55.10	493.6	-797.0	1,131.8	1,111.6	20.18	56.095					
5,800.0	5,788.9	5,668.1	5,581.7	10.7	19.6	55.29	504.0	-811.7	1,149.4	1,128.9	20.51	56.039					
5,900.0	5,888.8	5,766.5	5,678.4	10.9	20.0	55.47	514.5	-826.4	1,167.1	1,146.3	20.85	55.986					
6,000.0	5,988.8	5,864.8	5,775.1	11.1	20.3	55.65	524.9	-841.0	1,184.8	1,163.6	21.18	55.934					
6,100.0	6,088.8	5,963.2	5,871.8	11.2	20.7	55.82	535.3	-855.7	1,202.5	1,181.0	21.52	55.884					
6,200.0	6,188.8	6,061.5	5,968.5	11.4	21.1	55.99	545.8	-870.4	1,220.2	1,198.4	21.85	55.836					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Section 6 T6S R96W - Chevron 6-25D - DD - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-													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		
4,400.0	4,388.9	4,565.1	4,500.9	8.6	15.2	113.50	1,205.2	81.5	1,206.8	1,190.4	16.45	73.361		
4,500.0	4,488.9	4,663.5	4,597.8	8.7	15.6	113.55	1,188.1	83.9	1,189.5	1,172.7	16.77	70.915		
4,600.0	4,588.9	4,762.0	4,694.8	8.9	15.9	113.60	1,171.0	86.3	1,172.2	1,155.1	17.10	68.557		
4,700.0	4,688.9	4,860.5	4,791.7	9.0	16.3	113.64	1,153.8	88.6	1,154.8	1,137.4	17.42	66.284		
4,800.0	4,788.9	4,959.0	4,888.7	9.2	16.6	113.69	1,136.7	91.0	1,137.5	1,119.8	17.75	64.091		
4,900.0	4,888.9	5,057.5	4,985.6	9.3	16.9	113.75	1,119.5	93.3	1,120.2	1,102.1	18.07	61.975		
5,000.0	4,988.9	5,156.0	5,082.6	9.5	17.3	113.80	1,102.4	95.7	1,102.9	1,084.5	18.40	59.931		
5,100.0	5,088.9	5,254.4	5,179.5	9.6	17.6	113.85	1,085.2	98.0	1,085.5	1,066.8	18.73	57.957		
5,200.0	5,188.9	5,352.9	5,276.5	9.8	18.0	113.91	1,068.1	100.4	1,068.2	1,049.2	19.06	56.049		
5,300.0	5,288.9	5,451.4	5,373.4	10.0	18.3	113.97	1,050.9	102.8	1,050.9	1,031.5	19.39	54.203		
5,400.0	5,388.9	5,549.9	5,470.4	10.1	18.7	114.03	1,033.8	105.1	1,033.6	1,013.9	19.72	52.417		
5,500.0	5,488.9	5,648.4	5,567.3	10.3	19.0	114.09	1,016.7	107.5	1,016.3	996.2	20.05	50.689		
5,600.0	5,588.9	5,746.9	5,664.3	10.4	19.4	114.16	999.5	109.8	999.0	978.6	20.38	49.015		
5,700.0	5,688.9	5,845.3	5,761.2	10.6	19.7	114.22	982.4	112.2	981.6	960.9	20.71	47.394		
5,800.0	5,788.9	5,924.0	5,838.7	10.7	20.0	114.28	969.2	114.0	965.0	944.0	21.01	45.931		
5,900.0	5,888.8	6,000.0	5,914.0	10.9	20.2	114.33	958.7	115.4	951.3	930.0	21.30	44.652		
6,000.0	5,988.8	6,064.8	5,978.4	11.1	20.3	114.37	951.7	116.4	940.4	918.9	21.58	43.583		
6,100.0	6,088.8	6,135.9	6,049.3	11.2	20.5	114.40	946.0	117.2	932.7	910.8	21.86	42.659		
6,200.0	6,188.8	6,200.0	6,113.3	11.4	20.5	114.43	942.8	117.6	928.0	905.9	22.14	41.920		
6,300.0	6,288.8	6,286.7	6,200.0	11.6	20.6	114.47	941.2	117.8	926.4	904.0	22.45	41.261		
6,322.5	6,311.3	6,298.2	6,211.5	11.6	20.6	114.47	941.2	117.8	926.4	903.9	22.51	41.157		
6,400.0	6,388.8	6,377.1	6,290.3	11.7	20.7	114.49	941.1	117.7	926.5	903.8	22.77	40.685		
6,500.0	6,488.8	6,478.8	6,392.0	11.9	20.8	114.49	940.8	117.1	926.5	903.4	23.11	40.086		
6,600.0	6,588.8	6,579.6	6,492.9	12.0	20.9	114.47	940.3	116.3	926.4	902.9	23.45	39.501		
6,700.0	6,688.8	6,679.6	6,592.9	12.2	21.0	114.44	939.7	115.4	926.2	902.4	23.79	38.933		
6,800.0	6,788.8	6,779.6	6,692.9	12.4	21.1	114.42	939.2	114.4	926.0	901.9	24.13	38.380		
6,900.0	6,888.8	6,879.6	6,792.9	12.5	21.2	114.39	938.7	113.5	925.8	901.4	24.47	37.843		
7,000.0	6,988.8	6,979.6	6,892.9	12.7	21.3	114.37	938.2	112.6	925.6	900.8	24.80	37.319		
7,100.0	7,088.8	7,079.6	6,992.9	12.9	21.4	114.34	937.6	111.7	925.5	900.3	25.14	36.809		
7,200.0	7,188.8	7,179.6	7,092.9	13.0	21.5	114.31	937.1	110.8	925.3	899.8	25.48	36.312		
7,300.0	7,288.8	7,279.6	7,192.8	13.2	21.6	114.29	936.6	109.8	925.1	899.3	25.82	35.828		
7,400.0	7,388.8	7,379.6	7,292.8	13.4	21.8	114.26	936.0	108.9	924.9	898.8	26.16	35.355		
7,500.0	7,488.8	7,479.6	7,392.8	13.5	21.9	114.24	935.5	108.0	924.7	898.2	26.50	34.895		
7,600.0	7,588.8	7,579.6	7,492.8	13.7	22.0	114.21	935.0	107.1	924.5	897.7	26.84	34.446		
7,700.0	7,688.8	7,679.6	7,592.8	13.9	22.1	114.19	934.5	106.2	924.4	897.2	27.18	34.008		
7,800.0	7,788.8	7,779.6	7,692.8	14.0	22.2	114.16	933.9	105.3	924.2	896.7	27.52	33.580		
7,900.0	7,888.8	7,879.6	7,792.8	14.2	22.3	114.14	933.4	104.3	924.0	896.1	27.86	33.163		
8,000.0	7,988.8	7,979.6	7,892.8	14.4	22.4	114.11	932.9	103.4	923.8	895.6	28.20	32.755		
8,100.0	8,088.8	8,079.6	7,992.8	14.5	22.5	114.09	932.3	102.5	923.6	895.1	28.55	32.357		
8,200.0	8,188.8	8,179.6	8,092.8	14.7	22.7	114.06	931.8	101.6	923.5	894.6	28.89	31.968		
8,300.0	8,288.8	8,279.6	8,192.8	14.9	22.8	114.04	931.3	100.7	923.3	894.1	29.23	31.588		
8,400.0	8,388.8	8,379.6	8,292.8	15.0	22.9	114.01	930.8	99.8	923.1	893.5	29.57	31.216		
8,500.0	8,488.8	8,479.6	8,392.8	15.2	23.0	113.99	930.2	98.8	922.9	893.0	29.91	30.853		
8,600.0	8,588.8	8,579.6	8,492.8	15.4	23.1	113.96	929.7	97.9	922.7	892.5	30.26	30.498		
8,700.0	8,688.8	8,679.6	8,592.8	15.5	23.2	113.94	929.2	97.0	922.6	892.0	30.60	30.150		
8,800.0	8,788.8	8,779.6	8,692.7	15.7	23.4	113.91	928.6	96.1	922.4	891.4	30.94	29.810		
8,900.0	8,888.8	8,879.6	8,792.7	15.9	23.5	113.88	928.1	95.2	922.2	890.9	31.28	29.477		
9,000.0	8,988.8	8,979.6	8,892.7	16.0	23.6	113.86	927.6	94.2	922.0	890.4	31.63	29.152		
9,100.0	9,088.8	9,079.6	8,992.7	16.2	23.7	113.83	927.0	93.3	921.8	889.9	31.97	28.833		
9,200.0	9,188.8	9,179.6	9,092.7	16.4	23.8	113.81	926.5	92.4	921.7	889.3	32.32	28.521		
9,300.0	9,288.8	9,279.6	9,192.7	16.5	24.0	113.78	926.0	91.5	921.5	888.8	32.66	28.215		
9,400.0	9,388.8	9,379.6	9,292.7	16.7	24.1	113.76	925.5	90.6	921.3	888.3	33.00	27.916		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Section 6 T6S R96W - Chevron 6-25D - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Reference													Offset Well Error:	0.0 ft
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	
9,500.0	9,488.8	9,479.6	9,392.7	16.9	24.2	113.73	924.9	89.7	921.1	887.8	33.35	27.623		
9,600.0	9,588.8	9,579.6	9,492.7	17.1	24.3	113.71	924.4	88.7	920.9	887.3	33.69	27.335		
9,700.0	9,688.8	9,679.6	9,592.7	17.2	24.5	113.68	923.9	87.8	920.8	886.7	34.04	27.053		
9,800.0	9,788.8	9,779.6	9,692.7	17.4	24.6	113.66	923.3	86.9	920.6	886.2	34.38	26.777		
9,900.0	9,888.8	9,879.6	9,792.7	17.6	24.7	113.63	922.8	86.0	920.4	885.7	34.72	26.506		
10,000.0	9,988.8	9,979.6	9,892.7	17.7	24.8	113.61	922.3	85.1	920.2	885.2	35.07	26.241		
10,060.2	10,049.0	10,039.8	9,952.9	17.8	24.9	113.59	922.0	84.5	920.1	884.8	35.28	26.083 CC, ES, SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Section 6 T6S R96W - Chevron 6-26D - DD - Plan #1													Offset Site Error: 0.0 ft			
Survey Program: 0-															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				
4,700.0	4,688.9	4,858.9	4,792.3	9.0	16.0	120.10	1,217.7	216.6	1,210.8	1,192.6	18.25	66.354				
4,800.0	4,788.9	4,957.4	4,889.3	9.2	16.4	120.36	1,201.2	221.5	1,194.3	1,175.7	18.62	64.148				
4,900.0	4,888.9	5,055.9	4,986.2	9.3	16.7	120.63	1,184.7	226.3	1,177.9	1,158.9	18.99	62.021				
5,000.0	4,988.9	5,154.4	5,083.2	9.5	17.1	120.91	1,168.2	231.2	1,161.5	1,142.1	19.37	59.967				
5,100.0	5,088.9	5,252.9	5,180.2	9.6	17.4	121.19	1,151.6	236.0	1,145.0	1,125.3	19.75	57.984				
5,200.0	5,188.9	5,351.3	5,277.1	9.8	17.8	121.49	1,135.1	240.9	1,128.7	1,108.5	20.13	56.068				
5,300.0	5,288.9	5,449.8	5,374.1	10.0	18.1	121.79	1,118.6	245.7	1,112.3	1,091.8	20.52	54.216				
5,400.0	5,388.9	5,548.3	5,471.1	10.1	18.5	122.10	1,102.0	250.6	1,096.0	1,075.1	20.91	52.426				
5,500.0	5,488.9	5,646.8	5,568.0	10.3	18.8	122.42	1,085.5	255.4	1,079.7	1,058.4	21.30	50.693				
5,600.0	5,588.9	5,745.3	5,665.0	10.4	19.1	122.75	1,069.0	260.3	1,063.5	1,041.8	21.70	49.017				
5,700.0	5,688.9	5,843.8	5,762.0	10.6	19.5	123.09	1,052.5	265.1	1,047.2	1,025.1	22.10	47.394				
5,800.0	5,788.9	5,942.2	5,858.9	10.7	19.8	123.44	1,035.9	269.9	1,031.1	1,008.6	22.50	45.823				
5,900.0	5,888.8	6,040.7	5,955.9	10.9	20.2	123.80	1,019.4	274.8	1,014.9	992.0	22.91	44.300				
6,000.0	5,988.8	6,135.3	6,049.0	11.1	20.5	124.16	1,003.5	279.4	998.8	975.5	23.31	42.843				
6,100.0	6,088.8	6,212.8	6,125.4	11.2	20.8	124.44	991.5	283.0	984.1	960.4	23.67	41.580				
6,200.0	6,188.8	6,287.9	6,199.9	11.4	21.0	124.67	981.8	285.8	971.7	947.7	24.00	40.484				
6,300.0	6,288.8	6,363.5	6,275.0	11.6	21.1	124.87	973.9	288.1	961.9	937.6	24.33	39.536				
6,400.0	6,388.8	6,439.4	6,350.7	11.7	21.3	125.03	967.8	289.9	954.5	929.9	24.65	38.729				
6,500.0	6,488.8	6,515.7	6,426.8	11.9	21.4	125.15	963.7	291.1	949.6	924.7	24.95	38.059				
6,600.0	6,588.8	6,600.0	6,511.1	12.0	21.5	125.23	961.4	291.8	947.3	922.0	25.26	37.504				
6,646.9	6,635.7	6,628.0	6,539.1	12.1	21.5	125.24	961.2	291.9	947.0	921.6	25.38	37.312 CC, ES				
6,700.0	6,688.8	6,674.7	6,585.8	12.2	21.5	125.26	961.2	291.9	947.2	921.6	25.54	37.087				
6,800.0	6,788.8	6,766.9	6,678.0	12.4	21.6	125.27	961.9	291.8	948.3	922.4	25.84	36.691				
6,900.0	6,888.8	6,859.0	6,770.1	12.5	21.7	125.28	963.4	291.6	950.2	924.0	26.15	36.339				
7,000.0	6,988.8	6,951.1	6,862.2	12.7	21.7	125.28	965.6	291.4	952.9	926.5	26.45	36.028				
7,100.0	7,088.8	7,043.2	6,954.2	12.9	21.8	125.27	968.6	291.0	956.5	929.7	26.75	35.757				
7,200.0	7,188.8	7,135.2	7,046.1	13.0	21.8	125.26	972.4	290.6	960.9	933.8	27.05	35.526				
7,300.0	7,288.8	7,227.1	7,137.9	13.2	21.8	125.23	976.9	290.1	966.1	938.7	27.34	35.331				
7,400.0	7,388.8	7,319.0	7,229.6	13.4	21.8	125.19	982.2	289.4	972.1	944.5	27.64	35.173				
7,500.0	7,488.8	7,410.7	7,321.2	13.5	21.8	125.15	988.2	288.7	979.0	951.0	27.93	35.049				
7,600.0	7,588.8	7,500.0	7,410.2	13.7	21.8	125.09	994.8	288.0	986.6	958.4	28.22	34.962				
7,700.0	7,688.8	7,593.8	7,503.7	13.9	21.8	125.03	1,002.6	287.1	995.1	966.6	28.51	34.899				
7,800.0	7,788.8	7,685.2	7,594.7	14.0	21.8	124.96	1,010.9	286.1	1,004.4	975.6	28.80	34.872				
7,900.0	7,888.8	7,782.0	7,691.0	14.2	21.8	124.88	1,020.3	285.0	1,014.4	985.3	29.10	34.857				
8,000.0	7,988.8	7,881.5	7,790.1	14.4	21.8	124.80	1,030.0	283.9	1,024.4	995.0	29.40	34.838				
8,100.0	8,088.8	7,981.0	7,889.1	14.5	21.7	124.72	1,039.7	282.8	1,034.4	1,004.6	29.71	34.818				
8,200.0	8,188.8	8,080.5	7,988.1	14.7	21.7	124.64	1,049.4	281.7	1,044.3	1,014.3	30.01	34.797				
8,300.0	8,288.8	8,180.0	8,087.1	14.9	21.7	124.56	1,059.2	280.6	1,054.3	1,024.0	30.32	34.774				
8,400.0	8,388.8	8,279.4	8,186.1	15.0	21.7	124.49	1,068.9	279.4	1,064.3	1,033.7	30.63	34.751				
8,500.0	8,488.8	8,378.9	8,285.1	15.2	21.7	124.42	1,078.6	278.3	1,074.3	1,043.4	30.94	34.727				
8,600.0	8,588.8	8,478.4	8,384.1	15.4	21.7	124.34	1,088.3	277.2	1,084.3	1,053.1	31.25	34.701				
8,700.0	8,688.8	8,577.9	8,483.1	15.5	21.7	124.27	1,098.0	276.1	1,094.3	1,062.8	31.56	34.675				
8,800.0	8,788.8	8,677.4	8,582.1	15.7	21.7	124.20	1,107.8	274.9	1,104.3	1,072.5	31.87	34.649				
8,900.0	8,888.8	8,776.9	8,681.1	15.9	21.7	124.13	1,117.5	273.8	1,114.3	1,082.2	32.19	34.622				
9,000.0	8,988.8	8,876.4	8,780.1	16.0	21.7	124.07	1,127.2	272.7	1,124.3	1,091.8	32.50	34.594				
9,100.0	9,088.8	8,975.9	8,879.1	16.2	21.7	124.00	1,136.9	271.6	1,134.4	1,101.5	32.82	34.566				
9,200.0	9,188.8	9,075.4	8,978.1	16.4	21.7	123.94	1,146.6	270.5	1,144.4	1,111.2	33.13	34.537				
9,300.0	9,288.8	9,174.9	9,077.1	16.5	21.7	123.87	1,156.3	269.3	1,154.4	1,120.9	33.45	34.508				
9,400.0	9,388.8	9,274.3	9,176.2	16.7	21.7	123.81	1,166.1	268.2	1,164.4	1,130.6	33.77	34.478				
9,500.0	9,488.8	9,373.8	9,275.2	16.9	21.7	123.75	1,175.8	267.1	1,174.4	1,140.3	34.09	34.449				
9,600.0	9,588.8	9,473.3	9,374.2	17.1	21.8	123.69	1,185.5	266.0	1,184.4	1,150.0	34.41	34.419				
9,700.0	9,688.8	9,572.8	9,473.2	17.2	21.8	123.63	1,195.2	264.8	1,194.4	1,159.7	34.73	34.389				

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b>													<b>Offset Site Error:</b>	0.0 ft
Section 6 T6S R96W - Chevron 6-26D - DD - Plan #1													<b>Offset Well Error:</b>	0.0 ft
Survey Program: 0-														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	+E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)				
9,800.0	9,788.8	9,672.3	9,572.2	17.4	21.8	123.57	1,204.9	263.7	1,204.4	1,169.4	35.06	34.358		
9,900.0	9,888.8	9,771.8	9,671.2	17.6	21.9	123.51	1,214.6	262.6	1,214.5	1,179.1	35.38	34.328 SF		

# Cathedral Energy Services

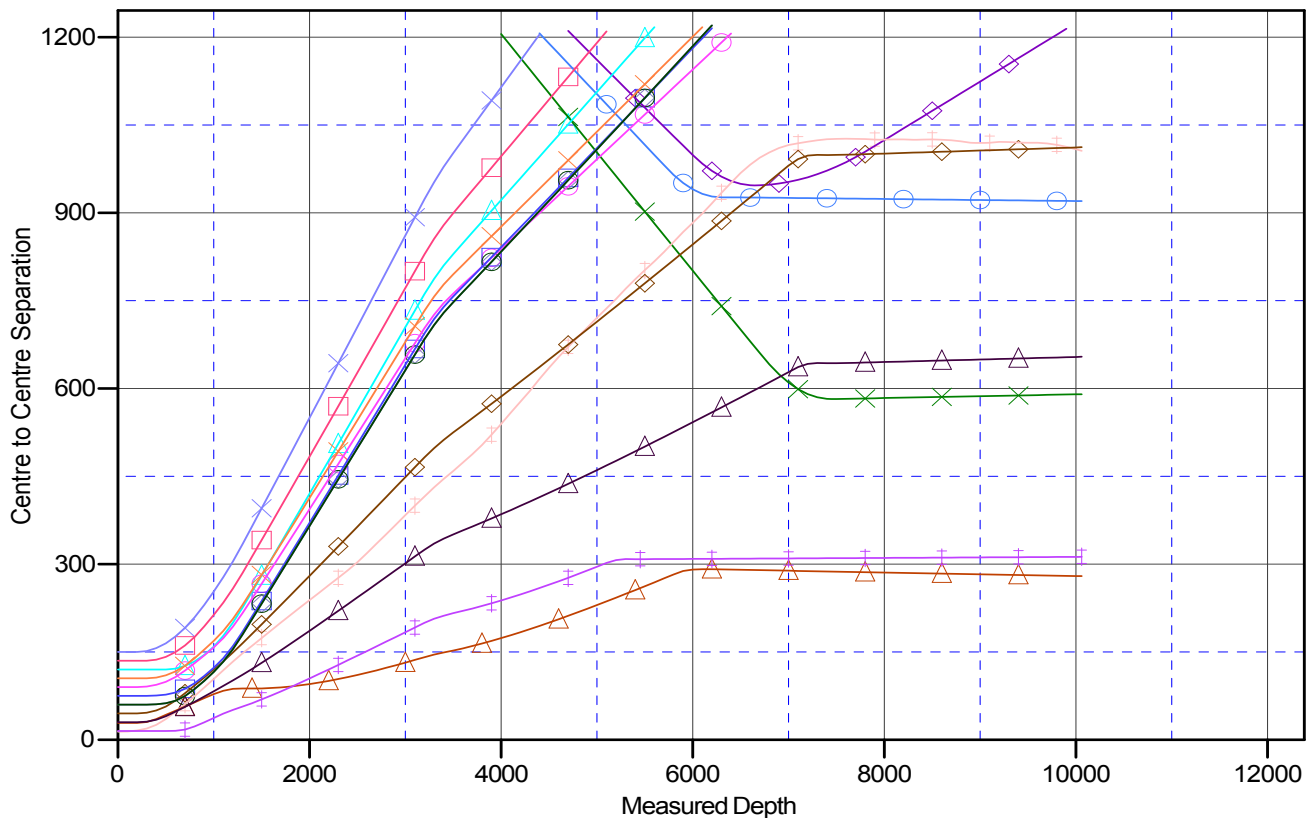
## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Chevron 6-22D
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Reference Site:</b>	Sec 6 T6S R96W (F06 696)	<b>MD Reference:</b>	KBE @ 8244.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Chevron 6-22D	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 5000.1 US Multi Users DB
<b>Reference Design:</b>	Plan #3	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KBE @ 8244.0ft (Original Well Elev)  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: Chevron 6-22D  
Coordinate System is US State Plane 1983, Colorado Central Zone  
Grid Convergence at Surface is: -1.67°

### Ladder Plot



### LEGEND

Chevron 6-25D, DD, Plan #1 V0	Chevron 6-35D, DD, Plan #2 V0	Chevron 6-33D, DD, Plan #2 V0
Chevron 6-26D, DD, Plan #1 V0	Chevron 6-21D, DD, Plan #2 V0	Chevron 6-38D, DD, Plan #1 V0
Chevron 6-24D, DD, Plan #1 V0	Chevron 6-37D, DD, Plan #2 V0	Chevron 6-38D, DD, Plan #2 V0
Chevron 6-34D, DD, Plan #2 V0	Chevron 6-23D, DD, Plan #2 V0	Chevron 6-32D, DD, Plan #2 V0
Chevron 6-25D, DD, DD V0	Chevron 6-19D, DD, Plan #2 V0	
Chevron 6-36D, DD, Plan #2 V0	Chevron 6-20D, DD, Plan #2 V0	