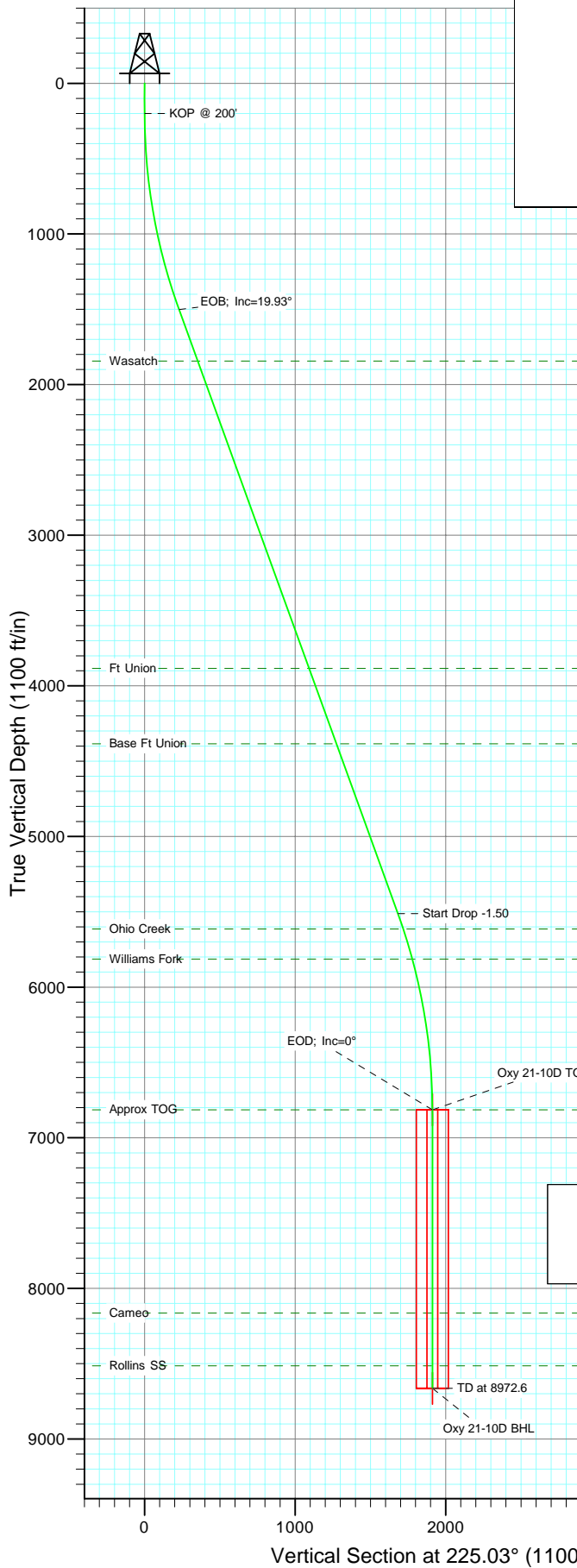


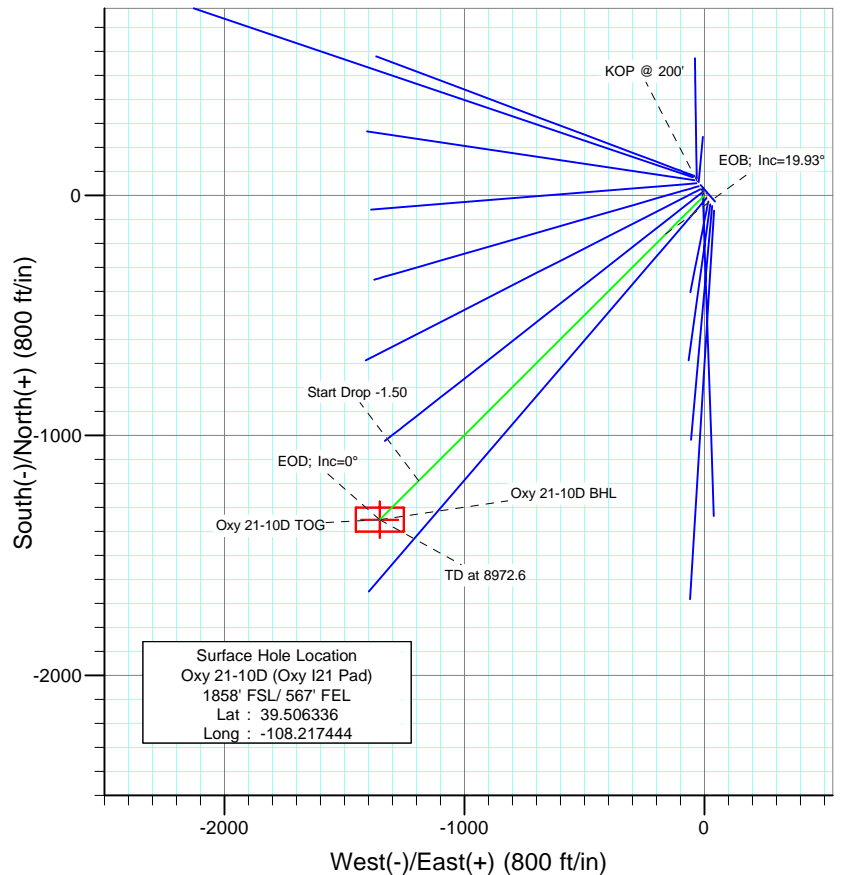


Berry Petroleum Company

Project: Garfield County  
Site: NESE S21-T6S-R97W (Oxy I21 pad)  
Well: Oxy 21-10D (Oxy I21 Pad)  
Wellbore: DD  
Design: Plan #1



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	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	1528.4	19.93	225.03	1501.8	-161.6	-161.8	1.50	225.03	228.7	
4	5794.2	19.93	225.03	5512.2	-1189.0	-1190.4	0.00	0.00	1682.5	
5	7122.6	0.00	0.00	6814.0	-1350.6	-1352.2	1.50	180.00	1911.1	Oxy 21-10D TOG
6	8972.6	0.00	0.00	8664.0	-1350.6	-1352.2	0.00	0.00	1911.1	Oxy 21-10D BHL



Surface Hole Location  
Oxy 21-10D (Oxy I21 Pad)  
1858' FSL/ 567' FEL  
Lat : 39.506336  
Long : -108.217444

Bottom Hole Location  
Oxy 21-10D (Oxy I21 Pad)  
506' FSL/ 1921' FEL  
Lat : 39.502628  
Long : -108.222236

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1844.0	1892.4	Wasatch
3884.0	4062.3	Ft Union
4384.0	4594.1	Base Ft Union
5614.0	5901.9	Ohio Creek
5814.0	6110.8	Williams Fork
6814.0	7122.6	Approx TOG
8164.0	8472.6	Cameo
8514.0	8822.6	Rollins SS



Azimuths to True North  
Magnetic North: 10.65°

Magnetic Field  
Strength: 52405.1snT  
Dip Angle: 65.76°  
Date: 10/6/2009  
Model: IGRF200510

DESIGN DETAILS: Plan #1

95XXX; BH  
KBE @ 8381.0ft (Original Well Elev)

Target	Azimuth	Origin	N/S	E/W	From TVD
Oxy 21-10D BHL	225.03	Slot	0.0	0.0	0.0

## Planning Report

<b>Database:</b>	EDM 2003.21 US Multi User DB	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Project:</b>	Garfield County	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>North Reference:</b>	True
<b>Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

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

Site		NESE S21-T6S-R97W (Oxy I21 pad)			
Site Position:		Northing:	1,620,717.92 ft	Latitude:	39.506164
From:	Lat/Long	Easting:	2,233,406.18 ft	Longitude:	-108.217300
Position Uncertainty:	0.0 ft	Slot Radius:	in	Grid Convergence:	-1.71 °

Well	Oxy 21-10D (Oxy I21 Pad)					
Well Position	+N/-S	0.0 ft	Northing:	1,620,781.75 ft	Latitude:	39.506336
	+E/-W	0.0 ft	Easting:	2,233,367.44 ft	Longitude:	-108.217444
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,366.0 ft

<b>Wellbore</b>	DD				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	10/6/2009	10.65	65.76	52,405

<b>Design</b>	Plan #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	225.03

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,528.4	19.93	225.03	1,501.8	-161.6	-161.8	1.50	1.50	0.00	225.03	
5,794.2	19.93	225.03	5,512.2	-1,189.0	-1,190.4	0.00	0.00	0.00	0.00	
7,122.6	0.00	0.00	6,814.0	-1,350.6	-1,352.2	1.50	-1.50	0.00	180.00	Oxy 21-10D TOG
8,972.6	0.00	0.00	8,664.0	-1,350.6	-1,352.2	0.00	0.00	0.00	0.00	Oxy 21-10D BHL

# Planning Report

<b>Database:</b>	EDM 2003.21 US Multi User DB	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Project:</b>	Garfield County	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>North Reference:</b>	True
<b>Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	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	0.15	225.03	210.0	0.0	0.0	0.0	1.50	1.50	
240.0	0.60	225.03	240.0	-0.1	-0.1	0.2	1.50	1.50	
270.0	1.05	225.03	270.0	-0.5	-0.5	0.6	1.50	1.50	
300.0	1.50	225.03	300.0	-0.9	-0.9	1.3	1.50	1.50	
330.0	1.95	225.03	330.0	-1.6	-1.6	2.2	1.50	1.50	
360.0	2.40	225.03	360.0	-2.4	-2.4	3.4	1.50	1.50	
390.0	2.85	225.03	389.9	-3.3	-3.3	4.7	1.50	1.50	
420.0	3.30	225.03	419.9	-4.5	-4.5	6.3	1.50	1.50	
450.0	3.75	225.03	449.8	-5.8	-5.8	8.2	1.50	1.50	
480.0	4.20	225.03	479.7	-7.2	-7.3	10.3	1.50	1.50	
510.0	4.65	225.03	509.7	-8.9	-8.9	12.6	1.50	1.50	
540.0	5.10	225.03	539.6	-10.7	-10.7	15.1	1.50	1.50	
570.0	5.55	225.03	569.4	-12.7	-12.7	17.9	1.50	1.50	
600.0	6.00	225.03	599.3	-14.8	-14.8	20.9	1.50	1.50	
630.0	6.45	225.03	629.1	-17.1	-17.1	24.2	1.50	1.50	
660.0	6.90	225.03	658.9	-19.6	-19.6	27.7	1.50	1.50	
690.0	7.35	225.03	688.7	-22.2	-22.2	31.4	1.50	1.50	
720.0	7.80	225.03	718.4	-25.0	-25.0	35.3	1.50	1.50	
750.0	8.25	225.03	748.1	-27.9	-28.0	39.5	1.50	1.50	
780.0	8.70	225.03	777.8	-31.1	-31.1	44.0	1.50	1.50	
810.0	9.15	225.03	807.4	-34.3	-34.4	48.6	1.50	1.50	
840.0	9.60	225.03	837.0	-37.8	-37.8	53.5	1.50	1.50	
870.0	10.05	225.03	866.6	-41.4	-41.5	58.6	1.50	1.50	
900.0	10.50	225.03	896.1	-45.2	-45.3	64.0	1.50	1.50	
930.0	10.95	225.03	925.6	-49.1	-49.2	69.5	1.50	1.50	
960.0	11.40	225.03	955.0	-53.3	-53.3	75.4	1.50	1.50	
990.0	11.85	225.03	984.4	-57.5	-57.6	81.4	1.50	1.50	
1,020.0	12.30	225.03	1,013.7	-62.0	-62.0	87.7	1.50	1.50	
1,050.0	12.75	225.03	1,043.0	-66.6	-66.6	94.2	1.50	1.50	
1,080.0	13.20	225.03	1,072.2	-71.3	-71.4	100.9	1.50	1.50	
1,110.0	13.65	225.03	1,101.4	-76.2	-76.3	107.9	1.50	1.50	
1,140.0	14.10	225.03	1,130.5	-81.3	-81.4	115.1	1.50	1.50	
1,170.0	14.55	225.03	1,159.6	-86.6	-86.7	122.5	1.50	1.50	
1,200.0	15.00	225.03	1,188.6	-92.0	-92.1	130.2	1.50	1.50	
1,230.0	15.45	225.03	1,217.6	-97.5	-97.7	138.0	1.50	1.50	
1,260.0	15.90	225.03	1,246.4	-103.3	-103.4	146.1	1.50	1.50	
1,290.0	16.35	225.03	1,275.3	-109.2	-109.3	154.5	1.50	1.50	
1,320.0	16.80	225.03	1,304.0	-115.2	-115.3	163.0	1.50	1.50	
1,350.0	17.25	225.03	1,332.7	-121.4	-121.6	171.8	1.50	1.50	
1,380.0	17.70	225.03	1,361.3	-127.8	-127.9	180.8	1.50	1.50	
1,410.0	18.15	225.03	1,389.9	-134.3	-134.5	190.1	1.50	1.50	
1,440.0	18.60	225.03	1,418.3	-141.0	-141.2	199.5	1.50	1.50	
1,470.0	19.05	225.03	1,446.7	-147.8	-148.0	209.2	1.50	1.50	
1,500.0	19.50	225.03	1,475.0	-154.8	-155.0	219.1	1.50	1.50	

# Planning Report

<b>Database:</b>	EDM 2003.21 US Multi User DB	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Project:</b>	Garfield County	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>North Reference:</b>	True
<b>Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	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
1,528.4	19.93	225.03	1,501.8	-161.6	-161.8	228.7	1.50	1.50	EOB; Inc=19.93°
1,530.0	19.93	225.03	1,503.3	-162.0	-162.2	229.2	0.00	0.00	
1,560.0	19.93	225.03	1,531.5	-169.2	-169.4	239.4	0.00	0.00	
1,590.0	19.93	225.03	1,559.7	-176.4	-176.6	249.7	0.00	0.00	
1,620.0	19.93	225.03	1,587.9	-183.7	-183.9	259.9	0.00	0.00	
1,650.0	19.93	225.03	1,616.1	-190.9	-191.1	270.1	0.00	0.00	
1,680.0	19.93	225.03	1,644.3	-198.1	-198.3	280.3	0.00	0.00	
1,710.0	19.93	225.03	1,672.5	-205.3	-205.6	290.6	0.00	0.00	
1,740.0	19.93	225.03	1,700.7	-212.6	-212.8	300.8	0.00	0.00	
1,770.0	19.93	225.03	1,728.9	-219.8	-220.0	311.0	0.00	0.00	
1,800.0	19.93	225.03	1,757.1	-227.0	-227.3	321.2	0.00	0.00	
1,830.0	19.93	225.03	1,785.3	-234.2	-234.5	331.5	0.00	0.00	
1,860.0	19.93	225.03	1,813.5	-241.5	-241.8	341.7	0.00	0.00	
1,890.0	19.93	225.03	1,841.7	-248.7	-249.0	351.9	0.00	0.00	
1,892.4	19.93	225.03	1,844.0	-249.3	-249.6	352.7	0.00	0.00	
1,920.0	19.93	225.03	1,869.9	-255.9	-256.2	362.1	0.00	0.00	Wasatch
1,950.0	19.93	225.03	1,898.1	-263.1	-263.5	372.4	0.00	0.00	
1,980.0	19.93	225.03	1,926.3	-270.4	-270.7	382.6	0.00	0.00	
2,010.0	19.93	225.03	1,954.6	-277.6	-277.9	392.8	0.00	0.00	
2,040.0	19.93	225.03	1,982.8	-284.8	-285.2	403.0	0.00	0.00	
2,070.0	19.93	225.03	2,011.0	-292.0	-292.4	413.2	0.00	0.00	
2,100.0	19.93	225.03	2,039.2	-299.3	-299.6	423.5	0.00	0.00	
2,130.0	19.93	225.03	2,067.4	-306.5	-306.9	433.7	0.00	0.00	
2,160.0	19.93	225.03	2,095.6	-313.7	-314.1	443.9	0.00	0.00	
2,190.0	19.93	225.03	2,123.8	-320.9	-321.3	454.1	0.00	0.00	
2,220.0	19.93	225.03	2,152.0	-328.2	-328.6	464.4	0.00	0.00	
2,250.0	19.93	225.03	2,180.2	-335.4	-335.8	474.6	0.00	0.00	
2,280.0	19.93	225.03	2,208.4	-342.6	-343.0	484.8	0.00	0.00	
2,310.0	19.93	225.03	2,236.6	-349.8	-350.3	495.0	0.00	0.00	
2,340.0	19.93	225.03	2,264.8	-357.1	-357.5	505.3	0.00	0.00	
2,370.0	19.93	225.03	2,293.0	-364.3	-364.7	515.5	0.00	0.00	
2,400.0	19.93	225.03	2,321.2	-371.5	-372.0	525.7	0.00	0.00	
2,430.0	19.93	225.03	2,349.4	-378.7	-379.2	535.9	0.00	0.00	
2,460.0	19.93	225.03	2,377.6	-386.0	-386.4	546.2	0.00	0.00	
2,490.0	19.93	225.03	2,405.8	-393.2	-393.7	556.4	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									
Oxy 21-10D TOG	0.00	0.00	6,814.0	-1,350.6	-1,352.2	1,619,472.23	2,231,975.47	39.502628	-108.222236
- plan misses target center by 4611.7ft at 2490.0ft MD (2405.8 TVD, -393.2 N, -393.7 E)									
- Point									
Oxy 21-10D BHL	0.00	0.00	8,664.0	-1,350.6	-1,352.2	1,619,472.23	2,231,975.47	39.502628	-108.222236
- plan misses target center by 6403.1ft at 2490.0ft MD (2405.8 TVD, -393.2 N, -393.7 E)									
- Rectangle (sides W100.0 H200.0 D0.0)									

# Planning Report

<b>Database:</b>	EDM 2003.21 US Multi User DB	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Project:</b>	Garfield County	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>North Reference:</b>	True
<b>Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	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	19.93	225.03	2,415.2	-395.6	-396.1	559.8	0.00	0.00	
2,600.0	19.93	225.03	2,509.2	-419.7	-420.2	593.9	0.00	0.00	
2,700.0	19.93	225.03	2,603.2	-443.8	-444.3	628.0	0.00	0.00	
2,800.0	19.93	225.03	2,697.3	-467.8	-468.4	662.0	0.00	0.00	
2,900.0	19.93	225.03	2,791.3	-491.9	-492.5	696.1	0.00	0.00	
3,000.0	19.93	225.03	2,885.3	-516.0	-516.6	730.2	0.00	0.00	
3,100.0	19.93	225.03	2,979.3	-540.1	-540.7	764.3	0.00	0.00	
3,200.0	19.93	225.03	3,073.3	-564.2	-564.9	798.4	0.00	0.00	
3,300.0	19.93	225.03	3,167.3	-588.3	-589.0	832.4	0.00	0.00	
3,400.0	19.93	225.03	3,261.3	-612.4	-613.1	866.5	0.00	0.00	
3,500.0	19.93	225.03	3,355.4	-636.4	-637.2	900.6	0.00	0.00	
3,600.0	19.93	225.03	3,449.4	-660.5	-661.3	934.7	0.00	0.00	
3,700.0	19.93	225.03	3,543.4	-684.6	-685.4	968.8	0.00	0.00	
3,800.0	19.93	225.03	3,637.4	-708.7	-709.5	1,002.8	0.00	0.00	
3,900.0	19.93	225.03	3,731.4	-732.8	-733.6	1,036.9	0.00	0.00	
4,000.0	19.93	225.03	3,825.4	-756.9	-757.8	1,071.0	0.00	0.00	
4,062.3	19.93	225.03	3,884.0	-771.9	-772.8	1,092.2	0.00	0.00	Ft Union
4,100.0	19.93	225.03	3,919.4	-780.9	-781.9	1,105.1	0.00	0.00	
4,200.0	19.93	225.03	4,013.5	-805.0	-806.0	1,139.2	0.00	0.00	
4,300.0	19.93	225.03	4,107.5	-829.1	-830.1	1,173.2	0.00	0.00	
4,400.0	19.93	225.03	4,201.5	-853.2	-854.2	1,207.3	0.00	0.00	
4,500.0	19.93	225.03	4,295.5	-877.3	-878.3	1,241.4	0.00	0.00	
4,594.1	19.93	225.03	4,384.0	-899.9	-901.0	1,273.5	0.00	0.00	Base Ft Union
4,600.0	19.93	225.03	4,389.5	-901.4	-902.4	1,275.5	0.00	0.00	
4,700.0	19.93	225.03	4,483.5	-925.4	-926.5	1,309.6	0.00	0.00	
4,800.0	19.93	225.03	4,577.5	-949.5	-950.7	1,343.6	0.00	0.00	
4,900.0	19.93	225.03	4,671.5	-973.6	-974.8	1,377.7	0.00	0.00	
5,000.0	19.93	225.03	4,765.6	-997.7	-998.9	1,411.8	0.00	0.00	
5,100.0	19.93	225.03	4,859.6	-1,021.8	-1,023.0	1,445.9	0.00	0.00	
5,200.0	19.93	225.03	4,953.6	-1,045.9	-1,047.1	1,480.0	0.00	0.00	
5,300.0	19.93	225.03	5,047.6	-1,069.9	-1,071.2	1,514.0	0.00	0.00	
5,400.0	19.93	225.03	5,141.6	-1,094.0	-1,095.3	1,548.1	0.00	0.00	
5,500.0	19.93	225.03	5,235.6	-1,118.1	-1,119.4	1,582.2	0.00	0.00	
5,600.0	19.93	225.03	5,329.6	-1,142.2	-1,143.6	1,616.3	0.00	0.00	
5,700.0	19.93	225.03	5,423.7	-1,166.3	-1,167.7	1,650.4	0.00	0.00	
5,794.2	19.93	225.03	5,512.2	-1,189.0	-1,190.4	1,682.5	0.00	0.00	Start Drop -1.50
5,800.0	19.84	225.03	5,517.7	-1,190.4	-1,191.8	1,684.4	1.50	-1.50	
5,900.0	18.34	225.03	5,612.2	-1,213.5	-1,214.9	1,717.1	1.50	-1.50	
5,901.9	18.31	225.03	5,614.0	-1,213.9	-1,215.3	1,717.7	1.50	-1.50	Ohio Creek
6,000.0	16.84	225.03	5,707.5	-1,234.8	-1,236.3	1,747.3	1.50	-1.50	
6,100.0	15.34	225.03	5,803.6	-1,254.4	-1,255.9	1,775.1	1.50	-1.50	
6,110.8	15.18	225.03	5,814.0	-1,256.4	-1,257.9	1,777.9	1.50	-1.50	Williams Fork
6,200.0	13.84	225.03	5,900.3	-1,272.2	-1,273.7	1,800.2	1.50	-1.50	
6,300.0	12.34	225.03	5,997.7	-1,288.2	-1,289.8	1,822.9	1.50	-1.50	
6,400.0	10.84	225.03	6,095.7	-1,302.4	-1,304.0	1,843.0	1.50	-1.50	
6,500.0	9.34	225.03	6,194.2	-1,314.8	-1,316.4	1,860.5	1.50	-1.50	
6,600.0	7.84	225.03	6,293.0	-1,325.3	-1,326.9	1,875.4	1.50	-1.50	
6,700.0	6.34	225.03	6,392.3	-1,334.1	-1,335.7	1,887.8	1.50	-1.50	
6,800.0	4.84	225.03	6,491.8	-1,340.9	-1,342.5	1,897.5	1.50	-1.50	
6,900.0	3.34	225.03	6,591.5	-1,346.0	-1,347.6	1,904.6	1.50	-1.50	
7,000.0	1.84	225.03	6,691.4	-1,349.2	-1,350.8	1,909.2	1.50	-1.50	
7,100.0	0.34	225.03	6,791.4	-1,350.5	-1,352.1	1,911.1	1.50	-1.50	

## Planning Report

<b>Database:</b>	EDM 2003.21 US Multi User DB	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Project:</b>	Garfield County	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>North Reference:</b>	True
<b>Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	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
7,122.6	0.00	0.00	6,814.0	-1,350.6	-1,352.2	1,911.1	1.50	-1.50	EOD; Inc=0° - Approx TOG - Oxy 21-10D TOG
7,200.0	0.00	0.00	6,891.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
7,300.0	0.00	0.00	6,991.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
7,400.0	0.00	0.00	7,091.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
7,500.0	0.00	0.00	7,191.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
7,600.0	0.00	0.00	7,291.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
7,700.0	0.00	0.00	7,391.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
7,800.0	0.00	0.00	7,491.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
7,900.0	0.00	0.00	7,591.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
8,000.0	0.00	0.00	7,691.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
8,100.0	0.00	0.00	7,791.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
8,200.0	0.00	0.00	7,891.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
8,300.0	0.00	0.00	7,991.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
8,400.0	0.00	0.00	8,091.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
8,472.6	0.00	0.00	8,164.0	-1,350.6	-1,352.2	1,911.1	0.00	0.00	Cameo
8,500.0	0.00	0.00	8,191.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
8,600.0	0.00	0.00	8,291.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
8,700.0	0.00	0.00	8,391.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
8,800.0	0.00	0.00	8,491.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
8,822.6	0.00	0.00	8,514.0	-1,350.6	-1,352.2	1,911.1	0.00	0.00	Rollins SS
8,900.0	0.00	0.00	8,591.4	-1,350.6	-1,352.2	1,911.1	0.00	0.00	
8,972.6	0.00	0.00	8,664.0	-1,350.6	-1,352.2	1,911.1	0.00	0.00	TD at 8972.6 - Oxy 21-10D BHL

### Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Oxy 21-10D TOG - plan hits target center - Point	0.00	0.00	6,814.0	-1,350.6	-1,352.2	1,619,472.23	2,231,975.47	39.502628	-108.222236
Oxy 21-10D BHL - plan hits target center - Rectangle (sides W100.0 H200.0 D0.0)	0.00	0.00	8,664.0	-1,350.6	-1,352.2	1,619,472.23	2,231,975.47	39.502628	-108.222236

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,892.4	1,844.0	Wasatch		0.00	
4,062.3	3,884.0	Ft Union		0.00	
4,594.1	4,384.0	Base Ft Union		0.00	
5,901.9	5,614.0	Ohio Creek		0.00	
6,110.8	5,814.0	Williams Fork		0.00	
7,122.6	6,814.0	Approx TOG		0.00	
8,472.6	8,164.0	Cameo		0.00	
8,822.6	8,514.0	Rollins SS		0.00	

## Planning Report

<b>Database:</b>	EDM 2003.21 US Multi User DB	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Project:</b>	Garfield County	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>North Reference:</b>	True
<b>Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	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'
1,528.4	1,501.8	-161.6	-161.8	EOB; Inc=19.93°
5,794.2	5,512.2	-1,189.0	-1,190.4	Start Drop -1.50
7,122.6	6,814.0	-1,350.6	-1,352.2	EOD; Inc=0°
8,972.6	8,664.0	-1,350.6	-1,352.2	TD at 8972.6

## Directional Plus

### Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #1		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD Interval 100.0ft	<b>Error Model:</b>	Systematic Ellipse
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 1,111.9ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>		<b>Date</b>	10/7/2009		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
0.0	8,972.6	Plan #1 (DD)	MWD	Geolink MWD	



# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

### Summary

Site Name Offset Well - Wellbore - Design	Reference	Offset	Distance		Separation	Warning
	Measured Depth (ft)	Measured Depth (ft)	Between Centres (ft)	Between Ellipses (ft)		
NESE S21-T6S-R97W (Oxy I21 pad)						
Oxy 21-11D (Oxy I21 Pad) - DD - Plan #1	200.0	200.0	15.3	14.7	23.706	CC, ES
Oxy 21-11D (Oxy I21 Pad) - DD - Plan #1	8,972.6	8,903.2	328.5	273.9	6.014	SF
Oxy 21-12D (Oxy I21 Pad) - DD - Plan #1	200.0	200.0	30.6	30.0	47.412	CC
Oxy 21-12D (Oxy I21 Pad) - DD - Plan #1	300.0	300.0	31.0	30.0	31.060	ES
Oxy 21-12D (Oxy I21 Pad) - DD - Plan #1	8,972.6	8,870.4	666.2	605.5	10.969	SF
Oxy 21-13D (Oxy I21 Pad) - DD - Plan #1	200.0	200.0	45.3	44.7	70.155	CC
Oxy 21-13D (Oxy I21 Pad) - DD - Plan #1	300.0	300.0	45.6	44.6	45.774	ES
Oxy 21-13D (Oxy I21 Pad) - DD - Plan #1	8,972.6	8,828.4	999.8	941.8	17.238	SF
Oxy 21-14D (Oxy I21 Pad) - DD - Plan #1	200.0	200.0	60.0	59.3	92.886	CC
Oxy 21-14D (Oxy I21 Pad) - DD - Plan #1	300.0	300.0	60.3	59.3	60.476	ES
Oxy 21-14D (Oxy I21 Pad) - DD - Plan #1	1,500.0	1,483.3	197.9	189.3	23.240	SF
Oxy 21-15D (Oxy I21 Pad) - DD - Plan #1	200.0	200.0	75.3	74.6	116.587	CC
Oxy 21-15D (Oxy I21 Pad) - DD - Plan #1	300.0	300.0	75.6	74.6	75.834	ES
Oxy 21-15D (Oxy I21 Pad) - DD - Plan #1	1,800.0	1,758.0	330.2	319.3	30.209	SF
Oxy 21-16D (Oxy I21 Pad) - DD - Plan #1	200.0	200.0	90.2	89.6	139.745	CC, ES
Oxy 21-16D (Oxy I21 Pad) - DD - Plan #1	4,000.0	3,820.0	1,104.7	1,075.2	37.455	SF
Oxy 21-17D (Oxy I21 pad) - DD - Plan #1	200.0	200.0	89.7	89.0	138.857	CC, ES
Oxy 21-17D (Oxy I21 pad) - DD - Plan #1	2,000.0	1,876.8	496.3	482.7	36.593	SF
Oxy 21-1D (Oxy I21 Pad) - DD - Plan #1	330.3	329.9	74.3	73.2	67.259	CC, ES
Oxy 21-1D (Oxy I21 Pad) - DD - Plan #1	5,500.0	5,366.6	1,106.9	1,056.5	21.984	SF
Oxy 21-2D (Oxy I21 Pad) - DD - Plan #1	612.3	614.8	25.4	23.3	11.969	CC, ES
Oxy 21-2D (Oxy I21 Pad) - DD - Plan #1	800.0	802.4	32.2	29.3	10.765	SF
Oxy 21-3D (Oxy I21 Pad) - DD - Plan #1	439.0	438.8	53.8	52.3	35.760	CC
Oxy 21-3D (Oxy I21 Pad) - DD - Plan #1	500.0	499.7	54.0	52.2	31.098	ES
Oxy 21-3D (Oxy I21 Pad) - DD - Plan #1	900.0	895.6	78.4	74.9	22.456	SF
Oxy 21-4D (Oxy I21 Pad) - DD - Plan #1	467.2	467.0	43.7	42.1	27.116	CC
Oxy 21-4D (Oxy I21 Pad) - DD - Plan #1	500.0	499.7	43.8	42.0	25.213	ES
Oxy 21-4D (Oxy I21 Pad) - DD - Plan #1	800.0	797.5	57.6	54.7	19.556	SF
Oxy 21-5D (Oxy I21 Pad) - DD - Plan #1	417.3	417.2	29.3	27.9	20.626	CC, ES
Oxy 21-5D (Oxy I21 Pad) - DD - Plan #1	600.0	599.3	32.8	30.7	15.502	SF
Oxy 21-6D (Oxy I21 Pad) - DD - Plan #1	494.1	796.5	43.2	41.5	25.193	CC
Oxy 21-6D (Oxy I21 Pad) - DD - Plan #1	500.0	802.3	43.2	41.5	24.880	ES
Oxy 21-6D (Oxy I21 Pad) - DD - Plan #1	700.0	1,000.8	53.2	50.7	21.338	SF
Oxy 21-7D (Oxy I21 Pad) - DD - Plan #1	200.0	200.0	60.6	59.9	93.779	CC, ES
Oxy 21-7D (Oxy I21 Pad) - DD - Plan #1	700.0	694.4	83.9	81.4	33.905	SF
Oxy 21-8D (Oxy I21 Pad) - DD - Plan #1	200.0	200.0	75.7	75.1	117.299	CC, ES
Oxy 21-8D (Oxy I21 Pad) - DD - Plan #1	700.0	693.7	97.3	94.9	39.120	SF
Oxy 21-9D (Oxy I21 Pad) - DD - Plan #1	200.0	200.0	14.7	14.1	22.766	CC
Oxy 21-9D (Oxy I21 Pad) - DD - Plan #1	400.0	399.8	15.1	13.7	11.016	ES
Oxy 21-9D (Oxy I21 Pad) - DD - Plan #1	1,700.0	1,698.2	37.1	24.9	3.043	SF

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

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-11D (Oxy I21 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	-31.07	13.1	-7.9	15.3					
100.0	100.0	100.0	100.0	0.1	0.1	-31.07	13.1	-7.9	15.3	15.0	0.30	51.596		
200.0	200.0	200.0	200.0	0.3	0.3	-31.07	13.1	-7.9	15.3	14.7	0.65	23.706 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	108.54	13.1	-7.9	15.7	14.7	1.00	15.727		
400.0	399.9	400.1	400.1	0.7	0.7	116.86	12.3	-8.9	16.8	15.5	1.36	12.415		
500.0	499.7	500.2	500.1	0.9	0.9	123.48	9.9	-12.0	18.6	16.8	1.73	10.726		
600.0	599.3	600.4	600.1	1.1	1.1	128.38	5.8	-17.2	20.8	18.6	2.13	9.760		
700.0	698.6	700.7	700.0	1.4	1.3	131.82	0.2	-24.4	23.3	20.8	2.55	9.147		
800.0	797.5	801.0	799.6	1.7	1.5	134.10	-7.1	-33.7	26.2	23.2	3.01	8.716		
900.0	896.1	901.4	899.0	2.0	1.8	135.50	-16.0	-45.1	29.3	25.8	3.50	8.377		
1,000.0	994.2	1,001.9	998.0	2.4	2.2	136.23	-26.5	-58.5	32.7	28.6	4.04	8.085		
1,100.0	1,091.7	1,102.4	1,096.5	2.8	2.5	136.46	-38.7	-74.0	36.3	31.6	4.64	7.813		
1,200.0	1,188.6	1,203.0	1,194.6	3.3	2.9	136.32	-52.4	-91.6	40.1	34.7	5.31	7.549		
1,300.0	1,284.9	1,303.6	1,292.1	3.8	3.4	135.92	-67.7	-111.1	44.1	38.0	6.04	7.290		
1,400.0	1,380.4	1,404.3	1,389.0	4.3	3.9	135.31	-84.6	-132.7	48.3	41.4	6.86	7.034		
1,500.0	1,475.0	1,504.6	1,484.8	4.9	4.4	134.78	-102.9	-156.0	52.9	45.1	7.75	6.828		
1,600.0	1,569.1	1,604.5	1,580.1	5.5	5.0	135.40	-121.3	-179.6	58.6	50.0	8.57	6.840		
1,700.0	1,663.1	1,704.3	1,675.4	6.1	5.5	135.99	-139.7	-203.1	64.4	55.0	9.39	6.860		
1,800.0	1,757.1	1,804.1	1,770.6	6.8	6.1	136.49	-158.1	-226.6	70.2	60.0	10.21	6.875		
1,900.0	1,851.1	1,904.0	1,865.9	7.4	6.6	136.91	-176.5	-250.1	76.0	65.0	11.04	6.888		
2,000.0	1,945.2	2,003.8	1,961.1	8.0	7.2	137.26	-194.9	-273.6	81.9	70.0	11.86	6.899		
2,100.0	2,039.2	2,103.6	2,056.4	8.6	7.7	137.58	-213.3	-297.1	87.7	75.0	12.69	6.908		
2,200.0	2,133.2	2,203.4	2,151.6	9.3	8.3	137.85	-231.7	-320.7	93.5	80.0	13.52	6.916		
2,300.0	2,227.2	2,303.3	2,246.9	9.9	8.8	138.09	-250.2	-344.2	99.3	85.0	14.35	6.923		
2,400.0	2,321.2	2,403.1	2,342.2	10.5	9.4	138.30	-268.6	-367.7	105.1	90.0	15.18	6.929		
2,500.0	2,415.2	2,502.9	2,437.4	11.2	9.9	138.50	-287.0	-391.2	111.0	95.0	16.00	6.934		
2,600.0	2,509.2	2,602.8	2,532.7	11.8	10.5	138.67	-305.4	-414.7	116.8	100.0	16.83	6.939		
2,700.0	2,603.2	2,702.6	2,627.9	12.4	11.1	138.82	-323.8	-438.2	122.6	105.0	17.66	6.943		
2,800.0	2,697.3	2,802.4	2,723.2	13.1	11.6	138.97	-342.2	-461.8	128.5	110.0	18.49	6.947		
2,900.0	2,791.3	2,902.2	2,818.4	13.7	12.2	139.10	-360.6	-485.3	134.3	115.0	19.32	6.951		
3,000.0	2,885.3	3,002.1	2,913.7	14.3	12.7	139.21	-379.0	-508.8	140.1	120.0	20.15	6.954		
3,100.0	2,979.3	3,101.9	3,009.0	15.0	13.3	139.32	-397.4	-532.3	145.9	125.0	20.98	6.957		
3,200.0	3,073.3	3,201.7	3,104.2	15.6	13.9	139.42	-415.9	-555.8	151.8	130.0	21.81	6.960		
3,300.0	3,167.3	3,301.6	3,199.5	16.2	14.4	139.52	-434.3	-579.3	157.6	135.0	22.64	6.962		
3,400.0	3,261.3	3,401.4	3,294.7	16.9	15.0	139.60	-452.7	-602.9	163.4	140.0	23.47	6.965		
3,500.0	3,355.4	3,501.2	3,390.0	17.5	15.5	139.69	-471.1	-626.4	169.3	145.0	24.30	6.967		
3,600.0	3,449.4	3,601.1	3,485.2	18.1	16.1	139.76	-489.5	-649.9	175.1	150.0	25.13	6.969		
3,700.0	3,543.4	3,700.9	3,580.5	18.8	16.7	139.83	-507.9	-673.4	180.9	155.0	25.96	6.971		
3,800.0	3,637.4	3,800.7	3,675.8	19.4	17.2	139.90	-526.3	-696.9	186.8	160.0	26.79	6.973		
3,900.0	3,731.4	3,900.5	3,771.0	20.0	17.8	139.96	-544.7	-720.4	192.6	165.0	27.62	6.974		
4,000.0	3,825.4	4,000.4	3,866.3	20.7	18.3	140.02	-563.1	-743.9	198.5	170.0	28.45	6.976		
4,100.0	3,919.4	4,100.2	3,961.5	21.3	18.9	140.07	-581.6	-767.5	204.3	175.0	29.28	6.978		
4,200.0	4,013.5	4,200.0	4,056.8	21.9	19.5	140.13	-600.0	-791.0	210.1	180.0	30.11	6.979		
4,300.0	4,107.5	4,299.9	4,152.0	22.6	20.0	140.17	-618.4	-814.5	216.0	185.0	30.94	6.980		
4,400.0	4,201.5	4,399.7	4,247.3	23.2	20.6	140.22	-636.8	-838.0	221.8	190.0	31.77	6.982		
4,500.0	4,295.5	4,499.5	4,342.6	23.8	21.2	140.27	-655.2	-861.5	227.6	195.0	32.60	6.983		
4,600.0	4,389.5	4,599.3	4,437.8	24.5	21.7	140.31	-673.6	-885.0	233.5	200.0	33.43	6.984		
4,700.0	4,483.5	4,699.2	4,533.1	25.1	22.3	140.35	-692.0	-908.6	239.3	205.0	34.26	6.985		
4,800.0	4,577.5	4,799.0	4,628.3	25.7	22.8	140.39	-710.4	-932.1	245.1	210.0	35.09	6.986		
4,900.0	4,671.5	4,898.8	4,723.6	26.4	23.4	140.42	-728.8	-955.6	251.0	215.1	35.92	6.987		
5,000.0	4,765.6	4,998.7	4,818.8	27.0	24.0	140.46	-747.3	-979.1	256.8	220.1	36.75	6.988		
5,100.0	4,859.6	5,098.5	4,914.1	27.7	24.5	140.49	-765.7	-1,002.6	262.6	225.1	37.58	6.989		

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

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-11D (Oxy I21 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				Total		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor		
5,200.0	4,953.6	5,198.3	5,009.4	28.3	25.1	140.52	-784.1	-1,026.1	268.5	230.1	38.41	6.990		
5,300.0	5,047.6	5,298.2	5,104.6	28.9	25.6	140.55	-802.5	-1,049.7	274.3	235.1	39.24	6.991		
5,400.0	5,141.6	5,398.0	5,199.9	29.6	26.2	140.58	-820.9	-1,073.2	280.2	240.1	40.07	6.992		
5,500.0	5,235.6	5,497.8	5,295.1	30.2	26.8	140.61	-839.3	-1,096.7	286.0	245.1	40.90	6.992		
5,600.0	5,329.6	5,597.6	5,390.4	30.8	27.3	140.64	-857.7	-1,120.2	291.8	250.1	41.73	6.993		
5,700.0	5,423.7	5,697.5	5,485.6	31.5	27.9	140.66	-876.1	-1,143.7	297.7	255.1	42.56	6.994		
5,800.0	5,517.7	5,797.3	5,580.9	32.1	28.5	140.69	-894.5	-1,167.2	303.5	260.1	43.39	6.994		
5,900.0	5,612.2	5,897.2	5,676.2	32.7	29.0	140.59	-913.0	-1,190.8	308.2	263.9	44.30	6.957		
6,000.0	5,707.5	5,992.4	5,767.3	33.2	29.5	140.31	-930.0	-1,212.5	311.6	266.3	45.26	6.885		
6,100.0	5,803.6	6,087.0	5,858.5	33.7	30.0	140.07	-945.5	-1,232.3	314.7	268.5	46.14	6.820		
6,200.0	5,900.3	6,181.5	5,950.3	34.2	30.4	139.84	-959.6	-1,250.3	317.4	270.5	46.95	6.761		
6,300.0	5,997.7	6,276.1	6,042.6	34.6	30.8	139.64	-972.3	-1,266.6	319.9	272.2	47.70	6.707		
6,400.0	6,095.7	6,370.7	6,135.3	35.0	31.1	139.45	-983.6	-1,281.0	322.1	273.7	48.37	6.658		
6,500.0	6,194.2	6,465.3	6,228.5	35.3	31.4	139.29	-993.5	-1,293.6	323.9	275.0	48.98	6.614		
6,600.0	6,293.0	6,559.8	6,322.1	35.6	31.7	139.14	-1,001.9	-1,304.4	325.5	276.0	49.52	6.574		
6,700.0	6,392.3	6,654.4	6,416.0	35.8	31.9	139.02	-1,008.9	-1,313.4	326.7	276.8	49.98	6.537		
6,800.0	6,491.8	6,749.0	6,510.1	36.0	32.1	138.91	-1,014.5	-1,320.5	327.7	277.3	50.38	6.504		
6,900.0	6,591.5	6,843.5	6,604.4	36.2	32.2	138.81	-1,018.7	-1,325.8	328.3	277.6	50.71	6.474		
7,000.0	6,691.4	6,938.1	6,698.9	36.3	32.3	138.74	-1,021.4	-1,329.3	328.6	277.6	50.97	6.446		
7,100.0	6,791.4	7,032.7	6,793.4	36.3	32.4	138.68	-1,022.6	-1,330.9	328.6	277.4	51.17	6.421		
7,200.0	6,891.4	7,130.6	6,891.4	36.4	32.5	3.70	-1,022.7	-1,331.0	328.5	277.2	51.34	6.398		
7,300.0	6,991.4	7,230.6	6,991.4	36.5	32.6	3.70	-1,022.7	-1,331.0	328.5	277.0	51.51	6.377		
7,400.0	7,091.4	7,330.6	7,091.4	36.5	32.6	3.70	-1,022.7	-1,331.0	328.5	276.8	51.69	6.356		
7,500.0	7,191.4	7,430.6	7,191.4	36.6	32.7	3.70	-1,022.7	-1,331.0	328.5	276.6	51.86	6.334		
7,600.0	7,291.4	7,530.6	7,291.4	36.6	32.8	3.70	-1,022.7	-1,331.0	328.5	276.5	52.04	6.313		
7,700.0	7,391.4	7,630.6	7,391.4	36.7	32.8	3.70	-1,022.7	-1,331.0	328.5	276.3	52.21	6.291		
7,800.0	7,491.4	7,730.6	7,491.4	36.8	32.9	3.70	-1,022.7	-1,331.0	328.5	276.1	52.39	6.270		
7,900.0	7,591.4	7,830.6	7,591.4	36.8	33.0	3.70	-1,022.7	-1,331.0	328.5	275.9	52.57	6.248		
8,000.0	7,691.4	7,930.6	7,691.4	36.9	33.1	3.70	-1,022.7	-1,331.0	328.5	275.7	52.76	6.227		
8,100.0	7,791.4	8,030.6	7,791.4	37.0	33.1	3.70	-1,022.7	-1,331.0	328.5	275.6	52.94	6.205		
8,200.0	7,891.4	8,130.6	7,891.4	37.0	33.2	3.70	-1,022.7	-1,331.0	328.5	275.4	53.13	6.183		
8,300.0	7,991.4	8,230.6	7,991.4	37.1	33.3	3.70	-1,022.7	-1,331.0	328.5	275.2	53.32	6.161		
8,400.0	8,091.4	8,330.6	8,091.4	37.2	33.4	3.70	-1,022.7	-1,331.0	328.5	275.0	53.51	6.140		
8,500.0	8,191.4	8,430.6	8,191.4	37.2	33.4	3.70	-1,022.7	-1,331.0	328.5	274.8	53.70	6.118		
8,600.0	8,291.4	8,530.6	8,291.4	37.3	33.5	3.70	-1,022.7	-1,331.0	328.5	274.6	53.89	6.096		
8,700.0	8,391.4	8,630.6	8,391.4	37.4	33.6	3.70	-1,022.7	-1,331.0	328.5	274.4	54.08	6.074		
8,800.0	8,491.4	8,730.6	8,491.4	37.5	33.7	3.70	-1,022.7	-1,331.0	328.5	274.2	54.28	6.052		
8,900.0	8,591.4	8,830.6	8,591.4	37.5	33.7	3.70	-1,022.7	-1,331.0	328.5	274.0	54.48	6.030		
8,972.6	8,664.0	8,903.2	8,664.0	37.6	33.8	3.70	-1,022.7	-1,331.0	328.5	273.9	54.62	6.014 SF		

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-12D (Oxy I21 Pad) - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		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	-31.07	26.2	-15.8	30.6					
100.0	100.0	100.0	100.0	0.1	0.1	-31.07	26.2	-15.8	30.6	30.3	0.30	103.192		
200.0	200.0	200.0	200.0	0.3	0.3	-31.07	26.2	-15.8	30.6	30.0	0.65	47.412 CC		
300.0	300.0	300.0	300.0	0.5	0.5	106.24	26.2	-15.8	31.0	30.0	1.00	31.060 ES		
400.0	399.9	400.0	399.9	0.7	0.7	110.61	25.6	-17.0	32.2	30.8	1.36	23.713		
500.0	499.7	500.0	499.9	0.9	0.9	114.26	23.8	-20.5	34.4	32.6	1.74	19.761		
600.0	599.3	600.1	599.7	1.1	1.1	117.05	20.9	-26.3	37.5	35.3	2.15	17.385		
700.0	698.6	700.1	699.4	1.4	1.3	119.00	16.7	-34.4	41.4	38.8	2.61	15.835		
800.0	797.5	800.3	798.8	1.7	1.5	120.22	11.3	-44.9	46.1	43.0	3.12	14.750		
900.0	896.1	900.4	897.9	2.0	1.8	120.85	4.8	-57.7	51.6	47.9	3.70	13.940		
1,000.0	994.2	1,000.5	996.6	2.4	2.1	121.03	-2.9	-72.8	57.8	53.4	4.34	13.301		
1,100.0	1,091.7	1,100.7	1,094.8	2.8	2.5	120.88	-11.8	-90.2	64.7	59.7	5.07	12.775		
1,200.0	1,188.6	1,200.8	1,192.5	3.3	2.9	120.50	-21.9	-109.9	72.4	66.5	5.87	12.329		
1,300.0	1,284.9	1,300.9	1,289.5	3.8	3.4	119.96	-33.1	-131.9	80.8	74.1	6.77	11.943		
1,400.0	1,380.4	1,400.8	1,385.6	4.3	3.9	119.40	-45.4	-155.9	90.0	82.3	7.74	11.631		
1,500.0	1,475.0	1,500.2	1,481.2	4.9	4.4	119.90	-57.9	-180.4	100.4	91.7	8.72	11.513		
1,600.0	1,569.1	1,599.5	1,576.7	5.5	4.9	121.24	-70.4	-204.8	111.7	102.1	9.67	11.552		
1,700.0	1,663.1	1,698.9	1,672.2	6.1	5.4	122.41	-82.8	-229.1	123.2	112.6	10.62	11.596		
1,800.0	1,757.1	1,798.2	1,767.6	6.8	5.9	123.38	-95.3	-253.5	134.7	123.1	11.58	11.636		
1,900.0	1,851.1	1,897.5	1,863.1	7.4	6.4	124.19	-107.8	-277.9	146.2	133.7	12.53	11.674		
2,000.0	1,945.2	1,996.8	1,958.5	8.0	6.9	124.89	-120.2	-302.3	157.8	144.3	13.48	11.708		
2,100.0	2,039.2	2,096.1	2,054.0	8.6	7.4	125.49	-132.7	-326.7	169.4	155.0	14.43	11.739		
2,200.0	2,133.2	2,195.4	2,149.5	9.3	7.9	126.02	-145.2	-351.1	181.0	165.6	15.38	11.768		
2,300.0	2,227.2	2,294.7	2,244.9	9.9	8.5	126.48	-157.6	-375.5	192.6	176.3	16.33	11.795		
2,400.0	2,321.2	2,394.0	2,340.4	10.5	9.0	126.89	-170.1	-399.9	204.2	186.9	17.28	11.819		
2,500.0	2,415.2	2,493.4	2,435.8	11.2	9.5	127.25	-182.6	-424.3	215.9	197.6	18.23	11.842		
2,600.0	2,509.2	2,592.7	2,531.3	11.8	10.0	127.58	-195.1	-448.7	227.5	208.3	19.18	11.862		
2,700.0	2,603.2	2,692.0	2,626.8	12.4	10.5	127.88	-207.5	-473.1	239.1	219.0	20.13	11.882		
2,800.0	2,697.3	2,791.3	2,722.2	13.1	11.0	128.15	-220.0	-497.5	250.8	229.7	21.08	11.900		
2,900.0	2,791.3	2,890.6	2,817.7	13.7	11.6	128.39	-232.5	-521.8	262.5	240.4	22.02	11.917		
3,000.0	2,885.3	2,989.9	2,913.1	14.3	12.1	128.61	-244.9	-546.2	274.1	251.1	22.97	11.932		
3,100.0	2,979.3	3,089.2	3,008.6	15.0	12.6	128.82	-257.4	-570.6	285.8	261.9	23.92	11.947		
3,200.0	3,073.3	3,188.5	3,104.1	15.6	13.1	129.01	-269.9	-595.0	297.4	272.6	24.87	11.961		
3,300.0	3,167.3	3,287.9	3,199.5	16.2	13.6	129.18	-282.3	-619.4	309.1	283.3	25.82	11.973		
3,400.0	3,261.3	3,387.2	3,295.0	16.9	14.2	129.35	-294.8	-643.8	320.8	294.0	26.76	11.985		
3,500.0	3,355.4	3,486.5	3,390.4	17.5	14.7	129.50	-307.3	-668.2	332.5	304.8	27.71	11.997		
3,600.0	3,449.4	3,585.8	3,485.9	18.1	15.2	129.64	-319.7	-692.6	344.1	315.5	28.66	12.008		
3,700.0	3,543.4	3,685.1	3,581.3	18.8	15.7	129.77	-332.2	-717.0	355.8	326.2	29.61	12.018		
3,800.0	3,637.4	3,784.4	3,676.8	19.4	16.2	129.89	-344.7	-741.4	367.5	337.0	30.56	12.027		
3,900.0	3,731.4	3,883.7	3,772.3	20.0	16.8	130.01	-357.2	-765.8	379.2	347.7	31.50	12.036		
4,000.0	3,825.4	3,983.0	3,867.7	20.7	17.3	130.12	-369.6	-790.2	390.9	358.4	32.45	12.045		
4,100.0	3,919.4	4,082.4	3,963.2	21.3	17.8	130.22	-382.1	-814.6	402.6	369.2	33.40	12.053		
4,200.0	4,013.5	4,181.7	4,058.6	21.9	18.3	130.31	-394.6	-838.9	414.3	379.9	34.35	12.061		
4,300.0	4,107.5	4,281.0	4,154.1	22.6	18.8	130.41	-407.0	-863.3	425.9	390.6	35.29	12.068		
4,400.0	4,201.5	4,380.3	4,249.6	23.2	19.4	130.49	-419.5	-887.7	437.6	401.4	36.24	12.076		
4,500.0	4,295.5	4,479.6	4,345.0	23.8	19.9	130.57	-432.0	-912.1	449.3	412.1	37.19	12.082		
4,600.0	4,389.5	4,578.9	4,440.5	24.5	20.4	130.65	-444.4	-936.5	461.0	422.9	38.14	12.089		
4,700.0	4,483.5	4,678.2	4,535.9	25.1	20.9	130.73	-456.9	-960.9	472.7	433.6	39.08	12.095		
4,800.0	4,577.5	4,777.5	4,631.4	25.7	21.4	130.80	-469.4	-985.3	484.4	444.4	40.03	12.101		
4,900.0	4,671.5	4,876.9	4,726.9	26.4	22.0	130.86	-481.8	-1,009.7	496.1	455.1	40.98	12.106		
5,000.0	4,765.6	4,976.2	4,822.3	27.0	22.5	130.93	-494.3	-1,034.1	507.8	465.9	41.92	12.112		
5,100.0	4,859.6	5,075.5	4,917.8	27.7	23.0	130.99	-506.8	-1,058.5	519.5	476.6	42.87	12.117		

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

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-12D (Oxy I21 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				Total		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor		
5,200.0	4,953.6	5,174.8	5,013.2	28.3	23.5	131.05	-519.3	-1,082.9	531.2	487.4	43.82	12.122		
5,300.0	5,047.6	5,274.1	5,108.7	28.9	24.0	131.10	-531.7	-1,107.3	542.9	498.1	44.77	12.127		
5,400.0	5,141.6	5,373.4	5,204.2	29.6	24.6	131.16	-544.2	-1,131.6	554.6	508.9	45.71	12.132		
5,500.0	5,235.6	5,472.7	5,299.6	30.2	25.1	131.21	-556.7	-1,156.0	566.3	519.6	46.66	12.136		
5,600.0	5,329.6	5,572.0	5,395.1	30.8	25.6	131.26	-569.1	-1,180.4	578.0	530.4	47.61	12.140		
5,700.0	5,423.7	5,671.4	5,490.5	31.5	26.1	131.30	-581.6	-1,204.8	589.7	541.1	48.55	12.144		
5,800.0	5,517.7	5,770.7	5,586.0	32.1	26.7	131.36	-594.1	-1,229.2	601.4	551.9	49.50	12.149		
5,900.0	5,612.2	5,870.1	5,681.6	32.7	27.2	131.42	-606.6	-1,253.6	612.1	561.6	50.45	12.132		
6,000.0	5,707.5	5,969.6	5,777.2	33.2	27.7	131.28	-619.1	-1,278.1	621.1	569.6	51.47	12.068		
6,100.0	5,803.6	6,063.3	5,867.6	33.7	28.1	131.07	-630.3	-1,300.2	628.9	576.5	52.42	11.997		
6,200.0	5,900.3	6,156.8	5,958.3	34.2	28.6	130.88	-640.6	-1,320.2	636.0	582.7	53.30	11.932		
6,300.0	5,997.7	6,250.4	6,049.6	34.6	28.9	130.71	-649.9	-1,338.4	642.3	588.2	54.09	11.873		
6,400.0	6,095.7	6,344.0	6,141.5	35.0	29.3	130.56	-658.1	-1,354.5	647.9	593.1	54.81	11.820		
6,500.0	6,194.2	6,437.6	6,233.8	35.3	29.6	130.42	-665.3	-1,368.6	652.8	597.3	55.45	11.772		
6,600.0	6,293.0	6,531.4	6,326.5	35.6	29.8	130.31	-671.5	-1,380.7	656.9	600.9	56.01	11.727		
6,700.0	6,392.3	6,625.1	6,419.6	35.8	30.1	130.20	-676.6	-1,390.8	660.3	603.8	56.50	11.687		
6,800.0	6,491.8	6,718.9	6,512.9	36.0	30.3	130.11	-680.8	-1,398.8	662.9	606.0	56.90	11.650		
6,900.0	6,591.5	6,812.7	6,606.5	36.2	30.4	130.04	-683.8	-1,404.8	664.8	607.6	57.23	11.616		
7,000.0	6,691.4	6,906.5	6,700.2	36.3	30.5	129.98	-685.8	-1,408.7	665.9	608.4	57.49	11.584		
7,100.0	6,791.4	7,000.0	6,793.6	36.3	30.6	129.93	-686.8	-1,410.6	666.3	608.6	57.66	11.555		
7,200.0	6,891.4	7,097.8	6,891.4	36.4	30.7	-5.05	-686.9	-1,410.8	666.2	608.4	57.81	11.524		
7,300.0	6,991.4	7,197.8	6,991.4	36.5	30.7	-5.05	-686.9	-1,410.8	666.2	608.3	57.97	11.494		
7,400.0	7,091.4	7,297.8	7,091.4	36.5	30.8	-5.05	-686.9	-1,410.8	666.2	608.1	58.12	11.463		
7,500.0	7,191.4	7,397.8	7,191.4	36.6	30.9	-5.05	-686.9	-1,410.8	666.2	608.0	58.27	11.433		
7,600.0	7,291.4	7,497.8	7,291.4	36.6	31.0	-5.05	-686.9	-1,410.8	666.2	607.8	58.43	11.402		
7,700.0	7,391.4	7,597.8	7,391.4	36.7	31.0	-5.05	-686.9	-1,410.8	666.2	607.6	58.59	11.372		
7,800.0	7,491.4	7,697.8	7,491.4	36.8	31.1	-5.05	-686.9	-1,410.8	666.2	607.5	58.75	11.341		
7,900.0	7,591.4	7,797.8	7,591.4	36.8	31.2	-5.05	-686.9	-1,410.8	666.2	607.3	58.91	11.310		
8,000.0	7,691.4	7,897.8	7,691.4	36.9	31.3	-5.05	-686.9	-1,410.8	666.2	607.2	59.07	11.278		
8,100.0	7,791.4	7,997.8	7,791.4	37.0	31.3	-5.05	-686.9	-1,410.8	666.2	607.0	59.24	11.247		
8,200.0	7,891.4	8,097.8	7,891.4	37.0	31.4	-5.05	-686.9	-1,410.8	666.2	606.8	59.40	11.216		
8,300.0	7,991.4	8,197.8	7,991.4	37.1	31.5	-5.05	-686.9	-1,410.8	666.2	606.7	59.57	11.184		
8,400.0	8,091.4	8,297.8	8,091.4	37.2	31.6	-5.05	-686.9	-1,410.8	666.2	606.5	59.74	11.152		
8,500.0	8,191.4	8,397.8	8,191.4	37.2	31.7	-5.05	-686.9	-1,410.8	666.2	606.3	59.91	11.121		
8,600.0	8,291.4	8,497.8	8,291.4	37.3	31.7	-5.05	-686.9	-1,410.8	666.2	606.2	60.08	11.089		
8,700.0	8,391.4	8,597.8	8,391.4	37.4	31.8	-5.05	-686.9	-1,410.8	666.2	606.0	60.26	11.057		
8,800.0	8,491.4	8,697.8	8,491.4	37.5	31.9	-5.05	-686.9	-1,410.8	666.2	605.8	60.43	11.025		
8,900.0	8,591.4	8,797.8	8,591.4	37.5	32.0	-5.05	-686.9	-1,410.8	666.2	605.6	60.61	10.993		
8,972.6	8,664.0	8,870.4	8,664.0	37.6	32.0	-5.05	-686.9	-1,410.8	666.2	605.5	60.74	10.969 SF		

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-13D (Oxy I21 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 (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	-31.54	38.6	-23.7	45.3					
100.0	100.0	100.0	100.0	0.1	0.1	-31.54	38.6	-23.7	45.3	0.30	152.690			
200.0	200.0	200.0	200.0	0.3	0.3	-31.54	38.6	-23.7	45.3	0.65	70.155 CC			
300.0	300.0	300.0	300.0	0.5	0.5	105.02	38.6	-23.7	45.6	1.00	45.774 ES			
400.0	399.9	399.7	399.7	0.7	0.7	108.07	38.2	-25.0	47.0	1.36	34.645			
500.0	499.7	499.4	499.3	0.9	0.9	110.75	37.2	-28.7	49.8	1.74	28.640			
600.0	599.3	599.1	598.8	1.1	1.1	112.92	35.4	-35.0	54.1	2.16	25.039			
700.0	698.6	698.9	698.1	1.4	1.3	114.54	32.8	-43.7	59.6	2.62	22.717			
800.0	797.5	798.5	797.1	1.7	1.5	115.63	29.6	-54.9	66.5	3.15	21.130			
900.0	896.1	898.1	895.6	2.0	1.8	116.29	25.7	-68.6	74.6	3.73	19.988			
1,000.0	994.2	997.6	993.7	2.4	2.1	116.60	21.0	-84.7	84.0	4.39	19.128			
1,100.0	1,091.7	1,096.9	1,091.2	2.8	2.5	116.65	15.7	-103.3	94.7	5.13	18.457			
1,200.0	1,188.6	1,196.2	1,188.0	3.3	2.9	116.51	9.6	-124.3	106.6	5.95	17.915			
1,300.0	1,284.9	1,295.3	1,284.1	3.8	3.3	116.44	3.0	-147.2	119.7	6.83	17.527			
1,400.0	1,380.4	1,394.2	1,380.1	4.3	3.8	117.24	-3.7	-170.4	134.0	7.74	17.320			
1,500.0	1,475.0	1,492.9	1,475.8	4.9	4.2	118.72	-10.3	-193.4	149.5	8.66	17.275			
1,600.0	1,569.1	1,591.4	1,571.3	5.5	4.7	120.61	-17.0	-216.5	166.2	9.56	17.373			
1,700.0	1,663.1	1,689.8	1,666.8	6.1	5.1	122.24	-23.6	-239.5	183.0	10.47	17.482			
1,800.0	1,757.1	1,788.3	1,762.3	6.8	5.6	123.60	-30.2	-262.5	200.0	11.37	17.590			
1,900.0	1,851.1	1,886.7	1,857.8	7.4	6.0	124.74	-36.9	-285.6	217.0	12.27	17.694			
2,000.0	1,945.2	1,985.2	1,953.3	8.0	6.5	125.72	-43.5	-308.6	234.2	13.16	17.792			
2,100.0	2,039.2	2,083.6	2,048.8	8.6	6.9	126.56	-50.2	-331.6	251.3	14.05	17.885			
2,200.0	2,133.2	2,182.1	2,144.3	9.3	7.4	127.30	-56.8	-354.7	268.6	14.94	17.972			
2,300.0	2,227.2	2,280.5	2,239.7	9.9	7.9	127.94	-63.4	-377.7	285.8	15.83	18.053			
2,400.0	2,321.2	2,379.0	2,335.2	10.5	8.3	128.51	-70.1	-400.7	303.1	16.72	18.129			
2,500.0	2,415.2	2,477.4	2,430.7	11.2	8.8	129.03	-76.7	-423.8	320.5	17.61	18.199			
2,600.0	2,509.2	2,575.9	2,526.2	11.8	9.2	129.48	-83.4	-446.8	337.8	18.49	18.265			
2,700.0	2,603.2	2,674.3	2,621.7	12.4	9.7	129.90	-90.0	-469.8	355.2	19.38	18.327			
2,800.0	2,697.3	2,772.8	2,717.2	13.1	10.1	130.27	-96.6	-492.8	372.6	20.27	18.384			
2,900.0	2,791.3	2,871.2	2,812.7	13.7	10.6	130.62	-103.3	-515.9	390.0	21.15	18.438			
3,000.0	2,885.3	2,969.7	2,908.2	14.3	11.1	130.93	-109.9	-538.9	407.4	22.03	18.489			
3,100.0	2,979.3	3,068.1	3,003.6	15.0	11.5	131.21	-116.5	-561.9	424.8	22.92	18.536			
3,200.0	3,073.3	3,166.6	3,099.1	15.6	12.0	131.48	-123.2	-585.0	442.2	23.80	18.581			
3,300.0	3,167.3	3,265.0	3,194.6	16.2	12.4	131.72	-129.8	-608.0	459.6	24.68	18.623			
3,400.0	3,261.3	3,363.5	3,290.1	16.9	12.9	131.95	-136.5	-631.0	477.1	25.56	18.663			
3,500.0	3,355.4	3,461.9	3,385.6	17.5	13.4	132.16	-143.1	-654.1	494.5	26.45	18.700			
3,600.0	3,449.4	3,560.4	3,481.1	18.1	13.8	132.36	-149.7	-677.1	512.0	27.33	18.736			
3,700.0	3,543.4	3,658.8	3,576.6	18.8	14.3	132.54	-156.4	-700.1	529.5	28.21	18.769			
3,800.0	3,637.4	3,757.3	3,672.1	19.4	14.8	132.71	-163.0	-723.2	546.9	29.09	18.801			
3,900.0	3,731.4	3,855.7	3,767.5	20.0	15.2	132.87	-169.7	-746.2	564.4	29.97	18.831			
4,000.0	3,825.4	3,954.2	3,863.0	20.7	15.7	133.02	-176.3	-769.2	581.9	30.85	18.860			
4,100.0	3,919.4	4,052.6	3,958.5	21.3	16.1	133.17	-182.9	-792.2	599.4	31.73	18.887			
4,200.0	4,013.5	4,151.1	4,054.0	21.9	16.6	133.30	-189.6	-815.3	616.8	32.61	18.913			
4,300.0	4,107.5	4,249.5	4,149.5	22.6	17.1	133.43	-196.2	-838.3	634.3	33.49	18.938			
4,400.0	4,201.5	4,348.0	4,245.0	23.2	17.5	133.55	-202.9	-861.3	651.8	34.38	18.962			
4,500.0	4,295.5	4,446.4	4,340.5	23.8	18.0	133.66	-209.5	-884.4	669.3	35.26	18.985			
4,600.0	4,389.5	4,544.9	4,436.0	24.5	18.4	133.77	-216.1	-907.4	686.8	36.14	19.007			
4,700.0	4,483.5	4,643.3	4,531.4	25.1	18.9	133.87	-222.8	-930.4	704.3	37.02	19.027			
4,800.0	4,577.5	4,741.7	4,626.9	25.7	19.4	133.97	-229.4	-953.5	721.8	37.90	19.047			
4,900.0	4,671.5	4,840.2	4,722.4	26.4	19.8	134.06	-236.0	-976.5	739.3	38.78	19.066			
5,000.0	4,765.6	4,938.6	4,817.9	27.0	20.3	134.15	-242.7	-999.5	756.8	39.66	19.085			
5,100.0	4,859.6	5,037.1	4,913.4	27.7	20.8	134.24	-249.3	-1,022.6	774.3	40.54	19.102			

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

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-13D (Oxy I21 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				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
5,200.0	4,953.6	5,135.5	5,008.9	28.3	21.2	134.32	-256.0	-1,045.6	791.8	750.4	41.41	19.119		
5,300.0	5,047.6	5,234.0	5,104.4	28.9	21.7	134.39	-262.6	-1,068.6	809.3	767.0	42.29	19.136		
5,400.0	5,141.6	5,332.4	5,199.8	29.6	22.1	134.47	-269.2	-1,091.6	826.8	783.7	43.17	19.151		
5,500.0	5,235.6	5,430.9	5,295.3	30.2	22.6	134.54	-275.9	-1,114.7	844.4	800.3	44.05	19.166		
5,600.0	5,329.6	5,529.3	5,390.8	30.8	23.1	134.61	-282.5	-1,137.7	861.9	816.9	44.93	19.181		
5,700.0	5,423.7	5,627.8	5,486.3	31.5	23.5	134.67	-289.2	-1,160.7	879.4	833.6	45.81	19.195		
5,800.0	5,517.7	5,726.2	5,581.8	32.1	24.0	134.75	-295.8	-1,183.8	896.9	850.2	46.69	19.209		
5,900.0	5,612.2	5,824.9	5,677.5	32.7	24.5	134.92	-302.5	-1,206.8	913.4	865.8	47.56	19.205		
6,000.0	5,707.5	5,923.8	5,773.4	33.2	24.9	134.96	-309.1	-1,230.0	928.1	879.6	48.45	19.154		
6,100.0	5,803.6	6,022.9	5,869.5	33.7	25.4	134.86	-315.8	-1,253.2	940.9	891.5	49.37	19.057		
6,200.0	5,900.3	6,118.9	5,962.7	34.2	25.8	134.67	-322.2	-1,275.4	952.0	901.8	50.28	18.935		
6,300.0	5,997.7	6,211.8	6,053.3	34.6	26.2	134.49	-327.9	-1,295.0	962.0	910.9	51.09	18.828		
6,400.0	6,095.7	6,304.8	6,144.5	35.0	26.5	134.33	-332.9	-1,312.6	970.7	918.9	51.82	18.731		
6,500.0	6,194.2	6,400.0	6,238.3	35.3	26.9	134.18	-337.5	-1,328.3	978.4	925.9	52.49	18.640		
6,600.0	6,293.0	6,491.3	6,328.6	35.6	27.1	134.06	-341.2	-1,341.3	984.9	931.8	53.05	18.563		
6,700.0	6,392.3	6,584.8	6,421.3	35.8	27.3	133.95	-344.4	-1,352.5	990.2	936.6	53.55	18.490		
6,800.0	6,491.8	6,678.3	6,514.4	36.0	27.5	133.85	-347.0	-1,361.4	994.4	940.4	53.97	18.423		
6,900.0	6,591.5	6,771.9	6,607.7	36.2	27.7	133.77	-349.0	-1,368.2	997.4	943.0	54.32	18.362		
7,000.0	6,691.4	6,865.6	6,701.3	36.3	27.8	133.70	-350.3	-1,372.8	999.2	944.6	54.58	18.306		
7,100.0	6,791.4	6,959.3	6,795.0	36.3	27.9	133.65	-351.0	-1,375.2	999.8	945.0	54.77	18.253		
7,200.0	6,891.4	7,055.8	6,891.4	36.4	28.0	-1.34	-351.1	-1,375.5	999.8	944.8	54.94	18.198		
7,300.0	6,991.4	7,155.8	6,991.4	36.5	28.1	-1.34	-351.1	-1,375.5	999.8	944.7	55.09	18.146		
7,400.0	7,091.4	7,255.8	7,091.4	36.5	28.1	-1.34	-351.1	-1,375.5	999.8	944.5	55.26	18.093		
7,500.0	7,191.4	7,355.8	7,191.4	36.6	28.2	-1.34	-351.1	-1,375.5	999.8	944.3	55.42	18.040		
7,600.0	7,291.4	7,455.8	7,291.4	36.6	28.3	-1.34	-351.1	-1,375.5	999.8	944.2	55.58	17.987		
7,700.0	7,391.4	7,555.8	7,391.4	36.7	28.4	-1.34	-351.1	-1,375.5	999.8	944.0	55.75	17.934		
7,800.0	7,491.4	7,655.8	7,491.4	36.8	28.5	-1.34	-351.1	-1,375.5	999.8	943.8	55.91	17.880		
7,900.0	7,591.4	7,755.8	7,591.4	36.8	28.5	-1.34	-351.1	-1,375.5	999.8	943.7	56.08	17.826		
8,000.0	7,691.4	7,855.8	7,691.4	36.9	28.6	-1.34	-351.1	-1,375.5	999.8	943.5	56.25	17.772		
8,100.0	7,791.4	7,955.8	7,791.4	37.0	28.7	-1.34	-351.1	-1,375.5	999.8	943.3	56.43	17.718		
8,200.0	7,891.4	8,055.8	7,891.4	37.0	28.8	-1.34	-351.1	-1,375.5	999.8	943.2	56.60	17.664		
8,300.0	7,991.4	8,155.8	7,991.4	37.1	28.9	-1.34	-351.1	-1,375.5	999.8	943.0	56.77	17.609		
8,400.0	8,091.4	8,255.8	8,091.4	37.2	29.0	-1.34	-351.1	-1,375.5	999.8	942.8	56.95	17.554		
8,500.0	8,191.4	8,355.8	8,191.4	37.2	29.1	-1.34	-351.1	-1,375.5	999.8	942.6	57.13	17.499		
8,600.0	8,291.4	8,455.8	8,291.4	37.3	29.1	-1.34	-351.1	-1,375.5	999.8	942.4	57.31	17.444		
8,700.0	8,391.4	8,555.8	8,391.4	37.4	29.2	-1.34	-351.1	-1,375.5	999.8	942.3	57.49	17.389		
8,800.0	8,491.4	8,655.8	8,491.4	37.5	29.3	-1.34	-351.1	-1,375.5	999.8	942.1	57.68	17.334		
8,900.0	8,591.4	8,755.8	8,591.4	37.5	29.4	-1.34	-351.1	-1,375.5	999.8	941.9	57.86	17.279		
8,972.6	8,664.0	8,828.4	8,664.0	37.6	29.5	-1.34	-351.1	-1,375.5	999.8	941.8	58.00	17.238 SF		



# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-14D (Oxy I21 Pad) - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-32.43	50.6	-32.2	60.0					
100.0	100.0	100.0	100.0	0.1	0.1	-32.43	50.6	-32.2	60.0	59.7	0.30	202.164		
200.0	200.0	200.0	200.0	0.3	0.3	-32.43	50.6	-32.2	60.0	59.3	0.65	92.886 CC		
300.0	300.0	300.0	300.0	0.5	0.5	103.75	50.6	-32.2	60.3	59.3	1.00	60.476 ES		
400.0	399.9	399.3	399.3	0.7	0.7	106.16	50.5	-33.5	61.9	60.5	1.36	45.594		
500.0	499.7	498.5	498.4	0.9	0.9	108.49	50.2	-37.3	65.3	63.6	1.74	37.577		
600.0	599.3	597.7	597.4	1.1	1.1	110.56	49.7	-43.7	70.7	68.5	2.15	32.808		
700.0	698.6	696.8	696.1	1.4	1.3	112.26	49.0	-52.7	77.9	75.3	2.62	29.782		
800.0	797.5	795.8	794.4	1.7	1.5	113.58	48.1	-64.2	87.0	83.9	3.13	27.765		
900.0	896.1	894.5	892.1	2.0	1.8	114.53	46.9	-78.2	97.9	94.2	3.71	26.362		
1,000.0	994.2	993.0	989.2	2.4	2.1	115.18	45.6	-94.7	110.6	106.2	4.36	25.347		
1,100.0	1,091.7	1,091.2	1,085.6	2.8	2.5	115.59	44.1	-113.6	125.0	119.9	5.08	24.587		
1,200.0	1,188.6	1,189.1	1,181.1	3.3	2.9	115.79	42.4	-134.8	141.2	135.3	5.88	23.996		
1,300.0	1,284.9	1,287.4	1,276.6	3.8	3.3	116.18	40.5	-157.8	158.8	152.1	6.73	23.600		
1,400.0	1,380.4	1,385.5	1,372.0	4.3	3.7	117.19	38.7	-180.7	177.7	170.1	7.61	23.350		
1,500.0	1,475.0	1,483.3	1,467.1	4.9	4.1	118.62	36.8	-203.5	197.9	189.3	8.51	23.240 SF		
1,600.0	1,569.1	1,580.8	1,561.9	5.5	4.6	120.37	35.0	-226.3	219.1	209.7	9.42	23.267		
1,700.0	1,663.1	1,678.3	1,656.7	6.1	5.0	121.90	33.2	-249.0	240.6	230.3	10.32	23.317		
1,800.0	1,757.1	1,775.8	1,751.4	6.8	5.4	123.18	31.3	-271.8	262.2	251.0	11.22	23.376		
1,900.0	1,851.1	1,873.2	1,846.2	7.4	5.9	124.27	29.5	-294.5	283.9	271.8	12.11	23.439		
2,000.0	1,945.2	1,970.7	1,941.0	8.0	6.3	125.20	27.7	-317.3	305.7	292.7	13.01	23.503		
2,100.0	2,039.2	2,068.2	2,035.7	8.6	6.7	126.01	25.8	-340.1	327.6	313.7	13.90	23.567		
2,200.0	2,133.2	2,165.7	2,130.5	9.3	7.2	126.71	24.0	-362.8	349.5	334.8	14.79	23.628		
2,300.0	2,227.2	2,263.2	2,225.3	9.9	7.6	127.33	22.2	-385.6	371.5	355.8	15.68	23.688		
2,400.0	2,321.2	2,360.6	2,320.0	10.5	8.1	127.89	20.3	-408.3	393.5	377.0	16.57	23.744		
2,500.0	2,415.2	2,458.1	2,414.8	11.2	8.5	128.38	18.5	-431.1	415.6	398.1	17.46	23.798		
2,600.0	2,509.2	2,555.6	2,509.6	11.8	8.9	128.83	16.7	-453.9	437.6	419.3	18.35	23.849		
2,700.0	2,603.2	2,653.1	2,604.4	12.4	9.4	129.23	14.8	-476.6	459.7	440.5	19.24	23.897		
2,800.0	2,697.3	2,750.6	2,699.1	13.1	9.8	129.60	13.0	-499.4	481.8	461.7	20.12	23.943		
2,900.0	2,791.3	2,848.0	2,793.9	13.7	10.3	129.93	11.2	-522.1	504.0	483.0	21.01	23.986		
3,000.0	2,885.3	2,945.5	2,888.7	14.3	10.7	130.23	9.3	-544.9	526.1	504.2	21.90	24.027		
3,100.0	2,979.3	3,043.0	2,983.4	15.0	11.1	130.51	7.5	-567.7	548.3	525.5	22.78	24.066		
3,200.0	3,073.3	3,140.5	3,078.2	15.6	11.6	130.77	5.7	-590.4	570.4	546.8	23.67	24.103		
3,300.0	3,167.3	3,238.0	3,173.0	16.2	12.0	131.01	3.8	-613.2	592.6	568.1	24.55	24.138		
3,400.0	3,261.3	3,335.4	3,267.7	16.9	12.5	131.24	2.0	-635.9	614.8	589.4	25.44	24.171		
3,500.0	3,355.4	3,432.9	3,362.5	17.5	12.9	131.44	0.2	-658.7	637.0	610.7	26.32	24.202		
3,600.0	3,449.4	3,530.4	3,457.3	18.1	13.3	131.63	-1.7	-681.4	659.2	632.0	27.20	24.232		
3,700.0	3,543.4	3,627.9	3,552.0	18.8	13.8	131.81	-3.5	-704.2	681.4	653.3	28.09	24.260		
3,800.0	3,637.4	3,725.4	3,646.8	19.4	14.2	131.98	-5.3	-727.0	703.6	674.7	28.97	24.287		
3,900.0	3,731.4	3,822.9	3,741.6	20.0	14.7	132.14	-7.2	-749.7	725.9	696.0	29.85	24.313		
4,000.0	3,825.4	3,920.3	3,836.4	20.7	15.1	132.29	-9.0	-772.5	748.1	717.3	30.74	24.338		
4,100.0	3,919.4	4,017.8	3,931.1	21.3	15.6	132.43	-10.8	-795.2	770.3	738.7	31.62	24.361		
4,200.0	4,013.5	4,115.3	4,025.9	21.9	16.0	132.56	-12.7	-818.0	792.5	760.0	32.50	24.383		
4,300.0	4,107.5	4,212.8	4,120.7	22.6	16.4	132.69	-14.5	-840.8	814.8	781.4	33.39	24.405		
4,400.0	4,201.5	4,310.3	4,215.4	23.2	16.9	132.81	-16.3	-863.5	837.0	802.8	34.27	24.425		
4,500.0	4,295.5	4,407.7	4,310.2	23.8	17.3	132.92	-18.2	-886.3	859.3	824.1	35.15	24.445		
4,600.0	4,389.5	4,505.2	4,405.0	24.5	17.8	133.03	-20.0	-909.0	881.5	845.5	36.03	24.464		
4,700.0	4,483.5	4,602.7	4,499.7	25.1	18.2	133.13	-21.8	-931.8	903.8	866.9	36.92	24.482		
4,800.0	4,577.5	4,700.2	4,594.5	25.7	18.7	133.23	-23.7	-954.6	926.0	888.2	37.80	24.499		
4,900.0	4,671.5	4,797.7	4,689.3	26.4	19.1	133.32	-25.5	-977.3	948.3	909.6	38.68	24.516		
5,000.0	4,765.6	4,895.1	4,784.0	27.0	19.5	133.41	-27.3	-1,000.1	970.5	931.0	39.56	24.532		
5,100.0	4,859.6	4,992.6	4,878.8	27.7	20.0	133.49	-29.2	-1,022.8	992.8	952.4	40.44	24.547		

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



# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-14D (Oxy I21 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 Axis	Separation Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)							
5,200.0	4,953.6	5,090.1	4,973.6	28.3	20.4	133.57	-31.0	-1,045.6	1,015.1	973.7	41.33	24.562					
5,300.0	5,047.6	5,187.6	5,068.4	28.9	20.9	133.65	-32.8	-1,068.3	1,037.3	995.1	42.21	24.576					
5,400.0	5,141.6	5,285.1	5,163.1	29.6	21.3	133.72	-34.7	-1,091.1	1,059.6	1,016.5	43.09	24.590					
5,500.0	5,235.6	5,382.5	5,257.9	30.2	21.7	133.79	-36.5	-1,113.9	1,081.9	1,037.9	43.97	24.604					
5,600.0	5,329.6	5,480.0	5,352.7	30.8	22.2	133.86	-38.3	-1,136.6	1,104.1	1,059.3	44.85	24.616					

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-15D (Oxy I21 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				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	-32.15	63.7	-40.1	75.3					
100.0	100.0	100.0	100.0	0.1	0.1	-32.15	63.7	-40.1	75.3	75.0	0.30	253.749		
200.0	200.0	200.0	200.0	0.3	0.3	-32.15	63.7	-40.1	75.3	74.6	0.65	116.587 CC		
300.0	300.0	300.0	300.0	0.5	0.5	103.78	63.7	-40.1	75.6	74.6	1.00	75.834 ES		
400.0	399.9	398.7	398.7	0.7	0.7	105.81	63.9	-41.3	77.4	76.0	1.36	57.107		
500.0	499.7	497.3	497.3	0.9	0.9	107.99	64.5	-45.1	81.6	79.9	1.73	47.052		
600.0	599.3	595.8	595.5	1.1	1.0	110.11	65.4	-51.4	88.2	86.1	2.15	41.137		
700.0	698.6	694.1	693.4	1.4	1.3	112.02	66.7	-60.2	97.3	94.7	2.60	37.461		
800.0	797.5	792.1	790.7	1.7	1.5	113.63	68.4	-71.4	108.8	105.7	3.10	35.086		
900.0	896.1	889.7	887.3	2.0	1.8	114.94	70.4	-85.0	122.6	118.9	3.66	33.503		
1,000.0	994.2	986.8	983.1	2.4	2.1	115.95	72.8	-101.0	138.7	134.5	4.28	32.415		
1,100.0	1,091.7	1,083.4	1,077.9	2.8	2.5	116.70	75.5	-119.2	157.2	152.2	4.97	31.648		
1,200.0	1,188.6	1,179.4	1,171.7	3.3	2.8	117.24	78.6	-139.8	177.9	172.2	5.72	31.093		
1,300.0	1,284.9	1,276.0	1,265.5	3.8	3.3	117.73	81.9	-162.3	200.7	194.1	6.53	30.723		
1,400.0	1,380.4	1,373.0	1,359.7	4.3	3.7	118.59	85.3	-185.1	224.7	217.3	7.38	30.448		
1,500.0	1,475.0	1,469.5	1,453.5	4.9	4.1	119.75	88.7	-207.8	250.1	241.9	8.26	30.282		
1,600.0	1,569.1	1,565.7	1,546.9	5.5	4.5	121.23	92.1	-230.4	276.7	267.5	9.15	30.238		
1,700.0	1,663.1	1,661.8	1,640.3	6.1	5.0	122.55	95.5	-253.1	303.4	293.3	10.04	30.216		
1,800.0	1,757.1	1,758.0	1,733.7	6.8	5.4	123.66	98.8	-275.7	330.2	319.3	10.93	30.209 SF		
1,900.0	1,851.1	1,854.1	1,827.0	7.4	5.8	124.60	102.2	-298.3	357.2	345.4	11.82	30.211		
2,000.0	1,945.2	1,950.2	1,920.4	8.0	6.3	125.41	105.6	-320.9	384.2	371.5	12.71	30.220		
2,100.0	2,039.2	2,046.4	2,013.8	8.6	6.7	126.11	108.9	-343.5	411.3	397.7	13.60	30.233		
2,200.0	2,133.2	2,142.5	2,107.2	9.3	7.1	126.73	112.3	-366.2	438.5	424.0	14.50	30.249		
2,300.0	2,227.2	2,238.7	2,200.6	9.9	7.6	127.27	115.7	-388.8	465.7	450.3	15.39	30.267		
2,400.0	2,321.2	2,334.8	2,294.0	10.5	8.0	127.76	119.0	-411.4	492.9	476.6	16.27	30.285		
2,500.0	2,415.2	2,431.0	2,387.4	11.2	8.4	128.19	122.4	-434.0	520.1	503.0	17.16	30.304		
2,600.0	2,509.2	2,527.1	2,480.7	11.8	8.9	128.58	125.8	-456.6	547.4	529.4	18.05	30.323		
2,700.0	2,603.2	2,623.3	2,574.1	12.4	9.3	128.94	129.1	-479.2	574.7	555.8	18.94	30.341		
2,800.0	2,697.3	2,719.4	2,667.5	13.1	9.8	129.26	132.5	-501.9	602.0	582.2	19.83	30.360		
2,900.0	2,791.3	2,815.6	2,760.9	13.7	10.2	129.55	135.9	-524.5	629.3	608.6	20.72	30.378		
3,000.0	2,885.3	2,911.7	2,854.3	14.3	10.6	129.82	139.2	-547.1	656.7	635.1	21.61	30.395		
3,100.0	2,979.3	3,007.8	2,947.7	15.0	11.1	130.07	142.6	-569.7	684.0	661.6	22.49	30.412		
3,200.0	3,073.3	3,104.0	3,041.1	15.6	11.5	130.30	146.0	-592.3	711.4	688.0	23.38	30.428		
3,300.0	3,167.3	3,200.1	3,134.4	16.2	12.0	130.51	149.3	-614.9	738.8	714.5	24.27	30.443		
3,400.0	3,261.3	3,296.3	3,227.8	16.9	12.4	130.71	152.7	-637.6	766.2	741.0	25.16	30.458		
3,500.0	3,355.4	3,392.4	3,321.2	17.5	12.8	130.89	156.1	-660.2	793.6	767.5	26.04	30.473		
3,600.0	3,449.4	3,488.6	3,414.6	18.1	13.3	131.06	159.4	-682.8	821.0	794.0	26.93	30.486		
3,700.0	3,543.4	3,584.7	3,508.0	18.8	13.7	131.22	162.8	-705.4	848.4	820.6	27.82	30.500		
3,800.0	3,637.4	3,680.9	3,601.4	19.4	14.2	131.37	166.2	-728.0	875.8	847.1	28.70	30.512		
3,900.0	3,731.4	3,777.0	3,694.8	20.0	14.6	131.51	169.5	-750.7	903.2	873.6	29.59	30.525		
4,000.0	3,825.4	3,873.1	3,788.1	20.7	15.1	131.64	172.9	-773.3	930.6	900.2	30.48	30.537		
4,100.0	3,919.4	3,969.3	3,881.5	21.3	15.5	131.77	176.3	-795.9	958.1	926.7	31.36	30.548		
4,200.0	4,013.5	4,065.4	3,974.9	21.9	15.9	131.89	179.6	-818.5	985.5	953.3	32.25	30.559		
4,300.0	4,107.5	4,161.6	4,068.3	22.6	16.4	132.00	183.0	-841.1	1,012.9	979.8	33.14	30.569		
4,400.0	4,201.5	4,257.7	4,161.7	23.2	16.8	132.10	186.4	-863.7	1,040.4	1,006.4	34.02	30.580		
4,500.0	4,295.5	4,353.9	4,255.1	23.8	17.3	132.20	189.8	-886.4	1,067.8	1,032.9	34.91	30.589		
4,600.0	4,389.5	4,450.0	4,348.5	24.5	17.7	132.30	193.1	-909.0	1,095.3	1,059.5	35.79	30.599		

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

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-16D (Oxy I21 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				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	-26.36	80.9	-40.1	90.2					
100.0	100.0	100.0	100.0	0.1	0.1	-26.36	80.9	-40.1	90.2	89.9	0.30	304.152		
200.0	200.0	200.0	200.0	0.3	0.3	-26.36	80.9	-40.1	90.2	89.6	0.65	139.745 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	109.39	80.9	-40.1	90.7	89.7	1.00	90.974		
400.0	399.9	398.2	398.2	0.7	0.7	111.06	81.3	-41.2	92.9	91.6	1.35	68.665		
500.0	499.7	496.4	496.3	0.9	0.9	112.92	82.6	-44.8	98.1	96.3	1.73	56.715		
600.0	599.3	594.3	594.0	1.1	1.0	114.77	84.8	-50.7	106.0	103.9	2.13	49.731		
700.0	698.6	691.8	691.1	1.4	1.3	116.49	87.9	-58.9	116.9	114.3	2.57	45.447		
800.0	797.5	788.9	787.5	1.7	1.5	117.98	91.9	-69.3	130.6	127.5	3.05	42.737		
900.0	896.1	885.4	883.1	2.0	1.8	119.22	96.6	-82.0	147.1	143.5	3.59	40.985		
1,000.0	894.2	881.2	877.6	2.4	2.1	120.19	102.2	-96.8	166.3	162.2	4.18	39.835		
1,100.0	1,091.7	1,076.2	1,070.9	2.8	2.4	120.94	108.5	-113.6	188.4	183.5	4.82	39.068		
1,200.0	1,188.6	1,170.4	1,162.9	3.3	2.8	121.48	115.6	-132.5	213.0	207.5	5.53	38.554		
1,300.0	1,284.9	1,264.3	1,254.1	3.8	3.2	121.87	123.4	-153.3	240.3	234.0	6.28	38.252		
1,400.0	1,380.4	1,359.8	1,346.7	4.3	3.6	122.45	131.7	-175.3	269.4	262.3	7.09	38.003		
1,500.0	1,475.0	1,454.9	1,438.9	4.9	4.1	123.25	139.9	-197.1	299.9	291.9	7.92	37.842		
1,600.0	1,569.1	1,549.5	1,530.6	5.5	4.5	124.41	148.0	-218.8	331.5	322.7	8.78	37.779		
1,700.0	1,663.1	1,644.1	1,622.4	6.1	4.9	125.48	156.2	-240.5	363.3	353.7	9.63	37.723		
1,800.0	1,757.1	1,738.7	1,714.1	6.8	5.4	126.38	164.3	-262.2	395.2	384.8	10.49	37.677		
1,900.0	1,851.1	1,833.3	1,805.8	7.4	5.8	127.14	172.5	-283.9	427.2	415.9	11.35	37.640		
2,000.0	1,945.2	1,927.9	1,897.5	8.0	6.2	127.80	180.6	-305.5	459.3	447.1	12.21	37.609		
2,100.0	2,039.2	2,022.5	1,989.2	8.6	6.7	128.37	188.8	-327.2	491.4	478.3	13.07	37.584		
2,200.0	2,133.2	2,117.2	2,081.0	9.3	7.1	128.87	196.9	-348.9	523.5	509.6	13.94	37.563		
2,300.0	2,227.2	2,211.8	2,172.7	9.9	7.6	129.32	205.1	-370.6	555.7	540.9	14.80	37.545		
2,400.0	2,321.2	2,306.4	2,264.4	10.5	8.0	129.71	213.3	-392.3	587.9	572.2	15.66	37.531		
2,500.0	2,415.2	2,401.0	2,356.1	11.2	8.4	130.07	221.4	-414.0	620.1	603.6	16.53	37.518		
2,600.0	2,509.2	2,495.6	2,447.8	11.8	8.9	130.39	229.6	-435.7	652.3	634.9	17.39	37.508		
2,700.0	2,603.2	2,590.2	2,539.6	12.4	9.3	130.68	237.7	-457.4	684.6	666.3	18.26	37.499		
2,800.0	2,697.3	2,684.8	2,631.3	13.1	9.8	130.94	245.9	-479.1	716.8	697.7	19.12	37.492		
2,900.0	2,791.3	2,779.4	2,723.0	13.7	10.2	131.18	254.0	-500.8	749.1	729.1	19.98	37.486		
3,000.0	2,885.3	2,874.0	2,814.7	14.3	10.7	131.40	262.2	-522.5	781.4	760.6	20.85	37.480		
3,100.0	2,979.3	2,968.6	2,906.4	15.0	11.1	131.60	270.3	-544.2	813.7	792.0	21.71	37.476		
3,200.0	3,073.3	3,063.2	2,998.2	15.6	11.5	131.79	278.5	-565.9	846.0	823.4	22.58	37.472		
3,300.0	3,167.3	3,157.8	3,089.9	16.2	12.0	131.97	286.6	-587.6	878.3	854.9	23.44	37.468		
3,400.0	3,261.3	3,252.4	3,181.6	16.9	12.4	132.13	294.8	-609.3	910.7	886.3	24.31	37.465		
3,500.0	3,355.4	3,347.0	3,273.3	17.5	12.9	132.28	302.9	-631.0	943.0	917.8	25.17	37.463		
3,600.0	3,449.4	3,441.6	3,365.0	18.1	13.3	132.42	311.1	-652.7	975.3	949.3	26.04	37.461		
3,700.0	3,543.4	3,536.2	3,456.8	18.8	13.8	132.55	319.3	-674.4	1,007.6	980.7	26.90	37.459		
3,800.0	3,637.4	3,630.8	3,548.5	19.4	14.2	132.67	327.4	-696.0	1,040.0	1,012.2	27.76	37.457		
3,900.0	3,731.4	3,725.4	3,640.2	20.0	14.7	132.79	335.6	-717.7	1,072.3	1,043.7	28.63	37.456		
4,000.0	3,825.4	3,820.0	3,731.9	20.7	15.1	132.90	343.7	-739.4	1,104.7	1,075.2	29.49	37.455 SF		

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-17D (Oxy I21 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	-32.34	75.8	-48.0	89.7					
100.0	100.0	100.0	100.0	0.1	0.1	-32.34	75.8	-48.0	89.7	89.4	0.30	302.219		
200.0	200.0	200.0	200.0	0.3	0.3	-32.34	75.8	-48.0	89.7	89.0	0.65	138.857 CC, ES		
300.0	300.0	298.2	298.2	0.5	0.5	102.90	76.2	-49.2	91.0	90.0	0.99	91.461		
400.0	399.9	396.3	396.2	0.7	0.7	103.67	77.4	-52.7	94.8	93.5	1.36	69.933		
500.0	499.7	494.1	493.8	0.9	0.9	104.81	79.4	-58.7	101.3	99.6	1.74	58.182		
600.0	599.3	591.7	591.0	1.1	1.1	106.17	82.2	-67.0	110.4	108.3	2.16	51.112		
700.0	698.6	688.8	687.4	1.4	1.3	107.60	85.8	-77.5	122.2	119.6	2.62	46.596		
800.0	797.5	785.4	783.1	1.7	1.6	109.00	90.1	-90.4	136.7	133.6	3.14	43.592		
900.0	896.1	881.3	877.7	2.0	1.9	110.27	95.2	-105.4	153.8	150.1	3.70	41.533		
1,000.0	994.2	976.5	971.2	2.4	2.3	111.40	101.0	-122.5	173.6	169.3	4.33	40.088		
1,100.0	1,091.7	1,071.0	1,063.4	2.8	2.7	112.36	107.5	-141.6	196.0	191.0	5.02	39.057		
1,200.0	1,188.6	1,164.5	1,154.3	3.3	3.1	113.16	114.6	-162.7	221.0	215.2	5.77	38.311		
1,300.0	1,284.9	1,257.0	1,243.6	3.8	3.6	113.81	122.4	-185.6	248.5	241.9	6.58	37.768		
1,400.0	1,380.4	1,348.5	1,331.3	4.3	4.1	114.33	130.7	-210.3	278.5	271.1	7.45	37.370		
1,500.0	1,475.0	1,438.9	1,417.3	4.9	4.6	114.72	139.6	-236.6	311.0	302.6	8.39	37.081		
1,600.0	1,569.1	1,528.3	1,501.6	5.5	5.1	115.27	149.1	-264.5	345.5	336.1	9.37	36.892		
1,700.0	1,663.1	1,616.8	1,584.5	6.1	5.7	115.57	159.0	-294.0	381.4	371.0	10.38	36.752		
1,800.0	1,757.1	1,704.4	1,665.8	6.8	6.3	115.58	169.5	-325.0	418.5	407.1	11.41	36.663		
1,900.0	1,851.1	1,791.1	1,745.5	7.4	7.0	115.36	180.5	-357.4	456.8	444.3	12.48	36.609		
2,000.0	1,945.2	1,876.8	1,823.5	8.0	7.7	114.98	191.9	-391.0	496.3	482.7	13.56	36.593 SF		
2,100.0	2,039.2	1,961.4	1,899.6	8.6	8.4	114.48	203.7	-425.9	537.0	522.3	14.66	36.620		
2,200.0	2,133.2	2,044.8	1,973.9	9.3	9.1	113.88	215.9	-461.8	578.9	563.1	15.78	36.688		
2,300.0	2,227.2	2,127.1	2,046.3	9.9	9.9	113.22	228.3	-498.7	622.1	605.2	16.91	36.798		
2,400.0	2,321.2	2,208.0	2,116.8	10.5	10.7	112.52	241.1	-536.5	666.5	648.4	18.04	36.948		
2,500.0	2,415.2	2,287.7	2,185.3	11.2	11.5	111.78	254.2	-575.1	712.1	692.9	19.18	37.129		
2,600.0	2,509.2	2,369.8	2,255.0	11.8	12.3	111.00	268.1	-616.2	759.0	738.7	20.35	37.308		
2,700.0	2,603.2	2,453.0	2,325.1	12.4	13.2	110.23	282.5	-658.6	806.6	785.1	21.51	37.492		
2,800.0	2,697.3	2,540.4	2,398.8	13.1	14.1	109.51	297.5	-703.1	854.4	831.7	22.71	37.624		
2,900.0	2,791.3	2,627.8	2,472.4	13.7	15.0	108.87	312.6	-747.6	902.2	878.3	23.90	37.751		
3,000.0	2,885.3	2,715.1	2,546.1	14.3	15.9	108.29	327.7	-792.2	950.2	925.1	25.09	37.875		
3,100.0	2,979.3	2,802.5	2,619.7	15.0	16.8	107.77	342.8	-836.7	998.1	971.9	26.27	37.994		
3,200.0	3,073.3	2,889.9	2,693.4	15.6	17.8	107.29	357.8	-881.2	1,046.2	1,018.7	27.45	38.108		
3,300.0	3,167.3	2,977.3	2,767.1	16.2	18.7	106.86	372.9	-925.7	1,094.3	1,065.7	28.63	38.218		

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-1D (Oxy I21 Pad) - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	147.03	-62.6	40.6	74.7					
100.0	100.0	100.0	100.0	0.1	0.1	147.03	-62.6	40.6	74.7	74.4	0.30	251.656		
200.0	200.0	200.0	200.0	0.3	0.3	147.03	-62.6	40.6	74.7	74.0	0.65	115.626		
300.0	300.0	300.0	300.0	0.5	0.5	-78.99	-62.6	40.6	74.4	73.4	1.00	74.644		
330.3	330.3	329.9	329.9	0.6	0.5	-79.62	-62.8	40.6	74.3	73.2	1.11	67.259 CC, ES		
400.0	399.9	398.4	398.4	0.7	0.7	-81.30	-63.9	40.6	74.7	73.4	1.36	55.146		
500.0	499.7	496.9	496.8	0.9	0.9	-84.21	-67.7	40.3	76.8	75.1	1.74	44.270		
600.0	599.3	595.2	595.0	1.1	1.0	-87.46	-74.0	39.9	80.8	78.6	2.15	37.576		
700.0	698.6	693.5	692.8	1.4	1.3	-90.81	-82.9	39.4	86.7	84.1	2.61	33.210		
800.0	797.5	791.6	790.2	1.7	1.5	-94.02	-94.2	38.7	94.6	91.4	3.13	30.251		
900.0	896.1	889.5	887.1	2.0	1.8	-96.94	-108.0	37.8	104.5	100.8	3.71	28.192		
1,000.0	994.2	987.1	983.4	2.4	2.1	-99.50	-124.2	36.8	116.4	112.1	4.36	26.728		
1,100.0	1,091.7	1,084.4	1,078.9	2.8	2.4	-101.68	-142.8	35.7	130.3	125.2	5.08	25.668		
1,200.0	1,188.6	1,181.4	1,173.6	3.3	2.8	-103.48	-163.7	34.4	146.1	140.3	5.87	24.890		
1,300.0	1,284.9	1,278.0	1,267.4	3.8	3.3	-104.95	-186.9	32.9	163.8	157.1	6.74	24.309		
1,400.0	1,380.4	1,374.2	1,360.1	4.3	3.7	-106.13	-212.4	31.3	183.4	175.7	7.68	23.870		
1,500.0	1,475.0	1,471.1	1,453.0	4.9	4.2	-107.20	-240.0	29.6	204.5	195.8	8.68	23.552		
1,600.0	1,569.1	1,568.5	1,546.3	5.5	4.7	-108.67	-267.9	27.9	226.5	216.7	9.71	23.319		
1,700.0	1,663.1	1,665.9	1,639.6	6.1	5.2	-109.98	-295.8	26.2	248.5	237.8	10.74	23.132		
1,800.0	1,757.1	1,763.3	1,732.9	6.8	5.7	-111.08	-323.7	24.4	270.7	259.0	11.78	22.981		
1,900.0	1,851.1	1,860.7	1,826.2	7.4	6.2	-112.01	-351.6	22.7	293.0	280.2	12.82	22.857		
2,000.0	1,945.2	1,958.1	1,919.5	8.0	6.7	-112.81	-379.5	21.0	315.3	301.5	13.86	22.753		
2,100.0	2,039.2	2,055.5	2,012.7	8.6	7.2	-113.50	-407.4	19.2	337.7	322.8	14.90	22.666		
2,200.0	2,133.2	2,152.8	2,106.0	9.3	7.7	-114.11	-435.3	17.5	360.2	344.2	15.94	22.592		
2,300.0	2,227.2	2,250.2	2,199.3	9.9	8.2	-114.65	-463.2	15.8	382.6	365.6	16.98	22.528		
2,400.0	2,321.2	2,347.6	2,292.6	10.5	8.7	-115.12	-491.1	14.0	405.1	387.1	18.03	22.474		
2,500.0	2,415.2	2,445.0	2,385.9	11.2	9.3	-115.55	-519.0	12.3	427.6	408.6	19.07	22.426		
2,600.0	2,509.2	2,542.4	2,479.2	11.8	9.8	-115.93	-546.9	10.6	450.2	430.0	20.11	22.383		
2,700.0	2,603.2	2,639.8	2,572.5	12.4	10.3	-116.28	-574.8	8.9	472.7	451.6	21.15	22.346		
2,800.0	2,697.3	2,737.2	2,665.8	13.1	10.8	-116.60	-602.7	7.1	495.3	473.1	22.20	22.313		
2,900.0	2,791.3	2,834.5	2,759.1	13.7	11.3	-116.88	-630.6	5.4	517.9	494.6	23.24	22.283		
3,000.0	2,885.3	2,931.9	2,852.3	14.3	11.8	-117.15	-658.5	3.7	540.4	516.2	24.28	22.257		
3,100.0	2,979.3	3,029.3	2,945.6	15.0	12.3	-117.39	-686.4	1.9	563.0	537.7	25.33	22.233		
3,200.0	3,073.3	3,126.7	3,038.9	15.6	12.8	-117.62	-714.3	0.2	585.7	559.3	26.37	22.211		
3,300.0	3,167.3	3,224.1	3,132.2	16.2	13.4	-117.82	-742.1	-1.5	608.3	580.9	27.41	22.191		
3,400.0	3,261.3	3,321.5	3,225.5	16.9	13.9	-118.02	-770.0	-3.3	630.9	602.4	28.45	22.173		
3,500.0	3,355.4	3,418.9	3,318.8	17.5	14.4	-118.19	-797.9	-5.0	653.5	624.0	29.50	22.156		
3,600.0	3,449.4	3,516.2	3,412.1	18.1	14.9	-118.36	-825.8	-6.7	676.2	645.6	30.54	22.141		
3,700.0	3,543.4	3,613.6	3,505.4	18.8	15.4	-118.52	-853.7	-8.5	698.8	667.2	31.58	22.127		
3,800.0	3,637.4	3,711.0	3,598.7	19.4	15.9	-118.67	-881.6	-10.2	721.5	688.8	32.63	22.113		
3,900.0	3,731.4	3,808.4	3,691.9	20.0	16.5	-118.80	-909.5	-11.9	744.1	710.4	33.67	22.101		
4,000.0	3,825.4	3,905.8	3,785.2	20.7	17.0	-118.93	-937.4	-13.6	766.8	732.1	34.71	22.090		
4,100.0	3,919.4	4,003.2	3,878.5	21.3	17.5	-119.05	-965.3	-15.4	789.4	753.7	35.75	22.080		
4,200.0	4,013.5	4,100.6	3,971.8	21.9	18.0	-119.17	-993.2	-17.1	812.1	775.3	36.80	22.070		
4,300.0	4,107.5	4,197.9	4,065.1	22.6	18.5	-119.28	-1,021.1	-18.8	834.7	796.9	37.84	22.061		
4,400.0	4,201.5	4,295.3	4,158.4	23.2	19.0	-119.38	-1,049.0	-20.6	857.4	818.5	38.88	22.052		
4,500.0	4,295.5	4,392.7	4,251.7	23.8	19.5	-119.48	-1,076.9	-22.3	880.1	840.2	39.92	22.044		
4,600.0	4,389.5	4,490.1	4,345.0	24.5	20.1	-119.57	-1,104.8	-24.0	902.8	861.8	40.97	22.036		
4,700.0	4,483.5	4,587.5	4,438.3	25.1	20.6	-119.66	-1,132.7	-25.8	925.4	883.4	42.01	22.029		
4,800.0	4,577.5	4,684.9	4,531.5	25.7	21.1	-119.75	-1,160.6	-27.5	948.1	905.1	43.05	22.022		
4,900.0	4,671.5	4,782.3	4,624.8	26.4	21.6	-119.83	-1,188.5	-29.2	970.8	926.7	44.09	22.016		
5,000.0	4,765.6	4,879.6	4,718.1	27.0	22.1	-119.90	-1,216.4	-31.0	993.5	948.3	45.14	22.010		

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

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-1D (Oxy I21 Pad) - DD - Plan #1													<b>Offset Site Error:</b> 0.0 ft
Survey Program: 0-MWD													<b>Offset Well Error:</b> 0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
5,100.0	4,859.6	4,977.0	4,811.4	27.7	22.6	-119.98	-1,244.3	-32.7	1,016.1	970.0	46.18	22.004	
5,200.0	4,953.6	5,074.4	4,904.7	28.3	23.2	-120.05	-1,272.2	-34.4	1,038.8	991.6	47.22	21.999	
5,300.0	5,047.6	5,171.8	4,998.0	28.9	23.7	-120.11	-1,300.1	-36.1	1,061.5	1,013.2	48.27	21.993	
5,400.0	5,141.6	5,269.2	5,091.3	29.6	24.2	-120.18	-1,328.0	-37.9	1,084.2	1,034.9	49.31	21.989	
5,500.0	5,235.6	5,366.6	5,184.6	30.2	24.7	-120.24	-1,355.9	-39.6	1,106.9	1,056.5	50.35	21.984 SF	

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-2D (Oxy I21 Pad) - DD - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: O-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-13.13	30.2	-7.1	31.0					
100.0	100.0	100.0	100.0	0.1	0.1	-13.13	30.2	-7.1	31.0	30.7	0.30	104.629		
200.0	200.0	200.0	200.0	0.3	0.3	-13.13	30.2	-7.1	31.0	30.4	0.65	48.073		
300.0	300.0	300.8	300.8	0.5	0.5	123.46	28.9	-7.0	30.5	29.5	1.00	30.522		
400.0	399.9	401.5	401.4	0.7	0.7	128.73	24.9	-6.9	28.8	27.5	1.35	21.282		
500.0	499.7	502.1	501.8	0.9	0.9	138.74	18.3	-6.6	26.8	25.0	1.72	15.597		
600.0	599.3	602.5	601.8	1.1	1.1	154.67	9.1	-6.3	25.4	23.4	2.08	12.247		
612.3	611.5	614.8	614.0	1.2	1.2	157.03	7.7	-6.3	25.4	23.3	2.12	11.969	CC, ES	
700.0	698.6	702.6	701.2	1.4	1.4	175.23	-2.8	-5.9	26.8	24.3	2.48	10.802		
800.0	797.5	802.4	799.9	1.7	1.7	-165.04	-17.1	-5.4	32.2	29.3	3.00	10.765	SF	
900.0	896.1	901.8	897.9	2.0	2.0	-150.30	-34.0	-4.9	42.0	38.3	3.64	11.536		
1,000.0	994.2	1,000.8	995.0	2.4	2.4	-140.38	-53.4	-4.2	55.2	50.8	4.36	12.644		
1,100.0	1,091.7	1,099.3	1,091.0	2.8	2.8	-133.74	-75.1	-3.4	71.2	66.1	5.15	13.829		
1,200.0	1,188.6	1,197.5	1,186.5	3.3	3.2	-130.08	-97.8	-2.7	89.6	83.7	5.96	15.047		
1,300.0	1,284.9	1,295.4	1,281.8	3.8	3.6	-128.66	-120.4	-1.9	109.8	103.1	6.78	16.212		
1,400.0	1,380.4	1,393.0	1,376.7	4.3	4.0	-128.50	-143.0	-1.1	131.7	124.0	7.61	17.308		
1,500.0	1,475.0	1,490.2	1,471.3	4.9	4.4	-129.07	-165.4	-0.3	155.1	146.6	8.45	18.356		
1,600.0	1,569.1	1,587.0	1,565.5	5.5	4.9	-130.11	-187.8	0.4	179.7	170.5	9.29	19.348		
1,700.0	1,663.1	1,683.9	1,659.7	6.1	5.3	-130.98	-210.2	1.2	204.5	194.4	10.14	20.178		
1,800.0	1,757.1	1,780.7	1,753.9	6.8	5.7	-131.67	-232.6	2.0	229.3	218.3	10.98	20.878		
1,900.0	1,851.1	1,877.5	1,848.1	7.4	6.1	-132.22	-255.0	2.7	254.2	242.3	11.84	21.476		
2,000.0	1,945.2	1,974.4	1,942.4	8.0	6.5	-132.67	-277.4	3.5	279.0	266.3	12.69	21.992		
2,100.0	2,039.2	2,071.2	2,036.6	8.6	7.0	-133.05	-299.8	4.3	303.9	290.4	13.54	22.443		
2,200.0	2,133.2	2,168.1	2,130.8	9.3	7.4	-133.37	-322.1	5.0	328.8	314.4	14.40	22.838		
2,300.0	2,227.2	2,264.9	2,225.0	9.9	7.8	-133.65	-344.5	5.8	353.7	338.4	15.25	23.188		
2,400.0	2,321.2	2,361.7	2,319.2	10.5	8.2	-133.89	-366.9	6.6	378.6	362.4	16.11	23.501		
2,500.0	2,415.2	2,458.6	2,413.4	11.2	8.7	-134.10	-389.3	7.3	403.5	386.5	16.97	23.781		
2,600.0	2,509.2	2,555.4	2,507.6	11.8	9.1	-134.28	-411.7	8.1	428.4	410.5	17.82	24.033		
2,700.0	2,603.2	2,652.3	2,601.9	12.4	9.5	-134.45	-434.1	8.9	453.3	434.6	18.68	24.262		
2,800.0	2,697.3	2,749.1	2,696.1	13.1	9.9	-134.60	-456.5	9.6	478.2	458.6	19.54	24.470		
2,900.0	2,791.3	2,845.9	2,790.3	13.7	10.3	-134.73	-478.8	10.4	503.1	482.7	20.40	24.661		
3,000.0	2,885.3	2,942.8	2,884.5	14.3	10.8	-134.85	-501.2	11.2	528.0	506.8	21.26	24.836		
3,100.0	2,979.3	3,039.6	2,978.7	15.0	11.2	-134.96	-523.6	11.9	552.9	530.8	22.12	24.997		
3,200.0	3,073.3	3,136.5	3,072.9	15.6	11.6	-135.06	-546.0	12.7	577.9	554.9	22.98	25.145		
3,300.0	3,167.3	3,233.3	3,167.1	16.2	12.0	-135.15	-568.4	13.5	602.8	578.9	23.84	25.283		
3,400.0	3,261.3	3,330.1	3,261.4	16.9	12.5	-135.24	-590.8	14.2	627.7	603.0	24.70	25.411		
3,500.0	3,355.4	3,427.0	3,355.6	17.5	12.9	-135.32	-613.2	15.0	652.6	627.1	25.56	25.530		
3,600.0	3,449.4	3,523.8	3,449.8	18.1	13.3	-135.39	-635.6	15.8	677.5	651.1	26.42	25.641		
3,700.0	3,543.4	3,620.7	3,544.0	18.8	13.7	-135.46	-657.9	16.5	702.5	675.2	27.29	25.746		
3,800.0	3,637.4	3,717.5	3,638.2	19.4	14.2	-135.52	-680.3	17.3	727.4	699.3	28.15	25.843		
3,900.0	3,731.4	3,814.3	3,732.4	20.0	14.6	-135.58	-702.7	18.1	752.3	723.3	29.01	25.935		
4,000.0	3,825.4	3,911.2	3,826.6	20.7	15.0	-135.63	-725.1	18.8	777.3	747.4	29.87	26.021		
4,100.0	3,919.4	4,008.0	3,920.9	21.3	15.4	-135.68	-747.5	19.6	802.2	771.5	30.73	26.103		
4,200.0	4,013.5	4,104.9	4,015.1	21.9	15.9	-135.73	-769.9	20.4	827.1	795.5	31.59	26.180		
4,300.0	4,107.5	4,201.7	4,109.3	22.6	16.3	-135.78	-792.3	21.2	852.0	819.6	32.46	26.253		
4,400.0	4,201.5	4,298.5	4,203.5	23.2	16.7	-135.82	-814.7	21.9	877.0	843.7	33.32	26.322		
4,500.0	4,295.5	4,395.4	4,297.7	23.8	17.1	-135.86	-837.0	22.7	901.9	867.7	34.18	26.387		
4,600.0	4,389.5	4,492.2	4,391.9	24.5	17.6	-135.90	-859.4	23.5	926.8	891.8	35.04	26.449		
4,700.0	4,483.5	4,589.1	4,486.1	25.1	18.0	-135.94	-881.8	24.2	951.8	915.9	35.90	26.508		
4,800.0	4,577.5	4,685.9	4,580.4	25.7	18.4	-135.97	-904.2	25.0	976.7	939.9	36.77	26.565		
4,900.0	4,671.5	4,782.7	4,674.6	26.4	18.8	-136.00	-926.6	25.8	1,001.6	964.0	37.63	26.618		
5,000.0	4,765.6	4,879.6	4,768.8	27.0	19.3	-136.03	-949.0	26.5	1,026.6	988.1	38.49	26.670		

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

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-2D (Oxy I21 Pad) - DD - Plan #1													<b>Offset Site Error:</b> 0.0 ft
Survey Program: 0-MWD													<b>Offset Well Error:</b> 0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
5,100.0	4,859.6	4,976.4	4,863.0	27.7	19.7	-136.06	-971.4	27.3	1,051.5	1,012.2	39.35	26.719	
5,200.0	4,953.6	5,073.3	4,957.2	28.3	20.1	-136.09	-993.7	28.1	1,076.4	1,036.2	40.22	26.766	
5,300.0	5,047.6	5,170.1	5,051.4	28.9	20.5	-136.12	-1,016.1	28.8	1,101.4	1,060.3	41.08	26.810	



# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-3D (Oxy I21 Pad) - DD - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: O-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	142.94	-43.3	32.7	54.3					
100.0	100.0	100.0	100.0	0.1	0.1	142.94	-43.3	32.7	54.3	54.0	0.30	183.058		
200.0	200.0	200.0	200.0	0.3	0.3	142.94	-43.3	32.7	54.3	53.7	0.65	84.108		
300.0	300.0	300.0	300.0	0.5	0.5	-83.47	-43.3	32.7	54.1	53.2	1.00	54.319		
400.0	399.9	399.9	399.9	0.7	0.7	-87.62	-43.3	32.7	53.8	52.5	1.36	39.663		
439.0	438.8	438.8	438.8	0.8	0.7	-90.00	-43.3	32.7	53.8	52.3	1.50	35.760	CC	
500.0	499.7	499.7	499.7	0.9	0.8	-94.56	-43.3	32.7	54.0	52.2	1.74	31.098	ES	
600.0	599.3	598.6	598.6	1.1	1.0	-102.73	-44.6	32.6	56.0	53.9	2.13	26.262		
700.0	698.6	697.6	697.5	1.4	1.2	-110.17	-48.4	32.3	60.9	58.4	2.55	23.845		
800.0	797.5	796.6	796.3	1.7	1.4	-116.24	-54.8	31.7	68.5	65.5	3.00	22.787		
900.0	896.1	895.6	894.9	2.0	1.6	-120.79	-63.7	30.9	78.4	74.9	3.49	22.456	SF	
1,000.0	994.2	994.5	993.1	2.4	1.8	-124.01	-75.2	29.8	90.4	86.3	4.02	22.479		
1,100.0	1,091.7	1,093.3	1,090.9	2.8	2.1	-126.16	-89.1	28.6	104.3	99.7	4.60	22.643		
1,200.0	1,188.6	1,191.9	1,188.2	3.3	2.4	-127.62	-105.4	27.1	119.9	114.7	5.24	22.890		
1,300.0	1,284.9	1,290.3	1,285.1	3.8	2.7	-129.37	-121.9	25.6	137.3	131.4	5.89	23.292		
1,400.0	1,380.4	1,388.3	1,381.7	4.3	3.0	-131.40	-138.4	24.1	156.5	149.9	6.56	23.867		
1,500.0	1,475.0	1,485.8	1,477.8	4.9	3.3	-133.55	-154.9	22.6	177.6	170.4	7.22	24.609		
1,600.0	1,569.1	1,582.9	1,573.5	5.5	3.6	-135.75	-171.2	21.1	200.4	192.5	7.86	25.475		
1,700.0	1,663.1	1,680.0	1,669.2	6.1	3.9	-137.58	-187.6	19.6	223.4	214.9	8.51	26.259		
1,800.0	1,757.1	1,777.1	1,764.9	6.8	4.3	-139.07	-204.0	18.1	246.6	237.5	9.15	26.959		
1,900.0	1,851.1	1,874.1	1,860.6	7.4	4.6	-140.30	-220.3	16.6	270.0	260.2	9.79	27.587		
2,000.0	1,945.2	1,971.2	1,956.3	8.0	4.9	-141.34	-236.7	15.1	293.4	283.0	10.42	28.151		
2,100.0	2,039.2	2,068.3	2,051.9	8.6	5.2	-142.22	-253.1	13.7	316.9	305.9	11.06	28.660		
2,200.0	2,133.2	2,165.4	2,147.6	9.3	5.6	-142.98	-269.4	12.2	340.5	328.8	11.69	29.120		
2,300.0	2,227.2	2,262.5	2,243.3	9.9	5.9	-143.64	-285.8	10.7	364.1	351.8	12.33	29.539		
2,400.0	2,321.2	2,359.6	2,339.0	10.5	6.2	-144.22	-302.1	9.2	387.8	374.9	12.96	29.921		
2,500.0	2,415.2	2,456.7	2,434.7	11.2	6.5	-144.74	-318.5	7.7	411.5	397.9	13.60	30.270		
2,600.0	2,509.2	2,553.7	2,530.4	11.8	6.9	-145.20	-334.9	6.2	435.3	421.0	14.23	30.591		
2,700.0	2,603.2	2,650.8	2,626.1	12.4	7.2	-145.61	-351.2	4.7	459.0	444.2	14.86	30.887		
2,800.0	2,697.3	2,747.9	2,721.7	13.1	7.5	-145.98	-367.6	3.2	482.8	467.3	15.49	31.160		
2,900.0	2,791.3	2,845.0	2,817.4	13.7	7.9	-146.32	-384.0	1.8	506.6	490.5	16.13	31.414		
3,000.0	2,885.3	2,942.1	2,913.1	14.3	8.2	-146.62	-400.3	0.3	530.4	513.7	16.76	31.649		
3,100.0	2,979.3	3,039.2	3,008.8	15.0	8.5	-146.90	-416.7	-1.2	554.2	536.9	17.39	31.868		
3,200.0	3,073.3	3,136.3	3,104.5	15.6	8.8	-147.16	-433.0	-2.7	578.1	560.1	18.02	32.073		
3,300.0	3,167.3	3,233.3	3,200.2	16.2	9.2	-147.39	-449.4	-4.2	601.9	583.3	18.66	32.264		
3,400.0	3,261.3	3,330.4	3,295.9	16.9	9.5	-147.61	-465.8	-5.7	625.8	606.5	19.29	32.443		
3,500.0	3,355.4	3,427.5	3,391.5	17.5	9.8	-147.81	-482.1	-7.2	649.7	629.7	19.92	32.612		
3,600.0	3,449.4	3,524.6	3,487.2	18.1	10.2	-148.00	-498.5	-8.7	673.5	653.0	20.55	32.770		
3,700.0	3,543.4	3,621.7	3,582.9	18.8	10.5	-148.18	-514.9	-10.1	697.4	676.2	21.18	32.920		
3,800.0	3,637.4	3,718.8	3,678.6	19.4	10.8	-148.34	-531.2	-11.6	721.3	699.5	21.82	33.061		
3,900.0	3,731.4	3,815.9	3,774.3	20.0	11.2	-148.49	-547.6	-13.1	745.2	722.7	22.45	33.195		
4,000.0	3,825.4	3,913.0	3,870.0	20.7	11.5	-148.64	-563.9	-14.6	769.1	746.0	23.08	33.321		
4,100.0	3,919.4	4,010.0	3,965.7	21.3	11.8	-148.77	-580.3	-16.1	793.0	769.3	23.71	33.441		
4,200.0	4,013.5	4,107.1	4,061.3	21.9	12.2	-148.90	-596.7	-17.6	816.9	792.5	24.34	33.555		
4,300.0	4,107.5	4,204.2	4,157.0	22.6	12.5	-149.02	-613.0	-19.1	840.8	815.8	24.98	33.663		
4,400.0	4,201.5	4,301.3	4,252.7	23.2	12.8	-149.13	-629.4	-20.6	864.7	839.1	25.61	33.766		
4,500.0	4,295.5	4,398.4	4,348.4	23.8	13.2	-149.24	-645.7	-22.0	888.6	862.4	26.24	33.865		
4,600.0	4,389.5	4,495.5	4,444.1	24.5	13.5	-149.34	-662.1	-23.5	912.5	885.6	26.87	33.958		
4,700.0	4,483.5	4,592.6	4,539.8	25.1	13.8	-149.44	-678.5	-25.0	936.4	908.9	27.50	34.048		
4,800.0	4,577.5	4,689.6	4,635.5	25.7	14.1	-149.53	-694.8	-26.5	960.3	932.2	28.13	34.134		
4,900.0	4,671.5	4,786.7	4,731.1	26.4	14.5	-149.61	-711.2	-28.0	984.3	955.5	28.77	34.216		
5,000.0	4,765.6	4,883.8	4,826.8	27.0	14.8	-149.70	-727.6	-29.5	1,008.2	978.8	29.40	34.294		

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

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-3D (Oxy I21 Pad) - DD - Plan #1													<b>Offset Site Error:</b> 0.0 ft
Survey Program: 0-MWD													<b>Offset Well Error:</b> 0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
5,100.0	4,859.6	4,980.9	4,922.5	27.7	15.1	-149.78	-743.9	-31.0	1,032.1	1,002.1	30.03	34.369	
5,200.0	4,953.6	5,078.0	5,018.2	28.3	15.5	-149.85	-760.3	-32.5	1,056.0	1,025.4	30.66	34.442	
5,300.0	5,047.6	5,175.1	5,113.9	28.9	15.8	-149.92	-776.6	-34.0	1,080.0	1,048.7	31.29	34.511	
5,400.0	5,141.6	5,272.2	5,209.6	29.6	16.1	-149.99	-793.0	-35.4	1,103.9	1,072.0	31.93	34.578	

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-4D (Oxy I21 Pad) - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	147.11	-37.5	24.3	44.7					
100.0	100.0	100.0	100.0	0.1	0.1	147.11	-37.5	24.3	44.7	44.4	0.30	150.588		
200.0	200.0	200.0	200.0	0.3	0.3	147.11	-37.5	24.3	44.7	44.0	0.65	69.189		
300.0	300.0	300.0	300.0	0.5	0.5	-79.58	-37.5	24.3	44.4	43.4	1.00	44.566		
400.0	399.9	399.9	399.9	0.7	0.7	-84.63	-37.5	24.3	43.9	42.5	1.36	32.329		
467.2	467.0	467.0	467.0	0.8	0.8	-90.00	-37.5	24.3	43.7	42.1	1.61	27.116 CC		
500.0	499.7	499.7	499.7	0.9	0.8	-93.17	-37.5	24.3	43.8	42.0	1.74	25.213 ES		
600.0	599.3	599.3	599.3	1.1	1.0	-104.77	-37.5	24.3	45.2	43.1	2.13	21.201		
700.0	698.6	698.4	698.3	1.4	1.2	-116.44	-38.8	24.1	49.7	47.2	2.54	19.619		
800.0	797.5	797.5	797.5	1.7	1.4	-125.35	-42.6	23.6	57.6	54.7	2.95	19.556 SF		
900.0	896.1	896.8	896.5	2.0	1.6	-131.46	-48.9	22.7	68.1	64.7	3.37	20.185		
1,000.0	994.2	996.1	995.4	2.4	1.8	-135.34	-57.8	21.5	80.5	76.7	3.83	21.051		
1,100.0	1,091.7	1,095.1	1,093.8	2.8	2.0	-138.01	-68.7	20.0	94.9	90.5	4.31	22.029		
1,200.0	1,188.6	1,193.6	1,191.7	3.3	2.2	-140.72	-79.6	18.5	111.3	106.5	4.79	23.246		
1,300.0	1,284.9	1,291.7	1,289.1	3.8	2.5	-143.38	-90.5	17.0	130.0	124.7	5.26	24.691		
1,400.0	1,380.4	1,389.2	1,386.1	4.3	2.7	-145.89	-101.3	15.5	151.1	145.3	5.73	26.342		
1,500.0	1,475.0	1,486.2	1,482.4	4.9	2.9	-148.19	-112.0	14.0	174.5	168.3	6.19	28.175		
1,600.0	1,569.1	1,582.7	1,578.3	5.5	3.2	-150.32	-122.7	12.5	199.9	193.2	6.65	30.077		
1,700.0	1,663.1	1,679.1	1,674.2	6.1	3.4	-152.03	-133.4	11.1	225.5	218.4	7.10	31.777		
1,800.0	1,757.1	1,775.6	1,770.0	6.8	3.7	-153.40	-144.1	9.6	251.3	243.8	7.55	33.296		
1,900.0	1,851.1	1,872.1	1,865.9	7.4	3.9	-154.51	-154.8	8.1	277.2	269.2	8.00	34.656		
2,000.0	1,945.2	1,968.5	1,961.7	8.0	4.1	-155.43	-165.4	6.6	303.2	294.7	8.45	35.881		
2,100.0	2,039.2	2,065.0	2,057.6	8.6	4.4	-156.20	-176.1	5.2	329.2	320.3	8.90	36.988		
2,200.0	2,133.2	2,161.4	2,153.4	9.3	4.6	-156.86	-186.8	3.7	355.3	346.0	9.35	37.993		
2,300.0	2,227.2	2,257.9	2,249.3	9.9	4.9	-157.43	-197.5	2.2	381.5	371.7	9.80	38.908		
2,400.0	2,321.2	2,354.4	2,345.1	10.5	5.1	-157.93	-208.2	0.8	407.6	397.4	10.26	39.745		
2,500.0	2,415.2	2,450.8	2,441.0	11.2	5.4	-158.37	-218.9	-0.7	433.8	423.1	10.71	40.514		
2,600.0	2,509.2	2,547.3	2,536.8	11.8	5.6	-158.75	-229.6	-2.2	460.0	448.9	11.16	41.222		
2,700.0	2,603.2	2,643.7	2,632.7	12.4	5.9	-159.10	-240.2	-3.7	486.3	474.7	11.61	41.875		
2,800.0	2,697.3	2,740.2	2,728.6	13.1	6.1	-159.41	-250.9	-5.1	512.5	500.4	12.06	42.481		
2,900.0	2,791.3	2,836.7	2,824.4	13.7	6.4	-159.69	-261.6	-6.6	538.8	526.2	12.52	43.043		
3,000.0	2,885.3	2,933.1	2,920.3	14.3	6.6	-159.94	-272.3	-8.1	565.0	552.1	12.97	43.567		
3,100.0	2,979.3	3,029.6	3,016.1	15.0	6.9	-160.18	-283.0	-9.5	591.3	577.9	13.42	44.056		
3,200.0	3,073.3	3,126.0	3,112.0	15.6	7.1	-160.39	-293.7	-11.0	617.6	603.7	13.87	44.514		
3,300.0	3,167.3	3,222.5	3,207.8	16.2	7.4	-160.58	-304.4	-12.5	643.9	629.6	14.33	44.942		
3,400.0	3,261.3	3,319.0	3,303.7	16.9	7.6	-160.76	-315.0	-14.0	670.2	655.4	14.78	45.345		
3,500.0	3,355.4	3,415.4	3,399.5	17.5	7.9	-160.93	-325.7	-15.4	696.5	681.2	15.23	45.724		
3,600.0	3,449.4	3,511.9	3,495.4	18.1	8.1	-161.08	-336.4	-16.9	722.8	707.1	15.68	46.082		
3,700.0	3,543.4	3,608.3	3,591.3	18.8	8.4	-161.23	-347.1	-18.4	749.1	733.0	16.14	46.419		
3,800.0	3,637.4	3,704.8	3,687.1	19.4	8.6	-161.36	-357.8	-19.8	775.4	758.8	16.59	46.738		
3,900.0	3,731.4	3,801.2	3,783.0	20.0	8.9	-161.48	-368.5	-21.3	801.7	784.7	17.04	47.041		
4,000.0	3,825.4	3,897.7	3,878.8	20.7	9.1	-161.60	-379.2	-22.8	828.1	810.6	17.50	47.327		
4,100.0	3,919.4	3,994.2	3,974.7	21.3	9.4	-161.71	-389.8	-24.3	854.4	836.4	17.95	47.600		
4,200.0	4,013.5	4,090.6	4,070.5	21.9	9.6	-161.81	-400.5	-25.7	880.7	862.3	18.40	47.859		
4,300.0	4,107.5	4,187.1	4,166.4	22.6	9.9	-161.91	-411.2	-27.2	907.0	888.2	18.86	48.105		
4,400.0	4,201.5	4,283.5	4,262.2	23.2	10.1	-162.00	-421.9	-28.7	933.4	914.1	19.31	48.340		
4,500.0	4,295.5	4,380.0	4,358.1	23.8	10.4	-162.09	-432.6	-30.1	959.7	940.0	19.76	48.565		
4,600.0	4,389.5	4,476.5	4,453.9	24.5	10.6	-162.17	-443.3	-31.6	986.1	965.8	20.21	48.779		
4,700.0	4,483.5	4,572.9	4,549.8	25.1	10.9	-162.25	-454.0	-33.1	1,012.4	991.7	20.67	48.984		
4,800.0	4,577.5	4,669.4	4,645.7	25.7	11.1	-162.32	-464.6	-34.6	1,038.7	1,017.6	21.12	49.180		
4,900.0	4,671.5	4,765.8	4,741.5	26.4	11.4	-162.39	-475.3	-36.0	1,065.1	1,043.5	21.57	49.368		
5,000.0	4,765.6	4,862.3	4,837.4	27.0	11.6	-162.46	-486.0	-37.5	1,091.4	1,069.4	22.03	49.549		

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

## Directional Plus

### Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-5D (Oxy I21 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 Axis	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)				
0.0	0.0	0.0	0.0	0.0	0.0	146.93	-25.1	16.4	30.0					
100.0	100.0	100.0	100.0	0.1	0.1	146.93	-25.1	16.4	30.0	29.7	0.30	101.080		
200.0	200.0	200.0	200.0	0.3	0.3	146.93	-25.1	16.4	30.0	29.3	0.65	46.442		
300.0	300.0	300.0	300.0	0.5	0.5	-80.58	-25.1	16.4	29.7	28.8	1.00	29.843		
400.0	399.9	399.9	399.9	0.7	0.7	-88.15	-25.1	16.4	29.4	28.0	1.36	21.629		
417.3	417.2	417.2	417.2	0.7	0.7	-90.00	-25.1	16.4	29.3	27.9	1.42	20.626 CC, ES		
500.0	499.7	499.7	499.7	0.9	0.8	-100.76	-25.1	16.4	29.9	28.1	1.73	17.227		
600.0	599.3	599.3	599.3	1.1	1.0	-116.55	-25.1	16.4	32.8	30.7	2.12	15.502 SF		
700.0	698.6	698.7	698.7	1.4	1.2	-130.01	-26.4	16.1	39.4	36.9	2.50	15.775		
800.0	797.5	798.3	798.2	1.7	1.4	-138.35	-30.2	15.4	48.7	45.9	2.88	16.944		
900.0	896.1	897.9	897.6	2.0	1.6	-143.06	-36.5	14.1	60.0	56.8	3.27	18.339		
1,000.0	994.2	996.9	996.3	2.4	1.8	-146.61	-43.8	12.7	73.4	69.7	3.67	19.966		
1,100.0	1,091.7	1,095.5	1,094.7	2.8	2.0	-149.88	-51.1	11.2	89.1	85.1	4.07	21.900		
1,200.0	1,188.6	1,193.7	1,192.6	3.3	2.2	-152.79	-58.3	9.8	107.4	103.0	4.46	24.090		
1,300.0	1,284.9	1,291.4	1,290.0	3.8	2.4	-155.30	-65.5	8.4	128.2	123.4	4.84	26.492		
1,400.0	1,380.4	1,388.5	1,386.8	4.3	2.6	-157.46	-72.6	7.0	151.6	146.4	5.21	29.070		
1,500.0	1,475.0	1,484.9	1,482.9	4.9	2.8	-159.31	-79.7	5.6	177.5	171.9	5.58	31.795		
1,600.0	1,569.1	1,580.8	1,578.6	5.5	3.0	-160.94	-86.8	4.2	205.3	199.4	5.95	34.492		
1,700.0	1,663.1	1,676.7	1,674.2	6.1	3.2	-162.23	-93.8	2.8	233.4	227.0	6.33	36.880		
1,800.0	1,757.1	1,772.5	1,769.8	6.8	3.4	-163.24	-100.9	1.4	261.5	254.8	6.70	39.008		
1,900.0	1,851.1	1,868.4	1,865.4	7.4	3.6	-164.05	-107.9	0.0	289.7	282.6	7.08	40.915		
2,000.0	1,945.2	1,964.3	1,961.0	8.0	3.8	-164.72	-115.0	-1.4	317.9	310.4	7.46	42.631		
2,100.0	2,039.2	2,060.1	2,056.6	8.6	4.0	-165.28	-122.0	-2.8	346.2	338.3	7.83	44.185		
2,200.0	2,133.2	2,156.0	2,152.2	9.3	4.2	-165.75	-129.1	-4.2	374.5	366.2	8.21	45.596		
2,300.0	2,227.2	2,251.9	2,247.8	9.9	4.4	-166.16	-136.2	-5.6	402.8	394.2	8.59	46.885		
2,400.0	2,321.2	2,347.8	2,343.4	10.5	4.6	-166.51	-143.2	-6.9	431.1	422.1	8.97	48.065		
2,500.0	2,415.2	2,443.6	2,439.0	11.2	4.8	-166.83	-150.3	-8.3	459.4	450.1	9.35	49.150		
2,600.0	2,509.2	2,539.5	2,534.6	11.8	5.0	-167.10	-157.3	-9.7	487.8	478.1	9.73	50.152		
2,700.0	2,603.2	2,635.4	2,630.2	12.4	5.2	-167.34	-164.4	-11.1	516.2	506.1	10.11	51.078		
2,800.0	2,697.3	2,731.2	2,725.8	13.1	5.4	-167.56	-171.4	-12.5	544.5	534.0	10.48	51.937		
2,900.0	2,791.3	2,827.1	2,821.4	13.7	5.6	-167.76	-178.5	-13.9	572.9	562.0	10.86	52.737		
3,000.0	2,885.3	2,923.0	2,917.0	14.3	5.9	-167.94	-185.5	-15.3	601.3	590.1	11.24	53.483		
3,100.0	2,979.3	3,018.9	3,012.6	15.0	6.1	-168.10	-192.6	-16.7	629.7	618.1	11.62	54.180		
3,200.0	3,073.3	3,114.7	3,108.2	15.6	6.3	-168.25	-199.6	-18.1	658.1	646.1	12.00	54.833		
3,300.0	3,167.3	3,210.6	3,203.8	16.2	6.5	-168.39	-206.7	-19.5	686.5	674.1	12.38	55.447		
3,400.0	3,261.3	3,306.5	3,299.4	16.9	6.7	-168.51	-213.8	-20.9	714.9	702.1	12.76	56.024		
3,500.0	3,355.4	3,402.3	3,395.0	17.5	6.9	-168.63	-220.8	-22.3	743.3	730.1	13.14	56.567		
3,600.0	3,449.4	3,498.2	3,490.6	18.1	7.1	-168.74	-227.9	-23.7	771.7	758.2	13.52	57.080		
3,700.0	3,543.4	3,594.1	3,586.2	18.8	7.3	-168.84	-234.9	-25.0	800.1	786.2	13.90	57.565		
3,800.0	3,637.4	3,690.0	3,681.8	19.4	7.5	-168.93	-242.0	-26.4	828.5	814.2	14.28	58.024		
3,900.0	3,731.4	3,785.8	3,777.4	20.0	7.7	-169.02	-249.0	-27.8	856.9	842.2	14.66	58.460		
4,000.0	3,825.4	3,881.7	3,873.0	20.7	7.9	-169.10	-256.1	-29.2	885.3	870.3	15.04	58.873		
4,100.0	3,919.4	3,977.6	3,968.6	21.3	8.1	-169.17	-263.1	-30.6	913.7	898.3	15.42	59.266		
4,200.0	4,013.5	4,073.4	4,064.2	21.9	8.4	-169.25	-270.2	-32.0	942.1	926.3	15.80	59.641		
4,300.0	4,107.5	4,169.3	4,159.8	22.6	8.6	-169.31	-277.3	-33.4	970.6	954.4	16.18	59.997		
4,400.0	4,201.5	4,265.2	4,255.4	23.2	8.8	-169.38	-284.3	-34.8	999.0	982.4	16.56	60.338		
4,500.0	4,295.5	4,361.1	4,351.0	23.8	9.0	-169.44	-291.4	-36.2	1,027.4	1,010.5	16.94	60.663		
4,600.0	4,389.5	4,456.9	4,446.6	24.5	9.2	-169.49	-298.4	-37.6	1,055.8	1,038.5	17.32	60.974		
4,700.0	4,483.5	4,552.8	4,542.2	25.1	9.4	-169.55	-305.5	-39.0	1,084.2	1,066.5	17.70	61.271		

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

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-6D (Oxy I21 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				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	300.0	300.0	0.0	0.0	-19.88	43.7	-15.8	46.5					
100.0	100.0	400.0	400.0	0.1	0.1	-19.88	43.7	-15.8	46.5	46.2	0.30	156.644		
200.0	200.0	500.0	500.0	0.3	0.3	-19.88	43.7	-15.8	46.5	45.8	0.65	71.972		
300.0	300.0	601.1	601.1	0.5	0.5	117.21	42.7	-14.9	45.8	44.8	1.00	45.886		
400.0	399.9	702.0	701.9	0.7	0.7	123.87	39.7	-12.3	44.3	42.9	1.36	32.546		
494.1	493.9	796.5	796.2	0.9	0.9	134.72	35.1	-8.3	43.2	41.5	1.71	25.193 CC		
500.0	499.7	802.3	802.0	0.9	0.9	135.50	34.8	-8.0	43.2	41.5	1.74	24.880 ES		
600.0	599.3	901.7	901.1	1.1	1.1	149.53	29.5	-3.3	45.8	43.6	2.12	21.612		
700.0	698.6	1,000.8	1,000.0	1.4	1.3	162.31	24.1	1.4	53.2	50.7	2.49	21.338 SF		
800.0	797.5	1,099.6	1,098.5	1.7	1.5	171.95	18.8	6.0	65.2	62.4	2.87	22.767		
900.0	896.1	1,197.9	1,196.6	2.0	1.7	178.55	13.5	10.7	81.1	77.9	3.24	25.064		
1,000.0	994.2	1,295.8	1,294.3	2.4	1.9	-177.09	8.3	15.3	100.3	96.6	3.61	27.782		
1,100.0	1,091.7	1,393.2	1,391.4	2.8	2.1	-174.24	3.0	19.9	122.3	118.3	3.98	30.707		
1,200.0	1,188.6	1,490.0	1,487.9	3.3	2.3	-172.38	-2.2	24.5	147.1	142.8	4.36	33.739		
1,300.0	1,284.9	1,586.1	1,583.8	3.8	2.5	-171.16	-7.4	29.0	174.5	169.8	4.74	36.834		
1,400.0	1,380.4	1,681.5	1,679.0	4.3	2.7	-170.36	-12.5	33.5	204.4	199.3	5.11	39.970		
1,500.0	1,475.0	1,776.1	1,773.3	4.9	2.9	-169.86	-17.6	38.0	236.8	231.3	5.49	43.140		
1,600.0	1,569.1	1,870.8	1,867.8	5.5	3.1	-169.84	-21.9	41.7	270.9	265.0	5.86	46.248		
1,700.0	1,663.1	1,965.5	1,962.5	6.1	3.3	-170.31	-24.4	43.9	304.9	298.7	6.20	49.147		
1,800.0	1,757.1	2,060.2	2,057.1	6.8	3.4	-171.11	-25.1	44.6	338.6	332.1	6.52	51.903		
1,900.0	1,851.1	2,154.2	2,151.1	7.4	3.6	-171.92	-25.1	44.6	372.4	365.5	6.84	54.461		
2,000.0	1,945.2	2,248.2	2,245.2	8.0	3.7	-172.59	-25.1	44.6	406.2	399.0	7.15	56.790		
2,100.0	2,039.2	2,342.2	2,339.2	8.6	3.9	-173.16	-25.1	44.6	440.0	432.6	7.47	58.917		
2,200.0	2,133.2	2,436.2	2,433.2	9.3	4.0	-173.65	-25.1	44.6	473.9	466.1	7.79	60.865		
2,300.0	2,227.2	2,530.2	2,527.2	9.9	4.2	-174.08	-25.1	44.6	507.8	499.7	8.11	62.655		
2,400.0	2,321.2	2,624.3	2,621.2	10.5	4.3	-174.45	-25.1	44.6	541.7	533.3	8.43	64.302		
2,500.0	2,415.2	2,718.3	2,715.2	11.2	4.5	-174.78	-25.1	44.6	575.7	566.9	8.75	65.824		
2,600.0	2,509.2	2,812.3	2,809.2	11.8	4.6	-175.07	-25.1	44.6	609.7	600.6	9.07	67.233		
2,700.0	2,603.2	2,906.3	2,903.2	12.4	4.8	-175.33	-25.1	44.6	643.6	634.2	9.39	68.540		
2,800.0	2,697.3	3,000.3	2,997.3	13.1	5.0	-175.56	-25.1	44.6	677.6	667.9	9.71	69.756		
2,900.0	2,791.3	3,094.3	3,091.3	13.7	5.1	-175.78	-25.1	44.6	711.6	701.6	10.04	70.889		
3,000.0	2,885.3	3,188.3	3,185.3	14.3	5.3	-175.97	-25.1	44.6	745.6	735.2	10.36	71.948		
3,100.0	2,979.3	3,282.3	3,279.3	15.0	5.4	-176.15	-25.1	44.6	779.6	768.9	10.69	72.940		
3,200.0	3,073.3	3,376.4	3,373.3	15.6	5.6	-176.31	-25.1	44.6	813.6	802.6	11.01	73.869		
3,300.0	3,167.3	3,470.4	3,467.3	16.2	5.7	-176.46	-25.1	44.6	847.7	836.3	11.34	74.743		
3,400.0	3,261.3	3,564.4	3,561.3	16.9	5.9	-176.59	-25.1	44.6	881.7	870.0	11.67	75.565		
3,500.0	3,355.4	3,658.4	3,655.4	17.5	6.1	-176.72	-25.1	44.6	915.7	903.7	12.00	76.340		
3,600.0	3,449.4	3,752.4	3,749.4	18.1	6.2	-176.84	-25.1	44.6	949.7	937.4	12.32	77.072		
3,700.0	3,543.4	3,846.4	3,843.4	18.8	6.4	-176.95	-25.1	44.6	983.8	971.1	12.65	77.764		
3,800.0	3,637.4	3,940.4	3,937.4	19.4	6.5	-177.05	-25.1	44.6	1,017.8	1,004.8	12.98	78.419		
3,900.0	3,731.4	4,034.5	4,031.4	20.0	6.7	-177.14	-25.1	44.6	1,051.9	1,038.5	13.31	79.040		
4,000.0	3,825.4	4,128.5	4,125.4	20.7	6.8	-177.23	-25.1	44.6	1,085.9	1,072.3	13.64	79.630		

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

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-7D (Oxy I21 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 (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	-23.04	55.7	-23.7	60.6					
100.0	100.0	100.0	100.0	0.1	0.1	-23.04	55.7	-23.7	60.6	60.3	0.30	204.106		
200.0	200.0	200.0	200.0	0.3	0.3	-23.04	55.7	-23.7	60.6	59.9	0.65	93.779 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	113.06	55.7	-23.7	61.1	60.1	1.00	61.271		
400.0	399.9	399.9	399.9	0.7	0.7	116.34	55.7	-23.7	62.7	61.3	1.35	46.285		
500.0	499.7	499.7	499.7	0.9	0.8	121.39	55.7	-23.7	65.9	64.1	1.72	38.218		
600.0	599.3	597.5	597.5	1.1	1.0	127.72	57.0	-23.6	72.3	70.2	2.10	34.470		
700.0	698.6	694.4	694.3	1.4	1.2	134.37	60.7	-23.2	83.9	81.4	2.47	33.905 SF		
800.0	797.5	790.5	790.3	1.7	1.4	140.27	66.7	-22.7	100.8	97.9	2.84	35.416		
900.0	896.1	887.9	887.4	2.0	1.6	145.16	73.7	-22.0	121.5	118.2	3.22	37.778		
1,000.0	994.2	984.6	983.8	2.4	1.8	149.09	80.6	-21.3	145.0	141.4	3.58	40.486		
1,100.0	1,091.7	1,080.7	1,079.6	2.8	2.0	152.29	87.5	-20.7	171.3	167.4	3.94	43.431		
1,200.0	1,188.6	1,176.0	1,174.7	3.3	2.2	154.91	94.4	-20.0	200.3	196.0	4.30	46.544		
1,300.0	1,284.9	1,270.5	1,268.9	3.8	2.4	157.09	101.2	-19.4	231.9	227.3	4.66	49.780		
1,400.0	1,380.4	1,364.1	1,362.3	4.3	2.5	158.90	107.9	-18.7	266.1	261.1	5.01	53.111		
1,500.0	1,475.0	1,456.7	1,454.7	4.9	2.7	160.43	114.6	-18.1	302.9	297.5	5.36	56.519		
1,600.0	1,569.1	1,548.6	1,546.4	5.5	2.9	161.85	121.2	-17.5	341.5	335.8	5.71	59.796		
1,700.0	1,663.1	1,640.5	1,638.0	6.1	3.1	163.03	127.8	-16.8	380.4	374.4	6.07	62.700		
1,800.0	1,757.1	1,732.4	1,729.6	6.8	3.3	163.99	134.4	-16.2	419.4	413.0	6.42	65.308		
1,900.0	1,851.1	1,824.2	1,821.3	7.4	3.5	164.79	141.0	-15.6	458.5	451.7	6.78	67.660		
2,000.0	1,945.2	1,916.1	1,912.9	8.0	3.7	165.46	147.6	-14.9	497.7	490.5	7.13	69.790		
2,100.0	2,039.2	2,008.0	2,004.5	8.6	3.9	166.03	154.2	-14.3	536.9	529.4	7.48	71.727		
2,200.0	2,133.2	2,099.9	2,096.2	9.3	4.1	166.53	160.8	-13.7	576.1	568.3	7.84	73.497		
2,300.0	2,227.2	2,191.7	2,187.8	9.9	4.3	166.96	167.4	-13.0	615.4	607.2	8.19	75.118		
2,400.0	2,321.2	2,283.6	2,279.4	10.5	4.5	167.35	174.0	-12.4	654.7	646.1	8.55	76.610		
2,500.0	2,415.2	2,375.5	2,371.1	11.2	4.7	167.68	180.6	-11.8	694.0	685.1	8.90	77.986		
2,600.0	2,509.2	2,467.3	2,462.7	11.8	4.9	167.99	187.2	-11.1	733.3	724.1	9.25	79.259		
2,700.0	2,603.2	2,559.2	2,554.3	12.4	5.1	168.26	193.8	-10.5	772.7	763.1	9.61	80.440		
2,800.0	2,697.3	2,651.1	2,646.0	13.1	5.3	168.50	200.4	-9.9	812.1	802.1	9.96	81.539		
2,900.0	2,791.3	2,743.0	2,737.6	13.7	5.5	168.73	207.0	-9.3	851.4	841.1	10.31	82.565		
3,000.0	2,885.3	2,834.8	2,829.2	14.3	5.7	168.93	213.6	-8.6	890.8	880.2	10.67	83.523		
3,100.0	2,979.3	2,926.7	2,920.9	15.0	5.9	169.12	220.2	-8.0	930.2	919.2	11.02	84.421		
3,200.0	3,073.3	3,018.6	3,012.5	15.6	6.1	169.29	226.8	-7.4	969.6	958.3	11.37	85.263		
3,300.0	3,167.3	3,110.5	3,104.1	16.2	6.3	169.44	233.4	-6.7	1,009.0	997.3	11.73	86.056		
3,400.0	3,261.3	3,224.7	3,218.1	16.9	6.5	169.66	240.5	-6.1	1,047.7	1,035.6	12.11	86.543		
3,500.0	3,355.4	3,347.5	3,340.8	17.5	6.7	169.97	244.3	-5.7	1,083.9	1,071.4	12.48	86.842		

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-8D (Oxy I21 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	-24.66	68.8	-31.6	75.7					
100.0	100.0	100.0	100.0	0.1	0.1	-24.66	68.8	-31.6	75.7	75.5	0.30	255.298		
200.0	200.0	200.0	200.0	0.3	0.3	-24.66	68.8	-31.6	75.7	75.1	0.65	117.299	CC, ES	
300.0	300.0	300.0	300.0	0.5	0.5	111.22	68.8	-31.6	76.2	75.2	1.00	76.472		
400.0	399.9	399.9	399.9	0.7	0.7	113.90	68.8	-31.6	77.7	76.4	1.36	57.351		
500.0	499.7	499.7	499.7	0.9	0.8	118.11	68.8	-31.6	80.6	78.9	1.73	46.702		
600.0	599.3	597.1	597.1	1.1	1.0	123.49	70.1	-31.6	86.5	84.4	2.10	41.126		
700.0	698.6	693.7	693.7	1.4	1.2	129.38	73.8	-31.7	97.3	94.9	2.49	39.120	SF	
800.0	797.5	789.2	789.0	1.7	1.4	134.89	79.8	-31.8	113.4	110.5	2.87	39.461		
900.0	896.1	885.5	884.9	2.0	1.6	139.66	87.7	-31.9	134.1	130.8	3.26	41.164		
1,000.0	994.2	982.1	981.1	2.4	1.8	143.68	95.9	-32.0	157.7	154.1	3.64	43.317		
1,100.0	1,091.7	1,078.0	1,076.7	2.8	2.0	147.04	103.9	-32.1	184.1	180.1	4.02	45.764		
1,200.0	1,188.6	1,173.1	1,171.5	3.3	2.2	149.86	111.9	-32.3	213.2	208.8	4.40	48.421		
1,300.0	1,284.9	1,267.4	1,265.5	3.8	2.4	152.24	119.9	-32.4	244.9	240.1	4.78	51.236		
1,400.0	1,380.4	1,360.9	1,358.6	4.3	2.6	154.26	127.7	-32.5	279.2	274.0	5.15	54.170		
1,500.0	1,475.0	1,453.3	1,450.7	4.9	2.8	155.99	135.5	-32.6	316.0	310.5	5.52	57.199		
1,600.0	1,569.1	1,545.1	1,542.1	5.5	3.0	157.61	143.2	-32.7	354.7	348.9	5.90	60.160		
1,700.0	1,663.1	1,636.7	1,633.5	6.1	3.2	158.98	150.9	-32.8	393.8	387.5	6.27	62.806		
1,800.0	1,757.1	1,728.4	1,724.8	6.8	3.4	160.10	158.6	-33.0	433.0	426.4	6.64	65.191		
1,900.0	1,851.1	1,820.1	1,816.2	7.4	3.6	161.04	166.3	-33.1	472.3	465.3	7.01	67.349		
2,000.0	1,945.2	1,911.8	1,907.6	8.0	3.8	161.84	174.0	-33.2	511.8	504.4	7.38	69.308		
2,100.0	2,039.2	2,003.5	1,998.9	8.6	4.0	162.52	181.7	-33.3	551.3	543.5	7.75	71.093		
2,200.0	2,133.2	2,095.2	2,090.3	9.3	4.2	163.11	189.4	-33.4	590.8	582.7	8.12	72.726		
2,300.0	2,227.2	2,186.9	2,181.6	9.9	4.4	163.62	197.1	-33.5	630.4	621.9	8.49	74.224		
2,400.0	2,321.2	2,278.6	2,273.0	10.5	4.6	164.08	204.9	-33.7	670.1	661.2	8.86	75.604		
2,500.0	2,415.2	2,370.2	2,364.4	11.2	4.9	164.48	212.6	-33.8	709.7	700.5	9.23	76.878		
2,600.0	2,509.2	2,461.9	2,455.7	11.8	5.1	164.85	220.3	-33.9	749.4	739.8	9.60	78.057		
2,700.0	2,603.2	2,553.6	2,547.1	12.4	5.3	165.17	228.0	-34.0	789.1	779.2	9.97	79.152		
2,800.0	2,697.3	2,645.3	2,638.5	13.1	5.5	165.47	235.7	-34.1	828.9	818.5	10.34	80.172		
2,900.0	2,791.3	2,737.0	2,729.8	13.7	5.7	165.73	243.4	-34.2	868.6	857.9	10.71	81.123		
3,000.0	2,885.3	2,828.7	2,821.2	14.3	5.9	165.98	251.1	-34.4	908.4	897.3	11.08	82.012		
3,100.0	2,979.3	2,920.4	2,912.5	15.0	6.1	166.20	258.8	-34.5	948.2	936.7	11.44	82.846		
3,200.0	3,073.3	3,012.0	3,003.9	15.6	6.3	166.41	266.5	-34.6	988.0	976.1	11.81	83.628		
3,300.0	3,167.3	3,103.7	3,095.3	16.2	6.5	166.60	274.2	-34.7	1,027.8	1,015.6	12.18	84.365		
3,400.0	3,261.3	3,195.4	3,186.6	16.9	6.7	166.77	281.9	-34.8	1,067.6	1,055.0	12.55	85.058		
3,500.0	3,355.4	3,287.1	3,278.0	17.5	6.9	166.93	289.6	-34.9	1,107.4	1,094.5	12.92	85.713		



# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-9D (Oxy I21 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	144.85	-12.0	8.5	14.7							
100.0	100.0	100.0	100.0	0.1	0.1	144.85	-12.0	8.5	14.7	14.4	0.30	49.549				
200.0	200.0	200.0	200.0	0.3	0.3	144.85	-12.0	8.5	14.7	14.1	0.65	22.766	CC			
300.0	300.0	299.9	299.9	0.5	0.5	-80.27	-13.0	7.6	14.8	13.8	1.00	14.819				
400.0	399.9	399.8	399.7	0.7	0.7	-80.52	-16.0	5.1	15.1	13.7	1.37	11.016	ES			
500.0	499.7	499.7	499.4	0.9	0.9	-80.90	-20.9	0.8	15.6	13.8	1.78	8.776				
600.0	599.3	599.6	598.9	1.1	1.1	-81.41	-27.9	-5.1	16.3	14.0	2.23	7.296				
700.0	698.6	699.5	698.1	1.4	1.4	-81.99	-36.8	-12.8	17.2	14.4	2.74	6.250				
800.0	797.5	799.4	797.0	1.7	1.7	-82.63	-47.6	-22.1	18.2	14.9	3.33	5.478				
900.0	896.1	899.3	895.4	2.0	2.0	-83.29	-60.5	-33.1	19.5	15.5	3.99	4.890				
1,000.0	994.2	999.2	993.4	2.4	2.4	-83.95	-75.2	-45.8	21.0	16.2	4.73	4.433				
1,100.0	1,091.7	1,099.1	1,090.8	2.8	2.8	-84.59	-91.9	-60.1	22.7	17.1	5.56	4.073				
1,200.0	1,188.6	1,199.0	1,187.6	3.3	3.3	-85.20	-110.6	-76.1	24.5	18.0	6.48	3.785				
1,300.0	1,284.9	1,298.8	1,283.8	3.8	3.8	-85.77	-131.1	-93.8	26.6	19.1	7.48	3.551				
1,400.0	1,380.4	1,398.7	1,379.1	4.3	4.3	-86.30	-153.6	-113.0	28.8	20.3	8.58	3.360				
1,500.0	1,475.0	1,498.6	1,473.7	4.9	4.9	-86.78	-177.9	-133.9	31.3	21.5	9.77	3.202				
1,600.0	1,569.1	1,598.4	1,567.4	5.5	5.5	-86.12	-204.1	-156.4	34.0	23.0	11.00	3.086				
1,700.0	1,663.1	1,698.2	1,660.1	6.1	6.2	-81.74	-232.1	-180.5	37.1	24.9	12.19	3.043	SF			
1,800.0	1,757.1	1,797.9	1,751.8	6.8	6.9	-75.02	-261.7	-205.9	41.1	27.9	13.20	3.115				
1,900.0	1,851.1	1,897.7	1,843.5	7.4	7.6	-69.20	-291.5	-231.5	45.7	31.7	14.06	3.251				
2,000.0	1,945.2	1,997.5	1,935.3	8.0	8.3	-64.48	-321.4	-257.1	50.7	35.9	14.83	3.418				
2,100.0	2,039.2	2,097.3	2,027.0	8.6	9.1	-60.63	-351.2	-282.7	56.0	40.4	15.56	3.598				
2,200.0	2,133.2	2,197.1	2,118.7	9.3	9.8	-57.45	-381.0	-308.3	61.4	45.2	16.25	3.782				
2,300.0	2,227.2	2,296.9	2,210.4	9.9	10.5	-54.79	-410.9	-333.9	67.1	50.2	16.92	3.965				
2,400.0	2,321.2	2,396.7	2,302.2	10.5	11.2	-52.56	-440.7	-359.5	72.8	55.3	17.58	4.144				
2,500.0	2,415.2	2,496.5	2,393.9	11.2	11.9	-50.65	-470.5	-385.2	78.7	60.5	18.23	4.317				
2,600.0	2,509.2	2,596.3	2,485.6	11.8	12.7	-49.01	-500.4	-410.8	84.6	65.7	18.88	4.482				
2,700.0	2,603.2	2,696.1	2,577.3	12.4	13.4	-47.58	-530.2	-436.4	90.6	71.1	19.53	4.640				
2,800.0	2,697.3	2,795.9	2,669.1	13.1	14.1	-46.33	-560.1	-462.0	96.6	76.5	20.18	4.790				
2,900.0	2,791.3	2,895.6	2,760.8	13.7	14.8	-45.23	-589.9	-487.6	102.7	81.9	20.83	4.932				
3,000.0	2,885.3	2,995.4	2,852.5	14.3	15.6	-44.25	-619.7	-513.2	108.8	87.3	21.48	5.067				
3,100.0	2,979.3	3,095.2	2,944.2	15.0	16.3	-43.37	-649.6	-538.8	115.0	92.8	22.13	5.196				
3,200.0	3,073.3	3,195.0	3,036.0	15.6	17.0	-42.59	-679.4	-564.4	121.1	98.3	22.78	5.317				
3,300.0	3,167.3	3,294.8	3,127.7	16.2	17.7	-41.88	-709.2	-590.1	127.3	103.9	23.43	5.433				
3,400.0	3,261.3	3,394.6	3,219.4	16.9	18.5	-41.24	-739.1	-615.7	133.5	109.4	24.09	5.542				
3,500.0	3,355.4	3,494.4	3,311.1	17.5	19.2	-40.65	-768.9	-641.3	139.7	115.0	24.75	5.646				
3,600.0	3,449.4	3,594.2	3,402.8	18.1	19.9	-40.11	-798.7	-666.9	145.9	120.5	25.40	5.745				
3,700.0	3,543.4	3,694.0	3,494.6	18.8	20.7	-39.62	-828.6	-692.5	152.2	126.1	26.06	5.839				
3,800.0	3,637.4	3,793.8	3,586.3	19.4	21.4	-39.17	-858.4	-718.1	158.4	131.7	26.72	5.929				
3,900.0	3,731.4	3,893.6	3,678.0	20.0	22.1	-38.75	-888.2	-743.7	164.7	137.3	27.38	6.015				
4,000.0	3,825.4	3,993.4	3,769.7	20.7	22.8	-38.36	-918.1	-769.3	171.0	142.9	28.05	6.096				
4,100.0	3,919.4	4,093.2	3,861.5	21.3	23.6	-38.00	-947.9	-795.0	177.2	148.5	28.71	6.174				
4,200.0	4,013.5	4,193.0	3,953.2	21.9	24.3	-37.66	-977.8	-820.6	183.5	154.2	29.37	6.248				
4,300.0	4,107.5	4,292.8	4,044.9	22.6	25.0	-37.35	-1,007.6	-846.2	189.8	159.8	30.04	6.319				
4,400.0	4,201.5	4,392.6	4,136.6	23.2	25.8	-37.05	-1,037.4	-871.8	196.1	165.4	30.70	6.388				
4,500.0	4,295.5	4,492.4	4,228.4	23.8	26.5	-36.78	-1,067.3	-897.4	202.4	171.0	31.37	6.453				
4,600.0	4,389.5	4,592.2	4,320.1	24.5	27.2	-36.52	-1,097.1	-923.0	208.7	176.7	32.03	6.515				
4,700.0	4,483.5	4,692.0	4,411.8	25.1	27.9	-36.27	-1,126.9	-948.6	215.0	182.3	32.70	6.575				
4,800.0	4,577.5	4,791.8	4,503.5	25.7	28.7	-36.04	-1,156.8	-974.2	221.3	188.0	33.37	6.633				
4,900.0	4,671.5	4,891.6	4,595.3	26.4	29.4	-35.83	-1,186.6	-999.9	227.6	193.6	34.04	6.688				
5,000.0	4,765.6	4,991.4	4,687.0	27.0	30.1	-35.62	-1,216.4	-1,025.5	234.0	199.2	34.70	6.741				
5,100.0	4,859.6	5,091.2	4,778.7	27.7	30.9	-35.43	-1,246.3	-1,051.1	240.3	204.9	35.37	6.792				

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

# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-9D (Oxy I21 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				Total		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor		
5,200.0	4,953.6	5,191.0	4,870.4	28.3	31.6	-35.24	-1,276.1	-1,076.7	246.6	210.5	36.04	6.842		
5,300.0	5,047.6	5,290.8	4,962.2	28.9	32.3	-35.07	-1,305.9	-1,102.3	252.9	216.2	36.71	6.889		
5,400.0	5,141.6	5,390.6	5,053.9	29.6	33.0	-34.90	-1,335.8	-1,127.9	259.2	221.9	37.38	6.935		
5,500.0	5,235.6	5,490.4	5,145.6	30.2	33.8	-34.74	-1,365.6	-1,153.5	265.6	227.5	38.05	6.979		
5,600.0	5,329.6	5,590.2	5,237.3	30.8	34.5	-34.59	-1,395.5	-1,179.1	271.9	233.2	38.72	7.022		
5,700.0	5,423.7	5,692.2	5,331.1	31.5	35.2	-34.46	-1,425.8	-1,205.2	278.1	238.7	39.41	7.056		
5,800.0	5,517.7	5,798.8	5,430.1	32.1	35.9	-34.56	-1,456.0	-1,231.1	282.5	242.2	40.28	7.012		
5,900.0	5,612.2	5,905.6	5,530.3	32.7	36.6	-34.82	-1,484.1	-1,255.2	285.6	244.4	41.22	6.929		
6,000.0	5,707.5	6,012.4	5,631.5	33.2	37.2	-35.05	-1,510.0	-1,277.5	288.5	246.4	42.09	6.854		
6,100.0	5,803.6	6,119.4	5,733.7	33.7	37.8	-35.26	-1,533.9	-1,298.0	291.1	248.2	42.90	6.785		
6,200.0	5,900.3	6,226.3	5,836.8	34.2	38.3	-35.45	-1,555.5	-1,316.5	293.5	249.8	43.66	6.723		
6,300.0	5,997.7	6,333.4	5,940.7	34.6	38.8	-35.63	-1,575.0	-1,333.2	295.6	251.3	44.35	6.666		
6,400.0	6,095.7	6,440.4	6,045.3	35.0	39.2	-35.78	-1,592.2	-1,348.1	297.4	252.5	44.98	6.614		
6,500.0	6,194.2	6,547.6	6,150.6	35.3	39.5	-35.92	-1,607.2	-1,361.0	299.0	253.5	45.54	6.566		
6,600.0	6,293.0	6,654.7	6,256.4	35.6	39.8	-36.04	-1,620.0	-1,371.9	300.3	254.3	46.04	6.523		
6,700.0	6,392.3	6,761.9	6,362.7	35.8	40.1	-36.14	-1,630.6	-1,381.0	301.4	254.9	46.48	6.484		
6,800.0	6,491.8	6,869.1	6,469.3	36.0	40.3	-36.23	-1,638.8	-1,388.1	302.2	255.3	46.86	6.448		
6,900.0	6,591.5	6,976.3	6,576.2	36.2	40.5	-36.30	-1,644.8	-1,393.2	302.7	255.5	47.17	6.416		
7,000.0	6,691.4	7,083.5	6,683.3	36.3	40.6	-36.36	-1,648.5	-1,396.4	302.9	255.5	47.43	6.387		
7,100.0	6,791.4	7,190.7	6,790.5	36.3	40.7	-36.40	-1,649.9	-1,397.6	302.9	255.2	47.62	6.360		
7,160.2	6,851.6	7,251.8	6,851.6	36.4	40.7	-36.42	-1,650.0	-1,397.6	302.7	254.9	47.75	6.339		
7,200.0	6,891.4	7,291.6	6,891.4	36.4	40.7	-171.37	-1,650.0	-1,397.6	302.8	255.0	47.80	6.336		
7,300.0	6,991.4	7,391.6	6,991.4	36.5	40.8	-171.37	-1,650.0	-1,397.6	302.8	254.8	47.98	6.311		
7,400.0	7,091.4	7,491.6	7,091.4	36.5	40.8	-171.37	-1,650.0	-1,397.6	302.8	254.7	48.17	6.287		
7,500.0	7,191.4	7,591.6	7,191.4	36.6	40.9	-171.37	-1,650.0	-1,397.6	302.8	254.5	48.36	6.262		
7,600.0	7,291.4	7,691.6	7,291.4	36.6	40.9	-171.37	-1,650.0	-1,397.6	302.8	254.3	48.55	6.238		
7,700.0	7,391.4	7,791.6	7,391.4	36.7	41.0	-171.37	-1,650.0	-1,397.6	302.8	254.1	48.74	6.213		
7,800.0	7,491.4	7,891.6	7,491.4	36.8	41.1	-171.37	-1,650.0	-1,397.6	302.8	253.9	48.94	6.188		
7,900.0	7,591.4	7,991.6	7,591.4	36.8	41.1	-171.37	-1,650.0	-1,397.6	302.8	253.7	49.13	6.164		
8,000.0	7,691.4	8,091.6	7,691.4	36.9	41.2	-171.37	-1,650.0	-1,397.6	302.8	253.5	49.33	6.139		
8,100.0	7,791.4	8,191.6	7,791.4	37.0	41.2	-171.37	-1,650.0	-1,397.6	302.8	253.3	49.53	6.114		
8,200.0	7,891.4	8,291.6	7,891.4	37.0	41.3	-171.37	-1,650.0	-1,397.6	302.8	253.1	49.73	6.090		
8,300.0	7,991.4	8,391.6	7,991.4	37.1	41.4	-171.37	-1,650.0	-1,397.6	302.8	252.9	49.93	6.065		
8,400.0	8,091.4	8,491.6	8,091.4	37.2	41.4	-171.37	-1,650.0	-1,397.6	302.8	252.7	50.14	6.040		
8,500.0	8,191.4	8,591.6	8,191.4	37.2	41.5	-171.37	-1,650.0	-1,397.6	302.8	252.5	50.34	6.016		
8,600.0	8,291.4	8,691.6	8,291.4	37.3	41.5	-171.37	-1,650.0	-1,397.6	302.8	252.3	50.55	5.991		
8,700.0	8,391.4	8,791.6	8,391.4	37.4	41.6	-171.37	-1,650.0	-1,397.6	302.8	252.1	50.76	5.966		
8,800.0	8,491.4	8,891.6	8,491.4	37.5	41.7	-171.37	-1,650.0	-1,397.6	302.8	251.9	50.97	5.942		
8,900.0	8,591.4	8,991.6	8,591.4	37.5	41.7	-171.37	-1,650.0	-1,397.6	302.8	251.7	51.18	5.917		
8,944.5	8,635.9	9,036.1	8,635.9	37.6	41.8	-171.37	-1,650.0	-1,397.6	302.8	251.6	51.28	5.906		
8,972.6	8,664.0	9,054.2	8,654.0	37.6	41.8	-171.37	-1,650.0	-1,397.6	303.0	251.7	51.32	5.904		

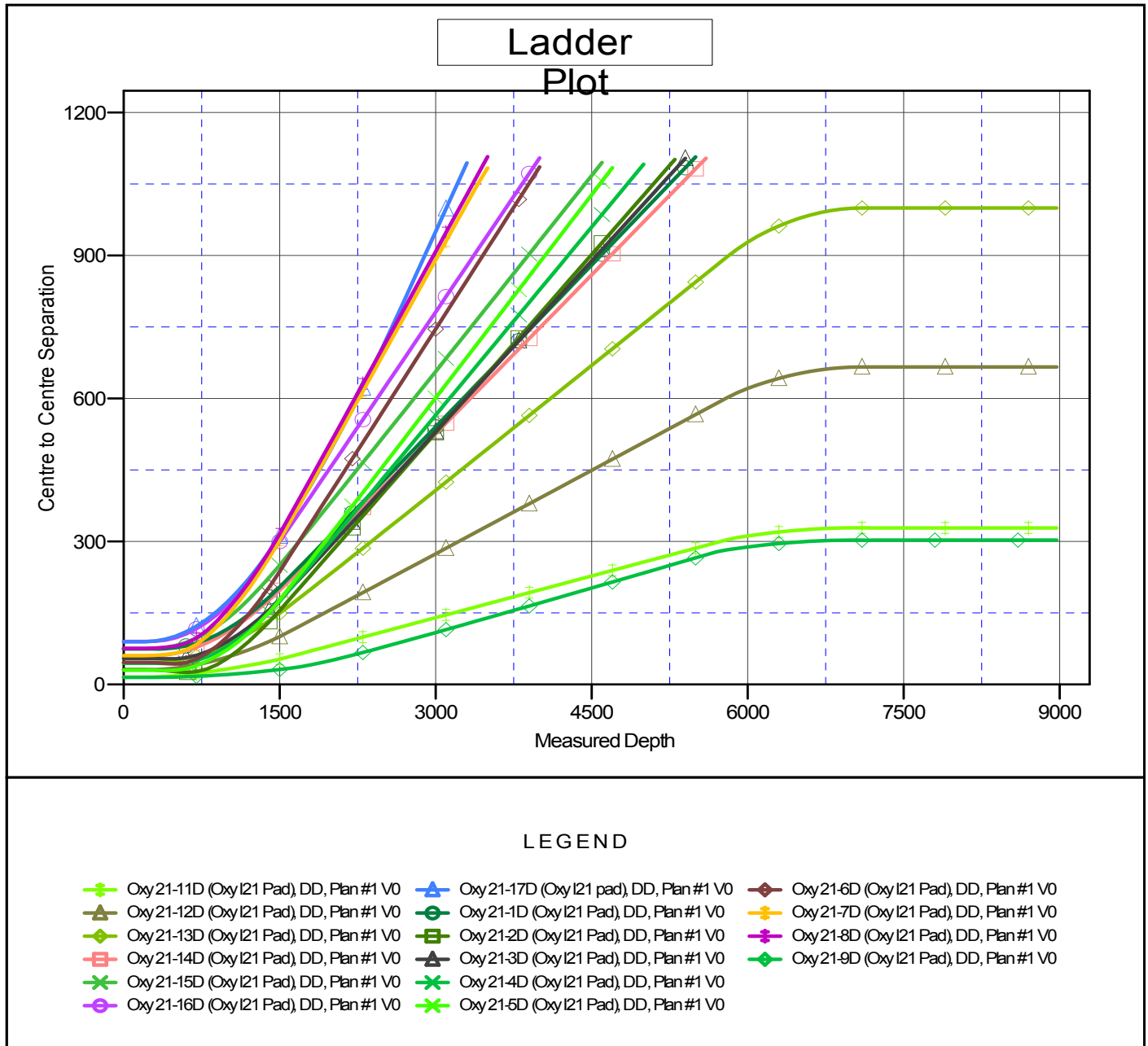
# Directional Plus

## Anticollision Report

<b>Company:</b>	Berry Petroleum Company (NAD 83)	<b>Local Co-ordinate Reference:</b>	Well Oxy 21-10D (Oxy I21 Pad)
<b>Project:</b>	Garfield County	<b>TVD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Reference Site:</b>	NESE S21-T6S-R97W (Oxy I21 pad)	<b>MD Reference:</b>	KBE @ 8381.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Oxy 21-10D (Oxy I21 Pad)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 US Multi User Db
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KBE @ 8381.0ft (Original Well Elev)  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: Oxy 21-10D (Oxy I21 Pad)  
Coordinate System is US State Plane 1983, Colorado Central Zone  
Grid Convergence at Surface is: -1.71°



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