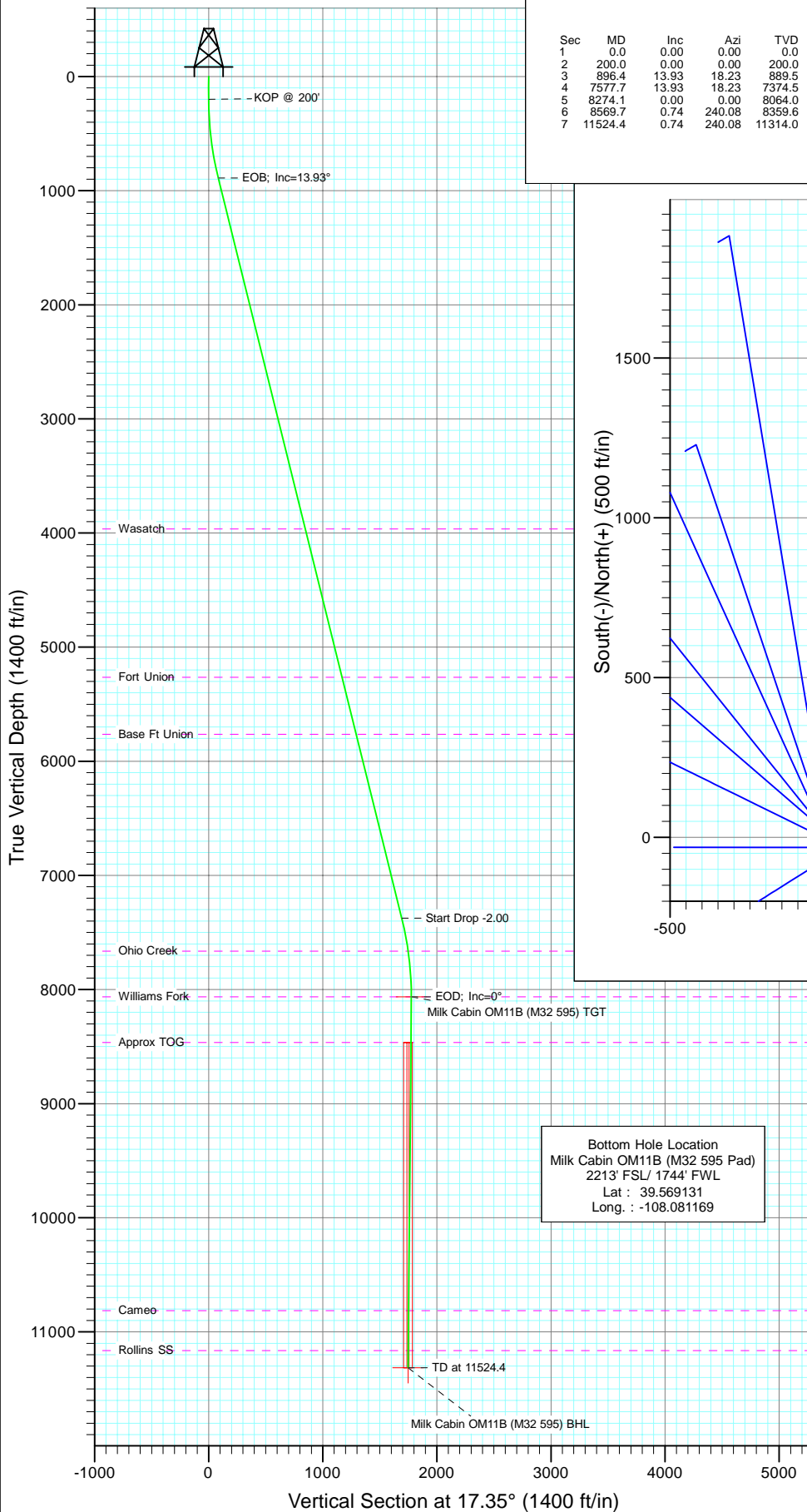
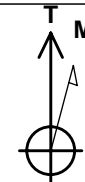
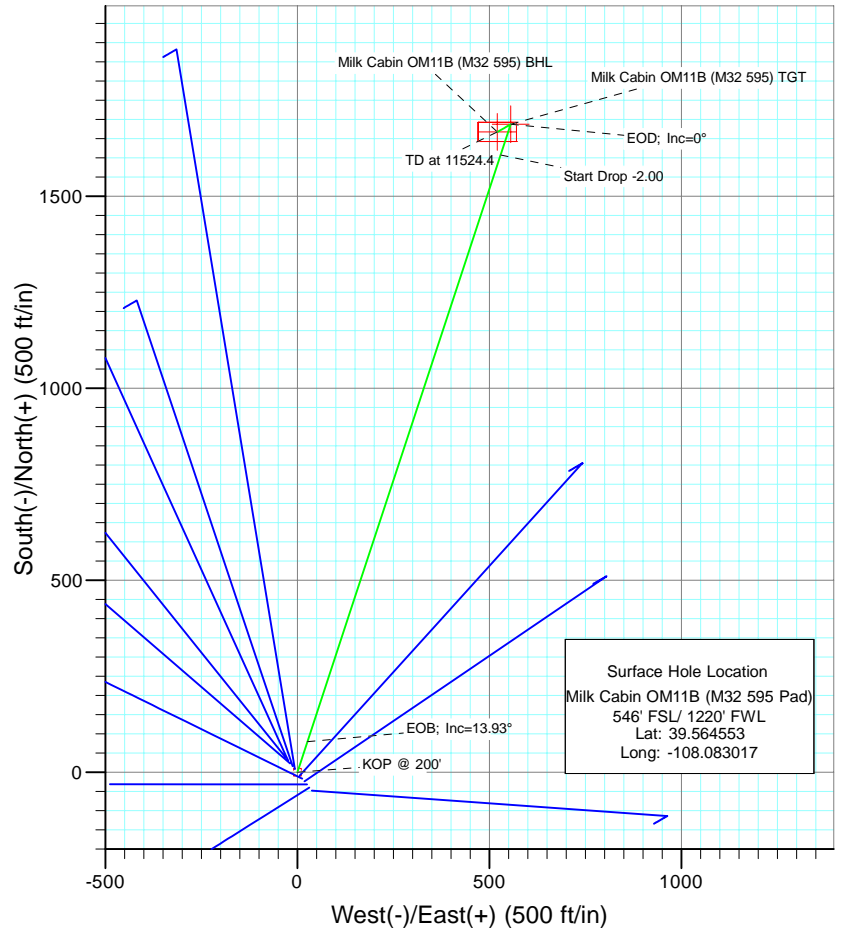




Project: Garfield County
Site: SWSW S32-T5S-R95W (M32 595 Pad)
Well: Milk Cabin OM11B (M32 595 Pad)
Wellbore: DD
Design: Plan #1



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	896.4	13.93	18.23	889.5	80.0	26.3	2.00	18.23	84.2	
4	7577.7	13.93	18.23	7374.5	1607.5	529.3	0.00	0.00	1692.2	
5	8274.1	0.00	0.00	8064.0	1687.5	555.7	2.00	180.00	1776.4	Milk Cabin OM11B (M32 595) TGT
6	8569.7	0.74	240.08	8359.6	1686.6	554.0	0.25	240.08	1775.0	
7	11524.4	0.74	240.08	11314.0	1667.5	521.0	0.00	0.00	1747.0	Milk Cabin OM11B (M32 595) BHL



Azimuths to True North
Magnetic North: 10.53°

Magnetic Field
Strength: 52359.4snT
Dip Angle: 65.81°
Date: 6/16/2010
Model: IGRF2010

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3964.0	4064.0	Wasatch
5264.0	5403.3	Fort Union
5764.0	5918.5	Base Ft Union
7664.0	7872.8	Ohio Creek
8064.0	8274.1	Williams Fork
8464.0	8674.1	Approx TOG
10814.0	11024.3	Cameo
11164.0	11374.3	Rollins SS

DESIGN DETAILS: Plan #1

105XXX; BH
KBE @ 8144.0ft (Original Well Elev)

Target	Azimuth	Origin	N/S	E/W	From TVD
Milk Cabin OM11B (M32 595) BHL	35	Slot	0.0	0.0	0.0

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site:	SWSW S32-T5S-R95W (M32 595 Pad)	North Reference:	True
Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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

Site		SWSW S32-T5S-R95W (M32 595 Pad)			
Site Position:		Northing:	1,640,872.06 ft	Latitude:	39.564553
From:	Lat/Long	Easting:	2,271,884.01 ft	Longitude:	-108.083017
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.63 °

Well	Milk Cabin OM11B (M32 595 Pad)					
Well Position	+N/-S	0.0 ft	Northing:	1,640,872.05 ft	Latitude:	39.564553
	+E/-W	0.0 ft	Easting:	2,271,884.01 ft	Longitude:	-108.083017
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,121.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	6/16/2010	10.53	65.81	52,359

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	17.35

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	(°)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
896.4	13.93	18.23	889.5	80.0	26.3	2.00	2.00	0.00	18.23	
7,577.7	13.93	18.23	7,374.5	1,607.5	529.3	0.00	0.00	0.00	0.00	
8,274.1	0.00	0.00	8,064.0	1,687.5	555.7	2.00	-2.00	0.00	180.00	Milk Cabin OM11B (N
8,569.7	0.74	240.08	8,359.6	1,686.6	554.0	0.25	0.25	-40.56	240.08	
11,524.4	0.74	240.08	11,314.0	1,667.5	521.0	0.00	0.00	0.00	0.00	Milk Cabin OM11B (N

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site:	SWSW S32-T5S-R95W (M32 595 Pad)	North Reference:	True
Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
30.0	0.00	0.00	30.0	0.0	0.0	0.0	0.00	0.00	
60.0	0.00	0.00	60.0	0.0	0.0	0.0	0.00	0.00	
90.0	0.00	0.00	90.0	0.0	0.0	0.0	0.00	0.00	
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	
150.0	0.00	0.00	150.0	0.0	0.0	0.0	0.00	0.00	
180.0	0.00	0.00	180.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	KOP @ 200'
210.0	0.20	18.23	210.0	0.0	0.0	0.0	2.00	2.00	
240.0	0.80	18.23	240.0	0.3	0.1	0.3	2.00	2.00	
270.0	1.40	18.23	270.0	0.8	0.3	0.9	2.00	2.00	
300.0	2.00	18.23	300.0	1.7	0.5	1.7	2.00	2.00	
330.0	2.60	18.23	330.0	2.8	0.9	2.9	2.00	2.00	
360.0	3.20	18.23	359.9	4.2	1.4	4.5	2.00	2.00	
390.0	3.80	18.23	389.9	6.0	2.0	6.3	2.00	2.00	
420.0	4.40	18.23	419.8	8.0	2.6	8.4	2.00	2.00	
450.0	5.00	18.23	449.7	10.4	3.4	10.9	2.00	2.00	
480.0	5.60	18.23	479.6	13.0	4.3	13.7	2.00	2.00	
510.0	6.20	18.23	509.4	15.9	5.2	16.8	2.00	2.00	
540.0	6.80	18.23	539.2	19.1	6.3	20.1	2.00	2.00	
570.0	7.40	18.23	569.0	22.7	7.5	23.9	2.00	2.00	
600.0	8.00	18.23	598.7	26.5	8.7	27.9	2.00	2.00	
630.0	8.60	18.23	628.4	30.6	10.1	32.2	2.00	2.00	
660.0	9.20	18.23	658.0	35.0	11.5	36.8	2.00	2.00	
690.0	9.80	18.23	687.6	39.7	13.1	41.8	2.00	2.00	
720.0	10.40	18.23	717.1	44.7	14.7	47.1	2.00	2.00	
750.0	11.00	18.23	746.6	50.0	16.5	52.6	2.00	2.00	
780.0	11.60	18.23	776.0	55.6	18.3	58.5	2.00	2.00	
810.0	12.20	18.23	805.4	61.5	20.2	64.7	2.00	2.00	
840.0	12.80	18.23	834.7	67.6	22.3	71.2	2.00	2.00	
870.0	13.40	18.23	863.9	74.1	24.4	78.0	2.00	2.00	
896.4	13.93	18.23	889.5	80.0	26.3	84.2	2.00	2.00	EOB; Inc=13.93°
900.0	13.93	18.23	893.1	80.8	26.6	85.1	0.00	0.00	
930.0	13.93	18.23	922.2	87.7	28.9	92.3	0.00	0.00	
960.0	13.93	18.23	951.3	94.5	31.1	99.5	0.00	0.00	
990.0	13.93	18.23	980.4	101.4	33.4	106.7	0.00	0.00	
1,020.0	13.93	18.23	1,009.5	108.3	35.6	114.0	0.00	0.00	
1,050.0	13.93	18.23	1,038.6	115.1	37.9	121.2	0.00	0.00	
1,080.0	13.93	18.23	1,067.8	122.0	40.2	128.4	0.00	0.00	
1,110.0	13.93	18.23	1,096.9	128.8	42.4	135.6	0.00	0.00	
1,140.0	13.93	18.23	1,126.0	135.7	44.7	142.8	0.00	0.00	
1,170.0	13.93	18.23	1,155.1	142.6	46.9	150.1	0.00	0.00	
1,200.0	13.93	18.23	1,184.2	149.4	49.2	157.3	0.00	0.00	
1,230.0	13.93	18.23	1,213.4	156.3	51.5	164.5	0.00	0.00	
1,260.0	13.93	18.23	1,242.5	163.1	53.7	171.7	0.00	0.00	
1,290.0	13.93	18.23	1,271.6	170.0	56.0	178.9	0.00	0.00	
1,320.0	13.93	18.23	1,300.7	176.8	58.2	186.2	0.00	0.00	
1,350.0	13.93	18.23	1,329.8	183.7	60.5	193.4	0.00	0.00	
1,380.0	13.93	18.23	1,358.9	190.6	62.7	200.6	0.00	0.00	
1,410.0	13.93	18.23	1,388.1	197.4	65.0	207.8	0.00	0.00	
1,440.0	13.93	18.23	1,417.2	204.3	67.3	215.0	0.00	0.00	
1,470.0	13.93	18.23	1,446.3	211.1	69.5	222.3	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site:	SWSW S32-T5S-R95W (M32 595 Pad)	North Reference:	True
Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
1,500.0	13.93	18.23	1,475.4	218.0	71.8	229.5	0.00	0.00	
1,530.0	13.93	18.23	1,504.5	224.9	74.0	236.7	0.00	0.00	
1,560.0	13.93	18.23	1,533.7	231.7	76.3	243.9	0.00	0.00	
1,590.0	13.93	18.23	1,562.8	238.6	78.6	251.1	0.00	0.00	
1,620.0	13.93	18.23	1,591.9	245.4	80.8	258.4	0.00	0.00	
1,650.0	13.93	18.23	1,621.0	252.3	83.1	265.6	0.00	0.00	
1,680.0	13.93	18.23	1,650.1	259.2	85.3	272.8	0.00	0.00	
1,710.0	13.93	18.23	1,679.2	266.0	87.6	280.0	0.00	0.00	
1,740.0	13.93	18.23	1,708.4	272.9	89.8	287.2	0.00	0.00	
1,770.0	13.93	18.23	1,737.5	279.7	92.1	294.5	0.00	0.00	
1,800.0	13.93	18.23	1,766.6	286.6	94.4	301.7	0.00	0.00	
1,830.0	13.93	18.23	1,795.7	293.4	96.6	308.9	0.00	0.00	
1,860.0	13.93	18.23	1,824.8	300.3	98.9	316.1	0.00	0.00	
1,890.0	13.93	18.23	1,853.9	307.2	101.1	323.3	0.00	0.00	
1,920.0	13.93	18.23	1,883.1	314.0	103.4	330.6	0.00	0.00	
1,950.0	13.93	18.23	1,912.2	320.9	105.7	337.8	0.00	0.00	
1,980.0	13.93	18.23	1,941.3	327.7	107.9	345.0	0.00	0.00	
2,010.0	13.93	18.23	1,970.4	334.6	110.2	352.2	0.00	0.00	
2,040.0	13.93	18.23	1,999.5	341.5	112.4	359.4	0.00	0.00	
2,070.0	13.93	18.23	2,028.7	348.3	114.7	366.7	0.00	0.00	
2,100.0	13.93	18.23	2,057.8	355.2	116.9	373.9	0.00	0.00	
2,130.0	13.93	18.23	2,086.9	362.0	119.2	381.1	0.00	0.00	
2,160.0	13.93	18.23	2,116.0	368.9	121.5	388.3	0.00	0.00	
2,190.0	13.93	18.23	2,145.1	375.7	123.7	395.5	0.00	0.00	
2,220.0	13.93	18.23	2,174.2	382.6	126.0	402.8	0.00	0.00	
2,250.0	13.93	18.23	2,203.4	389.5	128.2	410.0	0.00	0.00	
2,280.0	13.93	18.23	2,232.5	396.3	130.5	417.2	0.00	0.00	
2,310.0	13.93	18.23	2,261.6	403.2	132.8	424.4	0.00	0.00	
2,340.0	13.93	18.23	2,290.7	410.0	135.0	431.6	0.00	0.00	
2,370.0	13.93	18.23	2,319.8	416.9	137.3	438.9	0.00	0.00	
2,400.0	13.93	18.23	2,349.0	423.8	139.5	446.1	0.00	0.00	
2,430.0	13.93	18.23	2,378.1	430.6	141.8	453.3	0.00	0.00	
2,460.0	13.93	18.23	2,407.2	437.5	144.0	460.5	0.00	0.00	
2,490.0	13.93	18.23	2,436.3	444.3	146.3	467.8	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									
Milk Cabin OM11B (M32	0.00	0.00	8,064.0	1,687.5	555.7	1,642,543.08	2,272,487.41	39.569186	-108.081046
- plan misses target center by 5777.9ft at 2490.0ft MD (2436.3 TVD, 444.3 N, 146.3 E)									
- Point									
Milk Cabin OM11B (M32	0.00	0.00	11,314.0	1,667.5	521.0	1,642,524.11	2,272,452.17	39.569131	-108.081169
- plan misses target center by 8969.4ft at 2490.0ft MD (2436.3 TVD, 444.3 N, 146.3 E)									
- Rectangle (sides W50.0 H100.0 D0.0)									

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site:	SWSW S32-T5S-R95W (M32 595 Pad)	North Reference:	True
Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
2,500.0	13.93	18.23	2,446.0	446.6	147.1	470.2	0.00	0.00	
2,600.0	13.93	18.23	2,543.1	469.5	154.6	494.2	0.00	0.00	
2,700.0	13.93	18.23	2,640.1	492.3	162.1	518.3	0.00	0.00	
2,800.0	13.93	18.23	2,737.2	515.2	169.6	542.4	0.00	0.00	
2,900.0	13.93	18.23	2,834.3	538.1	177.2	566.4	0.00	0.00	
3,000.0	13.93	18.23	2,931.3	560.9	184.7	590.5	0.00	0.00	
3,100.0	13.93	18.23	3,028.4	583.8	192.2	614.6	0.00	0.00	
3,200.0	13.93	18.23	3,125.4	606.7	199.8	638.6	0.00	0.00	
3,300.0	13.93	18.23	3,222.5	629.5	207.3	662.7	0.00	0.00	
3,400.0	13.93	18.23	3,319.6	652.4	214.8	686.8	0.00	0.00	
3,500.0	13.93	18.23	3,416.6	675.2	222.3	710.8	0.00	0.00	
3,600.0	13.93	18.23	3,513.7	698.1	229.9	734.9	0.00	0.00	
3,700.0	13.93	18.23	3,610.7	721.0	237.4	759.0	0.00	0.00	
3,800.0	13.93	18.23	3,707.8	743.8	244.9	783.0	0.00	0.00	
3,900.0	13.93	18.23	3,804.9	766.7	252.5	807.1	0.00	0.00	
4,000.0	13.93	18.23	3,901.9	789.6	260.0	831.2	0.00	0.00	
4,064.0	13.93	18.23	3,964.0	804.2	264.8	846.6	0.00	0.00	Wasatch
4,100.0	13.93	18.23	3,999.0	812.4	267.5	855.2	0.00	0.00	
4,200.0	13.93	18.23	4,096.0	835.3	275.0	879.3	0.00	0.00	
4,300.0	13.93	18.23	4,193.1	858.1	282.6	903.4	0.00	0.00	
4,400.0	13.93	18.23	4,290.2	881.0	290.1	927.4	0.00	0.00	
4,500.0	13.93	18.23	4,387.2	903.9	297.6	951.5	0.00	0.00	
4,600.0	13.93	18.23	4,484.3	926.7	305.1	975.6	0.00	0.00	
4,700.0	13.93	18.23	4,581.3	949.6	312.7	999.6	0.00	0.00	
4,800.0	13.93	18.23	4,678.4	972.5	320.2	1,023.7	0.00	0.00	
4,900.0	13.93	18.23	4,775.5	995.3	327.7	1,047.8	0.00	0.00	
5,000.0	13.93	18.23	4,872.5	1,018.2	335.3	1,071.8	0.00	0.00	
5,100.0	13.93	18.23	4,969.6	1,041.0	342.8	1,095.9	0.00	0.00	
5,200.0	13.93	18.23	5,066.6	1,063.9	350.3	1,120.0	0.00	0.00	
5,300.0	13.93	18.23	5,163.7	1,086.8	357.8	1,144.0	0.00	0.00	
5,400.0	13.93	18.23	5,260.8	1,109.6	365.4	1,168.1	0.00	0.00	
5,403.3	13.93	18.23	5,264.0	1,110.4	365.6	1,168.9	0.00	0.00	Fort Union
5,500.0	13.93	18.23	5,357.8	1,132.5	372.9	1,192.2	0.00	0.00	
5,600.0	13.93	18.23	5,454.9	1,155.4	380.4	1,216.2	0.00	0.00	
5,700.0	13.93	18.23	5,551.9	1,178.2	388.0	1,240.3	0.00	0.00	
5,800.0	13.93	18.23	5,649.0	1,201.1	395.5	1,264.4	0.00	0.00	
5,900.0	13.93	18.23	5,746.1	1,223.9	403.0	1,288.4	0.00	0.00	
5,918.5	13.93	18.23	5,764.0	1,228.2	404.4	1,292.9	0.00	0.00	Base Ft Union
6,000.0	13.93	18.23	5,843.1	1,246.8	410.5	1,312.5	0.00	0.00	
6,100.0	13.93	18.23	5,940.2	1,269.7	418.1	1,336.6	0.00	0.00	
6,200.0	13.93	18.23	6,037.2	1,292.5	425.6	1,360.6	0.00	0.00	
6,300.0	13.93	18.23	6,134.3	1,315.4	433.1	1,384.7	0.00	0.00	
6,400.0	13.93	18.23	6,231.4	1,338.3	440.7	1,408.8	0.00	0.00	
6,500.0	13.93	18.23	6,328.4	1,361.1	448.2	1,432.8	0.00	0.00	
6,600.0	13.93	18.23	6,425.5	1,384.0	455.7	1,456.9	0.00	0.00	
6,700.0	13.93	18.23	6,522.5	1,406.8	463.2	1,481.0	0.00	0.00	
6,800.0	13.93	18.23	6,619.6	1,429.7	470.8	1,505.0	0.00	0.00	
6,900.0	13.93	18.23	6,716.7	1,452.6	478.3	1,529.1	0.00	0.00	
7,000.0	13.93	18.23	6,813.7	1,475.4	485.8	1,553.2	0.00	0.00	
7,100.0	13.93	18.23	6,910.8	1,498.3	493.3	1,577.2	0.00	0.00	
7,200.0	13.93	18.23	7,007.8	1,521.2	500.9	1,601.3	0.00	0.00	
7,300.0	13.93	18.23	7,104.9	1,544.0	508.4	1,625.4	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site:	SWSW S32-T5S-R95W (M32 595 Pad)	North Reference:	True
Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
7,400.0	13.93	18.23	7,202.0	1,566.9	515.9	1,649.4	0.00	0.00	
7,500.0	13.93	18.23	7,299.0	1,589.7	523.5	1,673.5	0.00	0.00	
7,577.7	13.93	18.23	7,374.5	1,607.5	529.3	1,692.2	0.00	0.00	Start Drop -2.00
7,600.0	13.48	18.23	7,396.1	1,612.5	531.0	1,697.5	2.00	-2.00	
7,700.0	11.48	18.23	7,493.7	1,633.1	537.7	1,719.1	2.00	-2.00	
7,800.0	9.48	18.23	7,592.1	1,650.3	543.4	1,737.3	2.00	-2.00	
7,872.8	8.03	18.23	7,664.0	1,660.9	546.9	1,748.4	2.00	-2.00	Ohio Creek
7,900.0	7.48	18.23	7,691.0	1,664.3	548.0	1,752.0	2.00	-2.00	
8,000.0	5.48	18.23	7,790.3	1,675.1	551.6	1,763.3	2.00	-2.00	
8,100.0	3.48	18.23	7,890.0	1,682.5	554.0	1,771.1	2.00	-2.00	
8,200.0	1.48	18.23	7,989.9	1,686.6	555.4	1,775.5	2.00	-2.00	
8,274.1	0.00	0.00	8,064.0	1,687.5	555.7	1,776.4	2.00	-2.00	EOD; Inc=0° - Williams Fork - Milk Cabin OM11
8,300.0	0.06	240.08	8,089.9	1,687.5	555.6	1,776.4	0.25	0.25	
8,400.0	0.31	240.08	8,189.9	1,687.3	555.4	1,776.2	0.25	0.25	
8,500.0	0.56	240.08	8,289.9	1,687.0	554.7	1,775.6	0.25	0.25	
8,569.7	0.74	240.08	8,359.6	1,686.6	554.0	1,775.0	0.25	0.25	
8,600.0	0.74	240.08	8,389.9	1,686.4	553.7	1,774.7	0.00	0.00	
8,674.1	0.74	240.08	8,464.0	1,685.9	552.8	1,774.0	0.00	0.00	Approx TOG
8,700.0	0.74	240.08	8,489.9	1,685.7	552.5	1,773.8	0.00	0.00	
8,800.0	0.74	240.08	8,589.9	1,685.1	551.4	1,772.8	0.00	0.00	
8,900.0	0.74	240.08	8,689.9	1,684.4	550.3	1,771.9	0.00	0.00	
9,000.0	0.74	240.08	8,789.8	1,683.8	549.2	1,771.0	0.00	0.00	
9,100.0	0.74	240.08	8,889.8	1,683.1	548.1	1,770.0	0.00	0.00	
9,200.0	0.74	240.08	8,989.8	1,682.5	547.0	1,769.1	0.00	0.00	
9,300.0	0.74	240.08	9,089.8	1,681.9	545.8	1,768.1	0.00	0.00	
9,400.0	0.74	240.08	9,189.8	1,681.2	544.7	1,767.2	0.00	0.00	
9,500.0	0.74	240.08	9,289.8	1,680.6	543.6	1,766.2	0.00	0.00	
9,600.0	0.74	240.08	9,389.8	1,679.9	542.5	1,765.3	0.00	0.00	
9,700.0	0.74	240.08	9,489.8	1,679.3	541.4	1,764.3	0.00	0.00	
9,800.0	0.74	240.08	9,589.8	1,678.6	540.2	1,763.4	0.00	0.00	
9,900.0	0.74	240.08	9,689.8	1,678.0	539.1	1,762.4	0.00	0.00	
10,000.0	0.74	240.08	9,789.8	1,677.4	538.0	1,761.5	0.00	0.00	
10,100.0	0.74	240.08	9,889.8	1,676.7	536.9	1,760.5	0.00	0.00	
10,200.0	0.74	240.08	9,989.7	1,676.1	535.8	1,759.6	0.00	0.00	
10,300.0	0.74	240.08	10,089.7	1,675.4	534.7	1,758.6	0.00	0.00	
10,400.0	0.74	240.08	10,189.7	1,674.8	533.5	1,757.7	0.00	0.00	
10,500.0	0.74	240.08	10,289.7	1,674.1	532.4	1,756.7	0.00	0.00	
10,600.0	0.74	240.08	10,389.7	1,673.5	531.3	1,755.8	0.00	0.00	
10,700.0	0.74	240.08	10,489.7	1,672.9	530.2	1,754.8	0.00	0.00	
10,800.0	0.74	240.08	10,589.7	1,672.2	529.1	1,753.9	0.00	0.00	
10,900.0	0.74	240.08	10,689.7	1,671.6	527.9	1,752.9	0.00	0.00	
11,000.0	0.74	240.08	10,789.7	1,670.9	526.8	1,752.0	0.00	0.00	
11,024.3	0.74	240.08	10,814.0	1,670.8	526.6	1,751.8	0.00	0.00	Cameo
11,100.0	0.74	240.08	10,889.7	1,670.3	525.7	1,751.1	0.00	0.00	
11,200.0	0.74	240.08	10,989.7	1,669.6	524.6	1,750.1	0.00	0.00	
11,300.0	0.74	240.08	11,089.7	1,669.0	523.5	1,749.2	0.00	0.00	
11,374.3	0.74	240.08	11,164.0	1,668.5	522.6	1,748.5	0.00	0.00	Rollins SS
11,400.0	0.74	240.08	11,189.6	1,668.3	522.4	1,748.2	0.00	0.00	
11,500.0	0.74	240.08	11,289.6	1,667.7	521.2	1,747.3	0.00	0.00	
11,524.4	0.74	240.08	11,314.0	1,667.5	521.0	1,747.0	0.00	0.00	Milk Cabin OM11B (M32 595) BHL

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site:	SWSW S32-T5S-R95W (M32 595 Pad)	North Reference:	True
Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
Milk Cabin OM11B (M32 - plan hits target center - Point	0.00	0.00	8,064.0	1,687.5	555.7	1,642,543.08	2,272,487.41	39.569186	-108.081046
Milk Cabin OM11B (M32 - plan hits target center - Rectangle (sides W50.0 H100.0 D0.0)	0.00	0.00	11,314.0	1,667.5	521.0	1,642,524.11	2,272,452.17	39.569131	-108.081169

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
4,064.0	3,964.0	Wasatch		0.00		
5,403.3	5,264.0	Fort Union		0.00		
5,918.5	5,764.0	Base Ft Union		0.00		
7,872.8	7,664.0	Ohio Creek		0.00		
8,274.1	8,064.0	Williams Fork		0.00		
8,674.1	8,464.0	Approx TOG		0.00		
11,024.3	10,814.0	Cameo		0.00		
11,374.3	11,164.0	Rollins SS		0.00		

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
(ft)	(ft)	(ft)	(ft)		
200.0	200.0	0.0	0.0	KOP @ 200'	
896.4	889.5	80.0	26.3	EOB; Inc=13.93°	
7,577.7	7,374.5	1,607.5	529.3	Start Drop -2.00	
8,274.1	8,064.0	1,687.5	555.7	EOD; Inc=0°	
11,524.4	11,314.0	1,667.5	521.0	TD at 11524.4	

Berry Petroleum Company (NAD 83)

Garfield County

SWSW S32-T5S-R95W (M32 595 Pad)

Milk Cabin OM11B (M32 595 Pad)

DD

Plan #1

Anticollision Report

16 June, 2010

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

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

Survey Tool Program		Date	6/16/2010		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,524.4	Plan #1 (DD)	MWD	Geolink MWD	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SWSW S32-T5S-R95W (M32 595 Pad)						
Milk Cabin OM11D (M32 595 Pad) - DD - Plan #1	200.0	200.0	10.3	9.7	16.679	CC, ES
Milk Cabin OM11D (M32 595 Pad) - DD - Plan #1	500.0	500.0	16.5	14.7	9.170	SF
Milk Cabin OM12A (M32 595 Pad) - DD - Plan #1	200.0	200.0	10.1	9.5	16.401	CC, ES
Milk Cabin OM12A (M32 595 Pad) - DD - Plan #1	500.0	498.9	16.1	14.3	9.049	SF
Milk Cabin OM12B (M32 595 Pad) - DD - Plan #1	200.0	200.0	39.6	39.0	64.119	CC, ES
Milk Cabin OM12B (M32 595 Pad) - DD - Plan #1	900.0	887.3	88.5	84.3	21.063	SF
Milk Cabin OM12C (M32 595 Pad) - DD - Plan #1	200.0	200.0	49.7	49.1	80.520	CC, ES
Milk Cabin OM12C (M32 595 Pad) - DD - Plan #1	800.0	784.2	92.4	89.0	27.623	SF
Milk Cabin OM12D (M32 595 Pad) - DD - Plan #1	200.0	200.0	20.3	19.7	32.808	CC, ES
Milk Cabin OM12D (M32 595 Pad) - DD - Plan #1	700.0	695.2	42.6	39.8	14.963	SF
Milk Cabin OM13A (M32 595 Pad) - DD - Plan #1	200.0	200.0	29.8	29.2	48.282	CC, ES
Milk Cabin OM13A (M32 595 Pad) - DD - Plan #1	600.0	593.6	50.3	48.1	22.880	SF
Milk Cabin OM13B (M32 595 Pad) - DD - Plan #1	353.2	354.0	20.0	18.8	17.154	CC, ES
Milk Cabin OM13B (M32 595 Pad) - DD - Plan #1	500.0	500.5	25.2	23.4	14.502	SF
Milk Cabin OM13C (M32 595 Pad) - DD - Plan #1	286.0	286.7	40.1	39.2	43.401	CC
Milk Cabin OM13C (M32 595 Pad) - DD - Plan #1	300.0	300.8	40.1	39.1	41.181	ES
Milk Cabin OM13C (M32 595 Pad) - DD - Plan #1	500.0	500.5	46.4	44.7	26.506	SF
Milk Cabin OM13D (M32 595 Pad) - DD - Plan #1	200.0	200.0	50.5	49.9	81.816	CC, ES
Milk Cabin OM13D (M32 595 Pad) - DD - Plan #1	500.0	497.7	64.3	62.5	36.842	SF
Milk Cabin OM14B (M32 595 Pad) - DD - Plan #1	200.0	200.0	30.0	29.4	48.557	CC, ES
Milk Cabin OM14B (M32 595 Pad) - DD - Plan #1	1,000.0	994.6	98.6	93.5	19.164	SF
Milk Cabin OM14D (M32 595 Pad) - DD - Plan #1	200.0	200.0	60.9	60.2	98.499	CC, ES
Milk Cabin OM14D (M32 595 Pad) - DD - Plan #1	600.0	591.5	94.7	92.5	42.900	SF

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM11D (M32 595 Pad) - 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	141.01	-8.0	6.5	10.3					
100.0	100.0	100.0	100.0	0.1	0.1	141.01	-8.0	6.5	10.3	10.0	0.27	38.340		
200.0	200.0	200.0	200.0	0.3	0.3	141.01	-8.0	6.5	10.3	9.7	0.62	16.679 CC, ES		
300.0	300.0	300.1	300.0	0.5	0.5	121.42	-6.7	7.7	11.0	10.0	0.97	11.284		
400.0	399.8	400.1	399.9	0.7	0.7	118.20	-2.8	11.2	13.1	11.7	1.36	9.596		
500.0	499.5	500.0	499.5	0.9	0.9	114.63	3.6	17.0	16.5	14.7	1.80	9.170 SF		
600.0	598.7	599.9	598.6	1.2	1.2	111.58	12.6	25.2	21.5	19.2	2.33	9.230		
700.0	697.5	699.6	697.1	1.5	1.5	109.23	24.2	35.7	27.9	25.0	2.95	9.463		
800.0	795.6	799.2	794.9	1.9	1.9	107.48	38.3	48.4	35.8	32.1	3.67	9.736		
896.4	889.5	895.0	888.2	2.3	2.3	106.21	54.2	62.8	44.7	40.2	4.47	9.988		
900.0	893.1	898.6	891.7	2.3	2.3	106.18	54.8	63.4	45.0	40.5	4.50	10.000		
1,000.0	990.1	998.1	988.1	2.7	2.7	104.69	73.0	79.9	55.1	49.7	5.37	10.261		
1,100.0	1,087.2	1,097.6	1,084.5	3.2	3.2	103.61	91.3	96.4	65.1	58.9	6.24	10.435		
1,200.0	1,184.2	1,197.0	1,180.9	3.6	3.6	102.83	109.5	112.9	75.2	68.1	7.13	10.557		
1,300.0	1,281.3	1,296.5	1,277.3	4.0	4.1	102.23	127.8	129.4	85.3	77.3	8.01	10.647		
1,400.0	1,378.4	1,396.0	1,373.6	4.5	4.6	101.75	146.0	145.9	95.4	86.5	8.91	10.716		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM12A (M32 595 Pad) - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance					Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-37.74	8.0	-6.2	10.1					
100.0	100.0	100.0	100.0	0.1	0.1	-37.74	8.0	-6.2	10.1	9.9	0.27	37.701		
200.0	200.0	200.0	200.0	0.3	0.3	-37.74	8.0	-6.2	10.1	9.5	0.62	16.401 CC, ES		
300.0	300.0	299.7	299.7	0.5	0.5	-59.26	9.7	-6.5	10.7	9.7	0.97	11.034		
400.0	399.8	399.3	399.2	0.7	0.7	-67.22	14.9	-7.3	12.6	11.2	1.35	9.354		
500.0	499.5	498.9	498.3	0.9	0.9	-76.03	23.4	-8.7	16.1	14.3	1.78	9.049 SF		
600.0	598.7	598.3	597.0	1.2	1.2	-83.25	35.3	-10.7	21.4	19.1	2.30	9.313		
700.0	697.5	697.6	695.1	1.5	1.5	-88.45	50.5	-13.2	28.4	25.5	2.91	9.775		
800.0	795.6	796.7	792.4	1.9	1.8	-92.05	69.1	-16.3	37.2	33.6	3.63	10.269		
896.4	889.5	892.0	885.3	2.3	2.3	-94.46	90.1	-19.7	47.3	42.9	4.42	10.705		
900.0	893.1	895.5	888.7	2.3	2.3	-94.54	90.9	-19.8	47.7	43.3	4.45	10.724		
1,000.0	990.1	994.8	985.0	2.7	2.7	-95.91	114.8	-23.8	59.2	53.9	5.30	11.178		
1,100.0	1,087.2	1,094.1	1,081.3	3.2	3.1	-96.82	138.8	-27.7	70.7	64.6	6.16	11.488		
1,200.0	1,184.2	1,193.4	1,177.6	3.6	3.6	-97.47	162.8	-31.7	82.2	75.2	7.02	11.710		
1,300.0	1,281.3	1,292.8	1,273.9	4.0	4.0	-97.96	186.8	-35.6	93.8	85.9	7.89	11.877		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM12B (M32 595 Pad) - 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	-37.74	31.3	-24.2	39.6					
100.0	100.0	100.0	100.0	0.1	0.1	-37.74	31.3	-24.2	39.6	39.3	0.27	147.390		
200.0	200.0	200.0	200.0	0.3	0.3	-37.74	31.3	-24.2	39.6	39.0	0.62	64.119 CC, ES		
300.0	300.0	298.7	298.6	0.5	0.5	-57.42	32.9	-24.9	40.3	39.4	0.97	41.684		
400.0	399.8	397.2	397.1	0.7	0.7	-61.49	37.5	-27.1	42.6	41.3	1.33	31.970		
500.0	499.5	495.6	495.1	0.9	0.9	-67.30	45.2	-30.5	46.8	45.1	1.74	26.974		
600.0	598.7	593.7	592.5	1.2	1.2	-73.76	55.9	-35.4	53.4	51.2	2.21	24.202		
700.0	697.5	691.5	689.0	1.5	1.5	-79.92	69.6	-41.6	62.6	59.9	2.77	22.612		
800.0	795.6	788.8	784.6	1.9	1.8	-85.25	86.2	-49.2	74.6	71.2	3.44	21.701		
896.4	889.5	883.7	877.5	2.3	2.2	-90.12	104.2	-57.3	87.9	83.8	4.17	21.084		
900.0	893.1	887.3	881.0	2.3	2.2	-90.32	104.9	-57.6	88.5	84.3	4.20	21.063 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM12C (M32 595 Pad) - 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	-37.74	39.3	-30.4	49.7				
100.0	100.0	100.0	100.0	0.1	0.1	-37.74	39.3	-30.4	49.7	49.5	0.27	185.091	
200.0	200.0	200.0	200.0	0.3	0.3	-37.74	39.3	-30.4	49.7	49.1	0.62	80.520 CC, ES	
300.0	300.0	298.3	298.2	0.5	0.5	-57.60	40.7	-31.5	50.5	49.5	0.97	52.255	
400.0	399.8	396.4	396.2	0.7	0.7	-62.19	44.6	-34.7	53.0	51.7	1.33	39.887	
500.0	499.5	494.2	493.7	0.9	0.9	-68.84	51.1	-39.9	57.9	56.2	1.73	33.557	
600.0	598.7	591.5	590.3	1.2	1.2	-76.28	60.2	-47.2	65.8	63.6	2.18	30.191	
700.0	697.5	688.2	685.8	1.5	1.5	-83.38	71.7	-56.4	77.2	74.5	2.71	28.448	
800.0	795.6	784.2	780.1	1.9	1.8	-89.48	85.6	-67.6	92.4	89.0	3.34	27.623 SF	

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM12D (M32 595 Pad) - DD - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-37.73	16.0	-12.4	20.3				
100.0	100.0	100.0	100.0	0.1	0.1	-37.73	16.0	-12.4	20.3	20.0	0.27	75.415	
200.0	200.0	200.0	200.0	0.3	0.3	-37.73	16.0	-12.4	20.3	19.7	0.62	32.808 CC, ES	
300.0	300.0	299.3	299.3	0.5	0.5	-58.32	17.7	-13.0	20.9	20.0	0.97	21.619	
400.0	399.8	398.6	398.4	0.7	0.7	-64.53	22.6	-14.6	23.2	21.8	1.34	17.302	
500.0	499.5	497.7	497.2	0.9	0.9	-72.44	30.7	-17.3	27.3	25.6	1.76	15.559	
600.0	598.7	596.6	595.3	1.2	1.2	-79.99	42.0	-21.1	33.8	31.5	2.25	14.987	
700.0	697.5	695.2	692.8	1.5	1.5	-86.16	56.5	-25.9	42.6	39.8	2.85	14.963 SF	
800.0	795.6	793.5	789.3	1.9	1.8	-90.83	74.1	-31.8	53.8	50.3	3.55	15.182	
896.4	889.5	887.9	881.3	2.3	2.2	-94.16	94.0	-38.5	66.8	62.5	4.32	15.481	
900.0	893.1	891.4	884.7	2.3	2.2	-94.27	94.8	-38.7	67.3	63.0	4.34	15.498	
1,000.0	990.1	988.9	978.9	2.7	2.7	-95.81	118.4	-46.6	82.8	77.7	5.19	15.959	
1,100.0	1,087.2	1,086.3	1,072.3	3.2	3.2	-95.24	144.9	-55.5	100.0	93.9	6.06	16.512	

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM13A (M32 595 Pad) - 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	-38.59	23.3	-18.6	29.8				
100.0	100.0	100.0	100.0	0.1	0.1	-38.59	23.3	-18.6	29.8	29.6	0.27	110.985	
200.0	200.0	200.0	200.0	0.3	0.3	-38.59	23.3	-18.6	29.8	29.2	0.62	48.282 CC, ES	
300.0	300.0	299.0	298.9	0.5	0.5	-60.10	24.4	-19.9	30.6	29.7	0.97	31.638	
400.0	399.8	397.7	397.5	0.7	0.7	-68.85	27.8	-23.8	33.6	32.2	1.33	25.158	
500.0	499.5	496.0	495.5	0.9	0.9	-80.03	33.3	-30.2	39.8	38.1	1.74	22.928	
600.0	598.7	593.6	592.4	1.2	1.2	-90.36	40.9	-39.1	50.3	48.1	2.20	22.880 SF	
700.0	697.5	690.4	688.0	1.5	1.5	-98.35	50.7	-50.3	65.3	62.6	2.74	23.871	
800.0	795.6	786.9	782.8	1.9	1.8	-104.15	62.3	-63.9	84.5	81.1	3.35	25.250	

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM13B (M32 595 Pad) - 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	142.27	-16.4	12.7	20.7					
100.0	100.0	100.0	100.0	0.1	0.1	142.27	-16.4	12.7	20.7	20.5	0.27	77.129		
200.0	200.0	200.0	200.0	0.3	0.3	142.27	-16.4	12.7	20.7	20.1	0.62	33.553		
300.0	300.0	300.6	300.6	0.5	0.5	130.37	-15.6	11.1	20.3	19.3	0.97	20.853		
353.2	353.1	354.0	353.9	0.6	0.6	139.19	-14.6	9.0	20.0	18.8	1.17	17.154 CC, ES		
400.0	399.8	400.9	400.7	0.7	0.7	149.93	-13.3	6.4	20.4	19.0	1.34	15.218		
500.0	499.5	500.5	500.0	0.9	0.9	176.39	-9.4	-1.4	25.2	23.4	1.74	14.502 SF		
600.0	598.7	599.2	598.0	1.2	1.2	-163.64	-4.1	-12.2	37.1	34.9	2.18	17.004		
700.0	697.5	697.1	694.6	1.5	1.5	-152.51	2.4	-25.5	55.3	52.6	2.67	20.692		
800.0	795.6	794.4	790.8	1.9	1.8	-147.94	9.0	-39.1	77.5	74.3	3.19	24.319		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM13C (M32 595 Pad) - 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	141.30	-31.3	25.1	40.1					
100.0	100.0	100.0	100.0	0.1	0.1	141.30	-31.3	25.1	40.1	39.9	0.27	149.311		
200.0	200.0	200.0	200.0	0.3	0.3	141.30	-31.3	25.1	40.1	39.5	0.62	64.955		
286.0	286.0	286.7	286.7	0.5	0.5	126.10	-31.3	23.8	40.1	39.2	0.92	43.401 CC		
300.0	300.0	300.8	300.8	0.5	0.5	127.16	-31.3	23.3	40.1	39.1	0.97	41.181 ES		
400.0	399.8	401.1	401.0	0.7	0.7	139.10	-31.3	18.0	41.1	39.8	1.35	30.479		
500.0	499.5	500.5	499.9	0.9	0.9	156.20	-31.3	9.3	46.4	44.7	1.75	26.506 SF		
600.0	598.7	598.4	597.1	1.2	1.2	172.73	-31.3	-2.6	58.9	56.7	2.17	27.188		
700.0	697.5	695.6	693.3	1.5	1.4	-175.92	-31.3	-16.0	78.5	76.0	2.57	30.563		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM13D (M32 595 Pad) - 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	141.75	-39.7	31.3	50.5					
100.0	100.0	100.0	100.0	0.1	0.1	141.75	-39.7	31.3	50.5	50.3	0.27	188.071		
200.0	200.0	200.0	200.0	0.3	0.3	141.75	-39.7	31.3	50.5	49.9	0.62	81.816 CC, ES		
300.0	300.0	300.1	300.1	0.5	0.5	127.07	-40.6	29.8	51.4	50.5	0.97	52.845		
400.0	399.8	399.5	399.4	0.7	0.7	136.77	-43.4	25.4	55.2	53.8	1.35	40.847		
500.0	499.5	497.7	497.1	0.9	0.9	149.57	-47.9	18.2	64.3	62.5	1.74	36.842 SF		
600.0	598.7	594.6	593.3	1.2	1.1	161.55	-54.0	8.6	80.7	78.5	2.12	37.986		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM14B (M32 595 Pad) - 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	140.98	-23.3	18.9	30.0					
100.0	100.0	100.0	100.0	0.1	0.1	140.98	-23.3	18.9	30.0	29.7	0.27	111.617		
200.0	200.0	200.0	200.0	0.3	0.3	140.98	-23.3	18.9	30.0	29.4	0.62	48.557 CC, ES		
300.0	300.0	299.9	299.9	0.5	0.5	122.24	-22.3	20.3	31.1	30.1	0.97	31.951		
400.0	399.8	399.7	399.6	0.7	0.7	120.89	-19.4	24.6	34.4	33.0	1.36	25.319		
500.0	499.5	499.4	498.9	0.9	0.9	119.12	-14.5	31.8	39.9	38.1	1.80	22.201		
600.0	598.7	598.8	597.6	1.2	1.2	117.32	-7.7	41.8	47.6	45.3	2.31	20.621		
700.0	697.5	698.0	695.5	1.5	1.5	115.69	0.9	54.6	57.6	54.7	2.91	19.785		
800.0	795.6	796.8	792.5	1.9	1.9	114.30	11.5	70.1	69.8	66.2	3.61	19.331		
896.4	889.5	892.1	885.7	2.3	2.2	113.96	22.8	86.8	83.3	79.0	4.34	19.188		
900.0	893.1	895.7	889.2	2.3	2.2	114.00	23.2	87.4	83.8	79.5	4.37	19.188		
1,000.0	990.1	994.6	985.8	2.7	2.6	114.81	34.9	104.7	98.6	93.5	5.15	19.164 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM14D (M32 595 Pad) - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	141.63	-47.7	37.8	60.9					
100.0	100.0	100.0	100.0	0.1	0.1	141.63	-47.7	37.8	60.9	60.6	0.27	226.420		
200.0	200.0	200.0	200.0	0.3	0.3	141.63	-47.7	37.8	60.9	60.2	0.62	98.499 CC, ES		
300.0	300.0	298.5	298.5	0.5	0.5	123.54	-47.8	39.5	63.0	62.0	0.97	64.995		
400.0	399.8	396.8	396.7	0.7	0.7	123.88	-48.2	44.5	69.3	68.0	1.34	51.724		
500.0	499.5	494.6	494.0	0.9	0.9	124.31	-48.8	52.9	79.9	78.2	1.75	45.700		
600.0	598.7	591.5	590.3	1.2	1.2	124.72	-49.6	64.4	94.7	92.5	2.21	42.900 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM11B (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM11B (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KBE @ 8144.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Milk Cabin OM11B (M32 595 Pad)
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.63°

