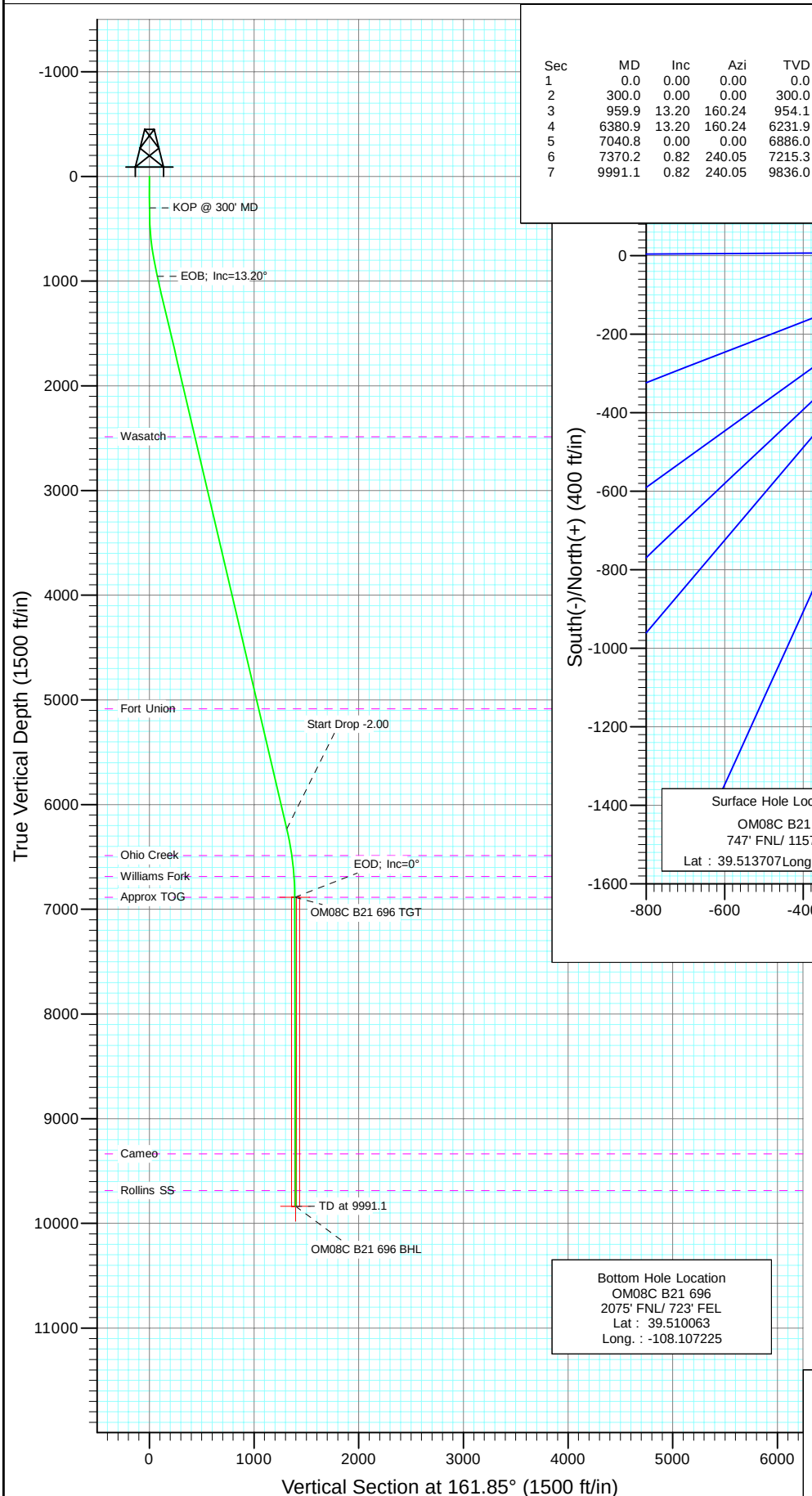
Berry Petroleum Company

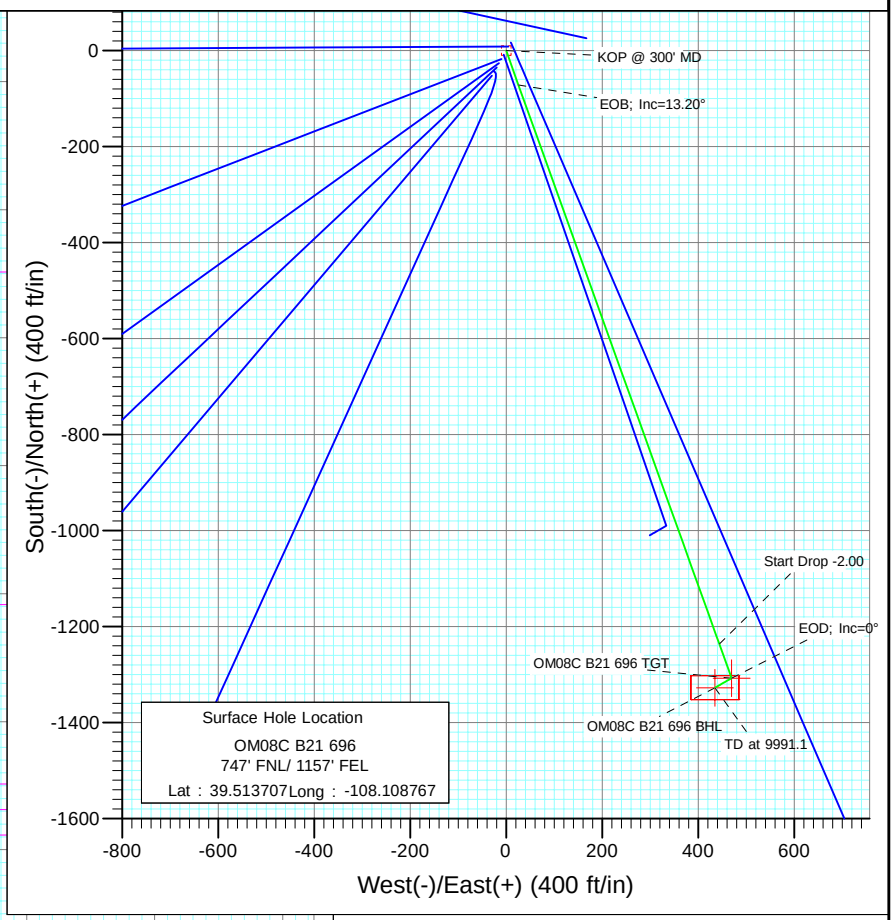
Project: Garfield County
Site: NENE S21-T6S-R96W (B21 696 Pad)
Well: OM08C B21 696
Wellbore: DD
Design: Plan #1

CATHEDRAL

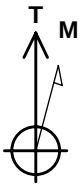
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	959.9	13.20	160.24	954.1	-71.2	25.6	2.00	160.24	75.6	
4	6380.9	13.20	160.24	6231.9	-1236.1	444.2	0.00	0.00	1312.9	
5	7040.8	0.00	0.00	6886.0	-1307.3	469.8	2.00	180.00	1388.6	OM08C B21 696 TGT
6	7370.2	0.82	240.05	7215.3	-1308.5	467.7	0.25	240.05	1389.1	
7	9991.1	0.82	240.05	9836.0	-1327.3	435.1	0.00	0.00	1396.8	OM08C B21 696 BHL





Bottom Hole Location
OM08C B21 696
2075' FNL/ 723' FEL
Lat : 39.510063
Long. : -108.107225



Azimuths to True North
Magnetic North: 10.45°

Magnetic Field
Strength: 52312.4snT
Dip Angle: 65.76°
Date: 11/30/2010
Model: IGRF200510

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2486.0	2533.4	Wasatch
5086.0	5203.9	Fort Union
6486.0	6639.5	Ohio Creek
6686.0	6840.7	Williams Fork
6886.0	7040.8	Approx TOG
9336.0	9491.1	Cameo
9686.0	9841.1	Rollins SS

DESIGN DETAILS: Plan #1

1055XX; BH
KBE @ 8293.0ft (Original Well Elev)

Target	Azimuth	Origin	N/S	E/W	From TVD
OM08C B21 696 BHL	161.85	Slot	0.0	0.0	0.0

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well OM08C B21 696
Company:	Berry Petroleum Company (NAD 83)	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Project:	Garfield County	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site:	NENE S21-T6S-R96W (B21 696 Pad)	**North Reference:**	True
Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Project Garfield County

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

Site NENE S21-T6S-R96W (B21 696 Pad)

Site Position:		**Northing:**	1,622,587.75 ft	**Latitude:**	39.513778
From:	Lat/Long	**Easting:**	2,264,263.59 ft	**Longitude:**	-108.108174
Position Uncertainty:	0.0 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	-1.64 °

Well OM08C B21 696

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,622,566.69 ft	**Latitude:**	39.513707
	+E/-W	0.0 ft	**Easting:**	2,264,095.61 ft	**Longitude:**	-108.108767
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	8,278.0 ft

Wellbore DD

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/30/2010	10.45	65.76	52,312

Design Plan #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	161.85

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
959.9	13.20	160.24	954.1	-71.2	25.6	2.00	2.00	0.00	160.24	
6,380.9	13.20	160.24	6,231.9	-1,236.1	444.2	0.00	0.00	0.00	0.00	
7,040.8	0.00	0.00	6,886.0	-1,307.3	469.8	2.00	-2.00	0.00	180.00	OM08C B21 696 TGT
7,370.2	0.82	240.05	7,215.3	-1,308.5	467.7	0.25	0.25	-36.42	240.05	
9,991.1	0.82	240.05	9,836.0	-1,327.3	435.1	0.00	0.00	0.00	0.00	OM08C B21 696 BHL

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well OM08C B21 696
Company:	Berry Petroleum Company (NAD 83)	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Project:	Garfield County	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site:	NENE S21-T6S-R96W (B21 696 Pad)	**North Reference:**	True
Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
30.0	0.00	0.00	30.0	0.0	0.0	0.0	0.00	0.00	
60.0	0.00	0.00	60.0	0.0	0.0	0.0	0.00	0.00	
90.0	0.00	0.00	90.0	0.0	0.0	0.0	0.00	0.00	
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	
150.0	0.00	0.00	150.0	0.0	0.0	0.0	0.00	0.00	
180.0	0.00	0.00	180.0	0.0	0.0	0.0	0.00	0.00	
210.0	0.00	0.00	210.0	0.0	0.0	0.0	0.00	0.00	
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	
270.0	0.00	0.00	270.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300' MD
330.0	0.60	160.24	330.0	-0.1	0.1	0.2	2.00	2.00	
360.0	1.20	160.24	360.0	-0.6	0.2	0.6	2.00	2.00	
390.0	1.80	160.24	390.0	-1.3	0.5	1.4	2.00	2.00	
420.0	2.40	160.24	420.0	-2.4	0.8	2.5	2.00	2.00	
450.0	3.00	160.24	449.9	-3.7	1.3	3.9	2.00	2.00	
480.0	3.60	160.24	479.9	-5.3	1.9	5.7	2.00	2.00	
510.0	4.20	160.24	509.8	-7.2	2.6	7.7	2.00	2.00	
540.0	4.80	160.24	539.7	-9.5	3.4	10.0	2.00	2.00	
570.0	5.40	160.24	569.6	-12.0	4.3	12.7	2.00	2.00	
600.0	6.00	160.24	599.5	-14.8	5.3	15.7	2.00	2.00	
630.0	6.60	160.24	629.3	-17.9	6.4	19.0	2.00	2.00	
660.0	7.20	160.24	659.1	-21.3	7.6	22.6	2.00	2.00	
690.0	7.80	160.24	688.8	-24.9	9.0	26.5	2.00	2.00	
720.0	8.40	160.24	718.5	-28.9	10.4	30.7	2.00	2.00	
750.0	9.00	160.24	748.2	-33.2	11.9	35.3	2.00	2.00	
780.0	9.60	160.24	777.8	-37.8	13.6	40.1	2.00	2.00	
810.0	10.20	160.24	807.3	-42.6	15.3	45.3	2.00	2.00	
840.0	10.80	160.24	836.8	-47.8	17.2	50.7	2.00	2.00	
870.0	11.40	160.24	866.2	-53.2	19.1	56.5	2.00	2.00	
900.0	12.00	160.24	895.6	-58.9	21.2	62.6	2.00	2.00	
930.0	12.60	160.24	924.9	-64.9	23.3	69.0	2.00	2.00	
959.9	13.20	160.24	954.1	-71.2	25.6	75.6	2.00	2.00	EOB; Inc=13.20°
960.0	13.20	160.24	954.2	-71.2	25.6	75.7	0.00	0.00	
990.0	13.20	160.24	983.4	-77.7	27.9	82.5	0.00	0.00	
1,020.0	13.20	160.24	1,012.6	-84.1	30.2	89.4	0.00	0.00	
1,050.0	13.20	160.24	1,041.8	-90.6	32.5	96.2	0.00	0.00	
1,080.0	13.20	160.24	1,071.0	-97.0	34.9	103.0	0.00	0.00	
1,110.0	13.20	160.24	1,100.2	-103.5	37.2	109.9	0.00	0.00	
1,140.0	13.20	160.24	1,129.4	-109.9	39.5	116.7	0.00	0.00	
1,170.0	13.20	160.24	1,158.6	-116.4	41.8	123.6	0.00	0.00	
1,200.0	13.20	160.24	1,187.8	-122.8	44.1	130.4	0.00	0.00	
1,230.0	13.20	160.24	1,217.0	-129.2	46.4	137.3	0.00	0.00	
1,260.0	13.20	160.24	1,246.3	-135.7	48.8	144.1	0.00	0.00	
1,290.0	13.20	160.24	1,275.5	-142.1	51.1	151.0	0.00	0.00	
1,320.0	13.20	160.24	1,304.7	-148.6	53.4	157.8	0.00	0.00	
1,350.0	13.20	160.24	1,333.9	-155.0	55.7	164.7	0.00	0.00	
1,380.0	13.20	160.24	1,363.1	-161.5	58.0	171.5	0.00	0.00	
1,410.0	13.20	160.24	1,392.3	-167.9	60.3	178.4	0.00	0.00	
1,440.0	13.20	160.24	1,421.5	-174.4	62.7	185.2	0.00	0.00	
1,470.0	13.20	160.24	1,450.7	-180.8	65.0	192.1	0.00	0.00	
1,500.0	13.20	160.24	1,479.9	-187.3	67.3	198.9	0.00	0.00	

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Project:	Garfield County	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site:	NENE S21-T6S-R96W (B21 696 Pad)	**North Reference:**	True
Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
1,530.0	13.20	160.24	1,509.1	-193.7	69.6	205.8	0.00	0.00	
1,560.0	13.20	160.24	1,538.3	-200.2	71.9	212.6	0.00	0.00	
1,590.0	13.20	160.24	1,567.5	-206.6	74.2	219.5	0.00	0.00	
1,620.0	13.20	160.24	1,596.7	-213.1	76.6	226.3	0.00	0.00	
1,650.0	13.20	160.24	1,625.9	-219.5	78.9	233.1	0.00	0.00	
1,680.0	13.20	160.24	1,655.2	-225.9	81.2	240.0	0.00	0.00	
1,710.0	13.20	160.24	1,684.4	-232.4	83.5	246.8	0.00	0.00	
1,740.0	13.20	160.24	1,713.6	-238.8	85.8	253.7	0.00	0.00	
1,770.0	13.20	160.24	1,742.8	-245.3	88.1	260.5	0.00	0.00	
1,800.0	13.20	160.24	1,772.0	-251.7	90.5	267.4	0.00	0.00	
1,830.0	13.20	160.24	1,801.2	-258.2	92.8	274.2	0.00	0.00	
1,860.0	13.20	160.24	1,830.4	-264.6	95.1	281.1	0.00	0.00	
1,890.0	13.20	160.24	1,859.6	-271.1	97.4	287.9	0.00	0.00	
1,920.0	13.20	160.24	1,888.8	-277.5	99.7	294.8	0.00	0.00	
1,950.0	13.20	160.24	1,918.0	-284.0	102.0	301.6	0.00	0.00	
1,980.0	13.20	160.24	1,947.2	-290.4	104.4	308.5	0.00	0.00	
2,010.0	13.20	160.24	1,976.4	-296.9	106.7	315.3	0.00	0.00	
2,040.0	13.20	160.24	2,005.6	-303.3	109.0	322.2	0.00	0.00	
2,070.0	13.20	160.24	2,034.9	-309.7	111.3	329.0	0.00	0.00	
2,100.0	13.20	160.24	2,064.1	-316.2	113.6	335.9	0.00	0.00	
2,130.0	13.20	160.24	2,093.3	-322.6	115.9	342.7	0.00	0.00	
2,160.0	13.20	160.24	2,122.5	-329.1	118.3	349.6	0.00	0.00	
2,190.0	13.20	160.24	2,151.7	-335.5	120.6	356.4	0.00	0.00	
2,220.0	13.20	160.24	2,180.9	-342.0	122.9	363.2	0.00	0.00	
2,250.0	13.20	160.24	2,210.1	-348.4	125.2	370.1	0.00	0.00	
2,280.0	13.20	160.24	2,239.3	-354.9	127.5	376.9	0.00	0.00	
2,310.0	13.20	160.24	2,268.5	-361.3	129.8	383.8	0.00	0.00	
2,340.0	13.20	160.24	2,297.7	-367.8	132.1	390.6	0.00	0.00	
2,370.0	13.20	160.24	2,326.9	-374.2	134.5	397.5	0.00	0.00	
2,400.0	13.20	160.24	2,356.1	-380.7	136.8	404.3	0.00	0.00	
2,430.0	13.20	160.24	2,385.3	-387.1	139.1	411.2	0.00	0.00	
2,460.0	13.20	160.24	2,414.6	-393.6	141.4	418.0	0.00	0.00	
2,490.0	13.20	160.24	2,443.8	-400.0	143.7	424.9	0.00	0.00	

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
OM08C B21 696 TGT	0.00	0.00	6,886.0	-1,307.3	469.8	1,621,246.45	2,264,527.63	39.510118	-108.107102
- plan misses target center by 4545.7ft at 2490.0ft MD (2443.8 TVD, -400.0 N, 143.7 E)									
- Point									
OM08C B21 696 BHL	0.00	0.00	9,836.0	-1,327.3	435.1	1,621,227.46	2,264,492.39	39.510063	-108.107225
- plan misses target center by 7455.9ft at 2490.0ft MD (2443.8 TVD, -400.0 N, 143.7 E)									
- Rectangle (sides W50.0 H100.0 D0.0)									

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Project:	Garfield County	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site:	NENE S21-T6S-R96W (B21 696 Pad)	**North Reference:**	True
Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
2,500.0	13.20	160.24	2,453.5	-402.1	144.5	427.2	0.00	0.00	
2,533.4	13.20	160.24	2,486.0	-409.3	147.1	434.8	0.00	0.00	Wasatch
2,600.0	13.20	160.24	2,550.9	-423.6	152.2	450.0	0.00	0.00	
2,700.0	13.20	160.24	2,648.2	-445.1	159.9	472.8	0.00	0.00	
2,800.0	13.20	160.24	2,745.6	-466.6	167.7	495.6	0.00	0.00	
2,900.0	13.20	160.24	2,842.9	-488.1	175.4	518.4	0.00	0.00	
3,000.0	13.20	160.24	2,940.3	-509.6	183.1	541.3	0.00	0.00	
3,100.0	13.20	160.24	3,037.6	-531.1	190.8	564.1	0.00	0.00	
3,200.0	13.20	160.24	3,135.0	-552.6	198.6	586.9	0.00	0.00	
3,300.0	13.20	160.24	3,232.4	-574.1	206.3	609.7	0.00	0.00	
3,400.0	13.20	160.24	3,329.7	-595.5	214.0	632.6	0.00	0.00	
3,500.0	13.20	160.24	3,427.1	-617.0	221.7	655.4	0.00	0.00	
3,600.0	13.20	160.24	3,524.4	-638.5	229.4	678.2	0.00	0.00	
3,700.0	13.20	160.24	3,621.8	-660.0	237.2	701.0	0.00	0.00	
3,800.0	13.20	160.24	3,719.2	-681.5	244.9	723.9	0.00	0.00	
3,900.0	13.20	160.24	3,816.5	-703.0	252.6	746.7	0.00	0.00	
4,000.0	13.20	160.24	3,913.9	-724.5	260.3	769.5	0.00	0.00	
4,100.0	13.20	160.24	4,011.2	-746.0	268.0	792.3	0.00	0.00	
4,200.0	13.20	160.24	4,108.6	-767.4	275.8	815.2	0.00	0.00	
4,300.0	13.20	160.24	4,205.9	-788.9	283.5	838.0	0.00	0.00	
4,400.0	13.20	160.24	4,303.3	-810.4	291.2	860.8	0.00	0.00	
4,500.0	13.20	160.24	4,400.7	-831.9	298.9	883.6	0.00	0.00	
4,600.0	13.20	160.24	4,498.0	-853.4	306.7	906.5	0.00	0.00	
4,700.0	13.20	160.24	4,595.4	-874.9	314.4	929.3	0.00	0.00	
4,800.0	13.20	160.24	4,692.7	-896.4	322.1	952.1	0.00	0.00	
4,900.0	13.20	160.24	4,790.1	-917.9	329.8	974.9	0.00	0.00	
5,000.0	13.20	160.24	4,887.5	-939.4	337.5	997.8	0.00	0.00	
5,100.0	13.20	160.24	4,984.8	-960.8	345.3	1,020.6	0.00	0.00	
5,200.0	13.20	160.24	5,082.2	-982.3	353.0	1,043.4	0.00	0.00	
5,203.9	13.20	160.24	5,086.0	-983.2	353.3	1,044.3	0.00	0.00	Fort Union
5,300.0	13.20	160.24	5,179.5	-1,003.8	360.7	1,066.2	0.00	0.00	
5,400.0	13.20	160.24	5,276.9	-1,025.3	368.4	1,089.1	0.00	0.00	
5,500.0	13.20	160.24	5,374.2	-1,046.8	376.1	1,111.9	0.00	0.00	
5,600.0	13.20	160.24	5,471.6	-1,068.3	383.9	1,134.7	0.00	0.00	
5,700.0	13.20	160.24	5,569.0	-1,089.8	391.6	1,157.5	0.00	0.00	
5,800.0	13.20	160.24	5,666.3	-1,111.3	399.3	1,180.3	0.00	0.00	
5,900.0	13.20	160.24	5,763.7	-1,132.7	407.0	1,203.2	0.00	0.00	
6,000.0	13.20	160.24	5,861.0	-1,154.2	414.7	1,226.0	0.00	0.00	
6,100.0	13.20	160.24	5,958.4	-1,175.7	422.5	1,248.8	0.00	0.00	
6,200.0	13.20	160.24	6,055.8	-1,197.2	430.2	1,271.6	0.00	0.00	
6,300.0	13.20	160.24	6,153.1	-1,218.7	437.9	1,294.5	0.00	0.00	
6,380.9	13.20	160.24	6,231.9	-1,236.1	444.2	1,312.9	0.00	0.00	Start Drop -2.00
6,400.0	12.82	160.24	6,250.5	-1,240.1	445.6	1,317.2	2.00	-2.00	
6,500.0	10.82	160.24	6,348.4	-1,259.4	452.5	1,337.7	2.00	-2.00	
6,600.0	8.82	160.24	6,446.9	-1,275.4	458.3	1,354.7	2.00	-2.00	
6,639.5	8.03	160.24	6,486.0	-1,280.9	460.3	1,360.5	2.00	-2.00	Ohio Creek
6,700.0	6.82	160.24	6,546.0	-1,288.2	462.9	1,368.3	2.00	-2.00	
6,800.0	4.82	160.24	6,645.4	-1,297.8	466.3	1,378.5	2.00	-2.00	
6,840.7	4.00	160.24	6,686.0	-1,300.7	467.4	1,381.6	2.00	-2.00	Williams Fork
6,900.0	2.82	160.24	6,745.2	-1,304.0	468.6	1,385.1	2.00	-2.00	
7,000.0	0.82	160.24	6,845.2	-1,307.0	469.7	1,388.3	2.00	-2.00	
7,040.8	0.00	0.00	6,886.0	-1,307.3	469.8	1,388.6	2.00	-2.00	EOD; Inc=0° - Approx TOG - OM08C B21 696 T

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well OM08C B21 696
Company:	Berry Petroleum Company (NAD 83)	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Project:	Garfield County	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site:	NENE S21-T6S-R96W (B21 696 Pad)	**North Reference:**	True
Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
7,100.0	0.15	240.05	6,945.2	-1,307.3	469.7	1,388.6	0.25	0.25	
7,200.0	0.40	240.05	7,045.2	-1,307.6	469.3	1,388.7	0.25	0.25	
7,300.0	0.65	240.05	7,145.1	-1,308.0	468.5	1,388.9	0.25	0.25	
7,370.2	0.82	240.05	7,215.3	-1,308.5	467.7	1,389.1	0.25	0.25	
7,400.0	0.82	240.05	7,245.1	-1,308.7	467.3	1,389.2	0.00	0.00	
7,500.0	0.82	240.05	7,345.1	-1,309.4	466.1	1,389.4	0.00	0.00	
7,600.0	0.82	240.05	7,445.1	-1,310.1	464.8	1,389.7	0.00	0.00	
7,700.0	0.82	240.05	7,545.1	-1,310.8	463.6	1,390.0	0.00	0.00	
7,800.0	0.82	240.05	7,645.1	-1,311.6	462.3	1,390.3	0.00	0.00	
7,900.0	0.82	240.05	7,745.1	-1,312.3	461.1	1,390.6	0.00	0.00	
8,000.0	0.82	240.05	7,845.1	-1,313.0	459.9	1,390.9	0.00	0.00	
8,100.0	0.82	240.05	7,945.1	-1,313.7	458.6	1,391.2	0.00	0.00	
8,200.0	0.82	240.05	8,045.1	-1,314.4	457.4	1,391.5	0.00	0.00	
8,300.0	0.82	240.05	8,145.0	-1,315.2	456.1	1,391.8	0.00	0.00	
8,400.0	0.82	240.05	8,245.0	-1,315.9	454.9	1,392.1	0.00	0.00	
8,500.0	0.82	240.05	8,345.0	-1,316.6	453.6	1,392.4	0.00	0.00	
8,600.0	0.82	240.05	8,445.0	-1,317.3	452.4	1,392.7	0.00	0.00	
8,700.0	0.82	240.05	8,545.0	-1,318.0	451.1	1,393.0	0.00	0.00	
8,800.0	0.82	240.05	8,645.0	-1,318.7	449.9	1,393.3	0.00	0.00	
8,900.0	0.82	240.05	8,745.0	-1,319.5	448.7	1,393.6	0.00	0.00	
9,000.0	0.82	240.05	8,845.0	-1,320.2	447.4	1,393.9	0.00	0.00	
9,100.0	0.82	240.05	8,945.0	-1,320.9	446.2	1,394.2	0.00	0.00	
9,200.0	0.82	240.05	9,045.0	-1,321.6	444.9	1,394.4	0.00	0.00	
9,300.0	0.82	240.05	9,144.9	-1,322.3	443.7	1,394.7	0.00	0.00	
9,400.0	0.82	240.05	9,244.9	-1,323.0	442.4	1,395.0	0.00	0.00	
9,491.1	0.82	240.05	9,336.0	-1,323.7	441.3	1,395.3	0.00	0.00	Cameo
9,500.0	0.82	240.05	9,344.9	-1,323.8	441.2	1,395.3	0.00	0.00	
9,600.0	0.82	240.05	9,444.9	-1,324.5	439.9	1,395.6	0.00	0.00	
9,700.0	0.82	240.05	9,544.9	-1,325.2	438.7	1,395.9	0.00	0.00	
9,800.0	0.82	240.05	9,644.9	-1,325.9	437.4	1,396.2	0.00	0.00	
9,841.1	0.82	240.05	9,686.0	-1,326.2	436.9	1,396.3	0.00	0.00	Rollins SS
9,900.0	0.82	240.05	9,744.9	-1,326.6	436.2	1,396.5	0.00	0.00	
9,991.1	0.82	240.05	9,836.0	-1,327.3	435.1	1,396.8	0.00	0.00	TD at 9991.1 - OM08C B21 696 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
OM08C B21 696 TGT - plan hits target center - Point	0.00	0.00	6,886.0	-1,307.3	469.8	1,621,246.45	2,264,527.63	39.510118	-108.107102
OM08C B21 696 BHL - plan hits target center - Rectangle (sides W50.0 H100.0 D0.0)	0.00	0.00	9,836.0	-1,327.3	435.1	1,621,227.46	2,264,492.39	39.510063	-108.107225

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well OM08C B21 696
Company:	Berry Petroleum Company (NAD 83)	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Project:	Garfield County	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site:	NENE S21-T6S-R96W (B21 696 Pad)	**North Reference:**	True
Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,533.4	2,486.0	Wasatch		0.00	
5,203.9	5,086.0	Fort Union		0.00	
6,639.5	6,486.0	Ohio Creek		0.00	
6,840.7	6,686.0	Williams Fork		0.00	
7,040.8	6,886.0	Approx TOG		0.00	
9,491.1	9,336.0	Cameo		0.00	
9,841.1	9,686.0	Rollins SS		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
300.0	300.0	0.0	0.0	KOP @ 300' MD
959.9	954.1	-71.2	25.6	EOB; Inc=13.20°
6,380.9	6,231.9	-1,236.1	444.2	Start Drop -2.00
7,040.8	6,886.0	-1,307.3	469.8	EOD; Inc=0°
9,991.1	9,836.0	-1,327.3	435.1	TD at 9991.1

Berry Petroleum Company (NAD 83)

Garfield County
NENE S21-T6S-R96W (B21 696 Pad)
OM08C B21 696
DD
Plan #1

Anticollision Report

01 December, 2010

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Plan #1

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	**Error Model:**	Systematic Ellipse
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,399.5ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**		

Survey Tool Program **Date** 12/1/2010

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	9,991.1	Plan #1 (DD)	MWD	Geolink MWD

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
NENE S21-T6S-R96W (B21 696 Pad)						
OM02B B21 696 - DD - Plan #1	847.5	861.4	119.2	115.5	32.101	CC, ES
OM02B B21 696 - DD - Plan #1	1,000.0	1,003.6	133.1	128.5	28.931	SF
OM02C B21 696 - DD - Plan #1	330.5	330.6	9.1	7.9	8.145	CC, ES
OM02C B21 696 - DD - Plan #1	400.0	400.0	10.7	9.3	7.841	SF
OM02D B21 696 - DD - Plan #1	543.7	543.2	15.8	13.9	8.384	CC, ES
OM02D B21 696 - DD - Plan #1	600.0	598.9	17.1	15.0	8.140	SF
OM07A B21 696 - DD - Plan #1	575.3	574.3	24.8	22.8	12.380	CC, ES
OM07A B21 696 - DD - Plan #1	600.0	598.6	25.0	22.9	11.889	SF
OM07B B21 696 - DD - Plan #1	510.7	509.1	37.7	35.9	21.590	CC, ES
OM07B B21 696 - DD - Plan #1	700.0	694.8	44.7	42.2	17.678	SF
OM07C B21 696 - DD - Plan #1	300.0	300.0	59.9	58.9	60.236	CC, ES
OM07C B21 696 - DD - Plan #1	900.0	881.8	98.3	94.7	27.346	SF
OM07D B21 696 - DD - Plan #1	200.0	200.0	50.3	49.6	77.842	CC
OM07D B21 696 - DD - Plan #1	300.0	299.8	50.5	49.5	50.562	ES
OM07D B21 696 - DD - Plan #1	9,991.1	10,027.7	1,179.0	1,119.7	19.887	SF
OM08B B21 696 - DD - Plan #1	493.1	492.9	7.7	6.0	4.586	CC
OM08B B21 696 - DD - Plan #1	500.0	499.8	7.7	6.0	4.526	ES, SF
OM08D B21 696 - DD - Plan #1	524.1	524.8	16.5	14.6	8.673	CC
OM08D B21 696 - DD - Plan #1	600.0	600.7	16.8	14.5	7.378	ES
OM08D B21 696 - DD - Plan #1	1,000.0	999.4	25.7	21.0	5.469	SF

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM02B B21 696 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	81.21	25.9	167.3	169.3				
100.0	100.0	100.0	100.0	0.1	0.1	81.21	25.9	167.3	169.3	169.0	0.30	570.566	
200.0	200.0	200.0	200.0	0.3	0.3	81.21	25.9	167.3	169.3	168.6	0.65	262.152	
300.0	300.0	305.8	305.8	0.5	0.5	80.97	26.3	165.4	167.6	166.6	1.00	166.738	
400.0	400.0	411.2	411.0	0.7	0.7	-80.76	27.5	159.7	162.1	160.8	1.37	118.290	
500.0	499.8	515.6	515.0	0.9	1.0	-84.37	29.6	150.3	153.1	151.3	1.76	87.075	
600.0	599.5	618.5	617.0	1.1	1.2	-90.61	32.4	137.5	141.4	139.2	2.20	64.351	
700.0	698.7	719.2	716.3	1.3	1.6	-100.22	35.9	121.5	129.3	126.6	2.73	47.287	
800.0	797.5	816.7	811.9	1.6	1.9	-113.60	39.9	102.8	120.5	117.1	3.39	35.568	
847.5	844.1	861.4	855.7	1.8	2.1	-120.76	41.9	93.8	119.2	115.5	3.71	32.101	CC, ES
900.0	895.6	910.6	903.9	2.0	2.3	-128.91	44.0	83.9	120.8	116.8	4.05	29.836	
1,000.0	993.1	1,003.6	994.9	2.4	2.7	-143.69	48.1	65.2	133.1	128.5	4.60	28.931	SF
1,100.0	1,090.5	1,096.4	1,085.7	2.8	3.0	-155.73	52.2	46.5	153.9	148.9	5.03	30.625	
1,200.0	1,187.8	1,189.2	1,176.5	3.2	3.4	-164.83	56.3	27.9	180.2	174.8	5.39	33.405	
1,300.0	1,285.2	1,282.0	1,267.3	3.6	3.8	-171.63	60.3	9.2	209.8	204.0	5.75	36.474	
1,400.0	1,382.6	1,374.7	1,358.0	4.1	4.1	-176.77	64.4	-9.5	241.6	235.4	6.12	39.454	
1,500.0	1,479.9	1,467.5	1,448.8	4.5	4.5	179.26	68.5	-28.1	274.7	268.2	6.51	42.196	
1,600.0	1,577.3	1,560.3	1,539.6	4.9	4.9	176.14	72.5	-46.8	308.8	301.9	6.92	44.660	
1,700.0	1,674.6	1,653.1	1,630.4	5.4	5.3	173.63	76.6	-65.5	343.6	336.3	7.33	46.854	
1,800.0	1,772.0	1,745.8	1,721.2	5.8	5.6	171.58	80.7	-84.1	378.9	371.1	7.76	48.804	
1,900.0	1,869.3	1,838.6	1,812.0	6.2	6.0	169.87	84.7	-102.8	414.5	406.3	8.20	50.539	
2,000.0	1,966.7	1,931.4	1,902.8	6.6	6.4	168.43	88.8	-121.5	450.4	441.7	8.65	52.088	
2,100.0	2,064.1	2,024.2	1,993.6	7.1	6.8	167.20	92.9	-140.1	486.5	477.4	9.10	53.477	
2,200.0	2,161.4	2,117.0	2,084.4	7.5	7.1	166.14	96.9	-158.8	522.8	513.2	9.55	54.726	
2,300.0	2,258.8	2,209.7	2,175.2	7.9	7.5	165.22	101.0	-177.4	559.2	549.2	10.01	55.856	
2,400.0	2,356.1	2,302.5	2,265.9	8.4	7.9	164.41	105.1	-196.1	595.7	585.2	10.47	56.882	
2,500.0	2,453.5	2,395.3	2,356.7	8.8	8.3	163.69	109.1	-214.8	632.3	621.4	10.94	57.816	
2,600.0	2,550.9	2,488.1	2,447.5	9.2	8.6	163.05	113.2	-233.4	669.0	657.6	11.40	58.671	
2,700.0	2,648.2	2,580.8	2,538.3	9.7	9.0	162.48	117.3	-252.1	705.8	693.9	11.87	59.456	
2,800.0	2,745.6	2,673.6	2,629.1	10.1	9.4	161.96	121.3	-270.8	742.6	730.3	12.34	60.179	
2,900.0	2,842.9	2,766.4	2,719.9	10.5	9.8	161.49	125.4	-289.4	779.5	766.7	12.81	60.846	
3,000.0	2,940.3	2,859.2	2,810.7	11.0	10.1	161.07	129.5	-308.1	816.4	803.1	13.28	61.465	
3,100.0	3,037.6	2,952.0	2,901.5	11.4	10.5	160.68	133.5	-326.8	853.3	839.6	13.75	62.039	
3,200.0	3,135.0	3,044.7	2,992.3	11.9	10.9	160.32	137.6	-345.4	890.3	876.1	14.23	62.575	
3,300.0	3,232.4	3,137.5	3,083.1	12.3	11.3	159.99	141.7	-364.1	927.3	912.6	14.70	63.074	
3,400.0	3,329.7	3,230.3	3,173.8	12.7	11.6	159.69	145.7	-382.7	964.3	949.1	15.18	63.542	
3,500.0	3,427.1	3,323.1	3,264.6	13.2	12.0	159.41	149.8	-401.4	1,001.4	985.7	15.65	63.980	
3,600.0	3,524.4	3,415.8	3,355.4	13.6	12.4	159.15	153.9	-420.1	1,038.4	1,022.3	16.13	64.391	
3,700.0	3,621.8	3,508.6	3,446.2	14.0	12.8	158.91	157.9	-438.7	1,075.5	1,058.9	16.60	64.779	
3,800.0	3,719.2	3,601.4	3,537.0	14.5	13.1	158.68	162.0	-457.4	1,112.6	1,095.5	17.08	65.144	
3,900.0	3,816.5	3,694.2	3,627.8	14.9	13.5	158.47	166.1	-476.1	1,149.7	1,132.2	17.56	65.489	
4,000.0	3,913.9	3,786.9	3,718.6	15.3	13.9	158.27	170.1	-494.7	1,186.8	1,168.8	18.03	65.815	
4,100.0	4,011.2	3,879.7	3,809.4	15.8	14.3	158.08	174.2	-513.4	1,224.0	1,205.5	18.51	66.125	
4,200.0	4,108.6	3,972.5	3,900.2	16.2	14.6	157.90	178.3	-532.1	1,261.1	1,242.1	18.99	66.418	
4,300.0	4,205.9	4,065.3	3,990.9	16.6	15.0	157.74	182.3	-550.7	1,298.3	1,278.8	19.47	66.696	
4,400.0	4,303.3	4,158.1	4,081.7	17.1	15.4	157.58	186.4	-569.4	1,335.4	1,315.5	19.94	66.961	
4,500.0	4,400.7	4,250.8	4,172.5	17.5	15.8	157.43	190.5	-588.0	1,372.6	1,352.2	20.42	67.213	

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM02C B21 696 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	28.75	8.7	4.8	10.0				
100.0	100.0	100.0	100.0	0.1	0.1	28.75	8.7	4.8	10.0	9.7	0.30	33.606	
200.0	200.0	200.0	200.0	0.3	0.3	28.75	8.7	4.8	10.0	9.3	0.65	15.441	
300.0	300.0	300.1	300.1	0.5	0.5	19.23	8.7	3.0	9.2	8.3	1.00	9.274	
330.5	330.5	330.6	330.6	0.6	0.6	-149.01	8.7	1.8	9.1	7.9	1.11	8.145	CC, ES
400.0	400.0	400.0	399.8	0.7	0.7	-175.21	8.7	-2.2	10.7	9.3	1.37	7.841	SF
500.0	499.8	499.0	498.5	0.9	0.9	158.79	8.7	-10.8	20.2	18.4	1.74	11.622	
600.0	599.5	596.8	595.6	1.1	1.2	149.19	8.6	-22.6	36.6	34.5	2.12	17.301	
700.0	698.7	693.6	691.2	1.3	1.5	145.50	8.5	-37.4	58.8	56.3	2.52	23.317	
800.0	797.5	790.3	786.6	1.6	1.8	144.80	8.4	-52.8	84.3	81.4	2.95	28.594	
900.0	895.6	886.2	881.3	2.0	2.1	145.32	8.3	-68.0	112.6	109.2	3.40	33.148	
1,000.0	993.1	981.2	975.2	2.4	2.4	146.37	8.3	-83.1	143.5	139.6	3.86	37.137	
1,100.0	1,090.5	1,076.2	1,068.9	2.8	2.7	147.30	8.2	-98.2	174.9	170.5	4.34	40.276	
1,200.0	1,187.8	1,171.1	1,162.6	3.2	3.0	147.95	8.1	-113.3	206.3	201.5	4.82	42.769	
1,300.0	1,285.2	1,266.0	1,256.3	3.6	3.3	148.43	8.0	-128.4	237.8	232.5	5.31	44.793	
1,400.0	1,382.6	1,360.9	1,350.0	4.1	3.6	148.80	7.9	-143.5	269.2	263.4	5.79	46.467	
1,500.0	1,479.9	1,455.8	1,443.7	4.5	3.9	149.09	7.8	-158.6	300.7	294.4	6.28	47.872	
1,600.0	1,577.3	1,550.7	1,537.4	4.9	4.2	149.32	7.8	-173.7	332.2	325.4	6.77	49.068	
1,700.0	1,674.6	1,645.6	1,631.1	5.4	4.5	149.52	7.7	-188.8	363.6	356.4	7.26	50.098	
1,800.0	1,772.0	1,740.5	1,724.8	5.8	4.9	149.68	7.6	-203.9	395.1	387.4	7.75	50.994	
1,900.0	1,869.3	1,835.4	1,818.5	6.2	5.2	149.82	7.5	-219.0	426.6	418.4	8.24	51.780	
2,000.0	1,966.7	1,930.3	1,912.2	6.6	5.5	149.94	7.4	-234.1	458.1	449.4	8.73	52.475	
2,100.0	2,064.1	2,025.3	2,005.9	7.1	5.8	150.05	7.4	-249.2	489.6	480.4	9.22	53.094	
2,200.0	2,161.4	2,120.2	2,099.6	7.5	6.1	150.14	7.3	-264.3	521.1	511.4	9.71	53.648	
2,300.0	2,258.8	2,215.1	2,193.3	7.9	6.4	150.22	7.2	-279.4	552.6	542.3	10.20	54.147	
2,400.0	2,356.1	2,310.0	2,287.0	8.4	6.7	150.29	7.1	-294.5	584.0	573.3	10.70	54.600	
2,500.0	2,453.5	2,404.9	2,380.7	8.8	7.0	150.36	7.0	-309.5	615.5	604.3	11.19	55.011	
2,600.0	2,550.9	2,499.8	2,474.4	9.2	7.4	150.42	6.9	-324.6	647.0	635.3	11.68	55.387	
2,700.0	2,648.2	2,594.7	2,568.1	9.7	7.7	150.47	6.9	-339.7	678.5	666.3	12.17	55.732	
2,800.0	2,745.6	2,689.6	2,661.8	10.1	8.0	150.52	6.8	-354.8	710.0	697.3	12.67	56.050	
2,900.0	2,842.9	2,784.5	2,755.5	10.5	8.3	150.56	6.7	-369.9	741.5	728.3	13.16	56.343	
3,000.0	2,940.3	2,879.4	2,849.2	11.0	8.6	150.60	6.6	-385.0	773.0	759.3	13.65	56.614	
3,100.0	3,037.6	2,974.4	2,942.9	11.4	8.9	150.64	6.5	-400.1	804.5	790.3	14.15	56.866	
3,200.0	3,135.0	3,069.3	3,036.6	11.9	9.2	150.68	6.4	-415.2	836.0	821.3	14.64	57.101	
3,300.0	3,232.4	3,164.2	3,130.3	12.3	9.6	150.71	6.4	-430.3	867.5	852.3	15.13	57.320	
3,400.0	3,329.7	3,259.1	3,224.0	12.7	9.9	150.74	6.3	-445.4	899.0	883.3	15.63	57.525	
3,500.0	3,427.1	3,354.0	3,317.7	13.2	10.2	150.77	6.2	-460.5	930.5	914.3	16.12	57.718	
3,600.0	3,524.4	3,448.9	3,411.4	13.6	10.5	150.79	6.1	-475.6	962.0	945.3	16.61	57.898	
3,700.0	3,621.8	3,543.8	3,505.1	14.0	10.8	150.82	6.0	-490.7	993.5	976.3	17.11	58.068	
3,800.0	3,719.2	3,638.7	3,598.8	14.5	11.1	150.84	5.9	-505.8	1,025.0	1,007.3	17.60	58.229	
3,900.0	3,816.5	3,733.6	3,692.5	14.9	11.4	150.86	5.9	-520.9	1,056.4	1,038.3	18.10	58.380	
4,000.0	3,913.9	3,828.5	3,786.2	15.3	11.8	150.88	5.8	-536.0	1,087.9	1,069.4	18.59	58.523	
4,100.0	4,011.2	3,923.5	3,879.9	15.8	12.1	150.90	5.7	-551.1	1,119.4	1,100.4	19.08	58.659	
4,200.0	4,108.6	4,018.4	3,973.7	16.2	12.4	150.92	5.6	-566.1	1,150.9	1,131.4	19.58	58.788	
4,300.0	4,205.9	4,113.3	4,067.4	16.6	12.7	150.94	5.5	-581.2	1,182.4	1,162.4	20.07	58.910	
4,400.0	4,303.3	4,208.2	4,161.1	17.1	13.0	150.96	5.5	-596.3	1,213.9	1,193.4	20.57	59.026	
4,500.0	4,400.7	4,303.1	4,254.8	17.5	13.3	150.97	5.4	-611.4	1,245.4	1,224.4	21.06	59.137	
4,600.0	4,498.0	4,398.0	4,348.5	17.9	13.6	150.99	5.3	-626.5	1,276.9	1,255.4	21.55	59.243	
4,700.0	4,595.4	4,492.9	4,442.2	18.4	13.9	151.00	5.2	-641.6	1,308.4	1,286.4	22.05	59.344	
4,800.0	4,692.7	4,587.8	4,535.9	18.8	14.3	151.01	5.1	-656.7	1,339.9	1,317.4	22.54	59.440	
4,900.0	4,790.1	4,682.7	4,629.6	19.3	14.6	151.03	5.0	-671.8	1,371.4	1,348.4	23.04	59.532	

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM02D B21 696 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-150.54	-17.5	-9.9	20.1				
100.0	100.0	100.0	100.0	0.1	0.1	-150.54	-17.5	-9.9	20.1	19.8	0.30	67.674	
200.0	200.0	200.0	200.0	0.3	0.3	-150.54	-17.5	-9.9	20.1	19.4	0.65	31.094	
300.0	300.0	300.0	300.0	0.5	0.5	-150.54	-17.5	-9.9	20.1	19.1	0.99	20.184	
400.0	400.0	400.0	400.0	0.7	0.7	53.23	-17.5	-9.9	19.0	17.6	1.35	14.111	
500.0	499.8	499.8	499.8	0.9	0.8	68.07	-17.5	-9.9	16.4	14.7	1.71	9.593	
543.7	543.4	543.2	543.2	1.0	0.9	79.89	-17.6	-10.2	15.8	13.9	1.88	8.384	CC, ES
600.0	599.5	598.9	598.9	1.1	1.0	98.29	-18.1	-11.5	17.1	15.0	2.10	8.140	SF
700.0	698.7	697.4	697.2	1.3	1.2	122.94	-19.9	-16.2	26.4	24.0	2.49	10.614	
800.0	797.5	794.9	794.4	1.6	1.4	133.73	-23.0	-24.0	42.8	39.9	2.89	14.799	
900.0	895.6	891.2	890.0	2.0	1.6	138.07	-27.1	-34.8	64.6	61.2	3.34	19.356	
1,000.0	993.1	986.1	983.8	2.4	1.9	139.82	-32.3	-48.2	90.9	87.1	3.83	23.760	
1,100.0	1,090.5	1,079.8	1,075.8	2.8	2.2	139.85	-38.6	-64.4	119.6	115.3	4.37	27.400	
1,200.0	1,187.8	1,174.5	1,168.4	3.2	2.6	139.16	-45.7	-82.8	149.8	144.8	4.94	30.325	
1,300.0	1,285.2	1,269.8	1,261.7	3.6	2.9	138.66	-52.9	-101.4	180.0	174.5	5.53	32.574	
1,400.0	1,382.6	1,365.1	1,354.9	4.1	3.3	138.31	-60.1	-120.0	210.2	204.1	6.12	34.345	
1,500.0	1,479.9	1,460.4	1,448.1	4.5	3.6	138.05	-67.3	-138.6	240.4	233.7	6.72	35.769	
1,600.0	1,577.3	1,555.7	1,541.3	4.9	4.0	137.84	-74.5	-157.2	270.7	263.3	7.33	36.937	
1,700.0	1,674.6	1,651.1	1,634.5	5.4	4.4	137.68	-81.7	-175.9	300.9	293.0	7.94	37.909	
1,800.0	1,772.0	1,746.4	1,727.7	5.8	4.8	137.54	-88.9	-194.5	331.2	322.6	8.55	38.729	
1,900.0	1,869.3	1,841.7	1,820.9	6.2	5.2	137.43	-96.1	-213.1	361.4	352.2	9.17	39.431	
2,000.0	1,966.7	1,937.0	1,914.1	6.6	5.5	137.34	-103.3	-231.7	391.6	381.8	9.78	40.036	
2,100.0	2,064.1	2,032.3	2,007.3	7.1	5.9	137.26	-110.5	-250.3	421.9	411.5	10.40	40.564	
2,200.0	2,161.4	2,127.6	2,100.5	7.5	6.3	137.19	-117.7	-268.9	452.1	441.1	11.02	41.028	
2,300.0	2,258.8	2,223.0	2,193.7	7.9	6.7	137.13	-124.9	-287.5	482.4	470.7	11.64	41.438	
2,400.0	2,356.1	2,318.3	2,286.9	8.4	7.1	137.07	-132.1	-306.1	512.6	500.3	12.26	41.805	
2,500.0	2,453.5	2,413.6	2,380.1	8.8	7.5	137.02	-139.3	-324.7	542.8	530.0	12.88	42.133	
2,600.0	2,550.9	2,508.9	2,473.3	9.2	7.9	136.98	-146.5	-343.4	573.1	559.6	13.51	42.429	
2,700.0	2,648.2	2,604.2	2,566.5	9.7	8.2	136.94	-153.7	-362.0	603.3	589.2	14.13	42.697	
2,800.0	2,745.6	2,699.5	2,659.7	10.1	8.6	136.91	-160.9	-380.6	633.6	618.8	14.75	42.941	
2,900.0	2,842.9	2,794.8	2,752.9	10.5	9.0	136.88	-168.1	-399.2	663.8	648.4	15.38	43.164	
3,000.0	2,940.3	2,890.2	2,846.1	11.0	9.4	136.85	-175.3	-417.8	694.1	678.1	16.00	43.368	
3,100.0	3,037.6	2,985.5	2,939.3	11.4	9.8	136.82	-182.5	-436.4	724.3	707.7	16.63	43.557	
3,200.0	3,135.0	3,080.8	3,032.5	11.9	10.2	136.80	-189.7	-455.0	754.6	737.3	17.25	43.730	
3,300.0	3,232.4	3,176.1	3,125.7	12.3	10.6	136.77	-196.9	-473.6	784.8	766.9	17.88	43.891	
3,400.0	3,329.7	3,271.4	3,218.9	12.7	11.0	136.75	-204.1	-492.3	815.0	796.5	18.51	44.041	
3,500.0	3,427.1	3,366.7	3,312.1	13.2	11.4	136.73	-211.3	-510.9	845.3	826.2	19.13	44.180	
3,600.0	3,524.4	3,462.1	3,405.3	13.6	11.7	136.72	-218.5	-529.5	875.5	855.8	19.76	44.310	
3,700.0	3,621.8	3,557.4	3,498.5	14.0	12.1	136.70	-225.7	-548.1	905.8	885.4	20.39	44.432	
3,800.0	3,719.2	3,652.7	3,591.7	14.5	12.5	136.68	-232.9	-566.7	936.0	915.0	21.01	44.545	
3,900.0	3,816.5	3,748.0	3,685.0	14.9	12.9	136.67	-240.1	-585.3	966.3	944.6	21.64	44.653	
4,000.0	3,913.9	3,843.3	3,778.2	15.3	13.3	136.65	-247.3	-603.9	996.5	974.2	22.27	44.753	
4,100.0	4,011.2	3,938.6	3,871.4	15.8	13.7	136.64	-254.5	-622.5	1,026.8	1,003.9	22.89	44.848	
4,200.0	4,108.6	4,034.0	3,964.6	16.2	14.1	136.63	-261.7	-641.1	1,057.0	1,033.5	23.52	44.938	
4,300.0	4,205.9	4,129.3	4,057.8	16.6	14.5	136.62	-268.9	-659.8	1,087.2	1,063.1	24.15	45.023	
4,400.0	4,303.3	4,224.6	4,151.0	17.1	14.9	136.61	-276.1	-678.4	1,117.5	1,092.7	24.78	45.103	
4,500.0	4,400.7	4,319.9	4,244.2	17.5	15.3	136.60	-283.3	-697.0	1,147.7	1,122.3	25.40	45.179	
4,600.0	4,498.0	4,415.2	4,337.4	17.9	15.6	136.59	-290.5	-715.6	1,178.0	1,152.0	26.03	45.252	
4,700.0	4,595.4	4,510.5	4,430.6	18.4	16.0	136.58	-297.7	-734.2	1,208.2	1,181.6	26.66	45.320	
4,800.0	4,692.7	4,618.9	4,536.6	18.8	16.5	136.58	-305.7	-755.0	1,238.3	1,211.0	27.32	45.331	
4,900.0	4,790.1	4,753.1	4,668.9	19.3	16.9	136.76	-314.0	-776.4	1,266.1	1,238.1	27.98	45.250	
5,000.0	4,887.5	4,889.1	4,803.8	19.7	17.2	137.15	-320.1	-792.1	1,290.9	1,262.4	28.57	45.177	

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

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM02D B21 696 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,984.8	5,026.4	4,940.7	20.1	17.5	137.75	-323.9	-801.8	1,312.8	1,283.7	29.09	45.133	
5,200.0	5,082.2	5,164.3	5,078.5	20.6	17.6	138.54	-325.3	-805.5	1,331.8	1,302.3	29.52	45.109	
5,300.0	5,179.5	5,262.8	5,177.0	21.0	17.7	139.18	-325.4	-805.7	1,349.3	1,319.4	29.91	45.118	
5,400.0	5,276.9	5,357.4	5,271.6	21.4	17.8	139.76	-325.6	-806.1	1,367.2	1,336.9	30.29	45.142	
5,500.0	5,374.2	5,454.3	5,368.5	21.9	17.9	140.33	-326.1	-806.9	1,385.3	1,354.6	30.66	45.177	

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM07A B21 696 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-150.31	-26.2	-15.0	30.2				
100.0	100.0	100.0	100.0	0.1	0.1	-150.31	-26.2	-15.0	30.2	29.9	0.30	101.746	
200.0	200.0	200.0	200.0	0.3	0.3	-150.31	-26.2	-15.0	30.2	29.5	0.65	46.748	
300.0	300.0	300.0	300.0	0.5	0.5	-150.31	-26.2	-15.0	30.2	29.2	0.99	30.345	
400.0	400.0	400.0	400.0	0.7	0.7	52.09	-26.2	-15.0	29.1	27.7	1.35	21.618	
500.0	499.8	499.8	499.8	0.9	0.8	61.19	-26.2	-15.0	26.2	24.5	1.71	15.344	
575.3	574.9	574.3	574.3	1.0	1.0	74.32	-26.8	-15.7	24.8	22.8	2.00	12.380	CC, ES
600.0	599.5	598.6	598.6	1.1	1.0	79.71	-27.2	-16.3	25.0	22.9	2.10	11.889	SF
700.0	698.7	697.0	696.9	1.3	1.2	101.67	-30.2	-20.5	30.2	27.7	2.53	11.942	
800.0	797.5	794.8	794.3	1.6	1.4	116.73	-35.1	-27.3	42.5	39.5	2.97	14.307	
900.0	895.6	891.7	890.5	2.0	1.6	124.79	-41.8	-36.7	60.5	57.1	3.45	17.545	
1,000.0	993.1	987.8	985.5	2.4	1.9	128.92	-50.4	-48.6	83.0	79.1	3.97	20.897	
1,100.0	1,090.5	1,084.9	1,081.2	2.8	2.2	131.10	-59.8	-61.6	106.9	102.4	4.53	23.606	
1,200.0	1,187.8	1,181.9	1,176.9	3.2	2.5	132.49	-69.1	-74.7	130.8	125.7	5.10	25.668	
1,300.0	1,285.2	1,279.0	1,272.6	3.6	2.8	133.45	-78.5	-87.7	154.8	149.2	5.68	27.274	
1,400.0	1,382.6	1,376.0	1,368.3	4.1	3.1	134.15	-87.9	-100.8	178.9	172.6	6.26	28.554	
1,500.0	1,479.9	1,473.1	1,464.0	4.5	3.4	134.68	-97.2	-113.8	202.9	196.0	6.86	29.593	
1,600.0	1,577.3	1,570.1	1,559.7	4.9	3.7	135.11	-106.6	-126.9	226.9	219.5	7.45	30.453	
1,700.0	1,674.6	1,667.2	1,655.5	5.4	4.1	135.45	-116.0	-139.9	251.0	243.0	8.05	31.173	
1,800.0	1,772.0	1,764.2	1,751.2	5.8	4.4	135.73	-125.4	-153.0	275.1	266.4	8.65	31.785	
1,900.0	1,869.3	1,861.3	1,846.9	6.2	4.7	135.97	-134.7	-166.0	299.2	289.9	9.26	32.311	
2,000.0	1,966.7	1,958.3	1,942.6	6.6	5.0	136.17	-144.1	-179.1	323.2	313.4	9.86	32.768	
2,100.0	2,064.1	2,055.4	2,038.3	7.1	5.3	136.34	-153.5	-192.1	347.3	336.8	10.47	33.168	
2,200.0	2,161.4	2,152.4	2,134.0	7.5	5.7	136.49	-162.9	-205.2	371.4	360.3	11.08	33.521	
2,300.0	2,258.8	2,249.5	2,229.7	7.9	6.0	136.62	-172.2	-218.2	395.5	383.8	11.69	33.834	
2,400.0	2,356.1	2,346.5	2,325.4	8.4	6.3	136.74	-181.6	-231.3	419.6	407.3	12.30	34.115	
2,500.0	2,453.5	2,443.6	2,421.2	8.8	6.6	136.84	-191.0	-244.3	443.7	430.8	12.91	34.367	
2,600.0	2,550.9	2,540.6	2,516.9	9.2	7.0	136.94	-200.3	-257.4	467.8	454.2	13.52	34.595	
2,700.0	2,648.2	2,637.7	2,612.6	9.7	7.3	137.02	-209.7	-270.4	491.9	477.7	14.13	34.802	
2,800.0	2,745.6	2,734.7	2,708.3	10.1	7.6	137.10	-219.1	-283.5	516.0	501.2	14.75	34.991	
2,900.0	2,842.9	2,831.8	2,804.0	10.5	7.9	137.17	-228.5	-296.6	540.0	524.7	15.36	35.164	
3,000.0	2,940.3	2,928.9	2,899.7	11.0	8.3	137.23	-237.8	-309.6	564.1	548.2	15.97	35.323	
3,100.0	3,037.6	3,025.9	2,995.4	11.4	8.6	137.29	-247.2	-322.7	588.2	571.7	16.58	35.469	
3,200.0	3,135.0	3,123.0	3,091.1	11.9	8.9	137.34	-256.6	-335.7	612.3	595.1	17.20	35.605	
3,300.0	3,232.4	3,220.0	3,186.9	12.3	9.3	137.39	-266.0	-348.8	636.4	618.6	17.81	35.731	
3,400.0	3,329.7	3,317.1	3,282.6	12.7	9.6	137.44	-275.3	-361.8	660.5	642.1	18.43	35.848	
3,500.0	3,427.1	3,414.1	3,378.3	13.2	9.9	137.48	-284.7	-374.9	684.6	665.6	19.04	35.957	
3,600.0	3,524.4	3,511.2	3,474.0	13.6	10.2	137.52	-294.1	-387.9	708.7	689.1	19.65	36.059	
3,700.0	3,621.8	3,608.2	3,569.7	14.0	10.6	137.56	-303.4	-401.0	732.8	712.6	20.27	36.154	
3,800.0	3,719.2	3,705.3	3,665.4	14.5	10.9	137.60	-312.8	-414.0	756.9	736.0	20.88	36.244	
3,900.0	3,816.5	3,802.3	3,761.1	14.9	11.2	137.63	-322.2	-427.1	781.0	759.5	21.50	36.328	
4,000.0	3,913.9	3,899.4	3,856.8	15.3	11.6	137.66	-331.6	-440.1	805.1	783.0	22.11	36.408	
4,100.0	4,011.2	3,996.4	3,952.6	15.8	11.9	137.69	-340.9	-453.2	829.2	806.5	22.73	36.483	
4,200.0	4,108.6	4,093.5	4,048.3	16.2	12.2	137.72	-350.3	-466.2	853.3	830.0	23.34	36.553	
4,300.0	4,205.9	4,190.5	4,144.0	16.6	12.5	137.74	-359.7	-479.3	877.4	853.5	23.96	36.620	
4,400.0	4,303.3	4,287.6	4,239.7	17.1	12.9	137.77	-369.1	-492.3	901.5	877.0	24.58	36.684	
4,500.0	4,400.7	4,384.6	4,335.4	17.5	13.2	137.79	-378.4	-505.4	925.6	900.4	25.19	36.744	
4,600.0	4,498.0	4,481.7	4,431.1	17.9	13.5	137.81	-387.8	-518.4	949.7	923.9	25.81	36.802	
4,700.0	4,595.4	4,578.7	4,526.8	18.4	13.9	137.83	-397.2	-531.5	973.8	947.4	26.42	36.856	
4,800.0	4,692.7	4,675.8	4,622.5	18.8	14.2	137.85	-406.5	-544.5	997.9	970.9	27.04	36.908	
4,900.0	4,790.1	4,772.8	4,718.3	19.3	14.5	137.87	-415.9	-557.6	1,022.0	994.4	27.65	36.958	
5,000.0	4,887.5	4,869.9	4,814.0	19.7	14.8	137.89	-425.3	-570.6	1,046.1	1,017.9	28.27	37.005	

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

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM07A B21 696 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,984.8	4,966.9	4,909.7	20.1	15.2	137.91	-434.7	-583.7	1,070.2	1,041.3	28.89	37.051	
5,200.0	5,082.2	5,064.0	5,005.4	20.6	15.5	137.92	-444.0	-596.7	1,094.3	1,064.8	29.50	37.094	
5,300.0	5,179.5	5,161.0	5,101.1	21.0	15.8	137.94	-453.4	-609.8	1,118.4	1,088.3	30.12	37.135	
5,400.0	5,276.9	5,258.1	5,196.8	21.4	16.2	137.95	-462.8	-622.8	1,142.5	1,111.8	30.73	37.175	
5,500.0	5,374.2	5,355.1	5,292.5	21.9	16.5	137.97	-472.2	-635.9	1,166.6	1,135.3	31.35	37.213	
5,600.0	5,471.6	5,452.2	5,388.2	22.3	16.8	137.98	-481.5	-648.9	1,190.7	1,158.8	31.97	37.250	
5,700.0	5,569.0	5,549.2	5,484.0	22.7	17.1	138.00	-490.9	-662.0	1,214.8	1,182.3	32.58	37.285	
5,800.0	5,666.3	5,646.3	5,579.7	23.2	17.5	138.01	-500.3	-675.0	1,238.9	1,205.7	33.20	37.319	
5,900.0	5,763.7	5,743.4	5,675.4	23.6	17.8	138.02	-509.6	-688.1	1,263.0	1,229.2	33.81	37.352	
6,000.0	5,861.0	5,840.4	5,771.1	24.0	18.1	138.03	-519.0	-701.1	1,287.1	1,252.7	34.43	37.383	
6,100.0	5,958.4	5,937.5	5,866.8	24.5	18.5	138.05	-528.4	-714.2	1,311.3	1,276.2	35.05	37.414	
6,200.0	6,055.8	6,034.5	5,962.5	24.9	18.8	138.06	-537.8	-727.2	1,335.4	1,299.7	35.66	37.443	
6,300.0	6,153.1	6,131.6	6,058.2	25.4	19.1	138.07	-547.1	-740.3	1,359.5	1,323.2	36.28	37.471	
6,400.0	6,250.5	6,228.6	6,153.9	25.8	19.4	138.14	-556.5	-753.3	1,383.5	1,346.6	36.91	37.488	

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM07B B21 696 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-150.54	-35.0	-19.7	40.2				
100.0	100.0	100.0	100.0	0.1	0.1	-150.54	-35.0	-19.7	40.2	39.9	0.30	135.349	
200.0	200.0	200.0	200.0	0.3	0.3	-150.54	-35.0	-19.7	40.2	39.5	0.65	62.187	
300.0	300.0	300.0	300.0	0.5	0.5	-150.54	-35.0	-19.7	40.2	39.2	0.99	40.367	
400.0	400.0	400.0	400.0	0.7	0.7	51.18	-35.0	-19.7	39.0	37.7	1.35	29.020	
500.0	499.8	498.6	498.6	0.9	0.8	58.01	-36.1	-21.0	37.7	36.0	1.70	22.118	
510.7	510.5	509.1	509.1	0.9	0.9	59.07	-36.4	-21.3	37.7	35.9	1.74	21.590	CC, ES
600.0	599.5	596.9	596.8	1.1	1.0	69.85	-39.6	-24.7	39.0	36.9	2.09	18.651	
700.0	698.7	694.8	694.3	1.3	1.2	83.63	-45.3	-30.8	44.7	42.2	2.53	17.678	SF
800.0	797.5	792.1	790.9	1.6	1.5	95.59	-53.3	-39.3	55.8	52.7	3.03	18.412	
900.0	895.6	888.5	886.2	2.0	1.8	104.27	-63.4	-50.0	72.0	68.4	3.59	20.041	
1,000.0	993.1	984.0	979.9	2.4	2.1	110.10	-75.6	-63.0	92.7	88.5	4.21	22.026	
1,100.0	1,090.5	1,080.1	1,073.9	2.8	2.4	113.28	-89.6	-77.9	116.1	111.2	4.86	23.895	
1,200.0	1,187.8	1,177.2	1,168.7	3.2	2.8	115.34	-103.9	-93.1	139.8	134.3	5.53	25.298	
1,300.0	1,285.2	1,274.2	1,263.4	3.6	3.2	116.79	-118.2	-108.3	163.7	157.5	6.21	26.366	
1,400.0	1,382.6	1,371.2	1,358.2	4.1	3.6	117.88	-132.5	-123.5	187.7	180.8	6.90	27.200	
1,500.0	1,479.9	1,468.3	1,452.9	4.5	4.0	118.72	-146.8	-138.7	211.7	204.1	7.60	27.867	
1,600.0	1,577.3	1,565.3	1,547.7	4.9	4.4	119.39	-161.1	-154.0	235.7	227.4	8.30	28.410	
1,700.0	1,674.6	1,662.3	1,642.5	5.4	4.8	119.93	-175.4	-169.2	259.8	250.8	9.00	28.860	
1,800.0	1,772.0	1,759.4	1,737.2	5.8	5.2	120.38	-189.7	-184.4	283.9	274.2	9.71	29.239	
1,900.0	1,869.3	1,856.4	1,832.0	6.2	5.6	120.77	-204.0	-199.6	308.0	297.6	10.42	29.561	
2,000.0	1,966.7	1,953.4	1,926.7	6.6	6.0	121.09	-218.3	-214.8	332.1	321.0	11.13	29.839	
2,100.0	2,064.1	2,050.5	2,021.5	7.1	6.4	121.38	-232.6	-230.0	356.2	344.4	11.84	30.081	
2,200.0	2,161.4	2,147.5	2,116.2	7.5	6.8	121.62	-246.9	-245.3	380.4	367.8	12.56	30.293	
2,300.0	2,258.8	2,244.5	2,211.0	7.9	7.2	121.84	-261.2	-260.5	404.5	391.2	13.27	30.481	
2,400.0	2,356.1	2,341.6	2,305.8	8.4	7.6	122.03	-275.5	-275.7	428.6	414.6	13.99	30.648	
2,500.0	2,453.5	2,438.6	2,400.5	8.8	8.0	122.20	-289.8	-290.9	452.8	438.1	14.70	30.798	
2,600.0	2,550.9	2,535.6	2,495.3	9.2	8.4	122.36	-304.1	-306.1	476.9	461.5	15.42	30.932	
2,700.0	2,648.2	2,632.7	2,590.0	9.7	8.8	122.50	-318.4	-321.3	501.1	484.9	16.14	31.054	
2,800.0	2,745.6	2,729.7	2,684.8	10.1	9.2	122.62	-332.7	-336.6	525.2	508.4	16.85	31.165	
2,900.0	2,842.9	2,826.7	2,779.6	10.5	9.6	122.74	-347.1	-351.8	549.4	531.8	17.57	31.266	
3,000.0	2,940.3	2,923.8	2,874.3	11.0	10.0	122.85	-361.4	-367.0	573.5	555.2	18.29	31.359	
3,100.0	3,037.6	3,020.8	2,969.1	11.4	10.4	122.94	-375.7	-382.2	597.7	578.7	19.01	31.445	
3,200.0	3,135.0	3,117.8	3,063.8	11.9	10.8	123.03	-390.0	-397.4	621.8	602.1	19.73	31.524	
3,300.0	3,232.4	3,214.9	3,158.6	12.3	11.2	123.12	-404.3	-412.6	646.0	625.6	20.45	31.597	
3,400.0	3,329.7	3,311.9	3,253.4	12.7	11.6	123.19	-418.6	-427.9	670.2	649.0	21.16	31.664	
3,500.0	3,427.1	3,408.9	3,348.1	13.2	12.0	123.27	-432.9	-443.1	694.3	672.4	21.88	31.728	
3,600.0	3,524.4	3,506.0	3,442.9	13.6	12.4	123.33	-447.2	-458.3	718.5	695.9	22.60	31.786	
3,700.0	3,621.8	3,603.0	3,537.6	14.0	12.8	123.40	-461.5	-473.5	742.7	719.3	23.32	31.841	
3,800.0	3,719.2	3,700.0	3,632.4	14.5	13.2	123.45	-475.8	-488.7	766.8	742.8	24.04	31.893	
3,900.0	3,816.5	3,797.1	3,727.2	14.9	13.6	123.51	-490.1	-503.9	791.0	766.2	24.76	31.942	
4,000.0	3,913.9	3,894.1	3,821.9	15.3	14.0	123.56	-504.4	-519.2	815.2	789.7	25.48	31.987	
4,100.0	4,011.2	3,991.1	3,916.7	15.8	14.4	123.61	-518.7	-534.4	839.3	813.1	26.20	32.030	
4,200.0	4,108.6	4,088.2	4,011.4	16.2	14.8	123.66	-533.0	-549.6	863.5	836.6	26.92	32.071	
4,300.0	4,205.9	4,185.2	4,106.2	16.6	15.2	123.70	-547.3	-564.8	887.7	860.0	27.65	32.109	
4,400.0	4,303.3	4,282.2	4,201.0	17.1	15.6	123.74	-561.6	-580.0	911.8	883.5	28.37	32.145	
4,500.0	4,400.7	4,379.3	4,295.7	17.5	16.1	123.78	-575.9	-595.2	936.0	906.9	29.09	32.180	
4,600.0	4,498.0	4,476.3	4,390.5	17.9	16.5	123.82	-590.2	-610.5	960.2	930.4	29.81	32.213	
4,700.0	4,595.4	4,573.3	4,485.2	18.4	16.9	123.85	-604.5	-625.7	984.3	953.8	30.53	32.244	
4,800.0	4,692.7	4,670.4	4,580.0	18.8	17.3	123.89	-618.8	-640.9	1,008.5	977.3	31.25	32.273	
4,900.0	4,790.1	4,767.4	4,674.8	19.3	17.7	123.92	-633.1	-656.1	1,032.7	1,000.7	31.97	32.302	
5,000.0	4,887.5	4,864.4	4,769.5	19.7	18.1	123.95	-647.4	-671.3	1,056.9	1,024.2	32.69	32.329	

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

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM07B B21 696 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,984.8	4,961.5	4,864.3	20.1	18.5	123.98	-661.7	-686.5	1,081.0	1,047.6	33.41	32.354	
5,200.0	5,082.2	5,058.5	4,959.0	20.6	18.9	124.01	-676.0	-701.8	1,105.2	1,071.1	34.13	32.379	
5,300.0	5,179.5	5,155.5	5,053.8	21.0	19.3	124.03	-690.3	-717.0	1,129.4	1,094.5	34.85	32.403	
5,400.0	5,276.9	5,252.6	5,148.5	21.4	19.7	124.06	-704.6	-732.2	1,153.5	1,118.0	35.58	32.425	
5,500.0	5,374.2	5,349.6	5,243.3	21.9	20.1	124.08	-718.9	-747.4	1,177.7	1,141.4	36.30	32.447	
5,600.0	5,471.6	5,446.6	5,338.1	22.3	20.5	124.11	-733.2	-762.6	1,201.9	1,164.9	37.02	32.468	
5,700.0	5,569.0	5,543.7	5,432.8	22.7	20.9	124.13	-747.5	-777.8	1,226.1	1,188.3	37.74	32.488	
5,800.0	5,666.3	5,640.7	5,527.6	23.2	21.3	124.15	-761.8	-793.1	1,250.2	1,211.8	38.46	32.507	
5,900.0	5,763.7	5,737.7	5,622.3	23.6	21.7	124.17	-776.1	-808.3	1,274.4	1,235.2	39.18	32.525	
6,000.0	5,861.0	5,834.8	5,717.1	24.0	22.1	124.19	-790.4	-823.5	1,298.6	1,258.7	39.90	32.543	
6,100.0	5,958.4	5,931.8	5,811.9	24.5	22.5	124.21	-804.7	-838.7	1,322.8	1,282.1	40.62	32.560	
6,200.0	6,055.8	6,028.8	5,906.6	24.9	22.9	124.23	-819.0	-853.9	1,346.9	1,305.6	41.35	32.577	
6,300.0	6,153.1	6,125.9	6,001.4	25.4	23.3	124.25	-833.3	-869.1	1,371.1	1,329.0	42.07	32.593	
6,400.0	6,250.5	6,222.9	6,096.2	25.8	23.8	124.34	-847.7	-884.4	1,395.2	1,352.4	42.80	32.597	

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM07C B21 696 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-150.37	-52.1	-29.6	59.9				
100.0	100.0	100.0	100.0	0.1	0.1	-150.37	-52.1	-29.6	59.9	59.6	0.30	201.968	
200.0	200.0	200.0	200.0	0.3	0.3	-150.37	-52.1	-29.6	59.9	59.3	0.65	92.796	
300.0	300.0	300.0	300.0	0.5	0.5	-150.37	-52.1	-29.6	59.9	58.9	0.99	60.236	CC, ES
400.0	400.0	398.0	397.9	0.7	0.7	50.91	-53.4	-30.7	60.5	59.1	1.34	45.079	
500.0	499.8	495.7	495.6	0.9	0.9	55.25	-57.2	-33.9	62.4	60.7	1.70	36.762	
600.0	599.5	593.2	592.7	1.1	1.1	61.82	-63.5	-39.3	66.4	64.4	2.08	31.951	
700.0	698.7	690.1	688.9	1.3	1.3	69.58	-72.3	-46.8	73.3	70.8	2.51	29.249	
800.0	797.5	786.4	784.0	1.6	1.6	77.41	-83.5	-56.3	83.8	80.8	3.01	27.884	
900.0	895.6	881.8	877.8	2.0	1.9	84.46	-97.0	-67.7	98.3	94.7	3.60	27.346	SF
1,000.0	993.1	976.3	970.0	2.4	2.3	90.37	-112.7	-81.0	116.8	112.6	4.26	27.399	
1,100.0	1,090.5	1,071.0	1,061.8	2.8	2.7	94.35	-130.6	-96.2	138.8	133.9	4.97	27.943	
1,200.0	1,187.8	1,168.1	1,155.6	3.2	3.2	97.14	-149.6	-112.3	162.0	156.3	5.70	28.393	
1,300.0	1,285.2	1,265.1	1,249.4	3.6	3.6	99.23	-168.6	-128.4	185.4	178.9	6.45	28.719	
1,400.0	1,382.6	1,362.1	1,343.1	4.1	4.1	100.85	-187.6	-144.5	209.0	201.8	7.22	28.962	
1,500.0	1,479.9	1,459.1	1,436.9	4.5	4.5	102.15	-206.5	-160.6	232.7	224.7	7.98	29.148	
1,600.0	1,577.3	1,556.2	1,530.7	4.9	5.0	103.20	-225.5	-176.7	256.5	247.7	8.76	29.295	
1,700.0	1,674.6	1,653.2	1,624.5	5.4	5.5	104.08	-244.5	-192.7	280.4	270.8	9.53	29.414	
1,800.0	1,772.0	1,750.2	1,718.3	5.8	5.9	104.82	-263.4	-208.8	304.3	294.0	10.31	29.512	
1,900.0	1,869.3	1,847.2	1,812.1	6.2	6.4	105.45	-282.4	-224.9	328.3	317.2	11.09	29.594	
2,000.0	1,966.7	1,944.3	1,905.9	6.6	6.9	105.99	-301.4	-241.0	352.3	340.4	11.87	29.664	
2,100.0	2,064.1	2,041.3	1,999.6	7.1	7.3	106.47	-320.3	-257.1	376.3	363.6	12.66	29.724	
2,200.0	2,161.4	2,138.3	2,093.4	7.5	7.8	106.89	-339.3	-273.2	400.3	386.9	13.44	29.776	
2,300.0	2,258.8	2,235.4	2,187.2	7.9	8.3	107.26	-358.3	-289.3	424.4	410.2	14.23	29.822	
2,400.0	2,356.1	2,332.4	2,281.0	8.4	8.7	107.59	-377.3	-305.3	448.5	433.5	15.02	29.863	
2,500.0	2,453.5	2,429.4	2,374.8	8.8	9.2	107.89	-396.2	-321.4	472.6	456.8	15.81	29.899	
2,600.0	2,550.9	2,526.4	2,468.6	9.2	9.7	108.15	-415.2	-337.5	496.7	480.1	16.59	29.931	
2,700.0	2,648.2	2,623.5	2,562.3	9.7	10.1	108.40	-434.2	-353.6	520.8	503.4	17.38	29.960	
2,800.0	2,745.6	2,720.5	2,656.1	10.1	10.6	108.62	-453.1	-369.7	544.9	526.7	18.17	29.987	
2,900.0	2,842.9	2,817.5	2,749.9	10.5	11.1	108.82	-472.1	-385.8	569.0	550.1	18.96	30.011	
3,000.0	2,940.3	2,914.5	2,843.7	11.0	11.6	109.01	-491.1	-401.9	593.2	573.4	19.75	30.033	
3,100.0	3,037.6	3,011.6	2,937.5	11.4	12.0	109.18	-510.0	-417.9	617.3	596.8	20.54	30.053	
3,200.0	3,135.0	3,108.6	3,031.3	11.9	12.5	109.34	-529.0	-434.0	641.5	620.1	21.33	30.071	
3,300.0	3,232.4	3,205.6	3,125.1	12.3	13.0	109.49	-548.0	-450.1	665.6	643.5	22.12	30.089	
3,400.0	3,329.7	3,302.6	3,218.8	12.7	13.4	109.63	-566.9	-466.2	689.8	666.9	22.91	30.105	
3,500.0	3,427.1	3,399.7	3,312.6	13.2	13.9	109.75	-585.9	-482.3	713.9	690.2	23.70	30.119	
3,600.0	3,524.4	3,496.7	3,406.4	13.6	14.4	109.87	-604.9	-498.4	738.1	713.6	24.49	30.133	
3,700.0	3,621.8	3,593.7	3,500.2	14.0	14.8	109.99	-623.9	-514.5	762.2	737.0	25.29	30.146	
3,800.0	3,719.2	3,690.7	3,594.0	14.5	15.3	110.09	-642.8	-530.5	786.4	760.3	26.08	30.158	
3,900.0	3,816.5	3,787.8	3,687.8	14.9	15.8	110.19	-661.8	-546.6	810.6	783.7	26.87	30.169	
4,000.0	3,913.9	3,884.8	3,781.5	15.3	16.3	110.28	-680.8	-562.7	834.7	807.1	27.66	30.180	
4,100.0	4,011.2	3,981.8	3,875.3	15.8	16.7	110.37	-699.7	-578.8	858.9	830.5	28.45	30.190	
4,200.0	4,108.6	4,078.9	3,969.1	16.2	17.2	110.45	-718.7	-594.9	883.1	853.9	29.24	30.199	
4,300.0	4,205.9	4,175.9	4,062.9	16.6	17.7	110.53	-737.7	-611.0	907.3	877.2	30.03	30.208	
4,400.0	4,303.3	4,272.9	4,156.7	17.1	18.1	110.61	-756.6	-627.1	931.4	900.6	30.83	30.217	
4,500.0	4,400.7	4,369.9	4,250.5	17.5	18.6	110.68	-775.6	-643.1	955.6	924.0	31.62	30.225	
4,600.0	4,498.0	4,467.0	4,344.3	17.9	19.1	110.75	-794.6	-659.2	979.8	947.4	32.41	30.232	
4,700.0	4,595.4	4,564.0	4,438.0	18.4	19.6	110.81	-813.5	-675.3	1,004.0	970.8	33.20	30.240	
4,800.0	4,692.7	4,661.0	4,531.8	18.8	20.0	110.87	-832.5	-691.4	1,028.2	994.2	33.99	30.247	
4,900.0	4,790.1	4,758.0	4,625.6	19.3	20.5	110.93	-851.5	-707.5	1,052.3	1,017.6	34.78	30.253	
5,000.0	4,887.5	4,855.1	4,719.4	19.7	21.0	110.99	-870.5	-723.6	1,076.5	1,041.0	35.58	30.259	
5,100.0	4,984.8	4,952.1	4,813.2	20.1	21.4	111.04	-889.4	-739.6	1,100.7	1,064.3	36.37	30.265	

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

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM07C B21 696 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	5,082.2	5,049.1	4,907.0	20.6	21.9	111.09	-908.4	-755.7	1,124.9	1,087.7	37.16	30.271	
5,300.0	5,179.5	5,146.1	5,000.8	21.0	22.4	111.14	-927.4	-771.8	1,149.1	1,111.1	37.95	30.277	
5,400.0	5,276.9	5,243.2	5,094.5	21.4	22.8	111.19	-946.3	-787.9	1,173.3	1,134.5	38.75	30.282	
5,500.0	5,374.2	5,340.2	5,188.3	21.9	23.3	111.23	-965.3	-804.0	1,197.5	1,157.9	39.54	30.287	
5,600.0	5,471.6	5,437.2	5,282.1	22.3	23.8	111.27	-984.3	-820.1	1,221.7	1,181.3	40.33	30.292	
5,700.0	5,569.0	5,534.3	5,375.9	22.7	24.3	111.31	-1,003.2	-836.2	1,245.8	1,204.7	41.12	30.296	
5,800.0	5,666.3	5,631.3	5,469.7	23.2	24.7	111.35	-1,022.2	-852.2	1,270.0	1,228.1	41.91	30.301	
5,900.0	5,763.7	5,728.3	5,563.5	23.6	25.2	111.39	-1,041.2	-868.3	1,294.2	1,251.5	42.71	30.305	
6,000.0	5,861.0	5,825.3	5,657.2	24.0	25.7	111.43	-1,060.2	-884.4	1,318.4	1,274.9	43.50	30.309	
6,100.0	5,958.4	5,922.4	5,751.0	24.5	26.1	111.47	-1,079.1	-900.5	1,342.6	1,298.3	44.29	30.313	
6,200.0	6,055.8	6,019.4	5,844.8	24.9	26.6	111.50	-1,098.1	-916.6	1,366.8	1,321.7	45.08	30.317	
6,300.0	6,153.1	6,116.4	5,938.6	25.4	27.1	111.53	-1,117.1	-932.7	1,391.0	1,345.1	45.88	30.321	

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM07D B21 696 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-150.40	-43.7	-24.8	50.3				
100.0	100.0	100.0	100.0	0.1	0.1	-150.40	-43.7	-24.8	50.3	50.0	0.30	169.421	
200.0	200.0	200.0	200.0	0.3	0.3	-150.40	-43.7	-24.8	50.3	49.6	0.65	77.842	CC
300.0	300.0	299.8	299.8	0.5	0.5	-152.37	-44.7	-23.4	50.5	49.5	1.00	50.562	ES
400.0	400.0	398.0	397.9	0.7	0.7	45.13	-48.1	-21.5	51.5	50.1	1.35	38.098	
500.0	499.8	496.2	495.9	0.9	0.9	45.96	-54.4	-21.3	53.5	51.8	1.71	31.250	
600.0	599.5	594.2	593.5	1.1	1.1	49.51	-63.5	-22.9	56.6	54.5	2.09	27.033	
700.0	698.7	691.9	690.4	1.3	1.4	55.09	-75.4	-26.2	61.3	58.7	2.52	24.259	
800.0	797.5	789.2	786.4	1.6	1.7	61.83	-90.0	-31.3	68.1	65.1	3.04	22.436	
900.0	895.6	885.9	881.4	2.0	2.0	68.81	-107.3	-38.0	77.7	74.1	3.66	21.248	
1,000.0	993.1	982.0	975.0	2.4	2.4	75.25	-127.1	-46.3	90.5	86.1	4.38	20.646	
1,100.0	1,090.5	1,077.5	1,067.3	2.8	2.8	79.63	-149.5	-56.2	107.0	101.8	5.15	20.775	
1,200.0	1,187.8	1,175.6	1,161.7	3.2	3.3	82.53	-173.8	-67.3	125.3	119.3	5.94	21.076	
1,300.0	1,285.2	1,273.8	1,256.2	3.6	3.8	84.69	-198.1	-78.3	143.8	137.0	6.75	21.298	
1,400.0	1,382.6	1,371.9	1,350.6	4.1	4.3	86.36	-222.4	-89.3	162.4	154.9	7.57	21.465	
1,500.0	1,479.9	1,470.1	1,445.1	4.5	4.8	87.68	-246.7	-100.3	181.2	172.8	8.39	21.594	
1,600.0	1,577.3	1,568.2	1,539.5	4.9	5.2	88.76	-271.0	-111.4	200.1	190.9	9.22	21.697	
1,700.0	1,674.6	1,666.4	1,634.0	5.4	5.7	89.65	-295.3	-122.4	219.0	208.9	10.05	21.781	
1,800.0	1,772.0	1,764.5	1,728.4	5.8	6.2	90.39	-319.6	-133.4	237.9	227.1	10.89	21.851	
1,900.0	1,869.3	1,862.6	1,822.9	6.2	6.7	91.03	-343.9	-144.4	256.9	245.2	11.73	21.909	
2,000.0	1,966.7	1,960.8	1,917.3	6.6	7.2	91.58	-368.2	-155.5	275.9	263.4	12.57	21.959	
2,100.0	2,064.1	2,058.9	2,011.7	7.1	7.7	92.06	-392.5	-166.5	295.0	281.6	13.41	22.003	
2,200.0	2,161.4	2,157.1	2,106.2	7.5	8.2	92.48	-416.7	-177.5	314.0	299.8	14.25	22.040	
2,300.0	2,258.8	2,255.2	2,200.6	7.9	8.7	92.85	-441.0	-188.5	333.1	318.0	15.09	22.073	
2,400.0	2,356.1	2,353.4	2,295.1	8.4	9.2	93.19	-465.3	-199.6	352.2	336.2	15.93	22.102	
2,500.0	2,453.5	2,451.5	2,389.5	8.8	9.7	93.48	-489.6	-210.6	371.3	354.5	16.78	22.129	
2,600.0	2,550.9	2,549.6	2,484.0	9.2	10.2	93.75	-513.9	-221.6	390.4	372.7	17.62	22.152	
2,700.0	2,648.2	2,647.8	2,578.4	9.7	10.7	94.00	-538.2	-232.6	409.5	391.0	18.47	22.173	
2,800.0	2,745.6	2,745.9	2,672.9	10.1	11.2	94.22	-562.5	-243.7	428.6	409.3	19.31	22.192	
2,900.0	2,842.9	2,844.1	2,767.3	10.5	11.7	94.42	-586.8	-254.7	447.7	427.5	20.16	22.210	
3,000.0	2,940.3	2,942.2	2,861.8	11.0	12.2	94.61	-611.1	-265.7	466.8	445.8	21.00	22.226	
3,100.0	3,037.6	3,040.4	2,956.2	11.4	12.7	94.78	-635.4	-276.8	486.0	464.1	21.85	22.240	
3,200.0	3,135.0	3,138.5	3,050.7	11.9	13.2	94.94	-659.7	-287.8	505.1	482.4	22.70	22.254	
3,300.0	3,232.4	3,236.7	3,145.1	12.3	13.7	95.09	-684.0	-298.8	524.2	500.7	23.54	22.266	
3,400.0	3,329.7	3,334.8	3,239.6	12.7	14.2	95.22	-708.3	-309.8	543.4	519.0	24.39	22.278	
3,500.0	3,427.1	3,432.9	3,334.0	13.2	14.7	95.35	-732.6	-320.9	562.5	537.3	25.24	22.289	
3,600.0	3,524.4	3,531.1	3,428.5	13.6	15.2	95.47	-756.9	-331.9	581.6	555.6	26.08	22.299	
3,700.0	3,621.8	3,629.2	3,522.9	14.0	15.7	95.58	-781.2	-342.9	600.8	573.9	26.93	22.308	
3,800.0	3,719.2	3,727.4	3,617.3	14.5	16.2	95.69	-805.5	-353.9	619.9	592.2	27.78	22.317	
3,900.0	3,816.5	3,825.5	3,711.8	14.9	16.7	95.79	-829.8	-365.0	639.1	610.5	28.63	22.325	
4,000.0	3,913.9	3,923.7	3,806.2	15.3	17.2	95.88	-854.1	-376.0	658.2	628.8	29.47	22.333	
4,100.0	4,011.2	4,021.8	3,900.7	15.8	17.6	95.97	-878.4	-387.0	677.4	647.1	30.32	22.340	
4,200.0	4,108.6	4,119.9	3,995.1	16.2	18.1	96.05	-902.7	-398.0	696.5	665.4	31.17	22.347	
4,300.0	4,205.9	4,218.1	4,089.6	16.6	18.6	96.13	-927.0	-409.1	715.7	683.7	32.02	22.353	
4,400.0	4,303.3	4,316.2	4,184.0	17.1	19.1	96.20	-951.3	-420.1	734.9	702.0	32.87	22.360	
4,500.0	4,400.7	4,414.4	4,278.5	17.5	19.6	96.27	-975.6	-431.1	754.0	720.3	33.71	22.365	
4,600.0	4,498.0	4,512.5	4,372.9	17.9	20.1	96.34	-999.9	-442.1	773.2	738.6	34.56	22.371	
4,700.0	4,595.4	4,610.7	4,467.4	18.4	20.6	96.40	-1,024.2	-453.2	792.3	756.9	35.41	22.376	
4,800.0	4,692.7	4,708.8	4,561.8	18.8	21.1	96.46	-1,048.4	-464.2	811.5	775.2	36.26	22.381	
4,900.0	4,790.1	4,807.0	4,656.3	19.3	21.6	96.52	-1,072.7	-475.2	830.7	793.5	37.11	22.386	
5,000.0	4,887.5	4,905.1	4,750.7	19.7	22.1	96.58	-1,097.0	-486.2	849.8	811.9	37.95	22.391	
5,100.0	4,984.8	5,003.2	4,845.2	20.1	22.6	96.63	-1,121.3	-497.3	869.0	830.2	38.80	22.395	

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

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM07D B21 696 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	5,082.2	5,101.4	4,939.6	20.6	23.1	96.68	-1,145.6	-508.3	888.1	848.5	39.65	22.399	
5,300.0	5,179.5	5,199.5	5,034.1	21.0	23.6	96.73	-1,169.9	-519.3	907.3	866.8	40.50	22.403	
5,400.0	5,276.9	5,297.7	5,128.5	21.4	24.1	96.77	-1,194.2	-530.4	926.5	885.1	41.35	22.407	
5,500.0	5,374.2	5,395.8	5,223.0	21.9	24.6	96.82	-1,218.5	-541.4	945.6	903.4	42.20	22.411	
5,600.0	5,471.6	5,494.0	5,317.4	22.3	25.1	96.86	-1,242.8	-552.4	964.8	921.8	43.04	22.414	
5,700.0	5,569.0	5,592.1	5,411.8	22.7	25.6	96.90	-1,267.1	-563.4	984.0	940.1	43.89	22.417	
5,800.0	5,666.3	5,690.2	5,506.3	23.2	26.1	96.94	-1,291.4	-574.5	1,003.1	958.4	44.74	22.421	
5,900.0	5,763.7	5,788.4	5,600.7	23.6	26.6	96.98	-1,315.7	-585.5	1,022.3	976.7	45.59	22.424	
6,000.0	5,861.0	5,886.5	5,695.2	24.0	27.1	97.02	-1,340.0	-596.5	1,041.5	995.0	46.44	22.427	
6,100.0	5,958.4	5,984.7	5,789.6	24.5	27.6	97.05	-1,364.3	-607.5	1,060.6	1,013.4	47.29	22.430	
6,200.0	6,055.8	6,082.8	5,884.1	24.9	28.1	97.09	-1,388.6	-618.6	1,079.8	1,031.7	48.14	22.432	
6,300.0	6,153.1	6,181.0	5,978.5	25.4	28.6	97.12	-1,412.9	-629.6	1,099.0	1,050.0	48.98	22.435	
6,400.0	6,250.5	6,279.1	6,073.0	25.8	29.1	97.22	-1,437.2	-640.6	1,118.1	1,068.3	49.85	22.430	
6,500.0	6,348.4	6,404.0	6,193.8	26.2	29.7	97.56	-1,466.1	-653.7	1,136.0	1,085.2	50.77	22.373	
6,600.0	6,446.9	6,533.0	6,319.9	26.5	30.2	97.84	-1,490.8	-665.0	1,150.8	1,099.2	51.57	22.314	
6,700.0	6,546.0	6,663.0	6,448.0	26.7	30.6	98.07	-1,510.6	-673.9	1,162.5	1,110.2	52.24	22.254	
6,800.0	6,645.4	6,793.7	6,577.8	26.9	30.9	98.25	-1,525.0	-680.5	1,171.1	1,118.3	52.77	22.192	
6,900.0	6,745.2	6,925.0	6,708.7	27.1	31.1	98.38	-1,534.1	-684.6	1,176.5	1,123.3	53.16	22.132	
7,000.0	6,845.2	7,056.6	6,840.1	27.2	31.2	98.47	-1,537.7	-686.2	1,178.7	1,125.3	53.41	22.068	
7,100.0	6,945.2	7,157.7	6,941.2	27.3	31.3	18.67	-1,537.9	-686.4	1,178.9	1,125.3	53.58	22.002	
7,200.0	7,045.2	7,253.0	7,036.6	27.4	31.4	18.67	-1,538.1	-686.9	1,178.9	1,125.2	53.75	21.935	
7,300.0	7,145.1	7,348.4	7,132.0	27.4	31.4	18.67	-1,538.6	-687.7	1,179.0	1,125.1	53.92	21.866	
7,400.0	7,245.1	7,445.5	7,229.1	27.5	31.5	18.67	-1,539.3	-688.8	1,179.0	1,124.9	54.10	21.795	
7,500.0	7,345.1	7,545.5	7,329.1	27.6	31.6	18.67	-1,540.0	-690.0	1,179.0	1,124.7	54.28	21.722	
7,600.0	7,445.1	7,645.5	7,429.1	27.7	31.7	18.67	-1,540.7	-691.3	1,179.0	1,124.5	54.46	21.649	
7,700.0	7,545.1	7,745.5	7,529.1	27.8	31.8	18.67	-1,541.4	-692.5	1,179.0	1,124.4	54.65	21.575	
7,800.0	7,645.1	7,845.5	7,629.1	27.9	31.9	18.67	-1,542.2	-693.8	1,179.0	1,124.2	54.83	21.502	
7,900.0	7,745.1	7,945.5	7,729.1	28.0	32.0	18.67	-1,542.9	-695.0	1,179.0	1,124.0	55.02	21.428	
8,000.0	7,845.1	8,045.5	7,829.1	28.1	32.1	18.67	-1,543.6	-696.3	1,179.0	1,123.8	55.21	21.355	
8,100.0	7,945.1	8,145.5	7,929.0	28.2	32.2	18.67	-1,544.3	-697.5	1,179.0	1,123.6	55.40	21.281	
8,200.0	8,045.1	8,245.5	8,029.0	28.2	32.3	18.67	-1,545.0	-698.7	1,179.0	1,123.4	55.60	21.207	
8,300.0	8,145.0	8,345.5	8,129.0	28.3	32.4	18.67	-1,545.7	-700.0	1,179.0	1,123.2	55.79	21.133	
8,400.0	8,245.0	8,445.5	8,229.0	28.4	32.5	18.67	-1,546.5	-701.2	1,179.0	1,123.0	55.99	21.059	
8,500.0	8,345.0	8,545.5	8,329.0	28.5	32.6	18.67	-1,547.2	-702.5	1,179.0	1,122.8	56.18	20.985	
8,600.0	8,445.0	8,645.5	8,429.0	28.6	32.7	18.67	-1,547.9	-703.7	1,179.0	1,122.6	56.38	20.911	
8,700.0	8,545.0	8,745.5	8,529.0	28.7	32.8	18.67	-1,548.6	-705.0	1,179.0	1,122.4	56.58	20.837	
8,800.0	8,645.0	8,845.5	8,629.0	28.8	32.9	18.67	-1,549.3	-706.2	1,179.0	1,122.2	56.78	20.763	
8,900.0	8,745.0	8,945.5	8,729.0	28.9	33.0	18.67	-1,550.1	-707.4	1,179.0	1,122.0	56.99	20.688	
9,000.0	8,845.0	9,045.5	8,829.0	29.0	33.1	18.67	-1,550.8	-708.7	1,179.0	1,121.8	57.19	20.614	
9,100.0	8,945.0	9,145.5	8,928.9	29.1	33.2	18.67	-1,551.5	-709.9	1,179.0	1,121.6	57.40	20.540	
9,200.0	9,045.0	9,245.5	9,028.9	29.2	33.3	18.67	-1,552.2	-711.2	1,179.0	1,121.4	57.61	20.466	
9,300.0	9,144.9	9,345.5	9,128.9	29.3	33.4	18.67	-1,552.9	-712.4	1,179.0	1,121.2	57.81	20.392	
9,400.0	9,244.9	9,445.5	9,228.9	29.4	33.5	18.67	-1,553.7	-713.7	1,179.0	1,120.9	58.02	20.319	
9,500.0	9,344.9	9,545.5	9,328.9	29.5	33.6	18.67	-1,554.4	-714.9	1,179.0	1,120.7	58.24	20.245	
9,600.0	9,444.9	9,645.5	9,428.9	29.6	33.7	18.67	-1,555.1	-716.1	1,179.0	1,120.5	58.45	20.171	
9,700.0	9,544.9	9,745.5	9,528.9	29.7	33.8	18.67	-1,555.8	-717.4	1,179.0	1,120.3	58.66	20.097	
9,800.0	9,644.9	9,845.5	9,628.9	29.8	33.9	18.67	-1,556.5	-718.6	1,179.0	1,120.1	58.88	20.024	
9,900.0	9,744.9	9,945.5	9,728.9	29.9	34.0	18.67	-1,557.3	-719.9	1,179.0	1,119.9	59.09	19.950	
9,962.6	9,807.5	10,008.1	9,791.5	30.0	34.1	18.67	-1,557.7	-720.6	1,179.0	1,119.7	59.23	19.904	
9,991.1	9,836.0	10,027.7	9,811.0	30.0	34.1	18.67	-1,557.8	-720.9	1,179.0	1,119.7	59.28	19.887	SF

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM08B B21 696 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-149.85	-8.7	-5.1	10.1				
100.0	100.0	100.0	100.0	0.1	0.1	-149.85	-8.7	-5.1	10.1	9.8	0.30	34.074	
200.0	200.0	200.0	200.0	0.3	0.3	-149.85	-8.7	-5.1	10.1	9.5	0.65	15.655	
300.0	300.0	300.0	300.0	0.5	0.5	-149.85	-8.7	-5.1	10.1	9.1	0.99	10.162	
400.0	400.0	400.0	400.0	0.7	0.7	58.39	-8.7	-5.1	9.1	7.7	1.35	6.751	
493.1	492.9	492.9	492.9	0.9	0.8	89.96	-8.7	-5.1	7.7	6.0	1.69	4.586	CC
500.0	499.8	499.8	499.8	0.9	0.8	93.46	-8.7	-5.1	7.7	6.0	1.71	4.526	ES, SF
600.0	599.5	599.5	599.5	1.1	1.0	139.74	-8.7	-5.1	12.0	9.9	2.06	5.816	
700.0	698.7	699.4	699.4	1.3	1.2	158.36	-10.4	-4.5	21.1	18.7	2.40	8.801	
800.0	797.5	799.7	799.6	1.6	1.4	165.37	-15.3	-2.8	31.1	28.4	2.74	11.352	
900.0	895.6	900.4	899.9	2.0	1.6	168.89	-23.6	0.1	41.3	38.3	3.08	13.408	
1,000.0	993.1	1,001.5	1,000.2	2.4	1.8	170.92	-35.3	4.1	51.4	47.9	3.43	14.971	
1,100.0	1,090.5	1,103.2	1,100.6	2.8	2.1	171.87	-50.4	9.3	58.6	54.8	3.79	15.449	
1,200.0	1,187.8	1,203.1	1,199.0	3.2	2.4	172.35	-67.1	15.1	63.8	59.7	4.15	15.384	
1,300.0	1,285.2	1,303.0	1,297.3	3.6	2.7	172.75	-83.8	20.9	69.1	64.6	4.50	15.331	
1,400.0	1,382.6	1,402.9	1,395.6	4.1	3.0	173.10	-100.4	26.6	74.3	69.5	4.86	15.289	
1,500.0	1,479.9	1,502.7	1,493.9	4.5	3.4	173.40	-117.1	32.4	79.6	74.4	5.22	15.255	
1,600.0	1,577.3	1,602.6	1,592.2	4.9	3.7	173.67	-133.8	38.1	84.8	79.3	5.57	15.227	
1,700.0	1,674.6	1,702.5	1,690.4	5.4	4.0	173.90	-150.5	43.9	90.1	84.2	5.93	15.203	
1,800.0	1,772.0	1,802.3	1,788.7	5.8	4.4	174.11	-167.2	49.7	95.4	89.1	6.28	15.183	
1,900.0	1,869.3	1,902.2	1,887.0	6.2	4.7	174.30	-183.8	55.4	100.6	94.0	6.64	15.166	
2,000.0	1,966.7	2,002.0	1,985.3	6.6	5.1	174.46	-200.5	61.2	105.9	98.9	6.99	15.152	
2,100.0	2,064.1	2,101.9	2,083.6	7.1	5.4	174.62	-217.2	67.0	111.2	103.8	7.34	15.139	
2,200.0	2,161.4	2,201.8	2,181.9	7.5	5.8	174.75	-233.9	72.7	116.4	108.7	7.70	15.129	
2,300.0	2,258.8	2,301.6	2,280.2	7.9	6.1	174.88	-250.5	78.5	121.7	113.7	8.05	15.119	
2,400.0	2,356.1	2,401.5	2,378.5	8.4	6.5	175.00	-267.2	84.3	127.0	118.6	8.40	15.111	
2,500.0	2,453.5	2,501.3	2,476.8	8.8	6.8	175.10	-283.9	90.0	132.2	123.5	8.76	15.103	
2,600.0	2,550.9	2,601.2	2,575.0	9.2	7.2	175.20	-300.6	95.8	137.5	128.4	9.11	15.096	
2,700.0	2,648.2	2,701.1	2,673.3	9.7	7.5	175.29	-317.3	101.6	142.8	133.3	9.46	15.090	
2,800.0	2,745.6	2,800.9	2,771.6	10.1	7.9	175.38	-333.9	107.3	148.1	138.2	9.82	15.085	
2,900.0	2,842.9	2,900.8	2,869.9	10.5	8.2	175.45	-350.6	113.1	153.3	143.2	10.17	15.080	
3,000.0	2,940.3	3,000.6	2,968.2	11.0	8.6	175.53	-367.3	118.9	158.6	148.1	10.52	15.075	
3,100.0	3,037.6	3,100.5	3,066.5	11.4	8.9	175.60	-384.0	124.6	163.9	153.0	10.87	15.071	
3,200.0	3,135.0	3,200.4	3,164.8	11.9	9.3	175.66	-400.7	130.4	169.1	157.9	11.23	15.068	
3,300.0	3,232.4	3,300.2	3,263.1	12.3	9.6	175.72	-417.3	136.2	174.4	162.8	11.58	15.064	
3,400.0	3,329.7	3,400.1	3,361.4	12.7	10.0	175.78	-434.0	141.9	179.7	167.8	11.93	15.061	
3,500.0	3,427.1	3,499.9	3,459.6	13.2	10.3	175.83	-450.7	147.7	185.0	172.7	12.28	15.058	
3,600.0	3,524.4	3,599.8	3,557.9	13.6	10.7	175.88	-467.4	153.4	190.2	177.6	12.64	15.055	
3,700.0	3,621.8	3,699.7	3,656.2	14.0	11.0	175.93	-484.0	159.2	195.5	182.5	12.99	15.053	
3,800.0	3,719.2	3,799.5	3,754.5	14.5	11.4	175.98	-500.7	165.0	200.8	187.4	13.34	15.051	
3,900.0	3,816.5	3,899.4	3,852.8	14.9	11.7	176.02	-517.4	170.7	206.1	192.4	13.69	15.048	
4,000.0	3,913.9	3,999.3	3,951.1	15.3	12.1	176.06	-534.1	176.5	211.3	197.3	14.05	15.046	
4,100.0	4,011.2	4,099.1	4,049.4	15.8	12.4	176.10	-550.8	182.3	216.6	202.2	14.40	15.045	
4,200.0	4,108.6	4,199.0	4,147.7	16.2	12.8	176.14	-567.4	188.0	221.9	207.1	14.75	15.043	
4,300.0	4,205.9	4,298.8	4,246.0	16.6	13.1	176.17	-584.1	193.8	227.1	212.0	15.10	15.041	
4,400.0	4,303.3	4,398.7	4,344.2	17.1	13.5	176.21	-600.8	199.6	232.4	217.0	15.45	15.039	
4,500.0	4,400.7	4,498.6	4,442.5	17.5	13.8	176.24	-617.5	205.3	237.7	221.9	15.81	15.038	
4,600.0	4,498.0	4,598.4	4,540.8	17.9	14.2	176.27	-634.1	211.1	243.0	226.8	16.16	15.037	
4,700.0	4,595.4	4,698.3	4,639.1	18.4	14.5	176.30	-650.8	216.9	248.2	231.7	16.51	15.035	
4,800.0	4,692.7	4,798.1	4,737.4	18.8	14.9	176.33	-667.5	222.6	253.5	236.7	16.86	15.034	
4,900.0	4,790.1	4,898.0	4,835.7	19.3	15.3	176.36	-684.2	228.4	258.8	241.6	17.22	15.033	
5,000.0	4,887.5	4,997.9	4,934.0	19.7	15.6	176.38	-700.9	234.2	264.1	246.5	17.57	15.032	

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

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM08B B21 696 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,984.8	5,097.7	5,032.3	20.1	16.0	176.41	-717.5	239.9	269.3	251.4	17.92	15.031	
5,200.0	5,082.2	5,197.6	5,130.6	20.6	16.3	176.43	-734.2	245.7	274.6	256.3	18.27	15.030	
5,300.0	5,179.5	5,297.4	5,228.9	21.0	16.7	176.45	-750.9	251.4	279.9	261.3	18.62	15.029	
5,400.0	5,276.9	5,397.3	5,327.1	21.4	17.0	176.48	-767.6	257.2	285.2	266.2	18.98	15.028	
5,500.0	5,374.2	5,497.2	5,425.4	21.9	17.4	176.50	-784.2	263.0	290.4	271.1	19.33	15.027	
5,600.0	5,471.6	5,597.0	5,523.7	22.3	17.7	176.52	-800.9	268.7	295.7	276.0	19.68	15.026	
5,700.0	5,569.0	5,696.9	5,622.0	22.7	18.1	176.54	-817.6	274.5	301.0	281.0	20.03	15.025	
5,800.0	5,666.3	5,796.7	5,720.3	23.2	18.4	176.56	-834.3	280.3	306.3	285.9	20.38	15.024	
5,900.0	5,763.7	5,896.6	5,818.6	23.6	18.8	176.58	-851.0	286.0	311.5	290.8	20.74	15.024	
6,000.0	5,861.0	5,996.5	5,916.9	24.0	19.1	176.60	-867.6	291.8	316.8	295.7	21.09	15.023	
6,100.0	5,958.4	6,096.3	6,015.2	24.5	19.5	176.61	-884.3	297.6	322.1	300.6	21.44	15.022	
6,200.0	6,055.8	6,196.2	6,113.5	24.9	19.8	176.63	-901.0	303.3	327.4	305.6	21.79	15.021	
6,300.0	6,153.1	6,296.0	6,211.7	25.4	20.2	176.65	-917.7	309.1	332.6	310.5	22.14	15.021	
6,400.0	6,250.5	6,395.9	6,310.0	25.8	20.6	176.66	-934.4	314.9	337.8	315.3	22.50	15.014	
6,500.0	6,348.4	6,493.3	6,405.9	26.2	20.9	176.66	-950.5	320.5	340.8	317.9	22.86	14.906	
6,600.0	6,446.9	6,582.7	6,494.2	26.5	21.2	176.65	-963.5	325.0	342.5	319.3	23.19	14.768	
6,700.0	6,546.0	6,672.0	6,582.8	26.7	21.4	176.64	-973.9	328.5	343.8	320.3	23.50	14.630	
6,800.0	6,645.4	6,761.3	6,671.8	26.9	21.6	176.63	-981.7	331.2	344.7	321.0	23.79	14.492	
6,900.0	6,745.2	6,850.6	6,760.9	27.1	21.7	176.63	-986.8	333.0	345.3	321.3	24.06	14.353	
7,000.0	6,845.2	6,939.8	6,850.1	27.2	21.8	176.62	-989.4	333.9	345.5	321.2	24.31	14.214	
7,099.0	6,944.1	7,034.0	6,944.2	27.3	21.9	99.98	-989.7	333.9	345.9	321.3	24.61	14.057	
7,100.0	6,945.2	7,035.0	6,945.3	27.3	21.9	96.81	-989.7	333.9	345.5	320.9	24.61	14.037	
7,200.0	7,045.2	7,135.2	7,045.4	27.4	22.0	96.81	-989.9	333.5	345.5	320.5	24.96	13.839	
7,300.0	7,145.1	7,235.4	7,145.6	27.4	22.1	96.82	-990.4	332.7	345.5	320.1	25.32	13.645	
7,400.0	7,245.1	7,335.5	7,245.7	27.5	22.2	96.82	-991.0	331.6	345.5	319.8	25.67	13.456	
7,500.0	7,345.1	7,435.5	7,345.7	27.6	22.3	96.82	-991.7	330.4	345.5	319.4	26.03	13.272	
7,600.0	7,445.1	7,535.5	7,445.7	27.7	22.4	96.82	-992.4	329.1	345.5	319.1	26.38	13.094	
7,700.0	7,545.1	7,635.5	7,545.7	27.8	22.5	96.82	-993.2	327.9	345.5	318.7	26.74	12.920	
7,800.0	7,645.1	7,735.5	7,645.7	27.9	22.6	96.82	-993.9	326.6	345.5	318.4	27.09	12.751	
7,900.0	7,745.1	7,835.5	7,745.7	28.0	22.7	96.82	-994.6	325.4	345.5	318.0	27.45	12.587	
8,000.0	7,845.1	7,935.5	7,845.7	28.1	22.9	96.82	-995.3	324.2	345.4	317.6	27.80	12.426	
8,100.0	7,945.1	8,035.5	7,945.7	28.2	23.0	96.82	-996.0	322.9	345.4	317.3	28.15	12.270	
8,200.0	8,045.1	8,135.5	8,045.7	28.2	23.1	96.82	-996.8	321.7	345.4	316.9	28.51	12.117	
8,300.0	8,145.0	8,235.5	8,145.6	28.3	23.2	96.82	-997.5	320.4	345.4	316.6	28.86	11.969	
8,400.0	8,245.0	8,335.5	8,245.6	28.4	23.3	96.82	-998.2	319.2	345.4	316.2	29.22	11.824	
8,500.0	8,345.0	8,435.5	8,345.6	28.5	23.4	96.82	-998.9	317.9	345.4	315.9	29.57	11.682	
8,600.0	8,445.0	8,535.5	8,445.6	28.6	23.5	96.82	-999.6	316.7	345.4	315.5	29.92	11.544	
8,700.0	8,545.0	8,635.5	8,545.6	28.7	23.6	96.82	-1,000.4	315.5	345.4	315.2	30.28	11.409	
8,800.0	8,645.0	8,735.5	8,645.6	28.8	23.8	96.82	-1,001.1	314.2	345.4	314.8	30.63	11.277	
8,900.0	8,745.0	8,835.5	8,745.6	28.9	23.9	96.82	-1,001.8	313.0	345.4	314.4	30.99	11.148	
9,000.0	8,845.0	8,935.5	8,845.6	29.0	24.0	96.82	-1,002.5	311.7	345.4	314.1	31.34	11.022	
9,100.0	8,945.0	9,035.5	8,945.6	29.1	24.1	96.82	-1,003.2	310.5	345.4	313.7	31.69	10.899	
9,200.0	9,045.0	9,135.5	9,045.6	29.2	24.2	96.82	-1,003.9	309.2	345.4	313.4	32.05	10.778	
9,300.0	9,144.9	9,235.5	9,145.5	29.3	24.3	96.83	-1,004.7	308.0	345.4	313.0	32.40	10.661	
9,400.0	9,244.9	9,335.5	9,245.5	29.4	24.5	96.83	-1,005.4	306.8	345.4	312.7	32.75	10.546	
9,500.0	9,344.9	9,435.5	9,345.5	29.5	24.6	96.83	-1,006.1	305.5	345.4	312.3	33.11	10.433	
9,600.0	9,444.9	9,535.5	9,445.5	29.6	24.7	96.83	-1,006.8	304.3	345.4	312.0	33.46	10.322	
9,700.0	9,544.9	9,635.5	9,545.5	29.7	24.8	96.83	-1,007.5	303.0	345.4	311.6	33.82	10.214	
9,800.0	9,644.9	9,735.5	9,645.5	29.8	24.9	96.83	-1,008.3	301.8	345.4	311.2	34.17	10.109	
9,900.0	9,744.9	9,835.5	9,745.5	29.9	25.1	96.83	-1,009.0	300.5	345.4	310.9	34.52	10.005	
9,991.1	9,836.0	9,926.6	9,836.6	30.0	25.2	96.83	-1,009.6	299.4	345.4	310.6	34.85	9.912	

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM08D B21 696 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	29.98	17.1	9.9	19.8				
100.0	100.0	100.0	100.0	0.1	0.1	29.98	17.1	9.9	19.8	19.5	0.30	66.595	
200.0	200.0	200.0	200.0	0.3	0.3	29.98	17.1	9.9	19.8	19.1	0.65	30.598	
300.0	300.0	300.4	300.4	0.5	0.5	34.29	15.5	10.6	18.8	17.8	1.00	18.780	
400.0	400.0	400.6	400.4	0.7	0.7	-115.86	10.7	12.6	17.2	15.9	1.37	12.594	
500.0	499.8	500.7	500.2	0.9	0.9	-104.07	2.6	16.1	16.5	14.7	1.79	9.256	
524.1	523.8	524.8	524.1	0.9	1.0	-101.10	0.2	17.1	16.5	14.6	1.90	8.673	CC
600.0	599.5	600.7	599.4	1.1	1.2	-91.80	-8.6	20.9	16.8	14.5	2.27	7.378	ES
700.0	698.7	700.5	698.0	1.3	1.5	-80.52	-23.0	27.1	18.0	15.1	2.83	6.352	
800.0	797.5	800.3	795.9	1.6	1.9	-71.18	-40.5	34.6	19.9	16.5	3.43	5.818	
900.0	895.6	900.0	893.1	2.0	2.3	-63.95	-61.1	43.5	22.5	18.5	4.06	5.549	
1,000.0	993.1	999.4	989.0	2.4	2.8	-58.05	-84.7	53.6	25.7	21.0	4.70	5.469	SF
1,100.0	1,090.5	1,098.9	1,084.4	2.8	3.3	-50.30	-110.9	64.8	30.6	25.4	5.20	5.889	
1,200.0	1,187.8	1,198.7	1,179.9	3.2	3.8	-44.44	-137.4	76.2	36.2	30.5	5.64	6.411	
1,300.0	1,285.2	1,298.5	1,275.5	3.6	4.3	-40.17	-164.0	87.6	42.0	35.9	6.06	6.926	
1,400.0	1,382.6	1,398.3	1,371.0	4.1	4.9	-36.94	-190.5	99.0	48.0	41.5	6.47	7.413	
1,500.0	1,479.9	1,498.1	1,466.5	4.5	5.4	-34.44	-217.0	110.4	54.1	47.2	6.88	7.863	
1,600.0	1,577.3	1,597.9	1,562.0	4.9	5.9	-32.45	-243.5	121.8	60.3	53.0	7.28	8.276	
1,700.0	1,674.6	1,697.7	1,657.6	5.4	6.4	-30.83	-270.1	133.2	66.5	58.8	7.69	8.654	
1,800.0	1,772.0	1,797.4	1,753.1	5.8	7.0	-29.49	-296.6	144.6	72.8	64.7	8.09	8.999	
1,900.0	1,869.3	1,897.2	1,848.6	6.2	7.5	-28.37	-323.1	156.0	79.1	70.6	8.50	9.315	
2,000.0	1,966.7	1,997.0	1,944.1	6.6	8.0	-27.41	-349.6	167.4	85.5	76.6	8.90	9.605	
2,100.0	2,064.1	2,096.8	2,039.6	7.1	8.6	-26.58	-376.2	178.8	91.9	82.6	9.31	9.871	
2,200.0	2,161.4	2,196.6	2,135.2	7.5	9.1	-25.87	-402.7	190.2	98.2	88.5	9.71	10.116	
2,300.0	2,258.8	2,296.4	2,230.7	7.9	9.6	-25.23	-429.2	201.5	104.7	94.5	10.12	10.342	
2,400.0	2,356.1	2,396.2	2,326.2	8.4	10.2	-24.68	-455.8	212.9	111.1	100.5	10.53	10.552	
2,500.0	2,453.5	2,496.0	2,421.7	8.8	10.7	-24.18	-482.3	224.3	117.5	106.6	10.93	10.746	
2,600.0	2,550.9	2,595.8	2,517.2	9.2	11.2	-23.73	-508.8	235.7	123.9	112.6	11.34	10.927	
2,700.0	2,648.2	2,695.5	2,612.8	9.7	11.8	-23.33	-535.3	247.1	130.4	118.6	11.75	11.095	
2,800.0	2,745.6	2,795.3	2,708.3	10.1	12.3	-22.97	-561.9	258.5	136.8	124.6	12.16	11.252	
2,900.0	2,842.9	2,895.1	2,803.8	10.5	12.8	-22.64	-588.4	269.9	143.3	130.7	12.57	11.400	
3,000.0	2,940.3	2,994.9	2,899.3	11.0	13.4	-22.34	-614.9	281.3	149.7	136.7	12.98	11.538	
3,100.0	3,037.6	3,094.7	2,994.8	11.4	13.9	-22.06	-641.5	292.7	156.2	142.8	13.38	11.668	
3,200.0	3,135.0	3,194.5	3,090.4	11.9	14.4	-21.80	-668.0	304.1	162.6	148.8	13.79	11.790	
3,300.0	3,232.4	3,294.3	3,185.9	12.3	15.0	-21.57	-694.5	315.5	169.1	154.9	14.20	11.905	
3,400.0	3,329.7	3,394.1	3,281.4	12.7	15.5	-21.35	-721.0	326.9	175.6	160.9	14.61	12.014	
3,500.0	3,427.1	3,493.9	3,376.9	13.2	16.0	-21.14	-747.6	338.2	182.0	167.0	15.02	12.117	
3,600.0	3,524.4	3,593.6	3,472.5	13.6	16.6	-20.96	-774.1	349.6	188.5	173.1	15.43	12.214	
3,700.0	3,621.8	3,693.4	3,568.0	14.0	17.1	-20.78	-800.6	361.0	195.0	179.1	15.84	12.306	
3,800.0	3,719.2	3,793.2	3,663.5	14.5	17.7	-20.61	-827.1	372.4	201.4	185.2	16.25	12.394	
3,900.0	3,816.5	3,893.0	3,759.0	14.9	18.2	-20.46	-853.7	383.8	207.9	191.3	16.66	12.478	
4,000.0	3,913.9	3,992.8	3,854.5	15.3	18.7	-20.31	-880.2	395.2	214.4	197.3	17.07	12.557	
4,100.0	4,011.2	4,092.6	3,950.1	15.8	19.3	-20.18	-906.7	406.6	220.9	203.4	17.48	12.633	
4,200.0	4,108.6	4,192.4	4,045.6	16.2	19.8	-20.05	-933.3	418.0	227.3	209.5	17.89	12.705	
4,300.0	4,205.9	4,292.2	4,141.1	16.6	20.3	-19.93	-959.8	429.4	233.8	215.5	18.30	12.774	
4,400.0	4,303.3	4,392.0	4,236.6	17.1	20.9	-19.81	-986.3	440.8	240.3	221.6	18.72	12.840	
4,500.0	4,400.7	4,491.7	4,332.1	17.5	21.4	-19.70	-1,012.8	452.2	246.8	227.7	19.13	12.903	
4,600.0	4,498.0	4,591.5	4,427.7	17.9	21.9	-19.60	-1,039.4	463.5	253.3	233.7	19.54	12.964	
4,700.0	4,595.4	4,691.3	4,523.2	18.4	22.5	-19.50	-1,065.9	474.9	259.8	239.8	19.95	13.022	
4,800.0	4,692.7	4,791.1	4,618.7	18.8	23.0	-19.40	-1,092.4	486.3	266.2	245.9	20.36	13.078	
4,900.0	4,790.1	4,890.9	4,714.2	19.3	23.5	-19.32	-1,118.9	497.7	272.7	252.0	20.77	13.131	
5,000.0	4,887.5	4,990.7	4,809.7	19.7	24.1	-19.23	-1,145.5	509.1	279.2	258.0	21.18	13.183	

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

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM08D B21 696 - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,100.0	4,984.8	5,090.5	4,905.3	20.1	24.6	-19.15	-1,172.0	520.5	285.7	264.1	21.59	13.232	
5,200.0	5,082.2	5,190.3	5,000.8	20.6	25.2	-19.07	-1,198.5	531.9	292.2	270.2	22.00	13.280	
5,300.0	5,179.5	5,290.0	5,096.3	21.0	25.7	-19.00	-1,225.1	543.3	298.7	276.3	22.41	13.326	
5,400.0	5,276.9	5,389.8	5,191.8	21.4	26.2	-18.93	-1,251.6	554.7	305.2	282.3	22.83	13.370	
5,500.0	5,374.2	5,489.6	5,287.4	21.9	26.8	-18.86	-1,278.1	566.1	311.7	288.4	23.24	13.412	
5,600.0	5,471.6	5,589.4	5,382.9	22.3	27.3	-18.79	-1,304.6	577.5	318.1	294.5	23.65	13.454	
5,700.0	5,569.0	5,689.2	5,478.4	22.7	27.8	-18.73	-1,331.2	588.9	324.6	300.6	24.06	13.493	
5,800.0	5,666.3	5,789.0	5,573.9	23.2	28.4	-18.67	-1,357.7	600.2	331.1	306.7	24.47	13.532	
5,900.0	5,763.7	5,888.8	5,669.4	23.6	28.9	-18.61	-1,384.2	611.6	337.6	312.7	24.88	13.569	
6,000.0	5,861.0	5,988.6	5,765.0	24.0	29.4	-18.55	-1,410.7	623.0	344.1	318.8	25.29	13.605	
6,100.0	5,958.4	6,088.4	5,860.5	24.5	30.0	-18.50	-1,437.3	634.4	350.6	324.9	25.70	13.640	
6,200.0	6,055.8	6,188.1	5,956.0	24.9	30.5	-18.45	-1,463.8	645.8	357.1	331.0	26.12	13.673	
6,300.0	6,153.1	6,287.9	6,051.5	25.4	31.1	-18.40	-1,490.3	657.2	363.6	337.1	26.53	13.706	
6,400.0	6,250.5	6,401.8	6,161.1	25.8	31.6	-18.43	-1,518.6	669.4	368.2	341.2	27.00	13.640	
6,500.0	6,348.4	6,516.0	6,272.2	26.2	32.1	-18.54	-1,543.0	679.8	371.3	343.8	27.46	13.521	
6,600.0	6,446.9	6,630.3	6,384.4	26.5	32.5	-18.62	-1,563.2	688.5	373.8	345.9	27.88	13.408	
6,700.0	6,546.0	6,744.7	6,497.4	26.7	32.8	-18.69	-1,579.4	695.4	375.8	347.5	28.26	13.298	
6,800.0	6,645.4	6,859.2	6,611.2	26.9	33.0	-18.74	-1,591.4	700.6	377.2	348.6	28.59	13.192	
6,900.0	6,745.2	6,973.8	6,725.4	27.1	33.2	-18.78	-1,599.2	704.0	378.0	349.2	28.88	13.089	
7,000.0	6,845.2	7,088.4	6,839.9	27.2	33.3	-18.80	-1,602.8	705.5	378.3	349.2	29.13	12.987	
7,100.0	6,945.2	7,193.8	6,945.3	27.3	33.4	-98.62	-1,603.1	705.5	378.3	348.9	29.40	12.868	
7,200.0	7,045.2	7,294.0	7,045.6	27.4	33.5	-98.61	-1,603.4	705.1	378.3	348.6	29.71	12.736	
7,300.0	7,145.1	7,394.3	7,145.8	27.4	33.5	-98.61	-1,603.8	704.3	378.3	348.3	30.02	12.602	
7,400.0	7,245.1	7,494.4	7,246.0	27.5	33.6	-98.61	-1,604.5	703.1	378.3	348.0	30.34	12.468	
7,500.0	7,345.1	7,594.4	7,345.9	27.6	33.7	-98.61	-1,605.2	701.9	378.3	347.6	30.67	12.336	
7,600.0	7,445.1	7,694.4	7,445.9	27.7	33.7	-98.61	-1,606.0	700.6	378.3	347.3	30.99	12.206	
7,700.0	7,545.1	7,794.4	7,545.9	27.8	33.8	-98.61	-1,606.7	699.4	378.3	347.0	31.32	12.079	
7,800.0	7,645.1	7,894.4	7,645.9	27.9	33.9	-98.61	-1,607.4	698.2	378.3	346.7	31.65	11.954	
7,900.0	7,745.1	7,994.4	7,745.9	28.0	34.0	-98.61	-1,608.1	696.9	378.3	346.3	31.97	11.832	
8,000.0	7,845.1	8,094.4	7,845.9	28.1	34.0	-98.61	-1,608.8	695.7	378.3	346.0	32.30	11.712	
8,100.0	7,945.1	8,194.4	7,945.9	28.2	34.1	-98.61	-1,609.5	694.4	378.3	345.7	32.63	11.594	
8,200.0	8,045.1	8,294.4	8,045.9	28.2	34.2	-98.61	-1,610.3	693.2	378.3	345.3	32.96	11.478	
8,300.0	8,145.0	8,394.4	8,145.9	28.3	34.3	-98.61	-1,611.0	691.9	378.3	345.0	33.29	11.365	
8,400.0	8,245.0	8,494.4	8,245.9	28.4	34.3	-98.61	-1,611.7	690.7	378.3	344.7	33.62	11.253	
8,500.0	8,345.0	8,594.4	8,345.8	28.5	34.4	-98.61	-1,612.4	689.4	378.3	344.4	33.95	11.144	
8,600.0	8,445.0	8,694.4	8,445.8	28.6	34.5	-98.61	-1,613.1	688.2	378.3	344.0	34.28	11.036	
8,700.0	8,545.0	8,794.4	8,545.8	28.7	34.6	-98.61	-1,613.8	686.9	378.3	343.7	34.61	10.930	
8,800.0	8,645.0	8,894.4	8,645.8	28.8	34.7	-98.61	-1,614.6	685.7	378.3	343.4	34.94	10.827	
8,900.0	8,745.0	8,994.4	8,745.8	28.9	34.7	-98.61	-1,615.3	684.5	378.3	343.0	35.27	10.725	
9,000.0	8,845.0	9,094.4	8,845.8	29.0	34.8	-98.61	-1,616.0	683.2	378.3	342.7	35.61	10.625	
9,100.0	8,945.0	9,194.4	8,945.8	29.1	34.9	-98.61	-1,616.7	682.0	378.3	342.4	35.94	10.526	
9,200.0	9,045.0	9,294.4	9,045.8	29.2	35.0	-98.61	-1,617.4	680.7	378.3	342.0	36.27	10.430	
9,300.0	9,144.9	9,394.4	9,145.8	29.3	35.1	-98.61	-1,618.1	679.5	378.3	341.7	36.61	10.335	
9,400.0	9,244.9	9,494.4	9,245.7	29.4	35.2	-98.61	-1,618.9	678.2	378.3	341.4	36.94	10.241	
9,500.0	9,344.9	9,594.4	9,345.7	29.5	35.2	-98.61	-1,619.6	677.0	378.3	341.0	37.27	10.149	
9,600.0	9,444.9	9,694.4	9,445.7	29.6	35.3	-98.61	-1,620.3	675.7	378.3	340.7	37.61	10.059	
9,700.0	9,544.9	9,794.4	9,545.7	29.7	35.4	-98.61	-1,621.0	674.5	378.3	340.4	37.94	9.970	
9,800.0	9,644.9	9,894.4	9,645.7	29.8	35.5	-98.61	-1,621.7	673.3	378.3	340.0	38.28	9.883	
9,900.0	9,744.9	9,994.4	9,745.7	29.9	35.6	-98.61	-1,622.4	672.0	378.3	339.7	38.61	9.797	
9,963.7	9,808.6	10,058.1	9,809.4	30.0	35.7	-98.61	-1,622.9	671.2	378.3	339.5	38.83	9.743	
9,991.1	9,836.0	10,079.7	9,831.0	30.0	35.7	-98.61	-1,623.0	670.9	378.3	339.4	38.91	9.723	

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well OM08C B21 696
Project:	Garfield County	**TVD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Reference Site:	NENE S21-T6S-R96W (B21 696 Pad)	**MD Reference:**	KBE @ 8293.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	OM08C B21 696	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0ft	**Output errors are at**	2.00 sigma
Reference Wellbore	DD	**Database:**	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to KBE @ 8293.0ft (Original Well Elev)	Coordinates are relative to: OM08C B21 696
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, Colorado Central Zone
Central Meridian is -105.500000 °	Grid Convergence at Surface is: -1.65°