

SandRidge Energy

North Park Basin

T7N-R80W-S17

Mutual 0780 4-8H

Wellbore #1

Design #1

Anticollision Report

14 December, 2015

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference	Design #1			
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		WARNING: There is hidden tight data in this project	
Interpolation Method:	Stations	Error Model:		ISCWSA
Depth Range:	Unlimited	Scan Method:		Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0 usft	Error Surface:		Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:		Not applied

Survey Tool Program		Date	12/10/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	12,433.4	Design #1 (Wellbore #1)	Sperry MWD	Fixed:v2:standard declination	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
T7N-R80W-S17						
Castle 0780 1-17H20 - Wellbore #1 - Design #1	500.0	500.0	151.3	149.4	76.169	CC, ES
Castle 0780 1-17H20 - Wellbore #1 - Design #1	3,500.0	3,499.8	214.5	199.7	14.401	SF
Castle 0780 2-17H20 - Wellbore #1 - Design #1	500.0	500.0	150.0	148.0	75.493	CC, ES
Castle 0780 2-17H20 - Wellbore #1 - Design #1	3,600.0	3,597.8	191.7	176.3	12.450	SF
Castle 0780 3-17H20 - Wellbore #1 - Design #1	500.0	500.0	151.3	149.3	76.132	CC
Castle 0780 3-17H20 - Wellbore #1 - Design #1	3,500.0	3,498.8	160.6	145.5	10.662	ES
Castle 0780 3-17H20 - Wellbore #1 - Design #1	6,550.0	6,583.5	352.9	316.7	9.732	SF
Castle 0780 4-17H20 - Wellbore #1 - Design #1	3,622.8	3,620.1	150.5	134.8	9.605	CC, ES
Castle 0780 4-17H20 - Wellbore #1 - Design #1	6,950.0	7,117.3	226.7	184.6	5.378	SF
Hebron 0780 3-18H - Wellbore #1 - Design #1	500.0	500.0	242.0	240.0	121.811	CC, ES
Hebron 0780 3-18H - Wellbore #1 - Design #1	3,300.0	3,299.5	264.0	249.6	18.389	SF
Hebron 0780 4-18H - Wellbore #1 - Design #1	500.0	500.0	155.2	153.3	78.129	CC, ES
Hebron 0780 4-18H - Wellbore #1 - Design #1	3,400.0	3,399.6	184.3	169.7	12.633	SF
Hebron 0780 4-7H - Wellbore #1 - Design #1	500.0	503.0	189.7	187.7	95.328	CC, ES
Hebron 0780 4-7H - Wellbore #1 - Design #1	12,433.7	12,091.6	2,661.3	2,464.5	13.523	SF
Mutual 0780 2-8H - Wellbore #1 - Design #1	500.0	500.0	40.0	38.0	20.119	CC, ES
Mutual 0780 2-8H - Wellbore #1 - Design #1	3,200.0	3,199.7	61.7	47.8	4.435	SF
Mutual 0780 3-8H - Wellbore #1 - Design #1	500.0	500.0	20.0	18.0	10.047	CC
Mutual 0780 3-8H - Wellbore #1 - Design #1	3,200.0	3,201.2	25.2	11.3	1.812	Level 4, ES, SF
Mutual 7-17H - Wellbore #1 - Wellbore #1	12,049.5	12,181.0	348.5	169.6	1.948	Level 4, CC, ES, SF

T7N-R80W-S17 - Castle 0780 1-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-171.52	-149.7	-22.3	151.3					
100.0	100.0	100.0	100.0	0.1	0.1	-171.52	-149.7	-22.3	151.3	151.2	0.19	801.591		
200.0	200.0	200.0	200.0	0.3	0.3	-171.52	-149.7	-22.3	151.3	150.7	0.64	237.091		
300.0	300.0	300.0	300.0	0.5	0.5	-171.52	-149.7	-22.3	151.3	150.3	1.09	139.119		
400.0	400.0	400.0	400.0	0.8	0.8	-171.52	-149.7	-22.3	151.3	149.8	1.54	98.441		
500.0	500.0	500.0	500.0	1.0	1.0	-171.52	-149.7	-22.3	151.3	149.4	1.99	76.169	CC, ES	
594.6	594.6	590.3	590.3	1.2	1.2	99.25	-150.8	-23.2	152.9	150.5	2.37	64.498		
600.0	600.0	595.5	595.5	1.2	1.2	99.34	-151.0	-23.3	153.1	150.7	2.39	63.999		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 1-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
700.0	699.9	691.4	691.3	1.4	1.4	101.27	-154.8	-26.1	158.1	155.3	2.79	56.700		
800.0	799.9	791.1	790.8	1.6	1.6	103.31	-159.6	-29.7	164.3	161.1	3.20	51.306		
900.0	899.8	890.7	890.2	1.8	1.8	105.19	-164.4	-33.3	170.7	167.1	3.63	47.070		
1,000.0	999.8	990.4	989.7	2.1	2.0	106.94	-169.2	-36.9	177.3	173.2	4.06	43.678		
1,105.7	1,105.4	1,095.7	1,094.8	2.3	2.3	108.65	-174.3	-40.8	184.4	179.8	4.52	40.783		
1,200.3	1,200.0	1,190.1	1,189.0	2.5	2.5	-160.26	-178.8	-44.2	190.3	185.4	4.96	38.356		
1,300.0	1,299.7	1,289.6	1,288.3	2.7	2.7	-159.74	-183.6	-47.8	196.1	190.7	5.40	36.287		
1,400.0	1,399.7	1,393.8	1,392.4	2.9	3.0	-159.29	-188.1	-51.1	201.2	195.3	5.86	34.350		
1,500.0	1,499.7	1,501.1	1,499.7	3.1	3.2	-159.13	-189.7	-52.3	203.0	196.7	6.29	32.266		
1,600.0	1,599.7	1,601.1	1,599.7	3.3	3.4	-159.13	-189.7	-52.3	203.0	196.3	6.71	30.260		
1,700.0	1,699.7	1,701.1	1,699.7	3.6	3.6	-159.13	-189.7	-52.3	203.0	195.9	7.12	28.493		
1,800.0	1,799.7	1,801.1	1,799.7	3.8	3.8	-159.13	-189.7	-52.3	203.0	195.5	7.54	26.907		
1,900.0	1,899.7	1,901.1	1,899.7	4.0	4.0	-159.13	-189.7	-52.3	203.0	195.0	7.97	25.478		
2,000.0	1,999.7	2,001.1	1,999.7	4.2	4.2	-159.13	-189.7	-52.3	203.0	194.6	8.39	24.186		
2,100.0	2,099.7	2,101.1	2,099.7	4.4	4.4	-159.13	-189.7	-52.3	203.0	194.2	8.82	23.012		
2,200.0	2,199.7	2,201.1	2,199.7	4.7	4.6	-159.13	-189.7	-52.3	203.0	193.8	9.25	21.942		
2,300.0	2,299.7	2,301.1	2,299.7	4.9	4.8	-159.13	-189.7	-52.3	203.0	193.3	9.68	20.963		
2,400.0	2,399.7	2,401.1	2,399.7	5.1	5.0	-159.13	-189.7	-52.3	203.0	192.9	10.12	20.065		
2,500.0	2,499.7	2,501.1	2,499.7	5.3	5.2	-159.13	-189.7	-52.3	203.0	192.5	10.55	19.238		
2,600.0	2,599.7	2,601.1	2,599.7	5.6	5.5	-159.13	-189.7	-52.3	203.0	192.0	10.99	18.475		
2,700.0	2,699.7	2,701.1	2,699.7	5.8	5.7	-159.13	-189.7	-52.3	203.0	191.6	11.43	17.768		
2,800.0	2,799.7	2,801.1	2,799.7	6.0	5.9	-159.13	-189.7	-52.3	203.0	191.1	11.86	17.112		
2,900.0	2,899.7	2,901.1	2,899.7	6.2	6.1	-159.13	-189.7	-52.3	203.0	190.7	12.30	16.502		
3,000.0	2,999.7	3,001.1	2,999.7	6.4	6.3	-159.13	-189.7	-52.3	203.0	190.3	12.74	15.933		
3,099.6	3,099.3	3,100.7	3,099.3	6.7	6.5	-159.13	-189.7	-52.3	203.0	189.8	13.18	15.403		
3,200.0	3,199.7	3,201.1	3,199.7	6.9	6.8	111.32	-189.7	-52.3	203.6	190.0	13.59	14.979		
3,300.0	3,299.5	3,300.9	3,299.5	7.1	7.0	112.64	-189.7	-52.3	205.6	191.6	14.03	14.659		
3,400.0	3,399.1	3,400.5	3,399.1	7.3	7.2	114.78	-189.7	-52.3	209.1	194.7	14.46	14.462		
3,500.0	3,498.4	3,499.8	3,498.4	7.6	7.4	117.62	-189.7	-52.3	214.5	199.7	14.90	14.401 SF		
3,600.0	3,597.1	3,598.6	3,597.1	7.8	7.6	121.04	-189.7	-52.3	222.3	207.0	15.34	14.493		
3,700.0	3,695.3	3,696.7	3,695.3	8.1	7.8	124.84	-189.7	-52.3	232.8	217.0	15.78	14.756		
3,800.0	3,792.7	3,794.1	3,792.7	8.4	8.1	128.86	-189.7	-52.3	246.6	230.3	16.21	15.206		
3,887.9	3,877.7	3,879.1	3,877.7	8.7	8.2	132.42	-189.7	-52.3	261.6	245.0	16.59	15.765		
3,900.0	3,889.3	3,890.7	3,889.3	8.7	8.3	132.93	-189.7	-52.3	263.8	247.2	16.65	15.849		
4,000.0	3,985.6	3,987.0	3,985.6	9.1	8.5	136.89	-189.7	-52.3	283.4	266.3	17.11	16.563		
4,100.0	4,081.8	4,083.2	4,081.8	9.5	8.7	140.34	-189.7	-52.3	304.1	286.5	17.57	17.306		
4,200.0	4,178.0	4,179.4	4,178.0	9.9	8.9	143.35	-189.7	-52.3	325.8	307.8	18.04	18.062		
4,300.0	4,274.3	4,275.7	4,274.3	10.3	9.1	145.98	-189.7	-52.3	348.2	329.7	18.50	18.822		
4,400.0	4,370.5	4,371.9	4,370.5	10.8	9.3	148.31	-189.7	-52.3	371.3	352.4	18.97	19.578		
4,500.0	4,466.7	4,468.2	4,466.7	11.2	9.5	150.36	-189.7	-52.3	394.9	375.5	19.43	20.325		
4,600.0	4,563.0	4,564.4	4,563.0	11.7	9.8	152.18	-189.7	-52.3	419.0	399.1	19.90	21.058		
4,700.0	4,659.2	4,660.6	4,659.2	12.2	10.0	153.81	-189.7	-52.3	443.4	423.0	20.36	21.774		
4,800.0	4,755.5	4,756.9	4,755.5	12.7	10.2	155.27	-189.7	-52.3	468.1	447.2	20.83	22.472		
4,900.0	4,851.7	4,853.1	4,851.7	13.1	10.4	156.58	-189.7	-52.3	493.0	471.7	21.30	23.150		
5,000.0	4,947.9	4,949.3	4,947.9	13.6	10.6	157.77	-189.7	-52.3	518.2	496.4	21.77	23.809		
5,100.0	5,044.2	5,045.6	5,044.2	14.1	10.8	158.85	-189.7	-52.3	543.6	521.4	22.24	24.447		
5,200.0	5,140.4	5,141.8	5,140.4	14.7	11.0	159.83	-189.7	-52.3	569.1	546.4	22.71	25.065		
5,300.0	5,236.7	5,238.1	5,236.7	15.2	11.3	160.73	-189.7	-52.3	594.8	571.6	23.18	25.662		
5,400.0	5,332.9	5,334.3	5,332.9	15.7	11.5	161.55	-189.7	-52.3	620.6	597.0	23.65	26.240		
5,500.0	5,429.1	5,430.5	5,429.1	16.2	11.7	162.31	-189.7	-52.3	646.6	622.4	24.13	26.798		
5,600.0	5,525.4	5,521.8	5,520.4	16.7	11.9	162.98	-189.7	-52.4	672.7	648.1	24.59	27.354		
5,700.0	5,621.6	5,600.0	5,598.6	17.3	12.1	163.52	-190.1	-54.0	700.8	675.8	25.03	28.000		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 1-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,800.0	5,717.8	5,674.9	5,673.4	17.8	12.2	164.01	-190.9	-57.5	731.5	706.1	25.45	28.741		
5,900.0	5,814.1	5,749.5	5,747.8	18.4	12.4	164.47	-192.2	-62.8	764.8	738.9	25.88	29.555		
6,000.0	5,910.3	5,822.6	5,820.6	18.9	12.5	164.90	-193.8	-69.9	800.6	774.3	26.30	30.440		
6,100.0	6,006.6	5,900.0	5,897.3	19.4	12.7	165.31	-196.1	-79.4	838.8	812.0	26.73	31.377		
6,200.0	6,102.8	5,964.5	5,961.1	20.0	12.9	165.64	-198.3	-88.8	879.2	852.1	27.14	32.393		
6,300.0	6,199.0	6,033.1	6,028.7	20.5	13.0	165.96	-201.0	-100.3	921.9	894.4	27.56	33.451		
6,400.0	6,295.3	6,100.0	6,094.2	21.1	13.2	166.26	-204.0	-113.1	966.8	938.9	27.98	34.557		
6,500.0	6,391.5	6,165.7	6,158.3	21.6	13.4	166.52	-207.3	-127.1	1,013.8	985.4	28.39	35.705		
6,546.0	6,435.8	6,200.0	6,191.7	21.9	13.5	166.65	-209.1	-135.0	1,036.1	1,007.5	28.59	36.237		
6,550.0	6,439.6	6,200.0	6,191.7	21.9	13.5	166.95	-209.1	-135.0	1,038.1	1,009.5	28.59	36.315		
6,600.0	6,487.0	6,228.6	6,219.4	22.2	13.6	169.76	-210.8	-141.8	1,064.9	1,036.5	28.49	37.383		
6,650.0	6,532.8	6,265.4	6,254.9	22.6	13.7	171.55	-212.9	-151.1	1,095.8	1,067.5	28.30	38.721		
6,700.0	6,576.8	6,290.1	6,278.8	23.0	13.7	172.72	-214.4	-157.4	1,130.3	1,102.3	28.00	40.371		
6,750.0	6,618.5	6,323.1	6,310.6	23.6	13.8	173.60	-216.4	-165.9	1,167.7	1,140.1	27.62	42.286		
6,800.0	6,657.6	6,352.7	6,339.1	24.2	13.9	174.26	-218.2	-173.5	1,208.0	1,180.8	27.15	44.494		
6,850.0	6,693.9	6,378.7	6,364.2	24.8	14.0	174.76	-219.8	-180.2	1,250.6	1,224.0	26.61	46.997		
6,900.0	6,727.1	6,400.9	6,385.6	25.5	14.1	175.14	-221.1	-185.8	1,295.4	1,269.4	26.02	49.789		
6,950.0	6,756.9	6,419.1	6,403.2	26.3	14.2	175.41	-222.2	-190.5	1,342.0	1,316.6	25.39	52.856		
6,991.3	6,778.8	6,431.0	6,414.7	27.0	14.2	175.56	-222.9	-193.6	1,381.5	1,356.6	24.86	55.577		
7,000.0	6,783.2	6,433.2	6,416.8	27.2	14.2	175.58	-223.1	-194.2	1,389.9	1,365.0	24.89	55.834		
7,100.0	6,833.2	6,458.6	6,441.3	29.0	14.3	175.81	-224.6	-200.7	1,486.6	1,461.3	25.32	58.710		
7,141.3	6,853.8	6,469.1	6,451.5	29.7	14.3	175.89	-225.2	-203.4	1,526.5	1,501.0	25.50	59.856		
7,150.0	6,858.2	6,471.3	6,453.6	29.9	14.3	179.70	-225.4	-203.9	1,535.0	1,509.7	25.24	60.809		
7,200.0	6,882.9	6,483.7	6,465.5	30.8	14.4	-158.79	-226.1	-207.1	1,583.3	1,555.9	27.47	57.646		
7,250.0	6,907.1	6,495.6	6,477.0	31.6	14.4	-140.20	-226.8	-210.2	1,631.5	1,598.6	32.87	49.633		
7,300.0	6,930.5	6,506.8	6,487.8	32.4	14.5	-125.73	-227.5	-213.0	1,679.0	1,641.6	37.42	44.870		
7,350.0	6,953.0	6,517.3	6,497.9	33.2	14.5	-114.76	-228.1	-215.7	1,725.8	1,685.4	40.37	42.750		
7,400.0	6,974.5	6,527.0	6,507.2	33.9	14.5	-106.33	-228.7	-218.2	1,771.4	1,729.4	42.07	42.105		
7,450.0	6,994.6	6,535.8	6,515.7	34.7	14.6	-99.69	-229.3	-220.5	1,815.7	1,772.8	42.91	42.317		
7,500.0	7,013.4	6,542.9	6,522.6	35.3	14.6	-94.29	-229.7	-222.3	1,858.5	1,815.3	43.14	43.084		
7,550.0	7,030.7	6,545.3	6,524.9	35.9	14.6	-89.68	-229.8	-222.9	1,899.5	1,856.6	42.91	44.265		
7,600.0	7,046.2	6,547.1	6,526.6	36.5	14.6	-85.87	-230.0	-223.4	1,938.5	1,896.2	42.32	45.805		
7,650.0	7,060.0	6,550.0	6,529.5	37.0	14.6	-82.79	-230.2	-224.2	1,975.5	1,934.1	41.45	47.655		
7,700.0	7,071.8	6,550.0	6,529.5	37.5	14.6	-80.15	-230.2	-224.2	2,010.2	1,969.9	40.37	49.799		
7,750.0	7,081.7	6,550.0	6,529.5	37.9	14.6	-77.99	-230.2	-224.2	2,042.6	2,003.4	39.12	52.209		
7,800.0	7,089.5	6,550.0	6,529.5	38.2	14.6	-76.26	-230.2	-224.2	2,072.4	2,034.6	37.78	54.854		
7,850.0	7,095.2	6,550.0	6,529.5	38.5	14.6	-74.91	-230.2	-224.2	2,099.6	2,063.2	36.40	57.680		
7,900.0	7,098.7	6,550.0	6,529.5	38.8	14.6	-73.91	-230.2	-224.2	2,124.0	2,088.9	35.05	60.599		
7,954.8	7,100.0	6,550.0	6,529.5	39.1	14.6	-73.17	-230.2	-224.2	2,147.5	2,113.8	33.69	63.740		
8,000.0	7,100.0	6,550.0	6,529.5	39.2	14.6	-73.17	-230.2	-224.2	2,165.9	2,131.8	34.09	63.537		
8,100.0	7,100.0	6,546.1	6,525.7	39.7	14.6	-73.05	-229.9	-223.1	2,209.3	2,174.3	34.97	63.178		
8,200.0	7,100.0	6,542.9	6,522.6	40.2	14.6	-72.96	-229.7	-222.3	2,256.3	2,220.3	35.97	62.721		
8,300.0	7,100.0	6,542.9	6,522.6	40.8	14.6	-72.96	-229.7	-222.3	2,306.7	2,269.6	37.10	62.170		
8,400.0	7,100.0	6,537.7	6,517.6	41.5	14.6	-72.81	-229.4	-221.0	2,360.2	2,321.9	38.28	61.655		
8,500.0	7,100.0	6,531.6	6,511.8	42.2	14.5	-72.63	-229.0	-219.4	2,416.7	2,377.1	39.53	61.141		
8,600.0	7,100.0	6,525.6	6,505.9	43.0	14.5	-72.46	-228.6	-217.9	2,475.9	2,435.0	40.83	60.632		
8,700.0	7,100.0	6,519.6	6,500.1	43.8	14.5	-72.28	-228.3	-216.3	2,537.6	2,495.4	42.20	60.139		
8,800.0	7,100.0	6,513.5	6,494.3	44.7	14.5	-72.11	-227.9	-214.8	2,601.7	2,558.1	43.60	59.668		
8,900.0	7,100.0	6,507.5	6,488.4	45.7	14.5	-71.93	-227.6	-213.2	2,668.0	2,623.0	45.05	59.225		
9,000.0	7,100.0	6,501.4	6,482.6	46.7	14.4	-71.76	-227.2	-211.7	2,736.4	2,689.9	46.53	58.812		
9,100.0	7,100.0	6,495.4	6,476.8	47.8	14.4	-71.58	-226.8	-210.1	2,806.6	2,758.6	48.03	58.429		
9,200.0	7,100.0	6,489.3	6,471.0	48.9	14.4	-71.41	-226.5	-208.6	2,878.6	2,829.0	49.57	58.076		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 1-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,300.0	7,100.0	6,483.3	6,465.1	50.1	14.4	-71.24	-226.1	-207.0	2,952.2	2,901.1	51.12	57.754		
9,400.0	7,100.0	6,477.3	6,459.3	51.4	14.4	-71.06	-225.7	-205.5	3,027.3	2,974.6	52.69	57.459		
9,500.0	7,100.0	6,471.2	6,453.5	52.7	14.3	-70.89	-225.4	-203.9	3,103.8	3,049.5	54.27	57.192		
9,600.0	7,100.0	6,465.2	6,447.7	54.0	14.3	-70.71	-225.0	-202.4	3,181.6	3,125.7	55.87	56.950		
9,700.0	7,100.0	6,459.1	6,441.8	55.4	14.3	-70.54	-224.6	-200.8	3,260.6	3,203.1	57.47	56.731		
9,800.0	7,100.0	6,453.1	6,436.0	56.8	14.3	-70.36	-224.3	-199.3	3,340.7	3,281.6	59.09	56.535		
9,900.0	7,100.0	6,447.1	6,430.2	58.3	14.3	-70.19	-223.9	-197.7	3,421.8	3,361.1	60.71	56.358		
10,000.0	7,100.0	6,441.0	6,424.4	59.8	14.2	-70.01	-223.5	-196.2	3,503.9	3,441.6	62.35	56.201		
10,100.0	7,100.0	6,435.0	6,418.5	61.3	14.2	-69.84	-223.2	-194.6	3,586.9	3,522.9	63.98	56.060		
10,200.0	7,100.0	6,428.9	6,412.7	62.8	14.2	-69.67	-222.8	-193.1	3,670.8	3,605.1	65.62	55.936		
10,300.0	7,100.0	6,422.9	6,406.9	64.4	14.2	-69.49	-222.4	-191.5	3,755.4	3,688.1	67.27	55.826		
10,400.0	7,100.0	6,416.9	6,401.0	66.0	14.1	-69.32	-222.1	-190.0	3,840.7	3,771.8	68.92	55.729		
10,500.0	7,100.0	6,410.8	6,395.2	67.6	14.1	-69.15	-221.7	-188.4	3,926.8	3,856.2	70.57	55.644		
10,600.0	7,100.0	6,404.8	6,389.4	69.2	14.1	-68.97	-221.3	-186.9	4,013.4	3,941.2	72.22	55.571		
10,700.0	7,100.0	6,398.7	6,383.6	70.9	14.1	-68.80	-221.0	-185.3	4,100.7	4,026.8	73.88	55.508		
10,800.0	7,100.0	6,392.7	6,377.7	72.6	14.1	-68.63	-220.6	-183.8	4,188.5	4,113.0	75.53	55.455		
10,900.0	7,100.0	6,386.7	6,371.9	74.2	14.0	-68.45	-220.3	-182.2	4,276.9	4,199.7	77.19	55.411		
11,000.0	7,100.0	6,380.6	6,366.1	75.9	14.0	-68.28	-219.9	-180.7	4,365.7	4,286.9	78.84	55.374		
11,100.0	7,100.0	6,374.6	6,360.3	77.6	14.0	-68.11	-219.5	-179.1	4,455.1	4,374.6	80.50	55.346		
11,200.0	7,100.0	6,368.5	6,354.4	79.4	14.0	-67.93	-219.2	-177.5	4,544.8	4,462.7	82.15	55.324		
11,300.0	7,100.0	6,362.5	6,348.6	81.1	14.0	-67.76	-218.8	-176.0	4,635.0	4,551.2	83.80	55.308		
11,400.0	7,100.0	6,356.5	6,342.8	82.8	14.0	-67.59	-218.4	-174.4	4,725.5	4,640.1	85.45	55.299		
11,500.0	7,100.0	6,350.4	6,337.0	84.6	13.9	-67.42	-218.1	-172.9	4,816.4	4,729.3	87.11	55.294		
11,600.0	7,100.0	6,344.4	6,331.1	86.4	13.9	-67.24	-217.7	-171.3	4,907.7	4,818.9	88.75	55.295		
11,700.0	7,100.0	6,338.3	6,325.3	88.1	13.9	-67.07	-217.3	-169.8	4,999.3	4,908.9	90.40	55.301		
11,800.0	7,100.0	6,332.3	6,319.5	89.9	13.9	-66.90	-217.0	-168.2	5,091.2	4,999.1	92.05	55.311		
11,900.0	7,100.0	6,326.3	6,313.6	91.7	13.9	-66.73	-216.6	-166.7	5,183.4	5,089.7	93.69	55.325		
12,000.0	7,100.0	6,320.2	6,307.8	93.5	13.8	-66.56	-216.2	-165.1	5,275.9	5,180.5	95.33	55.343		
12,100.0	7,100.0	6,314.2	6,302.0	95.3	13.8	-66.38	-215.9	-163.6	5,368.6	5,271.6	96.97	55.365		
12,200.0	7,100.0	6,308.1	6,296.2	97.1	13.8	-66.21	-215.5	-162.0	5,461.6	5,363.0	98.60	55.389		
12,300.0	7,100.0	6,302.1	6,290.3	98.9	13.8	-66.04	-215.1	-160.5	5,554.8	5,454.6	100.24	55.417		
12,400.0	7,100.0	6,296.1	6,284.5	100.7	13.8	-65.87	-214.8	-158.9	5,648.2	5,546.4	101.87	55.448		
12,433.4	7,100.0	6,294.0	6,282.6	101.3	13.8	-65.81	-214.7	-158.4	5,679.5	5,577.1	102.41	55.459		
12,433.7	7,100.0	6,294.0	6,282.5	101.5	13.8	-65.81	-214.7	-158.4	5,679.8	5,577.4	102.41	55.460		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 2-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-3perry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-179.09	-150.0	-2.4	150.0					
100.0	100.0	100.0	100.0	0.1	0.1	-179.09	-150.0	-2.4	150.0	149.8	0.19	794.470		
200.0	200.0	200.0	200.0	0.3	0.3	-179.09	-150.0	-2.4	150.0	149.4	0.64	234.984		
300.0	300.0	300.0	300.0	0.5	0.5	-179.09	-150.0	-2.4	150.0	148.9	1.09	137.883		
400.0	400.0	400.0	400.0	0.8	0.8	-179.09	-150.0	-2.4	150.0	148.5	1.54	97.567		
500.0	500.0	500.0	500.0	1.0	1.0	-179.09	-150.0	-2.4	150.0	148.0	1.99	75.493 CC, ES		
594.6	594.6	589.9	589.8	1.2	1.2	91.43	-151.4	-2.4	151.5	149.1	2.37	64.016		
600.0	600.0	595.0	595.0	1.2	1.2	91.49	-151.6	-2.4	151.7	149.3	2.39	63.524		
700.0	699.9	693.1	693.0	1.4	1.4	92.64	-155.7	-2.4	156.1	153.3	2.78	56.138		
800.0	799.9	792.9	792.7	1.6	1.6	93.74	-160.2	-2.4	160.7	157.5	3.19	50.415		
900.0	899.8	892.8	892.5	1.8	1.8	94.78	-164.6	-2.4	165.4	161.8	3.61	45.847		
1,000.0	999.8	992.6	992.2	2.1	2.0	95.76	-169.1	-2.4	170.1	166.1	4.04	42.154		
1,105.7	1,105.4	1,098.2	1,097.7	2.3	2.2	96.74	-173.8	-2.4	175.2	170.7	4.50	38.971		
1,200.3	1,200.0	1,194.0	1,193.4	2.5	2.4	-172.83	-178.0	-2.4	179.5	174.6	4.91	36.541		
1,300.0	1,299.7	1,300.3	1,299.7	2.7	2.7	-172.91	-180.0	-2.4	181.4	176.0	5.34	33.974		
1,400.0	1,399.7	1,400.3	1,399.7	2.9	2.9	-172.91	-180.0	-2.4	181.4	175.6	5.76	31.495		
1,500.0	1,499.7	1,500.3	1,499.7	3.1	3.1	-172.91	-180.0	-2.4	181.4	175.2	6.18	29.358		
1,600.0	1,599.7	1,600.3	1,599.7	3.3	3.3	-172.91	-180.0	-2.4	181.4	174.8	6.60	27.476		
1,700.0	1,699.7	1,700.3	1,699.7	3.6	3.5	-172.91	-180.0	-2.4	181.4	174.3	7.03	25.809		
1,800.0	1,799.7	1,800.3	1,799.7	3.8	3.7	-172.91	-180.0	-2.4	181.4	173.9	7.46	24.324		
1,900.0	1,899.7	1,900.3	1,899.7	4.0	3.9	-172.91	-180.0	-2.4	181.4	173.5	7.89	22.994		
2,000.0	1,999.7	2,000.3	1,999.7	4.2	4.1	-172.91	-180.0	-2.4	181.4	173.0	8.32	21.796		
2,100.0	2,099.7	2,100.3	2,099.7	4.4	4.3	-172.91	-180.0	-2.4	181.4	172.6	8.76	20.714		
2,200.0	2,199.7	2,200.3	2,199.7	4.7	4.5	-172.91	-180.0	-2.4	181.4	172.2	9.19	19.731		
2,300.0	2,299.7	2,300.3	2,299.7	4.9	4.8	-172.91	-180.0	-2.4	181.4	171.7	9.63	18.834		
2,400.0	2,399.7	2,400.3	2,399.7	5.1	5.0	-172.91	-180.0	-2.4	181.4	171.3	10.07	18.014		
2,500.0	2,499.7	2,500.3	2,499.7	5.3	5.2	-172.91	-180.0	-2.4	181.4	170.9	10.51	17.260		
2,600.0	2,599.7	2,600.3	2,599.7	5.6	5.4	-172.91	-180.0	-2.4	181.4	170.4	10.95	16.566		
2,700.0	2,699.7	2,700.3	2,699.7	5.8	5.6	-172.91	-180.0	-2.4	181.4	170.0	11.39	15.924		
2,800.0	2,799.7	2,800.3	2,799.7	6.0	5.9	-172.91	-180.0	-2.4	181.4	169.5	11.83	15.330		
2,900.0	2,899.7	2,900.3	2,899.7	6.2	6.1	-172.91	-180.0	-2.4	181.4	169.1	12.27	14.777		
3,000.0	2,999.7	3,000.3	2,999.7	6.4	6.3	-172.91	-180.0	-2.4	181.4	168.7	12.72	14.263		
3,099.6	3,099.3	3,099.9	3,099.3	6.7	6.5	-172.91	-180.0	-2.4	181.4	168.2	13.16	13.784		
3,200.0	3,199.7	3,200.3	3,199.7	6.9	6.7	97.63	-180.0	-2.4	181.6	168.0	13.61	13.345		
3,300.0	3,299.5	3,300.2	3,299.5	7.1	7.0	99.25	-180.0	-2.4	182.4	168.3	14.04	12.985		
3,400.0	3,399.1	3,399.8	3,399.1	7.3	7.2	101.89	-180.0	-2.4	184.0	169.5	14.49	12.699		
3,500.0	3,498.4	3,499.0	3,498.4	7.6	7.4	105.47	-180.0	-2.4	186.9	171.9	14.94	12.510		
3,600.0	3,597.1	3,597.8	3,597.1	7.8	7.6	109.85	-180.0	-2.4	191.7	176.3	15.40	12.450 SF		
3,700.0	3,695.3	3,695.9	3,695.3	8.1	7.8	114.81	-180.0	-2.4	199.1	183.2	15.86	12.553		
3,800.0	3,792.7	3,793.4	3,792.7	8.4	8.0	120.11	-180.0	-2.4	209.7	193.4	16.32	12.850		
3,887.9	3,877.7	3,878.3	3,877.7	8.7	8.2	124.84	-180.0	-2.4	222.1	205.4	16.71	13.288		
3,900.0	3,889.3	3,889.9	3,889.3	8.7	8.3	125.51	-180.0	-2.4	224.1	207.3	16.77	13.359		
4,000.0	3,985.6	3,986.2	3,985.6	9.1	8.5	130.66	-180.0	-2.4	241.2	224.0	17.24	13.992		
4,100.0	4,081.8	4,082.4	4,081.8	9.5	8.7	135.12	-180.0	-2.4	260.1	242.4	17.71	14.690		
4,200.0	4,178.0	4,178.7	4,178.0	9.9	8.9	138.98	-180.0	-2.4	280.4	262.2	18.17	15.429		
4,300.0	4,274.3	4,274.9	4,274.3	10.3	9.1	142.32	-180.0	-2.4	301.7	283.1	18.63	16.192		
4,400.0	4,370.5	4,371.1	4,370.5	10.8	9.3	145.22	-180.0	-2.4	323.9	304.8	19.09	16.965		
4,500.0	4,466.7	4,467.4	4,466.7	11.2	9.5	147.76	-180.0	-2.4	346.8	327.3	19.55	17.739		
4,600.0	4,563.0	4,563.6	4,563.0	11.7	9.8	149.98	-180.0	-2.4	370.3	350.3	20.01	18.505		
4,700.0	4,659.2	4,659.9	4,659.2	12.2	10.0	151.94	-180.0	-2.4	394.3	373.8	20.47	19.260		
4,800.0	4,755.5	4,756.1	4,755.5	12.7	10.2	153.67	-180.0	-2.4	418.6	397.7	20.93	19.999		
4,900.0	4,851.7	4,852.3	4,851.7	13.1	10.4	155.22	-180.0	-2.4	443.3	421.9	21.40	20.720		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 2-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,947.9	4,948.6	4,947.9	13.6	10.6	156.61	-180.0	-2.4	468.3	446.4	21.86	21.422		
5,100.0	5,044.2	5,044.8	5,044.2	14.1	10.8	157.85	-180.0	-2.4	493.5	471.2	22.32	22.104		
5,200.0	5,140.4	5,141.0	5,140.4	14.7	11.0	158.98	-180.0	-2.4	518.9	496.1	22.79	22.766		
5,300.0	5,236.7	5,237.3	5,236.7	15.2	11.3	160.00	-180.0	-2.4	544.4	521.2	23.26	23.407		
5,400.0	5,332.9	5,333.5	5,332.9	15.7	11.5	160.93	-180.0	-2.4	570.2	546.4	23.73	24.027		
5,500.0	5,429.1	5,429.8	5,429.1	16.2	11.7	161.78	-180.0	-2.4	596.0	571.8	24.20	24.627		
5,600.0	5,525.4	5,526.0	5,525.4	16.7	11.9	162.56	-180.0	-2.4	622.0	597.3	24.67	25.207		
5,700.0	5,621.6	5,622.2	5,621.6	17.3	12.1	163.28	-180.0	-2.4	648.0	622.9	25.15	25.768		
5,800.0	5,717.8	5,718.5	5,717.8	17.8	12.3	163.94	-180.0	-2.4	674.2	648.5	25.62	26.310		
5,900.0	5,814.1	5,814.7	5,814.1	18.4	12.6	164.55	-180.0	-2.4	700.4	674.3	26.10	26.833		
6,000.0	5,910.3	5,910.9	5,910.3	18.9	12.8	165.12	-180.0	-2.4	726.7	700.1	26.58	27.340		
6,100.0	6,006.6	6,007.2	6,006.6	19.4	13.0	165.65	-180.0	-2.4	753.0	726.0	27.06	27.829		
6,200.0	6,102.8	6,103.4	6,102.8	20.0	13.2	166.15	-180.0	-2.4	779.4	751.9	27.54	28.302		
6,300.0	6,199.0	6,199.7	6,199.0	20.5	13.4	166.61	-180.0	-2.4	805.9	777.9	28.02	28.760		
6,400.0	6,295.3	6,295.9	6,295.3	21.1	13.6	167.04	-180.0	-2.4	832.4	803.9	28.50	29.202		
6,500.0	6,391.5	6,392.1	6,391.5	21.6	13.8	167.45	-180.0	-2.4	858.9	830.0	28.99	29.630		
6,546.0	6,435.8	6,436.4	6,435.8	21.9	13.9	167.63	-180.0	-2.4	871.2	842.0	29.21	29.823		
6,550.0	6,439.6	6,440.3	6,439.6	21.9	14.0	167.94	-180.0	-2.4	872.2	843.0	29.21	29.860		
6,600.0	6,487.0	6,482.1	6,481.4	22.2	14.0	170.81	-180.8	-2.3	888.1	858.9	29.13	30.488		
6,650.0	6,532.8	6,520.6	6,519.8	22.6	14.1	172.43	-184.1	-2.0	908.3	879.4	28.94	31.384		
6,700.0	6,576.8	6,556.9	6,555.6	23.0	14.2	173.32	-189.6	-1.5	932.8	904.2	28.67	32.542		
6,750.0	6,618.5	6,590.4	6,588.4	23.6	14.2	173.74	-196.6	-0.9	961.4	933.1	28.31	33.958		
6,800.0	6,657.6	6,620.8	6,617.7	24.2	14.3	173.81	-204.7	-0.2	993.7	965.9	27.89	35.631		
6,850.0	6,693.9	6,650.0	6,645.4	24.8	14.4	173.56	-213.8	0.6	1,029.6	1,002.2	27.43	37.541		
6,900.0	6,727.1	6,671.4	6,665.5	25.5	14.4	173.16	-221.4	1.2	1,068.6	1,041.7	26.91	39.705		
6,950.0	6,756.9	6,691.6	6,684.0	26.3	14.4	172.46	-229.3	1.9	1,110.4	1,084.0	26.41	42.047		
6,991.3	6,778.8	6,700.0	6,691.7	27.0	14.5	171.85	-232.7	2.2	1,146.7	1,120.7	25.98	44.135		
7,000.0	6,783.2	6,708.5	6,699.3	27.2	14.5	171.55	-236.3	2.6	1,154.5	1,128.4	26.08	44.268		
7,100.0	6,833.2	6,738.6	6,726.1	29.0	14.6	170.47	-250.0	3.7	1,244.6	1,217.8	26.78	46.477		
7,141.3	6,853.8	6,750.0	6,736.1	29.7	14.6	170.05	-255.6	4.2	1,282.0	1,254.9	27.08	47.337		
7,150.0	6,858.2	6,750.0	6,736.1	29.9	14.6	172.37	-255.6	4.2	1,289.9	1,263.1	26.75	48.213		
7,200.0	6,882.9	6,765.2	6,749.2	30.8	14.6	-174.54	-263.3	4.9	1,335.5	1,309.5	25.97	51.418		
7,250.0	6,907.1	6,775.2	6,757.7	31.6	14.7	-161.02	-268.6	5.4	1,381.4	1,354.0	27.37	50.465		
7,300.0	6,930.5	6,782.8	6,764.1	32.4	14.7	-147.90	-272.7	5.7	1,427.2	1,396.7	30.52	46.760		
7,350.0	6,953.0	6,788.1	6,768.5	33.2	14.7	-135.82	-275.6	6.0	1,472.7	1,438.6	34.14	43.142		
7,400.0	6,974.5	6,800.0	6,778.3	33.9	14.7	-125.88	-282.2	6.6	1,517.7	1,480.6	37.07	40.938		
7,450.0	6,994.6	6,800.0	6,778.3	34.7	14.7	-116.57	-282.2	6.6	1,561.8	1,522.4	39.45	39.586		
7,500.0	7,013.4	6,800.0	6,778.3	35.3	14.7	-108.81	-282.2	6.6	1,604.8	1,563.9	40.94	39.196		
7,550.0	7,030.7	6,800.0	6,778.3	35.9	14.7	-102.38	-282.2	6.6	1,646.5	1,604.9	41.68	39.503		
7,600.0	7,046.2	6,784.8	6,765.7	36.5	14.7	-96.26	-273.7	5.8	1,686.6	1,644.7	41.88	40.274		
7,650.0	7,060.0	6,779.5	6,761.3	37.0	14.7	-91.71	-270.9	5.6	1,725.0	1,683.5	41.52	41.545		
7,700.0	7,071.8	6,773.2	6,755.9	37.5	14.7	-87.91	-267.5	5.3	1,761.5	1,720.7	40.81	43.167		
7,750.0	7,081.7	6,765.9	6,749.8	37.9	14.6	-84.76	-263.7	4.9	1,795.8	1,756.0	39.82	45.094		
7,800.0	7,089.5	6,750.0	6,736.1	38.2	14.6	-81.88	-255.6	4.2	1,827.9	1,789.3	38.62	47.331		
7,850.0	7,095.2	6,750.0	6,736.1	38.5	14.6	-80.09	-255.6	4.2	1,857.5	1,820.1	37.39	49.676		
7,900.0	7,098.7	6,750.0	6,736.1	38.8	14.6	-78.70	-255.6	4.2	1,884.7	1,848.5	36.16	52.124		
7,954.8	7,100.0	6,730.0	6,718.6	39.1	14.5	-77.05	-246.0	3.4	1,911.2	1,876.5	34.75	54.992		
8,000.0	7,100.0	6,721.6	6,711.1	39.2	14.5	-76.80	-242.1	3.1	1,932.2	1,897.1	35.10	55.040		
8,100.0	7,100.0	6,700.0	6,691.7	39.7	14.5	-76.18	-232.7	2.2	1,981.1	1,945.2	35.88	55.210		
8,200.0	7,100.0	6,700.0	6,691.7	40.2	14.5	-76.18	-232.7	2.2	2,033.5	1,996.6	36.93	55.068		
8,300.0	7,100.0	6,675.9	6,669.6	40.8	14.4	-75.47	-223.1	1.4	2,089.0	2,051.1	37.90	55.113		
8,400.0	7,100.0	6,650.0	6,645.4	41.5	14.4	-74.69	-213.8	0.6	2,147.7	2,108.8	38.94	55.149		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 2-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,500.0	7,100.0	6,650.0	6,645.4	42.2	14.4	-74.69	-213.8	0.6	2,208.9	2,168.7	40.25	54.881		
8,600.0	7,100.0	6,650.0	6,645.4	43.0	14.4	-74.69	-213.8	0.6	2,272.9	2,231.3	41.62	54.610		
8,700.0	7,100.0	6,650.0	6,645.4	43.8	14.4	-74.69	-213.8	0.6	2,339.4	2,296.3	43.05	54.345		
8,800.0	7,100.0	6,625.7	6,622.4	44.7	14.3	-73.96	-206.1	-0.1	2,407.7	2,363.4	44.32	54.322		
8,900.0	7,100.0	6,600.0	6,597.7	45.7	14.3	-73.19	-199.0	-0.7	2,478.5	2,432.9	45.61	54.337		
9,000.0	7,100.0	6,600.0	6,597.7	46.7	14.3	-73.19	-199.0	-0.7	2,550.9	2,503.7	47.16	54.092		
9,100.0	7,100.0	6,600.0	6,597.7	47.8	14.3	-73.19	-199.0	-0.7	2,625.0	2,576.3	48.73	53.866		
9,200.0	7,100.0	6,600.0	6,597.7	48.9	14.3	-73.19	-199.0	-0.7	2,700.8	2,650.5	50.33	53.659		
9,300.0	7,100.0	6,600.0	6,597.7	50.1	14.3	-73.19	-199.0	-0.7	2,778.1	2,726.2	51.96	53.469		
9,400.0	7,100.0	6,600.0	6,597.7	51.4	14.3	-73.19	-199.0	-0.7	2,856.9	2,803.3	53.60	53.297		
9,500.0	7,100.0	6,600.0	6,597.7	52.7	14.3	-73.19	-199.0	-0.7	2,936.9	2,881.6	55.27	53.140		
9,600.0	7,100.0	6,579.2	6,577.5	54.0	14.2	-72.56	-194.1	-1.1	3,017.7	2,961.0	56.73	53.191		
9,700.0	7,100.0	6,575.0	6,573.5	55.4	14.2	-72.43	-193.2	-1.2	3,099.9	3,041.5	58.38	53.100		
9,800.0	7,100.0	6,571.2	6,569.7	56.8	14.2	-72.31	-192.3	-1.3	3,183.1	3,123.0	60.04	53.017		
9,900.0	7,100.0	6,550.0	6,548.9	58.3	14.2	-71.67	-188.4	-1.6	3,267.4	3,205.9	61.51	53.119		
10,000.0	7,100.0	6,550.0	6,548.9	59.8	14.2	-71.67	-188.4	-1.6	3,352.2	3,289.0	63.23	53.019		
10,100.0	7,100.0	6,550.0	6,548.9	61.3	14.2	-71.67	-188.4	-1.6	3,437.9	3,372.9	64.95	52.929		
10,200.0	7,100.0	6,550.0	6,548.9	62.8	14.2	-71.67	-188.4	-1.6	3,524.3	3,457.6	66.69	52.848		
10,300.0	7,100.0	6,550.0	6,548.9	64.4	14.2	-71.67	-188.4	-1.6	3,611.4	3,543.0	68.43	52.777		
10,400.0	7,100.0	6,550.0	6,548.9	66.0	14.2	-71.67	-188.4	-1.6	3,699.1	3,629.0	70.18	52.712		
10,500.0	7,100.0	6,550.0	6,548.9	67.6	14.2	-71.67	-188.4	-1.6	3,787.5	3,715.6	71.93	52.656		
10,600.0	7,100.0	6,550.0	6,548.9	69.2	14.2	-71.67	-188.4	-1.6	3,876.4	3,802.7	73.69	52.605		
10,700.0	7,100.0	6,550.0	6,548.9	70.9	14.2	-71.67	-188.4	-1.6	3,965.9	3,890.4	75.45	52.560		
10,800.0	7,100.0	6,550.0	6,548.9	72.6	14.2	-71.67	-188.4	-1.6	4,055.8	3,978.6	77.22	52.521		
10,900.0	7,100.0	6,550.0	6,548.9	74.2	14.2	-71.67	-188.4	-1.6	4,146.3	4,067.3	79.00	52.486		
11,000.0	7,100.0	6,550.0	6,548.9	75.9	14.2	-71.67	-188.4	-1.6	4,237.1	4,156.3	80.78	52.455		
11,100.0	7,100.0	6,550.0	6,548.9	77.6	14.2	-71.67	-188.4	-1.6	4,328.3	4,245.8	82.56	52.429		
11,200.0	7,100.0	6,550.0	6,548.9	79.4	14.2	-71.67	-188.4	-1.6	4,420.0	4,335.6	84.34	52.405		
11,300.0	7,100.0	6,550.0	6,548.9	81.1	14.2	-71.67	-188.4	-1.6	4,511.9	4,425.8	86.13	52.386		
11,400.0	7,100.0	6,550.0	6,548.9	82.8	14.2	-71.67	-188.4	-1.6	4,604.3	4,516.3	87.92	52.368		
11,500.0	7,100.0	6,550.0	6,548.9	84.6	14.2	-71.67	-188.4	-1.6	4,696.9	4,607.2	89.71	52.354		
11,600.0	7,100.0	6,527.7	6,526.9	86.4	14.1	-70.99	-185.0	-1.9	4,789.4	4,698.2	91.16	52.541		
11,700.0	7,100.0	6,526.2	6,525.4	88.1	14.1	-70.95	-184.8	-2.0	4,882.5	4,789.6	92.92	52.544		
11,800.0	7,100.0	6,524.8	6,524.0	89.9	14.1	-70.90	-184.6	-2.0	4,975.9	4,881.2	94.69	52.548		
11,900.0	7,100.0	6,523.4	6,522.6	91.7	14.1	-70.86	-184.4	-2.0	5,069.6	4,973.1	96.46	52.554		
12,000.0	7,100.0	6,500.0	6,499.3	93.5	14.1	-70.15	-182.0	-2.2	5,163.9	5,066.0	97.85	52.772		
12,100.0	7,100.0	6,500.0	6,499.3	95.3	14.1	-70.15	-182.0	-2.2	5,258.0	5,158.3	99.65	52.767		
12,200.0	7,100.0	6,500.0	6,499.3	97.1	14.1	-70.15	-182.0	-2.2	5,352.2	5,250.8	101.44	52.763		
12,300.0	7,100.0	6,500.0	6,499.3	98.9	14.1	-70.15	-182.0	-2.2	5,446.7	5,343.5	103.24	52.760		
12,400.0	7,100.0	6,500.0	6,499.3	100.7	14.1	-70.15	-182.0	-2.2	5,541.4	5,436.4	105.03	52.759		
12,433.4	7,100.0	6,500.0	6,499.3	101.3	14.1	-70.15	-182.0	-2.2	5,573.1	5,467.4	105.63	52.759		
12,433.7	7,100.0	6,500.0	6,499.3	101.5	14.1	-70.15	-182.0	-2.2	5,573.4	5,467.7	105.64	52.759		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 3-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	173.31	-150.2	17.6	151.3					
100.0	100.0	100.0	100.0	0.1	0.1	173.31	-150.2	17.6	151.3	151.1	0.19	801.195		
200.0	200.0	200.0	200.0	0.3	0.3	173.31	-150.2	17.6	151.3	150.6	0.64	236.973		
300.0	300.0	300.0	300.0	0.5	0.5	173.31	-150.2	17.6	151.3	150.2	1.09	139.050		
400.0	400.0	400.0	400.0	0.8	0.8	173.31	-150.2	17.6	151.3	149.7	1.54	98.392		
500.0	500.0	500.0	500.0	1.0	1.0	173.31	-150.2	17.6	151.3	149.3	1.99	76.132 CC		
594.6	594.6	591.9	591.9	1.2	1.2	83.41	-150.9	18.9	151.9	149.5	2.38	63.879		
600.0	600.0	597.2	597.2	1.2	1.2	83.42	-151.0	19.1	152.0	149.6	2.40	63.332		
700.0	699.9	696.8	696.8	1.4	1.4	83.47	-152.7	22.4	153.7	150.9	2.81	54.745		
800.0	799.9	796.8	796.7	1.6	1.6	83.51	-154.3	25.8	155.4	152.1	3.23	48.125		
900.0	899.8	896.8	896.6	1.8	1.8	83.55	-156.0	29.2	157.0	153.4	3.66	42.909		
1,000.0	999.8	996.8	996.5	2.1	2.0	83.59	-157.7	32.6	158.7	154.6	4.10	38.725		
1,105.7	1,105.4	1,102.8	1,102.4	2.3	2.3	83.64	-159.5	36.1	160.5	155.9	4.57	35.139		
1,200.3	1,200.0	1,200.4	1,200.0	2.5	2.5	173.73	-160.2	37.6	161.2	156.3	4.92	32.780		
1,300.0	1,299.7	1,300.1	1,299.7	2.7	2.7	173.73	-160.2	37.6	161.2	155.9	5.32	30.275		
1,400.0	1,399.7	1,400.1	1,399.7	2.9	2.9	173.73	-160.2	37.6	161.2	155.5	5.75	28.025		
1,500.0	1,499.7	1,500.1	1,499.7	3.1	3.1	173.73	-160.2	37.6	161.2	155.0	6.18	26.073		
1,600.0	1,599.7	1,600.1	1,599.7	3.3	3.3	173.73	-160.2	37.6	161.2	154.6	6.62	24.366		
1,700.0	1,699.7	1,700.1	1,699.7	3.6	3.5	173.73	-160.2	37.6	161.2	154.2	7.05	22.862		
1,800.0	1,799.7	1,800.1	1,799.7	3.8	3.7	173.73	-160.2	37.6	161.2	153.7	7.49	21.528		
1,900.0	1,899.7	1,900.1	1,899.7	4.0	4.0	173.73	-160.2	37.6	161.2	153.3	7.93	20.337		
2,000.0	1,999.7	2,000.1	1,999.7	4.2	4.2	173.73	-160.2	37.6	161.2	152.8	8.37	19.269		
2,100.0	2,099.7	2,100.1	2,099.7	4.4	4.4	173.73	-160.2	37.6	161.2	152.4	8.81	18.305		
2,200.0	2,199.7	2,200.1	2,199.7	4.7	4.6	173.73	-160.2	37.6	161.2	152.0	9.25	17.431		
2,300.0	2,299.7	2,300.1	2,299.7	4.9	4.8	173.73	-160.2	37.6	161.2	151.5	9.69	16.636		
2,400.0	2,399.7	2,400.1	2,399.7	5.1	5.1	173.73	-160.2	37.6	161.2	151.1	10.13	15.909		
2,500.0	2,499.7	2,500.1	2,499.7	5.3	5.3	173.73	-160.2	37.6	161.2	150.6	10.58	15.242		
2,600.0	2,599.7	2,600.1	2,599.7	5.6	5.5	173.73	-160.2	37.6	161.2	150.2	11.02	14.628		
2,700.0	2,699.7	2,700.1	2,699.7	5.8	5.7	173.73	-160.2	37.6	161.2	149.7	11.46	14.061		
2,800.0	2,799.7	2,800.1	2,799.7	6.0	5.9	173.73	-160.2	37.6	161.2	149.3	11.91	13.536		
2,900.0	2,899.7	2,900.1	2,899.7	6.2	6.2	173.73	-160.2	37.6	161.2	148.9	12.35	13.049		
3,000.0	2,999.7	3,000.1	2,999.7	6.4	6.4	173.73	-160.2	37.6	161.2	148.4	12.80	12.595		
3,099.6	3,099.3	3,099.7	3,099.3	6.7	6.6	173.73	-160.2	37.6	161.2	148.0	13.24	12.173		
3,200.0	3,199.7	3,200.1	3,199.7	6.9	6.8	84.35	-160.2	37.6	161.0	147.3	13.72	11.741		
3,300.0	3,299.5	3,299.9	3,299.5	7.1	7.1	86.22	-160.2	37.6	160.6	146.4	14.15	11.346		
3,400.0	3,399.1	3,399.5	3,399.1	7.3	7.3	89.33	-160.2	37.6	160.3	145.6	14.60	10.975		
3,417.4	3,416.5	3,416.8	3,416.5	7.4	7.3	90.00	-160.2	37.6	160.2	145.6	14.68	10.914		
3,500.0	3,498.4	3,498.8	3,498.4	7.6	7.5	93.65	-160.2	37.6	160.6	145.5	15.06	10.662 ES		
3,600.0	3,597.1	3,597.5	3,597.1	7.8	7.7	99.07	-160.2	37.6	162.3	146.8	15.53	10.452		
3,700.0	3,695.3	3,695.7	3,695.3	8.1	7.9	105.38	-160.2	37.6	166.5	150.4	16.01	10.397		
3,800.0	3,792.7	3,793.1	3,792.7	8.4	8.2	112.25	-160.2	37.6	173.9	157.4	16.49	10.547		
3,887.9	3,877.7	3,878.1	3,877.7	8.7	8.3	118.44	-160.2	37.6	183.9	167.0	16.90	10.879		
3,900.0	3,889.3	3,889.7	3,889.3	8.7	8.4	119.30	-160.2	37.6	185.5	168.5	16.96	10.939		
4,000.0	3,985.6	3,986.0	3,985.6	9.1	8.6	125.92	-160.2	37.6	200.6	183.1	17.43	11.509		
4,100.0	4,081.8	4,082.2	4,081.8	9.5	8.8	131.59	-160.2	37.6	218.0	200.1	17.89	12.186		
4,200.0	4,178.0	4,178.4	4,178.0	9.9	9.0	136.42	-160.2	37.6	237.3	218.9	18.34	12.935		
4,300.0	4,274.3	4,274.7	4,274.3	10.3	9.2	140.52	-160.2	37.6	257.9	239.1	18.79	13.725		
4,400.0	4,370.5	4,376.3	4,375.8	10.8	9.5	144.05	-160.4	38.6	279.1	259.8	19.25	14.501		
4,500.0	4,466.7	4,481.4	4,480.9	11.2	9.7	146.69	-161.1	43.3	298.4	278.7	19.71	15.145		
4,600.0	4,563.0	4,588.1	4,587.3	11.7	9.9	148.56	-162.5	51.9	315.5	295.3	20.19	15.629		
4,700.0	4,659.2	4,696.3	4,694.7	12.2	10.1	149.80	-164.5	64.6	329.9	309.2	20.69	15.944		
4,800.0	4,755.5	4,805.6	4,802.6	12.7	10.4	150.52	-167.2	81.6	341.5	320.3	21.23	16.088		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 3-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.0	4,851.7	4,915.7	4,910.6	13.1	10.7	150.77	-170.6	102.7	350.1	328.3	21.80	16.064		
5,000.0	4,947.9	5,026.2	5,018.1	13.6	11.0	150.58	-174.6	128.0	355.7	333.3	22.40	15.877		
5,100.0	5,044.2	5,137.0	5,124.7	14.1	11.4	149.98	-179.3	157.5	358.3	335.2	23.06	15.536		
5,200.0	5,140.4	5,245.5	5,228.0	14.7	11.8	148.98	-184.5	190.2	358.0	334.2	23.77	15.058		
5,300.0	5,236.7	5,345.3	5,322.6	15.2	12.2	147.93	-189.4	221.6	356.8	332.3	24.50	14.562		
5,400.0	5,332.9	5,445.0	5,417.2	15.7	12.6	146.87	-194.4	252.9	355.8	330.5	25.26	14.082		
5,500.0	5,429.1	5,544.8	5,511.9	16.2	13.0	145.81	-199.4	284.2	354.8	328.8	26.06	13.616		
5,600.0	5,525.4	5,644.6	5,606.5	16.7	13.5	144.74	-204.3	315.5	354.0	327.1	26.89	13.166		
5,700.0	5,621.6	5,744.4	5,701.1	17.3	14.0	143.67	-209.3	346.8	353.3	325.6	27.75	12.731		
5,800.0	5,717.8	5,844.1	5,795.7	17.8	14.5	142.60	-214.3	378.1	352.8	324.1	28.65	12.314		
5,900.0	5,814.1	5,943.9	5,890.3	18.4	15.0	141.52	-219.3	409.4	352.3	322.8	29.58	11.912		
6,000.0	5,910.3	6,043.7	5,984.9	18.9	15.5	140.44	-224.2	440.7	352.0	321.5	30.54	11.528		
6,100.0	6,006.6	6,143.5	6,079.5	19.4	16.0	139.35	-229.2	472.0	351.8	320.3	31.53	11.160		
6,195.1	6,098.0	6,238.3	6,169.4	20.0	16.6	138.32	-233.9	501.8	351.8	319.3	32.50	10.825		
6,200.0	6,102.8	6,243.2	6,174.1	20.0	16.6	138.27	-234.2	503.3	351.8	319.2	32.55	10.808		
6,300.0	6,199.0	6,343.0	6,268.7	20.5	17.1	137.19	-239.1	534.6	351.9	318.3	33.60	10.473		
6,400.0	6,295.3	6,442.8	6,363.3	21.1	17.7	136.10	-244.1	565.9	352.1	317.4	34.67	10.154		
6,500.0	6,391.5	6,542.6	6,457.9	21.6	18.3	135.02	-249.1	597.2	352.4	316.6	35.77	9.850		
6,546.0	6,435.8	6,580.9	6,494.3	21.9	18.5	134.59	-251.2	609.2	352.8	316.6	36.24	9.736		
6,550.0	6,439.6	6,583.5	6,496.8	21.9	18.5	134.84	-251.4	610.0	352.9	316.7	36.26	9.732 SF		
6,600.0	6,487.0	6,616.2	6,527.7	22.2	18.7	136.96	-254.9	619.9	357.7	321.1	36.60	9.773		
6,650.0	6,532.8	6,650.0	6,559.6	22.6	18.8	137.75	-260.4	629.7	368.5	331.5	36.95	9.972		
6,700.0	6,576.8	6,678.5	6,586.2	23.0	19.0	137.75	-266.6	637.6	384.9	347.6	37.30	10.317		
6,750.0	6,618.5	6,700.0	6,606.2	23.6	19.1	137.10	-272.1	643.3	406.6	368.9	37.68	10.791		
6,800.0	6,657.6	6,733.2	6,636.7	24.2	19.3	135.92	-282.2	651.7	433.0	394.8	38.20	11.333		
6,850.0	6,693.9	6,750.0	6,652.0	24.8	19.3	134.02	-288.0	655.8	463.8	425.0	38.82	11.947		
6,900.0	6,727.1	6,778.0	6,677.1	25.5	19.5	131.69	-298.6	662.3	498.2	458.6	39.65	12.566		
6,950.0	6,756.9	6,800.0	6,696.4	26.3	19.6	128.55	-307.8	667.1	536.0	495.2	40.73	13.160		
6,991.3	6,778.8	6,800.0	6,696.4	27.0	19.6	124.43	-307.8	667.1	569.3	527.3	42.00	13.554		
7,000.0	6,783.2	6,812.3	6,707.2	27.2	19.6	125.08	-313.3	669.6	576.3	534.3	42.01	13.718		
7,100.0	6,833.2	6,850.0	6,739.3	29.0	19.8	126.70	-331.5	677.0	660.2	617.0	43.19	15.287		
7,141.3	6,853.8	6,850.0	6,739.3	29.7	19.8	126.70	-331.5	677.0	695.4	651.6	43.81	15.874		
7,150.0	6,858.2	6,850.0	6,739.3	29.9	19.8	127.99	-331.5	677.0	702.9	659.3	43.57	16.131		
7,200.0	6,882.9	6,864.7	6,751.5	30.8	19.9	136.82	-339.1	679.7	747.3	705.7	41.51	18.000		
7,250.0	6,907.1	6,874.0	6,759.2	31.6	20.0	147.65	-344.1	681.3	793.4	755.2	38.20	20.768		
7,300.0	6,930.5	6,881.3	6,765.2	32.4	20.0	161.71	-348.2	682.6	840.8	807.4	33.39	25.178		
7,350.0	6,953.0	6,900.0	6,780.3	33.2	20.1	178.23	-358.8	685.6	889.2	860.4	28.81	30.869		
7,400.0	6,974.5	6,900.0	6,780.3	33.9	20.1	-159.76	-358.8	685.6	937.7	909.5	28.16	33.300		
7,450.0	6,994.6	6,900.0	6,780.3	34.7	20.1	-137.38	-358.8	685.6	986.3	952.4	33.89	29.104		
7,500.0	7,013.4	6,900.0	6,780.3	35.3	20.1	-119.03	-358.8	685.6	1,034.7	995.4	39.34	26.304		
7,550.0	7,030.7	6,900.0	6,780.3	35.9	20.1	-105.66	-358.8	685.6	1,082.5	1,040.5	42.01	25.765		
7,600.0	7,046.2	6,900.0	6,780.3	36.5	20.1	-96.14	-358.8	685.6	1,129.5	1,086.8	42.70	26.455		
7,650.0	7,060.0	6,900.0	6,780.3	37.0	20.1	-89.25	-358.8	685.6	1,175.5	1,133.2	42.28	27.805		
7,700.0	7,071.8	6,882.3	6,766.0	37.5	20.0	-82.66	-348.7	682.7	1,219.8	1,178.5	41.22	29.592		
7,750.0	7,081.7	6,877.2	6,761.9	37.9	20.0	-78.66	-345.9	681.9	1,262.7	1,222.9	39.84	31.697		
7,800.0	7,089.5	6,871.3	6,757.1	38.2	19.9	-75.57	-342.7	680.9	1,304.0	1,265.6	38.33	34.017		
7,850.0	7,095.2	6,850.0	6,739.3	38.5	19.8	-72.43	-331.5	677.0	1,343.5	1,306.9	36.68	36.632		
7,900.0	7,098.7	6,850.0	6,739.3	38.8	19.8	-70.99	-331.5	677.0	1,380.6	1,345.3	35.33	39.082		
7,954.8	7,100.0	6,850.0	6,739.3	39.1	19.8	-69.88	-331.5	677.0	1,418.8	1,384.8	34.08	41.638		
8,000.0	7,100.0	6,850.0	6,739.3	39.2	19.8	-69.88	-331.5	677.0	1,449.7	1,415.2	34.46	42.065		
8,100.0	7,100.0	6,827.8	6,720.5	39.7	19.7	-69.00	-320.5	672.8	1,519.9	1,484.8	35.10	43.302		
8,200.0	7,100.0	6,800.0	6,696.4	40.2	19.6	-67.91	-307.8	667.1	1,593.1	1,557.4	35.78	44.531		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 3-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,300.0	7,100.0	6,800.0	6,696.4	40.8	19.6	-67.91	-307.8	667.1	1,668.4	1,631.5	36.87	45.250		
8,400.0	7,100.0	6,800.0	6,696.4	41.5	19.6	-67.91	-307.8	667.1	1,746.1	1,708.1	38.05	45.886		
8,500.0	7,100.0	6,780.5	6,679.3	42.2	19.5	-67.16	-299.6	662.8	1,825.6	1,786.6	39.07	46.725		
8,600.0	7,100.0	6,770.9	6,670.7	43.0	19.4	-66.79	-295.8	660.7	1,906.9	1,866.7	40.27	47.358		
8,700.0	7,100.0	6,750.0	6,652.0	43.8	19.3	-65.99	-288.0	655.8	1,989.9	1,948.5	41.36	48.109		
8,800.0	7,100.0	6,750.0	6,652.0	44.7	19.3	-65.99	-288.0	655.8	2,073.9	2,031.2	42.77	48.491		
8,900.0	7,100.0	6,750.0	6,652.0	45.7	19.3	-65.99	-288.0	655.8	2,159.3	2,115.1	44.22	48.834		
9,000.0	7,100.0	6,750.0	6,652.0	46.7	19.3	-65.99	-288.0	655.8	2,245.9	2,200.2	45.70	49.144		
9,100.0	7,100.0	6,750.0	6,652.0	47.8	19.3	-65.99	-288.0	655.8	2,333.6	2,286.4	47.21	49.426		
9,200.0	7,100.0	6,725.6	6,629.7	48.9	19.2	-65.07	-279.7	649.8	2,421.6	2,373.2	48.40	50.038		
9,300.0	7,100.0	6,700.0	6,606.2	50.1	19.1	-64.13	-272.1	643.3	2,511.1	2,461.6	49.56	50.664		
9,400.0	7,100.0	6,700.0	6,606.2	51.4	19.1	-64.13	-272.1	643.3	2,600.8	2,549.6	51.13	50.869		
9,500.0	7,100.0	6,700.0	6,606.2	52.7	19.1	-64.13	-272.1	643.3	2,691.2	2,638.5	52.71	51.059		
9,600.0	7,100.0	6,700.0	6,606.2	54.0	19.1	-64.13	-272.1	643.3	2,782.2	2,727.9	54.30	51.236		
9,700.0	7,100.0	6,700.0	6,606.2	55.4	19.1	-64.13	-272.1	643.3	2,873.8	2,817.9	55.91	51.401		
9,800.0	7,100.0	6,700.0	6,606.2	56.8	19.1	-64.13	-272.1	643.3	2,966.0	2,908.5	57.53	51.555		
9,900.0	7,100.0	6,700.0	6,606.2	58.3	19.1	-64.13	-272.1	643.3	3,058.7	2,999.5	59.16	51.699		
10,000.0	7,100.0	6,700.0	6,606.2	59.8	19.1	-64.13	-272.1	643.3	3,151.8	3,091.0	60.80	51.835		
10,100.0	7,100.0	6,700.0	6,606.2	61.3	19.1	-64.13	-272.1	643.3	3,245.3	3,182.9	62.46	51.963		
10,200.0	7,100.0	6,700.0	6,606.2	62.8	19.1	-64.13	-272.1	643.3	3,339.3	3,275.1	64.11	52.084		
10,300.0	7,100.0	6,675.4	6,583.4	64.4	19.0	-63.25	-265.9	636.7	3,432.9	3,367.6	65.31	52.560		
10,400.0	7,100.0	6,672.2	6,580.3	66.0	19.0	-63.13	-265.1	635.9	3,527.3	3,460.4	66.91	52.715		
10,500.0	7,100.0	6,650.0	6,559.6	67.6	18.8	-62.36	-260.4	629.7	3,622.3	3,554.2	68.14	53.159		
10,600.0	7,100.0	6,650.0	6,559.6	69.2	18.8	-62.36	-260.4	629.7	3,717.1	3,647.3	69.80	53.252		
10,700.0	7,100.0	6,650.0	6,559.6	70.9	18.8	-62.36	-260.4	629.7	3,812.2	3,740.8	71.47	53.341		
10,800.0	7,100.0	6,650.0	6,559.6	72.6	18.8	-62.36	-260.4	629.7	3,907.6	3,834.4	73.14	53.426		
10,900.0	7,100.0	6,650.0	6,559.6	74.2	18.8	-62.36	-260.4	629.7	4,003.1	3,928.3	74.81	53.507		
11,000.0	7,100.0	6,650.0	6,559.6	75.9	18.8	-62.36	-260.4	629.7	4,098.9	4,022.4	76.49	53.585		
11,100.0	7,100.0	6,650.0	6,559.6	77.6	18.8	-62.36	-260.4	629.7	4,194.9	4,116.7	78.18	53.660		
11,200.0	7,100.0	6,650.0	6,559.6	79.4	18.8	-62.36	-260.4	629.7	4,291.0	4,211.2	79.86	53.732		
11,300.0	7,100.0	6,650.0	6,559.6	81.1	18.8	-62.36	-260.4	629.7	4,387.4	4,305.8	81.55	53.801		
11,400.0	7,100.0	6,650.0	6,559.6	82.8	18.8	-62.36	-260.4	629.7	4,483.9	4,400.6	83.24	53.867		
11,500.0	7,100.0	6,650.0	6,559.6	84.6	18.8	-62.36	-260.4	629.7	4,580.5	4,495.6	84.93	53.931		
11,600.0	7,100.0	6,650.0	6,559.6	86.4	18.8	-62.36	-260.4	629.7	4,677.3	4,590.7	86.63	53.993		
11,700.0	7,100.0	6,650.0	6,559.6	88.1	18.8	-62.36	-260.4	629.7	4,774.2	4,685.9	88.33	54.052		
11,800.0	7,100.0	6,650.0	6,559.6	89.9	18.8	-62.36	-260.4	629.7	4,871.2	4,781.2	90.03	54.109		
11,900.0	7,100.0	6,650.0	6,559.6	91.7	18.8	-62.36	-260.4	629.7	4,968.4	4,876.7	91.73	54.164		
12,000.0	7,100.0	6,650.0	6,559.6	93.5	18.8	-62.36	-260.4	629.7	5,065.7	4,972.2	93.43	54.218		
12,100.0	7,100.0	6,650.0	6,559.6	95.3	18.8	-62.36	-260.4	629.7	5,163.0	5,067.9	95.14	54.269		
12,200.0	7,100.0	6,650.0	6,559.6	97.1	18.8	-62.36	-260.4	629.7	5,260.5	5,163.6	96.84	54.319		
12,300.0	7,100.0	6,650.0	6,559.6	98.9	18.8	-62.36	-260.4	629.7	5,358.1	5,259.5	98.55	54.368		
12,400.0	7,100.0	6,650.0	6,559.6	100.7	18.8	-62.36	-260.4	629.7	5,455.7	5,355.4	100.26	54.414		
12,433.4	7,100.0	6,650.0	6,559.6	101.3	18.8	-62.36	-260.4	629.7	5,488.4	5,387.5	100.83	54.430		
12,433.7	7,100.0	6,650.0	6,559.6	101.5	18.8	-62.36	-260.4	629.7	5,488.7	5,387.8	100.84	54.430		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 4-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	165.96	-150.5	37.6	155.2					
100.0	100.0	100.0	100.0	0.1	0.1	165.96	-150.5	37.6	155.2	155.0	0.19	821.779		
200.0	200.0	200.0	200.0	0.3	0.3	165.96	-150.5	37.6	155.2	154.5	0.64	243.062		
300.0	300.0	300.0	300.0	0.5	0.5	165.96	-150.5	37.6	155.2	154.1	1.09	142.623		
400.0	400.0	400.0	400.0	0.8	0.8	165.96	-150.5	37.6	155.2	153.6	1.54	100.920		
500.0	500.0	500.0	500.0	1.0	1.0	165.96	-150.5	37.6	155.2	153.2	1.99	78.088		
594.6	594.6	593.4	593.4	1.2	1.2	75.97	-150.5	39.2	155.1	152.8	2.39	65.016		
595.5	595.5	594.3	594.3	1.2	1.2	75.97	-150.5	39.2	155.1	152.8	2.39	64.913		
600.0	600.0	598.8	598.7	1.2	1.2	75.97	-150.5	39.3	155.2	152.7	2.41	64.422		
700.0	699.9	698.8	698.7	1.4	1.4	75.96	-150.5	42.7	155.2	152.3	2.82	54.947		
800.0	799.9	798.8	798.6	1.6	1.6	75.96	-150.5	46.0	155.2	151.9	3.25	47.709		
900.0	899.8	898.8	898.6	1.8	1.8	75.96	-150.5	49.3	155.2	151.5	3.69	42.058		
1,000.0	999.8	998.8	998.5	2.1	2.1	75.95	-150.5	52.6	155.2	151.0	4.13	37.551		
1,105.7	1,105.4	1,104.5	1,104.2	2.3	2.3	75.95	-150.5	56.1	155.2	150.6	4.60	33.698		
1,200.3	1,200.0	1,199.0	1,198.7	2.5	2.5	165.39	-150.5	59.2	155.6	150.6	4.97	31.310		
1,300.0	1,299.7	1,298.7	1,298.3	2.7	2.7	164.22	-150.5	62.5	156.4	151.0	5.39	29.010		
1,400.0	1,399.7	1,398.6	1,398.2	2.9	3.0	163.06	-150.5	65.8	157.4	151.5	5.83	26.989		
1,500.0	1,499.7	1,500.2	1,499.7	3.1	3.2	162.44	-150.5	67.6	157.9	151.6	6.26	25.229		
1,600.0	1,599.7	1,600.2	1,599.7	3.3	3.4	162.44	-150.5	67.6	157.9	151.2	6.68	23.645		
1,700.0	1,699.7	1,700.2	1,699.7	3.6	3.6	162.44	-150.5	67.6	157.9	150.8	7.11	22.214		
1,800.0	1,799.7	1,800.2	1,799.7	3.8	3.8	162.44	-150.5	67.6	157.9	150.3	7.54	20.940		
1,900.0	1,899.7	1,900.2	1,899.7	4.0	4.0	162.44	-150.5	67.6	157.9	149.9	7.97	19.799		
2,000.0	1,999.7	2,000.2	1,999.7	4.2	4.2	162.44	-150.5	67.6	157.9	149.5	8.41	18.773		
2,100.0	2,099.7	2,100.2	2,099.7	4.4	4.5	162.44	-150.5	67.6	157.9	149.0	8.85	17.845		
2,200.0	2,199.7	2,200.2	2,199.7	4.7	4.7	162.44	-150.5	67.6	157.9	148.6	9.29	17.002		
2,300.0	2,299.7	2,300.2	2,299.7	4.9	4.9	162.44	-150.5	67.6	157.9	148.2	9.73	16.234		
2,400.0	2,399.7	2,400.2	2,399.7	5.1	5.1	162.44	-150.5	67.6	157.9	147.7	10.17	15.531		
2,500.0	2,499.7	2,500.2	2,499.7	5.3	5.3	162.44	-150.5	67.6	157.9	147.3	10.61	14.885		
2,600.0	2,599.7	2,600.2	2,599.7	5.6	5.5	162.44	-150.5	67.6	157.9	146.8	11.05	14.289		
2,700.0	2,699.7	2,700.2	2,699.7	5.8	5.8	162.44	-150.5	67.6	157.9	146.4	11.49	13.739		
2,800.0	2,799.7	2,800.2	2,799.7	6.0	6.0	162.44	-150.5	67.6	157.9	145.9	11.93	13.229		
2,900.0	2,899.7	2,900.2	2,899.7	6.2	6.2	162.44	-150.5	67.6	157.9	145.5	12.38	12.755		
3,000.0	2,999.7	3,000.2	2,999.7	6.4	6.4	162.44	-150.5	67.6	157.9	145.1	12.82	12.314		
3,099.6	3,099.3	3,099.8	3,099.3	6.7	6.6	162.44	-150.5	67.6	157.9	144.6	13.26	11.903		
3,200.0	3,199.7	3,200.1	3,199.7	6.9	6.9	73.06	-150.5	67.6	157.4	143.6	13.74	11.453		
3,300.0	3,299.5	3,300.0	3,299.5	7.1	7.1	74.93	-150.5	67.6	155.9	141.7	14.18	10.999		
3,400.0	3,399.1	3,399.6	3,399.1	7.3	7.3	78.10	-150.5	67.6	153.9	139.2	14.62	10.524		
3,500.0	3,498.4	3,498.9	3,498.4	7.6	7.5	82.61	-150.5	67.6	151.8	136.7	15.08	10.067		
3,600.0	3,597.1	3,597.6	3,597.1	7.8	7.7	88.48	-150.5	67.6	150.6	135.0	15.56	9.679		
3,622.8	3,619.6	3,620.1	3,619.6	7.9	7.8	90.00	-150.5	67.6	150.5	134.8	15.67	9.605 CC, ES		
3,700.0	3,695.3	3,695.8	3,695.3	8.1	8.0	95.58	-150.5	67.6	151.3	135.2	16.05	9.424		
3,800.0	3,792.7	3,793.2	3,792.7	8.4	8.2	103.61	-150.5	67.6	155.1	138.6	16.55	9.372		
3,887.9	3,877.7	3,878.2	3,877.7	8.7	8.4	111.03	-150.5	67.6	162.1	145.1	16.99	9.543		
3,900.0	3,889.3	3,889.8	3,889.3	8.7	8.4	112.07	-150.5	67.6	163.3	146.3	17.04	9.583		
4,000.0	3,985.6	3,986.0	3,985.6	9.1	8.6	120.08	-150.5	67.6	175.7	158.2	17.52	10.025		
4,100.0	4,081.8	4,086.3	4,085.8	9.5	8.8	126.96	-150.4	68.9	190.3	172.3	17.99	10.576		
4,200.0	4,178.0	4,188.8	4,188.2	9.9	9.1	132.28	-149.9	73.8	204.5	186.0	18.45	11.080		
4,300.0	4,274.3	4,292.9	4,291.9	10.3	9.3	136.35	-148.9	82.5	217.3	198.4	18.93	11.477		
4,400.0	4,370.5	4,398.4	4,396.6	10.8	9.5	139.43	-147.6	95.1	228.0	208.5	19.43	11.735		
4,500.0	4,466.7	4,504.9	4,501.8	11.2	9.8	141.75	-145.8	111.8	236.1	216.1	19.94	11.840		
4,600.0	4,563.0	4,612.2	4,607.0	11.7	10.1	143.44	-143.6	132.4	241.3	220.8	20.47	11.786		
4,700.0	4,659.2	4,714.2	4,706.5	12.2	10.4	144.66	-141.2	154.8	244.3	223.3	21.01	11.624		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 4-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,800.0	4,755.5	4,814.0	4,803.9	12.7	10.7	145.80	-138.9	176.9	247.2	225.7	21.55	11.470		
4,900.0	4,851.7	4,913.9	4,901.2	13.1	11.0	146.91	-136.5	199.0	250.2	228.2	22.09	11.328		
5,000.0	4,947.9	5,013.7	4,998.5	13.6	11.4	148.00	-134.2	221.1	253.4	230.7	22.63	11.198		
5,100.0	5,044.2	5,113.5	5,095.9	14.1	11.7	149.06	-131.8	243.1	256.6	233.4	23.16	11.079		
5,200.0	5,140.4	5,213.4	5,193.2	14.7	12.1	150.10	-129.5	265.2	259.9	236.2	23.69	10.970		
5,300.0	5,236.7	5,313.2	5,290.6	15.2	12.4	151.10	-127.2	287.3	263.3	239.1	24.22	10.870		
5,400.0	5,332.9	5,413.0	5,387.9	15.7	12.8	152.09	-124.8	309.4	266.8	242.0	24.75	10.780		
5,500.0	5,429.1	5,512.9	5,485.2	16.2	13.2	153.04	-122.5	331.4	270.3	245.0	25.27	10.698		
5,600.0	5,525.4	5,612.7	5,582.6	16.7	13.6	153.97	-120.1	353.5	273.9	248.1	25.78	10.623		
5,700.0	5,621.6	5,712.6	5,679.9	17.3	13.9	154.88	-117.8	375.6	277.6	251.3	26.30	10.556		
5,800.0	5,717.8	5,812.4	5,777.2	17.8	14.3	155.76	-115.4	397.7	281.4	254.5	26.81	10.494		
5,900.0	5,814.1	5,912.2	5,874.6	18.4	14.7	156.62	-113.1	419.7	285.2	257.9	27.32	10.439		
6,000.0	5,910.3	6,012.1	5,971.9	18.9	15.2	157.46	-110.7	441.8	289.1	261.2	27.83	10.388		
6,100.0	6,006.6	6,111.9	6,069.3	19.4	15.6	158.28	-108.4	463.9	293.0	264.7	28.33	10.343		
6,200.0	6,102.8	6,211.7	6,166.6	20.0	16.0	159.07	-106.0	486.0	297.0	268.2	28.83	10.302		
6,300.0	6,199.0	6,311.6	6,263.9	20.5	16.4	159.84	-103.7	508.0	301.1	271.7	29.33	10.265		
6,400.0	6,295.3	6,411.4	6,361.3	21.1	16.8	160.59	-101.3	530.1	305.2	275.3	29.83	10.231		
6,500.0	6,391.5	6,509.2	6,511.3	21.6	17.6	160.55	-99.8	577.7	303.0	272.4	30.61	9.902		
6,546.0	6,435.8	6,651.4	6,583.1	21.9	18.3	158.91	-101.7	617.5	293.4	262.2	31.26	9.386		
6,550.0	6,439.6	6,658.3	6,588.8	21.9	18.3	159.02	-102.0	621.3	292.4	261.0	31.31	9.337		
6,600.0	6,487.0	6,740.8	6,653.8	22.2	19.2	158.91	-106.0	671.8	278.0	246.0	32.03	8.680		
6,650.0	6,532.8	6,817.2	6,707.0	22.6	20.1	156.69	-111.3	726.4	262.6	229.6	33.02	7.953		
6,700.0	6,576.8	6,887.7	6,749.2	23.0	21.1	152.96	-117.5	782.5	247.1	212.7	34.41	7.181		
6,750.0	6,618.5	6,943.1	6,777.7	23.6	21.9	149.14	-123.2	829.6	232.9	197.0	35.91	6.486		
6,800.0	6,657.6	6,988.7	6,800.5	24.2	22.7	145.85	-127.9	868.8	223.6	186.2	37.30	5.993		
6,850.0	6,693.9	7,035.5	6,824.0	24.8	23.5	142.38	-132.8	909.1	219.3	180.4	38.94	5.633		
6,868.5	6,706.6	7,053.1	6,832.8	25.1	23.8	141.11	-134.6	924.2	219.0	179.4	39.58	5.533		
6,900.0	6,727.1	7,080.5	6,846.4	25.5	24.3	139.18	-137.5	947.7	220.0	179.4	40.61	5.416		
6,950.0	6,756.9	7,117.3	6,864.7	26.3	24.9	136.40	-143.2	979.2	226.7	184.6	42.16	5.378 SF		
6,991.3	6,778.8	7,150.0	6,880.8	27.0	25.4	133.77	-150.1	1,006.8	237.1	193.4	43.68	5.428		
7,000.0	6,783.2	7,150.0	6,880.8	27.2	25.4	133.77	-150.1	1,006.8	239.7	196.0	43.79	5.475		
7,100.0	6,833.2	7,218.0	6,913.4	29.0	26.6	129.48	-170.3	1,062.8	276.3	228.5	47.80	5.780		
7,141.3	6,853.8	7,250.0	6,928.3	29.7	27.1	127.45	-182.5	1,088.4	294.6	244.9	49.66	5.932		
7,150.0	6,858.2	7,250.0	6,928.3	29.9	27.1	128.19	-182.5	1,088.4	298.6	249.0	49.56	6.024		
7,200.0	6,882.9	7,274.7	6,939.5	30.8	27.5	130.95	-192.9	1,107.7	325.3	275.6	49.73	6.542		
7,250.0	6,907.1	7,300.0	6,950.8	31.6	27.9	133.80	-204.7	1,127.1	357.2	307.7	49.50	7.216		
7,300.0	6,930.5	7,317.1	6,958.3	32.4	28.2	137.64	-213.2	1,139.9	393.5	345.1	48.38	8.133		
7,350.0	6,953.0	7,332.7	6,965.0	33.2	28.5	142.14	-221.3	1,151.5	433.4	386.8	46.58	9.305		
7,400.0	6,974.5	7,350.0	6,972.3	33.9	28.7	147.13	-230.7	1,164.0	476.4	432.2	44.25	10.768		
7,450.0	6,994.6	7,350.0	6,972.3	34.7	28.7	156.41	-230.7	1,164.0	521.7	482.0	39.70	13.139		
7,500.0	7,013.4	7,350.0	6,972.3	35.3	28.7	169.30	-230.7	1,164.0	568.8	534.8	34.01	16.722		
7,550.0	7,030.7	7,363.2	6,977.8	35.9	28.9	-177.34	-238.2	1,173.4	616.7	586.6	30.06	20.515		
7,600.0	7,046.2	7,364.4	6,978.2	36.5	29.0	-155.29	-238.9	1,174.2	665.4	635.0	30.36	21.912		
7,650.0	7,060.0	7,350.0	6,972.3	37.0	28.7	-126.50	-230.7	1,164.0	714.5	676.5	38.03	18.789		
7,700.0	7,071.8	7,350.0	6,972.3	37.5	28.7	-108.71	-230.7	1,164.0	763.1	721.5	41.55	18.365		
7,750.0	7,081.7	7,350.0	6,972.3	37.9	28.7	-96.54	-230.7	1,164.0	811.1	769.3	41.87	19.371		
7,800.0	7,089.5	7,350.0	6,972.3	38.2	28.7	-88.32	-230.7	1,164.0	858.4	817.7	40.67	21.104		
7,850.0	7,095.2	7,350.0	6,972.3	38.5	28.7	-82.65	-230.7	1,164.0	904.6	865.6	38.98	23.206		
7,900.0	7,098.7	7,350.0	6,972.3	38.8	28.7	-78.66	-230.7	1,164.0	949.7	912.3	37.31	25.453		
7,954.8	7,100.0	7,325.6	6,961.9	39.1	28.4	-75.00	-217.5	1,146.2	996.7	961.0	35.64	27.962		
8,000.0	7,100.0	7,317.1	6,958.3	39.2	28.2	-74.80	-213.2	1,140.0	1,035.0	999.1	35.99	28.762		
8,100.0	7,100.0	7,300.0	6,950.8	39.7	27.9	-74.40	-204.7	1,127.1	1,121.1	1,084.4	36.78	30.480		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 4-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,200.0	7,100.0	7,300.0	6,950.8	40.2	27.9	-74.40	-204.7	1,127.1	1,209.0	1,171.2	37.82	31.970		
8,300.0	7,100.0	7,270.1	6,937.5	40.8	27.4	-73.74	-190.9	1,104.2	1,297.6	1,258.8	38.76	33.478		
8,400.0	7,100.0	7,250.0	6,928.3	41.5	27.1	-73.32	-182.5	1,088.4	1,387.6	1,347.7	39.85	34.819		
8,500.0	7,100.0	7,250.0	6,928.3	42.2	27.1	-73.32	-182.5	1,088.4	1,478.4	1,437.3	41.15	35.930		
8,600.0	7,100.0	7,250.0	6,928.3	43.0	27.1	-73.32	-182.5	1,088.4	1,570.4	1,527.9	42.51	36.942		
8,700.0	7,100.0	7,225.1	6,916.8	43.8	26.7	-72.83	-172.9	1,068.6	1,662.6	1,618.8	43.77	37.982		
8,800.0	7,100.0	7,200.0	6,904.9	44.7	26.3	-72.36	-164.2	1,048.2	1,755.9	1,710.9	45.08	38.952		
8,900.0	7,100.0	7,200.0	6,904.9	45.7	26.3	-72.36	-164.2	1,048.2	1,849.3	1,802.8	46.58	39.702		
9,000.0	7,100.0	7,200.0	6,904.9	46.7	26.3	-72.36	-164.2	1,048.2	1,943.4	1,895.3	48.12	40.388		
9,100.0	7,100.0	7,200.0	6,904.9	47.8	26.3	-72.36	-164.2	1,048.2	2,038.0	1,988.3	49.69	41.018		
9,200.0	7,100.0	7,200.0	6,904.9	48.9	26.3	-72.36	-164.2	1,048.2	2,133.1	2,081.9	51.28	41.597		
9,300.0	7,100.0	7,200.0	6,904.9	50.1	26.3	-72.36	-164.2	1,048.2	2,228.7	2,175.8	52.90	42.130		
9,400.0	7,100.0	7,174.4	6,892.6	51.4	25.8	-71.90	-156.5	1,027.2	2,323.9	2,269.5	54.37	42.740		
9,500.0	7,100.0	7,150.0	6,880.8	52.7	25.4	-71.49	-150.1	1,006.8	2,420.2	2,364.3	55.87	43.319		
9,600.0	7,100.0	7,150.0	6,880.8	54.0	25.4	-71.49	-150.1	1,006.8	2,516.2	2,458.7	57.54	43.732		
9,700.0	7,100.0	7,150.0	6,880.8	55.4	25.4	-71.49	-150.1	1,006.8	2,612.5	2,553.3	59.22	44.117		
9,800.0	7,100.0	7,150.0	6,880.8	56.8	25.4	-71.49	-150.1	1,006.8	2,709.1	2,648.2	60.91	44.476		
9,900.0	7,100.0	7,150.0	6,880.8	58.3	25.4	-71.49	-150.1	1,006.8	2,805.9	2,743.3	62.62	44.811		
10,000.0	7,100.0	7,150.0	6,880.8	59.8	25.4	-71.49	-150.1	1,006.8	2,902.9	2,838.6	64.33	45.125		
10,100.0	7,100.0	7,150.0	6,880.8	61.3	25.4	-71.49	-150.1	1,006.8	3,000.1	2,934.1	66.05	45.419		
10,200.0	7,100.0	7,150.0	6,880.8	62.8	25.4	-71.49	-150.1	1,006.8	3,097.5	3,029.8	67.79	45.695		
10,300.0	7,100.0	7,150.0	6,880.8	64.4	25.4	-71.49	-150.1	1,006.8	3,195.1	3,125.6	69.53	45.955		
10,400.0	7,100.0	7,150.0	6,880.8	66.0	25.4	-71.49	-150.1	1,006.8	3,292.8	3,221.5	71.27	46.200		
10,500.0	7,100.0	7,150.0	6,880.8	67.6	25.4	-71.49	-150.1	1,006.8	3,390.7	3,317.6	73.03	46.431		
10,600.0	7,100.0	7,126.7	6,869.4	69.2	25.0	-71.12	-145.0	987.1	3,488.1	3,413.5	74.61	46.752		
10,700.0	7,100.0	7,124.0	6,868.0	70.9	25.0	-71.08	-144.4	984.8	3,586.0	3,509.7	76.35	46.970		
10,800.0	7,100.0	7,100.0	6,856.1	72.6	24.6	-70.72	-140.2	964.4	3,684.5	3,606.6	77.93	47.278		
10,900.0	7,100.0	7,100.0	6,856.1	74.2	24.6	-70.72	-140.2	964.4	3,782.5	3,702.8	79.70	47.461		
11,000.0	7,100.0	7,100.0	6,856.1	75.9	24.6	-70.72	-140.2	964.4	3,880.6	3,799.2	81.47	47.635		
11,100.0	7,100.0	7,100.0	6,856.1	77.6	24.6	-70.72	-140.2	964.4	3,978.9	3,895.6	83.24	47.800		
11,200.0	7,100.0	7,100.0	6,856.1	79.4	24.6	-70.72	-140.2	964.4	4,077.2	3,992.1	85.02	47.957		
11,300.0	7,100.0	7,100.0	6,856.1	81.1	24.6	-70.72	-140.2	964.4	4,175.5	4,088.8	86.80	48.108		
11,400.0	7,100.0	7,100.0	6,856.1	82.8	24.6	-70.72	-140.2	964.4	4,274.0	4,185.4	88.58	48.251		
11,500.0	7,100.0	7,100.0	6,856.1	84.6	24.6	-70.72	-140.2	964.4	4,372.5	4,282.2	90.36	48.388		
11,600.0	7,100.0	7,100.0	6,856.1	86.4	24.6	-70.72	-140.2	964.4	4,471.1	4,379.0	92.15	48.520		
11,700.0	7,100.0	7,100.0	6,856.1	88.1	24.6	-70.72	-140.2	964.4	4,569.8	4,475.8	93.94	48.645		
11,800.0	7,100.0	7,100.0	6,856.1	89.9	24.6	-70.72	-140.2	964.4	4,668.5	4,572.8	95.73	48.766		
11,900.0	7,100.0	7,100.0	6,856.1	91.7	24.6	-70.72	-140.2	964.4	4,767.3	4,669.7	97.53	48.881		
12,000.0	7,100.0	7,100.0	6,856.1	93.5	24.6	-70.72	-140.2	964.4	4,866.1	4,766.8	99.32	48.992		
12,100.0	7,100.0	7,100.0	6,856.1	95.3	24.6	-70.72	-140.2	964.4	4,964.9	4,863.8	101.12	49.099		
12,200.0	7,100.0	7,100.0	6,856.1	97.1	24.6	-70.72	-140.2	964.4	5,063.9	4,960.9	102.92	49.201		
12,300.0	7,100.0	7,100.0	6,856.1	98.9	24.6	-70.72	-140.2	964.4	5,162.8	5,058.1	104.72	49.300		
12,400.0	7,100.0	7,100.0	6,856.1	100.7	24.6	-70.72	-140.2	964.4	5,261.8	5,155.3	106.52	49.395		
12,433.4	7,100.0	7,100.0	6,856.1	101.3	24.6	-70.72	-140.2	964.4	5,294.9	5,187.8	107.13	49.426		
12,433.7	7,100.0	7,100.0	6,856.1	101.5	24.6	-70.72	-140.2	964.4	5,295.2	5,188.1	107.13	49.427		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 3-18H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-127.39	-147.0	-192.3	242.0					
100.0	100.0	100.0	100.0	0.1	0.1	-127.39	-147.0	-192.3	242.0	241.8	0.19	1,281.914		
200.0	200.0	200.0	200.0	0.3	0.3	-127.39	-147.0	-192.3	242.0	241.4	0.64	379.158		
300.0	300.0	300.0	300.0	0.5	0.5	-127.39	-147.0	-192.3	242.0	240.9	1.09	222.481		
400.0	400.0	400.0	400.0	0.8	0.8	-127.39	-147.0	-192.3	242.0	240.5	1.54	157.428		
500.0	500.0	500.0	500.0	1.0	1.0	-127.39	-147.0	-192.3	242.0	240.0	1.99	121.811	CC, ES	
594.6	594.6	594.6	594.6	1.2	1.2	142.82	-147.0	-192.3	243.3	240.9	2.40	101.293		
600.0	600.0	600.0	600.0	1.2	1.2	142.84	-147.0	-192.3	243.4	241.0	2.42	100.392		
700.0	699.9	699.9	699.9	1.4	1.4	143.30	-147.0	-192.3	246.1	243.2	2.86	86.181		
800.0	799.9	799.9	799.9	1.6	1.7	143.76	-147.0	-192.3	248.7	245.4	3.29	75.554		
900.0	899.8	899.8	899.8	1.8	1.9	144.20	-147.0	-192.3	251.4	247.6	3.73	67.347		
1,000.0	999.8	999.8	999.8	2.1	2.1	144.64	-147.0	-192.3	254.1	249.9	4.18	60.837		
1,105.7	1,105.4	1,105.4	1,105.4	2.3	2.4	145.09	-147.0	-192.3	256.9	252.3	4.65	55.286		
1,200.3	1,200.0	1,200.0	1,200.0	2.5	2.6	-124.70	-147.0	-192.3	258.2	253.2	5.06	51.074		
1,300.0	1,299.7	1,299.7	1,299.7	2.7	2.8	-124.70	-147.0	-192.3	258.2	252.7	5.48	47.111		
1,400.0	1,399.7	1,399.7	1,399.7	2.9	3.0	-124.70	-147.0	-192.3	258.2	252.3	5.92	43.612		
1,500.0	1,499.7	1,499.7	1,499.7	3.1	3.2	-124.70	-147.0	-192.3	258.2	251.8	6.36	40.589		
1,600.0	1,599.7	1,599.7	1,599.7	3.3	3.5	-124.70	-147.0	-192.3	258.2	251.4	6.80	37.951		
1,700.0	1,699.7	1,699.7	1,699.7	3.6	3.7	-124.70	-147.0	-192.3	258.2	251.0	7.25	35.631		
1,800.0	1,799.7	1,799.7	1,799.7	3.8	3.9	-124.70	-147.0	-192.3	258.2	250.5	7.69	33.574		
1,900.0	1,899.7	1,899.7	1,899.7	4.0	4.1	-124.70	-147.0	-192.3	258.2	250.1	8.14	31.740		
2,000.0	1,999.7	1,999.7	1,999.7	4.2	4.4	-124.70	-147.0	-192.3	258.2	249.6	8.58	30.094		
2,100.0	2,099.7	2,099.7	2,099.7	4.4	4.6	-124.70	-147.0	-192.3	258.2	249.2	9.03	28.608		
2,200.0	2,199.7	2,199.7	2,199.7	4.7	4.8	-124.70	-147.0	-192.3	258.2	248.7	9.47	27.262		
2,300.0	2,299.7	2,299.7	2,299.7	4.9	5.0	-124.70	-147.0	-192.3	258.2	248.3	9.92	26.035		
2,400.0	2,399.7	2,399.7	2,399.7	5.1	5.3	-124.70	-147.0	-192.3	258.2	247.8	10.36	24.914		
2,500.0	2,499.7	2,499.7	2,499.7	5.3	5.5	-124.70	-147.0	-192.3	258.2	247.4	10.81	23.884		
2,600.0	2,599.7	2,599.7	2,599.7	5.6	5.7	-124.70	-147.0	-192.3	258.2	246.9	11.26	22.936		
2,700.0	2,699.7	2,699.7	2,699.7	5.8	5.9	-124.70	-147.0	-192.3	258.2	246.5	11.70	22.060		
2,800.0	2,799.7	2,799.7	2,799.7	6.0	6.2	-124.70	-147.0	-192.3	258.2	246.1	12.15	21.248		
2,900.0	2,899.7	2,899.7	2,899.7	6.2	6.4	-124.70	-147.0	-192.3	258.2	245.6	12.60	20.493		
3,000.0	2,999.7	2,999.7	2,999.7	6.4	6.6	-124.70	-147.0	-192.3	258.2	245.2	13.05	19.790		
3,099.6	3,099.3	3,099.3	3,099.3	6.7	6.8	-124.70	-147.0	-192.3	258.2	244.7	13.49	19.136		
3,200.0	3,199.7	3,199.7	3,199.7	6.9	7.1	145.51	-147.0	-192.3	259.7	245.7	13.93	18.639		
3,300.0	3,299.5	3,299.5	3,299.5	7.1	7.3	146.10	-147.0	-192.3	264.0	249.6	14.36	18.389	SF	
3,400.0	3,399.1	3,392.7	3,392.7	7.3	7.5	147.19	-146.7	-193.8	272.5	257.7	14.75	18.470		
3,500.0	3,498.4	3,484.6	3,484.5	7.6	7.7	148.89	-145.9	-198.1	286.4	271.3	15.13	18.929		
3,600.0	3,597.1	3,574.7	3,574.3	7.8	7.9	151.00	-144.6	-205.2	306.1	290.6	15.50	19.747		
3,700.0	3,695.3	3,662.4	3,661.5	8.1	8.1	153.31	-142.8	-214.8	331.7	315.8	15.86	20.918		
3,800.0	3,792.7	3,747.3	3,745.5	8.4	8.3	155.64	-140.6	-226.5	363.4	347.2	16.20	22.429		
3,887.9	3,877.7	3,819.2	3,816.4	8.7	8.4	157.61	-138.3	-238.4	396.2	379.7	16.49	24.027		
3,900.0	3,889.3	3,828.9	3,825.9	8.7	8.5	157.91	-138.0	-240.1	401.1	384.5	16.54	24.251		
4,000.0	3,985.6	3,907.9	3,903.3	9.1	8.7	160.22	-135.1	-255.4	442.9	426.0	16.93	26.154		
4,100.0	4,081.8	3,984.6	3,978.1	9.5	8.9	162.25	-132.0	-272.3	487.5	470.2	17.33	28.133		
4,200.0	4,178.0	4,059.1	4,050.3	9.9	9.1	164.04	-128.6	-290.6	534.8	517.1	17.72	30.174		
4,300.0	4,274.3	4,131.6	4,119.9	10.3	9.3	165.62	-124.9	-310.1	584.6	566.5	18.12	32.263		
4,400.0	4,370.5	4,216.2	4,201.0	10.8	9.6	167.25	-120.4	-333.8	635.7	617.2	18.54	34.298		
4,500.0	4,466.7	4,300.8	4,282.1	11.2	10.0	168.63	-116.0	-357.6	687.2	668.3	18.95	36.256		
4,600.0	4,563.0	4,385.3	4,363.1	11.7	10.3	169.83	-111.5	-381.4	739.0	719.6	19.38	38.132		
4,700.0	4,659.2	4,469.9	4,444.2	12.2	10.7	170.88	-107.1	-405.1	790.9	771.1	19.81	39.930		
4,800.0	4,755.5	4,554.5	4,525.3	12.7	11.0	171.80	-102.6	-428.9	843.1	822.8	20.24	41.651		
4,900.0	4,851.7	4,639.1	4,606.3	13.1	11.4	172.61	-98.2	-452.7	895.3	874.7	20.68	43.299		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 3-18H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,947.9	4,723.7	4,687.4	13.6	11.8	173.33	-93.7	-476.4	947.7	926.6	21.12	44.876		
5,100.0	5,044.2	4,808.3	4,768.4	14.1	12.2	173.98	-89.2	-500.2	1,000.2	978.7	21.56	46.385		
5,200.0	5,140.4	4,892.9	4,849.5	14.7	12.6	174.57	-84.8	-524.0	1,052.8	1,030.8	22.01	47.828		
5,300.0	5,236.7	4,977.5	4,930.6	15.2	13.0	175.10	-80.3	-547.7	1,105.4	1,083.0	22.46	49.209		
5,400.0	5,332.9	5,062.1	5,011.6	15.7	13.4	175.58	-75.9	-571.5	1,158.2	1,135.2	22.92	50.531		
5,500.0	5,429.1	5,146.7	5,092.7	16.2	13.9	176.02	-71.4	-595.3	1,210.9	1,187.5	23.38	51.797		
5,600.0	5,525.4	5,231.2	5,173.7	16.7	14.3	176.42	-67.0	-619.0	1,263.7	1,239.9	23.84	53.009		
5,700.0	5,621.6	5,315.8	5,254.8	17.3	14.7	176.79	-62.5	-642.8	1,316.6	1,292.3	24.30	54.171		
5,800.0	5,717.8	5,400.4	5,335.9	17.8	15.2	177.14	-58.1	-666.5	1,369.5	1,344.7	24.77	55.285		
5,900.0	5,814.1	5,485.0	5,416.9	18.4	15.6	177.45	-53.6	-690.3	1,422.4	1,397.2	25.24	56.352		
6,000.0	5,910.3	5,569.6	5,498.0	18.9	16.1	177.75	-49.1	-714.1	1,475.4	1,449.6	25.71	57.375		
6,100.0	6,006.6	5,654.2	5,579.0	19.4	16.5	178.02	-44.7	-737.8	1,528.3	1,502.2	26.19	58.358		
6,200.0	6,102.8	5,738.8	5,660.1	20.0	17.0	178.28	-40.2	-761.6	1,581.3	1,554.7	26.67	59.301		
6,300.0	6,199.0	5,823.4	5,741.2	20.5	17.5	178.52	-35.8	-785.4	1,634.4	1,607.2	27.15	60.207		
6,400.0	6,295.3	5,908.0	5,822.2	21.1	17.9	178.75	-31.3	-809.1	1,687.4	1,659.8	27.63	61.077		
6,500.0	6,391.5	5,992.6	5,903.3	21.6	18.4	178.96	-26.9	-832.9	1,740.5	1,712.4	28.11	61.913		
6,546.0	6,435.8	6,031.5	5,940.6	21.9	18.6	179.05	-24.8	-843.8	1,764.9	1,736.6	28.34	62.287		
6,550.0	6,439.6	6,034.8	5,943.8	21.9	18.6	179.40	-24.6	-844.8	1,767.0	1,738.7	28.32	62.386		
6,600.0	6,487.0	6,075.8	5,983.1	22.2	18.9	-177.04	-22.5	-856.3	1,795.6	1,767.5	28.13	63.838		
6,650.0	6,532.8	6,114.2	6,019.8	22.6	19.1	-174.39	-20.5	-867.1	1,827.6	1,799.8	27.83	65.682		
6,700.0	6,576.8	6,149.7	6,053.9	23.0	19.3	-172.07	-18.6	-877.1	1,862.7	1,835.3	27.44	67.886		
6,750.0	6,618.5	6,182.2	6,085.0	23.6	19.5	-169.79	-16.9	-886.2	1,900.8	1,873.7	27.01	70.369		
6,800.0	6,657.6	6,211.3	6,112.9	24.2	19.6	-167.28	-15.3	-894.3	1,941.3	1,914.7	26.61	72.948		
6,850.0	6,693.9	6,236.8	6,137.3	24.8	19.8	-164.27	-14.0	-901.5	1,984.2	1,957.9	26.37	75.231		
6,900.0	6,727.1	6,258.5	6,158.2	25.5	19.9	-160.35	-12.9	-907.6	2,029.1	2,002.5	26.55	76.423		
6,950.0	6,756.9	6,276.3	6,175.2	26.3	20.0	-154.78	-11.9	-912.6	2,075.5	2,047.9	27.64	75.089		
6,991.3	6,778.8	6,287.9	6,186.4	27.0	20.1	-147.99	-11.3	-915.9	2,114.9	2,085.0	29.91	70.719		
7,000.0	6,783.2	6,290.1	6,188.4	27.2	20.1	-148.08	-11.2	-916.5	2,123.3	2,093.3	29.96	70.880		
7,100.0	6,833.2	6,314.8	6,212.1	29.0	20.2	-149.08	-9.9	-923.4	2,219.5	2,188.9	30.54	72.663		
7,141.3	6,853.8	6,325.1	6,221.9	29.7	20.3	-149.47	-9.4	-926.3	2,259.2	2,228.4	30.80	73.363		
7,150.0	6,858.2	6,327.2	6,224.0	29.9	20.3	-146.32	-9.2	-926.9	2,267.6	2,235.6	31.99	70.880		
7,200.0	6,882.9	6,339.6	6,235.9	30.8	20.4	-130.91	-8.6	-930.4	2,315.3	2,277.3	37.99	60.943		
7,250.0	6,907.1	6,352.0	6,247.7	31.6	20.4	-119.34	-7.9	-933.9	2,362.2	2,320.2	42.01	56.234		
7,300.0	6,930.5	6,364.2	6,259.4	32.4	20.5	-110.51	-7.3	-937.3	2,407.8	2,363.4	44.41	54.220		
7,350.0	6,953.0	6,376.2	6,270.9	33.2	20.6	-103.57	-6.7	-940.7	2,452.1	2,406.4	45.71	53.650		
7,400.0	6,974.5	6,387.8	6,282.1	33.9	20.6	-97.95	-6.0	-943.9	2,494.7	2,448.4	46.24	53.954		
7,450.0	6,994.6	6,399.1	6,292.9	34.7	20.7	-93.31	-5.5	-947.1	2,535.3	2,489.1	46.21	54.862		
7,500.0	7,013.4	6,409.8	6,303.2	35.3	20.8	-89.44	-4.9	-950.1	2,573.9	2,528.1	45.77	56.236		
7,550.0	7,030.7	6,420.0	6,312.9	35.9	20.8	-86.18	-4.3	-953.0	2,610.1	2,565.1	45.00	58.004		
7,600.0	7,046.2	6,429.6	6,322.1	36.5	20.9	-83.43	-3.8	-955.7	2,643.9	2,599.9	43.98	60.118		
7,650.0	7,060.0	6,438.4	6,330.5	37.0	20.9	-81.12	-3.4	-958.1	2,675.0	2,632.3	42.77	62.543		
7,700.0	7,071.8	6,446.4	6,338.2	37.5	21.0	-79.20	-3.0	-960.4	2,703.4	2,662.0	41.44	65.238		
7,750.0	7,081.7	6,453.5	6,345.0	37.9	21.0	-77.63	-2.6	-962.4	2,729.0	2,688.9	40.04	68.149		
7,800.0	7,089.5	6,459.8	6,351.0	38.2	21.0	-76.38	-2.3	-964.1	2,751.5	2,712.8	38.65	71.196		
7,850.0	7,095.2	6,465.1	6,356.1	38.5	21.1	-75.44	-2.0	-965.6	2,771.0	2,733.6	37.31	74.265		
7,900.0	7,098.7	6,469.3	6,360.2	38.8	21.1	-74.77	-1.8	-966.8	2,787.3	2,751.2	36.11	77.197		
7,954.8	7,100.0	6,472.9	6,363.6	39.1	21.1	-74.35	-1.6	-967.8	2,801.5	2,766.5	35.01	80.008		
8,000.0	7,100.0	6,475.2	6,365.8	39.2	21.1	-74.40	-1.4	-968.5	2,811.9	2,776.5	35.43	79.368		
8,100.0	7,100.0	6,480.5	6,370.9	39.7	21.2	-74.51	-1.2	-970.0	2,837.4	2,801.1	36.38	78.002		
8,200.0	7,100.0	6,485.8	6,375.9	40.2	21.2	-74.62	-0.9	-971.5	2,866.2	2,828.8	37.44	76.545		
8,300.0	7,100.0	6,491.0	6,381.0	40.8	21.2	-74.73	-0.6	-972.9	2,898.1	2,859.5	38.62	75.048		
8,400.0	7,100.0	6,496.3	6,386.0	41.5	21.3	-74.84	-0.3	-974.4	2,933.1	2,893.2	39.88	73.549		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 3-18H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,500.0	7,100.0	6,501.6	6,391.1	42.2	21.3	-74.96	-0.1	-975.9	2,971.0	2,929.8	41.22	72.078		
8,600.0	7,100.0	6,506.8	6,396.1	43.0	21.3	-75.07	0.2	-977.4	3,011.8	2,969.2	42.63	70.655		
8,700.0	7,100.0	6,512.1	6,401.2	43.8	21.3	-75.18	0.5	-978.9	3,055.3	3,011.2	44.09	69.294		
8,800.0	7,100.0	6,517.4	6,406.2	44.7	21.4	-75.29	0.8	-980.3	3,101.4	3,055.8	45.61	68.004		
8,900.0	7,100.0	6,522.7	6,411.3	45.7	21.4	-75.40	1.1	-981.8	3,149.9	3,102.8	47.16	66.789		
9,000.0	7,100.0	6,527.9	6,416.3	46.7	21.4	-75.51	1.3	-983.3	3,200.9	3,152.1	48.76	65.650		
9,100.0	7,100.0	6,533.2	6,421.4	47.8	21.5	-75.62	1.6	-984.8	3,254.1	3,203.8	50.38	64.586		
9,200.0	7,100.0	6,538.5	6,426.4	48.9	21.5	-75.73	1.9	-986.3	3,309.5	3,257.5	52.04	63.596		
9,300.0	7,100.0	6,543.7	6,431.5	50.1	21.5	-75.84	2.2	-987.7	3,367.0	3,313.2	53.72	62.676		
9,400.0	7,100.0	6,549.0	6,436.5	51.4	21.6	-75.95	2.4	-989.2	3,426.3	3,370.9	55.42	61.822		
9,500.0	7,100.0	6,554.3	6,441.6	52.7	21.6	-76.06	2.7	-990.7	3,487.6	3,430.4	57.14	61.031		
9,600.0	7,100.0	6,559.5	6,446.6	54.0	21.6	-76.17	3.0	-992.2	3,550.6	3,491.7	58.88	60.298		
9,700.0	7,100.0	6,559.9	6,447.0	55.4	21.6	-76.18	3.0	-992.3	3,615.2	3,554.6	60.60	59.656		
9,800.0	7,100.0	6,559.9	6,447.0	56.8	21.6	-76.18	3.0	-992.3	3,681.4	3,619.1	62.33	59.065		
9,900.0	7,100.0	6,559.9	6,447.0	58.3	21.6	-76.18	3.0	-992.3	3,749.2	3,685.1	64.07	58.519		
10,000.0	7,100.0	6,559.9	6,447.0	59.8	21.6	-76.18	3.0	-992.3	3,818.3	3,752.5	65.82	58.015		
10,100.0	7,100.0	6,559.9	6,447.0	61.3	21.6	-76.18	3.0	-992.3	3,888.8	3,821.2	67.58	57.548		
10,200.0	7,100.0	6,559.9	6,447.0	62.8	21.6	-76.18	3.0	-992.3	3,960.6	3,891.2	69.34	57.117		
10,300.0	7,100.0	6,559.9	6,447.0	64.4	21.6	-76.18	3.0	-992.3	4,033.5	3,962.4	71.12	56.718		
10,400.0	7,100.0	6,559.9	6,447.0	66.0	21.6	-76.18	3.0	-992.3	4,107.6	4,034.7	72.90	56.348		
10,500.0	7,100.0	6,559.9	6,447.0	67.6	21.6	-76.18	3.0	-992.3	4,182.8	4,108.1	74.69	56.006		
10,600.0	7,100.0	6,559.9	6,447.0	69.2	21.6	-76.18	3.0	-992.3	4,259.0	4,182.5	76.48	55.689		
10,700.0	7,100.0	6,559.9	6,447.0	70.9	21.6	-76.18	3.0	-992.3	4,336.2	4,257.9	78.28	55.396		
10,800.0	7,100.0	6,559.9	6,447.0	72.6	21.6	-76.18	3.0	-992.3	4,414.3	4,334.2	80.08	55.123		
10,900.0	7,100.0	6,559.9	6,447.0	74.2	21.6	-76.18	3.0	-992.3	4,493.2	4,411.3	81.89	54.870		
11,000.0	7,100.0	6,559.9	6,447.0	75.9	21.6	-76.18	3.0	-992.3	4,573.0	4,489.3	83.70	54.636		
11,100.0	7,100.0	6,559.9	6,447.0	77.6	21.6	-76.18	3.0	-992.3	4,653.6	4,568.1	85.52	54.418		
11,200.0	7,100.0	6,559.9	6,447.0	79.4	21.6	-76.18	3.0	-992.3	4,734.9	4,647.5	87.33	54.215		
11,300.0	7,100.0	6,559.9	6,447.0	81.1	21.6	-76.18	3.0	-992.3	4,816.9	4,727.7	89.16	54.027		
11,400.0	7,100.0	6,559.9	6,447.0	82.8	21.6	-76.18	3.0	-992.3	4,899.5	4,808.6	90.98	53.852		
11,500.0	7,100.0	6,559.9	6,447.0	84.6	21.6	-76.18	3.0	-992.3	4,982.9	4,890.0	92.81	53.689		
11,600.0	7,100.0	6,559.9	6,447.0	86.4	21.6	-76.18	3.0	-992.3	5,066.8	4,972.1	94.64	53.537		
11,700.0	7,100.0	6,559.9	6,447.0	88.1	21.6	-76.18	3.0	-992.3	5,151.3	5,054.8	96.47	53.396		
11,800.0	7,100.0	6,559.9	6,447.0	89.9	21.6	-76.18	3.0	-992.3	5,236.3	5,138.0	98.31	53.264		
11,900.0	7,100.0	6,559.9	6,447.0	91.7	21.6	-76.18	3.0	-992.3	5,321.8	5,221.7	100.15	53.141		
12,000.0	7,100.0	6,559.9	6,447.0	93.5	21.6	-76.18	3.0	-992.3	5,407.9	5,305.9	101.98	53.026		
12,100.0	7,100.0	6,559.9	6,447.0	95.3	21.6	-76.18	3.0	-992.3	5,494.4	5,390.6	103.83	52.919		
12,200.0	7,100.0	6,559.9	6,447.0	97.1	21.6	-76.18	3.0	-992.3	5,581.4	5,475.7	105.67	52.820		
12,300.0	7,100.0	6,559.9	6,447.0	98.9	21.6	-76.18	3.0	-992.3	5,668.8	5,561.3	107.51	52.726		
12,400.0	7,100.0	6,559.9	6,447.0	100.7	21.6	-76.18	3.0	-992.3	5,756.6	5,647.2	109.36	52.639		
12,433.4	7,100.0	6,559.9	6,447.0	101.3	21.6	-76.18	3.0	-992.3	5,786.0	5,676.0	109.98	52.611		
12,433.7	7,100.0	6,559.9	6,447.0	101.5	21.6	-76.18	3.0	-992.3	5,786.3	5,676.3	109.98	52.612		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 4-18H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-164.18	-149.4	-42.3	155.2					
100.0	100.0	100.0	100.0	0.1	0.1	-164.18	-149.4	-42.3	155.2	155.0	0.19	822.214		
200.0	200.0	200.0	200.0	0.3	0.3	-164.18	-149.4	-42.3	155.2	154.6	0.64	243.190		
300.0	300.0	300.0	300.0	0.5	0.5	-164.18	-149.4	-42.3	155.2	154.1	1.09	142.698		
400.0	400.0	400.0	400.0	0.8	0.8	-164.18	-149.4	-42.3	155.2	153.7	1.54	100.974		
500.0	500.0	500.0	500.0	1.0	1.0	-164.18	-149.4	-42.3	155.2	153.3	1.99	78.129 CC, ES		
594.6	594.6	593.1	593.1	1.2	1.2	106.88	-149.4	-43.8	156.1	153.7	2.39	65.416		
600.0	600.0	598.5	598.5	1.2	1.2	107.00	-149.4	-44.0	156.2	153.8	2.41	64.854		
700.0	699.9	698.3	698.2	1.4	1.4	109.29	-149.4	-47.3	158.3	155.5	2.82	56.041		
800.0	799.9	798.0	797.9	1.6	1.6	111.51	-149.4	-50.6	160.6	157.3	3.25	49.373		
900.0	899.8	897.8	897.6	1.8	1.8	113.66	-149.4	-53.9	163.1	159.4	3.69	44.224		
1,000.0	999.8	997.6	997.4	2.1	2.1	115.75	-149.4	-57.2	165.9	161.8	4.13	40.168		
1,105.7	1,105.4	1,103.1	1,102.8	2.3	2.3	117.88	-149.4	-60.7	169.1	164.5	4.60	36.749		
1,200.3	1,200.0	1,197.6	1,197.2	2.5	2.5	-150.69	-149.4	-63.8	171.3	166.3	4.97	34.459		
1,300.0	1,299.7	1,297.2	1,296.8	2.7	2.7	-149.74	-149.4	-67.1	172.9	167.6	5.40	32.048		
1,400.0	1,399.7	1,397.1	1,396.7	2.9	3.0	-148.80	-149.4	-70.5	174.6	168.8	5.84	29.921		
1,500.0	1,499.7	1,500.2	1,499.7	3.1	3.2	-148.28	-149.4	-72.3	175.6	169.3	6.27	28.010		
1,600.0	1,599.7	1,600.2	1,599.7	3.3	3.4	-148.28	-149.4	-72.3	175.6	168.9	6.69	26.257		
1,700.0	1,699.7	1,700.2	1,699.7	3.6	3.6	-148.28	-149.4	-72.3	175.6	168.5	7.12	24.671		
1,800.0	1,799.7	1,800.2	1,799.7	3.8	3.8	-148.28	-149.4	-72.3	175.6	168.0	7.55	23.259		
1,900.0	1,899.7	1,900.2	1,899.7	4.0	4.0	-148.28	-149.4	-72.3	175.6	167.6	7.98	21.995		
2,000.0	1,999.7	2,000.2	1,999.7	4.2	4.2	-148.28	-149.4	-72.3	175.6	167.2	8.42	20.857		
2,100.0	2,099.7	2,100.2	2,099.7	4.4	4.5	-148.28	-149.4	-72.3	175.6	166.7	8.86	19.828		
2,200.0	2,199.7	2,200.2	2,199.7	4.7	4.7	-148.28	-149.4	-72.3	175.6	166.3	9.29	18.893		
2,300.0	2,299.7	2,300.2	2,299.7	4.9	4.9	-148.28	-149.4	-72.3	175.6	165.9	9.73	18.040		
2,400.0	2,399.7	2,400.2	2,399.7	5.1	5.1	-148.28	-149.4	-72.3	175.6	165.4	10.17	17.260		
2,500.0	2,499.7	2,500.2	2,499.7	5.3	5.3	-148.28	-149.4	-72.3	175.6	165.0	10.61	16.543		
2,600.0	2,599.7	2,600.2	2,599.7	5.6	5.5	-148.28	-149.4	-72.3	175.6	164.5	11.06	15.882		
2,700.0	2,699.7	2,700.2	2,699.7	5.8	5.8	-148.28	-149.4	-72.3	175.6	164.1	11.50	15.271		
2,800.0	2,799.7	2,800.2	2,799.7	6.0	6.0	-148.28	-149.4	-72.3	175.6	163.6	11.94	14.705		
2,900.0	2,899.7	2,900.2	2,899.7	6.2	6.2	-148.28	-149.4	-72.3	175.6	163.2	12.38	14.178		
3,000.0	2,999.7	3,000.2	2,999.7	6.4	6.4	-148.28	-149.4	-72.3	175.6	162.8	12.83	13.688		
3,099.6	3,099.3	3,099.8	3,099.3	6.7	6.6	-148.28	-149.4	-72.3	175.6	162.3	13.27	13.232		
3,200.0	3,199.7	3,200.1	3,199.7	6.9	6.9	122.19	-149.4	-72.3	176.5	162.8	13.73	12.853		
3,300.0	3,299.5	3,300.0	3,299.5	7.1	7.1	123.56	-149.4	-72.3	179.4	165.2	14.16	12.665		
3,400.0	3,399.1	3,399.6	3,399.1	7.3	7.3	125.73	-149.4	-72.3	184.3	169.7	14.59	12.633 SF		
3,500.0	3,498.4	3,498.9	3,498.4	7.6	7.5	128.56	-149.4	-72.3	191.7	176.7	15.02	12.766		
3,600.0	3,597.1	3,597.6	3,597.1	7.8	7.7	131.86	-149.4	-72.3	201.9	186.5	15.45	13.074		
3,700.0	3,695.3	3,695.8	3,695.3	8.1	8.0	135.43	-149.4	-72.3	215.2	199.4	15.86	13.569		
3,800.0	3,792.7	3,793.2	3,792.7	8.4	8.2	139.07	-149.4	-72.3	232.0	215.7	16.27	14.257		
3,887.9	3,877.7	3,878.2	3,877.7	8.7	8.4	142.20	-149.4	-72.3	249.7	233.1	16.62	15.022		
3,900.0	3,889.3	3,889.8	3,889.3	8.7	8.4	142.65	-149.4	-72.3	252.3	235.6	16.67	15.132		
4,000.0	3,985.6	3,986.0	3,985.6	9.1	8.6	146.05	-149.4	-72.3	274.7	257.6	17.12	16.044		
4,100.0	4,081.8	4,082.3	4,081.8	9.5	8.8	148.94	-149.4	-72.3	297.9	280.3	17.57	16.952		
4,200.0	4,178.0	4,178.5	4,178.0	9.9	9.0	151.42	-149.4	-72.3	321.7	303.6	18.02	17.847		
4,300.0	4,274.3	4,274.8	4,274.3	10.3	9.3	153.56	-149.4	-72.3	346.0	327.5	18.48	18.722		
4,400.0	4,370.5	4,371.0	4,370.5	10.8	9.5	155.42	-149.4	-72.3	370.6	351.7	18.94	19.575		
4,500.0	4,466.7	4,467.2	4,466.7	11.2	9.7	156.98	-149.4	-72.6	395.9	376.5	19.38	20.426		
4,600.0	4,563.0	4,563.7	4,562.7	11.7	9.9	158.37	-149.4	-74.9	423.7	403.9	19.81	21.387		
4,700.0	4,659.2	4,659.3	4,628.6	12.2	10.0	159.69	-149.4	-79.6	454.4	434.1	20.23	22.454		
4,800.0	4,755.5	4,710.3	4,709.3	12.7	10.2	160.93	-149.4	-86.5	487.8	467.2	20.65	23.618		
4,900.0	4,851.7	4,789.4	4,788.0	13.1	10.4	162.09	-149.4	-95.5	524.0	502.9	21.07	24.869		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 4-18H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,947.9	4,866.8	4,864.6	13.6	10.6	163.16	-149.4	-106.3	562.9	541.4	21.49	26.197		
5,100.0	5,044.2	4,942.3	4,939.0	14.1	10.8	164.14	-149.4	-118.9	604.3	582.4	21.90	27.595		
5,200.0	5,140.4	5,015.9	5,011.2	14.7	11.0	165.04	-149.4	-133.0	648.1	625.8	22.31	29.056		
5,300.0	5,236.7	5,087.6	5,081.2	15.2	11.2	165.86	-149.4	-148.6	694.4	671.6	22.71	30.571		
5,400.0	5,332.9	5,157.3	5,148.9	15.7	11.4	166.61	-149.4	-165.4	742.8	719.7	23.12	32.133		
5,500.0	5,429.1	5,225.1	5,214.3	16.2	11.6	167.30	-149.4	-183.3	793.5	770.0	23.52	33.737		
5,600.0	5,525.4	5,300.0	5,286.0	16.7	11.9	168.00	-149.4	-204.9	846.3	822.3	23.94	35.356		
5,700.0	5,621.6	5,355.0	5,338.2	17.3	12.1	168.49	-149.4	-221.9	900.9	876.6	24.32	37.046		
5,800.0	5,717.8	5,421.3	5,400.9	17.8	12.3	169.04	-149.4	-243.8	957.5	932.8	24.72	38.729		
5,900.0	5,814.1	5,502.9	5,477.7	18.4	12.7	169.66	-149.4	-271.1	1,014.7	989.5	25.15	40.338		
6,000.0	5,910.3	5,584.4	5,554.6	18.9	13.1	170.21	-149.4	-298.4	1,071.9	1,046.3	25.59	41.891		
6,100.0	6,006.6	5,666.0	5,631.4	19.4	13.5	170.71	-149.4	-325.8	1,129.2	1,103.2	26.03	43.389		
6,200.0	6,102.8	5,747.6	5,708.3	20.0	13.8	171.16	-149.4	-353.1	1,186.6	1,160.1	26.47	44.832		
6,300.0	6,199.0	5,829.1	5,785.1	20.5	14.3	171.57	-149.4	-380.4	1,244.0	1,217.1	26.91	46.223		
6,400.0	6,295.3	5,910.7	5,862.0	21.1	14.7	171.94	-149.4	-407.8	1,301.5	1,274.1	27.36	47.565		
6,500.0	6,391.5	5,992.3	5,938.8	21.6	15.1	172.28	-149.4	-435.1	1,359.0	1,331.1	27.81	48.858		
6,546.0	6,435.8	6,029.8	5,974.2	21.9	15.3	172.43	-149.4	-447.7	1,385.4	1,357.4	28.02	49.437		
6,550.0	6,439.6	6,033.0	5,977.2	21.9	15.3	172.76	-149.4	-448.8	1,387.7	1,359.7	28.02	49.530		
6,600.0	6,487.0	6,072.3	6,014.3	22.2	15.6	176.01	-149.4	-462.0	1,418.5	1,390.6	27.88	50.881		
6,650.0	6,532.8	6,108.8	6,048.7	22.6	15.8	178.27	-149.4	-474.2	1,452.6	1,425.0	27.62	52.585		
6,700.0	6,576.8	6,142.3	6,080.2	23.0	15.9	-179.90	-149.4	-485.4	1,489.7	1,462.4	27.26	54.647		
6,750.0	6,618.5	6,172.4	6,108.5	23.6	16.1	-178.24	-149.4	-495.5	1,529.6	1,502.8	26.80	57.070		
6,800.0	6,657.6	6,199.0	6,133.6	24.2	16.3	-176.52	-149.4	-504.4	1,571.9	1,545.7	26.27	59.840		
6,850.0	6,693.9	6,221.8	6,155.1	24.8	16.4	-174.52	-149.4	-512.0	1,616.4	1,590.7	25.70	62.888		
6,900.0	6,727.1	6,240.7	6,172.9	25.5	16.5	-171.88	-149.4	-518.4	1,662.7	1,637.5	25.19	66.002		
6,950.0	6,756.9	6,255.5	6,186.8	26.3	16.6	-167.83	-149.4	-523.3	1,710.4	1,685.4	24.98	68.480		
6,991.3	6,778.8	6,264.6	6,195.4	27.0	16.6	-162.08	-149.4	-526.4	1,750.6	1,725.0	25.60	68.391		
7,000.0	6,783.2	6,266.2	6,196.9	27.2	16.6	-162.14	-149.4	-526.9	1,759.2	1,733.5	25.63	68.626		
7,100.0	6,833.2	6,284.7	6,214.4	29.0	16.7	-162.88	-149.4	-533.1	1,857.3	1,831.2	26.07	71.241		
7,141.3	6,853.8	6,292.4	6,221.6	29.7	16.8	-163.16	-149.4	-535.7	1,897.8	1,871.6	26.26	72.275		
7,150.0	6,858.2	6,294.0	6,223.1	29.9	16.8	-158.41	-149.4	-536.2	1,906.4	1,878.9	27.47	69.393		
7,200.0	6,882.9	6,303.2	6,231.7	30.8	16.9	-135.43	-149.4	-539.3	1,955.3	1,920.0	35.33	55.350		
7,250.0	6,907.1	6,312.1	6,240.2	31.6	16.9	-119.65	-149.4	-542.3	2,003.6	1,963.0	40.63	49.316		
7,300.0	6,930.5	6,320.8	6,248.3	32.4	17.0	-108.76	-149.4	-545.2	2,051.0	2,007.6	43.47	47.186		
7,350.0	6,953.0	6,329.1	6,256.2	33.2	17.0	-100.82	-149.4	-548.0	2,097.3	2,052.4	44.87	46.744		
7,400.0	6,974.5	6,337.1	6,263.7	33.9	17.1	-94.71	-149.4	-550.7	2,142.1	2,096.7	45.41	47.174		
7,450.0	6,994.6	6,344.6	6,270.7	34.7	17.1	-89.84	-149.4	-553.2	2,185.3	2,139.9	45.38	48.154		
7,500.0	7,013.4	6,351.5	6,277.3	35.3	17.1	-85.85	-149.4	-555.5	2,226.6	2,181.7	44.94	49.546		
7,550.0	7,030.7	6,357.9	6,283.3	35.9	17.2	-82.53	-149.4	-557.7	2,265.8	2,221.7	44.18	51.288		
7,600.0	7,046.2	6,363.7	6,288.7	36.5	17.2	-79.75	-149.4	-559.6	2,302.8	2,259.6	43.16	53.353		
7,650.0	7,060.0	6,368.8	6,293.5	37.0	17.2	-77.42	-149.4	-561.3	2,337.4	2,295.4	41.94	55.727		
7,700.0	7,071.8	6,373.2	6,297.7	37.5	17.3	-75.48	-149.4	-562.8	2,369.3	2,328.8	40.57	58.398		
7,750.0	7,081.7	6,376.8	6,301.1	37.9	17.3	-73.89	-149.4	-564.0	2,398.6	2,359.5	39.10	61.345		
7,800.0	7,089.5	6,379.7	6,303.9	38.2	17.3	-72.61	-149.4	-565.0	2,425.0	2,387.5	37.58	64.528		
7,850.0	7,095.2	6,381.8	6,305.8	38.5	17.3	-71.62	-149.4	-565.7	2,448.6	2,412.5	36.08	67.870		
7,900.0	7,098.7	6,383.1	6,307.1	38.8	17.3	-70.91	-149.4	-566.1	2,469.1	2,434.4	34.66	71.245		
7,954.8	7,100.0	6,383.6	6,307.5	39.1	17.3	-70.42	-149.4	-566.3	2,488.0	2,454.7	33.28	74.752		
8,000.0	7,100.0	6,383.6	6,307.5	39.2	17.3	-70.42	-149.4	-566.3	2,502.4	2,468.8	33.67	74.318		
8,100.0	7,100.0	6,383.6	6,307.5	39.7	17.3	-70.42	-149.4	-566.3	2,536.9	2,502.4	34.56	73.396		
8,200.0	7,100.0	6,383.6	6,307.5	40.2	17.3	-70.42	-149.4	-566.3	2,574.8	2,539.2	35.58	72.377		
8,300.0	7,100.0	6,383.6	6,307.5	40.8	17.3	-70.42	-149.4	-566.3	2,616.0	2,579.3	36.69	71.303		
8,400.0	7,100.0	6,383.6	6,307.5	41.5	17.3	-70.42	-149.4	-566.3	2,660.3	2,622.4	37.89	70.212		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 4-18H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,500.0	7,100.0	6,383.6	6,307.5	42.2	17.3	-70.42	-149.4	-566.3	2,707.6	2,668.4	39.17	69.129		
8,600.0	7,100.0	6,383.6	6,307.5	43.0	17.3	-70.42	-149.4	-566.3	2,757.7	2,717.2	40.51	68.075		
8,700.0	7,100.0	6,383.6	6,307.5	43.8	17.3	-70.42	-149.4	-566.3	2,810.4	2,768.5	41.91	67.063		
8,800.0	7,100.0	6,383.6	6,307.5	44.7	17.3	-70.42	-149.4	-566.3	2,865.7	2,822.3	43.35	66.102		
8,900.0	7,100.0	6,383.6	6,307.5	45.7	17.3	-70.42	-149.4	-566.3	2,923.4	2,878.5	44.84	65.196		
9,000.0	7,100.0	6,383.6	6,307.5	46.7	17.3	-70.42	-149.4	-566.3	2,983.2	2,936.9	46.36	64.347		
9,100.0	7,100.0	6,383.6	6,307.5	47.8	17.3	-70.42	-149.4	-566.3	3,045.2	2,997.3	47.92	63.555		
9,200.0	7,100.0	6,383.6	6,307.5	48.9	17.3	-70.42	-149.4	-566.3	3,109.2	3,059.7	49.50	62.819		
9,300.0	7,100.0	6,383.6	6,307.5	50.1	17.3	-70.42	-149.4	-566.3	3,175.1	3,124.0	51.10	62.136		
9,400.0	7,100.0	6,383.6	6,307.5	51.4	17.3	-70.42	-149.4	-566.3	3,242.7	3,189.9	52.72	61.504		
9,500.0	7,100.0	6,383.6	6,307.5	52.7	17.3	-70.42	-149.4	-566.3	3,311.9	3,257.5	54.36	60.920		
9,600.0	7,100.0	6,383.6	6,307.5	54.0	17.3	-70.42	-149.4	-566.3	3,382.6	3,326.6	56.02	60.381		
9,700.0	7,100.0	6,383.6	6,307.5	55.4	17.3	-70.42	-149.4	-566.3	3,454.9	3,397.2	57.69	59.883		
9,800.0	7,100.0	6,383.6	6,307.5	56.8	17.3	-70.42	-149.4	-566.3	3,528.4	3,469.1	59.38	59.423		
9,900.0	7,100.0	6,383.6	6,307.5	58.3	17.3	-70.42	-149.4	-566.3	3,603.3	3,542.2	61.07	58.999		
10,000.0	7,100.0	6,383.6	6,307.5	59.8	17.3	-70.42	-149.4	-566.3	3,679.3	3,616.5	62.78	58.607		
10,100.0	7,100.0	6,383.6	6,307.5	61.3	17.3	-70.42	-149.4	-566.3	3,756.5	3,692.0	64.49	58.245		
10,200.0	7,100.0	6,383.6	6,307.5	62.8	17.3	-70.42	-149.4	-566.3	3,834.7	3,768.5	66.22	57.911		
10,300.0	7,100.0	6,383.6	6,307.5	64.4	17.3	-70.42	-149.4	-566.3	3,913.9	3,846.0	67.95	57.602		
10,400.0	7,100.0	6,383.6	6,307.5	66.0	17.3	-70.42	-149.4	-566.3	3,994.0	3,924.4	69.68	57.316		
10,500.0	7,100.0	6,383.6	6,307.5	67.6	17.3	-70.42	-149.4	-566.3	4,075.1	4,003.6	71.43	57.051		
10,600.0	7,100.0	6,383.6	6,307.5	69.2	17.3	-70.42	-149.4	-566.3	4,156.9	4,083.7	73.18	56.806		
10,700.0	7,100.0	6,383.6	6,307.5	70.9	17.3	-70.42	-149.4	-566.3	4,239.5	4,164.6	74.93	56.579		
10,800.0	7,100.0	6,383.6	6,307.5	72.6	17.3	-70.42	-149.4	-566.3	4,322.9	4,246.2	76.69	56.369		
10,900.0	7,100.0	6,383.6	6,307.5	74.2	17.3	-70.42	-149.4	-566.3	4,406.9	4,328.5	78.45	56.174		
11,000.0	7,100.0	6,383.6	6,307.5	75.9	17.3	-70.42	-149.4	-566.3	4,491.7	4,411.4	80.22	55.993		
11,100.0	7,100.0	6,383.6	6,307.5	77.6	17.3	-70.42	-149.4	-566.3	4,577.0	4,495.0	81.99	55.824		
11,200.0	7,100.0	6,383.6	6,307.5	79.4	17.3	-70.42	-149.4	-566.3	4,662.9	4,579.1	83.76	55.668		
11,300.0	7,100.0	6,383.6	6,307.5	81.1	17.3	-70.42	-149.4	-566.3	4,749.3	4,663.8	85.54	55.522		
11,400.0	7,100.0	6,383.6	6,307.5	82.8	17.3	-70.42	-149.4	-566.3	4,836.3	4,749.0	87.32	55.387		
11,500.0	7,100.0	6,383.6	6,307.5	84.6	17.3	-70.42	-149.4	-566.3	4,923.8	4,834.7	89.10	55.260		
11,600.0	7,100.0	6,383.6	6,307.5	86.4	17.3	-70.42	-149.4	-566.3	5,011.7	4,920.8	90.89	55.143		
11,700.0	7,100.0	6,383.6	6,307.5	88.1	17.3	-70.42	-149.4	-566.3	5,100.1	5,007.4	92.67	55.033		
11,800.0	7,100.0	6,383.6	6,307.6	89.9	17.3	-70.42	-149.4	-566.3	5,188.9	5,094.5	94.46	54.931		
11,900.0	7,100.0	6,383.6	6,307.6	91.7	17.3	-70.42	-149.4	-566.3	5,278.1	5,181.9	96.25	54.835		
12,000.0	7,100.0	6,383.6	6,307.6	93.5	17.3	-70.42	-149.4	-566.3	5,367.7	5,269.7	98.05	54.746		
12,100.0	7,100.0	6,383.6	6,307.6	95.3	17.3	-70.42	-149.4	-566.3	5,457.7	5,357.8	99.84	54.663		
12,200.0	7,100.0	6,383.6	6,307.6	97.1	17.3	-70.42	-149.4	-566.3	5,548.0	5,446.3	101.64	54.585		
12,300.0	7,100.0	6,383.6	6,307.6	98.9	17.3	-70.42	-149.4	-566.3	5,638.6	5,535.2	103.44	54.512		
12,400.0	7,100.0	6,383.6	6,307.6	100.7	17.3	-70.42	-149.4	-566.3	5,729.5	5,624.3	105.24	54.444		
12,433.4	7,100.0	6,383.6	6,307.6	101.3	17.3	-70.42	-149.4	-566.3	5,760.0	5,654.1	105.84	54.422		
12,433.7	7,100.0	6,383.6	6,307.6	101.5	17.3	-70.42	-149.4	-566.3	5,760.3	5,654.4	105.84	54.422		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 4-7H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	3.0	3.0	0.0	0.0	-89.21	2.6	-189.7	189.7					
100.0	100.0	103.0	103.0	0.1	0.1	-89.21	2.6	-189.7	189.7	189.5	0.19	987.285		
200.0	200.0	203.0	203.0	0.3	0.3	-89.21	2.6	-189.7	189.7	189.1	0.64	295.667		
300.0	300.0	303.0	303.0	0.5	0.5	-89.21	2.6	-189.7	189.7	188.6	1.09	173.868		
400.0	400.0	403.0	403.0	0.8	0.8	-89.21	2.6	-189.7	189.7	188.2	1.54	123.141		
500.0	500.0	503.0	503.0	1.0	1.0	-89.21	2.6	-189.7	189.7	187.7	1.99	95.328 CC, ES		
594.6	594.6	597.6	597.6	1.2	1.2	-179.22	2.6	-189.7	191.3	188.9	2.41	79.526		
600.0	600.0	603.0	603.0	1.2	1.2	-179.22	2.6	-189.7	191.5	189.0	2.43	78.850		
700.0	699.9	702.9	702.9	1.4	1.4	-179.23	2.6	-189.7	194.8	191.9	2.86	68.183		
800.0	799.9	802.9	802.9	1.6	1.7	-179.25	2.6	-189.7	198.1	194.8	3.29	60.189		
900.0	899.8	902.8	902.8	1.8	1.9	-179.26	2.6	-189.7	201.4	197.6	3.73	54.002		
1,000.0	999.8	1,002.8	1,002.8	2.1	2.1	-179.27	2.6	-189.7	204.7	200.5	4.17	49.086		
1,105.7	1,105.4	1,108.4	1,108.4	2.3	2.4	-179.28	2.6	-189.7	208.2	203.5	4.64	44.885		
1,200.3	1,200.0	1,203.0	1,203.0	2.5	2.6	-89.29	2.6	-189.7	209.7	204.7	5.07	41.351		
1,300.0	1,299.7	1,302.7	1,302.7	2.7	2.8	-89.29	2.6	-189.7	209.7	204.2	5.50	38.158		
1,400.0	1,399.7	1,402.7	1,402.7	2.9	3.0	-89.29	2.6	-189.7	209.7	203.8	5.94	35.335		
1,500.0	1,499.7	1,502.7	1,502.7	3.1	3.2	-89.29	2.6	-189.7	209.7	203.4	6.38	32.893		
1,600.0	1,599.7	1,602.7	1,602.7	3.3	3.5	-89.29	2.6	-189.7	209.7	202.9	6.82	30.761		
1,700.0	1,699.7	1,702.7	1,702.7	3.6	3.7	-89.29	2.6	-189.7	209.7	202.5	7.26	28.885		
1,800.0	1,799.7	1,802.7	1,802.7	3.8	3.9	-89.29	2.6	-189.7	209.7	202.0	7.70	27.222		
1,900.0	1,899.7	1,902.7	1,902.7	4.0	4.1	-89.29	2.6	-189.7	209.7	201.6	8.15	25.738		
2,000.0	1,999.7	2,002.7	2,002.7	4.2	4.4	-89.29	2.6	-189.7	209.7	201.1	8.59	24.406		
2,100.0	2,099.7	2,102.7	2,102.7	4.4	4.6	-89.29	2.6	-189.7	209.7	200.7	9.04	23.204		
2,200.0	2,199.7	2,202.7	2,202.7	4.7	4.8	-89.29	2.6	-189.7	209.7	200.2	9.48	22.113		
2,300.0	2,299.7	2,302.7	2,302.7	4.9	5.0	-89.29	2.6	-189.7	209.7	199.8	9.93	21.120		
2,400.0	2,399.7	2,402.7	2,402.7	5.1	5.3	-89.29	2.6	-189.7	209.7	199.4	10.38	20.212		
2,500.0	2,499.7	2,502.7	2,502.7	5.3	5.5	-89.29	2.6	-189.7	209.7	198.9	10.82	19.378		
2,600.0	2,599.7	2,602.7	2,602.7	5.6	5.7	-89.29	2.6	-189.7	209.7	198.5	11.27	18.610		
2,700.0	2,699.7	2,702.7	2,702.7	5.8	5.9	-89.29	2.6	-189.7	209.7	198.0	11.72	17.900		
2,800.0	2,799.7	2,802.7	2,802.7	6.0	6.2	-89.29	2.6	-189.7	209.7	197.6	12.16	17.241		
2,900.0	2,899.7	2,902.7	2,902.7	6.2	6.4	-89.29	2.6	-189.7	209.7	197.1	12.61	16.630		
3,000.0	2,999.7	3,002.7	3,002.7	6.4	6.6	-89.29	2.6	-189.7	209.7	196.7	13.06	16.060		
3,099.6	3,099.3	3,102.3	3,102.3	6.7	6.8	-89.29	2.6	-189.7	209.7	196.2	13.51	15.530		
3,200.0	3,199.7	3,202.7	3,202.7	6.9	7.1	-179.29	2.6	-189.7	211.5	197.6	13.92	15.189		
3,300.0	3,299.5	3,302.5	3,302.5	7.1	7.3	-179.31	2.6	-189.7	216.7	202.4	14.34	15.113		
3,400.0	3,399.1	3,402.1	3,402.1	7.3	7.5	-179.34	2.6	-189.7	225.5	210.7	14.75	15.288		
3,500.0	3,498.4	3,500.0	3,500.0	7.6	7.7	-179.37	2.6	-189.7	237.7	222.5	15.14	15.698		
3,600.0	3,597.1	3,592.2	3,592.1	7.8	7.9	-179.47	2.3	-191.2	254.9	239.4	15.49	16.450		
3,700.0	3,695.3	3,681.2	3,681.1	8.1	8.1	-179.70	1.4	-195.3	278.5	262.7	15.82	17.605		
3,800.0	3,792.7	3,767.9	3,767.5	8.4	8.3	-180.00	0.0	-202.0	308.4	292.3	16.14	19.117		
3,887.9	3,877.7	3,841.9	3,841.1	8.7	8.4	179.71	-1.6	-209.6	339.7	323.3	16.40	20.717		
3,900.0	3,889.3	3,851.9	3,851.0	8.7	8.4	179.67	-1.9	-210.8	344.4	327.9	16.45	20.940		
4,000.0	3,985.6	3,933.4	3,931.8	9.1	8.6	179.32	-4.2	-221.7	384.2	367.4	16.83	22.826		
4,100.0	4,081.8	4,012.9	4,010.2	9.5	8.8	178.98	-6.9	-234.5	426.6	409.3	17.22	24.772		
4,200.0	4,178.0	4,090.4	4,086.2	9.9	9.0	178.64	-9.9	-249.0	471.3	453.7	17.61	26.770		
4,300.0	4,274.3	4,165.7	4,159.7	10.3	9.2	178.32	-13.3	-265.1	518.5	500.5	18.00	28.811		
4,400.0	4,370.5	4,238.9	4,230.8	10.8	9.4	178.02	-17.0	-282.4	567.9	549.5	18.38	30.888		
4,500.0	4,466.7	4,311.0	4,300.2	11.2	9.6	177.72	-20.9	-301.3	619.4	600.6	18.77	32.991		
4,600.0	4,563.0	4,396.0	4,381.9	11.7	9.9	177.41	-25.8	-324.4	671.9	652.7	19.19	35.003		
4,700.0	4,659.2	4,481.1	4,463.6	12.2	10.2	177.15	-30.7	-347.5	724.3	704.7	19.62	36.927		
4,800.0	4,755.5	4,566.2	4,545.4	12.7	10.5	176.92	-35.6	-370.6	776.8	756.8	20.04	38.760		
4,900.0	4,851.7	4,651.3	4,627.1	13.1	10.9	176.72	-40.4	-393.7	829.3	808.9	20.47	40.507		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 4-7H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,947.9	4,736.3	4,708.8	13.6	11.2	176.54	-45.3	-416.8	881.8	860.9	20.91	42.173		
5,100.0	5,044.2	4,821.4	4,790.6	14.1	11.6	176.38	-50.2	-439.9	934.4	913.0	21.35	43.761		
5,200.0	5,140.4	4,906.5	4,872.3	14.7	12.0	176.24	-55.1	-463.0	986.9	965.1	21.80	45.275		
5,300.0	5,236.7	4,991.6	4,954.0	15.2	12.3	176.11	-59.9	-486.1	1,039.4	1,017.2	22.25	46.720		
5,400.0	5,332.9	5,076.6	5,035.8	15.7	12.7	176.00	-64.8	-509.2	1,091.9	1,069.2	22.70	48.099		
5,500.0	5,429.1	5,161.7	5,117.5	16.2	13.1	175.90	-69.7	-532.4	1,144.5	1,121.3	23.16	49.416		
5,600.0	5,525.4	5,246.8	5,199.2	16.7	13.5	175.80	-74.6	-555.5	1,197.0	1,173.4	23.62	50.675		
5,700.0	5,621.6	5,331.9	5,280.9	17.3	13.9	175.72	-79.4	-578.6	1,249.5	1,225.4	24.09	51.878		
5,800.0	5,717.8	5,416.9	5,362.7	17.8	14.4	175.64	-84.3	-601.7	1,302.1	1,277.5	24.55	53.030		
5,900.0	5,814.1	5,502.0	5,444.4	18.4	14.8	175.56	-89.2	-624.8	1,354.6	1,329.6	25.02	54.131		
6,000.0	5,910.3	5,587.1	5,526.1	18.9	15.2	175.49	-94.1	-647.9	1,407.1	1,381.6	25.50	55.185		
6,100.0	6,006.6	5,672.2	5,607.9	19.4	15.7	175.43	-98.9	-671.0	1,459.7	1,433.7	25.98	56.195		
6,200.0	6,102.8	5,757.2	5,689.6	20.0	16.1	175.37	-103.8	-694.1	1,512.2	1,485.8	26.45	57.162		
6,300.0	6,199.0	5,842.3	5,771.3	20.5	16.5	175.32	-108.7	-717.2	1,564.8	1,537.8	26.94	58.090		
6,400.0	6,295.3	5,927.4	5,853.1	21.1	17.0	175.27	-113.6	-740.3	1,617.3	1,589.9	27.42	58.981		
6,500.0	6,391.5	6,012.5	5,934.8	21.6	17.4	175.22	-118.4	-763.4	1,669.8	1,641.9	27.91	59.835		
6,546.0	6,435.8	6,051.6	5,972.4	21.9	17.6	175.20	-120.7	-774.1	1,694.0	1,665.9	28.13	60.216		
6,550.0	6,439.6	6,055.0	5,975.7	21.9	17.7	175.52	-120.9	-775.0	1,696.1	1,668.0	28.13	60.306		
6,600.0	6,487.0	6,096.1	6,015.2	22.2	17.9	178.72	-123.2	-786.2	1,724.5	1,696.5	27.97	61.644		
6,650.0	6,532.8	6,134.7	6,052.2	22.6	18.1	-179.05	-125.4	-796.6	1,756.3	1,728.6	27.72	63.361		
6,700.0	6,576.8	6,170.3	6,086.4	23.0	18.3	-177.24	-127.5	-806.3	1,791.3	1,763.9	27.37	65.452		
6,750.0	6,618.5	6,202.7	6,117.6	23.6	18.4	-175.57	-129.3	-815.1	1,829.3	1,802.3	26.94	67.894		
6,800.0	6,657.6	6,231.7	6,145.5	24.2	18.6	-173.83	-131.0	-823.0	1,869.9	1,843.4	26.48	70.622		
6,850.0	6,693.9	6,257.1	6,169.8	24.8	18.7	-171.81	-132.5	-829.9	1,912.8	1,886.8	26.03	73.490		
6,900.0	6,727.1	6,278.6	6,190.5	25.5	18.9	-169.20	-133.7	-835.7	1,957.8	1,932.1	25.71	76.147		
6,950.0	6,756.9	6,296.1	6,207.3	26.3	19.0	-165.46	-134.7	-840.5	2,004.5	1,978.7	25.79	77.736		
6,991.3	6,778.8	6,307.5	6,218.2	27.0	19.0	-160.69	-135.3	-843.6	2,044.0	2,017.4	26.60	76.834		
7,000.0	6,783.2	6,309.6	6,220.2	27.2	19.0	-160.77	-135.5	-844.1	2,052.4	2,025.8	26.64	77.050		
7,100.0	6,833.2	6,333.6	6,243.3	29.0	19.2	-161.60	-136.8	-850.7	2,149.2	2,122.1	27.05	79.451		
7,141.3	6,853.8	6,343.5	6,252.8	29.7	19.2	-161.92	-137.4	-853.4	2,189.1	2,161.9	27.23	80.401		
7,150.0	6,858.2	6,345.6	6,254.8	29.9	19.2	-158.29	-137.5	-853.9	2,197.5	2,169.2	28.33	77.566		
7,200.0	6,882.9	6,357.3	6,266.1	30.8	19.3	-139.84	-138.2	-857.1	2,245.7	2,210.4	35.24	63.730		
7,250.0	6,907.1	6,368.5	6,276.8	31.6	19.3	-125.69	-138.8	-860.1	2,293.2	2,252.5	40.63	56.438		
7,300.0	6,930.5	6,379.0	6,287.0	32.4	19.4	-115.01	-139.4	-863.0	2,339.7	2,295.7	44.04	53.127		
7,350.0	6,953.0	6,388.9	6,296.5	33.2	19.5	-106.77	-140.0	-865.7	2,385.1	2,339.1	46.00	51.852		
7,400.0	6,974.5	6,398.1	6,305.3	33.9	19.5	-100.24	-140.5	-868.2	2,429.0	2,382.0	46.97	51.719		
7,450.0	6,994.6	6,406.4	6,313.2	34.7	19.6	-94.94	-141.0	-870.4	2,471.1	2,423.9	47.23	52.320		
7,500.0	7,013.4	6,413.8	6,320.4	35.3	19.6	-90.56	-141.4	-872.5	2,511.4	2,464.4	46.97	53.465		
7,550.0	7,030.7	7,298.4	7,016.1	35.9	22.2	-103.04	262.4	-998.9	2,542.3	2,498.6	43.76	58.093		
7,600.0	7,046.2	7,339.6	7,036.1	36.5	22.3	-99.86	298.4	-998.9	2,568.8	2,525.3	43.52	59.025		
7,650.0	7,060.0	7,382.5	7,054.4	37.0	22.5	-97.19	337.2	-998.9	2,592.3	2,549.1	43.12	60.112		
7,700.0	7,071.8	7,427.5	7,070.3	37.5	22.7	-95.00	379.3	-998.9	2,612.5	2,569.8	42.67	61.232		
7,750.0	7,081.7	7,474.2	7,083.3	37.9	22.9	-93.23	424.1	-998.9	2,629.3	2,587.1	42.23	62.254		
7,800.0	7,089.5	7,522.3	7,092.9	38.2	23.2	-91.86	471.2	-998.9	2,642.6	2,600.7	41.90	63.066		
7,850.0	7,095.2	7,571.4	7,098.5	38.5	23.5	-90.85	520.0	-998.9	2,652.3	2,610.6	41.72	63.579		
7,900.0	7,098.7	7,620.9	7,100.0	38.8	23.9	-90.19	569.5	-998.9	2,658.3	2,616.6	41.71	63.737		
7,954.8	7,100.0	7,675.6	7,100.0	39.1	24.3	-89.93	624.2	-998.9	2,660.6	2,618.6	41.93	63.453		
8,000.0	7,100.0	7,720.8	7,100.0	39.2	24.7	-89.93	669.4	-998.9	2,660.6	2,617.7	42.89	62.027		
8,100.0	7,100.0	7,820.8	7,100.0	39.7	25.7	-89.93	769.4	-998.9	2,660.6	2,615.4	45.13	58.953		
8,200.0	7,100.0	7,920.8	7,100.0	40.2	26.8	-89.93	869.4	-998.9	2,660.6	2,613.0	47.57	55.925		
8,300.0	7,100.0	8,020.8	7,100.0	40.8	28.0	-89.93	969.4	-998.9	2,660.6	2,610.4	50.19	53.005		
8,400.0	7,100.0	8,120.8	7,100.0	41.5	29.4	-89.93	1,069.4	-998.9	2,660.6	2,607.6	52.97	50.231		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 4-7H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,500.0	7,100.0	8,220.8	7,100.0	42.2	30.7	-89.93	1,169.4	-998.9	2,660.6	2,604.7	55.87	47.623		
8,600.0	7,100.0	8,320.8	7,100.0	43.0	32.2	-89.93	1,269.4	-998.9	2,660.6	2,601.7	58.88	45.188		
8,700.0	7,100.0	8,420.8	7,100.0	43.8	33.7	-89.93	1,369.4	-998.9	2,660.6	2,598.6	61.98	42.925		
8,800.0	7,100.0	8,520.8	7,100.0	44.7	35.2	-89.93	1,469.4	-998.9	2,660.6	2,595.4	65.17	40.826		
8,900.0	7,100.0	8,620.8	7,100.0	45.7	36.8	-89.93	1,569.4	-998.9	2,660.6	2,592.1	68.42	38.884		
9,000.0	7,100.0	8,720.8	7,100.0	46.7	38.4	-89.93	1,669.4	-998.9	2,660.6	2,588.8	71.74	37.087		
9,100.0	7,100.0	8,820.8	7,100.0	47.8	40.0	-89.93	1,769.4	-998.9	2,660.6	2,585.5	75.11	35.424		
9,200.0	7,100.0	8,920.8	7,100.0	48.9	41.7	-89.93	1,869.4	-998.9	2,660.6	2,582.0	78.52	33.884		
9,300.0	7,100.0	9,020.8	7,100.0	50.1	43.4	-89.93	1,969.4	-998.9	2,660.6	2,578.6	81.97	32.457		
9,400.0	7,100.0	9,120.8	7,100.0	51.4	45.1	-89.93	2,069.4	-998.9	2,660.6	2,575.1	85.46	31.132		
9,500.0	7,100.0	9,220.8	7,100.0	52.7	46.8	-89.93	2,169.4	-998.9	2,660.6	2,571.6	88.98	29.901		
9,600.0	7,100.0	9,320.8	7,100.0	54.0	48.6	-89.93	2,269.4	-998.9	2,660.6	2,568.0	92.53	28.755		
9,700.0	7,100.0	9,420.8	7,100.0	55.4	50.3	-89.93	2,369.4	-998.9	2,660.6	2,564.5	96.10	27.686		
9,800.0	7,100.0	9,520.8	7,100.0	56.8	52.1	-89.93	2,469.4	-998.9	2,660.6	2,560.9	99.69	26.688		
9,900.0	7,100.0	9,620.8	7,100.0	58.3	53.9	-89.93	2,569.4	-998.9	2,660.6	2,557.3	103.30	25.755		
10,000.0	7,100.0	9,720.8	7,100.0	59.8	55.7	-89.93	2,669.4	-998.9	2,660.6	2,553.6	106.93	24.881		
10,100.0	7,100.0	9,820.8	7,100.0	61.3	57.5	-89.93	2,769.4	-998.9	2,660.6	2,550.0	110.58	24.061		
10,200.0	7,100.0	9,920.8	7,100.0	62.8	59.3	-89.93	2,869.4	-999.0	2,660.6	2,546.3	114.24	23.290		
10,300.0	7,100.0	10,020.8	7,100.0	64.4	61.1	-89.93	2,969.4	-999.0	2,660.6	2,542.7	117.91	22.565		
10,400.0	7,100.0	10,120.8	7,100.0	66.0	62.9	-89.93	3,069.4	-999.0	2,660.6	2,539.0	121.59	21.881		
10,500.0	7,100.0	10,220.8	7,100.0	67.6	64.8	-89.93	3,169.4	-999.0	2,660.6	2,535.3	125.29	21.235		
10,600.0	7,100.0	10,320.8	7,100.0	69.2	66.6	-89.93	3,269.4	-999.0	2,660.6	2,531.6	128.99	20.626		
10,700.0	7,100.0	10,420.8	7,100.0	70.9	68.4	-89.93	3,369.4	-999.0	2,660.6	2,527.9	132.71	20.048		
10,800.0	7,100.0	10,520.8	7,100.0	72.6	70.3	-89.93	3,469.4	-999.0	2,660.6	2,524.1	136.43	19.501		
10,900.0	7,100.0	10,620.8	7,100.0	74.2	72.1	-89.93	3,569.4	-999.0	2,660.6	2,520.4	140.16	18.982		
11,000.0	7,100.0	10,720.8	7,100.0	75.9	74.0	-89.93	3,669.4	-999.0	2,660.6	2,516.7	143.90	18.489		
11,100.0	7,100.0	10,820.8	7,100.0	77.6	75.8	-89.93	3,769.4	-999.0	2,660.6	2,512.9	147.64	18.021		
11,200.0	7,100.0	10,920.8	7,100.0	79.4	77.7	-89.93	3,869.4	-999.0	2,660.6	2,509.2	151.39	17.574		
11,300.0	7,100.0	11,020.8	7,100.0	81.1	79.6	-89.93	3,969.4	-999.0	2,660.6	2,505.4	155.14	17.149		
11,400.0	7,100.0	11,120.8	7,100.0	82.8	81.4	-89.93	4,069.4	-999.0	2,660.6	2,501.7	158.90	16.743		
11,500.0	7,100.0	11,220.8	7,100.0	84.6	83.3	-89.93	4,169.4	-999.0	2,660.6	2,497.9	162.67	16.356		
11,600.0	7,100.0	11,320.8	7,100.0	86.4	85.2	-89.93	4,269.4	-999.0	2,660.6	2,494.1	166.44	15.985		
11,700.0	7,100.0	11,420.8	7,100.0	88.1	87.0	-89.93	4,369.4	-999.0	2,660.6	2,490.4	170.21	15.631		
11,800.0	7,100.0	11,520.8	7,100.0	89.9	88.9	-89.93	4,469.4	-999.0	2,660.6	2,486.6	173.99	15.292		
11,900.0	7,100.0	11,620.8	7,100.0	91.7	90.8	-89.93	4,569.4	-999.0	2,660.6	2,482.8	177.77	14.966		
12,000.0	7,100.0	11,720.8	7,100.0	93.5	92.7	-89.93	4,669.4	-999.0	2,660.6	2,479.0	181.56	14.654		
12,100.0	7,100.0	11,820.8	7,100.0	95.3	94.6	-89.93	4,769.4	-999.0	2,660.6	2,475.2	185.34	14.355		
12,200.0	7,100.0	11,920.8	7,100.0	97.1	96.4	-89.93	4,869.4	-999.0	2,660.6	2,471.4	189.13	14.067		
12,300.0	7,100.0	12,020.8	7,100.0	98.9	98.3	-89.93	4,969.4	-999.0	2,660.6	2,467.6	192.93	13.791		
12,347.3	7,100.0	12,068.1	7,100.0	99.8	99.2	-89.93	5,016.7	-999.0	2,660.6	2,465.8	194.72	13.663		
12,400.0	7,100.0	12,091.6	7,100.0	100.7	99.7	-89.93	5,040.2	-999.0	2,660.7	2,464.6	196.17	13.564		
12,433.4	7,100.0	12,091.6	7,100.0	101.3	99.7	-89.93	5,040.2	-999.0	2,661.3	2,464.5	196.80	13.523		
12,433.7	7,100.0	12,091.6	7,100.0	101.5	99.7	-89.93	5,040.2	-999.0	2,661.3	2,464.5	196.80	13.523 SF		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 0780 2-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.13	0.6	-40.0	40.0					
100.0	100.0	100.0	100.0	0.1	0.1	-89.13	0.6	-40.0	40.0	39.8	0.19	211.726		
200.0	200.0	200.0	200.0	0.3	0.3	-89.13	0.6	-40.0	40.0	39.3	0.64	62.623		
300.0	300.0	300.0	300.0	0.5	0.5	-89.13	0.6	-40.0	40.0	38.9	1.09	36.746		
400.0	400.0	400.0	400.0	0.8	0.8	-89.13	0.6	-40.0	40.0	38.4	1.54	26.001		
500.0	500.0	500.0	500.0	1.0	1.0	-89.13	0.6	-40.0	40.0	38.0	1.99	20.119 CC, ES		
594.6	594.6	594.6	594.6	1.2	1.2	-179.16	0.6	-40.0	41.5	39.1	2.40	17.292		
600.0	600.0	600.0	600.0	1.2	1.2	-179.16	0.6	-40.0	41.7	39.3	2.42	17.202		
700.0	699.9	699.9	699.9	1.4	1.4	-179.22	0.6	-40.0	45.0	42.2	2.85	15.777		
800.0	799.9	799.9	799.9	1.6	1.7	-179.28	0.6	-40.0	48.3	45.0	3.29	14.697		
900.0	899.8	899.8	899.8	1.8	1.9	-179.32	0.6	-40.0	51.6	47.9	3.73	13.855		
1,000.0	999.8	999.8	999.8	2.1	2.1	-179.36	0.6	-40.0	54.9	50.8	4.17	13.182		
1,105.7	1,105.4	1,105.4	1,105.4	2.3	2.4	-179.40	0.6	-40.0	58.4	53.8	4.63	12.604		
1,200.3	1,200.0	1,200.0	1,200.0	2.5	2.6	-89.42	0.6	-40.0	60.0	54.9	5.07	11.832		
1,300.0	1,299.7	1,299.7	1,299.7	2.7	2.8	-89.42	0.6	-40.0	60.0	54.5	5.49	10.918		
1,400.0	1,399.7	1,399.7	1,399.7	2.9	3.0	-89.42	0.6	-40.0	60.0	54.0	5.93	10.110		
1,500.0	1,499.7	1,499.7	1,499.7	3.1	3.2	-89.42	0.6	-40.0	60.0	53.6	6.37	9.411		
1,600.0	1,599.7	1,599.7	1,599.7	3.3	3.5	-89.42	0.6	-40.0	60.0	53.2	6.81	8.801		
1,700.0	1,699.7	1,699.7	1,699.7	3.6	3.7	-89.42	0.6	-40.0	60.0	52.7	7.26	8.264		
1,800.0	1,799.7	1,799.7	1,799.7	3.8	3.9	-89.42	0.6	-40.0	60.0	52.3	7.70	7.788		
1,900.0	1,899.7	1,899.7	1,899.7	4.0	4.1	-89.42	0.6	-40.0	60.0	51.8	8.15	7.363		
2,000.0	1,999.7	1,999.7	1,999.7	4.2	4.4	-89.42	0.6	-40.0	60.0	51.4	8.59	6.982		
2,100.0	2,099.7	2,099.7	2,099.7	4.4	4.6	-89.42	0.6	-40.0	60.0	50.9	9.04	6.638		
2,200.0	2,199.7	2,199.7	2,199.7	4.7	4.8	-89.42	0.6	-40.0	60.0	50.5	9.48	6.326		
2,300.0	2,299.7	2,299.7	2,299.7	4.9	5.0	-89.42	0.6	-40.0	60.0	50.0	9.93	6.041		
2,400.0	2,399.7	2,399.7	2,399.7	5.1	5.3	-89.42	0.6	-40.0	60.0	49.6	10.37	5.782		
2,500.0	2,499.7	2,499.7	2,499.7	5.3	5.5	-89.42	0.6	-40.0	60.0	49.2	10.82	5.543		
2,600.0	2,599.7	2,599.7	2,599.7	5.6	5.7	-89.42	0.6	-40.0	60.0	48.7	11.27	5.323		
2,700.0	2,699.7	2,699.7	2,699.7	5.8	5.9	-89.42	0.6	-40.0	60.0	48.3	11.71	5.120		
2,800.0	2,799.7	2,799.7	2,799.7	6.0	6.2	-89.42	0.6	-40.0	60.0	47.8	12.16	4.932		
2,900.0	2,899.7	2,899.7	2,899.7	6.2	6.4	-89.42	0.6	-40.0	60.0	47.4	12.61	4.757		
3,000.0	2,999.7	2,999.7	2,999.7	6.4	6.6	-89.42	0.6	-40.0	60.0	46.9	13.06	4.594		
3,099.6	3,099.3	3,099.3	3,099.3	6.7	6.8	-89.42	0.6	-40.0	60.0	46.5	13.50	4.442		
3,200.0	3,199.7	3,199.7	3,199.7	6.9	7.1	-179.43	0.6	-40.0	61.7	47.8	13.92	4.435 SF		
3,300.0	3,299.5	3,299.5	3,299.5	7.1	7.3	-179.48	0.6	-40.0	67.0	52.6	14.34	4.671		
3,400.0	3,399.1	3,399.1	3,399.1	7.3	7.5	-179.54	0.6	-40.0	75.7	61.0	14.74	5.134		
3,500.0	3,498.4	3,498.4	3,498.4	7.6	7.7	-179.60	0.6	-40.0	87.9	72.8	15.14	5.806		
3,600.0	3,597.1	3,597.1	3,597.1	7.8	8.0	-179.66	0.6	-40.0	103.6	88.0	15.52	6.671		
3,700.0	3,695.3	3,695.3	3,695.3	8.1	8.2	-179.71	0.6	-40.0	122.7	106.8	15.90	7.717		
3,800.0	3,792.7	3,792.7	3,792.7	8.4	8.4	-179.75	0.6	-40.0	145.2	128.9	16.25	8.931		
3,887.9	3,877.7	3,877.7	3,877.7	8.7	8.6	-179.78	0.6	-40.0	167.7	151.2	16.56	10.129		
3,900.0	3,889.3	3,889.3	3,889.3	8.7	8.6	-179.79	0.6	-40.0	171.0	154.4	16.61	10.295		
4,000.0	3,985.6	3,985.6	3,985.6	9.1	8.8	-179.82	0.6	-40.0	198.2	181.1	17.05	11.623		
4,100.0	4,081.8	4,081.8	4,081.8	9.5	9.0	-179.84	0.6	-40.0	225.4	207.9	17.50	12.881		
4,200.0	4,178.0	4,178.0	4,178.0	9.9	9.3	-179.86	0.6	-40.0	252.5	234.6	17.94	14.075		
4,300.0	4,274.3	4,274.3	4,274.3	10.3	9.5	-179.87	0.6	-40.0	279.7	261.3	18.39	15.207		
4,400.0	4,370.5	4,370.5	4,370.5	10.8	9.7	-179.88	0.6	-40.0	306.9	288.0	18.85	16.282		
4,500.0	4,466.7	4,466.7	4,466.7	11.2	9.9	-179.89	0.6	-40.0	334.1	314.7	19.31	17.303		
4,600.0	4,563.0	4,563.0	4,563.0	11.7	10.1	-179.90	0.6	-40.0	361.2	341.5	19.77	18.275		
4,700.0	4,659.2	4,659.2	4,659.2	12.2	10.3	-179.91	0.6	-40.0	388.4	368.2	20.23	19.199		
4,800.0	4,755.5	4,755.5	4,755.5	12.7	10.6	-179.91	0.6	-40.0	415.6	394.9	20.70	20.080		
4,900.0	4,851.7	4,851.7	4,851.7	13.1	10.8	-179.92	0.6	-40.0	442.7	421.6	21.16	20.920		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 0780 2-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,947.9	4,947.9	4,947.9	13.6	11.0	-179.92	0.6	-40.0	469.9	448.3	21.63	21.721		
5,100.0	5,044.2	5,037.6	5,037.6	14.1	11.2	-179.93	0.6	-40.2	497.4	475.3	22.09	22.519		
5,200.0	5,140.4	5,118.6	5,118.6	14.7	11.4	-179.93	0.6	-42.4	527.2	504.6	22.52	23.413		
5,300.0	5,236.7	5,200.0	5,199.8	15.2	11.5	-179.93	0.6	-46.9	559.6	536.7	22.94	24.396		
5,400.0	5,332.9	5,276.1	5,275.7	15.7	11.7	-179.94	0.6	-53.3	594.6	571.3	23.35	25.462		
5,500.0	5,429.1	5,352.4	5,351.6	16.2	11.8	-179.94	0.6	-61.6	632.2	608.4	23.77	26.595		
5,600.0	5,525.4	5,427.1	5,425.5	16.7	12.0	-179.94	0.6	-71.7	672.2	648.0	24.19	27.792		
5,700.0	5,621.6	5,505.7	5,503.1	17.3	12.2	-179.95	0.6	-84.3	714.4	689.8	24.61	29.027		
5,800.0	5,717.8	5,596.1	5,592.2	17.8	12.4	-179.95	0.6	-99.3	757.1	732.1	25.06	30.219		
5,900.0	5,814.1	5,686.5	5,681.4	18.4	12.6	-179.95	0.6	-114.3	799.9	774.4	25.50	31.366		
6,000.0	5,910.3	5,776.9	5,770.5	18.9	12.8	-179.95	0.6	-129.3	842.7	816.7	25.95	32.469		
6,100.0	6,006.6	5,867.3	5,859.7	19.4	13.1	-179.96	0.6	-144.3	885.4	859.0	26.40	33.533		
6,200.0	6,102.8	5,957.7	5,948.8	20.0	13.3	-179.96	0.6	-159.3	928.2	901.3	26.86	34.557		
6,300.0	6,199.0	6,048.1	6,038.0	20.5	13.5	-179.96	0.6	-174.3	970.9	943.6	27.32	35.545		
6,400.0	6,295.3	6,138.5	6,127.1	21.1	13.8	-179.96	0.6	-189.3	1,013.7	985.9	27.78	36.496		
6,500.0	6,391.5	6,228.9	6,216.2	21.6	14.0	-179.96	0.6	-204.3	1,056.5	1,028.2	28.24	37.414		
6,546.0	6,435.8	6,270.5	6,257.3	21.9	14.1	-179.96	0.6	-211.2	1,076.1	1,047.7	28.45	37.826		
6,550.0	6,439.6	6,274.1	6,260.8	21.9	14.1	-179.63	0.6	-211.8	1,077.9	1,049.4	28.45	37.890		
6,600.0	6,487.0	6,318.1	6,304.3	22.2	14.3	-176.31	0.6	-219.1	1,101.4	1,073.1	28.36	38.843		
6,650.0	6,532.8	6,360.0	6,345.6	22.6	14.4	-173.96	0.6	-226.1	1,128.7	1,100.5	28.17	40.065		
6,700.0	6,576.8	6,399.4	6,384.4	23.0	14.5	-172.02	0.6	-232.6	1,159.4	1,131.5	27.90	41.547		
6,750.0	6,618.5	6,436.0	6,420.5	23.6	14.6	-170.23	0.6	-238.7	1,193.3	1,165.7	27.58	43.263		
6,800.0	6,657.6	6,470.0	6,454.0	24.2	14.7	-168.40	0.6	-244.3	1,230.2	1,202.9	27.24	45.166		
6,850.0	6,693.9	6,509.6	6,493.1	24.8	14.8	-166.35	2.1	-250.7	1,269.6	1,242.7	26.94	47.120		
6,900.0	6,727.1	6,545.9	6,528.8	25.5	14.9	-163.75	5.9	-256.4	1,311.3	1,284.5	26.80	48.936		
6,950.0	6,756.9	6,578.6	6,560.6	26.3	15.0	-160.35	11.2	-261.2	1,355.0	1,328.0	26.97	50.247		
6,991.3	6,778.8	6,602.5	6,583.7	27.0	15.1	-156.66	16.3	-264.6	1,392.3	1,364.7	27.55	50.544		
7,000.0	6,783.2	6,607.3	6,588.3	27.2	15.1	-156.72	17.4	-265.3	1,400.3	1,372.7	27.60	50.734		
7,100.0	6,833.2	6,664.0	6,642.1	29.0	15.3	-157.03	33.7	-272.8	1,491.6	1,463.3	28.31	52.682		
7,141.3	6,853.8	6,688.4	6,664.7	29.7	15.3	-157.00	42.3	-275.7	1,529.2	1,500.6	28.66	53.360		
7,150.0	6,858.2	6,693.6	6,669.5	29.9	15.3	-154.70	44.3	-276.3	1,537.2	1,507.9	29.27	52.511		
7,200.0	6,882.9	6,725.4	6,698.3	30.8	15.4	-142.70	57.3	-279.9	1,582.1	1,549.2	32.86	48.151		
7,250.0	6,907.1	6,760.5	6,729.3	31.6	15.5	-132.73	73.4	-283.6	1,625.9	1,589.9	36.00	45.168		
7,300.0	6,930.5	6,799.8	6,762.8	32.4	15.6	-124.53	93.7	-287.2	1,668.2	1,629.8	38.43	43.411		
7,350.0	6,953.0	6,844.1	6,798.8	33.2	15.8	-117.78	119.3	-290.8	1,708.7	1,668.5	40.19	42.521		
7,400.0	6,974.5	6,894.4	6,837.2	33.9	15.9	-112.20	151.5	-294.1	1,747.0	1,705.6	41.38	42.219		
7,450.0	6,994.6	6,951.6	6,877.3	34.7	16.1	-107.54	192.1	-296.9	1,782.7	1,740.6	42.13	42.311		
7,500.0	7,013.4	7,016.3	6,917.7	35.3	16.4	-103.62	242.6	-298.8	1,815.5	1,772.9	42.57	42.646		
7,550.0	7,030.7	7,081.3	6,952.5	35.9	16.8	-100.24	297.5	-299.3	1,844.9	1,802.1	42.79	43.118		
7,600.0	7,046.2	7,123.2	6,973.5	36.5	17.0	-97.32	333.8	-299.3	1,871.1	1,828.3	42.78	43.743		
7,650.0	7,060.0	7,166.4	6,995.1	37.0	17.3	-94.98	371.2	-299.3	1,894.2	1,851.6	42.60	44.465		
7,700.0	7,071.8	7,210.6	7,017.1	37.5	17.6	-93.17	409.4	-299.3	1,914.0	1,871.7	42.31	45.238		
7,750.0	7,081.7	7,252.8	7,037.5	37.9	18.0	-91.79	446.3	-299.3	1,930.4	1,888.4	41.97	45.998		
7,800.0	7,089.5	7,296.0	7,055.6	38.2	18.3	-90.77	485.5	-299.3	1,943.4	1,901.8	41.62	46.692		
7,850.0	7,095.2	7,341.2	7,071.4	38.5	18.8	-90.12	527.9	-299.3	1,952.9	1,911.6	41.32	47.258		
7,900.0	7,098.7	7,388.1	7,084.2	38.8	19.3	-89.80	573.1	-299.3	1,958.8	1,917.7	41.11	47.644		
7,954.8	7,100.0	7,441.2	7,094.1	39.1	19.8	-89.83	625.2	-299.3	1,961.0	1,920.0	41.02	47.808		
8,000.0	7,100.0	7,485.9	7,098.7	39.2	20.4	-89.96	669.6	-299.3	1,961.0	1,919.0	41.99	46.705		
8,100.0	7,100.0	7,585.8	7,099.8	39.7	21.6	-89.99	769.5	-299.3	1,961.0	1,916.8	44.23	44.341		
8,200.0	7,100.0	7,685.8	7,099.8	40.2	22.9	-89.99	869.5	-299.3	1,961.0	1,914.3	46.67	42.017		
8,300.0	7,100.0	7,785.8	7,099.8	40.8	24.3	-89.99	969.5	-299.3	1,961.0	1,911.7	49.29	39.781		
8,400.0	7,100.0	7,885.8	7,099.8	41.5	25.8	-89.99	1,069.5	-299.3	1,961.0	1,908.9	52.07	37.660		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 0780 2-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,500.0	7,100.0	7,985.8	7,099.8	42.2	27.4	-89.99	1,169.5	-299.3	1,961.0	1,906.0	54.98	35.669		
8,600.0	7,100.0	8,085.8	7,099.8	43.0	28.9	-89.99	1,269.5	-299.3	1,961.0	1,903.0	57.99	33.813		
8,700.0	7,100.0	8,185.8	7,099.8	43.8	30.6	-89.99	1,369.5	-299.3	1,961.0	1,899.9	61.11	32.091		
8,800.0	7,100.0	8,285.8	7,099.8	44.7	32.2	-89.99	1,469.5	-299.3	1,961.0	1,896.7	64.30	30.497		
8,900.0	7,100.0	8,385.8	7,099.8	45.7	33.9	-89.99	1,569.5	-299.3	1,961.0	1,893.4	67.56	29.024		
9,000.0	7,100.0	8,485.8	7,099.8	46.7	35.6	-89.99	1,669.5	-299.3	1,960.9	1,890.1	70.88	27.664		
9,100.0	7,100.0	8,585.8	7,099.8	47.8	37.3	-89.99	1,769.5	-299.3	1,960.9	1,886.7	74.26	26.407		
9,200.0	7,100.0	8,685.8	7,099.8	48.9	39.1	-89.99	1,869.5	-299.3	1,960.9	1,883.3	77.68	25.244		
9,300.0	7,100.0	8,785.8	7,099.8	50.1	40.9	-89.99	1,969.5	-299.3	1,960.9	1,879.8	81.14	24.168		
9,400.0	7,100.0	8,885.8	7,099.8	51.4	42.6	-89.99	2,069.5	-299.3	1,960.9	1,876.3	84.63	23.170		
9,500.0	7,100.0	8,985.8	7,099.8	52.7	44.4	-89.99	2,169.5	-299.3	1,960.9	1,872.8	88.16	22.243		
9,600.0	7,100.0	9,085.8	7,099.8	54.0	46.2	-89.99	2,269.5	-299.3	1,960.9	1,869.2	91.71	21.382		
9,700.0	7,100.0	9,185.8	7,099.8	55.4	48.1	-89.99	2,369.5	-299.3	1,960.9	1,865.6	95.29	20.579		
9,800.0	7,100.0	9,285.8	7,099.8	56.8	49.9	-89.99	2,469.5	-299.3	1,960.9	1,862.0	98.88	19.830		
9,900.0	7,100.0	9,385.8	7,099.8	58.3	51.7	-89.99	2,569.5	-299.3	1,960.9	1,858.4	102.50	19.131		
10,000.0	7,100.0	9,485.8	7,099.8	59.8	53.6	-89.99	2,669.5	-299.3	1,960.9	1,854.8	106.14	18.476		
10,100.0	7,100.0	9,585.8	7,099.8	61.3	55.4	-89.99	2,769.5	-299.3	1,960.9	1,851.1	109.78	17.861		
10,200.0	7,100.0	9,685.8	7,099.8	62.8	57.2	-89.99	2,869.5	-299.3	1,960.9	1,847.4	113.45	17.284		
10,300.0	7,100.0	9,785.8	7,099.8	64.4	59.1	-89.99	2,969.5	-299.3	1,960.9	1,843.8	117.13	16.742		
10,400.0	7,100.0	9,885.8	7,099.8	66.0	61.0	-89.99	3,069.5	-299.3	1,960.9	1,840.1	120.81	16.231		
10,500.0	7,100.0	9,985.8	7,099.8	67.6	62.8	-89.99	3,169.5	-299.3	1,960.9	1,836.4	124.51	15.748		
10,600.0	7,100.0	10,085.8	7,099.8	69.2	64.7	-89.99	3,269.5	-299.3	1,960.9	1,832.7	128.22	15.293		
10,700.0	7,100.0	10,185.8	7,099.8	70.9	66.6	-89.99	3,369.5	-299.3	1,960.9	1,828.9	131.94	14.862		
10,800.0	7,100.0	10,285.8	7,099.8	72.6	68.4	-89.99	3,469.5	-299.3	1,960.9	1,825.2	135.66	14.454		
10,900.0	7,100.0	10,385.8	7,099.8	74.2	70.3	-89.99	3,569.5	-299.3	1,960.9	1,821.5	139.40	14.067		
11,000.0	7,100.0	10,485.8	7,099.8	75.9	72.2	-89.99	3,669.5	-299.3	1,960.9	1,817.7	143.14	13.699		
11,100.0	7,100.0	10,585.8	7,099.8	77.6	74.1	-89.99	3,769.5	-299.3	1,960.9	1,814.0	146.88	13.350		
11,200.0	7,100.0	10,685.8	7,099.8	79.4	76.0	-89.99	3,869.5	-299.3	1,960.8	1,810.2	150.63	13.017		
11,300.0	7,100.0	10,785.8	7,099.8	81.1	77.9	-89.99	3,969.5	-299.2	1,960.8	1,806.4	154.39	12.700		
11,400.0	7,100.0	10,885.8	7,099.8	82.8	79.8	-89.99	4,069.5	-299.2	1,960.8	1,802.7	158.15	12.398		
11,500.0	7,100.0	10,985.8	7,099.8	84.6	81.6	-89.99	4,169.5	-299.2	1,960.8	1,798.9	161.92	12.110		
11,600.0	7,100.0	11,085.8	7,099.8	86.4	83.5	-89.99	4,269.5	-299.2	1,960.8	1,795.1	165.69	11.834		
11,700.0	7,100.0	11,185.8	7,099.8	88.1	85.4	-89.99	4,369.5	-299.2	1,960.8	1,791.4	169.47	11.570		
11,800.0	7,100.0	11,285.8	7,099.8	89.9	87.3	-89.99	4,469.5	-299.2	1,960.8	1,787.6	173.25	11.318		
11,900.0	7,100.0	11,385.8	7,099.8	91.7	89.2	-89.99	4,569.5	-299.2	1,960.8	1,783.8	177.03	11.076		
12,000.0	7,100.0	11,485.8	7,099.8	93.5	91.1	-89.99	4,669.5	-299.2	1,960.8	1,780.0	180.82	10.844		
12,100.0	7,100.0	11,585.8	7,099.8	95.3	93.0	-89.99	4,769.5	-299.2	1,960.8	1,776.2	184.61	10.621		
12,200.0	7,100.0	11,685.8	7,099.8	97.1	94.9	-89.99	4,869.5	-299.2	1,960.8	1,772.4	188.40	10.408		
12,300.0	7,100.0	11,785.8	7,099.8	98.9	96.8	-89.99	4,969.5	-299.2	1,960.8	1,768.6	192.20	10.202		
12,356.0	7,100.0	11,841.8	7,099.8	99.9	97.8	-89.99	5,025.5	-299.2	1,960.8	1,766.6	194.17	10.098		
12,400.0	7,100.0	11,853.4	7,099.8	100.7	97.9	-89.99	5,037.1	-299.2	1,961.1	1,765.9	195.18	10.047		
12,433.4	7,100.0	11,853.4	7,099.8	101.3	97.9	-89.99	5,037.1	-299.2	1,961.9	1,766.1	195.81	10.019		
12,433.7	7,100.0	11,853.4	7,099.8	101.5	97.9	-89.99	5,037.1	-299.2	1,961.9	1,766.1	195.82	10.019		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 0780 3-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-89.11	0.3	-20.0	20.0					
100.0	100.0	100.0	100.0	0.1	0.1	-89.11	0.3	-20.0	20.0	19.8	0.19	105.731		
200.0	200.0	200.0	200.0	0.3	0.3	-89.11	0.3	-20.0	20.0	19.3	0.64	31.273		
300.0	300.0	300.0	300.0	0.5	0.5	-89.11	0.3	-20.0	20.0	18.9	1.09	18.350		
400.0	400.0	400.0	400.0	0.8	0.8	-89.11	0.3	-20.0	20.0	18.4	1.54	12.985		
500.0	500.0	500.0	500.0	1.0	1.0	-89.11	0.3	-20.0	20.0	18.0	1.99	10.047 CC		
594.6	594.6	594.7	594.7	1.2	1.2	-176.13	1.4	-19.4	21.0	18.6	2.40	8.760		
600.0	600.0	600.1	600.1	1.2	1.2	-175.93	1.5	-19.4	21.2	18.7	2.42	8.736		
700.0	699.9	700.1	700.1	1.4	1.4	-172.51	3.1	-18.6	23.8	21.0	2.85	8.359		
800.0	799.9	800.0	800.0	1.6	1.7	-169.78	4.7	-17.8	26.5	23.2	3.28	8.085		
900.0	899.8	900.0	899.9	1.8	1.9	-167.57	6.3	-17.0	29.3	25.6	3.72	7.878		
1,000.0	999.8	1,000.0	999.9	2.1	2.1	-165.74	7.9	-16.2	32.1	27.9	4.16	7.717		
1,105.7	1,105.4	1,105.6	1,105.5	2.3	2.3	-164.12	9.6	-15.3	35.1	30.5	4.63	7.583		
1,200.3	1,200.0	1,200.2	1,200.1	2.5	2.6	-72.17	11.1	-14.6	36.3	31.2	5.06	7.171		
1,300.0	1,299.7	1,299.9	1,299.8	2.7	2.8	-69.37	12.7	-13.8	36.1	30.6	5.49	6.576		
1,400.0	1,399.7	1,399.9	1,399.7	2.9	3.0	-66.53	14.3	-13.0	35.9	30.0	5.92	6.066		
1,500.0	1,499.7	1,499.8	1,499.7	3.1	3.2	-63.68	15.9	-12.2	35.9	29.5	6.36	5.638		
1,508.4	1,508.1	1,508.3	1,508.1	3.2	3.3	-63.43	16.0	-12.1	35.9	29.5	6.40	5.606		
1,600.0	1,599.7	1,599.8	1,599.7	3.3	3.5	-60.82	17.5	-11.4	35.9	29.1	6.80	5.279		
1,700.0	1,699.7	1,699.8	1,699.6	3.6	3.7	-57.98	19.1	-10.6	36.0	28.8	7.25	4.974		
1,800.0	1,799.7	1,799.9	1,799.7	3.8	3.9	-55.87	20.3	-10.0	36.2	28.5	7.67	4.716		
1,900.0	1,899.7	1,899.9	1,899.7	4.0	4.1	-55.87	20.3	-10.0	36.2	28.1	8.09	4.474		
2,000.0	1,999.7	1,999.9	1,999.7	4.2	4.3	-55.87	20.3	-10.0	36.2	27.7	8.53	4.241		
2,100.0	2,099.7	2,099.9	2,099.7	4.4	4.5	-55.87	20.3	-10.0	36.2	27.2	8.98	4.032		
2,200.0	2,199.7	2,199.9	2,199.7	4.7	4.8	-55.87	20.3	-10.0	36.2	26.8	9.42	3.842		
2,300.0	2,299.7	2,299.9	2,299.7	4.9	5.0	-55.87	20.3	-10.0	36.2	26.3	9.87	3.669		
2,400.0	2,399.7	2,399.9	2,399.7	5.1	5.2	-55.87	20.3	-10.0	36.2	25.9	10.31	3.510		
2,500.0	2,499.7	2,499.9	2,499.7	5.3	5.4	-55.87	20.3	-10.0	36.2	25.4	10.76	3.365		
2,600.0	2,599.7	2,599.9	2,599.7	5.6	5.7	-55.87	20.3	-10.0	36.2	25.0	11.20	3.231		
2,700.0	2,699.7	2,699.9	2,699.7	5.8	5.9	-55.87	20.3	-10.0	36.2	24.5	11.65	3.107		
2,800.0	2,799.7	2,799.9	2,799.7	6.0	6.1	-55.87	20.3	-10.0	36.2	24.1	12.10	2.993		
2,900.0	2,899.7	2,900.8	2,900.6	6.2	6.3	-53.86	20.6	-8.2	34.9	22.4	12.54	2.787		
3,000.0	2,999.7	3,001.4	3,001.0	6.4	6.5	-46.96	21.5	-3.0	31.5	18.5	12.97	2.426		
3,099.6	3,099.3	3,101.2	3,100.4	6.7	6.8	-32.10	22.9	5.7	27.0	13.6	13.39	2.016		
3,188.4	3,188.1	3,189.7	3,188.3	6.9	7.0	-101.97	24.6	16.2	25.1	11.3	13.83	1.817 Level 4		
3,200.0	3,199.7	3,201.2	3,199.7	6.9	7.0	-99.21	24.8	17.7	25.2	11.3	13.88	1.812 Level 4, ES, SF		
3,300.0	3,299.5	3,300.7	3,298.2	7.1	7.2	-79.93	27.1	31.7	27.6	13.2	14.33	1.923 Level 4		
3,400.0	3,399.1	3,400.6	3,397.0	7.3	7.5	-70.81	29.4	45.8	31.2	16.4	14.78	2.108		
3,500.0	3,498.4	3,500.5	3,495.9	7.6	7.8	-69.00	31.7	59.9	34.0	18.7	15.26	2.226		
3,600.0	3,597.1	3,600.5	3,594.9	7.8	8.0	-72.68	34.0	74.0	35.6	19.8	15.78	2.258		
3,700.0	3,695.3	3,700.3	3,693.7	8.1	8.3	-81.29	36.3	88.0	36.7	20.4	16.36	2.245		
3,800.0	3,792.7	3,799.9	3,792.3	8.4	8.6	-94.34	38.6	102.1	38.7	21.8	16.97	2.283		
3,887.9	3,877.7	3,887.2	3,878.6	8.7	8.8	-107.98	40.6	114.3	42.8	25.3	17.43	2.454		
3,900.0	3,889.3	3,899.2	3,890.5	8.7	8.9	-109.88	40.9	116.0	43.6	26.1	17.49	2.491		
4,000.0	3,985.6	3,998.2	3,988.6	9.1	9.2	-122.97	43.2	130.0	51.7	33.8	17.91	2.885		
4,100.0	4,081.8	4,097.3	4,086.6	9.5	9.4	-132.20	45.4	144.0	61.7	43.4	18.30	3.370		
4,200.0	4,178.0	4,196.4	4,184.7	9.9	9.7	-138.75	47.7	157.9	72.9	54.2	18.71	3.895		
4,300.0	4,274.3	4,295.5	4,282.8	10.3	10.0	-143.53	50.0	171.9	84.7	65.6	19.13	4.429		
4,400.0	4,370.5	4,394.6	4,380.8	10.8	10.3	-147.11	52.3	185.8	97.0	77.5	19.57	4.958		
4,500.0	4,466.7	4,493.6	4,478.9	11.2	10.6	-149.89	54.6	199.8	109.6	89.6	20.02	5.475		
4,600.0	4,563.0	4,592.7	4,577.0	11.7	11.0	-152.09	56.8	213.7	122.4	101.9	20.48	5.976		
4,700.0	4,659.2	4,691.8	4,675.0	12.2	11.3	-153.87	59.1	227.7	135.4	114.4	20.96	6.458		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 0780 3-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,800.0	4,755.5	4,790.9	4,773.1	12.7	11.6	-155.34	61.4	241.7	148.4	127.0	21.44	6.922		
4,900.0	4,851.7	4,890.0	4,871.2	13.1	11.9	-156.57	63.7	255.6	161.5	139.6	21.92	7.367		
5,000.0	4,947.9	4,989.0	4,969.2	13.6	12.2	-157.62	65.9	269.6	174.7	152.3	22.42	7.794		
5,100.0	5,044.2	5,088.1	5,067.3	14.1	12.5	-158.52	68.2	283.5	187.9	165.0	22.91	8.202		
5,200.0	5,140.4	5,187.2	5,165.4	14.7	12.8	-159.30	70.5	297.5	201.2	177.8	23.41	8.594		
5,300.0	5,236.7	5,286.3	5,263.4	15.2	13.2	-159.98	72.8	311.4	214.5	190.6	23.92	8.969		
5,400.0	5,332.9	5,385.4	5,361.5	15.7	13.5	-160.59	75.1	325.4	227.9	203.4	24.43	9.328		
5,500.0	5,429.1	5,484.4	5,459.6	16.2	13.8	-161.12	77.3	339.3	241.2	216.3	24.94	9.673		
5,600.0	5,525.4	5,583.5	5,557.6	16.7	14.1	-161.60	79.6	353.3	254.6	229.1	25.45	10.003		
5,700.0	5,621.6	5,682.6	5,655.7	17.3	14.5	-162.04	81.9	367.3	268.0	242.0	25.97	10.320		
5,800.0	5,717.8	5,781.7	5,753.8	17.8	14.8	-162.43	84.2	381.2	281.4	254.9	26.48	10.624		
5,900.0	5,814.1	5,880.8	5,851.8	18.4	15.1	-162.79	86.5	395.2	294.8	267.8	27.00	10.917		
6,000.0	5,910.3	5,979.8	5,949.9	18.9	15.4	-163.11	88.7	409.1	308.2	280.7	27.53	11.197		
6,100.0	6,006.6	6,078.9	6,048.0	19.4	15.8	-163.41	91.0	423.1	321.7	293.6	28.05	11.467		
6,200.0	6,102.8	6,178.0	6,146.0	20.0	16.1	-163.68	93.3	437.0	335.1	306.5	28.57	11.727		
6,300.0	6,199.0	6,277.1	6,244.1	20.5	16.4	-163.94	95.6	451.0	348.5	319.4	29.10	11.977		
6,400.0	6,295.3	6,376.2	6,342.2	21.1	16.8	-164.17	97.8	465.0	362.0	332.4	29.63	12.218		
6,500.0	6,391.5	6,475.2	6,440.2	21.6	17.1	-164.39	100.1	478.9	375.5	345.3	30.16	12.450		
6,546.0	6,435.8	6,540.0	6,503.9	21.9	17.3	-164.16	103.6	490.0	380.7	350.2	30.50	12.482		
6,550.0	6,439.6	6,545.9	6,509.7	21.9	17.3	-163.78	104.1	491.3	381.1	350.5	30.52	12.484		
6,600.0	6,487.0	6,620.3	6,580.5	22.2	17.7	-159.56	114.8	510.7	385.7	354.8	30.86	12.497		
6,650.0	6,532.8	6,693.0	6,646.7	22.6	18.1	-155.69	131.4	535.9	391.1	359.7	31.34	12.479		
6,700.0	6,576.8	6,763.6	6,706.8	23.0	18.6	-151.79	153.2	565.7	397.5	365.5	32.03	12.412		
6,750.0	6,618.5	6,831.5	6,759.9	23.6	19.2	-147.73	179.1	599.0	405.4	372.4	33.00	12.283		
6,800.0	6,657.6	6,896.4	6,805.8	24.2	19.8	-143.53	208.1	634.6	414.9	380.6	34.31	12.093		
6,850.0	6,693.9	6,958.4	6,844.5	24.8	20.5	-139.21	239.2	671.6	426.3	390.4	35.98	11.850		
6,900.0	6,727.1	7,016.7	6,876.0	25.5	21.2	-134.83	271.3	708.8	439.9	401.9	37.97	11.584		
6,950.0	6,756.9	7,061.2	6,898.3	26.3	21.8	-131.18	296.6	737.8	456.1	416.2	39.87	11.440		
6,991.3	6,778.8	7,098.1	6,916.7	27.0	22.2	-128.34	317.6	761.9	471.7	430.2	41.54	11.355		
7,000.0	6,783.2	7,105.9	6,920.6	27.2	22.3	-128.10	322.0	767.0	475.2	433.4	41.83	11.360		
7,100.0	6,833.2	7,182.7	6,958.9	29.0	23.4	-125.93	366.0	817.0	516.1	471.2	44.92	11.488		
7,141.3	6,853.8	7,200.0	6,967.3	29.7	23.6	-125.43	376.5	827.9	534.5	488.5	45.92	11.638		
7,150.0	6,858.2	7,200.0	6,967.3	29.9	23.6	-124.63	376.5	827.9	538.5	492.3	46.20	11.656		
7,200.0	6,882.9	7,233.2	6,982.8	30.8	24.0	-119.38	397.8	848.1	560.4	512.1	48.32	11.597		
7,250.0	6,907.1	7,250.0	6,990.3	31.6	24.3	-114.94	409.1	857.9	581.1	531.3	49.79	11.672		
7,300.0	6,930.5	7,283.4	7,004.7	32.4	24.7	-110.60	432.7	876.7	600.0	548.8	51.22	11.714		
7,350.0	6,953.0	7,300.0	7,011.5	33.2	24.9	-106.91	444.9	885.6	617.4	565.4	52.02	11.869		
7,400.0	6,974.5	7,333.6	7,024.7	33.9	25.3	-103.42	470.6	902.8	632.9	580.1	52.76	11.996		
7,450.0	6,994.6	7,350.0	7,030.8	34.7	25.5	-100.46	483.6	910.7	646.8	593.9	52.91	12.225		
7,500.0	7,013.4	7,383.9	7,042.6	35.3	25.9	-97.77	511.3	926.2	658.5	605.5	52.99	12.427		
7,550.0	7,030.7	7,400.0	7,047.9	35.9	26.1	-95.51	524.9	933.1	668.6	616.1	52.52	12.729		
7,600.0	7,046.2	7,434.2	7,058.3	36.5	26.5	-93.56	554.5	946.7	676.5	624.4	52.03	13.000		
7,650.0	7,060.0	7,450.0	7,062.7	37.0	26.7	-91.97	568.5	952.5	682.6	631.5	51.04	13.372		
7,700.0	7,071.8	7,484.6	7,071.6	37.5	27.1	-90.74	599.9	964.1	686.4	636.3	50.09	13.703		
7,750.0	7,081.7	7,500.0	7,075.2	37.9	27.2	-89.79	614.1	968.8	688.5	639.8	48.72	14.133		
7,800.0	7,089.5	7,535.0	7,082.5	38.2	27.6	-89.24	647.0	978.3	688.3	640.8	47.48	14.498		
7,850.0	7,095.2	7,550.0	7,085.2	38.5	27.8	-88.91	661.3	981.9	686.3	640.4	45.91	14.949		
7,900.0	7,098.7	7,585.5	7,090.8	38.8	28.1	-89.05	695.6	989.1	682.0	637.4	44.61	15.290		
7,954.8	7,100.0	7,613.2	7,094.3	39.1	28.4	-89.51	722.6	993.6	675.2	632.1	43.12	15.661		
8,000.0	7,100.0	7,636.1	7,096.5	39.2	28.6	-89.70	745.3	996.6	669.4	625.6	43.83	15.273		
8,100.0	7,100.0	7,687.8	7,099.6	39.7	29.1	-89.96	796.7	1,000.6	661.7	616.2	45.43	14.563		
8,177.8	7,100.0	7,738.4	7,100.0	40.1	29.5	-90.00	847.3	1,001.2	660.5	613.6	46.89	14.086		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 0780 3-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,200.0	7,100.0	7,760.6	7,100.0	40.2	29.7	-90.00	869.5	1,001.2	660.5	613.1	47.40	13.935		
8,300.0	7,100.0	7,860.6	7,100.0	40.8	30.7	-90.00	969.5	1,001.2	660.5	610.7	49.82	13.258		
8,400.0	7,100.0	7,960.6	7,100.0	41.5	31.7	-90.00	1,069.5	1,001.2	660.5	608.1	52.39	12.607		
8,500.0	7,100.0	8,060.6	7,100.0	42.2	32.8	-90.00	1,169.5	1,001.2	660.5	605.4	55.12	11.983		
8,600.0	7,100.0	8,160.6	7,100.0	43.0	33.9	-90.00	1,269.5	1,001.2	660.5	602.5	57.97	11.393		
8,700.0	7,100.0	8,260.6	7,100.0	43.8	35.2	-90.00	1,369.5	1,001.2	660.5	599.5	60.94	10.838		
8,800.0	7,100.0	8,360.6	7,100.0	44.7	36.5	-90.00	1,469.5	1,001.2	660.5	596.5	64.00	10.320		
8,900.0	7,100.0	8,460.6	7,100.0	45.7	37.8	-90.00	1,569.5	1,001.2	660.4	593.3	67.14	9.836		
9,000.0	7,100.0	8,560.6	7,100.0	46.7	39.2	-90.00	1,669.5	1,001.2	660.4	590.1	70.36	9.387		
9,100.0	7,100.0	8,660.6	7,100.0	47.8	40.6	-90.00	1,769.5	1,001.2	660.4	586.8	73.64	8.969		
9,200.0	7,100.0	8,760.6	7,100.0	48.9	42.1	-90.00	1,869.5	1,001.2	660.4	583.5	76.97	8.580		
9,300.0	7,100.0	8,860.6	7,100.0	50.1	43.6	-90.00	1,969.5	1,001.2	660.4	580.1	80.35	8.219		
9,400.0	7,100.0	8,960.6	7,100.0	51.4	45.2	-90.00	2,069.5	1,001.2	660.4	576.7	83.77	7.884		
9,500.0	7,100.0	9,060.6	7,100.0	52.7	46.7	-90.00	2,169.5	1,001.2	660.4	573.2	87.23	7.571		
9,600.0	7,100.0	9,160.6	7,100.0	54.0	48.4	-90.00	2,269.5	1,001.2	660.4	569.7	90.72	7.280		
9,700.0	7,100.0	9,260.6	7,100.0	55.4	50.0	-90.00	2,369.5	1,001.2	660.4	566.2	94.24	7.008		
9,800.0	7,100.0	9,360.6	7,100.0	56.8	51.6	-90.00	2,469.5	1,001.2	660.4	562.6	97.79	6.753		
9,900.0	7,100.0	9,460.6	7,100.0	58.3	53.3	-90.00	2,569.5	1,001.2	660.4	559.0	101.36	6.516		
10,000.0	7,100.0	9,560.6	7,100.0	59.8	55.0	-90.00	2,669.5	1,001.2	660.4	555.4	104.95	6.293		
10,100.0	7,100.0	9,660.6	7,100.0	61.3	56.7	-90.00	2,769.5	1,001.2	660.4	551.8	108.55	6.083		
10,200.0	7,100.0	9,760.6	7,100.0	62.8	58.4	-90.00	2,869.5	1,001.2	660.4	548.2	112.18	5.887		
10,300.0	7,100.0	9,860.6	7,100.0	64.4	60.2	-90.00	2,969.5	1,001.2	660.4	544.6	115.82	5.702		
10,400.0	7,100.0	9,960.6	7,100.0	66.0	61.9	-90.00	3,069.5	1,001.2	660.4	540.9	119.48	5.527		
10,500.0	7,100.0	10,060.6	7,100.0	67.6	63.7	-90.00	3,169.5	1,001.2	660.4	537.2	123.14	5.363		
10,600.0	7,100.0	10,160.6	7,100.0	69.2	65.4	-90.00	3,269.5	1,001.2	660.4	533.5	126.82	5.207		
10,700.0	7,100.0	10,260.6	7,100.0	70.9	67.2	-90.00	3,369.5	1,001.2	660.4	529.8	130.51	5.060		
10,800.0	7,100.0	10,360.6	7,100.0	72.6	69.0	-90.00	3,469.5	1,001.2	660.4	526.1	134.21	4.920		
10,900.0	7,100.0	10,460.6	7,100.0	74.2	70.8	-90.00	3,569.5	1,001.3	660.3	522.4	137.92	4.788		
11,000.0	7,100.0	10,560.6	7,100.0	75.9	72.6	-90.00	3,669.5	1,001.3	660.3	518.7	141.64	4.662		
11,100.0	7,100.0	10,660.6	7,100.0	77.6	74.4	-90.00	3,769.5	1,001.3	660.3	515.0	145.36	4.543		
11,200.0	7,100.0	10,760.6	7,100.0	79.4	76.2	-90.00	3,869.5	1,001.3	660.3	511.2	149.09	4.429		
11,300.0	7,100.0	10,860.6	7,100.0	81.1	78.0	-90.00	3,969.5	1,001.3	660.3	507.5	152.83	4.321		
11,400.0	7,100.0	10,960.6	7,100.0	82.8	79.9	-90.00	4,069.5	1,001.3	660.3	503.7	156.57	4.217		
11,500.0	7,100.0	11,060.6	7,100.0	84.6	81.7	-90.00	4,169.5	1,001.3	660.3	500.0	160.32	4.119		
11,600.0	7,100.0	11,160.6	7,100.0	86.4	83.5	-90.00	4,269.5	1,001.3	660.3	496.2	164.08	4.024		
11,700.0	7,100.0	11,260.6	7,100.0	88.1	85.4	-90.00	4,369.5	1,001.3	660.3	492.5	167.83	3.934		
11,800.0	7,100.0	11,360.6	7,100.0	89.9	87.2	-90.00	4,469.5	1,001.3	660.3	488.7	171.60	3.848		
11,900.0	7,100.0	11,460.6	7,100.0	91.7	89.1	-90.00	4,569.5	1,001.3	660.3	484.9	175.37	3.765		
12,000.0	7,100.0	11,560.6	7,100.0	93.5	90.9	-90.00	4,669.5	1,001.3	660.3	481.2	179.14	3.686		
12,100.0	7,100.0	11,660.6	7,100.0	95.3	92.8	-90.00	4,769.5	1,001.3	660.3	477.4	182.92	3.610		
12,200.0	7,100.0	11,760.6	7,100.0	97.1	94.6	-90.00	4,869.5	1,001.3	660.3	473.6	186.70	3.537		
12,300.0	7,100.0	11,860.6	7,100.0	98.9	96.5	-90.00	4,969.5	1,001.3	660.3	469.8	190.48	3.466		
12,400.0	7,100.0	11,960.6	7,100.0	100.7	98.3	-90.00	5,069.5	1,001.3	660.3	466.0	194.26	3.399		
12,406.5	7,100.0	11,967.1	7,100.0	100.8	98.5	-90.00	5,076.0	1,001.3	660.3	465.8	194.51	3.395		
12,433.4	7,100.0	11,971.9	7,100.0	101.3	98.6	-90.00	5,080.7	1,001.3	660.6	465.5	195.11	3.386		
12,433.7	7,100.0	11,971.9	7,100.0	101.5	98.6	-90.00	5,080.7	1,001.3	660.7	465.5	195.11	3.386		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 7-17H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 1031-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	3.1	3.1	0.0	0.0	-125.27	-233.5	-330.2	404.4					
100.0	100.0	104.7	104.7	0.1	0.1	-125.29	-233.5	-329.9	404.2	404.0	0.22	1,869.848		
200.0	200.0	206.4	206.4	0.3	0.2	-125.33	-233.4	-329.2	403.6	403.0	0.56	721.764		
300.0	300.0	308.0	308.0	0.5	0.4	-125.41	-233.2	-328.0	402.5	401.6	0.90	446.216		
400.0	400.0	409.7	409.7	0.8	0.5	-125.52	-233.0	-326.4	401.1	399.8	1.24	322.149		
500.0	500.0	511.3	511.3	1.0	0.6	-125.66	-232.7	-324.3	399.2	397.6	1.59	251.418		
585.3	585.3	598.0	597.9	1.2	0.7	144.31	-232.4	-322.1	398.3	396.5	1.85	214.778		
594.6	594.6	607.5	607.4	1.2	0.7	144.32	-232.4	-321.8	398.3	396.4	1.88	211.330		
600.0	600.0	612.9	612.9	1.2	0.7	144.32	-232.3	-321.7	398.3	396.4	1.90	209.437		
700.0	699.9	714.6	714.4	1.4	0.8	144.40	-231.9	-318.6	398.3	396.1	2.22	179.153		
800.0	799.9	816.2	816.0	1.6	1.0	144.44	-231.4	-315.1	397.9	395.4	2.55	155.974		
900.0	899.8	917.8	917.6	1.8	1.1	144.45	-230.9	-311.1	397.1	394.2	2.88	137.733		
1,000.0	999.8	1,019.5	1,019.1	2.1	1.2	144.43	-230.2	-306.7	395.9	392.6	3.22	123.022		
1,017.2	1,017.0	1,031.0	1,030.6	2.1	1.2	144.43	-230.2	-306.1	395.7	392.4	3.27	121.028		
1,105.7	1,105.4	1,093.7	1,093.3	2.3	1.3	144.30	-232.5	-305.8	399.3	395.7	3.60	110.924		
1,200.3	1,200.0	1,192.4	1,191.8	2.5	1.5	-125.90	-236.6	-306.8	403.6	399.6	3.98	101.302		
1,300.0	1,299.7	1,296.8	1,296.2	2.7	1.7	-126.15	-239.3	-307.6	405.7	401.3	4.40	92.238		
1,400.0	1,399.7	1,398.4	1,397.8	2.9	1.9	-126.20	-240.4	-308.4	407.0	402.2	4.82	84.421		
1,500.0	1,499.7	1,496.9	1,496.3	3.1	2.1	-126.23	-241.3	-309.4	408.4	403.1	5.23	78.103		
1,600.0	1,599.7	1,593.3	1,592.7	3.3	2.3	-126.26	-242.6	-310.7	410.3	404.7	5.63	72.902		
1,700.0	1,699.7	1,687.5	1,686.8	3.6	2.5	-126.25	-244.2	-313.1	413.4	407.3	6.03	68.596		
1,800.0	1,799.7	1,796.0	1,795.3	3.8	2.7	-126.23	-246.1	-315.9	416.5	410.0	6.48	64.318		
1,900.0	1,899.7	1,903.3	1,902.6	4.0	3.0	-126.22	-246.5	-316.6	417.2	410.2	6.93	60.211		
2,000.0	1,999.7	2,003.5	2,002.8	4.2	3.2	-126.23	-246.6	-316.5	417.2	409.8	7.36	56.671		
2,100.0	2,099.7	2,103.4	2,102.7	4.4	3.4	-126.24	-246.6	-316.4	417.1	409.4	7.79	53.552		
2,200.0	2,199.7	2,203.4	2,202.7	4.7	3.6	-126.24	-246.6	-316.4	417.1	408.9	8.22	50.721		
2,300.0	2,299.7	2,303.5	2,302.7	4.9	3.8	-126.24	-246.6	-316.4	417.1	408.5	8.65	48.208		
2,400.0	2,399.7	2,403.8	2,403.1	5.1	4.0	-126.23	-246.5	-316.4	417.1	408.0	9.08	45.921		
2,500.0	2,499.7	2,503.5	2,502.8	5.3	4.2	-126.22	-246.4	-316.4	417.0	407.5	9.51	43.838		
2,600.0	2,599.7	2,603.7	2,603.0	5.6	4.4	-126.21	-246.3	-316.4	417.0	407.0	9.95	41.916		
2,700.0	2,699.7	2,703.4	2,702.7	5.8	4.6	-126.21	-246.3	-316.4	416.9	406.6	10.38	40.152		
2,800.0	2,799.7	2,803.4	2,802.7	6.0	4.8	-126.21	-246.3	-316.4	416.9	406.1	10.81	38.557		
2,900.0	2,899.7	2,903.4	2,902.7	6.2	5.0	-126.21	-246.3	-316.4	416.9	405.7	11.24	37.087		
3,000.0	2,999.7	3,003.4	3,002.7	6.4	5.2	-126.21	-246.3	-316.4	416.9	405.3	11.67	35.724		
3,099.6	3,099.3	3,103.0	3,102.3	6.7	5.5	-126.21	-246.3	-316.4	416.9	404.8	12.10	34.447		
3,200.0	3,199.7	3,203.4	3,202.7	6.9	5.7	143.92	-246.3	-316.4	418.4	405.8	12.54	33.371		
3,300.0	3,299.5	3,303.2	3,302.5	7.1	5.9	144.29	-246.3	-316.4	422.6	409.7	12.95	32.647		
3,400.0	3,399.1	3,402.9	3,402.1	7.3	6.1	144.89	-246.3	-316.4	429.7	416.4	13.35	32.190		
3,500.0	3,498.4	3,502.1	3,501.4	7.6	6.3	145.68	-246.3	-316.4	439.8	426.0	13.76	31.972		
3,600.0	3,597.1	3,600.9	3,600.1	7.8	6.5	146.65	-246.3	-316.4	452.9	438.7	14.16	31.984		
3,700.0	3,695.3	3,699.0	3,698.3	8.1	6.7	147.75	-246.3	-316.4	469.0	454.4	14.56	32.207		
3,800.0	3,792.7	3,796.9	3,796.2	8.4	6.9	148.96	-246.2	-316.4	488.2	473.3	14.97	32.622		
3,887.9	3,877.7	3,881.5	3,880.8	8.7	7.1	150.07	-246.1	-316.4	507.8	492.5	15.32	33.149		
3,900.0	3,889.3	3,893.1	3,892.3	8.7	7.1	150.25	-246.1	-316.4	510.7	495.3	15.37	33.219		
4,000.0	3,985.6	3,989.3	3,988.6	9.1	7.3	151.69	-246.1	-316.4	534.7	518.9	15.82	33.792		
4,100.0	4,081.8	4,085.5	4,084.8	9.5	7.5	153.00	-246.1	-316.4	558.9	542.7	16.28	34.341		
4,200.0	4,178.0	4,181.8	4,181.0	9.9	7.7	154.20	-246.1	-316.4	583.5	566.7	16.74	34.859		
4,300.0	4,274.3	4,277.5	4,276.8	10.3	7.9	155.31	-246.1	-316.5	608.2	591.0	17.20	35.368		
4,400.0	4,370.5	4,374.2	4,373.5	10.8	8.1	156.34	-246.0	-316.6	633.2	615.6	17.66	35.865		
4,500.0	4,466.7	4,470.5	4,469.7	11.2	8.3	157.28	-246.0	-316.6	658.3	640.2	18.11	36.344		
4,600.0	4,563.0	4,566.4	4,565.7	11.7	8.5	158.16	-245.9	-316.6	683.6	665.1	18.58	36.797		
4,700.0	4,659.2	4,662.9	4,662.2	12.2	8.7	158.99	-245.9	-316.7	709.1	690.0	19.04	37.234		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 7-17H - Wellbore #1 - Wellbore #1													Offset Site Error: 0.0 usft	
Survey Program: 1031-Sperry MWD													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,800.0	4,755.5	4,759.2	4,758.5	12.7	8.9	159.74	-245.9	-316.7	734.6	715.1	19.51	37.654		
4,900.0	4,851.7	4,855.4	4,854.7	13.1	9.1	160.45	-245.9	-316.7	760.3	740.3	19.98	38.049		
5,000.0	4,947.9	4,951.7	4,950.9	13.6	9.3	161.11	-245.9	-316.7	786.0	765.6	20.45	38.428		
5,100.0	5,044.2	5,047.9	5,047.2	14.1	9.5	161.73	-245.9	-316.7	811.9	791.0	20.93	38.795		
5,200.0	5,140.4	5,144.1	5,143.4	14.7	9.7	162.31	-245.9	-316.7	837.8	816.4	21.40	39.149		
5,300.0	5,236.7	5,240.4	5,239.7	15.2	9.9	162.85	-245.9	-316.7	863.8	842.0	21.88	39.489		
5,400.0	5,332.9	5,336.6	5,335.9	15.7	10.2	163.37	-245.9	-316.7	889.9	867.6	22.35	39.815		
5,500.0	5,429.1	5,432.8	5,432.1	16.2	10.4	163.85	-245.9	-316.7	916.1	893.2	22.83	40.125		
5,600.0	5,525.4	5,529.2	5,528.5	16.7	10.6	164.32	-245.8	-316.7	942.3	919.0	23.31	40.426		
5,700.0	5,621.6	5,626.3	5,625.5	17.3	10.8	164.76	-245.6	-316.7	968.5	944.7	23.78	40.718		
5,800.0	5,717.8	5,723.2	5,722.4	17.8	11.0	165.18	-245.5	-316.6	994.7	970.4	24.26	41.001		
5,900.0	5,814.1	5,818.5	5,817.8	18.4	11.2	165.57	-245.4	-316.5	1,020.9	996.1	24.73	41.285		
6,000.0	5,910.3	5,913.4	5,912.6	18.9	11.4	165.94	-245.3	-316.5	1,047.3	1,022.1	25.20	41.563		
6,100.0	6,006.6	6,010.6	6,009.9	19.4	11.6	166.31	-245.2	-316.6	1,073.7	1,048.1	25.68	41.818		
6,200.0	6,102.8	6,107.4	6,106.7	20.0	11.8	166.65	-245.0	-316.6	1,100.2	1,074.0	26.15	42.065		
6,300.0	6,199.0	6,203.1	6,202.4	20.5	12.0	166.97	-244.9	-316.5	1,126.6	1,100.0	26.63	42.307		
6,400.0	6,295.3	6,298.8	6,298.1	21.1	12.2	167.28	-244.7	-316.5	1,153.1	1,126.0	27.10	42.544		
6,500.0	6,391.5	6,394.6	6,393.9	21.6	12.4	167.57	-244.7	-316.6	1,179.7	1,152.1	27.59	42.767		
6,546.0	6,435.8	6,438.4	6,437.7	21.9	12.5	167.70	-244.6	-316.6	1,192.0	1,164.2	27.81	42.868		
6,550.0	6,439.6	6,442.1	6,441.4	21.9	12.5	168.01	-244.6	-316.6	1,193.1	1,165.3	27.81	42.902		
6,600.0	6,487.0	6,488.0	6,487.2	22.2	12.6	170.91	-244.7	-316.7	1,208.9	1,181.1	27.80	43.491		
6,650.0	6,532.8	6,533.4	6,532.7	22.6	12.7	172.75	-244.5	-316.8	1,228.8	1,201.1	27.69	44.370		
6,700.0	6,576.8	7,603.9	7,130.7	23.0	18.3	-156.60	384.0	-135.3	1,241.6	1,208.7	32.91	37.722		
6,750.0	6,618.5	7,617.4	7,130.6	23.6	18.5	-154.96	396.6	-130.7	1,246.1	1,213.3	32.79	38.003		
6,800.0	6,657.6	7,632.3	7,130.6	24.2	18.6	-153.17	410.6	-125.6	1,256.1	1,223.3	32.73	38.379		
6,850.0	6,693.9	7,647.3	7,130.5	24.8	18.8	-151.18	424.7	-120.5	1,271.3	1,238.5	32.77	38.798		
6,900.0	6,727.1	7,664.1	7,130.4	25.5	19.0	-148.83	440.6	-114.8	1,291.4	1,258.4	33.00	39.133		
6,950.0	6,756.9	7,682.8	7,130.2	26.3	19.2	-146.02	458.2	-108.5	1,316.0	1,282.5	33.52	39.263		
6,991.3	6,778.8	7,698.9	7,129.8	27.0	19.4	-143.31	473.3	-103.2	1,339.4	1,305.2	34.20	39.164		
7,000.0	6,783.2	7,702.4	7,129.7	27.2	19.5	-143.15	476.7	-102.0	1,344.6	1,310.2	34.36	39.136		
7,100.0	6,833.2	7,740.1	7,128.8	29.0	19.9	-141.45	512.1	-89.5	1,406.2	1,370.0	36.17	38.879		
7,141.3	6,853.8	7,755.0	7,128.5	29.7	20.1	-140.79	526.2	-84.6	1,432.6	1,395.7	36.94	38.785		
7,150.0	6,858.2	7,757.6	7,128.4	29.9	20.1	-139.57	528.7	-83.7	1,438.2	1,400.9	37.34	38.516		
7,200.0	6,882.9	7,780.3	7,128.0	30.8	20.4	-132.60	550.1	-76.3	1,469.6	1,429.9	39.72	37.000		
7,250.0	6,907.1	7,803.3	7,127.7	31.6	20.7	-126.23	571.9	-68.7	1,499.6	1,457.7	41.91	35.779		
7,300.0	6,930.5	7,830.5	7,127.2	32.4	21.0	-120.36	597.5	-59.9	1,527.7	1,483.8	43.93	34.779		
7,350.0	6,953.0	7,864.3	7,126.7	33.2	21.5	-114.95	629.5	-48.9	1,553.8	1,508.0	45.77	33.944		
7,400.0	6,974.5	7,902.2	7,126.4	33.9	22.0	-110.11	665.3	-36.6	1,577.4	1,530.0	47.37	33.298		
7,450.0	6,994.6	7,938.0	7,126.3	34.7	22.4	-105.93	699.2	-24.9	1,598.2	1,549.6	48.64	32.858		
7,500.0	7,013.4	7,977.6	7,125.7	35.3	23.0	-102.25	736.7	-12.2	1,616.3	1,566.6	49.69	32.527		
7,550.0	7,030.7	8,021.5	7,125.1	35.9	23.6	-99.05	778.2	2.0	1,631.2	1,580.7	50.51	32.293		
7,600.0	7,046.2	8,054.8	7,124.1	36.5	24.1	-96.48	809.8	12.6	1,642.9	1,592.0	50.92	32.263		
7,650.0	7,060.0	8,097.3	7,122.5	37.0	24.7	-94.26	850.2	25.8	1,651.5	1,600.3	51.23	32.239		
7,700.0	7,071.8	8,145.8	7,121.2	37.5	25.4	-92.46	896.2	41.0	1,656.5	1,605.1	51.37	32.245		
7,750.0	7,081.7	8,208.5	7,120.2	37.9	26.3	-91.06	955.7	60.8	1,657.7	1,606.1	51.53	32.168		
7,800.0	7,089.5	8,262.0	7,119.6	38.2	27.1	-90.20	1,006.3	78.0	1,654.8	1,603.4	51.38	32.207		
7,850.0	7,095.2	8,306.0	7,119.4	38.5	27.8	-89.85	1,048.0	92.2	1,648.2	1,597.3	50.95	32.352		
7,900.0	7,098.7	8,357.7	7,119.1	38.8	28.6	-89.93	1,097.0	108.8	1,637.9	1,587.4	50.54	32.407		
7,954.8	7,100.0	8,417.9	7,118.2	39.1	29.6	-90.57	1,153.9	128.3	1,622.3	1,572.2	50.10	32.381		
8,000.0	7,100.0	8,460.5	7,116.8	39.2	30.3	-90.52	1,194.2	142.2	1,607.5	1,556.4	51.17	31.416		
8,100.0	7,100.0	8,520.1	7,112.7	39.7	31.2	-90.37	1,250.6	160.9	1,576.0	1,523.0	53.03	29.717		
8,200.0	7,100.0	8,610.0	7,106.6	40.2	32.6	-90.14	1,336.0	188.2	1,545.6	1,490.2	55.44	27.880		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 7-17H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 1031-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,300.0	7,100.0	8,709.0	7,101.1	40.8	34.2	-89.92	1,430.2	218.2	1,515.2	1,457.1	58.10	26.080		
8,400.0	7,100.0	8,831.4	7,096.7	41.5	36.2	-89.74	1,546.4	256.3	1,484.1	1,422.8	61.24	24.233		
8,500.0	7,100.0	8,921.0	7,093.8	42.2	37.7	-89.62	1,631.2	285.3	1,451.8	1,387.8	63.98	22.692		
8,600.0	7,100.0	8,977.2	7,093.2	43.0	38.6	-89.59	1,684.7	302.5	1,421.2	1,354.9	66.26	21.448		
8,700.0	7,100.0	9,051.5	7,093.8	43.8	39.8	-89.61	1,755.9	323.7	1,392.7	1,323.8	68.89	20.215		
8,800.0	7,100.0	9,181.3	7,095.7	44.7	42.0	-89.68	1,880.0	361.7	1,363.2	1,290.7	72.48	18.807		
8,900.0	7,100.0	9,308.5	7,094.4	45.7	44.2	-89.61	2,000.6	402.0	1,331.4	1,255.3	76.08	17.499		
9,000.0	7,100.0	9,382.6	7,093.7	46.7	45.4	-89.57	2,070.9	425.4	1,299.8	1,220.9	78.86	16.482		
9,100.0	7,100.0	9,491.2	7,090.4	47.8	47.3	-89.40	2,173.8	459.7	1,268.2	1,186.0	82.24	15.421		
9,200.0	7,100.0	9,588.1	7,087.4	48.9	48.9	-89.24	2,265.6	490.7	1,236.2	1,150.8	85.45	14.467		
9,300.0	7,100.0	9,697.4	7,084.9	50.1	50.8	-89.09	2,368.8	526.5	1,203.4	1,114.6	88.88	13.539		
9,400.0	7,100.0	9,801.4	7,082.8	51.4	52.6	-88.95	2,466.9	561.1	1,170.2	1,078.0	92.27	12.683		
9,500.0	7,100.0	9,890.3	7,080.2	52.7	54.2	-88.78	2,550.5	591.2	1,136.4	1,041.0	95.42	11.909		
9,600.0	7,100.0	9,993.8	7,078.0	54.0	55.9	-88.61	2,647.8	626.5	1,102.4	1,003.5	98.82	11.155		
9,700.0	7,100.0	10,072.3	7,076.2	55.4	57.3	-88.48	2,721.6	653.1	1,068.6	966.8	101.83	10.494		
9,800.0	7,100.0	10,184.0	7,072.8	56.8	59.2	-88.22	2,826.8	690.6	1,035.1	929.7	105.39	9.821		
9,900.0	7,100.0	10,260.3	7,071.0	58.3	60.6	-88.06	2,898.6	716.5	1,001.3	892.9	108.39	9.238		
10,000.0	7,100.0	10,347.0	7,069.3	59.8	62.1	-87.90	2,980.4	744.9	968.6	857.0	111.58	8.681		
10,100.0	7,100.0	10,443.1	7,069.2	61.3	63.7	-87.82	3,071.5	775.7	936.6	821.7	114.96	8.148		
10,200.0	7,100.0	10,533.2	7,070.6	62.8	65.3	-87.83	3,156.6	804.9	904.2	785.9	118.26	7.646		
10,300.0	7,100.0	10,635.8	7,074.1	64.4	67.1	-87.99	3,254.0	837.4	872.4	750.6	121.80	7.162		
10,400.0	7,100.0	10,717.9	7,076.3	66.0	68.6	-88.08	3,331.8	863.2	840.9	715.9	124.99	6.728		
10,500.0	7,100.0	10,819.9	7,078.8	67.6	70.4	-88.19	3,428.6	895.3	809.3	680.8	128.54	6.296		
10,600.0	7,100.0	10,923.0	7,081.6	69.2	72.2	-88.32	3,526.1	928.8	776.7	644.6	132.11	5.879		
10,700.0	7,100.0	11,009.4	7,082.4	70.9	73.7	-88.33	3,607.7	957.0	744.0	608.6	135.37	5.496		
10,800.0	7,100.0	11,090.9	7,083.3	72.6	75.1	-88.34	3,685.0	982.9	712.3	573.8	138.57	5.141		
10,900.0	7,100.0	11,190.9	7,085.1	74.2	76.9	-88.42	3,780.2	1,013.4	681.8	539.7	142.10	4.798		
11,000.0	7,100.0	11,287.8	7,088.2	75.9	78.6	-88.63	3,872.3	1,043.5	650.7	505.1	145.59	4.469		
11,100.0	7,100.0	11,380.9	7,092.7	77.6	80.2	-89.00	3,960.6	1,072.5	619.4	470.4	149.05	4.156		
11,200.0	7,100.0	11,476.0	7,099.5	79.4	81.9	-89.64	4,050.7	1,102.1	588.1	435.5	152.57	3.855		
11,300.0	7,100.0	11,574.8	7,107.5	81.1	83.6	-90.49	4,144.1	1,133.4	556.3	400.2	156.12	3.563		
11,400.0	7,100.0	11,670.0	7,115.0	82.8	85.3	-91.38	4,234.0	1,163.8	524.4	364.8	159.60	3.285		
11,500.0	7,100.0	11,766.0	7,122.7	84.6	87.0	-92.41	4,324.8	1,194.1	493.0	330.0	163.07	3.024		
11,600.0	7,100.0	11,849.8	7,129.3	86.4	88.4	-93.40	4,404.4	1,219.4	463.1	296.8	166.29	2.785		
11,700.0	7,100.0	11,946.2	7,137.5	88.1	90.1	-94.77	4,495.9	1,248.4	433.4	263.8	169.62	2.555		
11,800.0	7,100.0	12,042.8	7,146.1	89.9	91.8	-96.39	4,587.7	1,277.2	404.4	231.6	172.83	2.340		
11,900.0	7,100.0	12,133.4	7,155.6	91.7	93.4	-98.36	4,673.8	1,303.9	376.3	200.6	175.72	2.142		
12,000.0	7,100.0	12,181.0	7,160.9	93.5	94.2	-99.56	4,719.0	1,317.9	352.0	174.0	177.99	1.978 Level 4		
12,049.5	7,100.0	12,181.0	7,160.9	94.4	94.2	-99.56	4,719.0	1,317.9	348.5	169.6	178.91	1.948 Level 4, CC, ES, SF		
12,100.0	7,100.0	12,181.0	7,160.9	95.3	94.2	-99.56	4,719.0	1,317.9	352.1	172.3	179.85	1.958 Level 4		
12,200.0	7,100.0	12,181.0	7,160.9	97.1	94.2	-99.56	4,719.0	1,317.9	379.6	197.9	181.71	2.089		
12,300.0	7,100.0	12,181.0	7,160.9	98.9	94.2	-99.56	4,719.0	1,317.9	429.2	245.6	183.58	2.338		
12,400.0	7,100.0	12,181.0	7,160.9	100.7	94.2	-99.56	4,719.0	1,317.9	494.3	308.8	185.45	2.665		
12,433.4	7,100.0	12,181.0	7,160.9	101.3	94.2	-99.56	4,719.0	1,317.9	518.5	332.4	186.07	2.787		
12,433.7	7,100.0	12,181.0	7,160.9	101.5	94.2	-99.56	4,719.0	1,317.9	518.7	332.6	186.08	2.788		

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

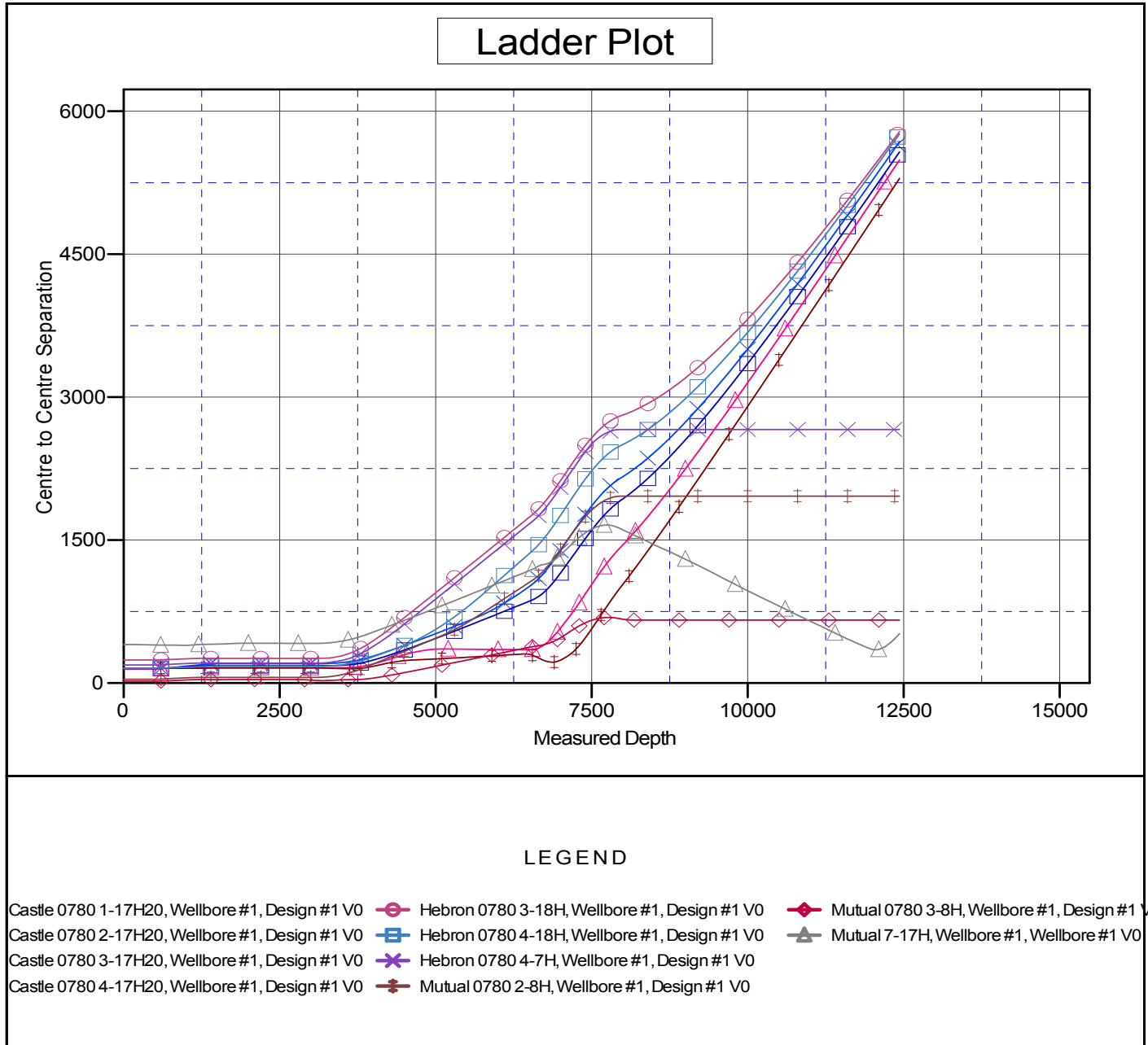
SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 8172.0usft (Original Well Ele)
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Mutual 0780 4-8H
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: -0.58°



SandRidge Energy

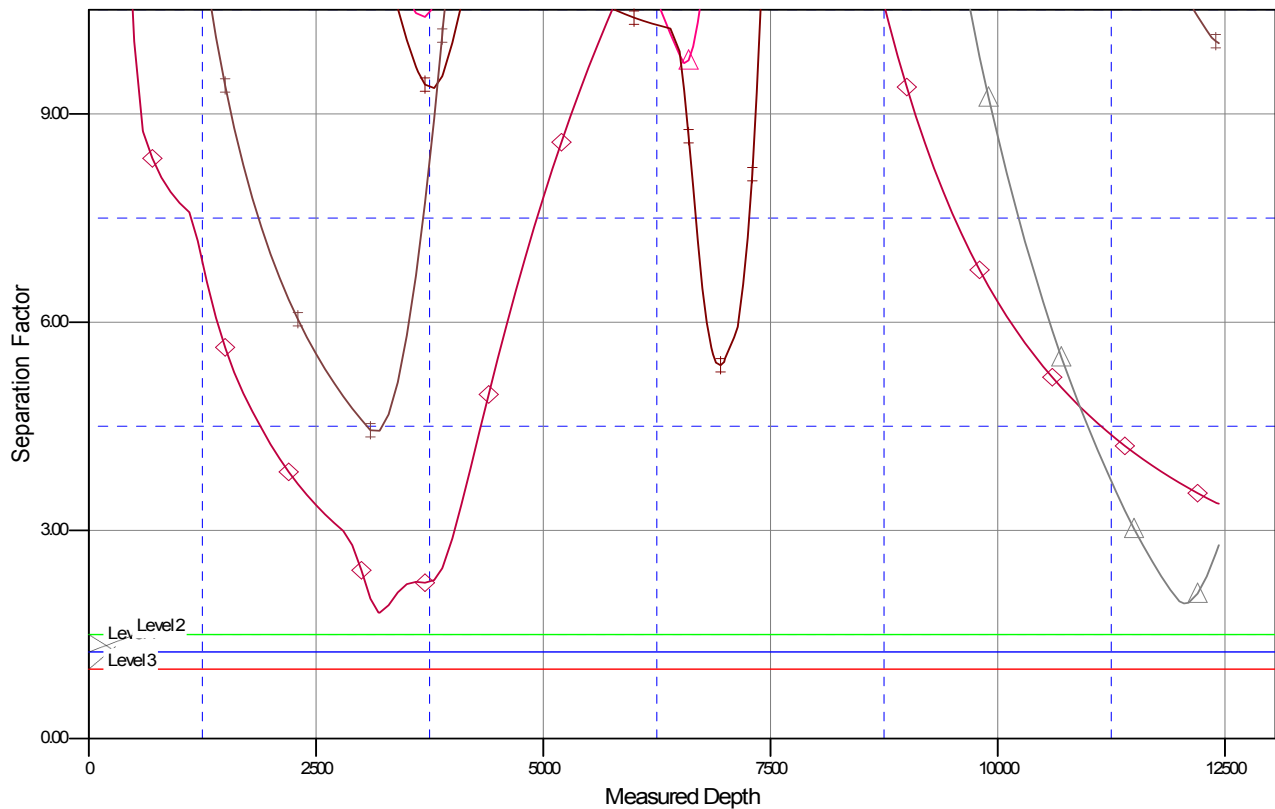
Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Mutual 0780 4-8H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Mutual 0780 4-8H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 8172.0usft (Original Well Ele
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Mutual 0780 4-8H
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: -0.58°

Separation Factor Plot



LEGEND

- Castle 0780 1-17H20, Wellbore #1, Design #1 V0
- Castle 0780 2-17H20, Wellbore #1, Design #1 V0
- Castle 0780 3-17H20, Wellbore #1, Design #1 V0
- Castle 0780 4-17H20, Wellbore #1, Design #1 V0
- Hebron 0780 3-18H, Wellbore #1, Design #1 V0
- Hebron 0780 4-18H, Wellbore #1, Design #1 V0
- Hebron 0780 4-7H, Wellbore #1, Design #1 V0
- Hebron 0780 2-8H, Wellbore #1, Design #1 V0
- Mutual 0780 3-8H, Wellbore #1, Design #1 V0
- Mutual 0780 7-17H, Wellbore #1, Wellbore #1 V0