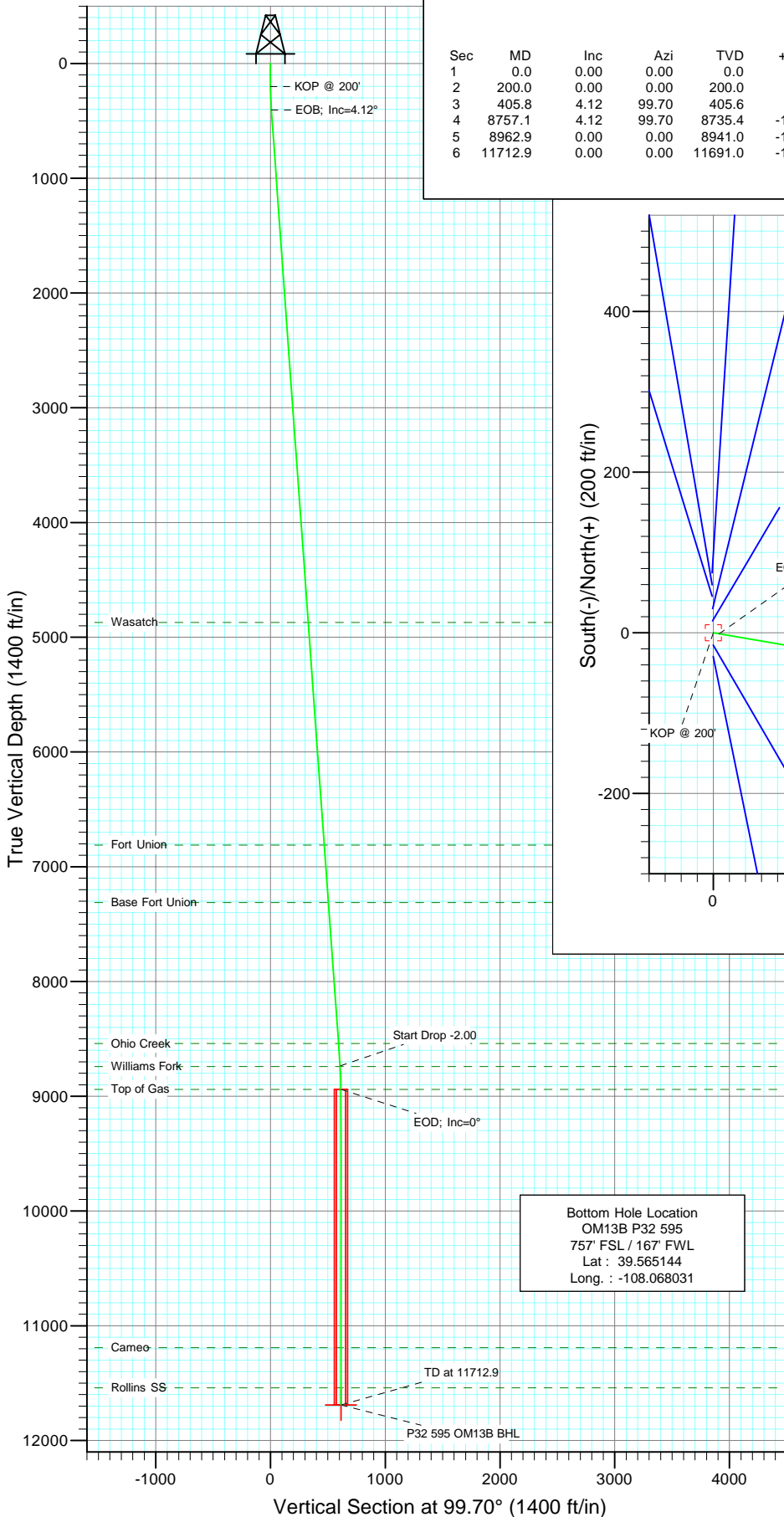


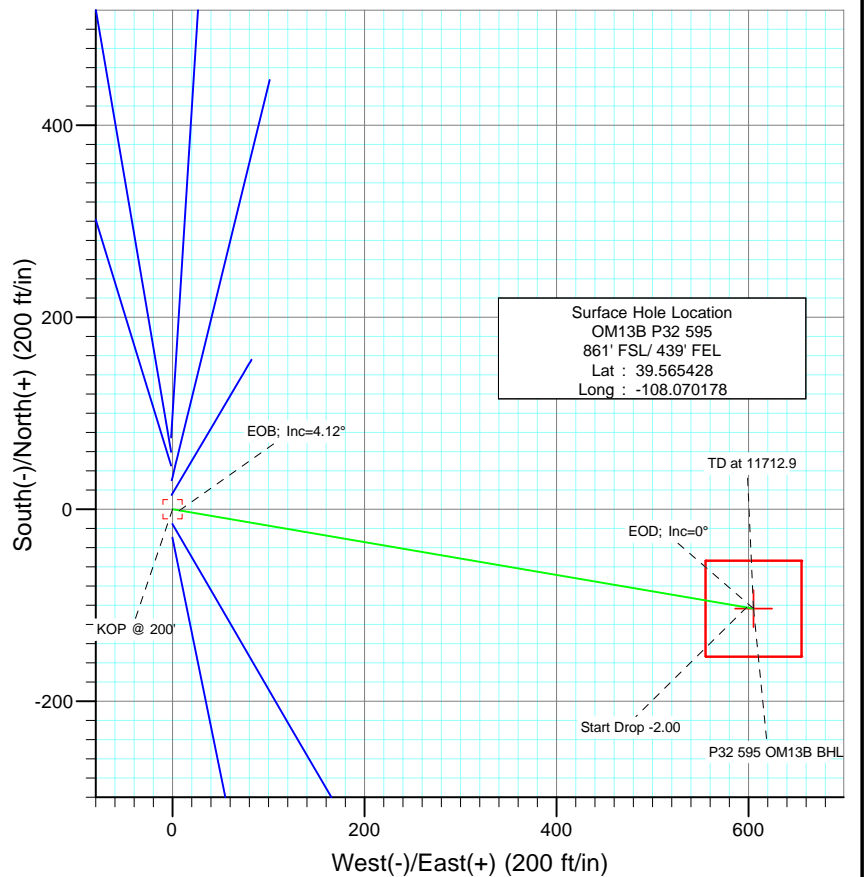


Berry Petroleum Company

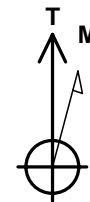
Project: Garfield County
Site: P32 595
Well: OM13B P32 595
Wellbore: DD
Design: Plan #1



SECTION DETAILS										
-N/-S	+E/-W	DLeg	TFace	VSec	Target					
0.0	0.0	0.00	0.00	0.0						
0.0	0.0	0.00	0.00	0.0						
-1.2	7.3	2.00	99.70	7.4						
102.2	598.0	0.00	0.00	606.7						
103.4	605.3	2.00	180.00	614.1						
103.4	605.3	0.00	0.00	614.1	P32 595 OM13B BHL					



FORMATION TOP DETAILS			
TVDPath	MDPath	Formation	
4871.0	4882.7	Wasatch	
6811.0	6827.7	Fort Union	
7311.0	7329.0	Base Fort Union	
8541.0	8562.2	Ohio Creek	
8741.0	8762.7	Williams Fork	
8941.0	8962.9	Top of Gas	
11191.0	11212.9	Cameo	
11541.0	11562.9	Rollins SS	



Azimuths to True North
Magnetic North: 10.67°

Magnetic Field
Strength: 52516.8snT
Dip Angle: 65.85°
Date: 2/23/2009
Model: IGRF200510

DESIGN DETAILS: Plan #1

95xxx; LR
KB OM13B P32 @ 8386.0ft (Rig Name)

Target	Azimuth	Origin	N/S	E/W	From TVD
P32 595 OM13B BHL	99.70	Slot	0.0	0.0	0.0

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well OM13B P32 595
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Project:	Garfield County	MD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Site:	P32 595	North Reference:	True
Well:	OM13B P32 595	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		P32 595			
Site Position:		Northing:	1,641,133.56 ft	Latitude:	39.565553
From:	Lat/Long	Easting:	2,275,511.10 ft	Longitude:	-108.070183
Position Uncertainty:	0.0 ft	Slot Radius:	in	Grid Convergence:	-1.62 °

Well	OM13B P32 595					
Well Position	+N/-S	0.0 ft	Northing:	1,641,088.00 ft	Latitude:	39.565428
	+E/-W	0.0 ft	Easting:	2,275,511.22 ft	Longitude:	-108.070178
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,358.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2/23/2009	10.67	65.85	52,517

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	99.70	

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	
405.8	4.12	99.70	405.6	-1.2	7.3	2.00	2.00	0.00	99.70	
8,757.1	4.12	99.70	8,735.4	-102.2	598.0	0.00	0.00	0.00	0.00	
8,962.9	0.00	0.00	8,941.0	-103.4	605.3	2.00	-2.00	0.00	180.00	
11,712.9	0.00	0.00	11,691.0	-103.4	605.3	0.00	0.00	0.00	0.00	P32 595 OM13B BHL

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well OM13B P32 595
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Project:	Garfield County	MD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Site:	P32 595	North Reference:	True
Well:	OM13B P32 595	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	
100.0	0.00	0.00	100.0	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'
300.0	2.00	99.70	300.0	-0.3	1.7	1.7	2.00	2.00	
400.0	4.00	99.70	399.8	-1.2	6.9	7.0	2.00	2.00	
405.8	4.12	99.70	405.6	-1.2	7.3	7.4	2.00	2.00	EOB; Inc=4.12°
500.0	4.12	99.70	499.6	-2.4	13.9	14.1	0.00	0.00	
600.0	4.12	99.70	599.3	-3.6	21.0	21.3	0.00	0.00	
700.0	4.12	99.70	699.1	-4.8	28.1	28.5	0.00	0.00	
800.0	4.12	99.70	798.8	-6.0	35.2	35.7	0.00	0.00	
900.0	4.12	99.70	898.5	-7.2	42.2	42.9	0.00	0.00	
1,000.0	4.12	99.70	998.3	-8.4	49.3	50.0	0.00	0.00	
1,100.0	4.12	99.70	1,098.0	-9.6	56.4	57.2	0.00	0.00	
1,200.0	4.12	99.70	1,197.8	-10.8	63.5	64.4	0.00	0.00	
1,300.0	4.12	99.70	1,297.5	-12.1	70.5	71.6	0.00	0.00	
1,400.0	4.12	99.70	1,397.3	-13.3	77.6	78.7	0.00	0.00	
1,500.0	4.12	99.70	1,497.0	-14.5	84.7	85.9	0.00	0.00	
1,600.0	4.12	99.70	1,596.7	-15.7	91.8	93.1	0.00	0.00	
1,700.0	4.12	99.70	1,696.5	-16.9	98.8	100.3	0.00	0.00	
1,800.0	4.12	99.70	1,796.2	-18.1	105.9	107.4	0.00	0.00	
1,900.0	4.12	99.70	1,896.0	-19.3	113.0	114.6	0.00	0.00	
2,000.0	4.12	99.70	1,995.7	-20.5	120.0	121.8	0.00	0.00	
2,100.0	4.12	99.70	2,095.5	-21.7	127.1	129.0	0.00	0.00	
2,200.0	4.12	99.70	2,195.2	-22.9	134.2	136.1	0.00	0.00	
2,300.0	4.12	99.70	2,294.9	-24.1	141.3	143.3	0.00	0.00	
2,400.0	4.12	99.70	2,394.7	-25.3	148.3	150.5	0.00	0.00	
2,500.0	4.12	99.70	2,494.4	-26.6	155.4	157.7	0.00	0.00	
2,600.0	4.12	99.70	2,594.2	-27.8	162.5	164.8	0.00	0.00	
2,700.0	4.12	99.70	2,693.9	-29.0	169.6	172.0	0.00	0.00	
2,800.0	4.12	99.70	2,793.7	-30.2	176.6	179.2	0.00	0.00	
2,900.0	4.12	99.70	2,893.4	-31.4	183.7	186.4	0.00	0.00	
3,000.0	4.12	99.70	2,993.1	-32.6	190.8	193.5	0.00	0.00	
3,100.0	4.12	99.70	3,092.9	-33.8	197.9	200.7	0.00	0.00	
3,200.0	4.12	99.70	3,192.6	-35.0	204.9	207.9	0.00	0.00	
3,300.0	4.12	99.70	3,292.4	-36.2	212.0	215.1	0.00	0.00	
3,400.0	4.12	99.70	3,392.1	-37.4	219.1	222.3	0.00	0.00	
3,500.0	4.12	99.70	3,491.8	-38.6	226.1	229.4	0.00	0.00	
3,600.0	4.12	99.70	3,591.6	-39.9	233.2	236.6	0.00	0.00	
3,700.0	4.12	99.70	3,691.3	-41.1	240.3	243.8	0.00	0.00	
3,800.0	4.12	99.70	3,791.1	-42.3	247.4	251.0	0.00	0.00	
3,900.0	4.12	99.70	3,890.8	-43.5	254.4	258.1	0.00	0.00	
4,000.0	4.12	99.70	3,990.6	-44.7	261.5	265.3	0.00	0.00	
4,100.0	4.12	99.70	4,090.3	-45.9	268.6	272.5	0.00	0.00	
4,200.0	4.12	99.70	4,190.0	-47.1	275.7	279.7	0.00	0.00	
4,300.0	4.12	99.70	4,289.8	-48.3	282.7	286.8	0.00	0.00	
4,400.0	4.12	99.70	4,389.5	-49.5	289.8	294.0	0.00	0.00	
4,500.0	4.12	99.70	4,489.3	-50.7	296.9	301.2	0.00	0.00	
4,600.0	4.12	99.70	4,589.0	-51.9	304.0	308.4	0.00	0.00	
4,700.0	4.12	99.70	4,688.8	-53.1	311.0	315.5	0.00	0.00	
4,800.0	4.12	99.70	4,788.5	-54.4	318.1	322.7	0.00	0.00	
4,882.7	4.12	99.70	4,871.0	-55.4	324.0	328.7	0.00	0.00	Wasatch
4,900.0	4.12	99.70	4,888.2	-55.6	325.2	329.9	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well OM13B P32 595
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Project:	Garfield County	MD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Site:	P32 595	North Reference:	True
Well:	OM13B P32 595	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
5,000.0	4.12	99.70	4,988.0	-56.8	332.3	337.1	0.00	0.00	
5,100.0	4.12	99.70	5,087.7	-58.0	339.3	344.2	0.00	0.00	
5,200.0	4.12	99.70	5,187.5	-59.2	346.4	351.4	0.00	0.00	
5,300.0	4.12	99.70	5,287.2	-60.4	353.5	358.6	0.00	0.00	
5,400.0	4.12	99.70	5,386.9	-61.6	360.5	365.8	0.00	0.00	
5,500.0	4.12	99.70	5,486.7	-62.8	367.6	372.9	0.00	0.00	
5,600.0	4.12	99.70	5,586.4	-64.0	374.7	380.1	0.00	0.00	
5,700.0	4.12	99.70	5,686.2	-65.2	381.8	387.3	0.00	0.00	
5,800.0	4.12	99.70	5,785.9	-66.4	388.8	394.5	0.00	0.00	
5,900.0	4.12	99.70	5,885.7	-67.7	395.9	401.7	0.00	0.00	
6,000.0	4.12	99.70	5,985.4	-68.9	403.0	408.8	0.00	0.00	
6,100.0	4.12	99.70	6,085.1	-70.1	410.1	416.0	0.00	0.00	
6,200.0	4.12	99.70	6,184.9	-71.3	417.1	423.2	0.00	0.00	
6,300.0	4.12	99.70	6,284.6	-72.5	424.2	430.4	0.00	0.00	
6,400.0	4.12	99.70	6,384.4	-73.7	431.3	437.5	0.00	0.00	
6,500.0	4.12	99.70	6,484.1	-74.9	438.4	444.7	0.00	0.00	
6,600.0	4.12	99.70	6,583.9	-76.1	445.4	451.9	0.00	0.00	
6,700.0	4.12	99.70	6,683.6	-77.3	452.5	459.1	0.00	0.00	
6,800.0	4.12	99.70	6,783.3	-78.5	459.6	466.2	0.00	0.00	
6,827.7	4.12	99.70	6,811.0	-78.9	461.5	468.2	0.00	0.00	Fort Union
6,900.0	4.12	99.70	6,883.1	-79.7	466.6	473.4	0.00	0.00	
7,000.0	4.12	99.70	6,982.8	-80.9	473.7	480.6	0.00	0.00	
7,100.0	4.12	99.70	7,082.6	-82.2	480.8	487.8	0.00	0.00	
7,200.0	4.12	99.70	7,182.3	-83.4	487.9	494.9	0.00	0.00	
7,300.0	4.12	99.70	7,282.0	-84.6	494.9	502.1	0.00	0.00	
7,329.0	4.12	99.70	7,311.0	-84.9	497.0	504.2	0.00	0.00	Base Fort Union
7,400.0	4.12	99.70	7,381.8	-85.8	502.0	509.3	0.00	0.00	
7,500.0	4.12	99.70	7,481.5	-87.0	509.1	516.5	0.00	0.00	
7,600.0	4.12	99.70	7,581.3	-88.2	516.2	523.6	0.00	0.00	
7,700.0	4.12	99.70	7,681.0	-89.4	523.2	530.8	0.00	0.00	
7,800.0	4.12	99.70	7,780.8	-90.6	530.3	538.0	0.00	0.00	
7,900.0	4.12	99.70	7,880.5	-91.8	537.4	545.2	0.00	0.00	
8,000.0	4.12	99.70	7,980.2	-93.0	544.5	552.3	0.00	0.00	
8,100.0	4.12	99.70	8,080.0	-94.2	551.5	559.5	0.00	0.00	
8,200.0	4.12	99.70	8,179.7	-95.5	558.6	566.7	0.00	0.00	
8,300.0	4.12	99.70	8,279.5	-96.7	565.7	573.9	0.00	0.00	
8,400.0	4.12	99.70	8,379.2	-97.9	572.7	581.1	0.00	0.00	
8,500.0	4.12	99.70	8,479.0	-99.1	579.8	588.2	0.00	0.00	
8,562.2	4.12	99.70	8,541.0	-99.8	584.2	592.7	0.00	0.00	Ohio Creek
8,600.0	4.12	99.70	8,578.7	-100.3	586.9	595.4	0.00	0.00	
8,700.0	4.12	99.70	8,678.4	-101.5	594.0	602.6	0.00	0.00	
8,757.1	4.12	99.70	8,735.4	-102.2	598.0	606.7	0.00	0.00	Start Drop -2.00
8,762.7	4.00	99.70	8,741.0	-102.3	598.4	607.1	2.00	-2.00	Williams Fork
8,800.0	3.26	99.70	8,778.2	-102.7	600.7	609.4	2.00	-2.00	
8,900.0	1.26	99.70	8,878.1	-103.3	604.6	613.4	2.00	-2.00	
8,962.9	0.00	0.00	8,941.0	-103.4	605.3	614.1	2.00	-2.00	EOD; Inc=0° - Top of Gas
9,000.0	0.00	0.00	8,978.1	-103.4	605.3	614.1	0.00	0.00	
9,100.0	0.00	0.00	9,078.1	-103.4	605.3	614.1	0.00	0.00	
9,200.0	0.00	0.00	9,178.1	-103.4	605.3	614.1	0.00	0.00	
9,300.0	0.00	0.00	9,278.1	-103.4	605.3	614.1	0.00	0.00	
9,400.0	0.00	0.00	9,378.1	-103.4	605.3	614.1	0.00	0.00	
9,500.0	0.00	0.00	9,478.1	-103.4	605.3	614.1	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well OM13B P32 595
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Project:	Garfield County	MD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Site:	P32 595	North Reference:	True
Well:	OM13B P32 595	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
9,600.0	0.00	0.00	9,578.1	-103.4	605.3	614.1	0.00	0.00	
9,700.0	0.00	0.00	9,678.1	-103.4	605.3	614.1	0.00	0.00	
9,800.0	0.00	0.00	9,778.1	-103.4	605.3	614.1	0.00	0.00	
9,900.0	0.00	0.00	9,878.1	-103.4	605.3	614.1	0.00	0.00	
10,000.0	0.00	0.00	9,978.1	-103.4	605.3	614.1	0.00	0.00	
10,100.0	0.00	0.00	10,078.1	-103.4	605.3	614.1	0.00	0.00	
10,200.0	0.00	0.00	10,178.1	-103.4	605.3	614.1	0.00	0.00	
10,300.0	0.00	0.00	10,278.1	-103.4	605.3	614.1	0.00	0.00	
10,400.0	0.00	0.00	10,378.1	-103.4	605.3	614.1	0.00	0.00	
10,500.0	0.00	0.00	10,478.1	-103.4	605.3	614.1	0.00	0.00	
10,600.0	0.00	0.00	10,578.1	-103.4	605.3	614.1	0.00	0.00	
10,700.0	0.00	0.00	10,678.1	-103.4	605.3	614.1	0.00	0.00	
10,800.0	0.00	0.00	10,778.1	-103.4	605.3	614.1	0.00	0.00	
10,900.0	0.00	0.00	10,878.1	-103.4	605.3	614.1	0.00	0.00	
11,000.0	0.00	0.00	10,978.1	-103.4	605.3	614.1	0.00	0.00	
11,100.0	0.00	0.00	11,078.1	-103.4	605.3	614.1	0.00	0.00	
11,200.0	0.00	0.00	11,178.1	-103.4	605.3	614.1	0.00	0.00	
11,212.9	0.00	0.00	11,191.0	-103.4	605.3	614.1	0.00	0.00	Cameo
11,300.0	0.00	0.00	11,278.1	-103.4	605.3	614.1	0.00	0.00	
11,400.0	0.00	0.00	11,378.1	-103.4	605.3	614.1	0.00	0.00	
11,500.0	0.00	0.00	11,478.1	-103.4	605.3	614.1	0.00	0.00	
11,562.9	0.00	0.00	11,541.0	-103.4	605.3	614.1	0.00	0.00	Rollins SS
11,600.0	0.00	0.00	11,578.1	-103.4	605.3	614.1	0.00	0.00	
11,700.0	0.00	0.00	11,678.1	-103.4	605.3	614.1	0.00	0.00	
11,712.9	0.00	0.00	11,691.0	-103.4	605.3	614.1	0.00	0.00	TD at 11712.9 - P32 595 OM13B BHL

Targets									
Target Name									
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
P32 595 OM13B BHL	0.00	0.00	11,691.0	-103.4	605.3	1,640,967.49	2,276,113.34	39.565144	-108.068031
- plan hits target center									
- Rectangle (sides W100.0 H100.0 D0.0)									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,882.7	4,871.0	Wasatch				
6,827.7	6,811.0	Fort Union				
7,329.0	7,311.0	Base Fort Union				
8,562.2	8,541.0	Ohio Creek				
8,762.7	8,741.0	Williams Fork				
8,962.9	8,941.0	Top of Gas				
11,212.9	11,191.0	Cameo				
11,562.9	11,541.0	Rollins SS				

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well OM13B P32 595
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Project:	Garfield County	MD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Site:	P32 595	North Reference:	True
Well:	OM13B P32 595	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP @ 200'
405.8	405.6	-1.2	7.3	EOB; Inc=4.12°
8,757.1	8,735.4	-102.2	598.0	Start Drop -2.00
8,962.9	8,941.0	-103.4	605.3	EOD; Inc=0°
11,712.9	11,691.0	-103.4	605.3	TD at 11712.9

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM13B P32 595
Project:	Garfield County	TVD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM13B P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
Interpolation Method:	MD Interval 100.0ft	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	2/23/2009		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,712.9	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						
(Sec 8-6S-R96 SWNW original)						
Chevron #22-8D - ST 100' N - Plan #1						Out of range
Chevron #22-8D - ST 300' N - Plan #1						Out of range
(Sec 8-6S-R96 SWNW)						
Chevron #22-8D - ST 100' N - Plan #1						Out of range
P32 595						
OM01A P32 595 - DD - Plan #1	200.0	200.0	29.5	28.9	49.149	CC, ES
OM01A P32 595 - DD - Plan #1	500.0	496.1	43.7	42.0	25.514	SF
OM09B P32 595 - DD - Plan #1	200.0	200.0	74.7	74.1	124.392	CC, ES
OM09B P32 595 - DD - Plan #1	500.0	490.8	93.4	91.7	55.371	SF
OM09C P32 595 - DD - Plan #1	200.0	200.0	59.8	59.2	99.524	CC, ES
OM09C P32 595 - DD - Plan #1	600.0	589.4	93.6	91.5	45.581	SF
OM09D P32 595 - DD - Plan #1	200.0	200.0	45.5	44.9	75.864	CC, ES
OM09D P32 595 - DD - Plan #1	700.0	692.7	89.6	87.2	36.994	SF
OM16A P32 595 - DD - Plan #1	200.0	200.0	30.2	29.6	50.374	CC, ES
OM16A P32 595 - DD - Plan #1	600.0	596.8	50.8	48.7	24.494	SF
OM16B P32 595 - DD - Plan #1	200.0	200.0	15.0	14.4	24.914	CC, ES
OM16B P32 595 - DD - Plan #1	400.0	399.4	20.0	18.7	15.140	SF
OM16D P32 595 - DD - Plan #1	321.5	321.5	15.1	14.0	14.595	CC, ES
OM16D P32 595 - DD - Plan #1	500.0	499.6	19.0	17.3	11.297	SF
Sec29 T5S R96W						
Latham 29-18D - DD - Plan #1						Out of range
Latham 29-19D - DD - Plan #1						Out of range
Latham 29-30D - DD - Plan #1						Out of range

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM13B P32 595
Project:	Garfield County	TVD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM13B P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design P32 595 - OM01A P32 595 - 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	-180.00	-29.5	0.0	29.5					
100.0	100.0	100.0	100.0	0.1	0.1	-180.00	-29.5	0.0	29.5	29.3	0.25	117.410		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-29.5	0.0	29.5	28.9	0.60	49.149 CC, ES		
300.0	300.0	299.0	298.9	0.5	0.5	82.80	-31.2	0.3	30.9	30.0	0.95	32.507		
400.0	399.8	397.7	397.5	0.7	0.7	89.00	-36.2	1.4	35.5	34.2	1.32	26.828		
500.0	499.6	496.1	495.5	0.9	0.9	94.42	-44.5	3.0	43.7	42.0	1.71	25.514 SF		
600.0	599.3	594.0	592.7	1.1	1.1	96.40	-56.0	5.4	55.1	53.0	2.11	26.072		
700.0	699.1	693.2	691.0	1.3	1.4	97.09	-69.1	8.1	67.9	65.4	2.52	26.904		
800.0	798.8	792.3	789.3	1.5	1.7	97.56	-82.3	10.7	80.7	77.7	2.94	27.468		
900.0	898.5	891.5	887.5	1.7	2.0	97.90	-95.4	13.4	93.5	90.1	3.35	27.872		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM13B P32 595
Project:	Garfield County	TVD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM13B P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design P32 595 - OM09B P32 595 - 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	-1.08	74.7	-1.4	74.7					
100.0	100.0	100.0	100.0	0.1	0.1	-1.08	74.7	-1.4	74.7	74.4	0.25	297.158		
200.0	200.0	200.0	200.0	0.3	0.3	-1.08	74.7	-1.4	74.7	74.1	0.60	124.392 CC, ES		
300.0	300.0	297.4	297.4	0.5	0.5	-101.89	76.3	-1.3	76.7	75.8	0.95	80.870		
400.0	399.8	394.4	394.3	0.7	0.7	-104.86	81.3	-1.0	83.0	81.7	1.31	63.157		
500.0	499.6	490.8	490.3	0.9	0.9	-108.20	89.4	-0.5	93.4	91.7	1.69	55.371 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM13B P32 595
Project:	Garfield County	TVD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM13B P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design P32 595 - OM09C P32 595 - 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				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	-1.35	59.7	-1.4	59.8					
100.0	100.0	100.0	100.0	0.1	0.1	-1.35	59.7	-1.4	59.8	59.5	0.25	237.751		
200.0	200.0	200.0	200.0	0.3	0.3	-1.35	59.7	-1.4	59.8	59.2	0.60	99.524 CC, ES		
300.0	300.0	297.9	297.9	0.5	0.5	-102.79	61.4	-1.7	61.8	60.9	0.95	65.094		
400.0	399.8	395.3	395.2	0.7	0.7	-107.33	66.3	-2.5	68.3	67.0	1.31	51.950		
500.0	499.6	492.0	491.5	0.9	0.9	-112.34	74.4	-3.9	79.2	77.6	1.68	47.099		
600.0	599.3	589.4	588.2	1.1	1.1	-115.95	85.4	-5.8	93.6	91.5	2.05	45.581 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM13B P32 595
Project:	Garfield County	TVD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM13B P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design P32 595 - OM09D P32 595 - 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	-1.77	45.5	-1.4	45.5					
100.0	100.0	100.0	100.0	0.1	0.1	-1.77	45.5	-1.4	45.5	45.3	0.25	181.231		
200.0	200.0	200.0	200.0	0.3	0.3	-1.77	45.5	-1.4	45.5	44.9	0.60	75.864 CC, ES		
300.0	300.0	298.4	298.4	0.5	0.5	-103.99	47.1	-1.9	47.6	46.7	0.95	50.079		
400.0	399.8	396.3	396.1	0.7	0.7	-110.32	52.0	-3.4	54.2	52.9	1.32	41.228		
500.0	499.6	494.5	494.1	0.9	0.9	-116.93	59.6	-5.7	65.2	63.5	1.68	38.751		
600.0	599.3	593.6	592.8	1.1	1.1	-121.64	67.6	-8.2	77.2	75.2	2.05	37.626		
700.0	699.1	692.7	691.6	1.3	1.3	-125.06	75.6	-10.6	89.6	87.2	2.42	36.994 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM13B P32 595
Project:	Garfield County	TVD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM13B P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design P32 595 - OM16A P32 595 - 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	-1.60	30.2	-0.8	30.2					
100.0	100.0	100.0	100.0	0.1	0.1	-1.60	30.2	-0.8	30.2	30.0	0.25	120.339		
200.0	200.0	200.0	200.0	0.3	0.3	-1.60	30.2	-0.8	30.2	29.6	0.60	50.374 CC, ES		
300.0	300.0	299.5	299.5	0.5	0.5	-103.96	31.1	-0.6	31.5	30.5	0.95	33.035		
400.0	399.8	398.8	398.7	0.7	0.7	-110.77	33.6	0.0	35.5	34.1	1.32	26.848		
500.0	499.6	497.8	497.7	0.9	0.8	-117.36	37.8	1.0	42.2	40.5	1.69	24.920		
600.0	599.3	596.8	596.5	1.1	1.0	-120.96	43.6	2.4	50.8	48.7	2.07	24.494 SF		
700.0	699.1	696.2	695.7	1.3	1.2	-122.95	50.4	4.1	60.3	57.8	2.46	24.531		
800.0	798.8	795.8	795.0	1.5	1.4	-124.40	57.2	5.8	69.8	67.0	2.84	24.559		
900.0	898.5	895.3	894.2	1.7	1.7	-125.50	64.0	7.4	79.4	76.2	3.23	24.580		
1,000.0	998.3	994.8	993.5	1.9	1.9	-126.36	70.8	9.1	89.0	85.4	3.62	24.596		
1,100.0	1,098.0	1,094.4	1,092.8	2.2	2.1	-127.06	77.6	10.8	98.6	94.6	4.01	24.609		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM13B P32 595
Project:	Garfield County	TVD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM13B P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design P32 595 - OM16B P32 595 - 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				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	-3.24	14.9	-0.8	15.0				
100.0	100.0	100.0	100.0	0.1	0.1	-3.24	14.9	-0.8	15.0	14.7	0.25	59.516	
200.0	200.0	200.0	200.0	0.3	0.3	-3.24	14.9	-0.8	15.0	14.4	0.60	24.914 CC, ES	
300.0	300.0	299.8	299.8	0.5	0.5	-107.24	15.7	-0.4	16.1	15.2	0.95	16.914	
400.0	399.8	399.4	399.4	0.7	0.7	-116.89	17.9	0.9	20.0	18.7	1.32	15.140 SF	
500.0	499.6	498.9	498.8	0.9	0.8	-123.79	21.6	3.1	26.4	24.7	1.70	15.531	
600.0	599.3	598.3	598.0	1.1	1.0	-125.47	26.9	6.2	33.9	31.8	2.09	16.249	
700.0	699.1	698.0	697.4	1.3	1.2	-125.49	32.9	9.7	41.9	39.4	2.48	16.910	
800.0	798.8	797.7	796.9	1.5	1.5	-125.51	38.9	13.3	50.0	47.1	2.88	17.374	
900.0	898.5	897.4	896.3	1.7	1.7	-125.52	44.9	16.8	58.0	54.7	3.27	17.716	
1,000.0	998.3	997.0	995.7	1.9	1.9	-125.53	50.9	20.4	66.0	62.4	3.67	17.979	
1,100.0	1,098.0	1,096.7	1,095.2	2.2	2.1	-125.53	56.9	23.9	74.1	70.0	4.07	18.186	
1,200.0	1,197.8	1,196.4	1,194.6	2.4	2.3	-125.54	62.9	27.4	82.1	77.6	4.47	18.354	
1,300.0	1,297.5	1,296.1	1,294.0	2.6	2.5	-125.54	68.9	31.0	90.1	85.3	4.87	18.493	
1,400.0	1,397.3	1,395.7	1,393.5	2.8	2.7	-125.55	74.9	34.5	98.2	92.9	5.28	18.609	

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM13B P32 595
Project:	Garfield County	TVD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM13B P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design P32 595 - OM16D P32 595 - 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		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	-180.00	-15.3	0.0	15.3					
100.0	100.0	100.0	100.0	0.1	0.1	-180.00	-15.3	0.0	15.3	15.0	0.25	60.870		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-15.3	0.0	15.3	14.7	0.60	25.481		
300.0	300.0	300.0	300.0	0.5	0.5	86.85	-15.3	0.0	15.1	14.1	0.95	15.842		
321.5	321.5	321.5	321.5	0.5	0.5	90.00	-15.3	0.0	15.1	14.0	1.03	14.595 CC, ES		
400.0	399.8	399.8	399.8	0.7	0.6	106.23	-15.3	0.0	15.7	14.4	1.32	11.877		
500.0	499.6	499.6	499.6	0.9	0.8	127.43	-15.3	0.0	19.0	17.3	1.68	11.297 SF		
600.0	599.3	599.3	599.3	1.1	1.0	141.12	-15.3	0.0	24.1	22.0	2.03	11.844		
700.0	699.1	699.1	699.1	1.3	1.2	148.13	-16.0	0.4	29.9	27.5	2.38	12.545		
800.0	798.8	799.1	799.0	1.5	1.3	150.08	-18.3	1.7	35.6	32.9	2.74	13.010		
900.0	898.5	899.0	898.9	1.7	1.5	149.10	-22.0	3.9	41.1	38.0	3.11	13.224		
1,000.0	998.3	999.0	998.6	1.9	1.7	146.22	-27.3	7.0	46.4	42.9	3.50	13.264		
1,100.0	1,098.0	1,098.8	1,098.2	2.2	1.9	142.84	-33.4	10.5	51.7	47.8	3.89	13.267		
1,200.0	1,197.8	1,198.6	1,197.8	2.4	2.1	140.10	-39.5	14.1	57.1	52.8	4.30	13.288		
1,300.0	1,297.5	1,298.4	1,297.3	2.6	2.3	137.83	-45.6	17.6	62.7	58.0	4.71	13.319		
1,400.0	1,397.3	1,398.2	1,396.9	2.8	2.5	135.94	-51.7	21.2	68.3	63.2	5.11	13.356		
1,500.0	1,497.0	1,498.1	1,496.5	3.0	2.7	134.34	-57.8	24.7	74.0	68.5	5.53	13.394		
1,600.0	1,596.7	1,597.9	1,596.0	3.2	2.9	132.96	-63.9	28.3	79.8	73.8	5.94	13.433		
1,700.0	1,696.5	1,697.7	1,695.6	3.4	3.1	131.78	-70.1	31.8	85.6	79.2	6.35	13.472		
1,800.0	1,796.2	1,797.5	1,795.2	3.7	3.3	130.74	-76.2	35.4	91.4	84.6	6.76	13.510		
1,900.0	1,896.0	1,897.3	1,894.7	3.9	3.6	129.83	-82.3	38.9	97.2	90.0	7.18	13.546		

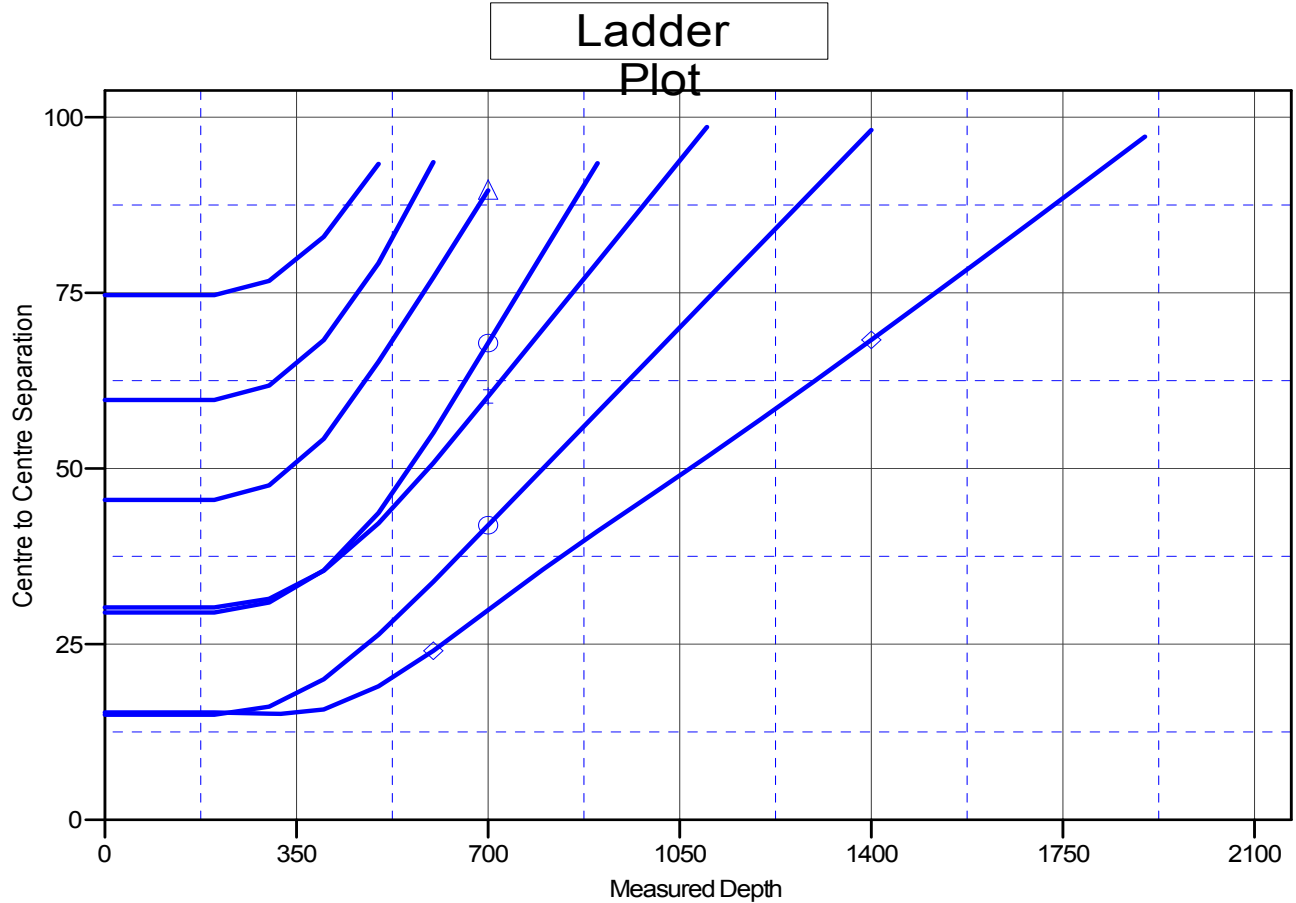
Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM13B P32 595
Project:	Garfield County	TVD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM13B P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM13B P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB OM13B P32 @ 8386.0ft (Rig Nam
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: OM13B P32 595
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.62°



LEGEND

- OM01A P32 595, DD, Plan#1 V0
 —△— OM09D P32 595, DD, Plan#1 V0
 —◇— OM16D P32 595, DD, Plan#1 V0
- OM09B P32 595, DD, Plan#1 V0
 —+— OM16A P32 595, DD, Plan#1 V0
- x— OM09C P32 595, DD, Plan#1 V0
 —●— OM16B P32 595, DD, Plan#1 V0