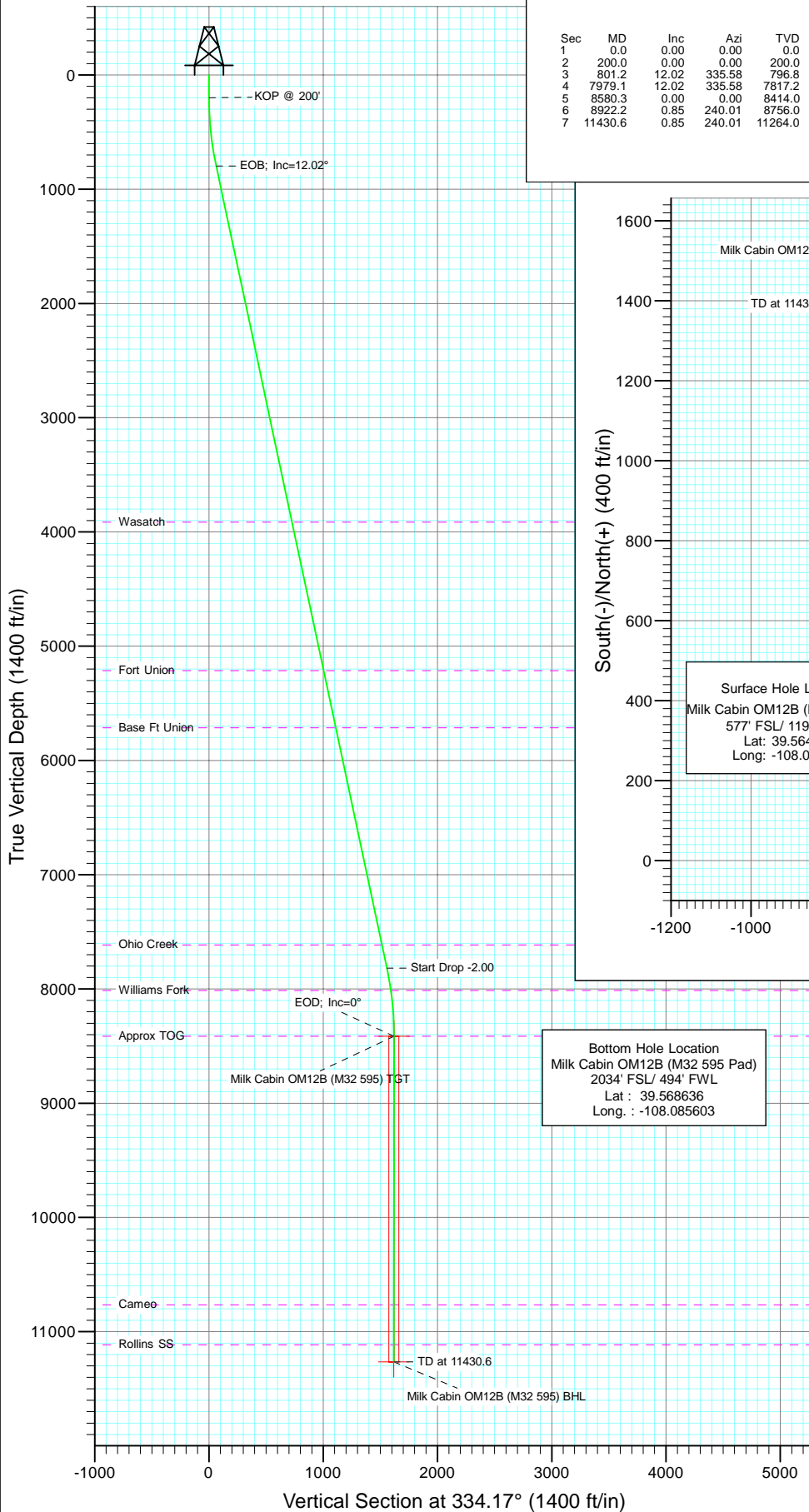
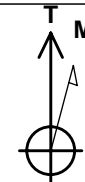
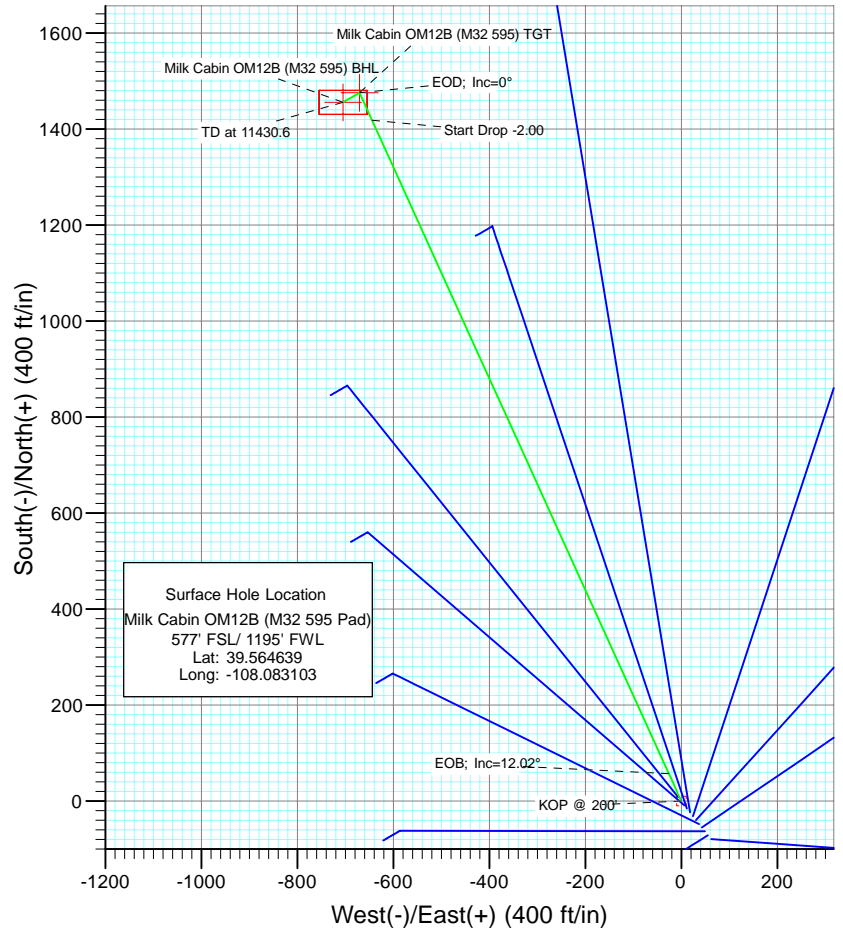




Project: Garfield County
Site: SWSW S32-T5S-R95W (M32 595 Pad)
Well: Milk Cabin OM12B (M32 595 Pad)
Wellbore: DD
Design: Plan #1



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	801.2	12.02	335.58	796.8	57.2	-26.0	2.00	335.58	62.8	
4	7979.1	12.02	335.58	7817.2	1418.7	-644.2	0.00	0.00	1557.6	Milk Cabin OM12B (M32 595) TGT
5	8580.3	0.00	0.00	8414.0	1475.9	-670.1	2.00	180.00	1620.4	
6	8922.2	0.85	240.01	8756.0	1474.6	-672.4	0.25	240.01	1620.2	
7	11430.6	0.85	240.01	11264.0	1455.9	-704.8	0.00	0.00	1617.5	Milk Cabin OM12B (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
3914.0	3988.3	Wasatch
5214.0	5317.5	Fort Union
5714.0	5828.7	Base Ft Union
7614.0	7771.3	Ohio Creek
8014.0	8179.0	Williams Fork
8414.0	8580.3	Approx TOG
10764.0	10930.5	Cameo
11114.0	11280.5	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 OM12B (M32 595) BHL	17	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 OM12B (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 OM12B (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 OM12B (M32 595 Pad)					
Well Position	+N/-S	0.0 ft	Northing:	1,640,904.06 ft	Latitude:	39.564639
	+E/-W	0.0 ft	Easting:	2,271,860.67 ft	Longitude:	-108.083103
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) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	334.17

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
801.2	12.02	335.58	796.8	57.2	-26.0	2.00	2.00	0.00	335.58	
7,979.1	12.02	335.58	7,817.2	1,418.7	-644.2	0.00	0.00	0.00	0.00	
8,580.3	0.00	0.00	8,414.0	1,475.9	-670.1	2.00	-2.00	0.00	180.00	Milk Cabin OM12B (N
8,922.2	0.85	240.01	8,756.0	1,474.6	-672.4	0.25	0.25	-35.09	240.01	
11,430.6	0.85	240.01	11,264.0	1,455.9	-704.8	0.00	0.00	0.00	0.00	Milk Cabin OM12B (N

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Milk Cabin OM12B (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 OM12B (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	335.58	210.0	0.0	0.0	0.0	2.00	2.00	
240.0	0.80	335.58	240.0	0.3	-0.1	0.3	2.00	2.00	
270.0	1.40	335.58	270.0	0.8	-0.4	0.9	2.00	2.00	
300.0	2.00	335.58	300.0	1.6	-0.7	1.7	2.00	2.00	
330.0	2.60	335.58	330.0	2.7	-1.2	2.9	2.00	2.00	
360.0	3.20	335.58	359.9	4.1	-1.8	4.5	2.00	2.00	
390.0	3.80	335.58	389.9	5.7	-2.6	6.3	2.00	2.00	
420.0	4.40	335.58	419.8	7.7	-3.5	8.4	2.00	2.00	
450.0	5.00	335.58	449.7	9.9	-4.5	10.9	2.00	2.00	
480.0	5.60	335.58	479.6	12.4	-5.7	13.7	2.00	2.00	
510.0	6.20	335.58	509.4	15.3	-6.9	16.8	2.00	2.00	
540.0	6.80	335.58	539.2	18.3	-8.3	20.1	2.00	2.00	
570.0	7.40	335.58	569.0	21.7	-9.9	23.9	2.00	2.00	
600.0	8.00	335.58	598.7	25.4	-11.5	27.9	2.00	2.00	
630.0	8.60	335.58	628.4	29.3	-13.3	32.2	2.00	2.00	
660.0	9.20	335.58	658.0	33.6	-15.2	36.8	2.00	2.00	
690.0	9.80	335.58	687.6	38.1	-17.3	41.8	2.00	2.00	
720.0	10.40	335.58	717.1	42.9	-19.5	47.1	2.00	2.00	
750.0	11.00	335.58	746.6	47.9	-21.8	52.6	2.00	2.00	
780.0	11.60	335.58	776.0	53.3	-24.2	58.5	2.00	2.00	
801.2	12.02	335.58	796.8	57.2	-26.0	62.8	2.00	2.00	EOB; Inc=12.02°
810.0	12.02	335.58	805.4	58.9	-26.7	64.7	0.00	0.00	
840.0	12.02	335.58	834.7	64.6	-29.3	70.9	0.00	0.00	
870.0	12.02	335.58	864.1	70.3	-31.9	77.2	0.00	0.00	
900.0	12.02	335.58	893.4	76.0	-34.5	83.4	0.00	0.00	
930.0	12.02	335.58	922.8	81.7	-37.1	89.7	0.00	0.00	
960.0	12.02	335.58	952.1	87.3	-39.7	95.9	0.00	0.00	
990.0	12.02	335.58	981.5	93.0	-42.2	102.2	0.00	0.00	
1,020.0	12.02	335.58	1,010.8	98.7	-44.8	108.4	0.00	0.00	
1,050.0	12.02	335.58	1,040.1	104.4	-47.4	114.6	0.00	0.00	
1,080.0	12.02	335.58	1,069.5	110.1	-50.0	120.9	0.00	0.00	
1,110.0	12.02	335.58	1,098.8	115.8	-52.6	127.1	0.00	0.00	
1,140.0	12.02	335.58	1,128.2	121.5	-55.2	133.4	0.00	0.00	
1,170.0	12.02	335.58	1,157.5	127.2	-57.7	139.6	0.00	0.00	
1,200.0	12.02	335.58	1,186.8	132.9	-60.3	145.9	0.00	0.00	
1,230.0	12.02	335.58	1,216.2	138.6	-62.9	152.1	0.00	0.00	
1,260.0	12.02	335.58	1,245.5	144.3	-65.5	158.4	0.00	0.00	
1,290.0	12.02	335.58	1,274.9	149.9	-68.1	164.6	0.00	0.00	
1,320.0	12.02	335.58	1,304.2	155.6	-70.7	170.9	0.00	0.00	
1,350.0	12.02	335.58	1,333.6	161.3	-73.2	177.1	0.00	0.00	
1,380.0	12.02	335.58	1,362.9	167.0	-75.8	183.4	0.00	0.00	
1,410.0	12.02	335.58	1,392.2	172.7	-78.4	189.6	0.00	0.00	
1,440.0	12.02	335.58	1,421.6	178.4	-81.0	195.9	0.00	0.00	
1,470.0	12.02	335.58	1,450.9	184.1	-83.6	202.1	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Milk Cabin OM12B (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 OM12B (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	12.02	335.58	1,480.3	189.8	-86.2	208.4	0.00	0.00	
1,530.0	12.02	335.58	1,509.6	195.5	-88.8	214.6	0.00	0.00	
1,560.0	12.02	335.58	1,539.0	201.2	-91.3	220.9	0.00	0.00	
1,590.0	12.02	335.58	1,568.3	206.8	-93.9	227.1	0.00	0.00	
1,620.0	12.02	335.58	1,597.6	212.5	-96.5	233.3	0.00	0.00	
1,650.0	12.02	335.58	1,627.0	218.2	-99.1	239.6	0.00	0.00	
1,680.0	12.02	335.58	1,656.3	223.9	-101.7	245.8	0.00	0.00	
1,710.0	12.02	335.58	1,685.7	229.6	-104.3	252.1	0.00	0.00	
1,740.0	12.02	335.58	1,715.0	235.3	-106.8	258.3	0.00	0.00	
1,770.0	12.02	335.58	1,744.3	241.0	-109.4	264.6	0.00	0.00	
1,800.0	12.02	335.58	1,773.7	246.7	-112.0	270.8	0.00	0.00	
1,830.0	12.02	335.58	1,803.0	252.4	-114.6	277.1	0.00	0.00	
1,860.0	12.02	335.58	1,832.4	258.1	-117.2	283.3	0.00	0.00	
1,890.0	12.02	335.58	1,861.7	263.7	-119.8	289.6	0.00	0.00	
1,920.0	12.02	335.58	1,891.1	269.4	-122.3	295.8	0.00	0.00	
1,950.0	12.02	335.58	1,920.4	275.1	-124.9	302.1	0.00	0.00	
1,980.0	12.02	335.58	1,949.7	280.8	-127.5	308.3	0.00	0.00	
2,010.0	12.02	335.58	1,979.1	286.5	-130.1	314.6	0.00	0.00	
2,040.0	12.02	335.58	2,008.4	292.2	-132.7	320.8	0.00	0.00	
2,070.0	12.02	335.58	2,037.8	297.9	-135.3	327.1	0.00	0.00	
2,100.0	12.02	335.58	2,067.1	303.6	-137.8	333.3	0.00	0.00	
2,130.0	12.02	335.58	2,096.4	309.3	-140.4	339.6	0.00	0.00	
2,160.0	12.02	335.58	2,125.8	315.0	-143.0	345.8	0.00	0.00	
2,190.0	12.02	335.58	2,155.1	320.6	-145.6	352.0	0.00	0.00	
2,220.0	12.02	335.58	2,184.5	326.3	-148.2	358.3	0.00	0.00	
2,250.0	12.02	335.58	2,213.8	332.0	-150.8	364.5	0.00	0.00	
2,280.0	12.02	335.58	2,243.2	337.7	-153.3	370.8	0.00	0.00	
2,310.0	12.02	335.58	2,272.5	343.4	-155.9	377.0	0.00	0.00	
2,340.0	12.02	335.58	2,301.8	349.1	-158.5	383.3	0.00	0.00	
2,370.0	12.02	335.58	2,331.2	354.8	-161.1	389.5	0.00	0.00	
2,400.0	12.02	335.58	2,360.5	360.5	-163.7	395.8	0.00	0.00	
2,430.0	12.02	335.58	2,389.9	366.2	-166.3	402.0	0.00	0.00	
2,460.0	12.02	335.58	2,419.2	371.9	-168.8	408.3	0.00	0.00	
2,490.0	12.02	335.58	2,448.5	377.5	-171.4	414.5	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									
Milk Cabin OM12B (M32	0.00	0.00	11,264.0	1,455.9	-704.8	1,642,379.42	2,271,197.57	39.568636	-108.085603
- plan misses target center by 8897.2ft at 2490.0ft MD (2448.5 TVD, 377.5 N, -171.4 E)									
- Rectangle (sides W50.0 H100.0 D0.0)									
Milk Cabin OM12B (M32	0.00	0.00	8,414.0	1,475.9	-670.1	1,642,398.41	2,271,232.75	39.568691	-108.085480
- plan misses target center by 6086.2ft at 2490.0ft MD (2448.5 TVD, 377.5 N, -171.4 E)									
- Point									

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Milk Cabin OM12B (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 OM12B (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	12.02	335.58	2,458.3	379.4	-172.3	416.6	0.00	0.00	
2,600.0	12.02	335.58	2,556.1	398.4	-180.9	437.4	0.00	0.00	
2,700.0	12.02	335.58	2,653.9	417.4	-189.5	458.3	0.00	0.00	
2,800.0	12.02	335.58	2,751.7	436.3	-198.1	479.1	0.00	0.00	
2,900.0	12.02	335.58	2,849.6	455.3	-206.7	499.9	0.00	0.00	
3,000.0	12.02	335.58	2,947.4	474.3	-215.4	520.7	0.00	0.00	
3,100.0	12.02	335.58	3,045.2	493.2	-224.0	541.5	0.00	0.00	
3,200.0	12.02	335.58	3,143.0	512.2	-232.6	562.4	0.00	0.00	
3,300.0	12.02	335.58	3,240.8	531.2	-241.2	583.2	0.00	0.00	
3,400.0	12.02	335.58	3,338.6	550.1	-249.8	604.0	0.00	0.00	
3,500.0	12.02	335.58	3,436.4	569.1	-258.4	624.8	0.00	0.00	
3,600.0	12.02	335.58	3,534.2	588.1	-267.0	645.7	0.00	0.00	
3,700.0	12.02	335.58	3,632.0	607.1	-275.6	666.5	0.00	0.00	
3,800.0	12.02	335.58	3,729.8	626.0	-284.3	687.3	0.00	0.00	
3,900.0	12.02	335.58	3,827.6	645.0	-292.9	708.1	0.00	0.00	
3,988.3	12.02	335.58	3,914.0	661.7	-300.5	726.5	0.00	0.00	Wasatch
4,000.0	12.02	335.58	3,925.4	664.0	-301.5	729.0	0.00	0.00	
4,100.0	12.02	335.58	4,023.2	682.9	-310.1	749.8	0.00	0.00	
4,200.0	12.02	335.58	4,121.0	701.9	-318.7	770.6	0.00	0.00	
4,300.0	12.02	335.58	4,218.8	720.9	-327.3	791.4	0.00	0.00	
4,400.0	12.02	335.58	4,316.7	739.8	-335.9	812.3	0.00	0.00	
4,500.0	12.02	335.58	4,414.5	758.8	-344.5	833.1	0.00	0.00	
4,600.0	12.02	335.58	4,512.3	777.8	-353.1	853.9	0.00	0.00	
4,700.0	12.02	335.58	4,610.1	796.7	-361.8	874.7	0.00	0.00	
4,800.0	12.02	335.58	4,707.9	815.7	-370.4	895.6	0.00	0.00	
4,900.0	12.02	335.58	4,805.7	834.7	-379.0	916.4	0.00	0.00	
5,000.0	12.02	335.58	4,903.5	853.6	-387.6	937.2	0.00	0.00	
5,100.0	12.02	335.58	5,001.3	872.6	-396.2	958.0	0.00	0.00	
5,200.0	12.02	335.58	5,099.1	891.6	-404.8	978.9	0.00	0.00	
5,300.0	12.02	335.58	5,196.9	910.5	-413.4	999.7	0.00	0.00	
5,317.5	12.02	335.58	5,214.0	913.8	-414.9	1,003.3	0.00	0.00	Fort Union
5,400.0	12.02	335.58	5,294.7	929.5	-422.0	1,020.5	0.00	0.00	
5,500.0	12.02	335.58	5,392.5	948.5	-430.7	1,041.3	0.00	0.00	
5,600.0	12.02	335.58	5,490.3	967.4	-439.3	1,062.2	0.00	0.00	
5,700.0	12.02	335.58	5,588.1	986.4	-447.9	1,083.0	0.00	0.00	
5,800.0	12.02	335.58	5,685.9	1,005.4	-456.5	1,103.8	0.00	0.00	
5,828.7	12.02	335.58	5,714.0	1,010.8	-459.0	1,109.8	0.00	0.00	Base Ft Union
5,900.0	12.02	335.58	5,783.7	1,024.3	-465.1	1,124.6	0.00	0.00	
6,000.0	12.02	335.58	5,881.6	1,043.3	-473.7	1,145.5	0.00	0.00	
6,100.0	12.02	335.58	5,979.4	1,062.3	-482.3	1,166.3	0.00	0.00	
6,200.0	12.02	335.58	6,077.2	1,081.2	-490.9	1,187.1	0.00	0.00	
6,300.0	12.02	335.58	6,175.0	1,100.2	-499.6	1,207.9	0.00	0.00	
6,400.0	12.02	335.58	6,272.8	1,119.2	-508.2	1,228.8	0.00	0.00	
6,500.0	12.02	335.58	6,370.6	1,138.1	-516.8	1,249.6	0.00	0.00	
6,600.0	12.02	335.58	6,468.4	1,157.1	-525.4	1,270.4	0.00	0.00	
6,700.0	12.02	335.58	6,566.2	1,176.1	-534.0	1,291.2	0.00	0.00	
6,800.0	12.02	335.58	6,664.0	1,195.0	-542.6	1,312.1	0.00	0.00	
6,900.0	12.02	335.58	6,761.8	1,214.0	-551.2	1,332.9	0.00	0.00	
7,000.0	12.02	335.58	6,859.6	1,233.0	-559.8	1,353.7	0.00	0.00	
7,100.0	12.02	335.58	6,957.4	1,251.9	-568.5	1,374.5	0.00	0.00	
7,200.0	12.02	335.58	7,055.2	1,270.9	-577.1	1,395.4	0.00	0.00	
7,300.0	12.02	335.58	7,153.0	1,289.9	-585.7	1,416.2	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Milk Cabin OM12B (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 OM12B (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	12.02	335.58	7,250.8	1,308.8	-594.3	1,437.0	0.00	0.00	
7,500.0	12.02	335.58	7,348.6	1,327.8	-602.9	1,457.8	0.00	0.00	
7,600.0	12.02	335.58	7,446.5	1,346.8	-611.5	1,478.7	0.00	0.00	
7,700.0	12.02	335.58	7,544.3	1,365.7	-620.1	1,499.5	0.00	0.00	
7,771.3	12.02	335.58	7,614.0	1,379.3	-626.3	1,514.3	0.00	0.00	Ohio Creek
7,800.0	12.02	335.58	7,642.1	1,384.7	-628.7	1,520.3	0.00	0.00	
7,900.0	12.02	335.58	7,739.9	1,403.7	-637.4	1,541.1	0.00	0.00	
7,979.1	12.02	335.58	7,817.2	1,418.7	-644.2	1,557.6	0.00	0.00	Start Drop -2.00
8,000.0	11.61	335.58	7,837.7	1,422.6	-645.9	1,561.9	2.00	-2.00	
8,100.0	9.61	335.58	7,936.0	1,439.3	-653.5	1,580.3	2.00	-2.00	
8,179.0	8.03	335.58	8,014.0	1,450.3	-658.5	1,592.4	2.00	-2.00	Williams Fork
8,200.0	7.61	335.58	8,034.8	1,453.0	-659.7	1,595.2	2.00	-2.00	
8,300.0	5.61	335.58	8,134.2	1,463.4	-664.5	1,606.7	2.00	-2.00	
8,400.0	3.61	335.58	8,233.9	1,470.7	-667.8	1,614.8	2.00	-2.00	
8,500.0	1.61	335.58	8,333.7	1,474.9	-669.7	1,619.3	2.00	-2.00	
8,580.3	0.00	0.00	8,414.0	1,475.9	-670.1	1,620.4	2.00	-2.00	EOD; Inc=0° - Approx TOG - Milk Cabin OM12B
8,600.0	0.05	240.01	8,433.7	1,475.9	-670.2	1,620.4	0.25	0.25	
8,700.0	0.30	240.01	8,533.7	1,475.7	-670.4	1,620.4	0.25	0.25	
8,800.0	0.55	240.01	8,633.7	1,475.4	-671.1	1,620.4	0.25	0.25	
8,900.0	0.80	240.01	8,733.7	1,474.8	-672.1	1,620.3	0.25	0.25	
8,922.2	0.85	240.01	8,756.0	1,474.6	-672.4	1,620.2	0.25	0.25	
9,000.0	0.85	240.01	8,833.7	1,474.0	-673.4	1,620.2	0.00	0.00	
9,100.0	0.85	240.01	8,933.7	1,473.3	-674.7	1,620.1	0.00	0.00	
9,200.0	0.85	240.01	9,033.7	1,472.6	-675.9	1,619.9	0.00	0.00	
9,300.0	0.85	240.01	9,133.7	1,471.8	-677.2	1,619.8	0.00	0.00	
9,400.0	0.85	240.01	9,233.7	1,471.1	-678.5	1,619.7	0.00	0.00	
9,500.0	0.85	240.01	9,333.7	1,470.3	-679.8	1,619.6	0.00	0.00	
9,600.0	0.85	240.01	9,433.6	1,469.6	-681.1	1,619.5	0.00	0.00	
9,700.0	0.85	240.01	9,533.6	1,468.8	-682.4	1,619.4	0.00	0.00	
9,800.0	0.85	240.01	9,633.6	1,468.1	-683.7	1,619.3	0.00	0.00	
9,900.0	0.85	240.01	9,733.6	1,467.3	-685.0	1,619.2	0.00	0.00	
10,000.0	0.85	240.01	9,833.6	1,466.6	-686.3	1,619.1	0.00	0.00	
10,100.0	0.85	240.01	9,933.6	1,465.8	-687.6	1,619.0	0.00	0.00	
10,200.0	0.85	240.01	10,033.6	1,465.1	-688.9	1,618.9	0.00	0.00	
10,300.0	0.85	240.01	10,133.6	1,464.3	-690.2	1,618.8	0.00	0.00	
10,400.0	0.85	240.01	10,233.6	1,463.6	-691.5	1,618.6	0.00	0.00	
10,500.0	0.85	240.01	10,333.5	1,462.9	-692.7	1,618.5	0.00	0.00	
10,600.0	0.85	240.01	10,433.5	1,462.1	-694.0	1,618.4	0.00	0.00	
10,700.0	0.85	240.01	10,533.5	1,461.4	-695.3	1,618.3	0.00	0.00	
10,800.0	0.85	240.01	10,633.5	1,460.6	-696.6	1,618.2	0.00	0.00	
10,900.0	0.85	240.01	10,733.5	1,459.9	-697.9	1,618.1	0.00	0.00	
10,930.5	0.85	240.01	10,764.0	1,459.6	-698.3	1,618.1	0.00	0.00	Cameo
11,000.0	0.85	240.01	10,833.5	1,459.1	-699.2	1,618.0	0.00	0.00	
11,100.0	0.85	240.01	10,933.5	1,458.4	-700.5	1,617.9	0.00	0.00	
11,200.0	0.85	240.01	11,033.5	1,457.6	-701.8	1,617.8	0.00	0.00	
11,280.5	0.85	240.01	11,114.0	1,457.0	-702.8	1,617.7	0.00	0.00	Rollins SS
11,300.0	0.85	240.01	11,133.5	1,456.9	-703.1	1,617.7	0.00	0.00	
11,400.0	0.85	240.01	11,233.4	1,456.1	-704.4	1,617.6	0.00	0.00	
11,430.6	0.85	240.01	11,264.0	1,455.9	-704.8	1,617.5	0.00	0.00	Milk Cabin OM12B (M32 595) BHL

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Milk Cabin OM12B (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 OM12B (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 OM12B (M32 - plan hits target center - Rectangle (sides W50.0 H100.0 D0.0)	0.00	0.00	11,264.0	1,455.9	-704.8	1,642,379.42	2,271,197.57	39.568636	-108.085603
Milk Cabin OM12B (M32 - plan hits target center - Point	0.00	0.00	8,414.0	1,475.9	-670.1	1,642,398.41	2,271,232.75	39.568691	-108.085480

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
3,988.3	3,914.0	Wasatch		0.00		
5,317.5	5,214.0	Fort Union		0.00		
5,828.7	5,714.0	Base Ft Union		0.00		
7,771.3	7,614.0	Ohio Creek		0.00		
8,179.0	8,014.0	Williams Fork		0.00		
8,580.3	8,414.0	Approx TOG		0.00		
10,930.5	10,764.0	Cameo		0.00		
11,280.5	11,114.0	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'	
801.2	796.8	57.2	-26.0	EOB; Inc=12.02°	
7,979.1	7,817.2	1,418.7	-644.2	Start Drop -2.00	
8,580.3	8,414.0	1,475.9	-670.1	EOD; Inc=0°	
11,430.6	11,264.0	1,455.9	-704.8	TD at 11430.6	

Berry Petroleum Company (NAD 83)

Garfield County

SWSW S32-T5S-R95W (M32 595 Pad)

Milk Cabin OM12B (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 OM12B (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 OM12B (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	11,430.6	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 OM11B (M32 595 Pad) - DD - Plan #1	200.0	200.0	39.6	39.0	64.119	CC, ES
Milk Cabin OM11B (M32 595 Pad) - DD - Plan #1	900.0	900.0	89.4	85.1	21.110	SF
Milk Cabin OM11D (M32 595 Pad) - DD - Plan #1	200.0	200.0	49.9	49.3	80.794	CC, ES
Milk Cabin OM11D (M32 595 Pad) - DD - Plan #1	700.0	696.9	90.8	88.1	33.035	SF
Milk Cabin OM12A (M32 595 Pad) - DD - Plan #1	200.0	200.0	29.5	28.9	47.718	CC
Milk Cabin OM12A (M32 595 Pad) - DD - Plan #1	300.0	300.9	29.6	28.7	30.569	ES
Milk Cabin OM12A (M32 595 Pad) - DD - Plan #1	1,600.0	1,603.9	74.4	64.0	7.147	SF
Milk Cabin OM12C (M32 595 Pad) - DD - Plan #1	200.0	200.0	10.1	9.5	16.401	CC
Milk Cabin OM12C (M32 595 Pad) - DD - Plan #1	400.0	399.3	10.4	9.1	7.920	ES
Milk Cabin OM12C (M32 595 Pad) - DD - Plan #1	801.2	798.7	19.4	15.9	5.578	SF
Milk Cabin OM12D (M32 595 Pad) - DD - Plan #1	1,068.2	1,072.7	19.2	13.3	3.250	CC
Milk Cabin OM12D (M32 595 Pad) - DD - Plan #1	1,100.0	1,104.3	19.4	13.1	3.077	ES, SF
Milk Cabin OM13A (M32 595 Pad) - DD - Plan #1	200.0	200.0	9.8	9.2	15.859	CC
Milk Cabin OM13A (M32 595 Pad) - DD - Plan #1	300.0	300.3	9.8	8.9	10.173	ES
Milk Cabin OM13A (M32 595 Pad) - DD - Plan #1	500.0	500.8	12.0	10.3	6.992	SF
Milk Cabin OM13B (M32 595 Pad) - DD - Plan #1	200.0	200.0	60.3	59.7	97.672	CC
Milk Cabin OM13B (M32 595 Pad) - DD - Plan #1	300.0	301.9	60.5	59.5	62.260	ES
Milk Cabin OM13B (M32 595 Pad) - DD - Plan #1	900.0	905.2	91.0	87.4	25.168	SF
Milk Cabin OM13C (M32 595 Pad) - DD - Plan #1	200.0	200.0	79.7	79.1	129.069	CC, ES
Milk Cabin OM13C (M32 595 Pad) - DD - Plan #1	600.0	604.6	93.9	91.7	43.281	SF
Milk Cabin OM13D (M32 595 Pad) - DD - Plan #1	200.0	200.0	90.2	89.5	145.934	CC, ES
Milk Cabin OM13D (M32 595 Pad) - DD - Plan #1	400.0	400.1	96.6	95.3	72.107	SF
Milk Cabin OM14B (M32 595 Pad) - DD - Plan #1	200.0	200.0	69.6	69.0	112.669	CC, ES
Milk Cabin OM14B (M32 595 Pad) - DD - Plan #1	500.0	498.1	86.8	85.0	49.847	SF
Milk Cabin OM14D (M32 595 Pad) - DD - Plan #1						Out of range

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM12B (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 OM12B (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 OM11B (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	142.26	-31.3	24.2	39.6					
100.0	100.0	100.0	100.0	0.1	0.1	142.26	-31.3	24.2	39.6	39.3	0.27	147.390		
200.0	200.0	200.0	200.0	0.3	0.3	142.26	-31.3	24.2	39.6	39.0	0.62	64.119 CC, ES		
300.0	300.0	300.8	300.7	0.5	0.5	165.17	-29.6	24.8	40.3	39.4	0.97	41.548		
400.0	399.8	401.4	401.3	0.7	0.7	160.96	-24.6	26.5	42.7	41.3	1.34	31.858		
500.0	499.5	501.9	501.3	0.9	0.9	154.93	-16.2	29.2	47.0	45.3	1.75	26.916		
600.0	598.7	602.1	600.8	1.2	1.2	148.23	-4.6	33.1	53.8	51.5	2.22	24.199		
700.0	697.5	701.9	699.3	1.5	1.5	141.82	10.3	38.0	63.2	60.4	2.79	22.655		
801.2	796.8	802.3	797.9	1.9	1.9	136.17	28.6	44.0	75.6	72.1	3.47	21.770		
900.0	893.4	900.0	893.0	2.2	2.3	130.98	49.5	50.9	89.4	85.1	4.23	21.110 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM12B (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 OM12B (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									
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	142.00	-39.3	30.7	49.9							
100.0	100.0	100.0	100.0	0.1	0.1	142.00	-39.3	30.7	49.9	49.6	0.27	185.722				
200.0	200.0	200.0	200.0	0.3	0.3	142.00	-39.3	30.7	49.9	49.3	0.62	80.794	CC, ES			
300.0	300.0	300.3	300.2	0.5	0.5	164.95	-38.0	31.9	51.3	50.4	0.97	52.860				
400.0	399.8	400.3	400.1	0.7	0.7	160.98	-34.1	35.4	55.8	54.4	1.34	41.528				
500.0	499.5	499.9	499.4	0.9	0.9	155.64	-27.7	41.3	63.6	61.8	1.75	36.319				
600.0	598.7	598.9	597.6	1.2	1.2	150.09	-18.8	49.3	75.2	73.0	2.21	33.957				
700.0	697.5	696.9	694.5	1.5	1.5	145.08	-7.5	59.6	90.8	88.1	2.75	33.035	SF			

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM12B (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 OM12B (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								
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	142.27	-23.3	18.0	29.5						
100.0	100.0	100.0	100.0	0.1	0.1	142.27	-23.3	18.0	29.5	29.2	0.27	109.689			
200.0	200.0	200.0	200.0	0.3	0.3	142.27	-23.3	18.0	29.5	28.9	0.62	47.718	CC		
300.0	300.0	300.9	300.9	0.5	0.5	165.84	-21.6	17.8	29.6	28.7	0.97	30.569	ES		
400.0	399.8	401.8	401.6	0.7	0.7	163.34	-16.3	16.9	30.1	28.8	1.33	22.699			
500.0	499.5	502.7	502.1	0.9	0.9	159.37	-7.6	15.4	31.1	29.4	1.70	18.228			
600.0	598.7	603.5	602.2	1.2	1.2	154.25	4.7	13.4	32.6	30.5	2.13	15.335			
700.0	697.5	704.3	701.7	1.5	1.5	148.40	20.4	10.9	34.9	32.3	2.63	13.269			
801.2	796.8	806.2	801.6	1.9	1.9	142.23	39.7	7.7	38.2	35.0	3.27	11.686			
900.0	893.4	905.6	898.5	2.2	2.3	134.79	62.0	4.0	41.3	37.2	4.06	10.159			
1,000.0	991.2	1,005.4	995.2	2.6	2.8	126.31	86.1	0.0	44.2	39.3	4.98	8.883			
1,100.0	1,089.0	1,105.1	1,091.9	3.0	3.2	119.02	110.1	-3.9	48.0	42.1	5.93	8.107			
1,200.0	1,186.8	1,204.9	1,188.7	3.4	3.6	112.88	134.2	-7.9	52.5	45.6	6.87	7.647			
1,300.0	1,284.7	1,304.6	1,285.4	3.8	4.1	107.75	158.3	-11.8	57.5	49.7	7.79	7.382			
1,400.0	1,382.5	1,404.4	1,382.1	4.2	4.5	103.46	182.4	-15.8	62.8	54.2	8.68	7.238			
1,500.0	1,480.3	1,504.1	1,478.8	4.6	5.0	99.87	206.4	-19.8	68.5	58.9	9.55	7.169			
1,600.0	1,578.1	1,603.9	1,575.6	5.0	5.5	96.83	230.5	-23.7	74.4	64.0	10.41	7.147	SF		
1,700.0	1,675.9	1,703.6	1,672.3	5.4	5.9	94.24	254.6	-27.7	80.4	69.2	11.24	7.155			
1,800.0	1,773.7	1,803.4	1,769.0	5.8	6.4	92.01	278.7	-31.6	86.6	74.6	12.06	7.182			
1,900.0	1,871.5	1,903.1	1,865.7	6.2	6.8	90.09	302.7	-35.6	92.9	80.1	12.87	7.220			
2,000.0	1,969.3	2,002.9	1,962.5	6.6	7.3	88.41	326.8	-39.6	99.3	85.7	13.67	7.266			

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM12B (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 OM12B (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					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		
300.0	300.0	299.6	299.6	0.5	0.5	-15.75	9.4	-7.3	10.2	9.2	0.97	10.538		
400.0	399.8	399.3	399.1	0.7	0.7	-22.85	13.4	-10.5	10.4	9.1	1.32	7.920 ES		
500.0	499.5	498.9	498.4	0.9	0.9	-33.63	20.2	-16.0	11.2	9.5	1.69	6.609		
600.0	598.7	598.5	597.2	1.2	1.2	-45.93	29.6	-23.5	12.8	10.7	2.15	5.960		
700.0	697.5	698.0	695.5	1.5	1.5	-57.30	41.7	-33.3	15.5	12.8	2.74	5.666		
801.2	796.8	798.7	794.3	1.9	1.9	-66.51	56.6	-45.2	19.4	15.9	3.48	5.578 SF		
900.0	893.4	896.9	890.0	2.2	2.3	-69.59	73.8	-59.0	24.9	20.6	4.24	5.874		
1,000.0	991.2	996.5	986.5	2.6	2.7	-67.77	93.1	-74.6	31.9	26.9	4.94	6.454		
1,100.0	1,089.0	1,096.3	1,083.1	3.0	3.2	-66.46	112.5	-90.2	38.9	33.3	5.64	6.902		
1,200.0	1,186.8	1,196.0	1,179.7	3.4	3.6	-65.56	131.9	-105.8	46.0	39.7	6.35	7.247		
1,300.0	1,284.7	1,295.8	1,276.3	3.8	4.1	-64.90	151.3	-121.4	53.1	46.0	7.06	7.521		
1,400.0	1,382.5	1,395.5	1,372.9	4.2	4.6	-64.39	170.7	-137.0	60.2	52.4	7.78	7.742		
1,500.0	1,480.3	1,495.2	1,469.5	4.6	5.0	-63.99	190.1	-152.6	67.3	58.8	8.49	7.925		
1,600.0	1,578.1	1,595.0	1,566.0	5.0	5.5	-63.67	209.6	-168.2	74.4	65.2	9.21	8.078		
1,700.0	1,675.9	1,694.7	1,662.6	5.4	6.0	-63.40	229.0	-183.8	81.5	71.6	9.93	8.208		
1,800.0	1,773.7	1,794.5	1,759.2	5.8	6.4	-63.18	248.4	-199.4	88.6	78.0	10.65	8.320		
1,900.0	1,871.5	1,894.2	1,855.8	6.2	6.9	-62.99	267.8	-215.0	95.7	84.4	11.37	8.418		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM12B (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 OM12B (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	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)				
0.0	0.0	0.0	0.0	0.0	0.0	142.26	-15.3	11.8	19.3					
100.0	100.0	100.0	100.0	0.1	0.1	142.26	-15.3	11.8	19.3	19.1	0.27	71.975		
200.0	200.0	200.0	200.0	0.3	0.3	142.26	-15.3	11.8	19.3	18.7	0.62	31.311		
300.0	300.0	300.6	300.6	0.5	0.5	166.15	-13.6	11.3	19.4	18.4	0.97	20.018		
400.0	399.8	401.3	401.1	0.7	0.7	164.59	-8.6	9.6	19.5	18.2	1.32	14.761		
500.0	499.5	501.9	501.4	0.9	0.9	162.03	-0.2	6.8	19.8	18.1	1.69	11.721		
600.0	598.7	602.5	601.2	1.2	1.2	158.57	11.5	2.9	20.2	18.1	2.08	9.719		
700.0	697.5	703.2	700.6	1.5	1.5	154.35	26.5	-2.1	20.8	18.3	2.52	8.262		
801.2	796.8	804.9	800.4	1.9	1.9	149.51	45.0	-8.3	21.8	18.7	3.06	7.104		
900.0	893.4	904.3	897.2	2.2	2.3	141.84	66.4	-15.5	21.6	17.9	3.78	5.726		
1,000.0	991.2	1,004.6	994.0	2.6	2.8	126.25	91.2	-23.7	19.9	15.0	4.91	4.060		
1,068.2	1,057.9	1,072.7	1,059.3	2.9	3.1	109.16	109.8	-30.0	19.2	13.3	5.89	3.250 CC		
1,100.0	1,089.0	1,104.3	1,089.5	3.0	3.3	100.44	118.6	-32.9	19.4	13.1	6.30	3.077 ES, SF		
1,200.0	1,186.8	1,203.9	1,184.6	3.4	3.8	76.70	146.4	-42.2	22.7	15.7	7.05	3.225		
1,300.0	1,284.7	1,303.5	1,279.8	3.8	4.4	60.95	174.3	-51.5	28.8	21.5	7.31	3.941		
1,400.0	1,382.5	1,403.0	1,374.9	4.2	4.9	51.14	202.1	-60.8	36.3	28.8	7.49	4.845		
1,500.0	1,480.3	1,502.6	1,470.1	4.6	5.4	44.79	230.0	-70.1	44.4	36.7	7.70	5.773		
1,600.0	1,578.1	1,602.2	1,565.2	5.0	6.0	40.45	257.8	-79.5	53.0	45.0	7.96	6.658		
1,700.0	1,675.9	1,701.7	1,660.4	5.4	6.5	37.32	285.6	-88.8	61.7	53.5	8.25	7.479		
1,800.0	1,773.7	1,801.3	1,755.5	5.8	7.0	34.97	313.5	-98.1	70.6	62.0	8.58	8.233		
1,900.0	1,871.5	1,900.9	1,850.6	6.2	7.6	33.15	341.3	-107.4	79.6	70.7	8.92	8.921		
2,000.0	1,969.3	2,000.4	1,945.8	6.6	8.1	31.70	369.2	-116.7	88.6	79.4	9.28	9.550		
2,100.0	2,067.1	2,100.0	2,040.9	7.0	8.7	30.52	397.0	-126.0	97.7	88.1	9.65	10.124		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM12B (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 OM12B (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		Highside Toolface (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	144.87	-8.0	5.6	9.8					
100.0	100.0	100.0	100.0	0.1	0.1	144.87	-8.0	5.6	9.8	9.5	0.27	36.455		
200.0	200.0	200.0	200.0	0.3	0.3	144.87	-8.0	5.6	9.8	9.2	0.62	15.859 CC		
208.3	208.3	208.3	208.3	0.3	0.3	169.32	-8.0	5.6	9.8	9.2	0.65	15.140		
300.0	300.0	300.3	300.3	0.5	0.5	173.68	-6.9	4.3	9.8	8.9	0.97	10.173 ES		
400.0	399.8	400.6	400.5	0.7	0.7	-173.73	-3.4	0.3	10.3	9.0	1.32	7.796		
500.0	499.5	500.8	500.3	0.9	0.9	-156.46	2.3	-6.3	12.0	10.3	1.72	6.992 SF		
600.0	598.7	601.0	599.7	1.2	1.2	-140.59	10.3	-15.6	15.7	13.4	2.22	7.047		
700.0	697.5	701.0	698.4	1.5	1.5	-129.17	20.5	-27.5	21.3	18.5	2.85	7.488		
801.2	796.8	801.9	797.5	1.9	1.9	-122.23	32.9	-41.8	29.0	25.5	3.58	8.119		
900.0	893.4	900.3	894.1	2.2	2.2	-119.91	45.3	-56.2	37.6	33.3	4.29	8.763		
1,000.0	991.2	1,000.0	991.9	2.6	2.6	-118.43	57.9	-70.8	46.3	41.2	5.02	9.214		
1,100.0	1,089.0	1,099.6	1,089.6	3.0	3.0	-117.43	70.4	-85.4	55.0	49.2	5.76	9.543		
1,200.0	1,186.8	1,199.2	1,187.4	3.4	3.3	-116.69	83.0	-99.9	63.7	57.2	6.51	9.791		
1,300.0	1,284.7	1,298.8	1,285.1	3.8	3.7	-116.14	95.6	-114.5	72.4	65.2	7.25	9.985		
1,400.0	1,382.5	1,398.4	1,382.8	4.2	4.1	-115.70	108.1	-129.1	81.1	73.1	8.00	10.140		
1,500.0	1,480.3	1,498.0	1,480.6	4.6	4.5	-115.35	120.7	-143.7	89.9	81.1	8.75	10.267		
1,600.0	1,578.1	1,597.6	1,578.3	5.0	4.8	-115.06	133.3	-158.2	98.6	89.1	9.51	10.373		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM12B (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 OM12B (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	-47.7	36.9	60.3					
100.0	100.0	100.0	100.0	0.1	0.1	142.27	-47.7	36.9	60.3	60.1	0.27	224.519		
200.0	200.0	200.0	200.0	0.3	0.3	142.27	-47.7	36.9	60.3	59.7	0.62	97.672 CC		
300.0	300.0	301.9	301.9	0.5	0.5	167.83	-46.9	35.3	60.5	59.5	0.97	62.260 ES		
400.0	399.8	403.7	403.6	0.7	0.7	171.22	-44.5	30.4	60.9	59.6	1.33	45.851		
500.0	499.5	505.4	504.8	0.9	0.9	176.70	-40.6	22.3	62.2	60.5	1.70	36.563		
600.0	598.7	606.8	605.4	1.2	1.2	-176.10	-35.0	11.1	64.8	62.7	2.11	30.767		
700.0	697.5	706.9	704.3	1.5	1.5	-168.35	-28.3	-2.6	70.0	67.4	2.57	27.258		
801.2	796.8	807.3	803.5	1.9	1.8	-162.32	-21.4	-16.6	79.5	76.4	3.08	25.828		
900.0	893.4	905.2	900.3	2.2	2.1	-158.16	-14.7	-30.3	91.0	87.4	3.62	25.168 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM12B (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 OM12B (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	141.78	-62.7	49.3	79.7				
100.0	100.0	100.0	100.0	0.1	0.1	141.78	-62.7	49.3	79.7	79.5	0.27	296.691	
200.0	200.0	200.0	200.0	0.3	0.3	141.78	-62.7	49.3	79.7	79.1	0.62	129.069 CC, ES	
300.0	300.0	301.7	301.7	0.5	0.5	167.51	-62.6	47.5	80.4	79.4	0.97	82.636	
400.0	399.8	403.2	403.0	0.7	0.7	171.30	-62.6	42.1	82.4	81.1	1.34	61.552	
500.0	499.5	504.3	503.7	0.9	0.9	177.13	-62.6	33.2	86.7	84.9	1.73	50.008	
600.0	598.7	604.6	603.2	1.2	1.2	-175.75	-62.6	20.8	93.9	91.7	2.17	43.281 SF	

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM12B (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 OM12B (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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation Factor					
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis						
0.0	0.0	0.0	0.0	0.0	0.0	141.98	-71.0	55.5	90.2								
100.0	100.0	100.0	100.0	0.1	0.1	141.98	-71.0	55.5	90.2	89.9	0.27	335.458					
200.0	200.0	200.0	200.0	0.3	0.3	141.98	-71.0	55.5	90.2	89.5	0.62	145.934	CC, ES				
300.0	300.0	300.3	300.2	0.5	0.5	167.74	-72.0	54.1	91.7	90.7	0.97	94.443					
400.0	399.8	400.1	399.9	0.7	0.7	171.48	-74.7	49.6	96.6	95.3	1.34	72.107	SF				

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Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM12B (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	141.71	-54.6	43.1	69.6					
100.0	100.0	100.0	100.0	0.1	0.1	141.71	-54.6	43.1	69.6	69.3	0.27	258.991		
200.0	200.0	200.0	200.0	0.3	0.3	141.71	-54.6	43.1	69.6	69.0	0.62	112.669 CC, ES		
300.0	300.0	299.8	299.8	0.5	0.5	165.07	-53.7	44.6	71.4	70.5	0.97	73.636		
400.0	399.8	399.2	399.1	0.7	0.7	162.18	-50.7	48.9	77.1	75.7	1.34	57.526		
500.0	499.5	498.1	497.6	0.9	0.9	158.23	-45.9	56.0	86.8	85.0	1.74	49.847 SF		

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Reference Well:	Milk Cabin OM12B (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 OM12B (M32 595 Pad)
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.63°

