

SandRidge Energy

North Park Basin

T7N-R80W-S17

Hebron 0780 3-18H

Wellbore #1

Design #1

Anticollision Report

14 December, 2015

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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	12,280.9	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	3,300.0	3,301.4	146.4	132.1	10.282	CC, ES
Castle 0780 1-17H20 - Wellbore #1 - Design #1	12,281.8	11,657.1	1,176.3	990.2	6.323	SF
Castle 0780 2-17H20 - Wellbore #1 - Design #1	500.0	500.0	189.9	187.9	95.591	CC
Castle 0780 2-17H20 - Wellbore #1 - Design #1	3,300.0	3,300.6	192.8	178.5	13.544	ES
Castle 0780 2-17H20 - Wellbore #1 - Design #1	12,281.8	11,595.6	1,815.4	1,628.1	9.693	SF
Castle 0780 3-17H20 - Wellbore #1 - Design #1	500.0	500.0	209.9	207.9	105.653	CC, ES
Castle 0780 3-17H20 - Wellbore #1 - Design #1	12,281.8	11,616.7	2,475.5	2,288.1	13.213	SF
Castle 0780 4-17H20 - Wellbore #1 - Design #1	500.0	500.0	230.0	228.0	115.735	CC, ES
Castle 0780 4-17H20 - Wellbore #1 - Design #1	12,281.8	12,185.1	3,144.8	2,956.5	16.701	SF
Hebron 0780 4-18H - Wellbore #1 - Design #1	3,300.0	3,300.5	120.0	105.6	8.348	CC, ES
Hebron 0780 4-18H - Wellbore #1 - Design #1	12,281.8	11,874.5	639.7	453.6	3.438	SF
Hebron 0780 4-7H - Wellbore #1 - Design #1	5,111.8	5,123.3	66.4	44.1	2.979	CC, ES
Hebron 0780 4-7H - Wellbore #1 - Design #1	5,200.0	5,211.0	67.1	44.4	2.957	SF
Mutual 0780 2-8H - Wellbore #1 - Design #1	3,300.0	3,300.0	212.1	197.5	14.553	CC, ES
Mutual 0780 2-8H - Wellbore #1 - Design #1	3,600.0	3,599.5	221.5	205.7	13.975	SF
Mutual 0780 3-8H - Wellbore #1 - Design #1	500.0	500.0	226.7	224.7	114.094	CC, ES
Mutual 0780 3-8H - Wellbore #1 - Design #1	3,100.0	3,079.1	259.8	246.3	19.183	SF
Mutual 0780 4-8H - Wellbore #1 - Design #1	500.0	500.0	242.0	240.0	121.811	CC, ES
Mutual 0780 4-8H - Wellbore #1 - Design #1	3,300.0	3,286.2	263.6	249.3	18.382	SF
Mutual 7-17H - Wellbore #1 - Wellbore #1	4,073.3	4,067.7	120.3	103.7	7.239	CC, ES
Mutual 7-17H - Wellbore #1 - Wellbore #1	4,130.4	4,122.6	121.3	104.4	7.173	SF

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					
0.0	0.0	0.0	0.0	0.0	0.0	90.91	-2.7	170.0	170.0								
100.0	100.0	100.0	100.0	0.1	0.1	90.91	-2.7	170.0	170.0	169.8	0.19	900.415					
200.0	200.0	200.0	200.0	0.3	0.3	90.91	-2.7	170.0	170.0	169.4	0.64	266.320					
300.0	300.0	300.0	300.0	0.5	0.5	90.91	-2.7	170.0	170.0	168.9	1.09	156.270					
400.0	400.0	400.0	400.0	0.8	0.8	90.91	-2.7	170.0	170.0	168.5	1.54	110.577					
500.0	500.0	500.0	500.0	1.0	1.0	90.91	-2.7	170.0	170.0	168.0	1.99	85.560					
600.0	600.0	603.6	603.5	1.2	1.2	91.43	-4.2	168.9	168.9	166.5	2.42	69.813					

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

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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	700.0	705.8	705.6	1.4	1.4	92.93	-8.5	165.7	166.0	163.1	2.84	58.355		
800.0	800.0	805.6	805.2	1.7	1.6	94.69	-13.3	162.0	162.7	159.4	3.27	49.710		
900.0	900.0	905.4	904.9	1.9	1.8	96.52	-18.1	158.4	159.5	155.8	3.71	43.016		
1,000.0	1,000.0	1,005.2	1,004.5	2.1	2.1	98.42	-22.9	154.8	156.6	152.4	4.15	37.728		
1,100.0	1,100.0	1,105.0	1,104.1	2.3	2.3	100.40	-27.7	151.2	153.8	149.2	4.59	33.475		
1,200.0	1,200.0	1,204.9	1,203.8	2.6	2.5	102.44	-32.6	147.6	151.2	146.1	5.04	30.001		
1,300.0	1,300.0	1,304.7	1,303.4	2.8	2.8	104.56	-37.4	144.0	148.8	143.3	5.49	27.124		
1,400.0	1,400.0	1,403.2	1,401.8	3.0	3.0	106.35	-41.4	141.0	146.9	141.0	5.92	24.829		
1,500.0	1,500.0	1,501.4	1,500.0	3.2	3.2	106.97	-42.7	140.0	146.4	140.0	6.34	23.080		
1,600.0	1,600.0	1,601.4	1,600.0	3.5	3.4	106.97	-42.7	140.0	146.4	139.6	6.77	21.618		
1,700.0	1,700.0	1,701.4	1,700.0	3.7	3.6	106.97	-42.7	140.0	146.4	139.2	7.20	20.331		
1,800.0	1,800.0	1,801.4	1,800.0	3.9	3.8	106.97	-42.7	140.0	146.4	138.7	7.63	19.182		
1,900.0	1,900.0	1,901.4	1,900.0	4.1	4.0	106.97	-42.7	140.0	146.4	138.3	8.06	18.152		
2,000.0	2,000.0	2,001.4	2,000.0	4.4	4.2	106.97	-42.7	140.0	146.4	137.9	8.50	17.224		
2,100.0	2,100.0	2,101.4	2,100.0	4.6	4.4	106.97	-42.7	140.0	146.4	137.4	8.93	16.383		
2,200.0	2,200.0	2,201.4	2,200.0	4.8	4.6	106.97	-42.7	140.0	146.4	137.0	9.37	15.618		
2,300.0	2,300.0	2,301.4	2,300.0	5.0	4.8	106.97	-42.7	140.0	146.4	136.5	9.81	14.920		
2,400.0	2,400.0	2,401.4	2,400.0	5.3	5.0	106.97	-42.7	140.0	146.4	136.1	10.25	14.280		
2,500.0	2,500.0	2,501.4	2,500.0	5.5	5.2	106.97	-42.7	140.0	146.4	135.7	10.69	13.691		
2,600.0	2,600.0	2,601.4	2,600.0	5.7	5.5	106.97	-42.7	140.0	146.4	135.2	11.13	13.149		
2,700.0	2,700.0	2,701.4	2,700.0	5.9	5.7	106.97	-42.7	140.0	146.4	134.8	11.57	12.647		
2,800.0	2,800.0	2,801.4	2,800.0	6.2	5.9	106.97	-42.7	140.0	146.4	134.3	12.01	12.181		
2,900.0	2,900.0	2,901.4	2,900.0	6.4	6.1	106.97	-42.7	140.0	146.4	133.9	12.46	11.748		
3,000.0	3,000.0	3,001.4	3,000.0	6.6	6.3	106.97	-42.7	140.0	146.4	133.4	12.90	11.344		
3,100.0	3,100.0	3,101.4	3,100.0	6.8	6.5	106.97	-42.7	140.0	146.4	133.0	13.34	10.967		
3,200.0	3,200.0	3,201.4	3,200.0	7.1	6.8	106.97	-42.7	140.0	146.4	132.6	13.79	10.614		
3,300.0	3,300.0	3,301.4	3,300.0	7.3	7.0	106.97	-42.7	140.0	146.4	132.1	14.23	10.282 CC, ES		
3,400.0	3,400.0	3,401.4	3,400.0	7.5	7.2	-173.72	-42.7	140.0	148.1	133.4	14.68	10.087		
3,500.0	3,499.8	3,501.2	3,499.8	7.7	7.4	-173.93	-42.7	140.0	153.3	138.2	15.09	10.161		
3,600.0	3,599.5	3,600.9	3,599.5	7.9	7.6	-174.23	-42.7	140.0	162.0	146.5	15.48	10.463		
3,700.0	3,698.7	3,700.1	3,698.7	8.1	7.9	-174.61	-42.7	140.0	174.1	158.2	15.86	10.975		
3,800.0	3,797.5	3,798.9	3,797.5	8.4	8.1	-175.03	-42.7	140.0	189.7	173.4	16.23	11.685		
3,900.0	3,895.6	3,897.0	3,895.6	8.6	8.3	-175.45	-42.7	140.0	208.7	192.1	16.59	12.579		
4,000.0	3,993.1	3,994.5	3,993.1	8.9	8.5	-175.86	-42.7	140.0	231.1	214.2	16.94	13.646		
4,100.0	4,089.6	4,091.0	4,089.6	9.2	8.7	-176.24	-42.7	140.0	256.9	239.7	17.27	14.877		
4,130.4	4,118.8	4,120.2	4,118.8	9.3	8.8	-176.35	-42.7	140.0	265.5	248.1	17.37	15.283		
4,200.0	4,185.5	4,186.9	4,185.5	9.6	8.9	-176.61	-42.7	140.0	285.3	267.7	17.67	16.150		
4,300.0	4,281.3	4,282.7	4,281.3	10.0	9.1	-176.92	-42.7	140.0	313.9	295.8	18.10	17.342		
4,400.0	4,377.2	4,378.6	4,377.2	10.4	9.3	-177.17	-42.7	140.0	342.4	323.9	18.53	18.475		
4,500.0	4,473.0	4,474.4	4,473.0	10.8	9.6	-177.39	-42.7	140.0	371.0	352.0	18.97	19.551		
4,600.0	4,568.8	4,570.2	4,568.8	11.2	9.8	-177.58	-42.7	140.0	399.5	380.1	19.42	20.574		
4,700.0	4,664.7	4,666.1	4,664.7	11.7	10.0	-177.74	-42.7	140.0	428.1	408.2	19.87	21.548		
4,800.0	4,760.5	4,761.9	4,760.5	12.2	10.2	-177.88	-42.7	140.0	456.6	436.3	20.32	22.475		
4,900.0	4,856.3	4,857.7	4,856.3	12.6	10.4	-178.01	-42.7	140.0	485.2	464.4	20.77	23.357		
5,000.0	4,952.1	4,953.5	4,952.1	13.1	10.6	-178.12	-42.7	140.0	513.8	492.5	21.23	24.199		
5,100.0	5,048.0	5,049.4	5,048.0	13.6	10.8	-178.22	-42.7	140.0	542.3	520.7	21.69	25.002		
5,200.0	5,143.8	5,145.2	5,143.8	14.1	11.0	-178.31	-42.7	140.0	570.9	548.8	22.16	25.768		
5,300.0	5,239.6	5,241.0	5,239.6	14.7	11.3	-178.39	-42.7	140.0	599.5	576.9	22.62	26.500		
5,400.0	5,335.5	5,336.9	5,335.5	15.2	11.5	-178.46	-42.7	140.0	628.1	605.0	23.09	27.199		
5,500.0	5,431.3	5,432.7	5,431.3	15.7	11.7	-178.53	-42.7	140.0	656.6	633.1	23.56	27.868		
5,600.0	5,527.1	5,536.2	5,534.8	16.3	11.9	-178.58	-42.8	139.8	685.1	661.0	24.05	28.487		
5,700.0	5,622.9	5,660.2	5,658.7	16.8	12.2	-178.51	-43.7	135.7	710.7	686.1	24.57	28.928		

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

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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	5,718.8	5,786.5	5,784.6	17.3	12.4	-178.25	-46.0	126.1	732.5	707.4	25.09	29.190		
5,900.0	5,814.6	5,914.7	5,911.9	17.9	12.7	-177.81	-49.6	110.9	750.3	724.7	25.63	29.271		
6,000.0	5,910.4	6,044.4	6,039.7	18.4	13.1	-177.21	-54.5	89.9	764.2	738.0	26.19	29.178		
6,100.0	6,006.3	6,174.9	6,167.3	19.0	13.4	-176.42	-60.8	63.1	774.2	747.4	26.77	28.918		
6,200.0	6,102.1	6,296.1	6,284.5	19.6	13.8	-175.55	-67.8	33.3	780.4	753.0	27.35	28.532		
6,300.0	6,197.9	6,395.4	6,380.3	20.1	14.1	-174.80	-73.8	7.8	785.7	757.8	27.89	28.168		
6,400.0	6,293.7	6,494.7	6,476.1	20.7	14.4	-174.06	-79.8	-17.7	791.2	762.8	28.45	27.810		
6,500.0	6,389.6	6,606.6	6,583.4	21.3	14.8	-173.00	-89.8	-47.8	796.5	767.4	29.07	27.396		
6,559.9	6,447.0	6,677.3	6,648.5	21.6	15.1	-171.64	-104.9	-70.5	798.6	769.1	29.53	27.040		
6,600.0	6,485.0	6,721.9	6,687.9	21.9	15.3	-164.63	-118.4	-86.3	800.9	771.2	29.71	26.956		
6,650.0	6,531.2	6,774.9	6,732.8	22.2	15.6	-158.04	-138.2	-106.5	806.6	776.7	29.98	26.906		
6,700.0	6,575.7	6,825.0	6,772.8	22.6	15.8	-152.76	-160.5	-126.7	815.7	785.3	30.35	26.879		
6,750.0	6,618.2	6,872.3	6,808.1	23.1	16.1	-148.17	-184.7	-146.8	827.9	797.1	30.86	26.833		
6,800.0	6,658.3	6,916.9	6,839.1	23.7	16.5	-143.93	-210.0	-166.4	843.4	811.9	31.56	26.726		
6,850.0	6,695.7	6,959.1	6,866.1	24.3	16.8	-139.84	-236.2	-185.4	862.0	829.5	32.50	26.524		
6,900.0	6,730.2	7,000.0	6,890.1	24.9	17.1	-135.74	-263.5	-204.3	883.4	849.7	33.72	26.197		
6,950.0	6,761.4	7,037.0	6,909.7	25.7	17.5	-131.63	-289.6	-221.6	907.5	872.3	35.20	25.779		
7,000.0	6,789.2	7,076.9	6,929.7	26.4	17.8	-127.37	-318.6	-240.4	933.8	896.8	37.00	25.234		
7,013.4	6,796.1	7,087.7	6,935.1	26.6	17.9	-126.23	-326.5	-245.5	941.2	903.7	37.52	25.082		
7,100.0	6,839.4	7,157.3	6,969.9	28.1	18.7	-125.00	-377.1	-278.2	989.5	949.8	39.65	24.956		
7,163.4	6,871.1	7,200.0	6,991.2	29.2	19.1	-124.29	-408.2	-298.2	1,025.1	984.0	41.14	24.916		
7,200.0	6,889.2	7,200.0	6,991.2	29.8	19.1	-120.60	-408.2	-298.2	1,045.6	1,003.5	42.15	24.810		
7,250.0	6,913.4	7,229.2	7,005.1	30.6	19.4	-115.57	-430.3	-311.3	1,071.8	1,028.2	43.61	24.576		
7,300.0	6,936.9	7,250.0	7,014.5	31.3	19.7	-111.14	-446.6	-320.2	1,096.1	1,051.4	44.68	24.531		
7,350.0	6,959.3	7,266.3	7,021.6	32.0	19.8	-107.19	-459.7	-326.8	1,118.3	1,072.9	45.42	24.621		
7,400.0	6,980.6	7,285.3	7,029.4	32.6	20.0	-103.66	-475.3	-334.2	1,138.4	1,092.4	45.92	24.792		
7,450.0	7,000.5	7,300.0	7,035.3	33.3	20.2	-100.55	-487.6	-339.7	1,156.2	1,110.1	46.10	25.078		
7,500.0	7,019.0	7,323.7	7,044.2	33.8	20.5	-97.83	-507.9	-348.1	1,171.6	1,125.4	46.14	25.390		
7,550.0	7,035.8	7,350.0	7,053.4	34.4	20.7	-95.51	-531.0	-356.8	1,184.6	1,138.6	45.99	25.760		
7,600.0	7,050.9	7,350.0	7,053.4	34.8	20.7	-93.53	-531.0	-356.8	1,195.3	1,150.0	45.32	26.377		
7,650.0	7,064.2	7,382.4	7,063.6	35.3	21.1	-91.97	-560.2	-366.4	1,203.2	1,158.4	44.85	26.827		
7,700.0	7,075.4	7,400.0	7,068.7	35.7	21.3	-90.72	-576.4	-371.2	1,208.7	1,164.7	44.06	27.434		
7,750.0	7,084.7	7,422.0	7,074.5	36.0	21.5	-89.84	-596.9	-376.6	1,211.7	1,168.5	43.22	28.039		
7,800.0	7,091.8	7,450.0	7,081.0	36.3	21.9	-89.32	-623.4	-382.8	1,212.2	1,169.9	42.37	28.607		
7,850.0	7,096.7	7,450.0	7,081.0	36.5	21.9	-89.00	-623.4	-382.8	1,210.2	1,169.0	41.18	29.391		
7,900.0	7,099.4	7,481.5	7,087.3	36.8	22.2	-89.20	-653.7	-388.6	1,205.4	1,165.0	40.39	29.841		
7,936.1	7,100.0	7,500.0	7,090.3	36.9	22.4	-89.53	-671.7	-391.5	1,200.5	1,160.7	39.82	30.148		
8,000.0	7,100.0	7,521.3	7,093.4	37.1	22.6	-89.68	-692.6	-394.4	1,191.6	1,151.0	40.61	29.341		
8,100.0	7,100.0	7,550.0	7,096.5	37.5	23.0	-89.83	-721.0	-397.4	1,181.9	1,140.1	41.85	28.242		
8,200.0	7,100.0	7,600.0	7,099.6	38.0	23.5	-89.98	-770.8	-400.3	1,176.9	1,133.4	43.49	27.062		
8,275.1	7,100.0	7,650.4	7,100.0	38.4	24.1	-90.00	-821.1	-400.6	1,176.3	1,131.4	44.97	26.156		
8,300.0	7,100.0	7,675.3	7,100.0	38.6	24.4	-90.00	-846.1	-400.6	1,176.3	1,130.8	45.57	25.811		
8,400.0	7,100.0	7,775.3	7,100.0	39.2	25.5	-90.00	-946.1	-400.6	1,176.3	1,128.2	48.12	24.444		
8,500.0	7,100.0	7,875.3	7,100.0	39.9	26.8	-90.00	-1,046.1	-400.6	1,176.3	1,125.5	50.83	23.142		
8,600.0	7,100.0	7,975.3	7,100.0	40.6	28.1	-90.00	-1,146.1	-400.6	1,176.3	1,122.6	53.68	21.914		
8,700.0	7,100.0	8,075.3	7,100.0	41.4	29.5	-90.00	-1,246.1	-400.6	1,176.3	1,119.7	56.65	20.766		
8,800.0	7,100.0	8,175.3	7,100.0	42.3	31.0	-90.00	-1,346.1	-400.6	1,176.3	1,116.6	59.72	19.698		
8,900.0	7,100.0	8,275.3	7,100.0	43.3	32.5	-90.00	-1,446.1	-400.7	1,176.3	1,113.4	62.88	18.708		
9,000.0	7,100.0	8,375.3	7,100.0	44.3	34.1	-90.00	-1,546.1	-400.7	1,176.3	1,110.2	66.11	17.793		
9,100.0	7,100.0	8,475.3	7,100.0	45.4	35.6	-90.00	-1,646.1	-400.7	1,176.3	1,106.9	69.41	16.948		
9,200.0	7,100.0	8,575.3	7,100.0	46.5	37.3	-90.00	-1,746.1	-400.7	1,176.3	1,103.5	72.76	16.167		
9,300.0	7,100.0	8,675.3	7,100.0	47.7	38.9	-90.00	-1,846.1	-400.7	1,176.3	1,100.1	76.16	15.445		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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		
9,400.0	7,100.0	8,775.3	7,100.0	49.0	40.6	-90.00	-1,946.1	-400.7	1,176.3	1,096.7	79.60	14.777		
9,500.0	7,100.0	8,875.3	7,100.0	50.3	42.3	-90.00	-2,046.1	-400.7	1,176.3	1,093.2	83.08	14.158		
9,600.0	7,100.0	8,975.3	7,100.0	51.7	44.0	-90.00	-2,146.1	-400.7	1,176.3	1,089.7	86.60	13.584		
9,700.0	7,100.0	9,075.3	7,100.0	53.1	45.7	-90.00	-2,246.1	-400.7	1,176.3	1,086.2	90.14	13.050		
9,800.0	7,100.0	9,175.3	7,100.0	54.5	47.5	-90.00	-2,346.1	-400.7	1,176.3	1,082.6	93.70	12.553		
9,900.0	7,100.0	9,275.3	7,100.0	56.0	49.3	-90.00	-2,446.1	-400.7	1,176.3	1,079.0	97.29	12.090		
10,000.0	7,100.0	9,375.3	7,100.0	57.5	51.0	-90.00	-2,546.1	-400.8	1,176.3	1,075.4	100.90	11.658		
10,100.0	7,100.0	9,475.3	7,100.0	59.0	52.8	-90.00	-2,646.1	-400.8	1,176.3	1,071.8	104.53	11.253		
10,200.0	7,100.0	9,575.3	7,100.0	60.6	54.6	-90.00	-2,746.1	-400.8	1,176.3	1,068.1	108.17	10.874		
10,300.0	7,100.0	9,675.3	7,100.0	62.1	56.4	-90.00	-2,846.1	-400.8	1,176.3	1,064.5	111.83	10.519		
10,400.0	7,100.0	9,775.3	7,100.0	63.8	58.2	-90.00	-2,946.1	-400.8	1,176.3	1,060.8	115.50	10.184		
10,500.0	7,100.0	9,875.3	7,100.0	65.4	60.1	-90.00	-3,046.1	-400.8	1,176.3	1,057.1	119.18	9.869		
10,600.0	7,100.0	9,975.3	7,100.0	67.0	61.9	-90.00	-3,146.1	-400.8	1,176.3	1,053.4	122.88	9.573		
10,700.0	7,100.0	10,075.3	7,100.0	68.7	63.7	-90.00	-3,246.1	-400.8	1,176.3	1,049.7	126.58	9.293		
10,800.0	7,100.0	10,175.3	7,100.0	70.4	65.6	-90.00	-3,346.1	-400.8	1,176.3	1,046.0	130.30	9.028		
10,900.0	7,100.0	10,275.3	7,100.0	72.1	67.4	-90.00	-3,446.1	-400.8	1,176.3	1,042.3	134.02	8.777		
11,000.0	7,100.0	10,375.3	7,100.0	73.8	69.3	-90.00	-3,546.1	-400.8	1,176.3	1,038.5	137.75	8.539		
11,100.0	7,100.0	10,475.3	7,100.0	75.5	71.1	-90.00	-3,646.1	-400.8	1,176.3	1,034.8	141.49	8.314		
11,200.0	7,100.0	10,575.3	7,100.0	77.2	73.0	-90.00	-3,746.1	-400.9	1,176.3	1,031.0	145.23	8.099		
11,300.0	7,100.0	10,675.3	7,100.0	79.0	74.8	-90.00	-3,846.1	-400.9	1,176.3	1,027.3	148.98	7.896		
11,400.0	7,100.0	10,775.3	7,100.0	80.7	76.7	-90.00	-3,946.1	-400.9	1,176.3	1,023.5	152.73	7.701		
11,500.0	7,100.0	10,875.3	7,100.0	82.5	78.6	-90.00	-4,046.1	-400.9	1,176.3	1,019.8	156.49	7.516		
11,600.0	7,100.0	10,975.3	7,100.0	84.3	80.5	-90.00	-4,146.1	-400.9	1,176.3	1,016.0	160.26	7.340		
11,700.0	7,100.0	11,075.3	7,100.0	86.0	82.3	-90.00	-4,246.1	-400.9	1,176.3	1,012.2	164.03	7.171		
11,800.0	7,100.0	11,175.3	7,100.0	87.8	84.2	-90.00	-4,346.1	-400.9	1,176.3	1,008.5	167.80	7.010		
11,900.0	7,100.0	11,275.3	7,100.0	89.6	86.1	-90.00	-4,446.1	-400.9	1,176.3	1,004.7	171.58	6.855		
12,000.0	7,100.0	11,375.3	7,100.0	91.4	88.0	-90.00	-4,546.1	-400.9	1,176.3	1,000.9	175.36	6.708		
12,100.0	7,100.0	11,475.3	7,100.0	93.2	89.9	-90.00	-4,646.1	-400.9	1,176.3	997.1	179.15	6.566		
12,200.0	7,100.0	11,575.3	7,100.0	95.0	91.7	-90.00	-4,746.1	-400.9	1,176.3	993.3	182.94	6.430		
12,281.1	7,100.0	11,656.4	7,100.0	96.5	93.3	-90.00	-4,827.1	-400.9	1,176.3	990.2	186.01	6.324		
12,281.8	7,100.0	11,657.1	7,100.0	96.7	93.3	-90.00	-4,827.9	-400.9	1,176.3	990.2	186.03	6.323 SF		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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		
0.0	0.0	0.0	0.0	0.0	0.0	90.91	-3.0	189.9	189.9					
100.0	100.0	100.0	100.0	0.1	0.1	90.91	-3.0	189.9	189.9	189.7	0.19	1,005.985		
200.0	200.0	200.0	200.0	0.3	0.3	90.91	-3.0	189.9	189.9	189.3	0.64	297.545		
300.0	300.0	300.0	300.0	0.5	0.5	90.91	-3.0	189.9	189.9	188.8	1.09	174.593		
400.0	400.0	400.0	400.0	0.8	0.8	90.91	-3.0	189.9	189.9	188.4	1.54	123.542		
500.0	500.0	500.0	500.0	1.0	1.0	90.91	-3.0	189.9	189.9	187.9	1.99	95.591 CC		
600.0	600.0	599.9	599.8	1.2	1.2	91.43	-4.7	189.9	190.0	187.6	2.41	78.818		
700.0	700.0	699.7	699.6	1.4	1.4	92.73	-9.1	189.9	190.1	187.3	2.82	67.390		
800.0	800.0	799.6	799.4	1.7	1.6	94.07	-13.5	189.9	190.4	187.2	3.24	58.774		
900.0	900.0	899.5	899.2	1.9	1.8	95.40	-18.0	189.9	190.8	187.1	3.67	52.043		
1,000.0	1,000.0	999.4	999.0	2.1	2.0	96.73	-22.4	189.9	191.2	187.1	4.10	46.678		
1,100.0	1,100.0	1,099.3	1,098.8	2.3	2.2	98.05	-26.9	189.9	191.8	187.3	4.53	42.321		
1,200.0	1,200.0	1,199.5	1,198.9	2.6	2.5	99.33	-31.2	189.9	192.5	187.5	4.97	38.728		
1,300.0	1,300.0	1,300.6	1,300.0	2.8	2.7	99.86	-33.0	189.9	192.8	187.4	5.41	35.662		
1,400.0	1,400.0	1,400.6	1,400.0	3.0	2.9	99.86	-33.0	189.9	192.8	186.9	5.84	33.016		
1,500.0	1,500.0	1,500.6	1,500.0	3.2	3.1	99.86	-33.0	189.9	192.8	186.5	6.27	30.743		
1,600.0	1,600.0	1,600.6	1,600.0	3.5	3.3	99.86	-33.0	189.9	192.8	186.1	6.70	28.753		
1,700.0	1,700.0	1,700.6	1,700.0	3.7	3.5	99.86	-33.0	189.9	192.8	185.6	7.14	26.997		
1,800.0	1,800.0	1,800.6	1,800.0	3.9	3.7	99.86	-33.0	189.9	192.8	185.2	7.58	25.438		
1,900.0	1,900.0	1,900.6	1,900.0	4.1	3.9	99.86	-33.0	189.9	192.8	184.7	8.02	24.046		
2,000.0	2,000.0	2,000.6	2,000.0	4.4	4.1	99.86	-33.0	189.9	192.8	184.3	8.46	22.794		
2,100.0	2,100.0	2,100.6	2,100.0	4.6	4.3	99.86	-33.0	189.9	192.8	183.9	8.90	21.664		
2,200.0	2,200.0	2,200.6	2,200.0	4.8	4.5	99.86	-33.0	189.9	192.8	183.4	9.34	20.639		
2,300.0	2,300.0	2,300.6	2,300.0	5.0	4.8	99.86	-33.0	189.9	192.8	183.0	9.78	19.706		
2,400.0	2,400.0	2,400.6	2,400.0	5.3	5.0	99.86	-33.0	189.9	192.8	182.5	10.22	18.852		
2,500.0	2,500.0	2,500.6	2,500.0	5.5	5.2	99.86	-33.0	189.9	192.8	182.1	10.67	18.067		
2,600.0	2,600.0	2,600.6	2,600.0	5.7	5.4	99.86	-33.0	189.9	192.8	181.6	11.11	17.345		
2,700.0	2,700.0	2,700.6	2,700.0	5.9	5.6	99.86	-33.0	189.9	192.8	181.2	11.56	16.678		
2,800.0	2,800.0	2,800.6	2,800.0	6.2	5.9	99.86	-33.0	189.9	192.8	180.8	12.00	16.060		
2,900.0	2,900.0	2,900.6	2,900.0	6.4	6.1	99.86	-33.0	189.9	192.8	180.3	12.45	15.485		
3,000.0	3,000.0	3,000.6	3,000.0	6.6	6.3	99.86	-33.0	189.9	192.8	179.9	12.89	14.950		
3,100.0	3,100.0	3,100.6	3,100.0	6.8	6.5	99.86	-33.0	189.9	192.8	179.4	13.34	14.450		
3,200.0	3,200.0	3,200.6	3,200.0	7.1	6.7	99.86	-33.0	189.9	192.8	179.0	13.79	13.983		
3,300.0	3,300.0	3,300.6	3,300.0	7.3	7.0	99.86	-33.0	189.9	192.8	178.5	14.23	13.544 ES		
3,400.0	3,400.0	3,400.6	3,400.0	7.5	7.2	179.24	-33.0	189.9	194.5	179.8	14.67	13.260		
3,500.0	3,499.8	3,500.5	3,499.8	7.7	7.4	179.26	-33.0	189.9	199.7	184.7	15.07	13.250		
3,600.0	3,599.5	3,600.1	3,599.5	7.9	7.6	179.29	-33.0	189.9	208.4	193.0	15.47	13.475		
3,700.0	3,698.7	3,699.3	3,698.7	8.1	7.8	179.33	-33.0	189.9	220.6	204.8	15.85	13.919		
3,800.0	3,797.5	3,798.1	3,797.5	8.4	8.1	179.37	-33.0	189.9	236.3	220.1	16.22	14.565		
3,900.0	3,895.6	3,896.2	3,895.6	8.6	8.3	179.41	-33.0	189.9	255.4	238.8	16.58	15.401		
4,000.0	3,993.1	3,993.7	3,993.1	8.9	8.5	179.46	-33.0	189.9	277.8	260.9	16.93	16.415		
4,100.0	4,089.6	4,090.3	4,089.6	9.2	8.7	179.50	-33.0	189.9	303.7	286.5	17.26	17.597		
4,130.4	4,118.8	4,119.5	4,118.8	9.3	8.8	179.51	-33.0	189.9	312.3	294.9	17.36	17.989		
4,200.0	4,185.5	4,186.1	4,185.5	9.6	8.9	179.54	-33.0	189.9	332.2	314.5	17.66	18.812		
4,300.0	4,281.3	4,282.0	4,281.3	10.0	9.1	179.58	-33.0	189.9	360.7	342.6	18.09	19.942		
4,400.0	4,377.2	4,377.8	4,377.2	10.4	9.3	179.61	-33.0	189.9	389.3	370.8	18.53	21.015		
4,500.0	4,473.0	4,473.6	4,473.0	10.8	9.6	179.63	-33.0	189.9	417.9	398.9	18.97	22.033		
4,600.0	4,568.8	4,569.5	4,568.8	11.2	9.8	179.66	-33.0	189.9	446.5	427.1	19.41	23.000		
4,700.0	4,664.7	4,665.3	4,664.7	11.7	10.0	179.68	-33.0	189.9	475.1	455.2	19.86	23.919		
4,800.0	4,760.5	4,761.1	4,760.5	12.2	10.2	179.70	-33.0	189.9	503.6	483.3	20.31	24.793		
4,900.0	4,856.3	4,856.9	4,856.3	12.6	10.4	179.71	-33.0	189.9	532.2	511.5	20.77	25.625		
5,000.0	4,952.1	4,952.8	4,952.1	13.1	10.6	179.73	-33.0	189.9	560.8	539.6	21.23	26.418		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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		
5,100.0	5,048.0	5,048.6	5,048.0	13.6	10.8	179.74	-33.0	189.9	589.4	567.7	21.69	27.173		
5,200.0	5,143.8	5,144.4	5,143.8	14.1	11.1	179.75	-33.0	189.9	618.0	595.8	22.15	27.893		
5,300.0	5,239.6	5,240.3	5,239.6	14.7	11.3	179.76	-33.0	189.9	646.6	623.9	22.62	28.581		
5,400.0	5,335.5	5,336.1	5,335.5	15.2	11.5	179.77	-33.0	189.9	675.1	652.1	23.09	29.238		
5,500.0	5,431.3	5,431.9	5,431.3	15.7	11.7	179.78	-33.0	189.9	703.7	680.2	23.56	29.866		
5,600.0	5,527.1	5,527.7	5,527.1	16.3	11.9	179.79	-33.0	189.9	732.3	708.3	24.04	30.466		
5,700.0	5,622.9	5,623.6	5,622.9	16.8	12.1	179.80	-33.0	189.9	760.9	736.4	24.51	31.041		
5,800.0	5,718.8	5,719.4	5,718.8	17.3	12.3	179.81	-33.0	189.9	789.5	764.5	24.99	31.591		
5,900.0	5,814.6	5,815.2	5,814.6	17.9	12.6	179.81	-33.0	189.9	818.1	792.6	25.47	32.119		
6,000.0	5,910.4	5,911.0	5,910.4	18.4	12.8	179.82	-33.0	189.9	846.6	820.7	25.95	32.625		
6,100.0	6,006.3	6,006.9	6,006.3	19.0	13.0	179.82	-33.0	189.9	875.2	848.8	26.43	33.111		
6,200.0	6,102.1	6,102.7	6,102.1	19.6	13.2	179.83	-33.0	189.9	903.8	876.9	26.92	33.577		
6,300.0	6,197.9	6,198.5	6,197.9	20.1	13.4	179.84	-33.0	189.9	932.4	905.0	27.40	34.025		
6,400.0	6,293.7	6,294.4	6,293.7	20.7	13.6	179.84	-33.0	189.9	961.0	933.1	27.89	34.456		
6,500.0	6,389.6	6,390.2	6,389.6	21.3	13.8	179.85	-33.0	189.9	989.6	961.2	28.38	34.870		
6,559.9	6,447.0	6,447.6	6,447.0	21.6	14.0	179.85	-33.0	189.9	1,006.7	978.0	28.67	35.111		
6,600.0	6,485.0	6,474.7	6,474.1	21.9	14.0	-173.68	-33.5	190.0	1,019.5	990.8	28.63	35.611		
6,650.0	6,531.2	6,500.0	6,499.3	22.2	14.1	-167.73	-35.0	190.1	1,039.1	1,010.6	28.51	36.442		
6,700.0	6,575.7	6,535.4	6,534.5	22.6	14.1	-163.02	-39.1	190.4	1,062.7	1,034.3	28.41	37.405		
6,750.0	6,618.2	6,563.3	6,562.0	23.1	14.2	-158.85	-43.8	190.9	1,090.0	1,061.6	28.34	38.456		
6,800.0	6,658.3	6,589.4	6,587.5	23.7	14.2	-154.84	-49.4	191.3	1,120.6	1,092.2	28.40	39.460		
6,850.0	6,695.7	6,613.6	6,610.8	24.3	14.3	-150.72	-55.6	191.9	1,154.2	1,125.6	28.68	40.246		
6,900.0	6,730.2	6,635.8	6,632.0	24.9	14.3	-146.24	-62.2	192.5	1,190.6	1,161.3	29.31	40.623		
6,950.0	6,761.4	6,650.0	6,645.4	25.7	14.4	-141.11	-66.8	192.9	1,229.4	1,198.9	30.42	40.409		
7,000.0	6,789.2	6,674.1	6,668.0	26.4	14.4	-135.38	-75.5	193.6	1,270.1	1,238.0	32.10	39.566		
7,013.4	6,796.1	6,678.7	6,672.1	26.6	14.4	-133.66	-77.2	193.8	1,281.3	1,248.6	32.66	39.236		
7,100.0	6,839.4	6,700.0	6,691.7	28.1	14.5	-134.13	-85.8	194.5	1,354.5	1,320.9	33.59	40.321		
7,163.4	6,871.1	6,727.8	6,716.6	29.2	14.5	-134.62	-98.0	195.6	1,408.4	1,374.1	34.28	41.088		
7,200.0	6,889.2	6,739.9	6,727.2	29.8	14.6	-128.35	-103.7	196.1	1,439.3	1,403.3	35.98	40.004		
7,250.0	6,913.4	6,750.0	6,736.1	30.6	14.6	-120.72	-108.6	196.5	1,480.3	1,442.5	37.84	39.119		
7,300.0	6,936.9	6,775.2	6,757.6	31.3	14.7	-114.50	-121.6	197.7	1,519.6	1,480.5	39.15	38.812		
7,350.0	6,959.3	6,800.0	6,778.3	32.0	14.7	-109.17	-135.3	198.9	1,557.1	1,517.1	40.04	38.886		
7,400.0	6,980.6	6,814.4	6,790.0	32.6	14.8	-104.38	-143.6	199.6	1,592.6	1,552.0	40.60	39.231		
7,450.0	7,000.5	6,835.7	6,806.9	33.3	14.9	-100.39	-156.4	200.7	1,625.9	1,585.0	40.82	39.830		
7,500.0	7,019.0	6,850.0	6,818.1	33.8	14.9	-96.83	-165.4	201.5	1,656.7	1,616.0	40.78	40.629		
7,550.0	7,035.8	6,882.0	6,842.1	34.4	15.0	-94.15	-186.5	203.3	1,685.0	1,644.5	40.53	41.577		
7,600.0	7,050.9	6,900.0	6,855.0	34.8	15.1	-91.64	-199.0	204.4	1,710.7	1,670.6	40.08	42.679		
7,650.0	7,064.2	6,934.0	6,878.4	35.3	15.3	-89.85	-223.5	206.6	1,733.5	1,693.9	39.55	43.831		
7,700.0	7,075.4	6,962.2	6,896.7	35.7	15.4	-88.33	-245.0	208.5	1,753.3	1,714.4	38.91	45.062		
7,750.0	7,084.7	6,992.2	6,914.9	36.0	15.6	-87.19	-268.7	210.5	1,770.1	1,731.9	38.23	46.302		
7,800.0	7,091.8	7,023.8	6,932.8	36.3	15.8	-86.42	-294.7	212.8	1,783.8	1,746.2	37.57	47.485		
7,850.0	7,096.7	7,058.8	6,950.8	36.5	16.0	-86.03	-324.5	215.4	1,794.2	1,757.2	36.97	48.536		
7,900.0	7,099.4	7,102.7	6,972.8	36.8	16.3	-86.13	-362.4	218.7	1,801.1	1,764.5	36.55	49.283		
7,936.1	7,100.0	7,134.0	6,988.4	36.9	16.6	-86.45	-389.4	221.1	1,803.8	1,767.5	36.35	49.623		
8,000.0	7,100.0	7,189.2	7,016.0	37.1	17.0	-87.33	-437.0	225.3	1,807.4	1,770.0	37.41	48.313		
8,100.0	7,100.0	7,336.7	7,075.6	37.5	18.5	-89.23	-571.2	234.3	1,812.9	1,773.0	39.91	45.428		
8,200.0	7,100.0	7,513.8	7,100.0	38.0	20.7	-90.00	-745.9	237.9	1,814.9	1,771.7	43.13	42.077		
8,300.0	7,100.0	7,613.8	7,100.0	38.6	22.0	-90.00	-845.9	238.0	1,814.9	1,769.3	45.62	39.786		
8,400.0	7,100.0	7,713.8	7,100.0	39.2	23.4	-90.00	-945.9	238.0	1,814.9	1,766.6	48.28	37.591		
8,500.0	7,100.0	7,813.8	7,100.0	39.9	24.9	-90.00	-1,045.9	238.0	1,814.9	1,763.8	51.10	35.520		
8,600.0	7,100.0	7,913.8	7,100.0	40.6	26.5	-90.00	-1,145.9	238.0	1,814.9	1,760.9	54.04	33.584		
8,700.0	7,100.0	8,013.8	7,100.0	41.4	28.1	-90.00	-1,245.9	238.0	1,814.9	1,757.8	57.09	31.788		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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		
8,800.0	7,100.0	8,113.8	7,100.0	42.3	29.7	-90.00	-1,345.9	238.0	1,814.9	1,754.7	60.24	30.128		
8,900.0	7,100.0	8,213.8	7,100.0	43.3	31.4	-90.00	-1,445.9	238.0	1,815.0	1,751.5	63.46	28.598		
9,000.0	7,100.0	8,313.8	7,100.0	44.3	33.1	-90.00	-1,545.9	238.0	1,815.0	1,748.2	66.76	27.188		
9,100.0	7,100.0	8,413.8	7,100.0	45.4	34.8	-90.00	-1,645.9	238.0	1,815.0	1,744.9	70.11	25.889		
9,200.0	7,100.0	8,513.8	7,100.0	46.5	36.6	-90.00	-1,745.9	238.0	1,815.0	1,741.5	73.51	24.691		
9,300.0	7,100.0	8,613.8	7,100.0	47.7	38.3	-90.00	-1,845.9	238.0	1,815.0	1,738.1	76.95	23.587		
9,400.0	7,100.0	8,713.8	7,100.0	49.0	40.1	-90.00	-1,945.9	238.0	1,815.0	1,734.6	80.43	22.566		
9,500.0	7,100.0	8,813.8	7,100.0	50.3	41.9	-90.00	-2,045.9	238.0	1,815.0	1,731.1	83.95	21.621		
9,600.0	7,100.0	8,913.8	7,100.0	51.7	43.7	-90.00	-2,145.9	238.0	1,815.0	1,727.5	87.49	20.745		
9,700.0	7,100.0	9,013.8	7,100.0	53.1	45.5	-90.00	-2,245.9	238.0	1,815.1	1,724.0	91.06	19.932		
9,800.0	7,100.0	9,113.8	7,100.0	54.5	47.4	-90.00	-2,345.9	238.0	1,815.1	1,720.4	94.65	19.176		
9,900.0	7,100.0	9,213.8	7,100.0	56.0	49.2	-90.00	-2,445.9	238.0	1,815.1	1,716.8	98.27	18.471		
10,000.0	7,100.0	9,313.8	7,100.0	57.5	51.0	-90.00	-2,545.9	238.0	1,815.1	1,713.2	101.90	17.813		
10,100.0	7,100.0	9,413.8	7,100.0	59.0	52.9	-90.00	-2,645.9	238.0	1,815.1	1,709.6	105.55	17.197		
10,200.0	7,100.0	9,513.8	7,100.0	60.6	54.7	-90.00	-2,745.9	238.1	1,815.1	1,705.9	109.21	16.620		
10,300.0	7,100.0	9,613.8	7,100.0	62.1	56.6	-90.00	-2,845.9	238.1	1,815.1	1,702.2	112.89	16.079		
10,400.0	7,100.0	9,713.8	7,100.0	63.8	58.5	-90.00	-2,945.9	238.1	1,815.1	1,698.6	116.57	15.571		
10,500.0	7,100.0	9,813.8	7,100.0	65.4	60.3	-90.00	-3,045.9	238.1	1,815.1	1,694.9	120.27	15.092		
10,600.0	7,100.0	9,913.8	7,100.0	67.0	62.2	-90.00	-3,145.9	238.1	1,815.2	1,691.2	123.98	14.641		
10,700.0	7,100.0	10,013.8	7,100.0	68.7	64.1	-90.00	-3,245.9	238.1	1,815.2	1,687.5	127.70	14.214		
10,800.0	7,100.0	10,113.8	7,100.0	70.4	65.9	-90.00	-3,345.9	238.1	1,815.2	1,683.8	131.43	13.811		
10,900.0	7,100.0	10,213.8	7,100.0	72.1	67.8	-90.00	-3,445.9	238.1	1,815.2	1,680.0	135.16	13.430		
11,000.0	7,100.0	10,313.8	7,100.0	73.8	69.7	-90.00	-3,545.9	238.1	1,815.2	1,676.3	138.90	13.068		
11,100.0	7,100.0	10,413.8	7,100.0	75.5	71.6	-90.00	-3,645.9	238.1	1,815.2	1,672.6	142.65	12.725		
11,200.0	7,100.0	10,513.8	7,100.0	77.2	73.5	-90.00	-3,745.9	238.1	1,815.2	1,668.8	146.40	12.399		
11,300.0	7,100.0	10,613.8	7,100.0	79.0	75.4	-90.00	-3,845.9	238.1	1,815.2	1,665.1	150.16	12.089		
11,400.0	7,100.0	10,713.8	7,100.0	80.7	77.3	-90.00	-3,945.9	238.1	1,815.3	1,661.3	153.92	11.793		
11,500.0	7,100.0	10,813.8	7,100.0	82.5	79.2	-90.00	-4,045.9	238.1	1,815.3	1,657.6	157.69	11.511		
11,600.0	7,100.0	10,913.8	7,100.0	84.3	81.1	-90.00	-4,145.9	238.1	1,815.3	1,653.8	161.47	11.242		
11,700.0	7,100.0	11,013.8	7,100.0	86.0	83.0	-90.00	-4,245.9	238.1	1,815.3	1,650.0	165.24	10.986		
11,800.0	7,100.0	11,113.8	7,100.0	87.8	84.8	-90.00	-4,345.9	238.1	1,815.3	1,646.3	169.03	10.740		
11,900.0	7,100.0	11,213.8	7,100.0	89.6	86.8	-90.00	-4,445.9	238.1	1,815.3	1,642.5	172.81	10.505		
12,000.0	7,100.0	11,313.8	7,100.0	91.4	88.7	-90.00	-4,545.9	238.1	1,815.3	1,638.7	176.60	10.279		
12,100.0	7,100.0	11,413.8	7,100.0	93.2	90.6	-90.00	-4,645.9	238.2	1,815.3	1,635.0	180.39	10.063		
12,200.0	7,100.0	11,513.8	7,100.0	95.0	92.5	-90.00	-4,745.9	238.2	1,815.4	1,631.2	184.18	9.856		
12,281.1	7,100.0	11,594.8	7,100.0	96.5	94.0	-90.00	-4,826.9	238.2	1,815.4	1,628.1	187.26	9.694		
12,281.8	7,100.0	11,595.6	7,100.0	96.7	94.0	-90.00	-4,827.7	238.2	1,815.4	1,628.1	187.29	9.693 SF		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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	90.89	-3.3	209.9	209.9					
100.0	100.0	100.0	100.0	0.1	0.1	90.89	-3.3	209.9	209.9	209.7	0.19	1,111.871		
200.0	200.0	200.0	200.0	0.3	0.3	90.89	-3.3	209.9	209.9	209.3	0.64	328.863		
300.0	300.0	300.0	300.0	0.5	0.5	90.89	-3.3	209.9	209.9	208.8	1.09	192.970		
400.0	400.0	400.0	400.0	0.8	0.8	90.89	-3.3	209.9	209.9	208.4	1.54	136.546		
500.0	500.0	500.0	500.0	1.0	1.0	90.89	-3.3	209.9	209.9	207.9	1.99	105.653 CC, ES		
600.0	600.0	593.8	593.8	1.2	1.2	91.07	-3.9	211.3	211.4	209.0	2.41	87.871		
700.0	700.0	692.7	692.7	1.4	1.4	91.50	-5.6	214.6	214.8	212.0	2.83	75.933		
800.0	800.0	792.7	792.5	1.7	1.6	91.92	-7.3	218.0	218.2	214.9	3.26	66.952		
900.0	900.0	892.6	892.4	1.9	1.8	92.32	-9.0	221.3	221.6	217.9	3.70	59.968		
1,000.0	1,000.0	992.5	992.2	2.1	2.0	92.72	-10.7	224.7	225.1	221.0	4.14	54.404		
1,100.0	1,100.0	1,092.5	1,092.1	2.3	2.3	93.10	-12.4	228.1	228.6	224.0	4.58	49.881		
1,200.0	1,200.0	1,200.4	1,200.0	2.6	2.5	93.30	-13.3	229.9	230.3	225.3	5.02	45.861		
1,300.0	1,300.0	1,300.4	1,300.0	2.8	2.7	93.30	-13.3	229.9	230.3	224.8	5.45	42.249		
1,400.0	1,400.0	1,400.4	1,400.0	3.0	2.9	93.30	-13.3	229.9	230.3	224.4	5.89	39.112		
1,500.0	1,500.0	1,500.4	1,500.0	3.2	3.1	93.30	-13.3	229.9	230.3	224.0	6.33	36.398		
1,600.0	1,600.0	1,600.4	1,600.0	3.5	3.3	93.30	-13.3	229.9	230.3	223.5	6.77	34.029		
1,700.0	1,700.0	1,700.4	1,700.0	3.7	3.5	93.30	-13.3	229.9	230.3	223.1	7.21	31.945		
1,800.0	1,800.0	1,800.4	1,800.0	3.9	3.7	93.30	-13.3	229.9	230.3	222.6	7.65	30.097		
1,900.0	1,900.0	1,900.4	1,900.0	4.1	4.0	93.30	-13.3	229.9	230.3	222.2	8.09	28.449		
2,000.0	2,000.0	2,000.4	2,000.0	4.4	4.2	93.30	-13.3	229.9	230.3	221.7	8.54	26.970		
2,100.0	2,100.0	2,100.4	2,100.0	4.6	4.4	93.30	-13.3	229.9	230.3	221.3	8.98	25.635		
2,200.0	2,200.0	2,200.4	2,200.0	4.8	4.6	93.30	-13.3	229.9	230.3	220.9	9.43	24.425		
2,300.0	2,300.0	2,300.4	2,300.0	5.0	4.8	93.30	-13.3	229.9	230.3	220.4	9.87	23.324		
2,400.0	2,400.0	2,400.4	2,400.0	5.3	5.1	93.30	-13.3	229.9	230.3	220.0	10.32	22.316		
2,500.0	2,500.0	2,500.4	2,500.0	5.5	5.3	93.30	-13.3	229.9	230.3	219.5	10.77	21.391		
2,600.0	2,600.0	2,600.4	2,600.0	5.7	5.5	93.30	-13.3	229.9	230.3	219.1	11.21	20.540		
2,700.0	2,700.0	2,700.4	2,700.0	5.9	5.7	93.30	-13.3	229.9	230.3	218.6	11.66	19.753		
2,800.0	2,800.0	2,800.4	2,800.0	6.2	5.9	93.30	-13.3	229.9	230.3	218.2	12.11	19.024		
2,900.0	2,900.0	2,900.4	2,900.0	6.4	6.2	93.30	-13.3	229.9	230.3	217.7	12.55	18.346		
3,000.0	3,000.0	3,000.4	3,000.0	6.6	6.4	93.30	-13.3	229.9	230.3	217.3	13.00	17.715		
3,100.0	3,100.0	3,100.4	3,100.0	6.8	6.6	93.30	-13.3	229.9	230.3	216.8	13.45	17.126		
3,200.0	3,200.0	3,200.4	3,200.0	7.1	6.8	93.30	-13.3	229.9	230.3	216.4	13.89	16.574		
3,300.0	3,300.0	3,300.4	3,300.0	7.3	7.1	93.30	-13.3	229.9	230.3	215.9	14.34	16.057		
3,400.0	3,400.0	3,400.4	3,400.0	7.5	7.3	172.73	-13.3	229.9	232.0	217.3	14.76	15.722		
3,500.0	3,499.8	3,500.2	3,499.8	7.7	7.5	172.88	-13.3	229.9	237.2	222.0	15.16	15.643		
3,600.0	3,599.5	3,599.8	3,599.5	7.9	7.7	173.11	-13.3	229.9	245.9	230.3	15.56	15.801		
3,700.0	3,698.7	3,699.1	3,698.7	8.1	7.9	173.41	-13.3	229.9	258.0	242.0	15.94	16.180		
3,800.0	3,797.5	3,797.9	3,797.5	8.4	8.2	173.75	-13.3	229.9	273.5	257.2	16.31	16.765		
3,900.0	3,895.6	3,896.0	3,895.6	8.6	8.4	174.12	-13.3	229.9	292.5	275.8	16.67	17.543		
4,000.0	3,993.1	3,993.5	3,993.1	8.9	8.6	174.49	-13.3	229.9	314.9	297.9	17.02	18.502		
4,100.0	4,089.6	4,090.0	4,089.6	9.2	8.8	174.86	-13.3	229.9	340.6	323.3	17.35	19.632		
4,130.4	4,118.8	4,119.2	4,118.8	9.3	8.9	174.97	-13.3	229.9	349.2	331.7	17.45	20.009		
4,200.0	4,185.5	4,185.9	4,185.5	9.6	9.0	175.24	-13.3	229.9	369.0	351.2	17.75	20.789		
4,300.0	4,281.3	4,281.7	4,281.3	10.0	9.2	175.58	-13.3	229.9	397.5	379.3	18.18	21.862		
4,400.0	4,377.2	4,367.5	4,367.1	10.4	9.4	175.86	-13.4	230.7	426.9	408.3	18.59	22.962		
4,500.0	4,473.0	4,449.5	4,449.1	10.8	9.6	176.10	-13.9	233.8	459.0	440.0	18.99	24.169		
4,600.0	4,568.8	4,529.9	4,529.3	11.2	9.8	176.32	-14.7	239.0	493.8	474.4	19.39	25.466		
4,700.0	4,664.7	4,608.6	4,607.6	11.7	9.9	176.51	-15.9	246.3	531.2	511.4	19.79	26.844		
4,800.0	4,760.5	4,685.5	4,683.9	12.2	10.1	176.69	-17.3	255.5	571.1	551.0	20.19	28.290		
4,900.0	4,856.3	4,760.5	4,758.1	12.6	10.3	176.85	-19.1	266.4	613.5	592.9	20.59	29.799		
5,000.0	4,952.1	4,833.7	4,830.3	13.1	10.5	176.99	-21.0	278.9	658.1	637.2	20.98	31.364		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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		
5,100.0	5,048.0	4,900.0	4,895.2	13.6	10.7	177.11	-23.1	291.7	705.1	683.7	21.37	32.993		
5,200.0	5,143.8	4,974.5	4,967.9	14.1	10.9	177.23	-25.7	308.0	754.1	732.4	21.78	34.630		
5,300.0	5,239.6	5,042.0	5,033.4	14.7	11.1	177.33	-28.2	324.3	805.3	783.1	22.17	36.322		
5,400.0	5,335.5	5,100.0	5,089.2	15.2	11.2	177.41	-30.7	339.5	858.4	835.9	22.55	38.074		
5,500.0	5,431.3	5,171.5	5,157.7	15.7	11.5	177.50	-33.9	359.8	913.4	890.5	22.95	39.794		
5,600.0	5,527.1	5,235.8	5,218.9	16.3	11.7	177.58	-37.0	379.5	970.3	946.9	23.35	41.553		
5,700.0	5,622.9	5,317.6	5,296.4	16.8	12.0	177.66	-41.1	405.2	1,027.8	1,004.0	23.78	43.224		
5,800.0	5,718.8	5,399.4	5,374.0	17.3	12.4	177.74	-45.2	430.8	1,085.3	1,061.1	24.21	44.831		
5,900.0	5,814.6	5,481.2	5,451.5	17.9	12.7	177.81	-49.2	456.5	1,142.9	1,118.2	24.65	46.372		
6,000.0	5,910.4	5,563.0	5,529.1	18.4	13.1	177.87	-53.3	482.2	1,200.4	1,175.3	25.08	47.854		
6,100.0	6,006.3	5,644.7	5,606.6	19.0	13.5	177.93	-57.4	507.8	1,257.9	1,232.4	25.53	49.277		
6,200.0	6,102.1	5,726.5	5,684.2	19.6	13.9	177.98	-61.4	533.5	1,315.5	1,289.5	25.97	50.645		
6,300.0	6,197.9	5,808.3	5,761.7	20.1	14.3	178.03	-65.5	559.1	1,373.0	1,346.6	26.42	51.961		
6,400.0	6,293.7	5,890.1	5,839.3	20.7	14.7	178.07	-69.6	584.8	1,430.5	1,403.6	26.88	53.226		
6,500.0	6,389.6	5,971.9	5,916.8	21.3	15.1	178.11	-73.7	610.5	1,488.1	1,460.7	27.33	54.442		
6,559.9	6,447.0	6,020.9	5,963.3	21.6	15.4	178.13	-76.1	625.8	1,522.5	1,494.9	27.61	55.149		
6,600.0	6,485.0	6,053.0	5,993.7	21.9	15.5	-174.60	-77.7	635.9	1,546.6	1,519.0	27.55	56.135		
6,650.0	6,531.2	6,090.8	6,029.5	22.2	15.8	-167.63	-79.6	647.8	1,579.2	1,551.7	27.46	57.499		
6,700.0	6,575.7	6,125.9	6,062.8	22.6	15.9	-161.81	-81.3	658.8	1,614.5	1,587.0	27.43	58.851		
6,750.0	6,618.2	6,158.0	6,093.3	23.1	16.1	-156.36	-82.9	668.9	1,652.2	1,624.6	27.57	59.936		
6,800.0	6,658.3	6,187.0	6,120.8	23.7	16.3	-150.79	-84.4	678.0	1,692.1	1,664.1	28.02	60.387		
6,850.0	6,695.7	6,212.5	6,145.0	24.3	16.4	-144.68	-85.7	686.0	1,733.8	1,704.8	29.00	59.781		
6,900.0	6,730.2	6,234.4	6,165.7	24.9	16.5	-137.62	-86.7	692.8	1,777.2	1,746.5	30.73	57.826		
6,950.0	6,761.4	6,252.6	6,182.9	25.7	16.6	-129.19	-87.6	698.5	1,821.9	1,788.6	33.35	54.628		
7,000.0	6,789.2	6,266.7	6,196.4	26.4	16.7	-119.10	-88.4	703.0	1,867.6	1,830.9	36.73	50.845		
7,013.4	6,796.1	6,269.9	6,199.4	26.6	16.7	-116.09	-88.5	704.0	1,880.0	1,842.3	37.70	49.861		
7,100.0	6,839.4	6,289.1	6,217.6	28.1	16.8	-117.32	-89.5	710.0	1,960.2	1,921.5	38.77	50.562		
7,163.4	6,871.1	6,303.2	6,231.0	29.2	16.9	-118.20	-90.2	714.4	2,019.2	1,979.6	39.56	51.039		
7,200.0	6,889.2	6,311.3	6,238.7	29.8	17.0	-111.79	-90.6	717.0	2,053.0	2,011.9	41.08	49.973		
7,250.0	6,913.4	6,322.4	6,249.2	30.6	17.0	-104.69	-91.1	720.4	2,097.9	2,055.5	42.34	49.544		
7,300.0	6,936.9	6,333.3	6,259.5	31.3	17.1	-98.93	-91.7	723.9	2,141.2	2,098.2	42.97	49.824		
7,350.0	6,959.3	6,344.0	6,269.6	32.0	17.1	-94.13	-92.2	727.2	2,182.6	2,139.5	43.15	50.586		
7,400.0	6,980.6	6,354.4	6,279.5	32.6	17.2	-90.07	-92.7	730.5	2,222.0	2,179.1	42.96	51.721		
7,450.0	7,000.5	6,364.4	6,288.9	33.3	17.3	-86.60	-93.2	733.6	2,259.2	2,216.7	42.49	53.173		
7,500.0	7,019.0	6,373.9	6,298.0	33.8	17.3	-83.62	-93.7	736.6	2,294.0	2,252.2	41.78	54.911		
7,550.0	7,035.8	6,382.9	6,306.5	34.4	17.4	-81.07	-94.1	739.4	2,326.3	2,285.4	40.87	56.914		
7,600.0	7,050.9	6,391.3	6,314.5	34.8	17.4	-78.90	-94.6	742.1	2,355.9	2,316.1	39.82	59.166		
7,650.0	7,064.2	6,399.0	6,321.8	35.3	17.5	-77.07	-94.9	744.5	2,382.7	2,344.1	38.65	61.642		
7,700.0	7,075.4	6,406.0	6,328.4	35.7	17.5	-75.55	-95.3	746.7	2,406.7	2,369.3	37.43	64.305		
7,750.0	7,084.7	6,412.2	6,334.3	36.0	17.5	-74.33	-95.6	748.6	2,427.7	2,391.5	36.18	67.098		
7,800.0	7,091.8	6,417.6	6,339.4	36.3	17.6	-73.39	-95.9	750.3	2,445.6	2,410.6	34.97	69.932		
7,850.0	7,096.7	6,422.1	6,343.7	36.5	17.6	-72.71	-96.1	751.7	2,460.5	2,426.6	33.85	72.679		
7,900.0	7,099.4	6,425.8	6,347.2	36.8	17.6	-72.29	-96.3	752.9	2,472.2	2,439.3	32.89	75.165		
7,936.1	7,100.0	7,302.2	7,022.0	36.9	22.4	-88.20	-527.1	898.3	2,476.9	2,438.5	38.36	64.565		
8,000.0	7,100.0	7,352.6	7,045.5	37.1	22.7	-88.74	-571.6	898.3	2,476.0	2,436.5	39.43	62.801		
8,100.0	7,100.0	7,439.6	7,076.4	37.5	23.5	-89.45	-652.9	898.3	2,475.3	2,434.0	41.32	59.909		
8,200.0	7,100.0	7,535.3	7,095.8	38.0	24.5	-89.90	-746.5	898.3	2,475.2	2,431.7	43.54	56.852		
8,223.4	7,100.0	7,558.4	7,098.2	38.1	24.7	-89.96	-769.5	898.3	2,475.2	2,431.1	44.10	56.123		
8,300.0	7,100.0	7,634.9	7,100.0	38.6	25.6	-90.00	-846.0	898.3	2,475.2	2,429.2	46.00	53.805		
8,400.0	7,100.0	7,734.9	7,100.0	39.2	26.8	-90.00	-946.0	898.3	2,475.2	2,426.6	48.64	50.886		
8,500.0	7,100.0	7,834.9	7,100.0	39.9	28.1	-90.00	-1,046.0	898.3	2,475.2	2,423.8	51.43	48.125		
8,600.0	7,100.0	7,934.9	7,100.0	40.6	29.5	-90.00	-1,146.0	898.3	2,475.3	2,420.9	54.36	45.538		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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		
8,700.0	7,100.0	8,034.9	7,100.0	41.4	30.9	-90.00	-1,246.0	898.3	2,475.3	2,417.9	57.39	43.131		
8,800.0	7,100.0	8,134.9	7,100.0	42.3	32.4	-90.00	-1,346.0	898.3	2,475.3	2,414.8	60.52	40.902		
8,900.0	7,100.0	8,234.9	7,100.0	43.3	33.9	-90.00	-1,446.0	898.3	2,475.3	2,411.6	63.72	38.844		
9,000.0	7,100.0	8,334.9	7,100.0	44.3	35.5	-90.00	-1,546.0	898.3	2,475.3	2,408.3	67.00	36.944		
9,100.0	7,100.0	8,434.9	7,100.0	45.4	37.1	-90.00	-1,646.0	898.3	2,475.3	2,405.0	70.34	35.192		
9,200.0	7,100.0	8,534.9	7,100.0	46.5	38.8	-90.00	-1,746.0	898.3	2,475.3	2,401.6	73.72	33.575		
9,300.0	7,100.0	8,634.9	7,100.0	47.7	40.4	-90.00	-1,846.0	898.3	2,475.3	2,398.1	77.16	32.082		
9,400.0	7,100.0	8,734.9	7,100.0	49.0	42.1	-90.00	-1,946.0	898.3	2,475.3	2,394.7	80.63	30.701		
9,500.0	7,100.0	8,834.9	7,100.0	50.3	43.8	-90.00	-2,046.0	898.3	2,475.3	2,391.2	84.13	29.422		
9,600.0	7,100.0	8,934.9	7,100.0	51.7	45.5	-90.00	-2,146.0	898.3	2,475.3	2,387.7	87.67	28.236		
9,700.0	7,100.0	9,034.9	7,100.0	53.1	47.3	-90.00	-2,246.0	898.3	2,475.3	2,384.1	91.23	27.134		
9,800.0	7,100.0	9,134.9	7,100.0	54.5	49.0	-90.00	-2,346.0	898.3	2,475.3	2,380.5	94.81	26.108		
9,900.0	7,100.0	9,234.9	7,100.0	56.0	50.8	-90.00	-2,446.0	898.3	2,475.3	2,376.9	98.42	25.151		
10,000.0	7,100.0	9,334.9	7,100.0	57.5	52.6	-90.00	-2,546.0	898.3	2,475.3	2,373.3	102.04	24.258		
10,100.0	7,100.0	9,434.9	7,100.0	59.0	54.4	-90.00	-2,646.0	898.3	2,475.4	2,369.7	105.68	23.422		
10,200.0	7,100.0	9,534.9	7,100.0	60.6	56.2	-90.00	-2,746.0	898.3	2,475.4	2,366.0	109.34	22.639		
10,300.0	7,100.0	9,634.9	7,100.0	62.1	58.0	-90.00	-2,846.0	898.3	2,475.4	2,362.4	113.01	21.904		
10,400.0	7,100.0	9,734.9	7,100.0	63.8	59.8	-90.00	-2,946.0	898.3	2,475.4	2,358.7	116.69	21.212		
10,500.0	7,100.0	9,834.9	7,100.0	65.4	61.6	-90.00	-3,046.0	898.3	2,475.4	2,355.0	120.39	20.562		
10,600.0	7,100.0	9,934.9	7,100.0	67.0	63.5	-90.00	-3,146.0	898.3	2,475.4	2,351.3	124.09	19.948		
10,700.0	7,100.0	10,034.9	7,100.0	68.7	65.3	-90.00	-3,246.0	898.3	2,475.4	2,347.6	127.81	19.368		
10,800.0	7,100.0	10,134.9	7,100.0	70.4	67.2	-90.00	-3,346.0	898.3	2,475.4	2,343.9	131.53	18.820		
10,900.0	7,100.0	10,234.9	7,100.0	72.1	69.0	-90.00	-3,446.0	898.3	2,475.4	2,340.1	135.26	18.301		
11,000.0	7,100.0	10,334.9	7,100.0	73.8	70.8	-90.00	-3,546.0	898.3	2,475.4	2,336.4	139.00	17.809		
11,100.0	7,100.0	10,434.9	7,100.0	75.5	72.7	-90.00	-3,646.0	898.3	2,475.4	2,332.7	142.74	17.342		
11,200.0	7,100.0	10,534.9	7,100.0	77.2	74.6	-90.00	-3,746.0	898.3	2,475.4	2,328.9	146.49	16.898		
11,300.0	7,100.0	10,634.9	7,100.0	79.0	76.4	-90.00	-3,846.0	898.3	2,475.4	2,325.2	150.25	16.476		
11,400.0	7,100.0	10,734.9	7,100.0	80.7	78.3	-90.00	-3,946.0	898.3	2,475.4	2,321.4	154.01	16.074		
11,500.0	7,100.0	10,834.9	7,100.0	82.5	80.2	-90.00	-4,046.0	898.3	2,475.4	2,317.7	157.77	15.690		
11,600.0	7,100.0	10,934.9	7,100.0	84.3	82.0	-90.00	-4,146.0	898.3	2,475.4	2,313.9	161.54	15.324		
11,700.0	7,100.0	11,034.9	7,100.0	86.0	83.9	-90.00	-4,246.0	898.3	2,475.5	2,310.1	165.32	14.974		
11,800.0	7,100.0	11,134.9	7,100.0	87.8	85.8	-90.00	-4,346.0	898.3	2,475.5	2,306.4	169.10	14.639		
11,900.0	7,100.0	11,234.9	7,100.0	89.6	87.7	-90.00	-4,446.0	898.3	2,475.5	2,302.6	172.88	14.319		
12,000.0	7,100.0	11,334.9	7,100.0	91.4	89.5	-90.00	-4,546.0	898.3	2,475.5	2,298.8	176.67	14.012		
12,100.0	7,100.0	11,434.9	7,100.0	93.2	91.4	-90.00	-4,646.0	898.3	2,475.5	2,295.0	180.45	13.718		
12,200.0	7,100.0	11,534.9	7,100.0	95.0	93.3	-90.00	-4,746.0	898.3	2,475.5	2,291.2	184.25	13.436		
12,281.1	7,100.0	11,616.0	7,100.0	96.5	94.8	-90.00	-4,827.0	898.3	2,475.5	2,288.2	187.32	13.215		
12,281.8	7,100.0	11,616.7	7,100.0	96.7	94.9	-90.00	-4,827.8	898.3	2,475.5	2,288.1	187.35	13.213 SF		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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	90.88	-3.5	229.9	230.0					
100.0	100.0	100.0	100.0	0.1	0.1	90.88	-3.5	229.9	230.0	229.8	0.19	1,217.970		
200.0	200.0	200.0	200.0	0.3	0.3	90.88	-3.5	229.9	230.0	229.3	0.64	360.245		
300.0	300.0	300.0	300.0	0.5	0.5	90.88	-3.5	229.9	230.0	228.9	1.09	211.383		
400.0	400.0	400.0	400.0	0.8	0.8	90.88	-3.5	229.9	230.0	228.4	1.54	149.575		
500.0	500.0	500.0	500.0	1.0	1.0	90.88	-3.5	229.9	230.0	228.0	1.99	115.735 CC, ES		
600.0	600.0	594.9	594.9	1.2	1.2	90.88	-3.5	231.5	231.6	229.2	2.41	95.957		
700.0	700.0	692.3	692.2	1.4	1.4	90.86	-3.5	234.7	234.9	232.0	2.84	82.693		
800.0	800.0	792.2	792.1	1.7	1.6	90.85	-3.5	238.0	238.2	234.9	3.28	72.641		
900.0	900.0	892.2	892.0	1.9	1.8	90.84	-3.5	241.4	241.5	237.8	3.72	64.883		
1,000.0	1,000.0	992.1	991.9	2.1	2.1	90.83	-3.5	244.7	244.8	240.7	4.17	58.733		
1,100.0	1,100.0	1,092.1	1,091.8	2.3	2.3	90.82	-3.5	248.0	248.1	243.5	4.62	53.747		
1,200.0	1,200.0	1,192.0	1,191.7	2.6	2.5	90.81	-3.5	251.3	251.4	246.4	5.07	49.629		
1,300.0	1,300.0	1,292.0	1,291.6	2.8	2.7	90.80	-3.5	254.6	254.8	249.2	5.52	46.172		
1,400.0	1,400.0	1,391.9	1,391.5	3.0	3.0	90.79	-3.5	257.9	258.1	252.1	5.97	43.231		
1,500.0	1,500.0	1,500.5	1,500.0	3.2	3.2	90.78	-3.5	259.9	260.0	253.5	6.42	40.476		
1,600.0	1,600.0	1,600.5	1,600.0	3.5	3.4	90.78	-3.5	259.9	260.0	253.1	6.85	37.968		
1,700.0	1,700.0	1,700.5	1,700.0	3.7	3.6	90.78	-3.5	259.9	260.0	252.7	7.28	35.696		
1,800.0	1,800.0	1,800.5	1,800.0	3.9	3.8	90.78	-3.5	259.9	260.0	252.2	7.72	33.674		
1,900.0	1,900.0	1,900.5	1,900.0	4.1	4.0	90.78	-3.5	259.9	260.0	251.8	8.16	31.864		
2,000.0	2,000.0	2,000.5	2,000.0	4.4	4.2	90.78	-3.5	259.9	260.0	251.4	8.60	30.234		
2,100.0	2,100.0	2,100.5	2,100.0	4.6	4.5	90.78	-3.5	259.9	260.0	250.9	9.04	28.760		
2,200.0	2,200.0	2,200.5	2,200.0	4.8	4.7	90.78	-3.5	259.9	260.0	250.5	9.48	27.420		
2,300.0	2,300.0	2,300.5	2,300.0	5.0	4.9	90.78	-3.5	259.9	260.0	250.0	9.92	26.198		
2,400.0	2,400.0	2,400.5	2,400.0	5.3	5.1	90.78	-3.5	259.9	260.0	249.6	10.37	25.079		
2,500.0	2,500.0	2,500.5	2,500.0	5.5	5.3	90.78	-3.5	259.9	260.0	249.1	10.81	24.050		
2,600.0	2,600.0	2,600.5	2,600.0	5.7	5.5	90.78	-3.5	259.9	260.0	248.7	11.25	23.101		
2,700.0	2,700.0	2,700.5	2,700.0	5.9	5.8	90.78	-3.5	259.9	260.0	248.3	11.70	22.223		
2,800.0	2,800.0	2,800.5	2,800.0	6.2	6.0	90.78	-3.5	259.9	260.0	247.8	12.14	21.409		
2,900.0	2,900.0	2,900.5	2,900.0	6.4	6.2	90.78	-3.5	259.9	260.0	247.4	12.59	20.652		
3,000.0	3,000.0	3,000.5	3,000.0	6.6	6.4	90.78	-3.5	259.9	260.0	246.9	13.03	19.946		
3,100.0	3,100.0	3,100.5	3,100.0	6.8	6.6	90.78	-3.5	259.9	260.0	246.5	13.48	19.287		
3,200.0	3,200.0	3,200.5	3,200.0	7.1	6.9	90.78	-3.5	259.9	260.0	246.0	13.92	18.669		
3,300.0	3,300.0	3,300.5	3,300.0	7.3	7.1	90.78	-3.5	259.9	260.0	245.6	14.37	18.090		
3,400.0	3,400.0	3,400.5	3,400.0	7.5	7.3	170.22	-3.5	259.9	261.7	246.9	14.77	17.719		
3,500.0	3,499.8	3,500.3	3,499.8	7.7	7.5	170.39	-3.5	259.9	266.8	251.7	15.17	17.586		
3,600.0	3,599.5	3,599.9	3,599.5	7.9	7.8	170.67	-3.5	259.9	275.4	259.9	15.57	17.692		
3,700.0	3,698.7	3,699.2	3,698.7	8.1	8.0	171.02	-3.5	259.9	287.5	271.5	15.95	18.023		
3,800.0	3,797.5	3,797.9	3,797.5	8.4	8.2	171.44	-3.5	259.9	302.9	286.6	16.32	18.561		
3,900.0	3,895.6	3,896.1	3,895.6	8.6	8.4	171.89	-3.5	259.9	321.8	305.1	16.68	19.296		
4,000.0	3,993.1	3,993.5	3,993.1	8.9	8.6	172.36	-3.5	259.9	344.1	327.1	17.02	20.214		
4,100.0	4,089.6	4,079.9	4,079.4	9.2	8.8	172.74	-3.4	261.0	371.0	353.7	17.33	21.407		
4,130.4	4,118.8	4,100.0	4,099.5	9.3	8.9	172.81	-3.4	261.7	380.5	363.1	17.41	21.853		
4,200.0	4,185.5	4,163.5	4,162.9	9.6	9.0	173.08	-3.0	264.6	403.2	385.5	17.70	22.785		
4,300.0	4,281.3	4,245.3	4,244.5	10.0	9.2	173.33	-2.4	270.4	438.3	420.2	18.09	24.223		
4,400.0	4,377.2	4,325.3	4,324.2	10.4	9.4	173.49	-1.6	278.3	476.0	457.5	18.49	25.738		
4,500.0	4,473.0	4,400.0	4,398.2	10.8	9.5	173.57	-0.6	287.7	516.1	497.2	18.88	27.333		
4,600.0	4,568.8	4,480.0	4,477.3	11.2	9.7	173.61	0.7	299.8	558.7	539.4	19.29	28.963		
4,700.0	4,664.7	4,554.5	4,550.6	11.7	9.9	173.59	2.1	313.1	603.6	583.9	19.69	30.657		
4,800.0	4,760.5	4,627.1	4,621.6	12.2	10.1	173.55	3.7	327.9	650.7	630.6	20.09	32.394		
4,900.0	4,856.3	4,711.0	4,703.4	12.6	10.4	173.48	5.7	346.4	699.4	678.9	20.51	34.095		
5,000.0	4,952.1	4,798.4	4,788.6	13.1	10.7	173.41	7.7	365.7	748.1	727.1	20.94	35.717		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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		
5,100.0	5,048.0	4,885.7	4,873.7	13.6	10.9	173.35	9.8	385.0	796.8	775.4	21.38	37.264		
5,200.0	5,143.8	4,973.0	4,958.9	14.1	11.2	173.30	11.8	404.4	845.5	823.6	21.82	38.741		
5,300.0	5,239.6	5,060.4	5,044.1	14.7	11.5	173.26	13.9	423.7	894.2	871.9	22.27	40.152		
5,400.0	5,335.5	5,147.7	5,129.2	15.2	11.8	173.21	15.9	443.0	942.9	920.1	22.72	41.499		
5,500.0	5,431.3	5,235.1	5,214.4	15.7	12.1	173.18	18.0	462.3	991.6	968.4	23.17	42.788		
5,600.0	5,527.1	5,322.4	5,299.5	16.3	12.5	173.14	20.0	481.6	1,040.2	1,016.6	23.63	44.020		
5,700.0	5,622.9	5,409.7	5,384.7	16.8	12.8	173.11	22.1	500.9	1,088.9	1,064.9	24.09	45.199		
5,800.0	5,718.8	5,497.1	5,469.8	17.3	13.1	173.09	24.2	520.2	1,137.6	1,113.1	24.56	46.327		
5,900.0	5,814.6	5,584.4	5,555.0	17.9	13.4	173.06	26.2	539.6	1,186.3	1,161.3	25.02	47.407		
6,000.0	5,910.4	5,671.8	5,640.1	18.4	13.8	173.04	28.3	558.9	1,235.0	1,209.5	25.50	48.442		
6,100.0	6,006.3	5,759.1	5,725.3	19.0	14.1	173.02	30.3	578.2	1,283.7	1,257.8	25.97	49.434		
6,200.0	6,102.1	5,846.4	5,810.4	19.6	14.5	173.00	32.4	597.5	1,332.4	1,306.0	26.44	50.385		
6,300.0	6,197.9	5,933.8	5,895.6	20.1	14.8	172.98	34.4	616.8	1,381.1	1,354.2	26.92	51.298		
6,400.0	6,293.7	6,021.1	5,980.8	20.7	15.2	172.96	36.5	636.1	1,429.8	1,402.4	27.40	52.175		
6,500.0	6,389.6	6,108.5	6,065.9	21.3	15.5	172.94	38.5	655.4	1,478.5	1,450.6	27.89	53.016		
6,559.9	6,447.0	6,160.8	6,116.9	21.6	15.8	172.93	39.8	667.0	1,507.7	1,479.5	28.18	53.504		
6,600.0	6,485.0	6,195.2	6,150.4	21.9	15.9	179.68	40.6	674.6	1,528.3	1,500.2	28.09	54.405		
6,650.0	6,531.2	6,236.0	6,190.3	22.2	16.1	-174.10	41.5	683.6	1,557.0	1,529.1	27.92	55.771		
6,700.0	6,575.7	6,274.3	6,227.6	22.6	16.2	-169.16	42.4	692.1	1,588.8	1,561.1	27.71	57.335		
6,750.0	6,618.2	6,309.9	6,262.3	23.1	16.4	-164.78	43.3	700.0	1,623.5	1,596.0	27.53	58.966		
6,800.0	6,658.3	6,342.3	6,293.9	23.7	16.5	-160.51	44.0	707.1	1,660.8	1,633.3	27.48	60.435		
6,850.0	6,695.7	6,371.5	6,322.3	24.3	16.6	-155.98	44.7	713.6	1,700.5	1,672.8	27.70	61.383		
6,900.0	6,730.2	6,397.1	6,347.3	24.9	16.8	-150.83	45.3	719.2	1,742.2	1,713.8	28.41	61.321		
6,950.0	6,761.4	6,418.9	6,368.6	25.7	16.8	-144.64	45.8	724.1	1,785.8	1,755.9	29.88	59.756		
7,000.0	6,789.2	6,436.9	6,386.1	26.4	16.9	-136.89	46.3	728.0	1,830.8	1,798.4	32.40	56.507		
7,013.4	6,796.1	6,441.0	6,390.1	26.6	16.9	-134.47	46.4	729.0	1,843.1	1,809.8	33.27	55.393		
7,100.0	6,839.4	6,450.0	6,398.9	28.1	17.0	-134.94	46.6	731.0	1,922.9	1,888.7	34.15	56.299		
7,163.4	6,871.1	6,450.0	6,398.9	29.2	17.0	-134.94	46.6	731.0	1,981.6	1,946.7	34.92	56.746		
7,200.0	6,889.2	6,450.0	6,398.9	29.8	17.0	-126.25	46.6	731.0	2,015.4	1,977.8	37.60	53.601		
7,250.0	6,913.4	6,450.0	6,398.9	30.6	17.0	-116.40	46.6	731.0	2,060.6	2,020.4	40.20	51.256		
7,300.0	6,936.9	6,450.0	6,398.9	31.3	17.0	-108.42	46.6	731.0	2,104.5	2,062.7	41.81	50.334		
7,350.0	6,959.3	6,450.0	6,398.9	32.0	17.0	-101.86	46.6	731.0	2,147.0	2,104.3	42.67	50.317		
7,400.0	6,980.6	6,450.0	6,398.9	32.6	17.0	-96.40	46.6	731.0	2,187.6	2,144.6	42.96	50.927		
7,450.0	7,000.5	6,450.0	6,398.9	33.3	17.0	-91.82	46.6	731.0	2,226.3	2,183.5	42.80	52.010		
7,500.0	7,019.0	6,471.3	6,419.5	33.8	17.1	-88.69	47.0	736.2	2,262.3	2,220.0	42.33	53.444		
7,550.0	7,035.8	6,473.0	6,421.2	34.4	17.1	-85.42	47.0	736.7	2,296.5	2,254.9	41.59	55.217		
7,600.0	7,050.9	6,474.4	6,422.6	34.8	17.1	-82.65	47.0	737.1	2,328.2	2,287.5	40.63	57.299		
7,650.0	7,064.2	6,475.7	6,423.7	35.3	17.1	-80.33	47.0	737.4	2,357.2	2,317.7	39.51	59.661		
7,700.0	7,075.4	6,476.7	6,424.7	35.7	17.1	-78.40	47.1	737.7	2,383.6	2,345.3	38.28	62.273		
7,750.0	7,084.7	6,477.5	6,425.5	36.0	17.1	-76.83	47.1	737.9	2,407.1	2,370.1	36.98	65.084		
7,800.0	7,091.8	6,478.1	6,426.0	36.3	17.1	-75.60	47.1	738.0	2,427.7	2,392.0	35.69	68.020		
7,850.0	7,096.7	6,478.4	6,426.4	36.5	17.1	-74.68	47.1	738.1	2,445.3	2,410.9	34.46	70.963		
7,900.0	7,099.4	6,478.5	6,426.5	36.8	17.1	-74.05	47.1	738.2	2,459.9	2,426.5	33.36	73.748		
7,936.1	7,100.0	6,478.5	6,426.5	36.9	17.1	-73.78	47.1	738.2	2,468.4	2,435.8	32.68	75.539		
8,000.0	7,100.0	6,478.3	6,426.3	37.1	17.1	-73.77	47.1	738.1	2,482.9	2,449.8	33.17	74.864		
8,100.0	7,100.0	6,478.0	6,426.0	37.5	17.1	-73.77	47.1	738.0	2,508.7	2,474.7	33.99	73.807		
8,200.0	7,100.0	6,477.7	6,425.7	38.0	17.1	-73.76	47.1	738.0	2,538.2	2,503.2	34.95	72.625		
8,300.0	7,100.0	6,477.4	6,425.4	38.6	17.1	-73.75	47.1	737.9	2,571.2	2,535.1	36.02	71.372		
8,400.0	7,100.0	6,477.2	6,425.2	39.2	17.1	-73.75	47.1	737.8	2,607.6	2,570.4	37.20	70.094		
8,500.0	7,100.0	6,476.9	6,424.9	39.9	17.1	-73.74	47.1	737.7	2,647.3	2,608.8	38.46	68.825		
8,600.0	7,100.0	6,476.5	6,424.6	40.6	17.1	-73.73	47.1	737.6	2,690.1	2,650.3	39.80	67.591		
8,700.0	7,100.0	6,476.2	6,424.3	41.4	17.1	-73.72	47.1	737.5	2,735.9	2,694.7	41.20	66.410		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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		
8,800.0	7,100.0	6,475.9	6,424.0	42.3	17.1	-73.72	47.0	737.5	2,784.6	2,742.0	42.65	65.291		
8,900.0	7,100.0	6,475.6	6,423.7	43.3	17.1	-73.71	47.0	737.4	2,836.0	2,791.8	44.15	64.240		
9,000.0	7,100.0	6,475.3	6,423.4	44.3	17.1	-73.70	47.0	737.3	2,889.9	2,844.2	45.68	63.260		
9,100.0	7,100.0	6,475.0	6,423.1	45.4	17.1	-73.69	47.0	737.2	2,946.2	2,898.9	47.25	62.351		
9,200.0	7,100.0	6,474.6	6,422.8	46.5	17.1	-73.69	47.0	737.1	3,004.8	2,955.9	48.85	61.510		
9,300.0	7,100.0	6,474.3	6,422.4	47.7	17.1	-73.68	47.0	737.0	3,065.5	3,015.0	50.47	60.735		
9,400.0	7,100.0	6,474.0	6,422.1	49.0	17.1	-73.67	47.0	736.9	3,128.2	3,076.1	52.12	60.022		
9,500.0	7,100.0	9,403.2	7,100.0	50.3	51.1	-90.00	-2,051.5	1,572.5	3,149.5	3,064.0	85.50	36.838		
9,600.0	7,100.0	9,503.2	7,100.0	51.7	52.6	-90.00	-2,151.5	1,572.3	3,149.3	3,060.3	89.00	35.385		
9,700.0	7,100.0	9,603.2	7,100.0	53.1	54.1	-90.00	-2,251.5	1,572.1	3,149.2	3,056.6	92.54	34.032		
9,800.0	7,100.0	9,703.2	7,100.0	54.5	55.6	-90.00	-2,351.5	1,572.0	3,149.0	3,052.9	96.10	32.769		
9,900.0	7,100.0	9,803.2	7,100.0	56.0	57.2	-90.00	-2,451.5	1,571.8	3,148.8	3,049.2	99.68	31.590		
10,000.0	7,100.0	9,903.2	7,100.0	57.5	58.8	-90.00	-2,551.5	1,571.6	3,148.7	3,045.4	103.28	30.486		
10,100.0	7,100.0	10,003.2	7,100.0	59.0	60.4	-90.00	-2,651.5	1,571.4	3,148.5	3,041.6	106.90	29.452		
10,200.0	7,100.0	10,103.2	7,100.0	60.6	62.0	-90.00	-2,751.5	1,571.3	3,148.3	3,037.8	110.54	28.482		
10,300.0	7,100.0	10,203.2	7,100.0	62.1	63.6	-90.00	-2,851.5	1,571.1	3,148.2	3,034.0	114.19	27.569		
10,400.0	7,100.0	10,303.2	7,100.0	63.8	65.3	-90.00	-2,951.5	1,570.9	3,148.0	3,030.1	117.86	26.711		
10,500.0	7,100.0	10,403.2	7,100.0	65.4	67.0	-90.00	-3,051.5	1,570.7	3,147.8	3,026.3	121.53	25.901		
10,600.0	7,100.0	10,503.2	7,100.0	67.0	68.6	-90.00	-3,151.5	1,570.5	3,147.6	3,022.4	125.22	25.137		
10,700.0	7,100.0	10,603.2	7,100.0	68.7	70.3	-90.00	-3,251.5	1,570.4	3,147.5	3,018.5	128.92	24.414		
10,800.0	7,100.0	10,703.2	7,100.0	70.4	72.1	-90.00	-3,351.5	1,570.2	3,147.3	3,014.7	132.63	23.730		
10,900.0	7,100.0	10,803.2	7,100.0	72.1	73.8	-90.00	-3,451.5	1,570.0	3,147.1	3,010.8	136.34	23.082		
11,000.0	7,100.0	10,903.2	7,100.0	73.8	75.5	-90.00	-3,551.5	1,569.8	3,147.0	3,006.9	140.07	22.467		
11,100.0	7,100.0	11,003.2	7,100.0	75.5	77.3	-90.00	-3,651.5	1,569.7	3,146.8	3,003.0	143.80	21.883		
11,200.0	7,100.0	11,103.2	7,100.0	77.2	79.0	-90.00	-3,751.5	1,569.5	3,146.6	2,999.1	147.54	21.328		
11,300.0	7,100.0	11,203.2	7,100.0	79.0	80.8	-90.00	-3,851.5	1,569.3	3,146.4	2,995.2	151.28	20.799		
11,400.0	7,100.0	11,303.2	7,100.0	80.7	82.5	-90.00	-3,951.5	1,569.1	3,146.3	2,991.2	155.03	20.294		
11,500.0	7,100.0	11,403.2	7,100.0	82.5	84.3	-90.00	-4,051.5	1,569.0	3,146.1	2,987.3	158.79	19.813		
11,600.0	7,100.0	11,503.2	7,100.0	84.3	86.1	-90.00	-4,151.5	1,568.8	3,145.9	2,983.4	162.55	19.354		
11,700.0	7,100.0	11,603.2	7,100.0	86.0	87.9	-90.00	-4,251.5	1,568.6	3,145.8	2,979.5	166.31	18.915		
11,800.0	7,100.0	11,703.2	7,100.0	87.8	89.7	-90.00	-4,351.5	1,568.4	3,145.6	2,975.5	170.08	18.495		
11,900.0	7,100.0	11,803.2	7,100.0	89.6	91.5	-90.00	-4,451.5	1,568.2	3,145.4	2,971.6	173.86	18.092		
12,000.0	7,100.0	11,903.2	7,100.0	91.4	93.3	-90.00	-4,551.5	1,568.1	3,145.3	2,967.6	177.63	17.706		
12,100.0	7,100.0	12,003.2	7,100.0	93.2	95.1	-90.00	-4,651.5	1,567.9	3,145.1	2,963.7	181.41	17.337		
12,200.0	7,100.0	12,103.2	7,100.0	95.0	96.9	-90.00	-4,751.5	1,567.7	3,144.9	2,959.7	185.20	16.981		
12,281.1	7,100.0	12,184.3	7,100.0	96.5	98.4	-90.00	-4,832.6	1,567.6	3,144.8	2,956.5	188.27	16.704		
12,281.8	7,100.0	12,185.1	7,100.0	96.7	98.4	-90.00	-4,833.3	1,567.6	3,144.8	2,956.5	188.29	16.701 SF		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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	90.91	-2.4	150.0	150.0					
100.0	100.0	100.0	100.0	0.1	0.1	90.91	-2.4	150.0	150.0	149.8	0.19	794.470		
200.0	200.0	200.0	200.0	0.3	0.3	90.91	-2.4	150.0	150.0	149.4	0.64	234.984		
300.0	300.0	300.0	300.0	0.5	0.5	90.91	-2.4	150.0	150.0	148.9	1.09	137.883		
400.0	400.0	400.0	400.0	0.8	0.8	90.91	-2.4	150.0	150.0	148.5	1.54	97.567		
500.0	500.0	500.0	500.0	1.0	1.0	90.91	-2.4	150.0	150.0	148.0	1.99	75.493		
600.0	600.0	604.9	604.9	1.2	1.2	90.92	-2.4	148.1	148.2	145.7	2.43	60.874		
700.0	700.0	704.9	704.8	1.4	1.4	90.94	-2.4	144.8	144.9	142.0	2.87	50.518		
800.0	800.0	804.8	804.7	1.7	1.6	90.96	-2.4	141.5	141.6	138.2	3.31	42.794		
900.0	900.0	904.8	904.6	1.9	1.9	90.99	-2.4	138.1	138.2	134.5	3.75	36.841		
1,000.0	1,000.0	1,004.7	1,004.5	2.1	2.1	91.01	-2.4	134.8	134.9	130.7	4.20	32.126		
1,100.0	1,100.0	1,104.7	1,104.4	2.3	2.3	91.04	-2.4	131.5	131.6	127.0	4.65	28.306		
1,200.0	1,200.0	1,204.6	1,204.2	2.6	2.5	91.06	-2.4	128.2	128.3	123.2	5.10	25.152		
1,300.0	1,300.0	1,304.5	1,304.1	2.8	2.8	91.09	-2.4	124.9	125.0	119.4	5.55	22.506		
1,400.0	1,400.0	1,404.5	1,404.0	3.0	3.0	91.12	-2.4	121.6	121.7	115.7	6.01	20.256		
1,500.0	1,500.0	1,500.5	1,500.0	3.2	3.2	91.14	-2.4	120.0	120.0	113.6	6.43	18.658		
1,600.0	1,600.0	1,600.5	1,600.0	3.5	3.4	91.14	-2.4	120.0	120.0	113.1	6.86	17.505		
1,700.0	1,700.0	1,700.5	1,700.0	3.7	3.6	91.14	-2.4	120.0	120.0	112.7	7.29	16.460		
1,800.0	1,800.0	1,800.5	1,800.0	3.9	3.8	91.14	-2.4	120.0	120.0	112.3	7.73	15.530		
1,900.0	1,900.0	1,900.5	1,900.0	4.1	4.0	91.14	-2.4	120.0	120.0	111.8	8.17	14.696		
2,000.0	2,000.0	2,000.5	2,000.0	4.4	4.2	91.14	-2.4	120.0	120.0	111.4	8.61	13.946		
2,100.0	2,100.0	2,100.5	2,100.0	4.6	4.5	91.14	-2.4	120.0	120.0	111.0	9.05	13.267		
2,200.0	2,200.0	2,200.5	2,200.0	4.8	4.7	91.14	-2.4	120.0	120.0	110.5	9.49	12.650		
2,300.0	2,300.0	2,300.5	2,300.0	5.0	4.9	91.14	-2.4	120.0	120.0	110.1	9.93	12.087		
2,400.0	2,400.0	2,400.5	2,400.0	5.3	5.1	91.14	-2.4	120.0	120.0	109.6	10.37	11.571		
2,500.0	2,500.0	2,500.5	2,500.0	5.5	5.3	91.14	-2.4	120.0	120.0	109.2	10.81	11.097		
2,600.0	2,600.0	2,600.5	2,600.0	5.7	5.5	91.14	-2.4	120.0	120.0	108.7	11.26	10.659		
2,700.0	2,700.0	2,700.5	2,700.0	5.9	5.8	91.14	-2.4	120.0	120.0	108.3	11.70	10.255		
2,800.0	2,800.0	2,800.5	2,800.0	6.2	6.0	91.14	-2.4	120.0	120.0	107.9	12.15	9.879		
2,900.0	2,900.0	2,900.5	2,900.0	6.4	6.2	91.14	-2.4	120.0	120.0	107.4	12.59	9.530		
3,000.0	3,000.0	3,000.5	3,000.0	6.6	6.4	91.14	-2.4	120.0	120.0	107.0	13.04	9.205		
3,100.0	3,100.0	3,100.5	3,100.0	6.8	6.6	91.14	-2.4	120.0	120.0	106.5	13.48	8.901		
3,200.0	3,200.0	3,200.5	3,200.0	7.1	6.9	91.14	-2.4	120.0	120.0	106.1	13.93	8.616		
3,300.0	3,300.0	3,300.5	3,300.0	7.3	7.1	91.14	-2.4	120.0	120.0	105.6	14.37	8.348 CC, ES		
3,400.0	3,400.0	3,400.5	3,400.0	7.5	7.3	170.65	-2.4	120.0	121.7	107.0	14.77	8.241		
3,500.0	3,499.8	3,500.3	3,499.8	7.7	7.5	171.01	-2.4	120.0	126.9	111.7	15.18	8.359		
3,600.0	3,599.5	3,599.9	3,599.5	7.9	7.8	171.56	-2.4	120.0	135.5	119.9	15.58	8.699		
3,700.0	3,698.7	3,699.2	3,698.7	8.1	8.0	172.23	-2.4	120.0	147.6	131.6	15.96	9.246		
3,800.0	3,797.5	3,797.9	3,797.5	8.4	8.2	172.93	-2.4	120.0	163.1	146.8	16.33	9.985		
3,900.0	3,895.6	3,896.1	3,895.6	8.6	8.4	173.63	-2.4	120.0	182.0	165.3	16.69	10.905		
4,000.0	3,993.1	3,993.5	3,993.1	8.9	8.6	174.28	-2.4	120.0	204.4	187.4	17.04	11.996		
4,100.0	4,089.6	4,090.1	4,089.6	9.2	8.8	174.88	-2.4	120.0	230.2	212.8	17.38	13.248		
4,130.4	4,118.8	4,119.3	4,118.8	9.3	8.9	175.04	-2.4	120.0	238.7	221.2	17.48	13.659		
4,200.0	4,185.5	4,186.0	4,185.5	9.6	9.1	175.42	-2.4	120.0	258.5	240.8	17.77	14.546		
4,300.0	4,281.3	4,281.8	4,281.3	10.0	9.3	175.88	-2.4	120.0	287.0	268.8	18.21	15.767		
4,400.0	4,377.2	4,377.7	4,377.2	10.4	9.5	176.25	-2.4	120.0	315.6	296.9	18.64	16.927		
4,500.0	4,473.0	4,480.0	4,479.5	10.8	9.7	176.59	-2.4	119.5	343.6	324.5	19.09	17.998		
4,600.0	4,568.8	4,590.5	4,589.9	11.2	9.9	176.98	-2.4	115.2	368.5	348.9	19.55	18.847		
4,700.0	4,664.7	4,702.9	4,702.0	11.7	10.2	177.41	-2.4	106.5	389.6	369.6	20.02	19.461		
4,800.0	4,760.5	4,817.1	4,815.4	12.2	10.5	177.89	-2.4	93.2	406.9	386.4	20.50	19.850		
4,900.0	4,856.3	4,932.7	4,929.5	12.6	10.7	178.42	-2.4	75.1	420.3	399.4	20.99	20.027		
5,000.0	4,952.1	5,049.2	5,043.8	13.1	11.1	179.03	-2.4	52.2	429.8	408.3	21.49	20.002		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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		
5,100.0	5,048.0	5,166.4	5,157.7	13.6	11.4	179.71	-2.4	24.6	435.3	413.3	22.00	19.788		
5,200.0	5,143.8	5,283.9	5,270.6	14.1	11.8	-179.50	-2.4	-7.8	436.8	414.3	22.52	19.397		
5,300.0	5,239.6	5,401.2	5,381.9	14.7	12.3	-178.60	-2.4	-44.7	434.4	411.3	23.06	18.840		
5,400.0	5,335.5	5,501.3	5,476.3	15.2	12.7	-177.76	-2.4	-78.3	429.9	406.4	23.57	18.242		
5,500.0	5,431.3	5,601.0	5,570.2	15.7	13.1	-176.91	-2.4	-111.7	425.6	401.5	24.09	17.665		
5,600.0	5,527.1	5,700.7	5,664.1	16.3	13.6	-176.04	-2.4	-145.1	421.3	396.7	24.63	17.105		
5,700.0	5,622.9	5,800.4	5,758.1	16.8	14.1	-175.15	-2.4	-178.5	417.2	392.0	25.19	16.562		
5,800.0	5,718.8	5,900.1	5,852.0	17.3	14.6	-174.24	-2.4	-211.9	413.1	387.4	25.76	16.035		
5,900.0	5,814.6	5,999.8	5,945.9	17.9	15.2	-173.32	-2.4	-245.4	409.2	382.8	26.36	15.524		
6,000.0	5,910.4	6,099.5	6,039.9	18.4	15.7	-172.38	-2.4	-278.8	405.3	378.4	26.97	15.027		
6,100.0	6,006.3	6,199.2	6,133.8	19.0	16.3	-171.42	-2.4	-312.2	401.6	374.0	27.61	14.546		
6,200.0	6,102.1	6,298.9	6,227.7	19.6	16.8	-170.44	-2.4	-345.6	398.0	369.7	28.27	14.078		
6,300.0	6,197.9	6,398.6	6,321.7	20.1	17.4	-169.45	-2.4	-379.0	394.5	365.5	28.96	13.623		
6,400.0	6,293.7	6,498.3	6,415.6	20.7	18.0	-168.44	-2.4	-412.4	391.1	361.5	29.67	13.182		
6,500.0	6,389.6	6,598.0	6,509.6	21.3	18.6	-167.41	-2.4	-445.8	387.9	357.5	30.41	12.754		
6,559.9	6,447.0	6,663.0	6,570.2	21.6	19.0	-166.38	-4.4	-468.8	385.7	354.7	30.95	12.462		
6,600.0	6,485.0	6,706.4	6,609.8	21.9	19.3	-159.55	-9.2	-486.0	384.8	353.5	31.25	12.314		
6,601.8	6,486.7	6,708.2	6,611.5	21.9	19.3	-159.30	-9.4	-486.8	384.8	353.5	31.26	12.308		
6,650.0	6,531.2	6,759.4	6,656.6	22.2	19.7	-153.10	-18.7	-508.9	386.0	354.3	31.73	12.164		
6,700.0	6,575.7	6,811.0	6,700.2	22.6	20.1	-147.85	-31.9	-533.1	390.0	357.6	32.40	12.038		
6,750.0	6,618.2	6,861.0	6,740.3	23.1	20.5	-143.25	-48.1	-558.1	396.9	363.6	33.29	11.922		
6,800.0	6,658.3	6,909.4	6,776.8	23.7	20.9	-139.00	-67.1	-583.6	406.6	372.2	34.44	11.804		
6,850.0	6,695.7	6,956.0	6,809.6	24.3	21.4	-134.94	-88.2	-609.2	419.1	383.2	35.88	11.682		
6,900.0	6,730.2	7,001.0	6,838.8	24.9	21.8	-131.01	-111.1	-634.7	434.3	396.7	37.58	11.554		
6,950.0	6,761.4	7,044.4	6,864.4	25.7	22.3	-127.14	-135.4	-659.9	451.9	412.4	39.55	11.428		
7,000.0	6,789.2	7,086.3	6,886.8	26.4	22.7	-123.31	-160.7	-684.6	471.9	430.2	41.72	11.313		
7,013.4	6,796.1	7,097.9	6,892.6	26.6	22.9	-122.28	-168.1	-691.5	477.6	435.3	42.34	11.281		
7,100.0	6,839.4	7,174.7	6,931.0	28.1	23.8	-120.48	-216.4	-737.1	515.1	470.0	45.11	11.419		
7,163.4	6,871.1	7,230.9	6,959.1	29.2	24.5	-119.32	-251.8	-770.4	542.8	495.6	47.18	11.505		
7,200.0	6,889.2	7,250.0	6,968.6	29.8	24.7	-115.91	-264.0	-781.7	558.2	510.0	48.26	11.568		
7,250.0	6,913.4	7,279.0	6,982.6	30.6	25.1	-111.57	-283.2	-798.3	577.9	528.4	49.42	11.694		
7,300.0	6,936.9	7,300.0	6,992.3	31.3	25.3	-107.72	-297.8	-809.9	595.9	545.7	50.12	11.889		
7,350.0	6,959.3	7,330.2	7,005.7	32.0	25.6	-104.18	-319.7	-825.8	612.0	561.4	50.63	12.088		
7,400.0	6,980.6	7,350.0	7,014.0	32.6	25.9	-101.07	-334.7	-835.7	626.5	575.8	50.68	12.360		
7,450.0	7,000.5	7,381.5	7,026.6	33.3	26.2	-98.29	-359.4	-850.6	638.9	588.3	50.59	12.629		
7,500.0	7,019.0	7,400.0	7,033.6	33.8	26.4	-95.89	-374.4	-858.9	649.5	599.5	50.05	12.977		
7,550.0	7,035.8	7,432.8	7,045.2	34.4	26.7	-93.85	-401.8	-872.7	658.1	608.6	49.44	13.310		
7,600.0	7,050.9	7,450.0	7,050.8	34.8	26.9	-92.12	-416.6	-879.4	664.8	616.3	48.41	13.732		
7,650.0	7,064.2	7,484.3	7,061.3	35.3	27.2	-90.78	-446.8	-891.8	669.2	621.8	47.40	14.119		
7,700.0	7,075.4	7,500.0	7,065.6	35.7	27.4	-89.70	-461.0	-897.0	671.9	625.9	46.02	14.602		
7,750.0	7,084.7	7,535.8	7,074.7	36.0	27.7	-89.05	-493.9	-907.7	672.3	627.5	44.78	15.015		
7,800.0	7,091.8	7,550.0	7,077.9	36.3	27.8	-88.58	-507.2	-911.6	671.0	627.8	43.24	15.519		
7,850.0	7,096.7	7,587.4	7,085.4	36.5	28.1	-88.62	-542.7	-920.4	667.3	625.3	41.99	15.893		
7,900.0	7,099.4	7,613.2	7,089.6	36.8	28.4	-88.90	-567.7	-925.5	661.8	621.1	40.68	16.267		
7,936.1	7,100.0	7,631.9	7,092.3	36.9	28.5	-89.32	-585.9	-928.6	656.6	616.8	39.83	16.485		
8,000.0	7,100.0	7,665.3	7,096.0	37.1	28.8	-89.64	-618.8	-933.1	648.0	607.2	40.74	15.906		
8,100.0	7,100.0	7,718.7	7,099.4	37.5	29.2	-89.95	-671.9	-937.1	640.3	598.1	42.22	15.165		
8,169.8	7,100.0	7,762.5	7,100.0	37.9	29.5	-89.99	-715.7	-937.7	639.2	595.8	43.42	14.722		
8,200.0	7,100.0	7,792.7	7,100.0	38.0	29.7	-89.99	-745.9	-937.7	639.2	595.1	44.06	14.507		
8,300.0	7,100.0	7,892.7	7,100.0	38.6	30.5	-89.99	-845.9	-937.7	639.2	592.9	46.35	13.790		
8,400.0	7,100.0	7,992.7	7,100.0	39.2	31.4	-89.99	-945.9	-937.7	639.2	590.4	48.84	13.088		
8,500.0	7,100.0	8,092.7	7,100.0	39.9	32.4	-89.99	-1,045.9	-937.7	639.2	587.7	51.50	12.413		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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	
8,600.0	7,100.0	8,192.7	7,100.0	40.6	33.4	-89.99	-1,145.9	-937.7	639.2	584.9	54.30	11.773	
8,700.0	7,100.0	8,292.7	7,100.0	41.4	34.5	-89.99	-1,245.9	-937.7	639.3	582.0	57.22	11.171	
8,800.0	7,100.0	8,392.7	7,100.0	42.3	35.7	-89.99	-1,345.9	-937.7	639.3	579.0	60.25	10.610	
8,900.0	7,100.0	8,492.7	7,100.0	43.3	37.0	-89.99	-1,445.9	-937.7	639.3	575.9	63.37	10.087	
9,000.0	7,100.0	8,592.7	7,100.0	44.3	38.3	-89.99	-1,545.9	-937.7	639.3	572.7	66.57	9.603	
9,100.0	7,100.0	8,692.7	7,100.0	45.4	39.7	-89.99	-1,645.9	-937.7	639.3	569.5	69.84	9.154	
9,200.0	7,100.0	8,792.7	7,100.0	46.5	41.1	-89.99	-1,745.9	-937.7	639.3	566.2	73.16	8.738	
9,300.0	7,100.0	8,892.7	7,100.0	47.7	42.5	-89.99	-1,845.9	-937.7	639.3	562.8	76.54	8.353	
9,400.0	7,100.0	8,992.7	7,100.0	49.0	44.0	-89.99	-1,945.9	-937.7	639.3	559.4	79.96	7.996	
9,500.0	7,100.0	9,092.7	7,100.0	50.3	45.6	-89.99	-2,045.9	-937.6	639.4	555.9	83.42	7.665	
9,600.0	7,100.0	9,192.7	7,100.0	51.7	47.1	-89.99	-2,145.9	-937.6	639.4	552.5	86.91	7.357	
9,700.0	7,100.0	9,292.7	7,100.0	53.1	48.7	-89.99	-2,245.9	-937.6	639.4	549.0	90.43	7.071	
9,800.0	7,100.0	9,392.7	7,100.0	54.5	50.3	-89.99	-2,345.9	-937.6	639.4	545.4	93.98	6.804	
9,900.0	7,100.0	9,492.7	7,100.0	56.0	52.0	-89.99	-2,445.9	-937.6	639.4	541.9	97.55	6.555	
10,000.0	7,100.0	9,592.7	7,100.0	57.5	53.6	-89.99	-2,545.9	-937.6	639.4	538.3	101.14	6.322	
10,100.0	7,100.0	9,692.7	7,100.0	59.0	55.3	-89.99	-2,645.9	-937.6	639.4	534.7	104.76	6.104	
10,200.0	7,100.0	9,792.7	7,100.0	60.6	57.0	-89.99	-2,745.9	-937.6	639.5	531.1	108.39	5.900	
10,300.0	7,100.0	9,892.7	7,100.0	62.1	58.7	-89.99	-2,845.9	-937.6	639.5	527.4	112.03	5.708	
10,400.0	7,100.0	9,992.7	7,100.0	63.8	60.5	-89.99	-2,945.9	-937.6	639.5	523.8	115.69	5.527	
10,500.0	7,100.0	10,092.7	7,100.0	65.4	62.2	-89.99	-3,045.9	-937.6	639.5	520.1	119.37	5.357	
10,600.0	7,100.0	10,192.7	7,100.0	67.0	64.0	-89.99	-3,145.9	-937.6	639.5	516.5	123.05	5.197	
10,700.0	7,100.0	10,292.7	7,100.0	68.7	65.7	-89.99	-3,245.9	-937.6	639.5	512.8	126.74	5.046	
10,800.0	7,100.0	10,392.7	7,100.0	70.4	67.5	-89.99	-3,345.9	-937.6	639.5	509.1	130.45	4.903	
10,900.0	7,100.0	10,492.7	7,100.0	72.1	69.3	-89.99	-3,445.9	-937.6	639.5	505.4	134.16	4.767	
11,000.0	7,100.0	10,592.7	7,100.0	73.8	71.1	-89.99	-3,545.9	-937.6	639.6	501.7	137.88	4.638	
11,100.0	7,100.0	10,692.7	7,100.0	75.5	72.9	-89.99	-3,645.9	-937.5	639.6	498.0	141.61	4.516	
11,200.0	7,100.0	10,792.7	7,100.0	77.2	74.7	-89.99	-3,745.9	-937.5	639.6	494.2	145.35	4.400	
11,300.0	7,100.0	10,892.7	7,100.0	79.0	76.5	-89.99	-3,845.9	-937.5	639.6	490.5	149.09	4.290	
11,400.0	7,100.0	10,992.7	7,100.0	80.7	78.3	-89.99	-3,945.9	-937.5	639.6	486.8	152.84	4.185	
11,500.0	7,100.0	11,092.7	7,100.0	82.5	80.1	-89.99	-4,045.9	-937.5	639.6	483.0	156.59	4.085	
11,600.0	7,100.0	11,192.7	7,100.0	84.3	82.0	-89.99	-4,145.9	-937.5	639.6	479.3	160.35	3.989	
11,700.0	7,100.0	11,292.7	7,100.0	86.0	83.8	-89.99	-4,245.9	-937.5	639.7	475.5	164.12	3.898	
11,800.0	7,100.0	11,392.7	7,100.0	87.8	85.6	-89.99	-4,345.9	-937.5	639.7	471.8	167.88	3.810	
11,900.0	7,100.0	11,492.7	7,100.0	89.6	87.5	-89.99	-4,445.9	-937.5	639.7	468.0	171.66	3.726	
12,000.0	7,100.0	11,592.7	7,100.0	91.4	89.3	-89.99	-4,545.9	-937.5	639.7	464.3	175.43	3.646	
12,100.0	7,100.0	11,692.7	7,100.0	93.2	91.2	-89.99	-4,645.9	-937.5	639.7	460.5	179.21	3.570	
12,200.0	7,100.0	11,792.7	7,100.0	95.0	93.0	-89.99	-4,745.9	-937.5	639.7	456.7	183.00	3.496	
12,281.1	7,100.0	11,873.8	7,100.0	96.5	94.5	-89.99	-4,827.0	-937.5	639.7	453.7	186.07	3.438	
12,281.8	7,100.0	11,874.5	7,100.0	96.7	94.5	-89.99	-4,827.7	-937.5	639.7	453.6	186.09	3.438 SF	

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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	0.99	149.6	2.6	149.6					
100.0	100.0	103.0	103.0	0.1	0.1	0.99	149.6	2.6	149.6	149.4	0.19	778.473		
200.0	200.0	203.0	203.0	0.3	0.3	0.99	149.6	2.6	149.6	149.0	0.64	233.133		
300.0	300.0	303.0	303.0	0.5	0.5	0.99	149.6	2.6	149.6	148.5	1.09	137.095		
400.0	400.0	403.0	403.0	0.8	0.8	0.99	149.6	2.6	149.6	148.1	1.54	97.096		
500.0	500.0	503.0	503.0	1.0	1.0	0.99	149.6	2.6	149.6	147.6	1.99	75.166		
600.0	600.0	603.0	603.0	1.2	1.2	0.99	149.6	2.6	149.6	147.2	2.44	61.317		
700.0	700.0	703.0	703.0	1.4	1.4	0.99	149.6	2.6	149.6	146.7	2.89	51.777		
800.0	800.0	803.0	803.0	1.7	1.7	0.99	149.6	2.6	149.6	146.3	3.34	44.806		
900.0	900.0	903.0	903.0	1.9	1.9	0.99	149.6	2.6	149.6	145.8	3.79	39.489		
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	0.99	149.6	2.6	149.6	145.4	4.24	35.301		
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.3	0.99	149.6	2.6	149.6	144.9	4.69	31.915		
1,200.0	1,200.0	1,203.0	1,203.0	2.6	2.6	0.99	149.6	2.6	149.6	144.5	5.14	29.123		
1,300.0	1,300.0	1,303.0	1,303.0	2.8	2.8	0.99	149.6	2.6	149.6	144.0	5.59	26.779		
1,400.0	1,400.0	1,403.0	1,403.0	3.0	3.0	0.99	149.6	2.6	149.6	143.6	6.04	24.785		
1,500.0	1,500.0	1,503.0	1,503.0	3.2	3.2	0.99	149.6	2.6	149.6	143.1	6.49	23.067		
1,600.0	1,600.0	1,603.0	1,603.0	3.5	3.5	0.99	149.6	2.6	149.6	142.7	6.94	21.572		
1,700.0	1,700.0	1,703.0	1,703.0	3.7	3.7	0.99	149.6	2.6	149.6	142.2	7.38	20.259		
1,800.0	1,800.0	1,803.0	1,803.0	3.9	3.9	0.99	149.6	2.6	149.6	141.8	7.83	19.096		
1,900.0	1,900.0	1,903.0	1,903.0	4.1	4.1	0.99	149.6	2.6	149.6	141.3	8.28	18.060		
2,000.0	2,000.0	2,003.0	2,003.0	4.4	4.4	0.99	149.6	2.6	149.6	140.9	8.73	17.130		
2,100.0	2,100.0	2,103.0	2,103.0	4.6	4.6	0.99	149.6	2.6	149.6	140.4	9.18	16.292		
2,200.0	2,200.0	2,203.0	2,203.0	4.8	4.8	0.99	149.6	2.6	149.6	140.0	9.63	15.531		
2,300.0	2,300.0	2,303.0	2,303.0	5.0	5.0	0.99	149.6	2.6	149.6	139.5	10.08	14.839		
2,400.0	2,400.0	2,403.0	2,403.0	5.3	5.3	0.99	149.6	2.6	149.6	139.1	10.53	14.205		
2,500.0	2,500.0	2,503.0	2,503.0	5.5	5.5	0.99	149.6	2.6	149.6	138.6	10.98	13.624		
2,600.0	2,600.0	2,603.0	2,603.0	5.7	5.7	0.99	149.6	2.6	149.6	138.2	11.43	13.088		
2,700.0	2,700.0	2,703.0	2,703.0	5.9	5.9	0.99	149.6	2.6	149.6	137.7	11.88	12.593		
2,800.0	2,800.0	2,803.0	2,803.0	6.2	6.2	0.99	149.6	2.6	149.6	137.3	12.33	12.134		
2,900.0	2,900.0	2,903.0	2,903.0	6.4	6.4	0.99	149.6	2.6	149.6	136.8	12.78	11.707		
3,000.0	3,000.0	3,003.0	3,003.0	6.6	6.6	0.99	149.6	2.6	149.6	136.4	13.23	11.309		
3,100.0	3,100.0	3,103.0	3,103.0	6.8	6.8	0.99	149.6	2.6	149.6	135.9	13.68	10.937		
3,200.0	3,200.0	3,203.0	3,203.0	7.1	7.1	0.99	149.6	2.6	149.6	135.5	14.13	10.589		
3,300.0	3,300.0	3,303.0	3,303.0	7.3	7.3	0.99	149.6	2.6	149.6	135.0	14.58	10.263		
3,400.0	3,400.0	3,403.0	3,403.0	7.5	7.5	81.03	149.6	2.6	149.3	134.3	15.02	9.944		
3,500.0	3,499.8	3,502.9	3,502.9	7.7	7.7	83.04	149.6	2.6	148.6	133.1	15.45	9.620		
3,600.0	3,599.5	3,604.1	3,604.1	7.9	7.9	85.77	149.2	0.7	147.2	131.3	15.87	9.276		
3,700.0	3,698.7	3,705.6	3,705.4	8.1	8.1	88.65	148.1	-4.6	144.8	128.5	16.29	8.888		
3,800.0	3,797.5	3,807.2	3,806.6	8.4	8.4	91.75	146.2	-13.5	141.4	124.6	16.73	8.450		
3,900.0	3,895.6	3,908.9	3,907.5	8.6	8.6	95.15	143.6	-25.9	137.0	119.8	17.19	7.970		
4,000.0	3,993.1	4,010.8	4,008.1	8.9	8.8	98.95	140.2	-41.9	131.9	114.2	17.69	7.457		
4,100.0	4,089.6	4,112.6	4,108.0	9.2	9.1	103.28	136.1	-61.3	126.1	107.9	18.21	6.924		
4,130.4	4,118.8	4,143.6	4,138.2	9.3	9.1	104.72	134.7	-67.9	124.2	105.8	18.37	6.760		
4,200.0	4,185.5	4,214.6	4,207.2	9.6	9.3	107.81	131.3	-84.2	119.5	100.8	18.76	6.372		
4,300.0	4,281.3	4,316.4	4,305.4	10.0	9.6	111.55	125.7	-110.5	111.4	92.1	19.34	5.762		
4,400.0	4,377.2	4,415.8	4,400.9	10.4	10.0	115.22	120.0	-137.5	102.8	82.9	19.91	5.162		
4,500.0	4,473.0	4,515.2	4,496.4	10.8	10.3	119.53	114.3	-164.5	94.6	74.2	20.45	4.627		
4,600.0	4,568.8	4,614.6	4,591.9	11.2	10.7	124.62	108.6	-191.5	87.1	66.2	20.94	4.161		
4,700.0	4,664.7	4,714.0	4,687.4	11.7	11.1	130.61	102.9	-218.5	80.4	59.1	21.33	3.769		
4,800.0	4,760.5	4,813.4	4,782.9	12.2	11.6	137.58	97.3	-245.5	74.7	53.1	21.63	3.456		
4,900.0	4,856.3	4,912.8	4,878.4	12.6	12.0	145.55	91.6	-272.5	70.4	48.5	21.83	3.223		
5,000.0	4,952.1	5,012.2	4,973.8	13.1	12.4	154.36	85.9	-299.5	67.5	45.5	21.99	3.069		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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		
5,100.0	5,048.0	5,111.6	5,069.3	13.6	12.9	163.70	80.2	-326.4	66.4	44.1	22.24	2.985		
5,111.8	5,059.2	5,123.3	5,080.6	13.7	12.9	164.81	79.5	-329.6	66.4	44.1	22.28	2.979 CC, ES		
5,200.0	5,143.8	5,211.0	5,164.8	14.1	13.4	173.10	74.5	-353.4	67.1	44.4	22.69	2.957 SF		
5,300.0	5,239.6	5,310.4	5,260.3	14.7	13.8	-177.93	68.8	-380.4	69.5	46.1	23.43	2.969		
5,400.0	5,335.5	5,409.7	5,355.8	15.2	14.3	-169.74	63.1	-407.4	73.6	49.2	24.43	3.012		
5,500.0	5,431.3	5,509.1	5,451.3	15.7	14.8	-162.53	57.4	-434.4	79.0	53.3	25.64	3.080		
5,600.0	5,527.1	5,608.5	5,546.7	16.3	15.3	-156.32	51.7	-461.4	85.5	58.5	26.96	3.170		
5,700.0	5,622.9	5,707.9	5,642.2	16.8	15.8	-151.03	46.0	-488.4	92.8	64.5	28.32	3.277		
5,800.0	5,718.8	5,807.3	5,737.7	17.3	16.3	-146.54	40.3	-515.4	100.8	71.1	29.69	3.395		
5,900.0	5,814.6	5,906.7	5,833.2	17.9	16.9	-142.73	34.6	-542.4	109.3	78.3	31.04	3.522		
6,000.0	5,910.4	6,006.1	5,928.7	18.4	17.4	-139.48	28.9	-569.4	118.3	85.9	32.38	3.653		
6,100.0	6,006.3	6,105.5	6,024.2	19.0	17.9	-136.70	23.2	-596.4	127.6	93.9	33.69	3.786		
6,200.0	6,102.1	6,204.9	6,119.6	19.6	18.5	-134.29	17.5	-623.4	137.1	102.1	34.98	3.920		
6,300.0	6,197.9	6,304.3	6,215.1	20.1	19.0	-132.20	11.8	-650.4	146.8	110.6	36.25	4.051		
6,400.0	6,293.7	6,403.7	6,310.6	20.7	19.5	-130.37	6.1	-677.4	156.7	119.3	37.50	4.180		
6,500.0	6,389.6	6,503.0	6,406.1	21.3	20.1	-128.76	0.4	-704.4	166.8	128.1	38.73	4.306		
6,559.9	6,447.0	6,576.8	6,477.2	21.6	20.4	-128.29	-0.8	-724.0	171.0	131.6	39.43	4.338		
6,600.0	6,485.0	6,629.2	6,527.6	21.9	20.7	-123.98	3.9	-737.1	170.5	130.9	39.57	4.309		
6,650.0	6,531.2	6,692.1	6,587.6	22.2	20.9	-124.27	15.7	-751.6	166.9	127.8	39.11	4.269		
6,700.0	6,575.7	6,749.9	6,641.6	22.6	21.1	-129.15	32.4	-763.7	162.0	124.3	37.77	4.290		
6,750.0	6,618.2	6,801.0	6,688.0	23.1	21.2	-136.72	51.7	-773.4	159.1	123.5	35.65	4.463		
6,754.9	6,622.2	6,805.6	6,692.1	23.2	21.2	-137.52	53.6	-774.2	159.1	123.7	35.42	4.491		
6,800.0	6,658.3	6,844.7	6,726.3	23.7	21.3	-144.86	71.4	-780.7	162.1	128.8	33.29	4.869		
6,850.0	6,695.7	6,881.1	6,757.0	24.3	21.4	-151.99	90.0	-786.2	174.0	142.7	31.24	5.569		
6,900.0	6,730.2	6,910.6	6,781.1	24.9	21.5	-157.39	106.5	-790.2	195.6	165.9	29.70	6.587		
6,950.0	6,761.4	6,933.9	6,799.6	25.7	21.5	-160.98	120.5	-793.0	226.0	197.4	28.58	7.907		
7,000.0	6,789.2	6,950.0	6,812.1	26.4	21.6	-162.28	130.5	-794.9	263.1	235.2	27.89	9.433		
7,013.4	6,796.1	6,955.9	6,816.6	26.6	21.6	-163.05	134.2	-795.5	273.9	246.3	27.62	9.916		
7,100.0	6,839.4	6,978.5	6,833.5	28.1	21.6	-169.46	149.1	-797.8	347.5	320.4	27.09	12.828		
7,163.4	6,871.1	6,992.7	6,843.8	29.2	21.6	-173.13	158.8	-799.1	403.8	376.7	27.13	14.886		
7,200.0	6,889.2	7,000.0	6,849.0	29.8	21.7	-165.14	163.8	-799.7	437.0	409.1	27.89	15.667		
7,250.0	6,913.4	7,000.0	6,849.0	30.6	21.7	-151.19	163.8	-799.7	482.8	451.7	31.06	15.541		
7,300.0	6,936.9	7,009.6	6,855.8	31.3	21.7	-140.21	170.6	-800.5	528.8	494.4	34.42	15.361		
7,350.0	6,959.3	7,010.6	6,856.5	32.0	21.7	-127.84	171.3	-800.6	574.8	536.4	38.41	14.966		
7,400.0	6,980.6	7,000.0	6,849.0	32.6	21.7	-114.56	163.8	-799.7	620.7	578.5	42.15	14.726		
7,450.0	7,000.5	7,000.0	6,849.0	33.3	21.7	-105.73	163.8	-799.7	665.8	622.2	43.63	15.261		
7,500.0	7,019.0	7,000.0	6,849.0	33.8	21.7	-98.48	163.8	-799.7	710.1	666.0	44.06	16.115		
7,550.0	7,035.8	7,000.0	6,849.0	34.4	21.7	-92.55	163.8	-799.7	753.4	709.7	43.73	17.229		
7,600.0	7,050.9	6,987.4	6,840.0	34.8	21.6	-86.35	155.1	-798.6	795.4	752.5	42.92	18.534		
7,650.0	7,064.2	6,978.9	6,833.8	35.3	21.6	-81.79	149.4	-797.8	836.0	794.4	41.60	20.095		
7,700.0	7,075.4	6,969.6	6,826.8	35.7	21.6	-78.06	143.1	-796.9	875.1	835.1	40.02	21.866		
7,750.0	7,084.7	6,950.0	6,812.1	36.0	21.6	-74.36	130.5	-794.9	912.5	874.2	38.24	23.863		
7,800.0	7,091.8	6,950.0	6,812.1	36.3	21.6	-72.59	130.5	-794.9	947.8	911.2	36.55	25.934		
7,850.0	7,096.7	6,950.0	6,812.1	36.5	21.6	-71.20	130.5	-794.9	981.4	946.5	34.96	28.072		
7,900.0	7,099.4	6,926.3	6,793.6	36.8	21.5	-68.97	115.8	-792.1	1,012.6	979.2	33.34	30.372		
7,936.1	7,100.0	6,917.8	6,786.9	36.9	21.5	-68.09	110.8	-791.1	1,033.8	1,001.4	32.42	31.893		
8,000.0	7,100.0	6,900.0	6,772.6	37.1	21.5	-67.25	100.5	-788.8	1,071.5	1,038.8	32.70	32.769		
8,100.0	7,100.0	6,882.3	6,758.0	37.5	21.4	-66.42	90.7	-786.4	1,134.3	1,101.0	33.30	34.063		
8,200.0	7,100.0	6,850.0	6,730.8	38.0	21.3	-64.92	74.0	-781.5	1,201.5	1,167.6	33.86	35.485		
8,300.0	7,100.0	6,850.0	6,730.8	38.6	21.3	-64.92	74.0	-781.5	1,271.8	1,236.9	34.88	36.466		
8,400.0	7,100.0	6,831.2	6,714.6	39.2	21.3	-64.05	65.0	-778.5	1,345.5	1,309.7	35.77	37.616		
8,500.0	7,100.0	6,800.0	6,687.1	39.9	21.2	-62.64	51.3	-773.2	1,422.3	1,385.7	36.58	38.883		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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		
8,600.0	7,100.0	6,800.0	6,687.1	40.6	21.2	-62.64	51.3	-773.2	1,500.8	1,463.0	37.83	39.675		
8,700.0	7,100.0	6,800.0	6,687.1	41.4	21.2	-62.64	51.3	-773.2	1,581.7	1,542.6	39.14	40.416		
8,800.0	7,100.0	6,800.0	6,687.1	42.3	21.2	-62.64	51.3	-773.2	1,664.7	1,624.2	40.49	41.109		
8,900.0	7,100.0	6,772.4	6,662.2	43.3	21.1	-61.41	40.4	-768.1	1,748.6	1,707.1	41.51	42.130		
9,000.0	7,100.0	6,750.0	6,641.7	44.3	21.1	-60.43	32.4	-763.8	1,834.5	1,791.9	42.60	43.060		
9,100.0	7,100.0	6,750.0	6,641.7	45.4	21.1	-60.43	32.4	-763.8	1,921.2	1,877.2	44.05	43.615		
9,200.0	7,100.0	6,750.0	6,641.7	46.5	21.1	-60.43	32.4	-763.8	2,009.2	1,963.7	45.52	44.135		
9,300.0	7,100.0	6,750.0	6,641.7	47.7	21.1	-60.43	32.4	-763.8	2,098.2	2,051.2	47.02	44.623		
9,400.0	7,100.0	6,750.0	6,641.7	49.0	21.1	-60.43	32.4	-763.8	2,188.2	2,139.7	48.54	45.082		
9,500.0	7,100.0	6,727.1	6,620.5	50.3	21.0	-59.46	25.1	-759.1	2,278.4	2,228.8	49.67	45.867		
9,600.0	7,100.0	6,721.2	6,615.0	51.7	21.0	-59.21	23.4	-757.9	2,369.7	2,318.6	51.11	46.366		
9,700.0	7,100.0	6,700.0	6,595.1	53.1	20.9	-58.34	17.7	-753.4	2,461.8	2,409.5	52.27	47.098		
9,800.0	7,100.0	6,700.0	6,595.1	54.5	20.9	-58.34	17.7	-753.4	2,554.0	2,500.2	53.82	47.456		
9,900.0	7,100.0	6,700.0	6,595.1	56.0	20.9	-58.34	17.7	-753.4	2,646.8	2,591.5	55.38	47.795		
10,000.0	7,100.0	6,700.0	6,595.1	57.5	20.9	-58.34	17.7	-753.4	2,740.2	2,683.2	56.95	48.116		
10,100.0	7,100.0	6,700.0	6,595.1	59.0	20.9	-58.34	17.7	-753.4	2,834.0	2,775.4	58.53	48.420		
10,200.0	7,100.0	6,700.0	6,595.1	60.6	20.9	-58.34	17.7	-753.4	2,928.1	2,868.0	60.11	48.709		
10,300.0	7,100.0	6,700.0	6,595.1	62.1	20.9	-58.34	17.7	-753.4	3,022.7	2,961.0	61.71	48.984		
10,400.0	7,100.0	6,700.0	6,595.1	63.8	20.9	-58.34	17.7	-753.4	3,117.6	3,054.3	63.31	49.245		
10,500.0	7,100.0	6,700.0	6,595.1	65.4	20.9	-58.34	17.7	-753.4	3,212.8	3,147.9	64.91	49.494		
10,600.0	7,100.0	6,678.4	6,574.7	67.0	20.8	-57.47	12.6	-748.6	3,307.8	3,241.8	66.02	50.106		
10,700.0	7,100.0	6,675.3	6,571.7	68.7	20.8	-57.34	11.9	-747.9	3,403.4	3,335.9	67.54	50.389		
10,800.0	7,100.0	6,672.3	6,568.8	70.4	20.8	-57.23	11.3	-747.2	3,499.3	3,430.2	69.08	50.658		
10,900.0	7,100.0	6,650.0	6,547.6	72.1	20.7	-56.36	7.1	-742.0	3,595.7	3,525.6	70.13	51.271		
11,000.0	7,100.0	6,650.0	6,547.6	73.8	20.7	-56.36	7.1	-742.0	3,691.8	3,620.1	71.73	51.469		
11,100.0	7,100.0	6,650.0	6,547.6	75.5	20.7	-56.36	7.1	-742.0	3,788.2	3,714.8	73.33	51.658		
11,200.0	7,100.0	6,650.0	6,547.6	77.2	20.7	-56.36	7.1	-742.0	3,884.7	3,809.8	74.94	51.840		
11,300.0	7,100.0	6,650.0	6,547.6	79.0	20.7	-56.36	7.1	-742.0	3,981.4	3,904.9	76.54	52.015		
11,400.0	7,100.0	6,650.0	6,547.6	80.7	20.7	-56.36	7.1	-742.0	4,078.3	4,000.1	78.15	52.183		
11,500.0	7,100.0	6,650.0	6,547.6	82.5	20.7	-56.36	7.1	-742.0	4,175.3	4,095.5	79.77	52.344		
11,600.0	7,100.0	6,650.0	6,547.6	84.3	20.7	-56.36	7.1	-742.0	4,272.4	4,191.0	81.38	52.499		
11,700.0	7,100.0	6,650.0	6,547.6	86.0	20.7	-56.36	7.1	-742.0	4,369.7	4,286.7	83.00	52.648		
11,800.0	7,100.0	6,650.0	6,547.6	87.8	20.7	-56.36	7.1	-742.0	4,467.1	4,382.4	84.62	52.792		
11,900.0	7,100.0	6,650.0	6,547.6	89.6	20.7	-56.36	7.1	-742.0	4,564.6	4,478.3	86.24	52.931		
12,000.0	7,100.0	6,650.0	6,547.6	91.4	20.7	-56.36	7.1	-742.0	4,662.2	4,574.3	87.86	53.064		
12,100.0	7,100.0	6,650.0	6,547.6	93.2	20.7	-56.36	7.1	-742.0	4,759.9	4,670.4	89.48	53.193		
12,200.0	7,100.0	6,650.0	6,547.6	95.0	20.7	-56.36	7.1	-742.0	4,857.7	4,766.6	91.11	53.318		
12,281.1	7,100.0	6,650.0	6,547.6	96.5	20.7	-56.36	7.1	-742.0	4,937.0	4,844.6	92.43	53.415		
12,281.8	7,100.0	6,650.0	6,547.6	96.7	20.7	-56.36	7.1	-742.0	4,937.8	4,845.3	92.44	53.418		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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	45.90	147.6	152.3	212.1					
100.0	100.0	100.0	100.0	0.1	0.1	45.90	147.6	152.3	212.1	211.9	0.19	1,123.361		
200.0	200.0	200.0	200.0	0.3	0.3	45.90	147.6	152.3	212.1	211.5	0.64	332.262		
300.0	300.0	300.0	300.0	0.5	0.5	45.90	147.6	152.3	212.1	211.0	1.09	194.964		
400.0	400.0	400.0	400.0	0.8	0.8	45.90	147.6	152.3	212.1	210.6	1.54	137.957		
500.0	500.0	500.0	500.0	1.0	1.0	45.90	147.6	152.3	212.1	210.1	1.99	106.745		
600.0	600.0	600.0	600.0	1.2	1.2	45.90	147.6	152.3	212.1	209.7	2.44	87.050		
700.0	700.0	700.0	700.0	1.4	1.4	45.90	147.6	152.3	212.1	209.2	2.89	73.491		
800.0	800.0	800.0	800.0	1.7	1.7	45.90	147.6	152.3	212.1	208.8	3.34	63.587		
900.0	900.0	900.0	900.0	1.9	1.9	45.90	147.6	152.3	212.1	208.3	3.79	56.035		
1,000.0	1,000.0	1,000.0	1,000.0	2.1	2.1	45.90	147.6	152.3	212.1	207.9	4.23	50.086		
1,100.0	1,100.0	1,100.0	1,100.0	2.3	2.3	45.90	147.6	152.3	212.1	207.4	4.68	45.279		
1,200.0	1,200.0	1,200.0	1,200.0	2.6	2.6	45.90	147.6	152.3	212.1	207.0	5.13	41.315		
1,300.0	1,300.0	1,300.0	1,300.0	2.8	2.8	45.90	147.6	152.3	212.1	206.5	5.58	37.988		
1,400.0	1,400.0	1,400.0	1,400.0	3.0	3.0	45.90	147.6	152.3	212.1	206.1	6.03	35.157		
1,500.0	1,500.0	1,500.0	1,500.0	3.2	3.2	45.90	147.6	152.3	212.1	205.6	6.48	32.719		
1,600.0	1,600.0	1,600.0	1,600.0	3.5	3.5	45.90	147.6	152.3	212.1	205.2	6.93	30.597		
1,700.0	1,700.0	1,700.0	1,700.0	3.7	3.7	45.90	147.6	152.3	212.1	204.7	7.38	28.734		
1,800.0	1,800.0	1,800.0	1,800.0	3.9	3.9	45.90	147.6	152.3	212.1	204.3	7.83	27.085		
1,900.0	1,900.0	1,900.0	1,900.0	4.1	4.1	45.90	147.6	152.3	212.1	203.8	8.28	25.614		
2,000.0	2,000.0	2,000.0	2,000.0	4.4	4.4	45.90	147.6	152.3	212.1	203.4	8.73	24.295		
2,100.0	2,100.0	2,100.0	2,100.0	4.6	4.6	45.90	147.6	152.3	212.1	202.9	9.18	23.105		
2,200.0	2,200.0	2,200.0	2,200.0	4.8	4.8	45.90	147.6	152.3	212.1	202.5	9.63	22.027		
2,300.0	2,300.0	2,300.0	2,300.0	5.0	5.0	45.90	147.6	152.3	212.1	202.0	10.08	21.044		
2,400.0	2,400.0	2,400.0	2,400.0	5.3	5.3	45.90	147.6	152.3	212.1	201.6	10.53	20.146		
2,500.0	2,500.0	2,500.0	2,500.0	5.5	5.5	45.90	147.6	152.3	212.1	201.1	10.98	19.321		
2,600.0	2,600.0	2,600.0	2,600.0	5.7	5.7	45.90	147.6	152.3	212.1	200.7	11.43	18.561		
2,700.0	2,700.0	2,700.0	2,700.0	5.9	5.9	45.90	147.6	152.3	212.1	200.2	11.88	17.858		
2,800.0	2,800.0	2,800.0	2,800.0	6.2	6.2	45.90	147.6	152.3	212.1	199.8	12.33	17.207		
2,900.0	2,900.0	2,900.0	2,900.0	6.4	6.4	45.90	147.6	152.3	212.1	199.3	12.78	16.601		
3,000.0	3,000.0	3,000.0	3,000.0	6.6	6.6	45.90	147.6	152.3	212.1	198.9	13.23	16.037		
3,100.0	3,100.0	3,100.0	3,100.0	6.8	6.8	45.90	147.6	152.3	212.1	198.4	13.67	15.510		
3,200.0	3,200.0	3,200.0	3,200.0	7.1	7.1	45.90	147.6	152.3	212.1	198.0	14.12	15.016		
3,300.0	3,300.0	3,300.0	3,300.0	7.3	7.3	45.90	147.6	152.3	212.1	197.5	14.57	14.553 CC, ES		
3,400.0	3,400.0	3,400.0	3,400.0	7.5	7.5	125.65	147.6	152.3	213.1	198.1	15.01	14.198		
3,500.0	3,499.8	3,499.8	3,499.8	7.7	7.7	126.73	147.6	152.3	216.2	200.8	15.43	14.010		
3,600.0	3,599.5	3,599.5	3,599.5	7.9	8.0	128.45	147.6	152.3	221.5	205.7	15.85	13.975 SF		
3,700.0	3,698.7	3,698.7	3,698.7	8.1	8.2	130.70	147.6	152.3	229.3	213.1	16.27	14.098		
3,800.0	3,797.5	3,797.5	3,797.5	8.4	8.4	133.36	147.6	152.3	239.9	223.2	16.68	14.385		
3,900.0	3,895.6	3,895.6	3,895.6	8.6	8.6	136.28	147.6	152.3	253.5	236.4	17.08	14.843		
4,000.0	3,993.1	3,993.1	3,993.1	8.9	8.8	139.32	147.6	152.3	270.3	252.9	17.47	15.476		
4,100.0	4,089.6	4,089.6	4,089.6	9.2	9.1	142.35	147.6	152.3	290.7	272.8	17.85	16.287		
4,130.4	4,118.8	4,118.8	4,118.8	9.3	9.1	143.26	147.6	152.3	297.6	279.6	17.96	16.569		
4,200.0	4,185.5	4,185.5	4,185.5	9.6	9.3	145.40	147.6	152.3	314.0	295.7	18.26	17.192		
4,300.0	4,281.3	4,281.3	4,281.3	10.0	9.5	148.12	147.6	152.3	338.2	319.5	18.70	18.083		
4,400.0	4,377.2	4,377.2	4,377.2	10.4	9.7	150.48	147.6	152.3	363.0	343.9	19.15	18.962		
4,500.0	4,473.0	4,473.0	4,473.0	10.8	9.9	152.54	147.6	152.3	388.4	368.8	19.59	19.824		
4,600.0	4,568.8	4,568.8	4,568.8	11.2	10.1	154.35	147.6	152.3	414.2	394.1	20.04	20.665		
4,700.0	4,664.7	4,664.7	4,664.7	11.7	10.4	155.95	147.6	152.3	440.3	419.8	20.49	21.483		
4,800.0	4,760.5	4,760.5	4,760.5	12.2	10.6	157.37	147.6	152.3	466.7	445.8	20.95	22.278		
4,900.0	4,856.3	4,856.3	4,856.3	12.6	10.8	158.64	147.6	152.3	493.4	472.0	21.41	23.047		
5,000.0	4,952.1	4,952.1	4,952.1	13.1	11.0	159.78	147.6	152.3	520.2	498.4	21.87	23.791		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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		
5,100.0	5,048.0	5,059.2	5,059.2	13.6	11.2	160.92	147.6	151.7	546.8	524.4	22.34	24.474		
5,200.0	5,143.8	5,179.3	5,179.2	14.1	11.5	162.00	147.6	146.7	570.0	547.2	22.82	24.973		
5,300.0	5,239.6	5,301.8	5,301.2	14.7	11.7	162.95	147.6	136.4	589.2	565.9	23.31	25.277		
5,400.0	5,335.5	5,426.2	5,424.6	15.2	12.0	163.79	147.6	120.7	604.3	580.5	23.81	25.384		
5,500.0	5,431.3	5,536.1	5,533.1	15.7	12.2	164.45	147.6	102.9	615.9	591.7	24.28	25.366		
5,600.0	5,527.1	5,635.3	5,630.9	16.3	12.5	165.03	147.6	86.4	627.3	602.5	24.74	25.351		
5,700.0	5,622.9	5,734.4	5,728.7	16.8	12.7	165.58	147.6	70.0	638.7	613.5	25.21	25.337		
5,800.0	5,718.8	5,833.6	5,826.4	17.3	13.0	166.12	147.6	53.5	650.1	624.5	25.67	25.323		
5,900.0	5,814.6	5,932.7	5,924.2	17.9	13.2	166.64	147.6	37.1	661.6	635.5	26.14	25.309		
6,000.0	5,910.4	6,031.9	6,022.0	18.4	13.5	167.14	147.6	20.6	673.2	646.6	26.61	25.296		
6,100.0	6,006.3	6,131.1	6,119.8	19.0	13.7	167.62	147.6	4.2	684.8	657.7	27.09	25.283		
6,200.0	6,102.1	6,230.2	6,217.6	19.6	14.0	168.09	147.6	-12.3	696.5	668.9	27.56	25.270		
6,300.0	6,197.9	6,329.4	6,315.4	20.1	14.3	168.54	147.6	-28.7	708.2	680.1	28.04	25.257		
6,400.0	6,293.7	6,428.6	6,413.2	20.7	14.6	168.97	147.6	-45.2	719.9	691.4	28.52	25.244		
6,500.0	6,389.6	6,521.0	6,504.3	21.3	14.8	169.17	150.0	-60.3	732.0	703.0	29.00	25.240		
6,559.9	6,447.0	6,573.3	6,555.4	21.6	15.0	168.83	157.2	-68.2	739.9	710.6	29.31	25.246		
6,600.0	6,485.0	6,607.3	6,588.3	21.9	15.1	174.39	164.4	-73.0	746.8	717.5	29.27	25.516		
6,650.0	6,531.2	6,650.0	6,629.0	22.2	15.2	178.76	176.2	-78.7	759.6	730.4	29.13	26.071		
6,700.0	6,575.7	6,684.4	6,661.0	22.6	15.3	-178.35	187.8	-83.0	776.9	748.0	28.88	26.901		
6,750.0	6,618.2	6,717.6	6,691.3	23.1	15.4	-176.40	200.9	-86.8	798.8	770.3	28.53	27.999		
6,800.0	6,658.3	6,750.0	6,720.1	23.7	15.5	-175.04	215.4	-90.2	825.3	797.2	28.09	29.374		
6,850.0	6,695.7	6,771.8	6,739.0	24.3	15.6	-173.56	226.0	-92.4	855.9	828.4	27.55	31.069		
6,900.0	6,730.2	6,792.9	6,757.0	24.9	15.6	-172.16	237.0	-94.3	890.6	863.6	26.96	33.033		
6,950.0	6,761.4	6,810.3	6,771.4	25.7	15.7	-170.49	246.5	-95.8	928.7	902.4	26.37	35.220		
7,000.0	6,789.2	6,824.1	6,782.7	26.4	15.7	-168.30	254.3	-97.0	970.0	944.1	25.88	37.482		
7,013.4	6,796.1	6,827.2	6,785.3	26.6	15.7	-167.58	256.2	-97.2	981.5	955.7	25.79	38.062		
7,100.0	6,839.4	6,850.0	6,803.4	28.1	15.8	-169.50	269.8	-98.9	1,057.2	1,031.2	26.03	40.615		
7,163.4	6,871.1	6,850.0	6,803.4	29.2	15.8	-169.50	269.8	-98.9	1,113.4	1,087.1	26.29	42.351		
7,200.0	6,889.2	6,864.0	6,814.3	29.8	15.8	-161.47	278.6	-99.9	1,145.9	1,118.6	27.29	41.985		
7,250.0	6,913.4	6,870.3	6,819.1	30.6	15.9	-149.78	282.6	-100.3	1,190.5	1,160.8	29.73	40.038		
7,300.0	6,936.9	6,874.3	6,822.2	31.3	15.9	-138.70	285.2	-100.6	1,234.9	1,202.2	32.66	37.805		
7,350.0	6,959.3	6,876.3	6,823.7	32.0	15.9	-128.57	286.5	-100.7	1,278.8	1,243.4	35.40	36.126		
7,400.0	6,980.6	6,876.4	6,823.7	32.6	15.9	-119.58	286.6	-100.7	1,321.9	1,284.4	37.56	35.198		
7,450.0	7,000.5	6,874.9	6,822.6	33.3	15.9	-111.75	285.6	-100.6	1,364.1	1,325.1	39.03	34.954		
7,500.0	7,019.0	6,871.8	6,820.2	33.8	15.9	-105.02	283.6	-100.4	1,405.1	1,365.2	39.84	35.268		
7,550.0	7,035.8	6,867.4	6,816.9	34.4	15.8	-99.29	280.8	-100.1	1,444.6	1,404.5	40.09	36.031		
7,600.0	7,050.9	6,850.0	6,803.4	34.8	15.8	-93.79	269.8	-98.9	1,482.7	1,442.7	39.92	37.142		
7,650.0	7,064.2	6,850.0	6,803.4	35.3	15.8	-90.05	269.8	-98.9	1,518.7	1,479.4	39.34	38.601		
7,700.0	7,075.4	6,850.0	6,803.4	35.7	15.8	-86.93	269.8	-98.9	1,552.8	1,514.3	38.54	40.288		
7,750.0	7,084.7	6,850.0	6,803.4	36.0	15.8	-84.36	269.8	-98.9	1,584.9	1,547.3	37.59	42.160		
7,800.0	7,091.8	6,831.5	6,788.7	36.3	15.7	-81.61	258.7	-97.5	1,614.6	1,578.1	36.47	44.270		
7,850.0	7,096.7	6,822.4	6,781.3	36.5	15.7	-79.70	253.3	-96.8	1,641.9	1,606.5	35.36	46.432		
7,900.0	7,099.4	6,800.0	6,762.9	36.8	15.6	-77.80	240.8	-94.9	1,666.8	1,632.6	34.22	48.715		
7,936.1	7,100.0	6,800.0	6,762.9	36.9	15.6	-77.18	240.8	-94.9	1,682.9	1,649.4	33.57	50.129		
8,000.0	7,100.0	6,800.0	6,762.9	37.1	15.6	-77.18	240.8	-94.9	1,711.4	1,677.3	34.07	50.228		
8,100.0	7,100.0	6,775.9	6,742.6	37.5	15.6	-76.46	228.1	-92.8	1,759.1	1,724.4	34.75	50.627		
8,200.0	7,100.0	6,750.0	6,720.1	38.0	15.5	-75.67	215.4	-90.2	1,810.7	1,775.2	35.53	50.961		
8,300.0	7,100.0	6,750.0	6,720.1	38.6	15.5	-75.67	215.4	-90.2	1,865.8	1,829.1	36.62	50.949		
8,400.0	7,100.0	6,750.0	6,720.1	39.2	15.5	-75.67	215.4	-90.2	1,924.4	1,886.6	37.81	50.898		
8,500.0	7,100.0	6,720.0	6,693.5	39.9	15.4	-74.74	202.0	-87.0	1,985.5	1,946.7	38.85	51.104		
8,600.0	7,100.0	6,700.0	6,675.4	40.6	15.4	-74.11	193.8	-84.8	2,049.8	2,009.8	40.03	51.201		
8,700.0	7,100.0	6,700.0	6,675.4	41.4	15.4	-74.11	193.8	-84.8	2,116.5	2,075.1	41.44	51.078		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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		
8,800.0	7,100.0	6,700.0	6,675.4	42.3	15.4	-74.11	193.8	-84.8	2,185.8	2,142.9	42.89	50.958		
8,900.0	7,100.0	6,680.5	6,657.4	43.3	15.3	-73.50	186.4	-82.5	2,257.0	2,212.8	44.23	51.032		
9,000.0	7,100.0	6,672.4	6,649.9	44.3	15.3	-73.25	183.6	-81.5	2,330.3	2,284.6	45.69	51.001		
9,100.0	7,100.0	6,650.0	6,629.0	45.4	15.2	-72.55	176.2	-78.7	2,405.6	2,358.5	47.05	51.127		
9,200.0	7,100.0	6,650.0	6,629.0	46.5	15.2	-72.55	176.2	-78.7	2,482.2	2,433.6	48.64	51.028		
9,300.0	7,100.0	6,650.0	6,629.0	47.7	15.2	-72.55	176.2	-78.7	2,560.4	2,510.2	50.26	50.941		
9,400.0	7,100.0	6,650.0	6,629.0	49.0	15.2	-72.55	176.2	-78.7	2,640.1	2,588.2	51.90	50.868		
9,500.0	7,100.0	6,650.0	6,629.0	50.3	15.2	-72.55	176.2	-78.7	2,721.2	2,667.6	53.56	50.805		
9,600.0	7,100.0	6,650.0	6,629.0	51.7	15.2	-72.55	176.2	-78.7	2,803.4	2,748.2	55.24	50.753		
9,700.0	7,100.0	6,628.9	6,609.1	53.1	15.2	-71.89	170.0	-75.9	2,886.4	2,829.7	56.70	50.907		
9,800.0	7,100.0	6,624.2	6,604.5	54.5	15.1	-71.74	168.7	-75.3	2,970.6	2,912.2	58.34	50.914		
9,900.0	7,100.0	6,600.0	6,581.3	56.0	15.1	-70.98	162.7	-72.0	3,056.0	2,996.3	59.77	51.126		
10,000.0	7,100.0	6,600.0	6,581.3	57.5	15.1	-70.98	162.7	-72.0	3,141.8	3,080.3	61.49	51.097		
10,100.0	7,100.0	6,600.0	6,581.3	59.0	15.1	-70.98	162.7	-72.0	3,228.4	3,165.2	63.21	51.075		
10,200.0	7,100.0	6,600.0	6,581.3	60.6	15.1	-70.98	162.7	-72.0	3,315.8	3,250.9	64.94	51.060		
10,300.0	7,100.0	6,600.0	6,581.3	62.1	15.1	-70.98	162.7	-72.0	3,403.9	3,337.2	66.68	51.049		
10,400.0	7,100.0	6,600.0	6,581.3	63.8	15.1	-70.98	162.7	-72.0	3,492.6	3,424.1	68.42	51.044		
10,500.0	7,100.0	6,600.0	6,581.3	65.4	15.1	-70.98	162.7	-72.0	3,581.9	3,511.7	70.17	51.042		
10,600.0	7,100.0	6,600.0	6,581.3	67.0	15.1	-70.98	162.7	-72.0	3,671.7	3,599.8	71.93	51.045		
10,700.0	7,100.0	6,600.0	6,581.3	68.7	15.1	-70.98	162.7	-72.0	3,762.1	3,688.4	73.69	51.051		
10,800.0	7,100.0	6,600.0	6,581.3	70.4	15.1	-70.98	162.7	-72.0	3,852.9	3,777.5	75.46	51.059		
10,900.0	7,100.0	6,600.0	6,581.3	72.1	15.1	-70.98	162.7	-72.0	3,944.2	3,867.0	77.23	51.071		
11,000.0	7,100.0	6,600.0	6,581.3	73.8	15.1	-70.98	162.7	-72.0	4,035.9	3,956.9	79.01	51.084		
11,100.0	7,100.0	6,600.0	6,581.3	75.5	15.1	-70.98	162.7	-72.0	4,128.0	4,047.2	80.78	51.099		
11,200.0	7,100.0	6,578.0	6,560.1	77.2	15.0	-70.30	158.1	-68.9	4,220.0	4,137.7	82.23	51.320		
11,300.0	7,100.0	6,575.7	6,557.8	79.0	15.0	-70.23	157.7	-68.5	4,312.6	4,228.7	83.97	51.359		
11,400.0	7,100.0	6,573.5	6,555.7	80.7	15.0	-70.16	157.3	-68.2	4,405.6	4,319.9	85.72	51.398		
11,500.0	7,100.0	6,550.0	6,532.7	82.5	14.9	-69.44	153.4	-64.7	4,499.4	4,412.2	87.11	51.651		
11,600.0	7,100.0	6,550.0	6,532.7	84.3	14.9	-69.44	153.4	-64.7	4,592.8	4,503.9	88.89	51.670		
11,700.0	7,100.0	6,550.0	6,532.7	86.0	14.9	-69.44	153.4	-64.7	4,686.6	4,595.9	90.67	51.689		
11,800.0	7,100.0	6,550.0	6,532.7	87.8	14.9	-69.44	153.4	-64.7	4,780.6	4,688.1	92.45	51.709		
11,900.0	7,100.0	6,550.0	6,532.7	89.6	14.9	-69.44	153.4	-64.7	4,874.8	4,780.6	94.24	51.729		
12,000.0	7,100.0	6,550.0	6,532.7	91.4	14.9	-69.44	153.4	-64.7	4,969.3	4,873.3	96.02	51.751		
12,100.0	7,100.0	6,550.0	6,532.7	93.2	14.9	-69.44	153.4	-64.7	5,064.0	4,966.1	97.81	51.772		
12,200.0	7,100.0	6,550.0	6,532.7	95.0	14.9	-69.44	153.4	-64.7	5,158.8	5,059.2	99.60	51.794		
12,281.1	7,100.0	6,550.0	6,532.7	96.5	14.9	-69.44	153.4	-64.7	5,235.9	5,134.8	101.05	51.813		
12,281.8	7,100.0	6,550.0	6,532.7	96.7	14.9	-69.44	153.4	-64.7	5,236.6	5,135.5	101.07	51.814		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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	49.48	147.3	172.3	226.7					
100.0	100.0	100.0	100.0	0.1	0.1	49.48	147.3	172.3	226.7	226.5	0.19	1,200.707		
200.0	200.0	200.0	200.0	0.3	0.3	49.48	147.3	172.3	226.7	226.1	0.64	355.139		
300.0	300.0	300.0	300.0	0.5	0.5	49.48	147.3	172.3	226.7	225.6	1.09	208.387		
400.0	400.0	400.0	400.0	0.8	0.8	49.48	147.3	172.3	226.7	225.2	1.54	147.455		
500.0	500.0	500.0	500.0	1.0	1.0	49.48	147.3	172.3	226.7	224.7	1.99	114.094	CC, ES	
600.0	600.0	596.2	596.2	1.2	1.2	49.36	148.4	172.9	227.9	225.5	2.43	93.944		
700.0	700.0	696.2	696.2	1.4	1.4	49.18	150.0	173.7	229.5	226.7	2.87	79.887		
800.0	800.0	796.2	796.2	1.7	1.7	49.01	151.6	174.5	231.2	227.9	3.32	69.601		
900.0	900.0	896.2	896.1	1.9	1.9	48.84	153.2	175.3	232.9	229.1	3.77	61.753		
1,000.0	1,000.0	996.2	996.1	2.1	2.1	48.68	154.8	176.1	234.5	230.3	4.22	55.570		
1,100.0	1,100.0	1,096.2	1,096.1	2.3	2.3	48.51	156.4	176.9	236.2	231.5	4.67	50.574		
1,200.0	1,200.0	1,196.2	1,196.0	2.6	2.6	48.35	158.0	177.7	237.8	232.7	5.12	46.455		
1,300.0	1,300.0	1,296.1	1,296.0	2.8	2.8	48.19	159.6	178.5	239.5	233.9	5.57	43.000		
1,400.0	1,400.0	1,396.1	1,396.0	3.0	3.0	48.04	161.2	179.3	241.2	235.1	6.02	40.061		
1,500.0	1,500.0	1,496.1	1,495.9	3.2	3.2	47.88	162.8	180.1	242.8	236.4	6.47	37.531		
1,600.0	1,600.0	1,596.1	1,595.9	3.5	3.5	47.73	164.4	180.9	244.5	237.6	6.92	35.330		
1,700.0	1,700.0	1,696.1	1,695.9	3.7	3.7	47.58	166.0	181.7	246.2	238.8	7.37	33.398		
1,800.0	1,800.0	1,800.2	1,800.0	3.9	3.9	47.46	167.3	182.3	247.4	239.6	7.82	31.659		
1,900.0	1,900.0	1,900.2	1,900.0	4.1	4.1	47.46	167.3	182.3	247.4	239.2	8.24	30.039		
2,000.0	2,000.0	2,000.2	2,000.0	4.4	4.3	47.46	167.3	182.3	247.4	238.8	8.68	28.493		
2,100.0	2,100.0	2,100.2	2,100.0	4.6	4.5	47.46	167.3	182.3	247.4	238.3	9.13	27.098		
2,200.0	2,200.0	2,200.2	2,200.0	4.8	4.8	47.46	167.3	182.3	247.4	237.9	9.58	25.832		
2,300.0	2,300.0	2,300.2	2,300.0	5.0	5.0	47.46	167.3	182.3	247.4	237.4	10.03	24.679		
2,400.0	2,400.0	2,400.2	2,400.0	5.3	5.2	47.46	167.3	182.3	247.4	237.0	10.47	23.624		
2,500.0	2,500.0	2,500.2	2,500.0	5.5	5.4	47.46	167.3	182.3	247.4	236.5	10.92	22.655		
2,600.0	2,600.0	2,600.2	2,600.0	5.7	5.7	47.46	167.3	182.3	247.4	236.1	11.37	21.763		
2,700.0	2,700.0	2,700.2	2,700.0	5.9	5.9	47.46	167.3	182.3	247.4	235.6	11.82	20.937		
2,766.6	2,766.6	2,766.8	2,766.6	6.1	6.0	47.46	167.3	182.3	247.4	235.3	12.12	20.422		
2,800.0	2,800.0	2,799.9	2,799.7	6.2	6.1	47.46	167.3	182.3	247.4	235.2	12.27	20.173		
2,900.0	2,900.0	2,893.4	2,893.2	6.4	6.3	47.66	167.5	183.8	248.8	236.1	12.69	19.602		
3,000.0	3,000.0	2,986.4	2,986.1	6.6	6.5	48.22	168.3	188.3	252.9	239.8	13.12	19.282		
3,100.0	3,100.0	3,079.1	3,078.4	6.8	6.7	49.11	169.5	195.7	259.8	246.3	13.54	19.183	SF	
3,200.0	3,200.0	3,171.1	3,169.9	7.1	6.9	50.28	171.2	206.0	269.5	255.6	13.98	19.286		
3,300.0	3,300.0	3,266.9	3,264.8	7.3	7.2	51.68	173.3	219.3	281.7	267.3	14.42	19.530		
3,400.0	3,400.0	3,365.7	3,362.5	7.5	7.4	132.44	175.6	233.2	295.5	280.6	14.82	19.937		
3,500.0	3,499.8	3,463.8	3,459.6	7.7	7.7	134.12	177.8	247.0	311.8	296.6	15.23	20.473		
3,600.0	3,599.5	3,561.2	3,556.0	7.9	7.9	135.98	180.1	260.7	331.0	315.3	15.64	21.168		
3,700.0	3,698.7	3,657.8	3,651.6	8.1	8.2	137.96	182.3	274.3	353.1	337.0	16.03	22.022		
3,800.0	3,797.5	3,753.5	3,746.3	8.4	8.5	139.97	184.5	287.8	378.2	361.8	16.42	23.036		
3,900.0	3,895.6	3,848.1	3,839.9	8.6	8.7	141.97	186.7	301.1	406.6	389.8	16.80	24.206		
4,000.0	3,993.1	3,941.5	3,932.4	8.9	9.0	143.89	188.8	314.3	438.2	421.0	17.17	25.528		
4,100.0	4,089.6	4,033.6	4,023.6	9.2	9.3	145.72	191.0	327.3	473.1	455.6	17.52	26.996		
4,130.4	4,118.8	4,061.4	4,051.0	9.3	9.3	146.26	191.6	331.2	484.4	466.8	17.63	27.471		
4,200.0	4,185.5	4,124.7	4,113.7	9.6	9.5	147.70	193.0	340.1	510.7	492.8	17.93	28.486		
4,300.0	4,281.3	4,215.7	4,203.8	10.0	9.8	149.54	195.1	352.9	548.9	530.6	18.36	29.903		
4,400.0	4,377.2	4,306.7	4,293.9	10.4	10.1	151.15	197.2	365.7	587.6	568.8	18.79	31.267		
4,500.0	4,473.0	4,397.7	4,384.0	10.8	10.4	152.56	199.3	378.6	626.6	607.4	19.23	32.578		
4,600.0	4,568.8	4,488.7	4,474.0	11.2	10.6	153.81	201.4	391.4	665.9	646.3	19.68	33.837		
4,700.0	4,664.7	4,579.7	4,564.1	11.7	10.9	154.92	203.5	404.2	705.5	685.4	20.13	35.044		
4,800.0	4,760.5	4,670.8	4,654.2	12.2	11.2	155.92	205.6	417.0	745.3	724.7	20.59	36.201		
4,900.0	4,856.3	4,761.8	4,744.3	12.6	11.5	156.81	207.7	429.8	785.2	764.2	21.05	37.310		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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		
5,000.0	4,952.1	4,852.8	4,834.4	13.1	11.8	157.62	209.8	442.7	825.3	803.8	21.51	38.373		
5,100.0	5,048.0	4,943.8	4,924.4	13.6	12.1	158.36	211.9	455.5	865.5	843.5	21.97	39.392		
5,200.0	5,143.8	5,034.8	5,014.5	14.1	12.3	159.03	214.0	468.3	905.8	883.4	22.44	40.368		
5,300.0	5,239.6	5,125.8	5,104.6	14.7	12.6	159.64	216.1	481.1	946.3	923.3	22.91	41.303		
5,400.0	5,335.5	5,216.8	5,194.7	15.2	12.9	160.21	218.2	493.9	986.8	963.4	23.38	42.200		
5,500.0	5,431.3	5,307.8	5,284.8	15.7	13.2	160.73	220.3	506.8	1,027.3	1,003.5	23.86	43.060		
5,600.0	5,527.1	5,398.8	5,374.8	16.3	13.5	161.21	222.4	519.6	1,068.0	1,043.6	24.34	43.885		
5,700.0	5,622.9	5,489.8	5,464.9	16.8	13.8	161.65	224.4	532.4	1,108.7	1,083.9	24.82	44.677		
5,800.0	5,718.8	5,580.9	5,555.0	17.3	14.1	162.07	226.5	545.2	1,149.4	1,124.1	25.30	45.437		
5,900.0	5,814.6	5,671.9	5,645.1	17.9	14.4	162.45	228.6	558.0	1,190.2	1,164.5	25.78	46.167		
6,000.0	5,910.4	5,762.9	5,735.1	18.4	14.7	162.82	230.7	570.9	1,231.1	1,204.8	26.27	46.868		
6,100.0	6,006.3	5,853.9	5,825.2	19.0	15.0	163.15	232.8	583.7	1,272.0	1,245.2	26.75	47.542		
6,200.0	6,102.1	5,944.9	5,915.3	19.6	15.3	163.47	234.9	596.5	1,312.9	1,285.7	27.24	48.191		
6,300.0	6,197.9	6,035.9	6,005.4	20.1	15.6	163.77	237.0	609.3	1,353.8	1,326.1	27.73	48.814		
6,400.0	6,293.7	6,126.9	6,095.5	20.7	15.9	164.05	239.1	622.1	1,394.8	1,366.6	28.23	49.414		
6,500.0	6,389.6	6,217.9	6,185.5	21.3	16.2	164.31	241.2	635.0	1,435.8	1,407.1	28.72	49.992		
6,559.9	6,447.0	6,272.5	6,239.5	21.6	16.4	164.46	242.4	642.6	1,460.4	1,431.4	29.02	50.328		
6,600.0	6,485.0	6,308.4	6,275.1	21.9	16.5	170.86	243.3	647.7	1,478.1	1,449.2	28.89	51.161		
6,650.0	6,531.2	6,351.5	6,317.7	22.2	16.7	176.56	244.3	653.8	1,503.4	1,474.8	28.62	52.523		
6,700.0	6,575.7	6,392.3	6,358.1	22.6	16.8	-179.13	245.2	659.5	1,532.3	1,504.0	28.25	54.234		
6,750.0	6,618.2	6,430.5	6,396.0	23.1	16.9	-175.54	246.1	664.9	1,564.4	1,536.6	27.80	56.267		
6,800.0	6,658.3	6,466.0	6,431.0	23.7	17.1	-172.25	246.9	669.9	1,599.5	1,572.2	27.32	58.554		
6,850.0	6,695.7	6,483.2	6,448.1	24.3	17.1	-168.84	247.3	672.3	1,637.5	1,610.7	26.84	61.015		
6,900.0	6,730.2	6,500.0	6,464.7	24.9	17.2	-165.07	247.8	674.9	1,678.3	1,651.7	26.54	63.228		
6,950.0	6,761.4	6,500.0	6,464.7	25.7	17.2	-160.21	247.8	674.9	1,721.5	1,694.8	26.68	64.516		
7,000.0	6,789.2	6,500.0	6,464.7	26.4	17.2	-153.74	247.8	674.9	1,766.7	1,739.0	27.78	63.609		
7,013.4	6,796.1	6,500.0	6,464.7	26.6	17.2	-151.60	247.8	674.9	1,779.2	1,750.8	28.32	62.821		
7,100.0	6,839.4	6,519.7	6,484.0	28.1	17.2	-152.37	248.9	678.3	1,859.7	1,830.9	28.78	64.608		
7,163.4	6,871.1	6,525.3	6,489.5	29.2	17.3	-152.59	249.3	679.3	1,918.9	1,889.7	29.21	65.684		
7,200.0	6,889.2	6,528.3	6,492.5	29.8	17.3	-142.00	249.6	679.9	1,953.1	1,920.6	32.49	60.104		
7,250.0	6,913.4	6,550.0	6,513.6	30.6	17.4	-130.46	251.5	684.5	1,999.5	1,963.3	36.18	55.262		
7,300.0	6,936.9	6,550.0	6,513.6	31.3	17.4	-120.05	251.5	684.5	2,044.5	2,005.4	39.14	52.240		
7,350.0	6,959.3	6,550.0	6,513.6	32.0	17.4	-111.50	251.5	684.5	2,088.5	2,047.4	41.05	50.880		
7,400.0	6,980.6	6,550.0	6,513.6	32.6	17.4	-104.48	251.5	684.5	2,131.0	2,088.9	42.10	50.617		
7,450.0	7,000.5	6,550.0	6,513.6	33.3	17.4	-98.66	251.5	684.5	2,171.9	2,129.4	42.49	51.110		
7,500.0	7,019.0	6,550.0	6,513.6	33.8	17.4	-93.82	251.5	684.5	2,210.9	2,168.5	42.39	52.162		
7,550.0	7,035.8	6,550.0	6,513.6	34.4	17.4	-89.78	251.5	684.5	2,247.9	2,206.0	41.89	53.661		
7,600.0	7,050.9	6,550.0	6,513.6	34.8	17.4	-86.40	251.5	684.5	2,282.7	2,241.6	41.10	55.537		
7,650.0	7,064.2	6,550.0	6,513.6	35.3	17.4	-83.58	251.5	684.5	2,315.1	2,275.0	40.09	57.741		
7,700.0	7,075.4	6,550.0	6,513.6	35.7	17.4	-81.24	251.5	684.5	2,345.0	2,306.1	38.93	60.232		
7,750.0	7,084.7	6,550.0	6,513.6	36.0	17.4	-79.35	251.5	684.5	2,372.3	2,334.6	37.68	62.955		
7,800.0	7,091.8	6,550.0	6,513.6	36.3	17.4	-77.84	251.5	684.5	2,396.7	2,360.3	36.40	65.838		
7,850.0	7,096.7	6,550.0	6,513.6	36.5	17.4	-76.68	251.5	684.5	2,418.4	2,383.2	35.16	68.772		
7,900.0	7,099.4	6,550.0	6,513.6	36.8	17.4	-75.86	251.5	684.5	2,437.0	2,403.0	34.04	71.602		
7,936.1	7,100.0	6,550.0	6,513.6	36.9	17.4	-75.46	251.5	684.5	2,448.6	2,415.3	33.33	73.464		
8,000.0	7,100.0	6,550.0	6,513.6	37.1	17.4	-75.46	251.5	684.5	2,468.5	2,434.7	33.83	72.978		
8,100.0	7,100.0	6,550.0	6,513.6	37.5	17.4	-75.46	251.5	684.5	2,502.6	2,468.0	34.66	72.205		
8,200.0	7,100.0	6,550.0	6,513.6	38.0	17.4	-75.46	251.5	684.5	2,540.2	2,504.6	35.63	71.295		
8,300.0	7,100.0	6,550.0	6,513.6	38.6	17.4	-75.46	251.5	684.5	2,581.1	2,544.4	36.72	70.298		
8,400.0	7,100.0	6,550.0	6,513.6	39.2	17.4	-75.46	251.5	684.5	2,625.2	2,587.3	37.90	69.258		
8,500.0	7,100.0	6,550.0	6,513.6	39.9	17.4	-75.46	251.5	684.5	2,672.3	2,633.2	39.18	68.208		
8,600.0	7,100.0	6,550.0	6,513.6	40.6	17.4	-75.46	251.5	684.5	2,722.3	2,681.8	40.53	67.172		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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		
8,700.0	7,100.0	6,550.0	6,513.6	41.4	17.4	-75.46	251.5	684.5	2,775.0	2,733.0	41.94	66.169		
8,800.0	7,100.0	6,550.0	6,513.6	42.3	17.4	-75.46	251.5	684.5	2,830.2	2,786.8	43.40	65.209		
8,900.0	7,100.0	6,550.0	6,513.6	43.3	17.4	-75.46	251.5	684.5	2,887.8	2,842.9	44.91	64.300		
9,000.0	7,100.0	6,550.0	6,513.6	44.3	17.4	-75.46	251.5	684.5	2,947.7	2,901.2	46.46	63.446		
9,100.0	7,100.0	6,528.9	6,493.1	45.4	17.3	-74.95	249.6	680.1	3,009.3	2,961.4	47.89	62.843		
9,200.0	7,100.0	6,527.7	6,491.9	46.5	17.3	-74.92	249.5	679.8	3,073.3	3,023.8	49.49	62.105		
9,300.0	7,100.0	6,526.5	6,490.7	47.7	17.3	-74.89	249.4	679.6	3,139.1	3,088.0	51.11	61.419		
9,400.0	7,100.0	6,525.4	6,489.6	49.0	17.3	-74.86	249.3	679.4	3,206.7	3,154.0	52.76	60.783		
9,500.0	7,100.0	6,524.3	6,488.5	50.3	17.3	-74.83	249.3	679.2	3,276.0	3,221.6	54.42	60.195		
9,600.0	7,100.0	6,523.2	6,487.5	51.7	17.3	-74.81	249.2	679.0	3,346.8	3,290.7	56.11	59.652		
9,700.0	7,100.0	6,522.2	6,486.5	53.1	17.3	-74.78	249.1	678.8	3,419.1	3,361.3	57.80	59.150		
9,800.0	7,100.0	6,500.0	6,464.7	54.5	17.2	-74.24	247.8	674.9	3,493.2	3,433.9	59.33	58.878		
9,900.0	7,100.0	6,500.0	6,464.7	56.0	17.2	-74.24	247.8	674.9	3,568.1	3,507.0	61.06	58.438		
10,000.0	7,100.0	6,500.0	6,464.7	57.5	17.2	-74.24	247.8	674.9	3,644.2	3,581.4	62.80	58.032		
10,100.0	7,100.0	6,500.0	6,464.7	59.0	17.2	-74.24	247.8	674.9	3,721.4	3,656.9	64.54	57.657		
10,200.0	7,100.0	6,500.0	6,464.7	60.6	17.2	-74.24	247.8	674.9	3,799.7	3,733.4	66.30	57.310		
10,300.0	7,100.0	6,500.0	6,464.7	62.1	17.2	-74.24	247.8	674.9	3,879.0	3,810.9	68.06	56.990		
10,400.0	7,100.0	6,500.0	6,464.7	63.8	17.2	-74.24	247.8	674.9	3,959.2	3,889.4	69.84	56.693		
10,500.0	7,100.0	6,500.0	6,464.7	65.4	17.2	-74.24	247.8	674.9	4,040.3	3,968.7	71.61	56.419		
10,600.0	7,100.0	6,500.0	6,464.7	67.0	17.2	-74.24	247.8	674.9	4,122.2	4,048.8	73.40	56.164		
10,700.0	7,100.0	6,500.0	6,464.7	68.7	17.2	-74.24	247.8	674.9	4,205.0	4,129.8	75.18	55.929		
10,800.0	7,100.0	6,500.0	6,464.7	70.4	17.2	-74.24	247.8	674.9	4,288.4	4,211.4	76.98	55.710		
10,900.0	7,100.0	6,500.0	6,464.7	72.1	17.2	-74.24	247.8	674.9	4,372.6	4,293.8	78.77	55.507		
11,000.0	7,100.0	6,500.0	6,464.7	73.8	17.2	-74.24	247.8	674.9	4,457.4	4,376.8	80.58	55.319		
11,100.0	7,100.0	6,500.0	6,464.7	75.5	17.2	-74.24	247.8	674.9	4,542.8	4,460.4	82.38	55.143		
11,200.0	7,100.0	6,500.0	6,464.7	77.2	17.2	-74.24	247.8	674.9	4,628.8	4,544.6	84.19	54.981		
11,300.0	7,100.0	6,500.0	6,464.7	79.0	17.2	-74.24	247.8	674.9	4,715.3	4,629.3	86.00	54.829		
11,400.0	7,100.0	6,500.0	6,464.7	80.7	17.2	-74.24	247.8	674.9	4,802.4	4,714.6	87.82	54.688		
11,500.0	7,100.0	6,500.0	6,464.7	82.5	17.2	-74.24	247.8	674.9	4,890.0	4,800.4	89.63	54.556		
11,600.0	7,100.0	6,500.0	6,464.7	84.3	17.2	-74.24	247.8	674.9	4,978.0	4,886.6	91.45	54.433		
11,700.0	7,100.0	6,500.0	6,464.7	86.0	17.2	-74.24	247.8	674.9	5,066.5	4,973.2	93.27	54.318		
11,800.0	7,100.0	6,500.0	6,464.7	87.8	17.2	-74.24	247.8	674.9	5,155.4	5,060.3	95.10	54.211		
11,900.0	7,100.0	6,500.0	6,464.7	89.6	17.2	-74.24	247.8	674.9	5,244.7	5,147.8	96.92	54.111		
12,000.0	7,100.0	6,500.0	6,464.7	91.4	17.2	-74.24	247.8	674.9	5,334.4	5,235.7	98.75	54.018		
12,100.0	7,100.0	6,500.0	6,464.7	93.2	17.2	-74.24	247.8	674.9	5,424.5	5,323.9	100.58	53.930		
12,200.0	7,100.0	6,500.0	6,464.7	95.0	17.2	-74.24	247.8	674.9	5,514.8	5,412.4	102.41	53.848		
12,281.1	7,100.0	6,500.0	6,464.7	96.5	17.2	-74.24	247.8	674.9	5,588.3	5,484.4	103.90	53.786		
12,281.8	7,100.0	6,500.0	6,464.7	96.7	17.2	-74.24	247.8	674.9	5,589.0	5,485.1	103.91	53.786		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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 4-8H - 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	52.61	147.0	192.3	242.0					
100.0	100.0	100.0	100.0	0.1	0.1	52.61	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	52.61	147.0	192.3	242.0	241.4	0.64	379.158		
300.0	300.0	300.0	300.0	0.5	0.5	52.61	147.0	192.3	242.0	240.9	1.09	222.481		
400.0	400.0	400.0	400.0	0.8	0.8	52.61	147.0	192.3	242.0	240.5	1.54	157.428		
500.0	500.0	500.0	500.0	1.0	1.0	52.61	147.0	192.3	242.0	240.0	1.99	121.811	CC, ES	
600.0	600.0	594.6	594.6	1.2	1.2	52.83	147.0	193.9	243.3	240.9	2.41	100.860		
700.0	700.0	693.6	693.5	1.4	1.4	53.29	147.0	197.1	246.0	243.1	2.84	86.562		
800.0	800.0	793.5	793.4	1.7	1.6	53.75	147.0	200.4	248.6	245.3	3.28	75.865		
900.0	900.0	893.4	893.3	1.9	1.8	54.19	147.0	203.7	251.3	247.6	3.72	67.606		
1,000.0	1,000.0	993.4	993.2	2.1	2.1	54.63	147.0	207.0	254.0	249.8	4.16	61.056		
1,100.0	1,100.0	1,093.3	1,093.1	2.3	2.3	55.05	147.0	210.3	256.7	252.1	4.60	55.743		
1,200.0	1,200.0	1,200.3	1,200.0	2.6	2.5	55.30	147.0	212.3	258.2	253.2	5.05	51.128		
1,300.0	1,300.0	1,300.3	1,300.0	2.8	2.7	55.30	147.0	212.3	258.2	252.7	5.48	47.142		
1,400.0	1,400.0	1,400.3	1,400.0	3.0	2.9	55.30	147.0	212.3	258.2	252.3	5.92	43.637		
1,500.0	1,500.0	1,500.3	1,500.0	3.2	3.1	55.30	147.0	212.3	258.2	251.8	6.36	40.610		
1,600.0	1,600.0	1,600.3	1,600.0	3.5	3.4	55.30	147.0	212.3	258.2	251.4	6.80	37.968		
1,700.0	1,700.0	1,700.3	1,700.0	3.7	3.6	55.30	147.0	212.3	258.2	251.0	7.24	35.645		
1,800.0	1,800.0	1,800.3	1,800.0	3.9	3.8	55.30	147.0	212.3	258.2	250.5	7.69	33.587		
1,900.0	1,900.0	1,900.3	1,900.0	4.1	4.0	55.30	147.0	212.3	258.2	250.1	8.13	31.751		
2,000.0	2,000.0	2,000.3	2,000.0	4.4	4.2	55.30	147.0	212.3	258.2	249.6	8.58	30.103		
2,100.0	2,100.0	2,100.3	2,100.0	4.6	4.4	55.30	147.0	212.3	258.2	249.2	9.02	28.617		
2,200.0	2,200.0	2,200.3	2,200.0	4.8	4.7	55.30	147.0	212.3	258.2	248.7	9.47	27.269		
2,300.0	2,300.0	2,300.3	2,300.0	5.0	4.9	55.30	147.0	212.3	258.2	248.3	9.91	26.042		
2,400.0	2,400.0	2,400.3	2,400.0	5.3	5.1	55.30	147.0	212.3	258.2	247.8	10.36	24.920		
2,500.0	2,500.0	2,500.3	2,500.0	5.5	5.3	55.30	147.0	212.3	258.2	247.4	10.81	23.890		
2,600.0	2,600.0	2,600.3	2,600.0	5.7	5.6	55.30	147.0	212.3	258.2	247.0	11.26	22.941		
2,700.0	2,700.0	2,700.3	2,700.0	5.9	5.8	55.30	147.0	212.3	258.2	246.5	11.70	22.064		
2,800.0	2,800.0	2,800.3	2,800.0	6.2	6.0	55.30	147.0	212.3	258.2	246.1	12.15	21.252		
2,900.0	2,900.0	2,900.3	2,900.0	6.4	6.2	55.30	147.0	212.3	258.2	245.6	12.60	20.497		
3,000.0	3,000.0	3,000.3	3,000.0	6.6	6.4	55.30	147.0	212.3	258.2	245.2	13.05	19.793		
3,066.4	3,066.4	3,066.7	3,066.4	6.8	6.6	55.30	147.0	212.3	258.2	244.9	13.34	19.352		
3,100.0	3,100.0	3,099.6	3,099.3	6.8	6.7	55.30	147.0	212.3	258.2	244.7	13.49	19.139		
3,200.0	3,200.0	3,193.3	3,193.0	7.1	6.9	55.50	147.0	213.8	259.6	245.6	13.92	18.648		
3,300.0	3,300.0	3,286.2	3,285.8	7.3	7.1	56.06	147.0	218.4	263.6	249.3	14.34	18.382	SF	
3,400.0	3,400.0	3,378.5	3,377.8	7.5	7.3	136.45	147.0	225.9	271.6	256.9	14.75	18.415		
3,500.0	3,499.8	3,469.6	3,468.3	7.7	7.5	138.07	147.0	236.2	285.1	269.9	15.14	18.825		
3,600.0	3,599.5	3,559.0	3,556.7	7.9	7.7	140.10	147.0	249.0	304.2	288.7	15.53	19.586		
3,700.0	3,698.7	3,646.0	3,642.4	8.1	7.9	142.32	147.0	264.2	329.2	313.3	15.91	20.691		
3,800.0	3,797.5	3,730.3	3,724.9	8.4	8.2	144.57	147.0	281.4	360.1	343.8	16.27	22.131		
3,900.0	3,895.6	3,811.4	3,803.8	8.6	8.4	146.71	147.0	300.3	397.1	380.5	16.62	23.887		
4,000.0	3,993.1	3,889.2	3,879.0	8.9	8.7	148.67	147.0	320.4	439.9	423.0	16.96	25.939		
4,100.0	4,089.6	3,975.3	3,961.8	9.2	9.0	150.69	147.0	343.8	487.3	470.0	17.30	28.165		
4,130.4	4,118.8	4,001.1	3,986.6	9.3	9.1	151.25	147.0	350.8	502.4	485.0	17.40	28.871		
4,200.0	4,185.5	4,060.0	4,043.3	9.6	9.3	152.79	147.0	366.8	537.4	519.7	17.68	30.394		
4,300.0	4,281.3	4,144.6	4,124.7	10.0	9.7	154.69	147.0	389.8	588.2	570.1	18.09	32.518		
4,400.0	4,377.2	4,229.1	4,206.1	10.4	10.0	156.30	147.0	412.8	639.3	620.8	18.50	34.559		
4,500.0	4,473.0	4,313.7	4,287.5	10.8	10.4	157.67	147.0	435.8	690.8	671.9	18.92	36.518		
4,600.0	4,568.8	4,398.3	4,368.9	11.2	10.8	158.86	147.0	458.7	742.6	723.3	19.34	38.395		
4,700.0	4,664.7	4,482.9	4,450.3	11.7	11.2	159.89	147.0	481.7	794.6	774.8	19.77	40.190		
4,800.0	4,760.5	4,567.5	4,531.7	12.2	11.5	160.80	147.0	504.7	846.7	826.5	20.20	41.909		
4,900.0	4,856.3	4,652.1	4,613.1	12.6	11.9	161.61	147.0	527.7	899.0	878.4	20.64	43.552		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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 4-8H - 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	4,952.1	4,736.7	4,694.5	13.1	12.3	162.32	147.0	550.7	951.4	930.3	21.08	45.124		
5,100.0	5,048.0	4,821.3	4,775.9	13.6	12.8	162.97	147.0	573.7	1,003.9	982.4	21.53	46.626		
5,200.0	5,143.8	4,905.9	4,857.3	14.1	13.2	163.55	147.0	596.7	1,056.5	1,034.5	21.98	48.064		
5,300.0	5,239.6	4,990.5	4,938.8	14.7	13.6	164.08	147.0	619.6	1,109.1	1,086.7	22.43	49.438		
5,400.0	5,335.5	5,075.0	5,020.2	15.2	14.0	164.55	147.0	642.6	1,161.9	1,139.0	22.89	50.753		
5,500.0	5,431.3	5,159.6	5,101.6	15.7	14.5	164.99	147.0	665.6	1,214.6	1,191.3	23.35	52.011		
5,600.0	5,527.1	5,244.2	5,183.0	16.3	14.9	165.39	147.0	688.6	1,267.4	1,243.6	23.82	53.216		
5,700.0	5,622.9	5,328.8	5,264.4	16.8	15.3	165.76	147.0	711.6	1,320.3	1,296.0	24.28	54.370		
5,800.0	5,718.8	5,413.4	5,345.8	17.3	15.8	166.10	147.0	734.6	1,373.2	1,348.4	24.75	55.475		
5,900.0	5,814.6	5,498.0	5,427.2	17.9	16.2	166.42	147.0	757.5	1,426.1	1,400.9	25.23	56.535		
6,000.0	5,910.4	5,582.6	5,508.6	18.4	16.7	166.71	147.0	780.5	1,479.1	1,453.4	25.70	57.550		
6,100.0	6,006.3	5,667.2	5,590.0	19.0	17.1	166.99	147.0	803.5	1,532.1	1,505.9	26.18	58.524		
6,200.0	6,102.1	5,751.8	5,671.4	19.6	17.6	167.24	147.0	826.5	1,585.1	1,558.4	26.66	59.458		
6,300.0	6,197.9	5,836.4	5,752.8	20.1	18.0	167.48	147.0	849.5	1,638.1	1,611.0	27.14	60.355		
6,400.0	6,293.7	5,920.9	5,834.2	20.7	18.5	167.71	147.0	872.5	1,691.2	1,663.5	27.63	61.217		
6,500.0	6,389.6	6,005.5	5,915.6	21.3	18.9	167.92	147.0	895.4	1,744.2	1,716.1	28.11	62.045		
6,559.9	6,447.0	6,056.2	5,964.4	21.6	19.2	168.04	147.0	909.2	1,776.0	1,747.6	28.40	62.525		
6,600.0	6,485.0	6,089.4	5,996.4	21.9	19.4	174.79	147.0	918.2	1,798.4	1,770.2	28.22	63.719		
6,650.0	6,531.2	6,128.7	6,034.2	22.2	19.6	-178.99	147.0	928.9	1,829.3	1,801.4	27.90	65.556		
6,700.0	6,575.7	6,165.4	6,069.5	22.6	19.8	-174.02	147.0	938.9	1,863.3	1,835.7	27.52	67.709		
6,750.0	6,618.2	6,199.1	6,101.9	23.1	20.0	-169.58	147.0	948.0	1,900.0	1,872.9	27.13	70.022		
6,800.0	6,658.3	6,229.7	6,131.3	23.7	20.1	-165.18	147.0	956.3	1,939.4	1,912.5	26.87	72.172		
6,850.0	6,695.7	6,256.8	6,157.5	24.3	20.3	-160.42	147.0	963.7	1,981.0	1,954.0	26.93	73.569		
6,900.0	6,730.2	6,280.3	6,180.1	24.9	20.4	-154.83	147.0	970.1	2,024.5	1,996.9	27.62	73.286		
6,950.0	6,761.4	6,300.1	6,199.1	25.7	20.5	-147.80	147.0	975.5	2,069.7	2,040.3	29.44	70.298		
7,000.0	6,789.2	6,315.9	6,214.3	26.4	20.6	-138.53	147.0	979.8	2,116.2	2,083.3	32.92	64.281		
7,013.4	6,796.1	6,319.4	6,217.7	26.6	20.6	-135.53	147.0	980.7	2,128.8	2,094.6	34.18	62.280		
7,100.0	6,839.4	6,341.4	6,238.9	28.1	20.8	-136.64	147.0	986.7	2,210.8	2,176.0	34.80	63.537		
7,163.4	6,871.1	6,357.5	6,254.3	29.2	20.8	-137.43	147.0	991.1	2,270.9	2,235.6	35.26	64.404		
7,200.0	6,889.2	6,366.7	6,263.2	29.8	20.9	-127.80	147.0	993.6	2,305.4	2,266.6	38.77	59.456		
7,250.0	6,913.4	6,379.0	6,275.0	30.6	21.0	-117.32	147.0	996.9	2,351.6	2,309.6	42.02	55.960		
7,300.0	6,936.9	6,390.9	6,286.5	31.3	21.0	-109.11	147.0	1,000.1	2,396.6	2,352.7	43.91	54.579		
7,350.0	6,959.3	6,402.2	6,297.4	32.0	21.1	-102.53	147.0	1,003.2	2,440.1	2,395.2	44.84	54.412		
7,400.0	6,980.6	6,413.0	6,307.8	32.6	21.1	-97.14	147.0	1,006.2	2,481.8	2,436.7	45.10	55.034		
7,450.0	7,000.5	6,423.1	6,317.5	33.3	21.2	-92.64	147.0	1,008.9	2,521.6	2,476.7	44.84	56.233		
7,500.0	7,019.0	6,432.5	6,326.6	33.8	21.3	-88.86	147.0	1,011.4	2,559.2	2,515.0	44.20	57.900		
7,550.0	7,035.8	6,441.0	6,334.8	34.4	21.3	-85.67	147.0	1,013.8	2,594.4	2,551.2	43.26	59.972		
7,600.0	7,050.9	6,448.7	6,342.1	34.8	21.3	-82.97	147.0	1,015.8	2,627.2	2,585.1	42.10	62.410		
7,650.0	7,064.2	6,455.4	6,348.6	35.3	21.4	-80.71	147.0	1,017.7	2,657.4	2,616.6	40.77	65.175		
7,700.0	7,075.4	6,461.1	6,354.1	35.7	21.4	-78.82	147.0	1,019.2	2,684.7	2,645.4	39.35	68.219		
7,750.0	7,084.7	6,465.8	6,358.6	36.0	21.4	-77.29	147.0	1,020.5	2,709.2	2,671.3	37.91	71.469		
7,800.0	7,091.8	6,469.4	6,362.1	36.3	21.5	-76.07	147.0	1,021.5	2,730.7	2,694.2	36.50	74.813		
7,850.0	7,096.7	6,471.9	6,364.5	36.5	21.5	-75.16	147.0	1,022.2	2,749.1	2,713.9	35.20	78.089		
7,900.0	7,099.4	6,473.3	6,365.8	36.8	21.5	-74.52	147.0	1,022.5	2,764.4	2,730.3	34.09	81.079		
7,936.1	7,100.0	6,473.6	6,366.1	36.9	21.5	-74.23	147.0	1,022.6	2,773.4	2,740.0	33.45	82.911		
8,000.0	7,100.0	6,473.6	6,366.1	37.1	21.5	-74.23	147.0	1,022.6	2,788.6	2,754.7	33.94	82.160		
8,100.0	7,100.0	6,473.6	6,366.1	37.5	21.5	-74.23	147.0	1,022.6	2,815.1	2,780.4	34.77	80.965		
8,200.0	7,100.0	6,473.6	6,366.1	38.0	21.5	-74.23	147.0	1,022.6	2,844.9	2,809.2	35.73	79.617		
8,300.0	7,100.0	6,473.6	6,366.1	38.6	21.5	-74.23	147.0	1,022.6	2,877.9	2,841.1	36.81	78.175		
8,400.0	7,100.0	6,473.6	6,366.1	39.2	21.5	-74.23	147.0	1,022.6	2,913.9	2,875.9	37.99	76.693		
8,500.0	7,100.0	6,473.6	6,366.1	39.9	21.5	-74.23	147.0	1,022.6	2,952.9	2,913.6	39.26	75.210		
8,600.0	7,100.0	6,473.6	6,366.1	40.6	21.5	-74.23	147.0	1,022.6	2,994.7	2,954.1	40.60	73.756		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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 4-8H - 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		
8,700.0	7,100.0	6,473.6	6,366.1	41.4	21.5	-74.23	147.0	1,022.6	3,039.2	2,997.2	42.01	72.351		
8,800.0	7,100.0	6,473.6	6,366.1	42.3	21.5	-74.23	147.0	1,022.6	3,086.3	3,042.8	43.46	71.010		
8,900.0	7,100.0	6,473.6	6,366.1	43.3	21.5	-74.23	147.0	1,022.6	3,135.9	3,090.9	44.97	69.741		
9,000.0	7,100.0	6,473.6	6,366.1	44.3	21.5	-74.23	147.0	1,022.6	3,187.9	3,141.4	46.51	68.547		
9,100.0	7,100.0	6,473.6	6,366.1	45.4	21.5	-74.23	147.0	1,022.6	3,242.1	3,194.0	48.08	67.429		
9,200.0	7,100.0	6,473.6	6,366.1	46.5	21.5	-74.23	147.0	1,022.6	3,298.4	3,248.8	49.69	66.386		
9,300.0	7,100.0	6,473.6	6,366.1	47.7	21.5	-74.23	147.0	1,022.6	3,356.8	3,305.5	51.32	65.416		
9,400.0	7,100.0	6,473.6	6,366.1	49.0	21.5	-74.23	147.0	1,022.6	3,417.2	3,364.2	52.97	64.515		
9,500.0	7,100.0	6,473.6	6,366.1	50.3	21.5	-74.23	147.0	1,022.6	3,479.3	3,424.7	54.64	63.679		
9,600.0	7,100.0	6,473.6	6,366.1	51.7	21.5	-74.23	147.0	1,022.6	3,543.2	3,486.9	56.33	62.905		
9,700.0	7,100.0	6,473.6	6,366.1	53.1	21.5	-74.23	147.0	1,022.6	3,608.7	3,550.7	58.03	62.188		
9,800.0	7,100.0	6,473.6	6,366.1	54.5	21.5	-74.23	147.0	1,022.6	3,675.8	3,616.1	59.75	61.525		
9,900.0	7,100.0	6,473.6	6,366.1	56.0	21.5	-74.23	147.0	1,022.6	3,744.3	3,682.9	61.47	60.910		
10,000.0	7,100.0	6,473.6	6,366.1	57.5	21.5	-74.23	147.0	1,022.6	3,814.3	3,751.1	63.21	60.342		
10,100.0	7,100.0	6,473.6	6,366.1	59.0	21.5	-74.23	147.0	1,022.6	3,885.5	3,820.6	64.96	59.815		
10,200.0	7,100.0	6,473.6	6,366.1	60.6	21.5	-74.23	147.0	1,022.6	3,958.0	3,891.3	66.72	59.327		
10,300.0	7,100.0	6,473.6	6,366.1	62.1	21.5	-74.23	147.0	1,022.6	4,031.7	3,963.2	68.48	58.874		
10,400.0	7,100.0	6,473.6	6,366.1	63.8	21.5	-74.23	147.0	1,022.6	4,106.5	4,036.2	70.25	58.455		
10,500.0	7,100.0	6,473.6	6,366.1	65.4	21.5	-74.23	147.0	1,022.6	4,182.3	4,110.3	72.03	58.065		
10,600.0	7,100.0	6,473.6	6,366.1	67.0	21.5	-74.23	147.0	1,022.6	4,259.2	4,185.4	73.81	57.704		
10,700.0	7,100.0	6,473.5	6,366.1	68.7	21.5	-74.23	147.0	1,022.6	4,336.9	4,261.3	75.60	57.368		
10,800.0	7,100.0	6,473.5	6,366.1	70.4	21.5	-74.23	147.0	1,022.6	4,415.6	4,338.2	77.39	57.056		
10,900.0	7,100.0	6,473.5	6,366.1	72.1	21.5	-74.23	147.0	1,022.6	4,495.1	4,416.0	79.19	56.765		
11,000.0	7,100.0	6,473.5	6,366.1	73.8	21.5	-74.23	147.0	1,022.6	4,575.5	4,494.5	80.99	56.494		
11,100.0	7,100.0	6,473.5	6,366.0	75.5	21.5	-74.23	147.0	1,022.6	4,656.6	4,573.8	82.80	56.242		
11,200.0	7,100.0	6,473.5	6,366.0	77.2	21.5	-74.23	147.0	1,022.6	4,738.4	4,653.8	84.60	56.007		
11,300.0	7,100.0	6,473.5	6,366.0	79.0	21.5	-74.23	147.0	1,022.6	4,820.9	4,734.5	86.41	55.788		
11,400.0	7,100.0	6,473.5	6,366.0	80.7	21.5	-74.23	147.0	1,022.6	4,904.0	4,815.8	88.23	55.583		
11,500.0	7,100.0	6,473.5	6,366.0	82.5	21.5	-74.23	147.0	1,022.6	4,987.8	4,897.7	90.05	55.391		
11,600.0	7,100.0	6,473.5	6,366.0	84.3	21.5	-74.23	147.0	1,022.6	5,072.1	4,980.3	91.87	55.212		
11,700.0	7,100.0	6,473.5	6,366.0	86.0	21.5	-74.23	147.0	1,022.6	5,157.1	5,063.4	93.69	55.045		
11,800.0	7,100.0	6,473.5	6,366.0	87.8	21.5	-74.23	147.0	1,022.6	5,242.5	5,147.0	95.51	54.888		
11,900.0	7,100.0	6,473.5	6,366.0	89.6	21.5	-74.23	147.0	1,022.6	5,328.5	5,231.1	97.34	54.742		
12,000.0	7,100.0	6,473.5	6,366.0	91.4	21.5	-74.23	147.0	1,022.6	5,414.9	5,315.7	99.17	54.604		
12,100.0	7,100.0	6,473.5	6,366.0	93.2	21.5	-74.23	147.0	1,022.6	5,501.8	5,400.8	101.00	54.475		
12,200.0	7,100.0	6,473.5	6,366.0	95.0	21.5	-74.23	147.0	1,022.6	5,589.1	5,486.3	102.83	54.354		
12,281.1	7,100.0	6,473.5	6,366.0	96.5	21.5	-74.23	147.0	1,022.6	5,660.2	5,555.9	104.31	54.262		
12,281.8	7,100.0	6,473.5	6,366.0	96.7	21.5	-74.23	147.0	1,022.6	5,660.9	5,556.6	104.32	54.262		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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	3.0	3.0	0.0	0.0	-122.11	-86.5	-137.9	162.8					
100.0	100.0	103.7	103.7	0.1	0.1	-122.15	-86.5	-137.6	162.6	162.4	0.21	759.069		
200.0	200.0	204.4	204.4	0.3	0.2	-122.25	-86.4	-136.9	161.9	161.4	0.56	291.661		
300.0	300.0	305.1	305.0	0.5	0.4	-122.42	-86.2	-135.8	160.9	160.0	0.90	179.508		
400.0	400.0	405.7	405.7	0.8	0.5	-122.66	-86.0	-134.2	159.4	158.1	1.24	128.849		
500.0	500.0	506.3	506.3	1.0	0.6	-122.98	-85.7	-132.1	157.5	155.9	1.58	99.823		
600.0	600.0	607.0	606.9	1.2	0.7	-123.39	-85.4	-129.5	155.2	153.3	1.92	80.900		
700.0	700.0	707.6	707.4	1.4	0.8	-123.87	-85.0	-126.6	152.5	150.2	2.26	67.510		
800.0	800.0	808.1	807.9	1.7	1.0	-124.46	-84.5	-123.1	149.4	146.8	2.60	57.478		
900.0	900.0	908.6	908.4	1.9	1.1	-125.15	-83.9	-119.2	145.9	142.9	2.94	49.639		
1,000.0	1,000.0	1,009.1	1,008.8	2.1	1.2	-125.97	-83.3	-114.8	142.0	138.7	3.28	43.314		
1,044.2	1,044.2	1,047.6	1,047.2	2.2	1.3	-126.34	-83.3	-113.3	140.6	137.2	3.43	40.958		
1,100.0	1,100.0	1,098.0	1,097.6	2.3	1.3	-127.05	-85.7	-113.6	142.4	138.8	3.64	39.070		
1,200.0	1,200.0	1,199.5	1,199.0	2.6	1.5	-128.11	-89.9	-114.6	145.7	141.6	4.06	35.842		
1,300.0	1,300.0	1,301.2	1,300.6	2.8	1.8	-128.70	-92.4	-115.3	147.8	143.3	4.50	32.849		
1,400.0	1,400.0	1,401.8	1,401.2	3.0	2.0	-128.81	-93.4	-116.1	149.1	144.1	4.93	30.233		
1,500.0	1,500.0	1,501.2	1,500.6	3.2	2.1	-128.86	-94.4	-117.1	150.4	145.1	5.35	28.124		
1,600.0	1,600.0	1,599.8	1,599.2	3.5	2.3	-128.91	-95.7	-118.6	152.4	146.7	5.76	26.455		
1,700.0	1,700.0	1,697.8	1,697.1	3.7	2.5	-128.82	-97.5	-121.2	155.6	149.4	6.18	25.193		
1,800.0	1,800.0	1,801.1	1,800.4	3.9	2.7	-128.73	-99.2	-123.7	158.5	151.9	6.62	23.937		
1,900.0	1,900.0	1,903.7	1,903.0	4.1	3.0	-128.69	-99.5	-124.3	159.2	152.1	7.07	22.512		
2,000.0	2,000.0	2,003.8	2,003.0	4.4	3.2	-128.72	-99.6	-124.2	159.2	151.7	7.51	21.202		
2,100.0	2,100.0	2,103.7	2,103.0	4.6	3.4	-128.75	-99.6	-124.1	159.2	151.2	7.94	20.045		
2,200.0	2,200.0	2,203.7	2,203.0	4.8	3.6	-128.75	-99.6	-124.1	159.2	150.8	8.38	18.996		
2,300.0	2,300.0	2,303.7	2,303.0	5.0	3.8	-128.75	-99.6	-124.1	159.2	150.4	8.81	18.064		
2,400.0	2,400.0	2,403.9	2,403.2	5.3	4.0	-128.72	-99.5	-124.1	159.1	149.9	9.24	17.212		
2,500.0	2,500.0	2,503.8	2,503.0	5.5	4.2	-128.70	-99.5	-124.1	159.1	149.4	9.68	16.436		
2,600.0	2,600.0	2,603.8	2,603.1	5.7	4.4	-128.67	-99.3	-124.1	159.0	148.9	10.11	15.720		
2,700.0	2,700.0	2,703.7	2,703.0	5.9	4.6	-128.66	-99.3	-124.1	159.0	148.4	10.55	15.063		
2,800.0	2,800.0	2,803.7	2,803.0	6.2	4.8	-128.66	-99.3	-124.1	159.0	148.0	10.99	14.471		
2,900.0	2,900.0	2,903.7	2,903.0	6.4	5.0	-128.66	-99.3	-124.1	159.0	147.6	11.42	13.925		
3,000.0	3,000.0	3,003.7	3,003.0	6.6	5.2	-128.66	-99.3	-124.1	159.0	147.1	11.85	13.418		
3,100.0	3,100.0	3,103.7	3,103.0	6.8	5.5	-128.66	-99.3	-124.1	159.0	146.7	12.28	12.942		
3,200.0	3,200.0	3,203.7	3,203.0	7.1	5.7	-128.66	-99.3	-124.1	159.0	146.3	12.72	12.498		
3,300.0	3,300.0	3,303.7	3,303.0	7.3	5.9	-128.66	-99.3	-124.1	159.0	145.8	13.15	12.089		
3,400.0	3,400.0	3,403.7	3,403.0	7.5	6.1	-49.77	-99.3	-124.1	157.8	144.3	13.57	11.628		
3,500.0	3,499.8	3,503.6	3,502.8	7.7	6.3	-51.31	-99.3	-124.1	154.5	140.5	13.98	11.052		
3,600.0	3,599.5	3,603.2	3,602.5	7.9	6.5	-54.00	-99.3	-124.1	149.2	134.8	14.39	10.370		
3,700.0	3,698.7	3,702.4	3,701.7	8.1	6.7	-58.06	-99.3	-124.1	142.4	127.6	14.81	9.613		
3,800.0	3,797.5	3,801.4	3,800.7	8.4	6.9	-63.79	-99.2	-124.1	134.6	119.4	15.25	8.827		
3,900.0	3,895.6	3,899.3	3,898.6	8.6	7.1	-71.51	-99.1	-124.1	127.2	111.4	15.72	8.087		
4,000.0	3,993.1	3,996.8	3,996.1	8.9	7.3	-81.45	-99.1	-124.1	121.8	105.5	16.23	7.502		
4,073.3	4,064.0	4,067.7	4,067.0	9.1	7.5	-90.00	-99.1	-124.1	120.3	103.7	16.62	7.239 CC, ES		
4,100.0	4,089.6	4,093.4	4,092.6	9.2	7.5	-93.31	-99.1	-124.1	120.5	103.8	16.76	7.193		
4,130.4	4,118.8	4,122.6	4,121.8	9.3	7.6	-97.16	-99.1	-124.1	121.3	104.4	16.92	7.173 SF		
4,200.0	4,185.5	4,189.2	4,188.5	9.6	7.7	-105.86	-99.1	-124.1	125.5	108.2	17.27	7.267		
4,300.0	4,281.3	4,285.2	4,284.5	10.0	7.9	-117.09	-99.1	-124.2	136.3	118.6	17.73	7.690		
4,400.0	4,377.2	4,380.9	4,380.2	10.4	8.1	-126.45	-99.0	-124.3	151.8	133.7	18.14	8.369		
4,500.0	4,473.0	4,476.8	4,476.0	10.8	8.3	-134.02	-99.0	-124.3	170.8	152.2	18.53	9.215		
4,600.0	4,568.8	4,572.8	4,572.1	11.2	8.5	-140.08	-99.0	-124.3	192.0	173.1	18.93	10.147		
4,700.0	4,664.7	4,668.4	4,667.7	11.7	8.7	-144.89	-98.9	-124.4	215.0	195.7	19.32	11.129		
4,800.0	4,760.5	4,764.2	4,763.5	12.2	8.9	-148.79	-98.9	-124.4	239.2	219.5	19.72	12.132		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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		
4,900.0	4,856.3	4,860.0	4,859.3	12.6	9.1	-151.97	-98.9	-124.4	264.3	244.2	20.13	13.131		
5,000.0	4,952.1	4,955.9	4,955.1	13.1	9.3	-154.60	-98.9	-124.4	290.1	269.5	20.55	14.115		
5,100.0	5,048.0	5,051.7	5,051.0	13.6	9.5	-156.81	-98.9	-124.4	316.3	295.4	20.98	15.080		
5,200.0	5,143.8	5,147.5	5,146.8	14.1	9.7	-158.68	-98.9	-124.4	342.9	321.5	21.41	16.019		
5,300.0	5,239.6	5,243.3	5,242.6	14.7	10.0	-160.28	-98.9	-124.4	369.9	348.0	21.84	16.931		
5,400.0	5,335.5	5,339.2	5,338.5	15.2	10.2	-161.67	-98.9	-124.4	397.0	374.7	22.29	17.813		
5,500.0	5,431.3	5,435.1	5,434.4	15.7	10.4	-162.88	-98.9	-124.4	424.3	401.6	22.74	18.664		
5,600.0	5,527.1	5,531.3	5,530.5	16.3	10.6	-163.96	-98.8	-124.4	451.7	428.5	23.19	19.482		
5,700.0	5,622.9	5,626.6	5,625.9	16.8	10.8	-164.91	-98.6	-124.4	479.3	455.7	23.64	20.279		
5,800.0	5,718.8	5,722.1	5,721.3	17.3	11.0	-165.77	-98.5	-124.3	507.1	483.0	24.09	21.053		
5,900.0	5,814.6	5,818.3	5,817.5	17.9	11.2	-166.53	-98.4	-124.2	535.0	510.4	24.53	21.804		
6,000.0	5,910.4	5,914.9	5,914.2	18.4	11.4	-167.22	-98.3	-124.2	562.8	537.8	24.99	22.518		
6,100.0	6,006.3	6,010.4	6,009.7	19.0	11.6	-167.85	-98.2	-124.3	590.6	565.2	25.45	23.206		
6,200.0	6,102.1	6,105.9	6,105.2	19.6	11.8	-168.42	-98.0	-124.3	618.6	592.7	25.91	23.872		
6,300.0	6,197.9	6,202.0	6,201.3	20.1	12.0	-168.94	-97.9	-124.2	646.7	620.3	26.37	24.518		
6,400.0	6,293.7	6,297.8	6,297.1	20.7	12.2	-169.41	-97.7	-124.3	674.7	647.8	26.84	25.137		
6,500.0	6,389.6	6,393.9	6,393.2	21.3	12.4	-169.84	-97.7	-124.3	702.8	675.5	27.31	25.733		
6,559.9	6,447.0	6,451.5	6,450.7	21.6	12.5	-170.09	-97.7	-124.3	719.6	692.0	27.59	26.078		
6,600.0	6,485.0	6,490.9	6,490.1	21.9	12.6	-163.70	-97.7	-124.4	731.9	704.2	27.69	26.432		
6,650.0	6,531.2	6,538.9	6,538.2	22.2	12.7	-158.12	-97.5	-124.6	749.8	722.0	27.80	26.971		
6,700.0	6,575.7	6,585.7	6,585.0	22.6	12.8	-154.07	-97.2	-124.8	770.6	742.7	27.92	27.597		
6,750.0	6,618.2	6,633.3	6,632.6	23.1	12.9	-150.91	-96.7	-125.2	794.2	766.1	28.08	28.281		
6,800.0	6,658.3	6,687.0	6,686.3	23.7	13.0	-148.43	-96.3	-126.3	820.3	792.0	28.30	28.988		
6,850.0	6,695.7	6,709.3	6,708.6	24.3	13.0	-145.31	-95.8	-126.7	849.1	820.4	28.69	29.599		
6,900.0	6,730.2	6,728.2	6,727.4	24.9	13.1	-142.01	-94.3	-126.3	881.3	852.0	29.31	30.071		
6,950.0	6,761.4	6,751.0	6,750.0	25.7	13.1	-138.65	-91.6	-125.3	916.5	886.3	30.19	30.361		
7,000.0	6,789.2	6,762.9	6,761.7	26.4	13.2	-134.16	-89.9	-124.6	954.2	922.7	31.56	30.237		
7,013.4	6,796.1	6,766.3	6,765.1	26.6	13.2	-132.85	-89.3	-124.4	964.7	932.7	32.00	30.150		
7,100.0	6,839.4	6,782.0	6,780.5	28.1	13.2	-134.00	-86.7	-123.2	1,034.3	1,001.5	32.77	31.564		
7,163.4	6,871.1	6,800.8	6,798.9	29.2	13.2	-135.37	-83.0	-121.5	1,086.3	1,053.1	33.20	32.720		
7,200.0	6,889.2	6,814.0	6,811.7	29.8	13.3	-130.15	-80.3	-120.1	1,116.4	1,081.9	34.52	32.343		
7,250.0	6,913.4	6,818.4	6,816.0	30.6	13.3	-122.80	-79.3	-119.6	1,156.6	1,120.3	36.22	31.928		
7,300.0	6,936.9	6,828.0	6,825.3	31.3	13.3	-116.64	-77.1	-118.5	1,195.5	1,158.0	37.46	31.911		
7,350.0	6,959.3	6,835.6	6,832.5	32.0	13.3	-111.07	-75.2	-117.6	1,233.1	1,194.8	38.37	32.137		
7,400.0	6,980.6	6,845.0	6,841.6	32.6	13.3	-106.29	-72.7	-116.5	1,269.3	1,230.4	38.92	32.613		
7,450.0	7,000.5	6,845.0	6,841.6	33.3	13.3	-101.54	-72.7	-116.5	1,304.0	1,264.7	39.23	33.236		
7,500.0	7,019.0	6,845.0	6,841.6	33.8	13.3	-97.38	-72.7	-116.5	1,336.9	1,297.7	39.24	34.074		
7,550.0	7,035.8	6,845.0	6,841.6	34.4	13.3	-93.76	-72.7	-116.5	1,368.1	1,329.2	38.97	35.111		
7,600.0	7,050.9	6,845.0	6,841.6	34.8	13.3	-90.64	-72.7	-116.5	1,397.5	1,359.0	38.47	36.330		
7,650.0	7,064.2	6,845.0	6,841.6	35.3	13.3	-87.97	-72.7	-116.5	1,424.8	1,387.0	37.77	37.720		
7,700.0	7,075.4	6,845.0	6,841.6	35.7	13.3	-85.71	-72.7	-116.5	1,450.1	1,413.1	36.93	39.263		
7,750.0	7,084.7	6,845.0	6,841.6	36.0	13.3	-83.84	-72.7	-116.5	1,473.2	1,437.2	35.99	40.936		
7,800.0	7,091.8	6,845.0	6,841.6	36.3	13.3	-82.32	-72.7	-116.5	1,494.0	1,459.0	34.99	42.702		
7,850.0	7,096.7	6,835.6	6,832.5	36.5	13.3	-80.77	-75.2	-117.6	1,512.5	1,478.6	33.94	44.570		
7,900.0	7,099.4	6,831.5	6,828.6	36.8	13.3	-79.76	-76.2	-118.1	1,528.7	1,495.7	32.96	46.374		
7,936.1	7,100.0	6,828.3	6,825.6	36.9	13.3	-79.23	-77.0	-118.5	1,538.8	1,506.5	32.33	47.593		
8,000.0	7,100.0	6,814.0	6,811.7	37.1	13.3	-78.69	-80.3	-120.1	1,556.9	1,524.2	32.74	47.548		
8,100.0	7,100.0	6,814.0	6,811.7	37.5	13.3	-78.69	-80.3	-120.1	1,589.7	1,556.1	33.59	47.321		
8,200.0	7,100.0	6,814.0	6,811.7	38.0	13.3	-78.69	-80.3	-120.1	1,628.0	1,593.4	34.58	47.081		
8,300.0	7,100.0	6,800.7	6,798.8	38.6	13.2	-78.19	-83.1	-121.5	1,671.2	1,635.6	35.59	46.963		
8,400.0	7,100.0	6,794.1	6,792.3	39.2	13.2	-77.94	-84.4	-122.1	1,719.1	1,682.4	36.74	46.795		
8,500.0	7,100.0	6,782.0	6,780.5	39.9	13.2	-77.49	-86.7	-123.2	1,771.4	1,733.4	37.93	46.698		

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 Hebron 0780 3-18H
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:	Hebron 0780 3-18H	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		
8,600.0	7,100.0	6,782.0	6,780.5	40.6	13.2	-77.49	-86.7	-123.2	1,827.4	1,788.2	39.29	46.512		
8,700.0	7,100.0	6,782.0	6,780.5	41.4	13.2	-77.49	-86.7	-123.2	1,887.2	1,846.5	40.71	46.356		
8,800.0	7,100.0	6,782.0	6,780.5	42.3	13.2	-77.49	-86.7	-123.2	1,950.2	1,908.0	42.19	46.229		
8,900.0	7,100.0	6,782.0	6,780.5	43.3	13.2	-77.49	-86.7	-123.2	2,016.2	1,972.5	43.71	46.132		
9,000.0	7,100.0	6,766.5	6,765.3	44.3	13.2	-76.91	-89.3	-124.4	2,084.7	2,039.6	45.13	46.190		
9,100.0	7,100.0	6,751.0	6,750.0	45.4	13.1	-76.33	-91.6	-125.3	2,155.9	2,109.3	46.58	46.280		
9,200.0	7,100.0	6,751.0	6,750.0	46.5	13.1	-76.33	-91.6	-125.3	2,229.1	2,180.9	48.20	46.245		
9,300.0	7,100.0	6,751.0	6,750.0	47.7	13.1	-76.33	-91.6	-125.3	2,304.3	2,254.4	49.84	46.230		
9,400.0	7,100.0	6,751.0	6,750.0	49.0	13.1	-76.33	-91.6	-125.3	2,381.3	2,329.8	51.51	46.231		
9,500.0	7,100.0	6,751.0	6,750.0	50.3	13.1	-76.33	-91.6	-125.3	2,460.0	2,406.8	53.19	46.246		
9,600.0	7,100.0	6,751.0	6,750.0	51.7	13.1	-76.33	-91.6	-125.3	2,540.2	2,485.3	54.89	46.274		
9,700.0	7,100.0	6,751.0	6,750.0	53.1	13.1	-76.33	-91.6	-125.3	2,621.7	2,565.1	56.61	46.311		
9,800.0	7,100.0	6,751.0	6,750.0	54.5	13.1	-76.33	-91.6	-125.3	2,704.5	2,646.1	58.34	46.357		
9,900.0	7,100.0	6,751.0	6,750.0	56.0	13.1	-76.33	-91.6	-125.3	2,788.4	2,728.3	60.08	46.410		
10,000.0	7,100.0	6,751.0	6,750.0	57.5	13.1	-76.33	-91.6	-125.3	2,873.3	2,811.5	61.83	46.468		
10,100.0	7,100.0	6,751.0	6,750.0	59.0	13.1	-76.33	-91.6	-125.3	2,959.2	2,895.6	63.60	46.531		
10,200.0	7,100.0	6,737.7	6,736.8	60.6	13.1	-75.84	-93.3	-126.0	3,045.8	2,980.5	65.21	46.703		
10,300.0	7,100.0	6,736.1	6,735.2	62.1	13.1	-75.77	-93.4	-126.0	3,133.2	3,066.3	66.97	46.786		
10,400.0	7,100.0	6,734.5	6,733.6	63.8	13.1	-75.72	-93.6	-126.1	3,221.4	3,152.7	68.73	46.869		
10,500.0	7,100.0	6,720.0	6,719.2	65.4	13.1	-75.18	-95.0	-126.6	3,310.5	3,240.2	70.34	47.066		
10,600.0	7,100.0	6,720.0	6,719.2	67.0	13.1	-75.18	-95.0	-126.6	3,399.9	3,327.8	72.13	47.138		
10,700.0	7,100.0	6,720.0	6,719.2	68.7	13.1	-75.18	-95.0	-126.6	3,490.0	3,416.0	73.92	47.211		
10,800.0	7,100.0	6,720.0	6,719.2	70.4	13.1	-75.18	-95.0	-126.6	3,580.5	3,504.8	75.72	47.285		
10,900.0	7,100.0	6,720.0	6,719.2	72.1	13.1	-75.18	-95.0	-126.6	3,671.5	3,594.0	77.53	47.359		
11,000.0	7,100.0	6,720.0	6,719.2	73.8	13.1	-75.18	-95.0	-126.6	3,763.0	3,683.7	79.33	47.433		
11,100.0	7,100.0	6,720.0	6,719.2	75.5	13.1	-75.18	-95.0	-126.6	3,854.9	3,773.8	81.15	47.507		
11,200.0	7,100.0	6,720.0	6,719.2	77.2	13.1	-75.18	-95.0	-126.6	3,947.3	3,864.3	82.96	47.580		
11,300.0	7,100.0	6,720.0	6,719.2	79.0	13.1	-75.18	-95.0	-126.6	4,039.9	3,955.1	84.78	47.653		
11,400.0	7,100.0	6,720.0	6,719.2	80.7	13.1	-75.18	-95.0	-126.6	4,132.9	4,046.3	86.60	47.725		
11,500.0	7,100.0	6,720.0	6,719.2	82.5	13.1	-75.18	-95.0	-126.6	4,226.3	4,137.9	88.42	47.796		
11,600.0	7,100.0	6,720.0	6,719.2	84.3	13.1	-75.18	-95.0	-126.6	4,319.9	4,229.7	90.25	47.866		
11,700.0	7,100.0	6,720.0	6,719.2	86.0	13.1	-75.18	-95.0	-126.6	4,413.8	4,321.7	92.08	47.935		
11,800.0	7,100.0	6,720.0	6,719.2	87.8	13.1	-75.18	-95.0	-126.6	4,508.0	4,414.1	93.91	48.003		
11,900.0	7,100.0	6,720.0	6,719.2	89.6	13.1	-75.18	-95.0	-126.6	4,602.4	4,506.7	95.74	48.071		
12,000.0	7,100.0	6,720.0	6,719.2	91.4	13.1	-75.18	-95.0	-126.6	4,697.1	4,599.5	97.58	48.137		
12,100.0	7,100.0	6,720.0	6,719.2	93.2	13.1	-75.18	-95.0	-126.6	4,791.9	4,692.5	99.41	48.201		
12,200.0	7,100.0	6,720.0	6,719.2	95.0	13.1	-75.18	-95.0	-126.6	4,887.0	4,785.8	101.25	48.265		
12,281.1	7,100.0	6,720.0	6,719.2	96.5	13.1	-75.18	-95.0	-126.6	4,964.2	4,861.5	102.74	48.316		
12,281.8	7,100.0	6,720.0	6,719.2	96.7	13.1	-75.18	-95.0	-126.6	4,964.9	4,862.2	102.76	48.318		

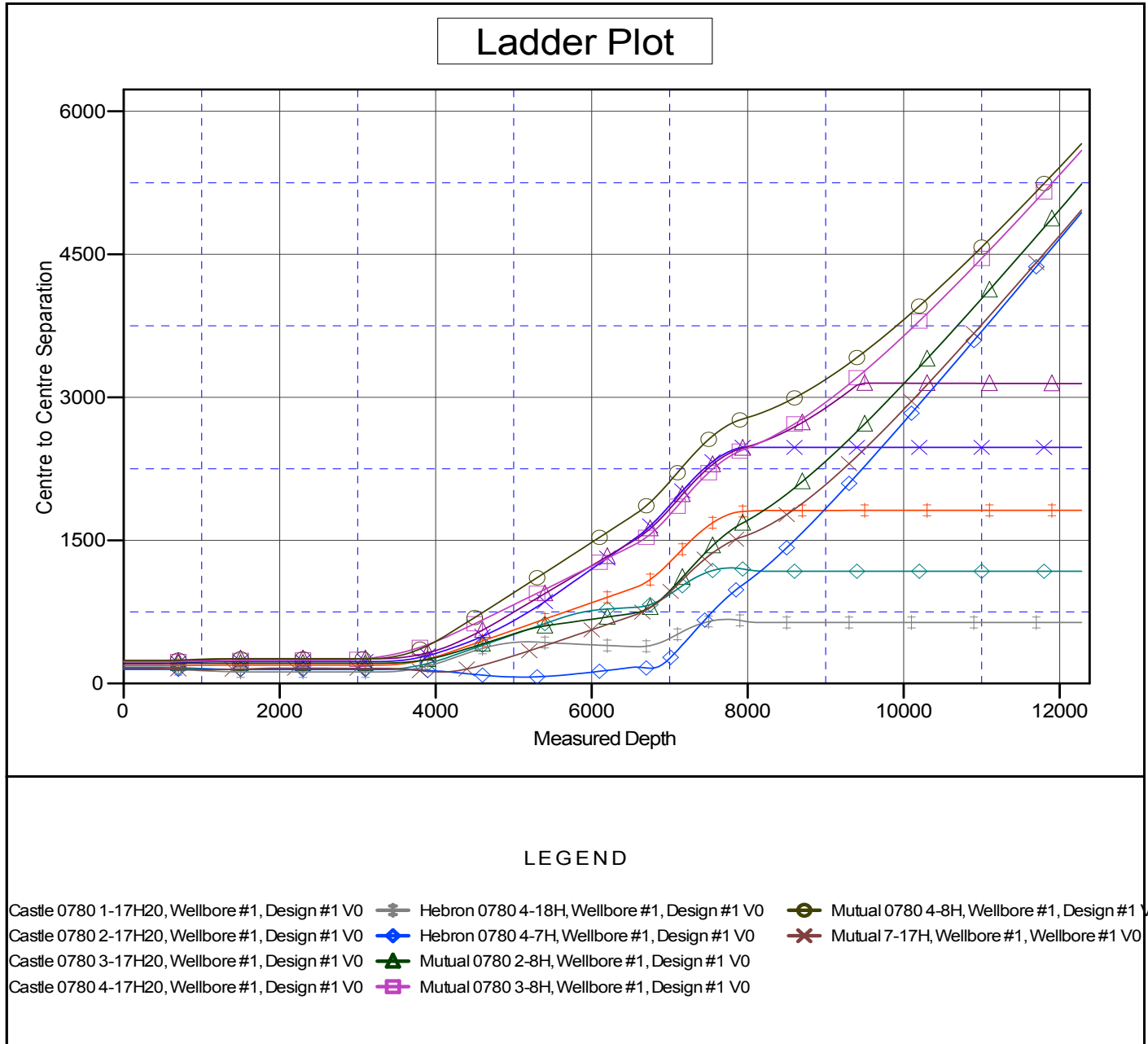
SandRidge Energy

Anticollision Report

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Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 3-18H	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: Hebron 0780 3-18H
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: -0.58°



SandRidge Energy

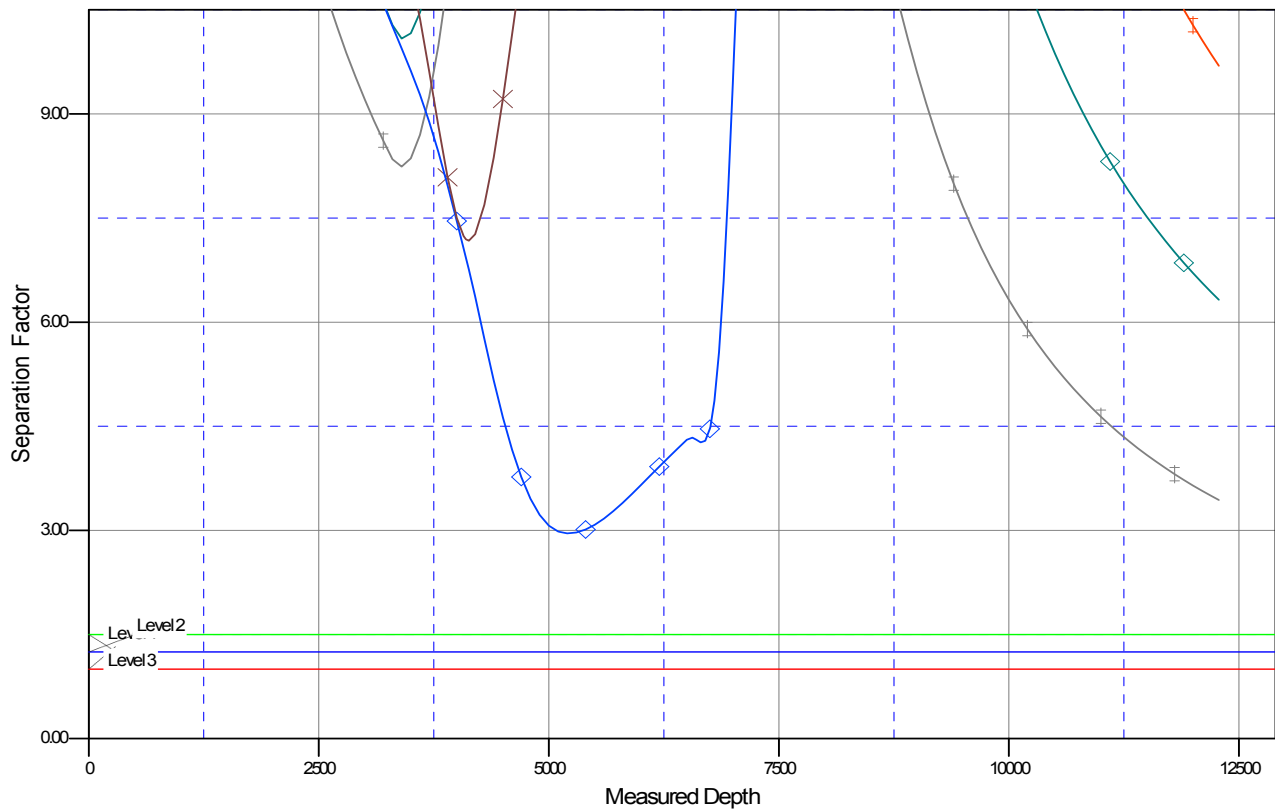
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Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: -0.58°

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