

# **SandRidge Energy**

**North Park Basin**

**T7N-R80W-S17**

**Mutual 0780 2-8H**

**Wellbore #1**

**Design #1**

## **Anticollision Report**

**14 December, 2015**

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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	11,852.6	Design #1 (Wellbore #1)	Sperry MWD	Fixed:v2:standard declination	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
T7N-R80W-S17						
Castle 0780 1-17H20 - Wellbore #1 - Design #1	500.0	500.0	151.3	149.3	76.165	CC, ES
Castle 0780 1-17H20 - Wellbore #1 - Design #1	6,467.8	6,466.3	229.4	200.5	7.918	SF
Castle 0780 2-17H20 - Wellbore #1 - Design #1	500.0	500.0	155.2	153.2	78.116	CC, ES
Castle 0780 2-17H20 - Wellbore #1 - Design #1	5,300.0	5,300.1	188.3	165.2	8.145	SF
Castle 0780 3-17H20 - Wellbore #1 - Design #1	500.0	500.0	161.5	159.5	81.264	CC, ES
Castle 0780 3-17H20 - Wellbore #1 - Design #1	4,500.0	4,493.2	182.5	162.9	9.279	SF
Castle 0780 4-17H20 - Wellbore #1 - Design #1	500.0	500.0	169.9	167.9	85.505	CC, ES
Castle 0780 4-17H20 - Wellbore #1 - Design #1	4,200.0	4,194.0	189.0	170.6	10.295	SF
Hebron 0780 3-18H - Wellbore #1 - Design #1	3,300.0	3,300.0	212.1	197.5	14.553	CC, ES
Hebron 0780 3-18H - Wellbore #1 - Design #1	3,600.0	3,586.7	221.1	205.3	13.953	SF
Hebron 0780 4-18H - Wellbore #1 - Design #1	500.0	500.0	150.0	148.0	75.487	CC
Hebron 0780 4-18H - Wellbore #1 - Design #1	4,500.0	4,500.0	153.6	133.9	7.797	ES
Hebron 0780 4-18H - Wellbore #1 - Design #1	4,700.0	4,696.6	156.7	136.1	7.619	SF
Hebron 0780 4-7H - Wellbore #1 - Design #1	3,465.6	3,468.6	149.8	134.4	9.774	CC
Hebron 0780 4-7H - Wellbore #1 - Design #1	3,500.0	3,502.9	149.8	134.3	9.677	ES
Hebron 0780 4-7H - Wellbore #1 - Design #1	11,853.4	12,088.5	699.8	503.2	3.559	SF
Mutual 0780 3-8H - Wellbore #1 - Design #1	500.0	500.0	20.0	18.0	10.072	CC, ES
Mutual 0780 3-8H - Wellbore #1 - Design #1	2,800.0	2,799.9	35.9	23.6	2.926	SF
Mutual 0780 4-8H - Wellbore #1 - Design #1	500.0	500.0	40.0	38.0	20.119	CC, ES
Mutual 0780 4-8H - Wellbore #1 - Design #1	3,200.0	3,198.2	61.7	47.8	4.426	SF
Mutual 7-17H - Wellbore #1 - Wellbore #1	7,231.9	7,591.6	196.7	164.3	6.076	CC
Mutual 7-17H - Wellbore #1 - Wellbore #1	7,250.0	7,605.6	197.1	164.2	5.992	ES
Mutual 7-17H - Wellbore #1 - Wellbore #1	7,350.0	7,694.5	212.6	176.3	5.861	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		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor															
							+N/-S (usft)	+E/-W (usft)																			
0.0	0.0	0.0	0.0	0.0	0.0	173.30	-150.3	17.7	151.3																		
100.0	100.0	100.0	100.0	0.1	0.1	173.30	-150.3	17.7	151.3	151.1	0.19	801.541															
200.0	200.0	200.0	200.0	0.3	0.3	173.30	-150.3	17.7	151.3	150.7	0.64	237.076															
300.0	300.0	300.0	300.0	0.5	0.5	173.30	-150.3	17.7	151.3	150.2	1.09	139.111															
400.0	400.0	400.0	400.0	0.8	0.8	173.30	-150.3	17.7	151.3	149.8	1.54	98.435															

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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		
500.0	500.0	500.0	500.0	1.0	1.0	173.30	-150.3	17.7	151.3	149.3	1.99	76.165	CC, ES	
600.0	600.0	596.3	596.3	1.2	1.2	173.72	-151.6	16.7	152.6	150.2	2.40	63.441		
700.0	700.0	693.1	693.0	1.4	1.4	174.93	-155.4	13.8	156.2	153.4	2.82	55.486		
800.0	800.0	792.9	792.6	1.7	1.6	176.36	-160.3	10.2	160.8	157.5	3.24	49.570		
900.0	900.0	892.8	892.3	1.9	1.8	177.72	-165.1	6.6	165.4	161.7	3.68	44.931		
1,000.0	1,000.0	992.6	991.9	2.1	2.0	179.00	-169.9	3.0	170.1	166.0	4.13	41.217		
1,100.0	1,100.0	1,092.4	1,091.5	2.3	2.3	-179.78	-174.7	-0.7	174.9	170.4	4.58	38.195		
1,200.0	1,200.0	1,192.2	1,191.2	2.6	2.5	-178.64	-179.5	-4.3	179.8	174.8	5.04	35.699		
1,300.0	1,300.0	1,292.0	1,290.8	2.8	2.7	-177.55	-184.4	-7.9	184.8	179.3	5.50	33.609		
1,400.0	1,400.0	1,395.6	1,394.2	3.0	3.0	-176.61	-188.7	-11.2	189.2	183.2	5.96	31.759		
1,500.0	1,500.0	1,501.4	1,500.0	3.2	3.2	-176.29	-190.3	-12.3	190.7	184.3	6.40	29.814		
1,600.0	1,600.0	1,601.4	1,600.0	3.5	3.4	-176.29	-190.3	-12.3	190.7	183.9	6.82	27.954		
1,700.0	1,700.0	1,701.4	1,700.0	3.7	3.6	-176.29	-190.3	-12.3	190.7	183.5	7.25	26.319		
1,800.0	1,800.0	1,801.4	1,800.0	3.9	3.8	-176.29	-190.3	-12.3	190.7	183.0	7.67	24.856		
1,900.0	1,900.0	1,901.4	1,900.0	4.1	4.0	-176.29	-190.3	-12.3	190.7	182.6	8.10	23.540		
2,000.0	2,000.0	2,001.4	2,000.0	4.4	4.2	-176.29	-190.3	-12.3	190.7	182.2	8.53	22.350		
2,100.0	2,100.0	2,101.4	2,100.0	4.6	4.4	-176.29	-190.3	-12.3	190.7	181.7	8.97	21.271		
2,200.0	2,200.0	2,201.4	2,200.0	4.8	4.6	-176.29	-190.3	-12.3	190.7	181.3	9.40	20.287		
2,300.0	2,300.0	2,301.4	2,300.0	5.0	4.8	-176.29	-190.3	-12.3	190.7	180.9	9.84	19.388		
2,400.0	2,400.0	2,401.4	2,400.0	5.3	5.0	-176.29	-190.3	-12.3	190.7	180.4	10.27	18.563		
2,500.0	2,500.0	2,501.4	2,500.0	5.5	5.2	-176.29	-190.3	-12.3	190.7	180.0	10.71	17.804		
2,600.0	2,600.0	2,601.4	2,600.0	5.7	5.5	-176.29	-190.3	-12.3	190.7	179.5	11.15	17.103		
2,700.0	2,700.0	2,701.4	2,700.0	5.9	5.7	-176.29	-190.3	-12.3	190.7	179.1	11.59	16.454		
2,800.0	2,800.0	2,801.4	2,800.0	6.2	5.9	-176.29	-190.3	-12.3	190.7	178.7	12.03	15.851		
2,900.0	2,900.0	2,901.4	2,900.0	6.4	6.1	-176.29	-190.3	-12.3	190.7	178.2	12.47	15.291		
3,000.0	3,000.0	3,001.4	3,000.0	6.6	6.3	-176.29	-190.3	-12.3	190.7	177.8	12.91	14.767		
3,100.0	3,100.0	3,101.4	3,100.0	6.8	6.5	-176.29	-190.3	-12.3	190.7	177.3	13.36	14.278		
3,200.0	3,200.0	3,201.4	3,200.0	7.1	6.8	-176.29	-190.3	-12.3	190.7	176.9	13.80	13.820		
3,300.0	3,300.0	3,301.4	3,300.0	7.3	7.0	-176.29	-190.3	-12.3	190.7	176.5	14.24	13.390		
3,400.0	3,400.0	3,401.4	3,400.0	7.5	7.2	-176.29	-190.3	-12.3	190.7	176.0	14.69	12.986		
3,500.0	3,500.0	3,501.4	3,500.0	7.7	7.4	-176.29	-190.3	-12.3	190.7	175.6	15.13	12.605		
3,600.0	3,600.0	3,601.4	3,600.0	8.0	7.6	-176.29	-190.3	-12.3	190.7	175.1	15.57	12.245		
3,700.0	3,700.0	3,701.4	3,700.0	8.2	7.9	-176.29	-190.3	-12.3	190.7	174.7	16.02	11.905		
3,800.0	3,800.0	3,801.4	3,800.0	8.4	8.1	-176.29	-190.3	-12.3	190.7	174.2	16.46	11.583		
3,900.0	3,900.0	3,901.4	3,900.0	8.6	8.3	-176.29	-190.3	-12.3	190.7	173.8	16.91	11.278		
4,000.0	4,000.0	4,001.4	4,000.0	8.9	8.5	-176.29	-190.3	-12.3	190.7	173.3	17.35	10.989		
4,100.0	4,100.0	4,101.4	4,100.0	9.1	8.7	-176.29	-190.3	-12.3	190.7	172.9	17.80	10.714		
4,200.0	4,200.0	4,201.4	4,200.0	9.3	9.0	-176.29	-190.3	-12.3	190.7	172.5	18.25	10.452		
4,300.0	4,300.0	4,301.4	4,300.0	9.5	9.2	-176.29	-190.3	-12.3	190.7	172.0	18.69	10.203		
4,400.0	4,400.0	4,401.4	4,400.0	9.8	9.4	-176.29	-190.3	-12.3	190.7	171.6	19.14	9.965		
4,500.0	4,500.0	4,501.4	4,500.0	10.0	9.6	-176.29	-190.3	-12.3	190.7	171.1	19.58	9.738		
4,600.0	4,600.0	4,601.4	4,600.0	10.2	9.8	-176.29	-190.3	-12.3	190.7	170.7	20.03	9.521		
4,700.0	4,700.0	4,701.4	4,700.0	10.4	10.1	-176.29	-190.3	-12.3	190.7	170.2	20.48	9.313		
4,800.0	4,800.0	4,801.4	4,800.0	10.7	10.3	-176.29	-190.3	-12.3	190.7	169.8	20.92	9.114		
4,900.0	4,900.0	4,901.4	4,900.0	10.9	10.5	-176.29	-190.3	-12.3	190.7	169.3	21.37	8.924		
5,000.0	5,000.0	5,001.4	5,000.0	11.1	10.7	-176.29	-190.3	-12.3	190.7	168.9	21.82	8.741		
5,100.0	5,100.0	5,101.4	5,100.0	11.3	11.0	-86.82	-190.3	-12.3	190.6	168.3	22.26	8.563		
5,200.0	5,199.8	5,201.2	5,199.8	11.5	11.2	-88.39	-190.3	-12.3	190.4	167.7	22.68	8.393		
5,266.0	5,265.6	5,267.0	5,265.6	11.7	11.3	-90.00	-190.3	-12.3	190.3	167.3	22.96	8.287		
5,300.0	5,299.5	5,300.9	5,299.5	11.7	11.4	-91.00	-190.3	-12.3	190.3	167.2	23.11	8.236		
5,400.0	5,398.7	5,400.1	5,398.7	11.9	11.6	-94.62	-190.3	-12.3	190.9	167.4	23.54	8.110		
5,477.5	5,475.3	5,476.7	5,475.3	12.1	11.8	-98.07	-190.3	-12.3	192.3	168.4	23.88	8.050		

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
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<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 1-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,500.0	5,497.5	5,498.9	5,497.5	12.2	11.8	-99.15	-190.3	-12.3	192.8	168.8	23.98	8.040		
5,600.0	5,596.1	5,597.6	5,596.1	12.4	12.0	-103.41	-190.7	-13.9	196.2	171.7	24.42	8.033		
5,700.0	5,694.7	5,697.1	5,695.5	12.6	12.3	-106.57	-191.8	-18.9	200.3	175.5	24.86	8.059		
5,800.0	5,793.3	5,797.3	5,795.4	12.9	12.5	-108.64	-193.8	-27.3	204.7	179.4	25.31	8.088		
5,900.0	5,891.9	5,897.9	5,895.3	13.1	12.7	-109.67	-196.6	-39.1	208.9	183.2	25.79	8.103		
6,000.0	5,990.6	5,998.7	5,994.8	13.4	12.9	-109.71	-200.2	-54.4	212.8	186.5	26.28	8.096		
6,100.0	6,089.2	6,099.4	6,093.7	13.7	13.2	-108.82	-204.6	-73.0	216.3	189.4	26.81	8.067		
6,200.0	6,187.8	6,199.8	6,191.5	13.9	13.5	-107.05	-209.7	-95.0	219.5	192.1	27.36	8.023		
6,300.0	6,286.4	6,299.5	6,287.9	14.2	13.8	-104.50	-215.6	-119.9	222.8	194.9	27.95	7.974		
6,400.0	6,385.0	6,398.9	6,383.7	14.5	14.1	-101.85	-221.6	-145.4	226.6	198.1	28.55	7.936		
6,467.8	6,451.9	6,466.3	6,448.8	14.7	14.3	-100.11	-225.7	-162.7	229.4	200.5	28.98	7.918 SF		
6,500.0	6,483.6	6,498.2	6,479.5	14.8	14.4	-118.23	-227.6	-170.9	231.7	202.6	29.13	7.954		
6,550.0	6,532.7	6,546.2	6,525.8	14.9	14.6	-140.65	-230.5	-183.2	238.9	209.6	29.28	8.158		
6,600.0	6,581.3	6,581.1	6,559.2	15.1	14.7	-154.24	-233.8	-192.7	251.8	222.6	29.27	8.604		
6,650.0	6,629.0	6,613.4	6,589.7	15.2	14.8	-161.92	-238.5	-202.1	271.5	242.3	29.14	9.316		
6,700.0	6,675.4	6,650.0	6,623.7	15.4	15.0	-166.02	-245.7	-213.7	297.4	268.5	28.92	10.283		
6,750.0	6,720.1	6,667.6	6,639.7	15.5	15.0	-169.38	-250.0	-219.5	328.6	300.0	28.52	11.519		
6,800.0	6,762.9	6,689.0	6,659.0	15.6	15.1	-171.45	-255.8	-226.8	364.7	336.6	28.05	13.001		
6,850.0	6,803.4	6,700.0	6,668.8	15.8	15.2	-173.65	-259.0	-230.7	404.8	377.4	27.45	14.750		
6,900.0	6,841.3	6,720.7	6,687.0	16.0	15.3	-174.74	-265.6	-238.2	448.0	421.2	26.81	16.708		
6,950.0	6,876.2	6,731.5	6,696.2	16.1	15.3	-176.62	-269.2	-242.2	493.8	467.7	26.09	18.924		
7,000.0	6,908.1	6,750.0	6,712.0	16.3	15.4	-177.74	-276.0	-249.1	541.6	516.2	25.37	21.344		
7,050.0	6,936.5	6,750.0	6,712.0	16.6	15.4	176.96	-276.0	-249.1	590.3	565.7	24.63	23.966		
7,072.4	6,948.1	6,750.0	6,712.0	16.7	15.4	172.53	-276.0	-249.1	612.5	588.1	24.41	25.090		
7,100.0	6,961.9	6,750.0	6,712.0	16.9	15.4	172.53	-276.0	-249.1	639.9	615.4	24.46	26.159		
7,200.0	7,011.9	6,750.0	6,712.0	17.5	15.4	172.53	-276.0	-249.1	739.2	714.5	24.66	29.980		
7,222.4	7,023.1	6,750.0	6,712.0	17.7	15.4	172.53	-276.0	-249.1	761.5	736.8	24.70	30.823		
7,250.0	7,036.3	6,750.0	6,712.0	17.9	15.4	165.94	-276.0	-249.1	789.0	764.3	24.70	31.940		
7,300.0	7,057.2	6,750.0	6,712.0	18.4	15.4	18.82	-276.0	-249.1	839.0	814.3	24.64	34.052		
7,350.0	7,074.1	6,750.0	6,712.0	18.9	15.4	5.56	-276.0	-249.1	888.8	865.7	23.12	38.446		
7,400.0	7,086.8	6,750.0	6,712.0	19.4	15.4	3.19	-276.0	-249.1	938.1	915.5	22.62	41.467		
7,450.0	7,095.2	6,750.0	6,712.0	19.9	15.4	2.21	-276.0	-249.1	986.8	964.4	22.33	44.186		
7,500.0	7,099.4	6,750.0	6,712.0	20.5	15.4	1.68	-276.0	-249.1	1,034.4	1,012.2	22.22	46.558		
7,522.4	7,099.8	6,750.0	6,712.0	20.8	15.4	1.51	-276.0	-249.1	1,055.3	1,033.1	22.22	47.489		
7,600.0	7,099.8	6,726.7	6,692.1	21.8	15.3	2.67	-267.6	-240.4	1,127.2	1,104.8	22.41	50.293		
7,700.0	7,099.8	6,700.0	6,668.8	23.1	15.2	3.81	-259.0	-230.7	1,221.1	1,198.4	22.71	53.764		
7,800.0	7,099.8	6,700.0	6,668.8	24.5	15.2	3.81	-259.0	-230.7	1,315.1	1,292.0	23.07	57.003		
7,900.0	7,099.8	6,700.0	6,668.8	26.0	15.2	3.81	-259.0	-230.7	1,409.9	1,386.4	23.46	60.095		
8,000.0	7,099.8	6,700.0	6,668.8	27.6	15.2	3.81	-259.0	-230.7	1,505.4	1,481.5	23.88	63.036		
8,100.0	7,099.8	6,679.1	6,650.1	29.2	15.1	4.57	-253.0	-223.4	1,601.0	1,576.6	24.33	65.806		
8,200.0	7,099.8	6,671.9	6,643.6	30.8	15.1	4.82	-251.1	-220.9	1,697.1	1,672.3	24.81	68.414		
8,300.0	7,099.8	6,650.0	6,623.7	32.5	15.0	5.49	-245.7	-213.7	1,793.8	1,768.5	25.32	70.851		
8,400.0	7,099.8	6,650.0	6,623.7	34.1	15.0	5.49	-245.7	-213.7	1,890.4	1,864.5	25.84	73.154		
8,500.0	7,099.8	6,650.0	6,623.7	35.9	15.0	5.49	-245.7	-213.7	1,987.3	1,960.9	26.38	75.326		
8,600.0	7,099.8	6,650.0	6,623.7	37.6	15.0	5.49	-245.7	-213.7	2,084.5	2,057.5	26.94	77.374		
8,700.0	7,099.8	6,650.0	6,623.7	39.3	15.0	5.49	-245.7	-213.7	2,181.9	2,154.4	27.51	79.306		
8,800.0	7,099.8	6,650.0	6,623.7	41.1	15.0	5.49	-245.7	-213.7	2,279.6	2,251.5	28.10	81.128		
8,900.0	7,099.8	6,650.0	6,623.7	42.9	15.0	5.49	-245.7	-213.7	2,377.5	2,348.8	28.70	82.846		
9,000.0	7,099.8	6,629.9	6,605.2	44.7	14.9	6.02	-241.5	-207.2	2,475.1	2,445.7	29.34	84.349		
9,100.0	7,099.8	6,626.1	6,601.6	46.5	14.9	6.11	-240.7	-206.0	2,573.1	2,543.1	29.97	85.844		
9,200.0	7,099.8	6,622.5	6,598.2	48.3	14.9	6.20	-240.1	-204.9	2,671.3	2,640.6	30.62	87.252		
9,300.0	7,099.8	6,600.0	6,577.1	50.1	14.8	6.69	-236.3	-198.1	2,769.9	2,738.6	31.31	88.478		

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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	7,099.8	6,600.0	6,577.1	52.0	14.8	6.69	-236.3	-198.1	2,868.1	2,836.1	31.96	89.742		
9,500.0	7,099.8	6,600.0	6,577.1	53.8	14.8	6.69	-236.3	-198.1	2,966.5	2,933.8	32.62	90.940		
9,600.0	7,099.8	6,600.0	6,577.1	55.7	14.8	6.69	-236.3	-198.1	3,064.9	3,031.6	33.29	92.075		
9,700.0	7,099.8	6,600.0	6,577.1	57.5	14.8	6.69	-236.3	-198.1	3,163.5	3,129.5	33.96	93.153		
9,800.0	7,099.8	6,600.0	6,577.1	59.4	14.8	6.69	-236.3	-198.1	3,262.1	3,227.5	34.64	94.178		
9,900.0	7,099.8	6,600.0	6,577.1	61.2	14.8	6.69	-236.3	-198.1	3,360.9	3,325.5	35.32	95.152		
10,000.0	7,099.8	6,600.0	6,577.1	63.1	14.8	6.69	-236.3	-198.1	3,459.7	3,423.7	36.01	96.080		
10,100.0	7,099.8	6,600.0	6,577.1	65.0	14.8	6.69	-236.3	-198.1	3,558.5	3,521.8	36.70	96.963		
10,200.0	7,099.8	6,600.0	6,577.1	66.8	14.8	6.69	-236.3	-198.1	3,657.5	3,620.1	37.40	97.806		
10,300.0	7,099.8	6,600.0	6,577.1	68.7	14.8	6.69	-236.3	-198.1	3,756.5	3,718.4	38.09	98.610		
10,400.0	7,099.8	6,600.0	6,577.1	70.6	14.8	6.69	-236.3	-198.1	3,855.5	3,816.7	38.80	99.378		
10,500.0	7,099.8	6,600.0	6,577.1	72.5	14.8	6.69	-236.3	-198.1	3,954.6	3,915.1	39.50	100.113		
10,600.0	7,099.8	6,600.0	6,577.1	74.4	14.8	6.69	-236.3	-198.1	4,053.7	4,013.5	40.21	100.815		
10,700.0	7,099.8	6,600.0	6,577.1	76.2	14.8	6.69	-236.3	-198.1	4,152.9	4,112.0	40.92	101.488		
10,800.0	7,099.8	6,600.0	6,577.1	78.1	14.8	6.69	-236.3	-198.1	4,252.1	4,210.5	41.63	102.133		
10,900.0	7,099.8	6,600.0	6,577.1	80.0	14.8	6.69	-236.3	-198.1	4,351.4	4,309.0	42.35	102.752		
11,000.0	7,099.8	6,600.0	6,577.1	81.9	14.8	6.69	-236.3	-198.1	4,450.6	4,407.6	43.07	103.345		
11,100.0	7,099.8	6,600.0	6,577.1	83.8	14.8	6.69	-236.3	-198.1	4,549.9	4,506.2	43.79	103.915		
11,200.0	7,099.8	6,600.0	6,577.1	85.7	14.8	6.69	-236.3	-198.1	4,649.3	4,604.8	44.51	104.463		
11,300.0	7,099.8	6,577.0	6,555.4	87.6	14.7	7.11	-233.3	-191.5	4,748.2	4,702.8	45.34	104.716		
11,400.0	7,099.8	6,575.7	6,554.1	89.5	14.7	7.13	-233.1	-191.1	4,847.5	4,801.5	46.08	105.202		
11,500.0	7,099.8	6,574.5	6,552.9	91.4	14.7	7.15	-233.0	-190.8	4,946.9	4,900.1	46.81	105.670		
11,600.0	7,099.8	6,573.2	6,551.7	93.3	14.7	7.17	-232.9	-190.5	5,046.3	4,998.7	47.55	106.121		
11,700.0	7,099.8	6,550.0	6,529.5	95.2	14.6	7.51	-230.8	-184.2	5,146.1	5,097.7	48.39	106.344		
11,800.0	7,099.8	6,550.0	6,529.5	97.1	14.6	7.51	-230.8	-184.2	5,245.5	5,196.4	49.13	106.770		
11,853.4	7,099.8	6,550.0	6,529.5	97.9	14.6	7.51	-230.8	-184.2	5,298.6	5,249.3	49.34	107.389		

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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	165.98	-150.6	37.6	155.2					
100.0	100.0	100.0	100.0	0.1	0.1	165.98	-150.6	37.6	155.2	155.0	0.19	822.074		
200.0	200.0	200.0	200.0	0.3	0.3	165.98	-150.6	37.6	155.2	154.6	0.64	243.149		
300.0	300.0	300.0	300.0	0.5	0.5	165.98	-150.6	37.6	155.2	154.1	1.09	142.674		
400.0	400.0	400.0	400.0	0.8	0.8	165.98	-150.6	37.6	155.2	153.7	1.54	100.957		
500.0	500.0	500.0	500.0	1.0	1.0	165.98	-150.6	37.6	155.2	153.2	1.99	78.116 CC, ES		
600.0	600.0	595.0	595.0	1.2	1.2	166.12	-152.2	37.6	156.8	154.4	2.40	65.371		
700.0	700.0	693.1	693.0	1.4	1.4	166.48	-156.4	37.6	161.0	158.2	2.81	57.365		
800.0	800.0	793.0	792.8	1.7	1.6	166.84	-160.8	37.6	165.3	162.1	3.23	51.177		
900.0	900.0	892.9	892.6	1.9	1.8	167.19	-165.3	37.6	169.6	166.0	3.66	46.294		
1,000.0	1,000.0	992.8	992.4	2.1	2.0	167.51	-169.7	37.6	174.0	169.9	4.11	42.372		
1,100.0	1,100.0	1,092.7	1,092.2	2.3	2.2	167.82	-174.2	37.6	178.3	173.8	4.55	39.169		
1,200.0	1,200.0	1,193.9	1,193.3	2.6	2.4	168.11	-178.6	37.6	182.6	177.6	5.01	36.491		
1,300.0	1,300.0	1,300.6	1,300.0	2.8	2.7	168.24	-180.6	37.6	184.5	179.0	5.45	33.823		
1,400.0	1,400.0	1,400.6	1,400.0	3.0	2.9	168.24	-180.6	37.6	184.5	178.6	5.88	31.353		
1,500.0	1,500.0	1,500.6	1,500.0	3.2	3.1	168.24	-180.6	37.6	184.5	178.1	6.31	29.229		
1,600.0	1,600.0	1,600.6	1,600.0	3.5	3.3	168.24	-180.6	37.6	184.5	177.7	6.74	27.363		
1,700.0	1,700.0	1,700.6	1,700.0	3.7	3.5	168.24	-180.6	37.6	184.5	177.3	7.17	25.713		
1,800.0	1,800.0	1,800.6	1,800.0	3.9	3.7	168.24	-180.6	37.6	184.5	176.9	7.61	24.244		
1,900.0	1,900.0	1,900.6	1,900.0	4.1	3.9	168.24	-180.6	37.6	184.5	176.4	8.04	22.929		
2,000.0	2,000.0	2,000.6	2,000.0	4.4	4.1	168.24	-180.6	37.6	184.5	176.0	8.48	21.746		
2,100.0	2,100.0	2,100.6	2,100.0	4.6	4.3	168.24	-180.6	37.6	184.5	175.5	8.92	20.676		
2,200.0	2,200.0	2,200.6	2,200.0	4.8	4.5	168.24	-180.6	37.6	184.5	175.1	9.36	19.704		
2,300.0	2,300.0	2,300.6	2,300.0	5.0	4.8	168.24	-180.6	37.6	184.5	174.7	9.80	18.818		
2,400.0	2,400.0	2,400.6	2,400.0	5.3	5.0	168.24	-180.6	37.6	184.5	174.2	10.24	18.007		
2,500.0	2,500.0	2,500.6	2,500.0	5.5	5.2	168.24	-180.6	37.6	184.5	173.8	10.69	17.261		
2,600.0	2,600.0	2,600.6	2,600.0	5.7	5.4	168.24	-180.6	37.6	184.5	173.3	11.13	16.575		
2,700.0	2,700.0	2,700.6	2,700.0	5.9	5.6	168.24	-180.6	37.6	184.5	172.9	11.57	15.940		
2,800.0	2,800.0	2,800.6	2,800.0	6.2	5.9	168.24	-180.6	37.6	184.5	172.4	12.02	15.351		
2,900.0	2,900.0	2,900.6	2,900.0	6.4	6.1	168.24	-180.6	37.6	184.5	172.0	12.46	14.803		
3,000.0	3,000.0	3,000.6	3,000.0	6.6	6.3	168.24	-180.6	37.6	184.5	171.6	12.91	14.293		
3,100.0	3,100.0	3,100.6	3,100.0	6.8	6.5	168.24	-180.6	37.6	184.5	171.1	13.35	13.817		
3,200.0	3,200.0	3,200.6	3,200.0	7.1	6.7	168.24	-180.6	37.6	184.5	170.7	13.80	13.371		
3,300.0	3,300.0	3,300.6	3,300.0	7.3	7.0	168.24	-180.6	37.6	184.5	170.2	14.24	12.953		
3,400.0	3,400.0	3,400.6	3,400.0	7.5	7.2	168.24	-180.6	37.6	184.5	169.8	14.69	12.560		
3,500.0	3,500.0	3,500.6	3,500.0	7.7	7.4	168.24	-180.6	37.6	184.5	169.3	15.13	12.189		
3,600.0	3,600.0	3,600.6	3,600.0	8.0	7.6	168.24	-180.6	37.6	184.5	168.9	15.58	11.840		
3,700.0	3,700.0	3,700.6	3,700.0	8.2	7.8	168.24	-180.6	37.6	184.5	168.4	16.03	11.510		
3,800.0	3,800.0	3,800.6	3,800.0	8.4	8.1	168.24	-180.6	37.6	184.5	168.0	16.47	11.198		
3,900.0	3,900.0	3,900.6	3,900.0	8.6	8.3	168.24	-180.6	37.6	184.5	167.5	16.92	10.903		
4,000.0	4,000.0	4,000.6	4,000.0	8.9	8.5	168.24	-180.6	37.6	184.5	167.1	17.37	10.622		
4,100.0	4,100.0	4,100.6	4,100.0	9.1	8.7	168.24	-180.6	37.6	184.5	166.6	17.81	10.355		
4,200.0	4,200.0	4,200.6	4,200.0	9.3	9.0	168.24	-180.6	37.6	184.5	166.2	18.26	10.102		
4,300.0	4,300.0	4,300.6	4,300.0	9.5	9.2	168.24	-180.6	37.6	184.5	165.8	18.71	9.860		
4,400.0	4,400.0	4,400.6	4,400.0	9.8	9.4	168.24	-180.6	37.6	184.5	165.3	19.15	9.630		
4,500.0	4,500.0	4,500.6	4,500.0	10.0	9.6	168.24	-180.6	37.6	184.5	164.9	19.60	9.410		
4,600.0	4,600.0	4,600.6	4,600.0	10.2	9.8	168.24	-180.6	37.6	184.5	164.4	20.05	9.200		
4,700.0	4,700.0	4,700.6	4,700.0	10.4	10.1	168.24	-180.6	37.6	184.5	164.0	20.50	8.999		
4,800.0	4,800.0	4,800.6	4,800.0	10.7	10.3	168.24	-180.6	37.6	184.5	163.5	20.95	8.807		
4,900.0	4,900.0	4,900.6	4,900.0	10.9	10.5	168.24	-180.6	37.6	184.5	163.1	21.39	8.623		
5,000.0	5,000.0	5,000.6	5,000.0	11.1	10.7	168.24	-180.6	37.6	184.5	162.6	21.84	8.446		
5,100.0	5,100.0	5,100.6	5,100.0	11.3	11.0	-102.28	-180.6	37.6	184.8	162.6	22.27	8.298		

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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		
5,200.0	5,199.8	5,200.5	5,199.8	11.5	11.2	-103.83	-180.6	37.6	186.0	163.3	22.69	8.196		
5,300.0	5,299.5	5,300.1	5,299.5	11.7	11.4	-106.35	-180.6	37.6	188.3	165.2	23.12	8.145 SF		
5,400.0	5,398.7	5,399.3	5,398.7	11.9	11.6	-109.75	-180.6	37.6	192.1	168.6	23.54	8.160		
5,477.5	5,475.3	5,475.9	5,475.3	12.1	11.8	-112.88	-180.6	37.6	196.4	172.6	23.87	8.231		
5,500.0	5,497.5	5,498.1	5,497.5	12.2	11.8	-113.87	-180.6	37.6	197.9	174.0	23.96	8.260		
5,600.0	5,596.1	5,596.7	5,596.1	12.4	12.1	-118.06	-180.6	37.6	205.3	180.9	24.39	8.415		
5,700.0	5,694.7	5,695.3	5,694.7	12.6	12.3	-121.95	-180.6	37.6	213.7	188.8	24.83	8.606		
5,800.0	5,793.3	5,793.9	5,793.3	12.9	12.5	-125.54	-180.6	37.6	223.0	197.7	25.26	8.826		
5,900.0	5,891.9	5,892.6	5,891.9	13.1	12.7	-128.83	-180.6	37.6	233.1	207.4	25.70	9.070		
6,000.0	5,990.6	5,991.2	5,990.6	13.4	12.9	-131.84	-180.6	37.6	243.9	217.8	26.14	9.332		
6,100.0	6,089.2	6,089.8	6,089.2	13.7	13.2	-134.60	-180.6	37.6	255.4	228.8	26.58	9.609		
6,200.0	6,187.8	6,188.4	6,187.8	13.9	13.4	-137.11	-180.6	37.6	267.4	240.3	27.02	9.897		
6,300.0	6,286.4	6,287.0	6,286.4	14.2	13.6	-139.41	-180.6	37.6	279.8	252.4	27.46	10.192		
6,400.0	6,385.0	6,385.6	6,385.0	14.5	13.8	-141.51	-180.6	37.6	292.7	264.8	27.89	10.493		
6,467.8	6,451.9	6,451.7	6,451.1	14.7	14.0	-142.82	-180.6	37.6	301.6	273.4	28.19	10.699		
6,500.0	6,483.6	6,475.7	6,475.1	14.8	14.0	-162.49	-181.1	37.6	306.8	278.6	28.25	10.861		
6,550.0	6,532.7	6,511.4	6,510.7	14.9	14.1	173.04	-183.7	37.9	318.4	290.1	28.32	11.244		
6,600.0	6,581.3	6,550.0	6,548.9	15.1	14.2	158.17	-189.0	38.3	334.2	305.8	28.35	11.786		
6,650.0	6,629.0	6,576.4	6,574.8	15.2	14.2	148.84	-194.0	38.8	354.0	325.6	28.33	12.493		
6,700.0	6,675.4	6,600.0	6,597.7	15.4	14.3	142.43	-199.6	39.3	377.9	349.6	28.29	13.357		
6,750.0	6,720.1	6,628.4	6,624.9	15.5	14.3	138.03	-207.5	39.9	405.8	377.5	28.25	14.362		
6,800.0	6,762.9	6,650.0	6,645.4	15.6	14.4	133.85	-214.4	40.6	437.3	409.1	28.23	15.493		
6,850.0	6,803.4	6,665.5	6,660.0	15.8	14.4	129.21	-219.9	41.0	472.3	444.0	28.29	16.697		
6,900.0	6,841.3	6,678.8	6,672.3	16.0	14.4	124.06	-224.8	41.5	510.1	481.6	28.48	17.913		
6,950.0	6,876.2	6,700.0	6,691.7	16.1	14.5	119.61	-233.4	42.2	550.5	521.7	28.77	19.136		
7,000.0	6,908.1	6,700.0	6,691.7	16.3	14.5	111.26	-233.4	42.2	592.3	563.0	29.39	20.156		
7,050.0	6,936.5	6,700.0	6,691.7	16.6	14.5	101.87	-233.4	42.2	635.7	605.6	30.10	21.118		
7,072.4	6,948.1	6,700.0	6,691.7	16.7	14.5	97.41	-233.4	42.2	655.5	625.1	30.40	21.564		
7,100.0	6,961.9	6,700.0	6,691.7	16.9	14.5	97.41	-233.4	42.2	680.1	649.5	30.57	22.244		
7,200.0	7,011.9	6,700.0	6,691.7	17.5	14.5	97.41	-233.4	42.2	770.8	739.5	31.29	24.631		
7,222.4	7,023.1	6,700.0	6,691.7	17.7	14.5	97.41	-233.4	42.2	791.4	760.0	31.47	25.147		
7,250.0	7,036.3	6,700.0	6,691.7	17.9	14.5	90.63	-233.4	42.2	817.0	785.1	31.88	25.628		
7,300.0	7,057.2	6,700.0	6,691.7	18.4	14.5	77.83	-233.4	42.2	863.6	831.5	32.08	26.924		
7,350.0	7,074.1	6,700.0	6,691.7	18.9	14.5	65.53	-233.4	42.2	910.3	878.8	31.45	28.944		
7,400.0	7,086.8	6,700.0	6,691.7	19.4	14.5	54.79	-233.4	42.2	956.7	926.4	30.23	31.642		
7,450.0	7,095.2	6,700.0	6,691.7	19.9	14.5	46.01	-233.4	42.2	1,002.4	973.6	28.83	34.770		
7,500.0	7,099.4	6,700.0	6,691.7	20.5	14.5	39.07	-233.4	42.2	1,047.4	1,019.9	27.54	38.033		
7,522.4	7,099.8	6,700.0	6,691.7	20.8	14.5	36.46	-233.4	42.2	1,067.2	1,040.2	27.04	39.468		
7,600.0	7,099.8	6,677.7	6,671.2	21.8	14.4	35.06	-224.4	41.4	1,135.4	1,108.2	27.23	41.691		
7,700.0	7,099.8	6,650.0	6,645.4	23.1	14.4	33.43	-214.4	40.6	1,225.2	1,197.6	27.54	44.493		
7,800.0	7,099.8	6,650.0	6,645.4	24.5	14.4	33.43	-214.4	40.6	1,315.5	1,287.2	28.32	46.446		
7,900.0	7,099.8	6,650.0	6,645.4	26.0	14.4	33.43	-214.4	40.6	1,407.1	1,378.0	29.16	48.255		
8,000.0	7,099.8	6,650.0	6,645.4	27.6	14.4	33.43	-214.4	40.6	1,499.8	1,469.8	30.04	49.924		
8,100.0	7,099.8	6,626.7	6,623.4	29.2	14.3	32.14	-207.0	39.9	1,592.8	1,562.3	30.50	52.226		
8,200.0	7,099.8	6,619.1	6,616.1	30.8	14.3	31.73	-204.8	39.7	1,686.6	1,655.4	31.27	53.940		
8,300.0	7,099.8	6,600.0	6,597.7	32.5	14.3	30.74	-199.6	39.3	1,781.2	1,749.4	31.82	55.979		
8,400.0	7,099.8	6,600.0	6,597.7	34.1	14.3	30.74	-199.6	39.3	1,876.0	1,843.2	32.77	57.251		
8,500.0	7,099.8	6,600.0	6,597.7	35.9	14.3	30.74	-199.6	39.3	1,971.3	1,937.5	33.74	58.429		
8,600.0	7,099.8	6,600.0	6,597.7	37.6	14.3	30.74	-199.6	39.3	2,067.0	2,032.2	34.73	59.522		
8,700.0	7,099.8	6,600.0	6,597.7	39.3	14.3	30.74	-199.6	39.3	2,163.1	2,127.3	35.73	60.538		
8,800.0	7,099.8	6,600.0	6,597.7	41.1	14.3	30.74	-199.6	39.3	2,259.5	2,222.8	36.75	61.484		
8,900.0	7,099.8	6,579.8	6,578.1	42.9	14.2	29.75	-194.8	38.8	2,355.8	2,318.6	37.26	63.229		

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,000.0	7,099.8	6,575.6	6,574.0	44.7	14.2	29.55	-193.9	38.8	2,452.6	2,414.5	38.17	64.252		
9,100.0	7,099.8	6,571.7	6,570.2	46.5	14.2	29.37	-193.1	38.7	2,549.6	2,510.6	39.09	65.217		
9,200.0	7,099.8	6,550.0	6,548.9	48.3	14.2	28.39	-189.0	38.3	2,647.2	2,607.7	39.55	66.936		
9,300.0	7,099.8	6,550.0	6,548.9	50.1	14.2	28.39	-189.0	38.3	2,744.5	2,703.9	40.57	67.650		
9,400.0	7,099.8	6,550.0	6,548.9	52.0	14.2	28.39	-189.0	38.3	2,841.9	2,800.3	41.60	68.323		
9,500.0	7,099.8	6,550.0	6,548.9	53.8	14.2	28.39	-189.0	38.3	2,939.5	2,896.9	42.63	68.956		
9,600.0	7,099.8	6,550.0	6,548.9	55.7	14.2	28.39	-189.0	38.3	3,037.3	2,993.7	43.67	69.553		
9,700.0	7,099.8	6,550.0	6,548.9	57.5	14.2	28.39	-189.0	38.3	3,135.2	3,090.5	44.71	70.117		
9,800.0	7,099.8	6,550.0	6,548.9	59.4	14.2	28.39	-189.0	38.3	3,233.3	3,187.5	45.76	70.651		
9,900.0	7,099.8	6,550.0	6,548.9	61.2	14.2	28.39	-189.0	38.3	3,331.4	3,284.6	46.82	71.156		
10,000.0	7,099.8	6,550.0	6,548.9	63.1	14.2	28.39	-189.0	38.3	3,429.7	3,381.8	47.88	71.636		
10,100.0	7,099.8	6,550.0	6,548.9	65.0	14.2	28.39	-189.0	38.3	3,528.1	3,479.1	48.94	72.091		
10,200.0	7,099.8	6,550.0	6,548.9	66.8	14.2	28.39	-189.0	38.3	3,626.5	3,576.5	50.01	72.523		
10,300.0	7,099.8	6,550.0	6,548.9	68.7	14.2	28.39	-189.0	38.3	3,725.1	3,674.0	51.07	72.935		
10,400.0	7,099.8	6,550.0	6,548.9	70.6	14.2	28.39	-189.0	38.3	3,823.7	3,771.5	52.15	73.327		
10,500.0	7,099.8	6,550.0	6,548.9	72.5	14.2	28.39	-189.0	38.3	3,922.4	3,869.2	53.22	73.701		
10,600.0	7,099.8	6,550.0	6,548.9	74.4	14.2	28.39	-189.0	38.3	4,021.1	3,966.8	54.30	74.057		
10,700.0	7,099.8	6,550.0	6,548.9	76.2	14.2	28.39	-189.0	38.3	4,119.9	4,064.6	55.38	74.398		
10,800.0	7,099.8	6,550.0	6,548.9	78.1	14.2	28.39	-189.0	38.3	4,218.8	4,162.3	56.46	74.725		
10,900.0	7,099.8	6,550.0	6,548.9	80.0	14.2	28.39	-189.0	38.3	4,317.7	4,260.2	57.54	75.037		
11,000.0	7,099.8	6,526.4	6,525.6	81.9	14.1	27.38	-185.4	38.0	4,416.1	4,358.5	57.65	76.598		
11,100.0	7,099.8	6,525.0	6,524.1	83.8	14.1	27.32	-185.3	38.0	4,515.1	4,456.4	58.66	76.971		
11,200.0	7,099.8	6,523.6	6,522.7	85.7	14.1	27.26	-185.1	38.0	4,614.1	4,554.4	59.67	77.329		
11,300.0	7,099.8	6,500.0	6,499.3	87.6	14.1	26.33	-182.6	37.8	4,713.6	4,653.8	59.78	78.854		
11,400.0	7,099.8	6,500.0	6,499.3	89.5	14.1	26.33	-182.6	37.8	4,812.6	4,751.8	60.82	79.123		
11,500.0	7,099.8	6,500.0	6,499.3	91.4	14.1	26.33	-182.6	37.8	4,911.6	4,849.8	61.87	79.381		
11,600.0	7,099.8	6,500.0	6,499.3	93.3	14.1	26.33	-182.6	37.8	5,010.7	4,947.8	62.93	79.629		
11,700.0	7,099.8	6,500.0	6,499.3	95.2	14.1	26.33	-182.6	37.8	5,109.8	5,045.8	63.98	79.869		
11,800.0	7,099.8	6,500.0	6,499.3	97.1	14.1	26.33	-182.6	37.8	5,209.0	5,143.9	65.03	80.100		
11,853.4	7,099.8	6,500.0	6,499.3	97.9	14.1	26.33	-182.6	37.8	5,262.0	5,196.5	65.42	80.429		



# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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	159.11	-150.8	57.6	161.5				
100.0	100.0	100.0	100.0	0.1	0.1	159.11	-150.8	57.6	161.5	161.3	0.19	855.204	
200.0	200.0	200.0	200.0	0.3	0.3	159.11	-150.8	57.6	161.5	160.8	0.64	252.948	
300.0	300.0	300.0	300.0	0.5	0.5	159.11	-150.8	57.6	161.5	160.4	1.09	148.424	
400.0	400.0	400.0	400.0	0.8	0.8	159.11	-150.8	57.6	161.5	159.9	1.54	105.025	
500.0	500.0	500.0	500.0	1.0	1.0	159.11	-150.8	57.6	161.5	159.5	1.99	81.264 CC, ES	
600.0	600.0	596.0	596.0	1.2	1.2	158.73	-151.6	59.0	162.7	160.3	2.41	67.519	
700.0	700.0	695.4	695.3	1.4	1.4	157.86	-153.2	62.4	165.5	162.7	2.83	58.431	
800.0	800.0	795.3	795.2	1.7	1.6	157.01	-154.9	65.7	168.4	165.1	3.26	51.598	
900.0	900.0	895.2	895.0	1.9	1.8	156.19	-156.6	69.1	171.3	167.6	3.70	46.281	
1,000.0	1,000.0	995.2	994.9	2.1	2.0	155.40	-158.3	72.5	174.2	170.0	4.14	42.047	
1,100.0	1,100.0	1,095.3	1,094.9	2.3	2.3	154.63	-160.0	75.9	177.1	172.5	4.59	38.608	
1,200.0	1,200.0	1,200.4	1,200.0	2.6	2.5	154.25	-160.8	77.6	178.6	173.6	5.02	35.567	
1,300.0	1,300.0	1,300.4	1,300.0	2.8	2.7	154.25	-160.8	77.6	178.6	173.1	5.45	32.765	
1,400.0	1,400.0	1,400.4	1,400.0	3.0	2.9	154.25	-160.8	77.6	178.6	172.7	5.89	30.336	
1,500.0	1,500.0	1,500.4	1,500.0	3.2	3.1	154.25	-160.8	77.6	178.6	172.3	6.33	28.233	
1,600.0	1,600.0	1,600.4	1,600.0	3.5	3.3	154.25	-160.8	77.6	178.6	171.8	6.77	26.397	
1,700.0	1,700.0	1,700.4	1,700.0	3.7	3.5	154.25	-160.8	77.6	178.6	171.4	7.21	24.782	
1,800.0	1,800.0	1,800.4	1,800.0	3.9	3.7	154.25	-160.8	77.6	178.6	170.9	7.65	23.349	
1,900.0	1,900.0	1,900.4	1,900.0	4.1	4.0	154.25	-160.8	77.6	178.6	170.5	8.09	22.071	
2,000.0	2,000.0	2,000.4	2,000.0	4.4	4.2	154.25	-160.8	77.6	178.6	170.0	8.53	20.924	
2,100.0	2,100.0	2,100.4	2,100.0	4.6	4.4	154.25	-160.8	77.6	178.6	169.6	8.98	19.889	
2,200.0	2,200.0	2,200.4	2,200.0	4.8	4.6	154.25	-160.8	77.6	178.6	169.2	9.42	18.950	
2,300.0	2,300.0	2,300.4	2,300.0	5.0	4.8	154.25	-160.8	77.6	178.6	168.7	9.87	18.095	
2,400.0	2,400.0	2,400.4	2,400.0	5.3	5.1	154.25	-160.8	77.6	178.6	168.3	10.31	17.314	
2,500.0	2,500.0	2,500.4	2,500.0	5.5	5.3	154.25	-160.8	77.6	178.6	167.8	10.76	16.596	
2,600.0	2,600.0	2,600.4	2,600.0	5.7	5.5	154.25	-160.8	77.6	178.6	167.4	11.21	15.935	
2,700.0	2,700.0	2,700.4	2,700.0	5.9	5.7	154.25	-160.8	77.6	178.6	166.9	11.65	15.325	
2,800.0	2,800.0	2,800.4	2,800.0	6.2	5.9	154.25	-160.8	77.6	178.6	166.5	12.10	14.759	
2,900.0	2,900.0	2,900.4	2,900.0	6.4	6.2	154.25	-160.8	77.6	178.6	166.0	12.55	14.233	
3,000.0	3,000.0	3,000.4	3,000.0	6.6	6.4	154.25	-160.8	77.6	178.6	165.6	12.99	13.744	
3,100.0	3,100.0	3,100.4	3,100.0	6.8	6.6	154.25	-160.8	77.6	178.6	165.1	13.44	13.286	
3,200.0	3,200.0	3,200.4	3,200.0	7.1	6.8	154.25	-160.8	77.6	178.6	164.7	13.89	12.858	
3,300.0	3,300.0	3,300.4	3,300.0	7.3	7.1	154.25	-160.8	77.6	178.6	164.2	14.34	12.457	
3,400.0	3,400.0	3,400.4	3,400.0	7.5	7.3	154.25	-160.8	77.6	178.6	163.8	14.78	12.080	
3,500.0	3,500.0	3,500.4	3,500.0	7.7	7.5	154.25	-160.8	77.6	178.6	163.4	15.23	11.725	
3,600.0	3,600.0	3,600.4	3,600.0	8.0	7.7	154.25	-160.8	77.6	178.6	162.9	15.68	11.390	
3,700.0	3,700.0	3,700.4	3,700.0	8.2	8.0	154.25	-160.8	77.6	178.6	162.5	16.13	11.073	
3,800.0	3,800.0	3,800.4	3,800.0	8.4	8.2	154.25	-160.8	77.6	178.6	162.0	16.58	10.774	
3,900.0	3,900.0	3,900.4	3,900.0	8.6	8.4	154.25	-160.8	77.6	178.6	161.6	17.02	10.490	
4,000.0	4,000.0	4,000.4	4,000.0	8.9	8.6	154.25	-160.8	77.6	178.6	161.1	17.47	10.221	
4,100.0	4,100.0	4,100.4	4,100.0	9.1	8.8	154.25	-160.8	77.6	178.6	160.7	17.92	9.966	
4,200.0	4,200.0	4,200.4	4,200.0	9.3	9.1	154.25	-160.8	77.6	178.6	160.2	18.37	9.722	
4,266.5	4,266.5	4,266.9	4,266.5	9.5	9.2	154.25	-160.8	77.6	178.6	159.9	18.67	9.567	
4,300.0	4,300.0	4,300.0	4,299.6	9.5	9.3	154.25	-160.8	77.6	178.6	159.8	18.82	9.491	
4,400.0	4,400.0	4,396.9	4,396.5	9.8	9.5	153.82	-161.1	79.2	179.6	160.3	19.25	9.329	
4,500.0	4,500.0	4,493.2	4,492.7	10.0	9.7	152.57	-161.9	84.0	182.5	162.9	19.67	9.279 SF	
4,600.0	4,600.0	4,589.1	4,588.2	10.2	9.9	150.59	-163.1	92.0	187.6	167.6	20.10	9.337	
4,700.0	4,700.0	4,684.3	4,682.8	10.4	10.1	148.01	-164.9	103.0	195.2	174.6	20.53	9.508	
4,800.0	4,800.0	4,778.7	4,776.1	10.7	10.3	145.00	-167.1	117.0	205.4	184.4	20.97	9.796	
4,900.0	4,900.0	4,872.1	4,867.9	10.9	10.6	141.76	-169.8	133.8	218.5	197.1	21.41	10.206	
5,000.0	5,000.0	4,964.2	4,957.9	11.1	10.8	138.44	-172.9	153.3	234.8	213.0	21.88	10.735	

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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	5,100.0	5,054.5	5,045.4	11.3	11.1	-134.76	-176.3	175.1	255.7	233.4	22.23	11.502		
5,200.0	5,199.8	5,142.2	5,129.7	11.5	11.4	-138.07	-180.1	199.0	282.4	259.8	22.61	12.491		
5,300.0	5,299.5	5,226.8	5,210.3	11.7	11.7	-141.25	-184.1	224.4	315.4	292.4	22.98	13.727		
5,400.0	5,398.7	5,317.1	5,295.9	11.9	12.0	-144.40	-188.6	252.7	353.4	330.0	23.34	15.142		
5,477.5	5,475.3	5,386.0	5,361.3	12.1	12.3	-146.55	-192.1	274.3	385.3	361.7	23.60	16.328		
5,500.0	5,497.5	5,405.9	5,380.1	12.2	12.4	-147.24	-193.1	280.5	395.0	371.3	23.69	16.676		
5,600.0	5,596.1	5,494.2	5,463.9	12.4	12.8	-149.94	-197.5	308.3	438.3	414.2	24.07	18.210		
5,700.0	5,694.7	5,582.5	5,547.6	12.6	13.2	-152.17	-201.9	336.0	482.3	457.8	24.46	19.719		
5,800.0	5,793.3	5,670.8	5,631.3	12.9	13.6	-154.04	-206.3	363.7	526.8	502.0	24.85	21.197		
5,900.0	5,891.9	5,759.1	5,715.0	13.1	14.0	-155.62	-210.7	391.4	571.7	546.5	25.25	22.640		
6,000.0	5,990.6	5,847.4	5,798.8	13.4	14.5	-156.98	-215.1	419.1	616.9	591.2	25.65	24.047		
6,100.0	6,089.2	5,935.7	5,882.5	13.7	14.9	-158.15	-219.5	446.8	662.3	636.3	26.06	25.414		
6,200.0	6,187.8	6,024.0	5,966.2	13.9	15.4	-159.17	-223.9	474.5	708.0	681.5	26.47	26.743		
6,300.0	6,286.4	6,112.3	6,049.9	14.2	15.9	-160.08	-228.2	502.2	753.8	726.9	26.89	28.033		
6,400.0	6,385.0	6,200.6	6,133.7	14.5	16.3	-160.88	-232.6	529.9	799.7	772.4	27.31	29.285		
6,467.8	6,451.9	6,260.5	6,190.4	14.7	16.7	-161.37	-235.6	548.7	830.9	803.3	27.59	30.112		
6,500.0	6,483.6	6,288.9	6,217.4	14.8	16.8	177.88	-237.0	557.6	845.9	818.3	27.66	30.580		
6,550.0	6,532.7	6,332.8	6,259.0	14.9	17.1	151.52	-239.2	571.4	869.8	842.0	27.80	31.294		
6,600.0	6,581.3	6,376.1	6,300.1	15.1	17.3	134.43	-241.4	585.0	894.3	866.4	27.96	31.984		
6,650.0	6,629.0	6,418.5	6,340.3	15.2	17.6	123.39	-243.5	598.3	919.3	891.1	28.16	32.643		
6,700.0	6,675.4	6,459.7	6,379.3	15.4	17.8	115.74	-245.6	611.2	944.7	916.3	28.40	33.265		
6,750.0	6,720.1	6,499.3	6,416.9	15.5	18.0	110.04	-247.5	623.6	970.4	941.7	28.67	33.852		
6,800.0	6,762.9	6,537.1	6,452.8	15.6	18.2	105.52	-249.4	635.5	996.4	967.5	28.96	34.403		
6,850.0	6,803.4	6,571.1	6,485.0	15.8	18.4	101.69	-251.1	646.2	1,022.8	993.5	29.29	34.923		
6,900.0	6,841.3	6,594.9	6,507.5	16.0	18.6	98.02	-253.0	653.5	1,049.8	1,020.1	29.63	35.426		
6,950.0	6,876.2	6,614.7	6,526.3	16.1	18.7	94.54	-255.3	659.4	1,077.4	1,047.4	30.00	35.914		
7,000.0	6,908.1	6,630.8	6,541.5	16.3	18.7	91.11	-257.7	664.2	1,105.6	1,075.2	30.37	36.400		
7,050.0	6,936.5	6,650.0	6,559.6	16.6	18.8	88.04	-261.0	669.7	1,134.4	1,103.7	30.75	36.896		
7,072.4	6,948.1	6,650.0	6,559.6	16.7	18.8	86.22	-261.0	669.7	1,147.5	1,116.6	30.90	37.138		
7,100.0	6,961.9	6,650.0	6,559.6	16.9	18.8	86.22	-261.0	669.7	1,163.8	1,132.7	31.08	37.444		
7,200.0	7,011.9	6,669.1	6,577.5	17.5	18.9	87.31	-265.0	675.0	1,226.2	1,194.3	31.86	38.487		
7,222.4	7,023.1	6,672.4	6,580.6	17.7	19.0	87.50	-265.8	675.9	1,240.8	1,208.7	32.05	38.714		
7,250.0	7,036.3	6,675.9	6,583.9	17.9	19.0	85.28	-266.6	676.9	1,259.0	1,226.7	32.33	38.936		
7,300.0	7,057.2	6,680.3	6,588.0	18.4	19.0	81.02	-267.7	678.0	1,292.6	1,259.9	32.78	39.437		
7,350.0	7,074.1	6,682.4	6,589.9	18.9	19.0	76.56	-268.2	678.6	1,326.8	1,293.7	33.07	40.117		
7,400.0	7,086.8	6,682.4	6,589.8	19.4	19.0	71.99	-268.2	678.6	1,361.2	1,328.0	33.18	41.022		
7,450.0	7,095.2	6,680.5	6,588.1	19.9	19.0	67.43	-267.7	678.1	1,395.6	1,362.5	33.10	42.170		
7,500.0	7,099.4	6,676.9	6,584.8	20.5	19.0	63.00	-266.8	677.1	1,429.8	1,396.9	32.84	43.544		
7,522.4	7,099.8	6,674.8	6,582.8	20.8	19.0	61.09	-266.3	676.6	1,444.9	1,412.2	32.68	44.220		
7,600.0	7,099.8	6,667.6	6,576.0	21.8	18.9	60.72	-264.7	674.6	1,498.1	1,464.7	33.44	44.796		
7,700.0	7,099.8	6,650.0	6,559.6	23.1	18.8	59.82	-261.0	669.7	1,569.7	1,535.3	34.39	45.639		
7,800.0	7,099.8	6,650.0	6,559.6	24.5	18.8	59.82	-261.0	669.7	1,644.0	1,608.4	35.63	46.143		
7,900.0	7,099.8	6,650.0	6,559.6	26.0	18.8	59.82	-261.0	669.7	1,720.9	1,684.0	36.93	46.606		
8,000.0	7,099.8	6,650.0	6,559.6	27.6	18.8	59.82	-261.0	669.7	1,800.1	1,761.9	38.27	47.034		
8,100.0	7,099.8	6,650.0	6,559.6	29.2	18.8	59.82	-261.0	669.7	1,881.3	1,841.6	39.66	47.431		
8,200.0	7,099.8	6,629.6	6,540.3	30.8	18.7	58.78	-257.5	663.8	1,963.8	1,923.1	40.76	48.179		
8,300.0	7,099.8	6,625.3	6,536.3	32.5	18.7	58.57	-256.8	662.5	2,048.1	2,006.0	42.13	48.612		
8,400.0	7,099.8	6,621.4	6,532.6	34.1	18.7	58.37	-256.2	661.4	2,133.7	2,090.2	43.53	49.018		
8,500.0	7,099.8	6,600.0	6,512.4	35.9	18.6	57.28	-253.5	655.0	2,220.7	2,176.1	44.61	49.779		
8,600.0	7,099.8	6,600.0	6,512.4	37.6	18.6	57.28	-253.5	655.0	2,308.5	2,262.4	46.10	50.071		
8,700.0	7,099.8	6,600.0	6,512.4	39.3	18.6	57.28	-253.5	655.0	2,397.2	2,349.5	47.61	50.348		
8,800.0	7,099.8	6,600.0	6,512.4	41.1	18.6	57.28	-253.5	655.0	2,486.7	2,437.6	49.13	50.610		

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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		
8,900.0	7,099.8	6,600.0	6,512.4	42.9	18.6	57.28	-253.5	655.0	2,577.0	2,526.3	50.67	50.858		
9,000.0	7,099.8	6,600.0	6,512.4	44.7	18.6	57.28	-253.5	655.0	2,668.0	2,615.8	52.22	51.094		
9,100.0	7,099.8	6,600.0	6,512.4	46.5	18.6	57.28	-253.5	655.0	2,759.6	2,705.9	53.78	51.318		
9,200.0	7,099.8	6,600.0	6,512.4	48.3	18.6	57.28	-253.5	655.0	2,851.8	2,796.5	55.34	51.531		
9,300.0	7,099.8	6,600.0	6,512.4	50.1	18.6	57.28	-253.5	655.0	2,944.5	2,887.6	56.92	51.734		
9,400.0	7,099.8	6,600.0	6,512.4	52.0	18.6	57.28	-253.5	655.0	3,037.7	2,979.2	58.50	51.927		
9,500.0	7,099.8	6,600.0	6,512.4	53.8	18.6	57.28	-253.5	655.0	3,131.3	3,071.2	60.09	52.112		
9,600.0	7,099.8	6,600.0	6,512.4	55.7	18.6	57.28	-253.5	655.0	3,225.2	3,163.6	61.68	52.289		
9,700.0	7,099.8	6,600.0	6,512.4	57.5	18.6	57.28	-253.5	655.0	3,319.6	3,256.3	63.28	52.458		
9,800.0	7,099.8	6,600.0	6,512.4	59.4	18.6	57.28	-253.5	655.0	3,414.2	3,349.3	64.88	52.620		
9,900.0	7,099.8	6,600.0	6,512.4	61.2	18.6	57.28	-253.5	655.0	3,509.2	3,442.7	66.49	52.775		
10,000.0	7,099.8	6,600.0	6,512.4	63.1	18.6	57.28	-253.5	655.0	3,604.4	3,536.3	68.10	52.924		
10,100.0	7,099.8	6,585.0	6,498.2	65.0	18.5	56.53	-252.1	650.5	3,699.6	3,630.4	69.25	53.426		
10,200.0	7,099.8	6,583.8	6,497.0	66.8	18.5	56.47	-252.0	650.1	3,795.3	3,724.5	70.82	53.593		
10,300.0	7,099.8	6,582.7	6,496.0	68.7	18.5	56.41	-251.9	649.8	3,891.2	3,818.8	72.39	53.754		
10,400.0	7,099.8	6,581.6	6,495.0	70.6	18.5	56.35	-251.8	649.4	3,987.3	3,913.3	73.96	53.909		
10,500.0	7,099.8	6,566.1	6,480.2	72.5	18.4	55.57	-250.8	644.6	4,083.7	4,008.7	75.03	54.428		
10,600.0	7,099.8	6,566.1	6,480.2	74.4	18.4	55.57	-250.8	644.6	4,180.2	4,103.5	76.63	54.548		
10,700.0	7,099.8	6,566.1	6,480.2	76.2	18.4	55.57	-250.8	644.6	4,276.7	4,198.5	78.24	54.663		
10,800.0	7,099.8	6,566.1	6,480.2	78.1	18.4	55.57	-250.8	644.6	4,373.5	4,293.6	79.85	54.774		
10,900.0	7,099.8	6,566.1	6,480.2	80.0	18.4	55.57	-250.8	644.6	4,470.3	4,388.9	81.46	54.881		
11,000.0	7,099.8	6,566.1	6,480.2	81.9	18.4	55.57	-250.8	644.6	4,567.4	4,484.3	83.07	54.984		
11,100.0	7,099.8	6,566.1	6,480.2	83.8	18.4	55.57	-250.8	644.6	4,664.5	4,579.8	84.68	55.084		
11,200.0	7,099.8	6,566.1	6,480.2	85.7	18.4	55.57	-250.8	644.6	4,761.8	4,675.5	86.29	55.181		
11,300.0	7,099.8	6,566.1	6,480.2	87.6	18.4	55.57	-250.8	644.6	4,859.1	4,771.2	87.91	55.274		
11,400.0	7,099.8	6,566.1	6,480.2	89.5	18.4	55.57	-250.8	644.6	4,956.6	4,867.1	89.53	55.365		
11,500.0	7,099.8	6,566.1	6,480.2	91.4	18.4	55.57	-250.8	644.6	5,054.2	4,963.0	91.15	55.452		
11,600.0	7,099.8	6,566.1	6,480.2	93.3	18.4	55.57	-250.8	644.6	5,151.8	5,059.1	92.76	55.537		
11,700.0	7,099.8	6,566.1	6,480.2	95.2	18.4	55.57	-250.8	644.6	5,249.6	5,155.2	94.39	55.619		
11,800.0	7,099.8	6,566.1	6,480.2	97.1	18.4	55.57	-250.8	644.6	5,347.4	5,251.4	96.01	55.698		
11,853.4	7,099.8	6,566.1	6,480.2	97.9	18.4	55.57	-250.8	644.6	5,399.7	5,303.0	96.69	55.845		

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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	152.82	-151.1	77.6	169.9					
100.0	100.0	100.0	100.0	0.1	0.1	152.82	-151.1	77.6	169.9	169.7	0.19	899.839		
200.0	200.0	200.0	200.0	0.3	0.3	152.82	-151.1	77.6	169.9	169.3	0.64	266.150		
300.0	300.0	300.0	300.0	0.5	0.5	152.82	-151.1	77.6	169.9	168.8	1.09	156.171		
400.0	400.0	400.0	400.0	0.8	0.8	152.82	-151.1	77.6	169.9	168.4	1.54	110.507		
500.0	500.0	500.0	500.0	1.0	1.0	152.82	-151.1	77.6	169.9	167.9	1.99	85.505 CC, ES		
600.0	600.0	597.4	597.4	1.2	1.2	152.32	-151.1	79.3	170.7	168.3	2.42	70.546		
700.0	700.0	697.3	697.3	1.4	1.4	151.35	-151.1	82.6	172.2	169.4	2.85	60.434		
800.0	800.0	797.3	797.2	1.7	1.6	150.39	-151.1	85.9	173.9	170.6	3.29	52.906		
900.0	900.0	897.2	897.0	1.9	1.8	149.45	-151.1	89.2	175.5	171.8	3.73	47.100		
1,000.0	1,000.0	997.2	996.9	2.1	2.1	148.53	-151.1	92.5	177.2	173.1	4.17	42.501		
1,100.0	1,100.0	1,097.1	1,096.8	2.3	2.3	147.62	-151.1	95.8	179.0	174.4	4.62	38.778		
1,200.0	1,200.0	1,197.1	1,196.7	2.6	2.5	146.74	-151.1	99.1	180.8	175.7	5.06	35.706		
1,300.0	1,300.0	1,297.0	1,296.6	2.8	2.7	145.87	-151.1	102.4	182.6	177.1	5.51	33.133		
1,400.0	1,400.0	1,397.0	1,396.5	3.0	3.0	145.02	-151.1	105.8	184.5	178.5	5.96	30.949		
1,500.0	1,500.0	1,500.5	1,500.0	3.2	3.2	144.55	-151.1	107.6	185.5	179.1	6.40	28.981		
1,600.0	1,600.0	1,600.5	1,600.0	3.5	3.4	144.55	-151.1	107.6	185.5	178.7	6.83	27.175		
1,700.0	1,700.0	1,700.5	1,700.0	3.7	3.6	144.55	-151.1	107.6	185.5	178.3	7.26	25.543		
1,800.0	1,800.0	1,800.5	1,800.0	3.9	3.8	144.55	-151.1	107.6	185.5	177.8	7.70	24.091		
1,900.0	1,900.0	1,900.5	1,900.0	4.1	4.0	144.55	-151.1	107.6	185.5	177.4	8.14	22.792		
2,000.0	2,000.0	2,000.5	2,000.0	4.4	4.2	144.55	-151.1	107.6	185.5	176.9	8.58	21.623		
2,100.0	2,100.0	2,100.5	2,100.0	4.6	4.5	144.55	-151.1	107.6	185.5	176.5	9.02	20.566		
2,200.0	2,200.0	2,200.5	2,200.0	4.8	4.7	144.55	-151.1	107.6	185.5	176.1	9.46	19.605		
2,300.0	2,300.0	2,300.5	2,300.0	5.0	4.9	144.55	-151.1	107.6	185.5	175.6	9.91	18.730		
2,400.0	2,400.0	2,400.5	2,400.0	5.3	5.1	144.55	-151.1	107.6	185.5	175.2	10.35	17.928		
2,500.0	2,500.0	2,500.5	2,500.0	5.5	5.3	144.55	-151.1	107.6	185.5	174.7	10.79	17.191		
2,600.0	2,600.0	2,600.5	2,600.0	5.7	5.5	144.55	-151.1	107.6	185.5	174.3	11.24	16.511		
2,700.0	2,700.0	2,700.5	2,700.0	5.9	5.8	144.55	-151.1	107.6	185.5	173.8	11.68	15.883		
2,800.0	2,800.0	2,800.5	2,800.0	6.2	6.0	144.55	-151.1	107.6	185.5	173.4	12.13	15.300		
2,900.0	2,900.0	2,900.5	2,900.0	6.4	6.2	144.55	-151.1	107.6	185.5	173.0	12.57	14.758		
3,000.0	3,000.0	3,000.5	3,000.0	6.6	6.4	144.55	-151.1	107.6	185.5	172.5	13.02	14.253		
3,100.0	3,100.0	3,100.5	3,100.0	6.8	6.6	144.55	-151.1	107.6	185.5	172.1	13.46	13.781		
3,200.0	3,200.0	3,200.5	3,200.0	7.1	6.9	144.55	-151.1	107.6	185.5	171.6	13.91	13.339		
3,300.0	3,300.0	3,300.5	3,300.0	7.3	7.1	144.55	-151.1	107.6	185.5	171.2	14.36	12.924		
3,400.0	3,400.0	3,400.5	3,400.0	7.5	7.3	144.55	-151.1	107.6	185.5	170.7	14.80	12.534		
3,500.0	3,500.0	3,500.5	3,500.0	7.7	7.5	144.55	-151.1	107.6	185.5	170.3	15.25	12.167		
3,600.0	3,600.0	3,600.5	3,600.0	8.0	7.8	144.55	-151.1	107.6	185.5	169.8	15.70	11.821		
3,700.0	3,700.0	3,700.5	3,700.0	8.2	8.0	144.55	-151.1	107.6	185.5	169.4	16.14	11.493		
3,800.0	3,800.0	3,800.5	3,800.0	8.4	8.2	144.55	-151.1	107.6	185.5	168.9	16.59	11.184		
3,900.0	3,900.0	3,900.5	3,900.0	8.6	8.4	144.55	-151.1	107.6	185.5	168.5	17.04	10.890		
3,966.5	3,966.5	3,967.0	3,966.5	8.8	8.6	144.55	-151.1	107.6	185.5	168.2	17.33	10.703		
4,000.0	4,000.0	4,000.0	3,999.5	8.9	8.6	144.55	-151.1	107.6	185.5	168.0	17.48	10.612		
4,100.0	4,100.0	4,097.3	4,096.8	9.1	8.9	144.10	-151.0	109.3	186.4	168.5	17.92	10.400		
4,200.0	4,200.0	4,194.0	4,193.4	9.3	9.1	142.81	-150.4	114.1	189.0	170.6	18.35	10.295 SF		
4,300.0	4,300.0	4,290.2	4,289.3	9.5	9.3	140.75	-149.6	122.2	193.5	174.7	18.79	10.296		
4,400.0	4,400.0	4,385.8	4,384.2	9.8	9.5	138.04	-148.4	133.4	200.2	180.9	19.23	10.408		
4,500.0	4,500.0	4,480.5	4,477.8	10.0	9.7	134.86	-146.9	147.6	209.4	189.7	19.68	10.639		
4,600.0	4,600.0	4,574.2	4,569.9	10.2	10.0	131.38	-145.1	164.6	221.5	201.3	20.14	10.997		
4,700.0	4,700.0	4,668.1	4,661.6	10.4	10.3	127.75	-142.9	184.6	236.6	216.0	20.62	11.476		
4,800.0	4,800.0	4,765.6	4,756.6	10.7	10.6	124.30	-140.6	206.2	253.3	232.2	21.12	11.992		
4,900.0	4,900.0	4,863.1	4,851.7	10.9	10.9	121.28	-138.4	227.7	270.8	249.2	21.64	12.513		
5,000.0	5,000.0	4,960.6	4,946.7	11.1	11.2	118.63	-136.1	249.3	288.9	266.8	22.17	13.031		

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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	5,100.0	5,057.7	5,041.4	11.3	11.5	-153.67	-133.8	270.8	309.2	286.8	22.35	13.832		
5,200.0	5,199.8	5,153.9	5,135.2	11.5	11.9	-155.88	-131.5	292.0	333.0	310.2	22.75	14.639		
5,300.0	5,299.5	5,249.0	5,228.0	11.7	12.2	-157.97	-129.3	313.1	360.4	337.3	23.12	15.588		
5,400.0	5,398.7	5,343.1	5,319.7	11.9	12.5	-159.90	-127.1	333.9	391.5	368.0	23.48	16.674		
5,477.5	5,475.3	5,415.2	5,390.0	12.1	12.8	-161.28	-125.4	349.8	418.0	394.2	23.74	17.608		
5,500.0	5,497.5	5,436.0	5,410.3	12.2	12.9	-161.71	-124.9	354.4	426.0	402.2	23.83	17.878		
5,600.0	5,596.1	5,528.5	5,500.4	12.4	13.2	-163.45	-122.7	374.9	461.9	437.6	24.23	19.061		
5,700.0	5,694.7	5,620.9	5,590.6	12.6	13.6	-164.95	-120.5	395.3	498.1	473.4	24.64	20.215		
5,800.0	5,793.3	5,713.4	5,680.7	12.9	13.9	-166.24	-118.3	415.8	534.5	509.5	25.05	21.338		
5,900.0	5,891.9	5,805.9	5,770.9	13.1	14.3	-167.37	-116.2	436.2	571.2	545.7	25.47	22.430		
6,000.0	5,990.6	5,898.4	5,861.1	13.4	14.7	-168.36	-114.0	456.7	608.0	582.1	25.88	23.490		
6,100.0	6,089.2	5,990.8	5,951.2	13.7	15.1	-169.24	-111.8	477.1	645.0	618.7	26.31	24.519		
6,200.0	6,187.8	6,083.3	6,041.4	13.9	15.4	-170.03	-109.6	497.5	682.1	655.4	26.73	25.517		
6,300.0	6,286.4	6,175.8	6,131.6	14.2	15.8	-170.74	-107.5	518.0	719.3	692.1	27.16	26.484		
6,400.0	6,385.0	6,268.3	6,221.7	14.5	16.2	-171.37	-105.3	538.4	756.6	729.0	27.59	27.423		
6,467.8	6,451.9	6,331.0	6,282.9	14.7	16.5	-171.77	-103.8	552.3	781.9	754.0	27.88	28.043		
6,500.0	6,483.6	6,360.8	6,311.9	14.8	16.6	167.88	-103.1	558.9	794.0	766.0	27.99	28.364		
6,550.0	6,532.7	6,407.1	6,357.0	14.9	16.8	142.24	-102.0	569.1	812.8	784.6	28.19	28.836		
6,600.0	6,581.3	6,448.5	6,397.4	15.1	17.0	125.94	-101.1	578.3	831.6	803.2	28.39	29.291		
6,650.0	6,629.0	6,466.7	6,415.1	15.2	17.1	115.30	-100.7	582.7	851.2	822.7	28.56	29.806		
6,700.0	6,675.4	6,484.0	6,431.7	15.4	17.1	107.82	-100.4	587.4	872.2	843.4	28.75	30.336		
6,750.0	6,720.1	6,500.0	6,447.0	15.5	17.2	102.08	-100.3	592.2	894.2	865.2	28.96	30.874		
6,800.0	6,762.9	6,500.0	6,447.0	15.6	17.2	96.81	-100.3	592.2	917.5	888.4	29.17	31.457		
6,850.0	6,803.4	6,529.4	6,474.7	15.8	17.4	93.30	-100.2	602.0	941.1	911.6	29.45	31.955		
6,900.0	6,841.3	6,550.0	6,493.8	16.0	17.5	89.98	-100.2	609.8	965.7	936.0	29.73	32.489		
6,950.0	6,876.2	6,550.0	6,493.8	16.1	17.5	86.04	-100.2	609.8	990.9	960.9	29.96	33.074		
7,000.0	6,908.1	6,550.0	6,493.8	16.3	17.5	82.28	-100.2	609.8	1,016.8	986.6	30.17	33.697		
7,050.0	6,936.5	6,573.0	6,514.7	16.6	17.7	79.93	-100.5	619.2	1,042.5	1,012.1	30.44	34.245		
7,072.4	6,948.1	6,576.6	6,518.0	16.7	17.7	78.59	-100.5	620.8	1,054.2	1,023.7	30.53	34.527		
7,100.0	6,961.9	6,580.9	6,521.9	16.9	17.7	78.82	-100.6	622.7	1,068.9	1,038.2	30.74	34.778		
7,200.0	7,011.9	6,600.0	6,538.9	17.5	17.9	79.86	-100.9	631.4	1,125.9	1,094.3	31.57	35.668		
7,222.4	7,023.1	6,600.0	6,538.9	17.7	17.9	79.86	-100.9	631.4	1,139.4	1,107.6	31.75	35.884		
7,250.0	7,036.3	6,600.0	6,538.9	17.9	17.9	77.76	-100.9	631.4	1,156.2	1,124.3	31.90	36.244		
7,300.0	7,057.2	6,600.0	6,538.9	18.4	17.9	73.93	-100.9	631.4	1,187.3	1,155.2	32.11	36.979		
7,350.0	7,074.1	6,600.0	6,538.9	18.9	17.9	70.10	-100.9	631.4	1,218.6	1,186.4	32.21	37.839		
7,400.0	7,086.8	6,617.0	6,553.7	19.4	18.0	67.32	-101.3	639.6	1,249.8	1,217.4	32.36	38.621		
7,450.0	7,095.2	6,619.0	6,555.5	19.9	18.0	63.80	-101.4	640.6	1,281.0	1,248.7	32.30	39.654		
7,500.0	7,099.4	6,619.8	6,556.1	20.5	18.0	60.37	-101.4	640.9	1,311.9	1,279.7	32.17	40.784		
7,522.4	7,099.8	6,619.7	6,556.1	20.8	18.0	58.87	-101.4	640.9	1,325.6	1,293.5	32.09	41.312		
7,600.0	7,099.8	6,619.0	6,555.5	21.8	18.0	58.83	-101.4	640.6	1,374.2	1,341.3	32.91	41.755		
7,700.0	7,099.8	6,618.2	6,554.8	23.1	18.0	58.79	-101.3	640.1	1,440.6	1,406.5	34.05	42.310		
7,800.0	7,099.8	6,617.4	6,554.1	24.5	18.0	58.74	-101.3	639.7	1,510.7	1,475.4	35.26	42.847		
7,900.0	7,099.8	6,600.0	6,538.9	26.0	17.9	57.80	-100.9	631.4	1,584.3	1,548.0	36.27	43.677		
8,000.0	7,099.8	6,600.0	6,538.9	27.6	17.9	57.80	-100.9	631.4	1,660.3	1,622.7	37.59	44.167		
8,100.0	7,099.8	6,600.0	6,538.9	29.2	17.9	57.80	-100.9	631.4	1,738.8	1,699.9	38.95	44.637		
8,200.0	7,099.8	6,600.0	6,538.9	30.8	17.9	57.80	-100.9	631.4	1,819.4	1,779.1	40.35	45.087		
8,300.0	7,099.8	6,600.0	6,538.9	32.5	17.9	57.80	-100.9	631.4	1,901.9	1,860.1	41.78	45.517		
8,400.0	7,099.8	6,600.0	6,538.9	34.1	17.9	57.80	-100.9	631.4	1,985.9	1,942.7	43.24	45.928		
8,500.0	7,099.8	6,600.0	6,538.9	35.9	17.9	57.80	-100.9	631.4	2,071.4	2,026.7	44.72	46.320		
8,600.0	7,099.8	6,600.0	6,538.9	37.6	17.9	57.80	-100.9	631.4	2,158.1	2,111.9	46.22	46.694		
8,700.0	7,099.8	6,600.0	6,538.9	39.3	17.9	57.80	-100.9	631.4	2,245.9	2,198.2	47.73	47.052		
8,800.0	7,099.8	6,600.0	6,538.9	41.1	17.9	57.80	-100.9	631.4	2,334.8	2,285.5	49.26	47.392		

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
8,900.0	7,099.8	6,600.0	6,538.9	42.9	17.9	57.80	-100.9	631.4	2,424.4	2,373.6	50.81	47.717		
9,000.0	7,099.8	6,600.0	6,538.9	44.7	17.9	57.80	-100.9	631.4	2,514.9	2,462.5	52.36	48.028		
9,100.0	7,099.8	6,600.0	6,538.9	46.5	17.9	57.80	-100.9	631.4	2,606.0	2,552.1	53.93	48.324		
9,200.0	7,099.8	6,600.0	6,538.9	48.3	17.9	57.80	-100.9	631.4	2,697.8	2,642.3	55.50	48.607		
9,300.0	7,099.8	6,600.0	6,538.9	50.1	17.9	57.80	-100.9	631.4	2,790.2	2,733.1	57.09	48.877		
9,400.0	7,099.8	6,600.0	6,538.9	52.0	17.9	57.80	-100.9	631.4	2,883.0	2,824.4	58.68	49.136		
9,500.0	7,099.8	6,600.0	6,538.9	53.8	17.9	57.80	-100.9	631.4	2,976.4	2,916.1	60.27	49.383		
9,600.0	7,099.8	6,600.0	6,538.9	55.7	17.9	57.80	-100.9	631.4	3,070.1	3,008.2	61.87	49.619		
9,700.0	7,099.8	6,600.0	6,538.9	57.5	17.9	57.80	-100.9	631.4	3,164.2	3,100.7	63.48	49.846		
9,800.0	7,099.8	6,600.0	6,538.9	59.4	17.9	57.80	-100.9	631.4	3,258.7	3,193.6	65.09	50.063		
9,900.0	7,099.8	6,600.0	6,538.9	61.2	17.9	57.80	-100.9	631.4	3,353.5	3,286.8	66.71	50.272		
10,000.0	7,099.8	6,600.0	6,538.9	63.1	17.9	57.80	-100.9	631.4	3,448.6	3,380.2	68.33	50.471		
10,100.0	7,099.8	6,600.0	6,538.9	65.0	17.9	57.80	-100.9	631.4	3,543.9	3,474.0	69.95	50.663		
10,200.0	7,099.8	6,600.0	6,538.9	66.8	17.9	57.80	-100.9	631.4	3,639.5	3,568.0	71.58	50.847		
10,300.0	7,099.8	6,600.0	6,538.9	68.7	17.9	57.80	-100.9	631.4	3,735.4	3,662.2	73.21	51.025		
10,400.0	7,099.8	6,600.0	6,538.9	70.6	17.9	57.80	-100.9	631.4	3,831.4	3,756.6	74.84	51.195		
10,500.0	7,099.8	6,600.0	6,538.9	72.5	17.9	57.80	-100.9	631.4	3,927.7	3,851.2	76.48	51.359		
10,600.0	7,099.8	6,600.0	6,538.9	74.4	17.9	57.80	-100.9	631.4	4,024.1	3,946.0	78.11	51.517		
10,700.0	7,099.8	6,600.0	6,538.9	76.2	17.9	57.80	-100.9	631.4	4,120.7	4,041.0	79.75	51.669		
10,800.0	7,099.8	6,600.0	6,538.9	78.1	17.9	57.80	-100.9	631.4	4,217.5	4,136.1	81.39	51.815		
10,900.0	7,099.8	6,600.0	6,538.9	80.0	17.9	57.80	-100.9	631.4	4,314.4	4,231.3	83.04	51.957		
11,000.0	7,099.8	6,600.0	6,538.9	81.9	17.9	57.80	-100.9	631.4	4,411.4	4,326.7	84.68	52.093		
11,100.0	7,099.8	6,600.0	6,538.9	83.8	17.9	57.80	-100.9	631.4	4,508.6	4,422.3	86.33	52.225		
11,200.0	7,099.8	6,600.0	6,538.9	85.7	17.9	57.80	-100.9	631.4	4,605.9	4,517.9	87.98	52.352		
11,300.0	7,099.8	6,600.0	6,538.9	87.6	17.9	57.80	-100.9	631.4	4,703.3	4,613.7	89.63	52.476		
11,400.0	7,099.8	6,600.0	6,538.9	89.5	17.9	57.80	-100.9	631.4	4,800.8	4,709.5	91.28	52.595		
11,500.0	7,099.8	6,600.0	6,538.9	91.4	17.9	57.80	-100.9	631.4	4,898.4	4,805.5	92.93	52.710		
11,600.0	7,099.8	6,600.0	6,538.9	93.3	17.9	57.80	-100.9	631.4	4,996.1	4,901.6	94.59	52.821		
11,700.0	7,099.8	6,600.0	6,538.9	95.2	17.9	57.80	-100.9	631.4	5,093.9	4,997.7	96.24	52.929		
11,800.0	7,099.8	6,600.0	6,538.9	97.1	17.9	57.80	-100.9	631.4	5,191.8	5,093.9	97.90	53.034		
11,853.4	7,099.8	6,600.0	6,538.9	97.9	17.9	57.80	-100.9	631.4	5,244.1	5,145.5	98.60	53.187		

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 3-18H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-134.10	-147.6	-152.3	212.1					
100.0	100.0	100.0	100.0	0.1	0.1	-134.10	-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	-134.10	-147.6	-152.3	212.1	211.5	0.64	332.262		
300.0	300.0	300.0	300.0	0.5	0.5	-134.10	-147.6	-152.3	212.1	211.0	1.09	194.964		
400.0	400.0	400.0	400.0	0.8	0.8	-134.10	-147.6	-152.3	212.1	210.6	1.54	137.957		
500.0	500.0	500.0	500.0	1.0	1.0	-134.10	-147.6	-152.3	212.1	210.1	1.99	106.745		
600.0	600.0	600.0	600.0	1.2	1.2	-134.10	-147.6	-152.3	212.1	209.7	2.44	87.050		
700.0	700.0	700.0	700.0	1.4	1.4	-134.10	-147.6	-152.3	212.1	209.2	2.89	73.491		
800.0	800.0	800.0	800.0	1.7	1.7	-134.10	-147.6	-152.3	212.1	208.8	3.34	63.587		
900.0	900.0	900.0	900.0	1.9	1.9	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-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	-134.10	-147.6	-152.3	212.1	197.5	14.57	14.553 CC, ES		
3,400.0	3,400.0	3,395.9	3,395.8	7.5	7.5	-133.74	-147.3	-153.9	213.1	198.1	15.00	14.201		
3,500.0	3,500.0	3,491.5	3,491.4	7.7	7.7	-132.71	-146.4	-158.6	216.0	200.6	15.42	14.006		
3,600.0	3,600.0	3,586.7	3,586.3	8.0	7.9	-131.06	-144.9	-166.4	221.1	205.3	15.85	13.953 SF		
3,700.0	3,700.0	3,681.3	3,680.2	8.2	8.1	-128.88	-142.9	-177.2	228.5	212.3	16.27	14.044		
3,800.0	3,800.0	3,775.1	3,772.9	8.4	8.3	-126.32	-140.3	-191.0	238.5	221.8	16.71	14.278		
3,900.0	3,900.0	3,867.8	3,864.1	8.6	8.6	-123.49	-137.3	-207.5	251.3	234.2	17.15	14.655		
4,000.0	4,000.0	3,959.4	3,953.6	8.9	8.8	-120.54	-133.7	-226.6	267.1	249.5	17.61	15.173		
4,100.0	4,100.0	4,049.6	4,041.1	9.1	9.1	-117.58	-129.6	-248.2	286.1	268.0	18.08	15.823		
4,200.0	4,200.0	4,139.0	4,127.1	9.3	9.4	-114.68	-125.1	-272.2	308.3	289.7	18.58	16.594		
4,300.0	4,300.0	4,234.8	4,218.9	9.5	9.7	-111.87	-120.1	-299.1	332.4	313.2	19.13	17.371		
4,400.0	4,400.0	4,330.7	4,310.7	9.8	10.1	-109.43	-115.0	-326.0	357.1	337.4	19.71	18.117		
4,500.0	4,500.0	4,426.5	4,402.6	10.0	10.5	-107.30	-110.0	-353.0	382.3	362.0	20.31	18.825		
4,600.0	4,600.0	4,522.3	4,494.4	10.2	10.9	-105.44	-104.9	-379.9	408.0	387.1	20.93	19.493		
4,700.0	4,700.0	4,618.2	4,586.2	10.4	11.3	-103.79	-99.9	-406.8	434.1	412.5	21.57	20.123		
4,800.0	4,800.0	4,714.0	4,678.1	10.7	11.7	-102.33	-94.8	-433.7	460.4	438.2	22.23	20.714		
4,900.0	4,900.0	4,809.8	4,769.9	10.9	12.2	-101.03	-89.8	-460.7	487.0	464.1	22.90	21.269		
5,000.0	5,000.0	4,905.6	4,861.7	11.1	12.7	-99.86	-84.7	-487.6	513.8	490.3	23.58	21.790		
5,100.0	5,100.0	5,001.9	4,954.0	11.3	13.1	-8.75	-79.7	-514.6	539.2	516.6	22.55	23.914		

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



# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 3-18H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,200.0	5,199.8	5,099.1	5,047.1	11.5	13.6	-7.80	-74.5	-541.9	561.3	538.3	22.97	24.432		
5,300.0	5,299.5	5,197.0	5,140.9	11.7	14.1	-6.97	-69.4	-569.4	580.1	556.8	23.39	24.802		
5,400.0	5,398.7	5,295.5	5,235.4	11.9	14.6	-6.25	-64.2	-597.1	595.7	571.9	23.80	25.029		
5,477.5	5,475.3	5,372.2	5,308.9	12.1	15.0	-5.74	-60.2	-618.7	605.4	581.3	24.11	25.112		
5,500.0	5,497.5	5,394.6	5,330.2	12.2	15.2	-5.60	-59.0	-624.9	607.9	583.7	24.21	25.110		
5,600.0	5,596.1	5,493.7	5,425.3	12.4	15.7	-5.01	-53.8	-652.8	619.2	594.6	24.67	25.100		
5,700.0	5,694.7	5,592.9	5,520.3	12.6	16.2	-4.44	-48.5	-680.6	630.6	605.4	25.13	25.091		
5,800.0	5,793.3	5,692.1	5,615.3	12.9	16.8	-3.89	-43.3	-708.5	642.0	616.4	25.60	25.082		
5,900.0	5,891.9	5,791.2	5,710.3	13.1	17.3	-3.36	-38.1	-736.4	653.5	627.4	26.06	25.074		
6,000.0	5,990.6	5,890.4	5,805.4	13.4	17.8	-2.85	-32.9	-764.2	665.0	638.5	26.53	25.065		
6,100.0	6,089.2	5,989.5	5,900.4	13.7	18.4	-2.36	-27.6	-792.1	676.6	649.6	27.00	25.057		
6,200.0	6,187.8	6,088.7	5,995.4	13.9	18.9	-1.88	-22.4	-819.9	688.2	660.7	27.47	25.049		
6,300.0	6,286.4	6,187.9	6,090.4	14.2	19.5	-1.42	-17.2	-847.8	699.8	671.9	27.95	25.041		
6,400.0	6,385.0	6,287.0	6,185.5	14.5	20.1	-0.97	-12.0	-875.6	711.6	683.1	28.42	25.033		
6,467.8	6,451.9	6,354.3	6,249.9	14.7	20.4	-0.68	-8.4	-894.5	719.5	690.8	28.75	25.028		
6,500.0	6,483.6	6,386.2	6,280.5	14.8	20.6	-19.16	-6.7	-903.5	723.4	694.5	28.90	25.031		
6,550.0	6,532.7	6,435.7	6,328.0	14.9	20.9	-42.42	-4.1	-917.4	729.8	700.6	29.14	25.042		
6,600.0	6,581.3	6,484.8	6,375.0	15.1	21.2	-56.89	-1.5	-931.2	736.6	707.2	29.39	25.062		
6,650.0	6,629.0	6,533.1	6,421.3	15.2	21.5	-65.76	1.0	-944.8	743.9	714.2	29.64	25.094		
6,700.0	6,675.4	6,559.9	6,447.0	15.4	21.6	-71.10	2.4	-952.3	752.1	722.2	29.82	25.217		
6,750.0	6,720.1	6,600.0	6,485.0	15.5	21.9	-75.03	4.0	-964.8	762.3	732.2	30.06	25.354		
6,800.0	6,762.9	6,600.0	6,485.0	15.6	21.9	-76.42	4.0	-964.8	774.6	744.5	30.14	25.701		
6,850.0	6,803.4	6,624.5	6,507.8	15.8	22.0	-77.85	4.5	-973.7	789.4	759.0	30.33	26.022		
6,900.0	6,841.3	6,650.0	6,531.2	16.0	22.2	-78.76	4.6	-983.9	806.6	776.1	30.55	26.401		
6,950.0	6,876.2	6,650.0	6,531.2	16.1	22.2	-77.82	4.6	-983.9	825.8	795.2	30.67	26.926		
7,000.0	6,908.1	6,665.3	6,545.0	16.3	22.3	-77.21	4.4	-990.4	847.3	816.4	30.88	27.433		
7,050.0	6,936.5	6,675.3	6,554.0	16.6	22.4	-75.89	4.3	-994.9	870.7	839.6	31.09	28.004		
7,072.4	6,948.1	6,679.3	6,557.5	16.7	22.5	-75.13	4.2	-996.7	881.7	850.5	31.18	28.276		
7,100.0	6,961.9	6,683.8	6,561.5	16.9	22.5	-75.43	4.1	-998.9	895.8	864.5	31.38	28.552		
7,200.0	7,011.9	6,700.0	6,575.7	17.5	22.6	-76.48	3.6	-1,006.6	951.5	919.4	32.17	29.583		
7,222.4	7,023.1	6,700.0	6,575.7	17.7	22.6	-76.48	3.6	-1,006.6	964.9	932.6	32.34	29.839		
7,250.0	7,036.3	6,700.0	6,575.7	17.9	22.6	-74.43	3.6	-1,006.6	981.7	949.3	32.45	30.252		
7,300.0	7,057.2	6,700.0	6,575.7	18.4	22.6	-70.68	3.6	-1,006.6	1,012.7	980.0	32.62	31.044		
7,350.0	7,074.1	6,717.2	6,590.6	18.9	22.8	-68.10	2.8	-1,015.3	1,043.6	1,010.7	32.91	31.706		
7,400.0	7,086.8	6,720.2	6,593.2	19.4	22.8	-64.63	2.7	-1,016.8	1,074.9	1,041.8	33.05	32.522		
7,450.0	7,095.2	6,721.9	6,594.6	19.9	22.9	-61.18	2.6	-1,017.7	1,106.1	1,072.9	33.15	33.362		
7,500.0	7,099.4	6,722.3	6,594.9	20.5	22.9	-57.81	2.6	-1,017.9	1,137.1	1,103.8	33.25	34.195		
7,522.4	7,099.8	6,722.0	6,594.7	20.8	22.9	-56.33	2.6	-1,017.7	1,150.8	1,117.5	33.30	34.554		
7,600.0	7,099.8	6,720.7	6,593.6	21.8	22.8	-56.25	2.7	-1,017.0	1,199.8	1,165.7	34.12	35.166		
7,700.0	7,099.8	6,719.0	6,592.2	23.1	22.8	-56.15	2.7	-1,016.2	1,267.1	1,231.9	35.23	35.963		
7,800.0	7,099.8	6,717.5	6,590.8	24.5	22.8	-56.05	2.8	-1,015.4	1,338.5	1,302.1	36.41	36.758		
7,900.0	7,099.8	6,700.0	6,575.7	26.0	22.6	-54.95	3.6	-1,006.6	1,413.7	1,376.3	37.36	37.836		
8,000.0	7,099.8	6,700.0	6,575.7	27.6	22.6	-54.95	3.6	-1,006.6	1,491.4	1,452.8	38.66	38.583		
8,100.0	7,099.8	6,700.0	6,575.7	29.2	22.6	-54.95	3.6	-1,006.6	1,571.7	1,531.7	39.99	39.305		
8,200.0	7,099.8	6,700.0	6,575.7	30.8	22.6	-54.95	3.6	-1,006.6	1,654.2	1,612.8	41.35	40.000		
8,300.0	7,099.8	6,700.0	6,575.7	32.5	22.6	-54.95	3.6	-1,006.6	1,738.4	1,695.7	42.75	40.666		
8,400.0	7,099.8	6,700.0	6,575.7	34.1	22.6	-54.95	3.6	-1,006.6	1,824.3	1,780.1	44.17	41.303		
8,500.0	7,099.8	6,700.0	6,575.7	35.9	22.6	-54.95	3.6	-1,006.6	1,911.5	1,865.9	45.61	41.911		
8,600.0	7,099.8	6,700.0	6,575.7	37.6	22.6	-54.95	3.6	-1,006.6	2,000.0	1,952.9	47.07	42.491		
8,700.0	7,099.8	6,700.0	6,575.7	39.3	22.6	-54.95	3.6	-1,006.6	2,089.4	2,040.9	48.54	43.042		
8,800.0	7,099.8	6,700.0	6,575.7	41.1	22.6	-54.95	3.6	-1,006.6	2,179.8	2,129.8	50.03	43.568		
8,900.0	7,099.8	6,700.0	6,575.7	42.9	22.6	-54.95	3.6	-1,006.6	2,271.0	2,219.5	51.54	44.067		

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



# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 3-18H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,000.0	7,099.8	6,700.0	6,575.7	44.7	22.6	-54.95	3.6	-1,006.6	2,362.9	2,309.9	53.05	44.543		
9,100.0	7,099.8	6,700.0	6,575.7	46.5	22.6	-54.95	3.6	-1,006.6	2,455.5	2,400.9	54.57	44.996		
9,200.0	7,099.8	6,700.0	6,575.7	48.3	22.6	-54.95	3.6	-1,006.6	2,548.6	2,492.5	56.10	45.428		
9,300.0	7,099.8	6,700.0	6,575.7	50.1	22.6	-54.95	3.6	-1,006.6	2,642.2	2,584.6	57.64	45.839		
9,400.0	7,099.8	6,700.0	6,575.7	52.0	22.6	-54.95	3.6	-1,006.6	2,736.3	2,677.1	59.19	46.231		
9,500.0	7,099.8	6,700.0	6,575.7	53.8	22.6	-54.95	3.6	-1,006.6	2,830.7	2,770.0	60.74	46.605		
9,600.0	7,099.8	6,700.0	6,575.7	55.7	22.6	-54.95	3.6	-1,006.6	2,925.6	2,863.3	62.30	46.963		
9,700.0	7,099.8	6,700.0	6,575.7	57.5	22.6	-54.95	3.6	-1,006.6	3,020.8	2,956.9	63.86	47.304		
9,800.0	7,099.8	6,700.0	6,575.7	59.4	22.6	-54.95	3.6	-1,006.6	3,116.2	3,050.8	65.43	47.630		
9,900.0	7,099.8	6,700.0	6,575.7	61.2	22.6	-54.95	3.6	-1,006.6	3,212.0	3,145.0	67.00	47.942		
10,000.0	7,099.8	6,700.0	6,575.7	63.1	22.6	-54.95	3.6	-1,006.6	3,308.0	3,239.4	68.57	48.241		
10,100.0	7,099.8	6,700.0	6,575.7	65.0	22.6	-54.95	3.6	-1,006.6	3,404.2	3,334.1	70.15	48.527		
10,200.0	7,099.8	6,700.0	6,575.7	66.8	22.6	-54.95	3.6	-1,006.6	3,500.6	3,428.9	71.73	48.801		
10,300.0	7,099.8	6,700.0	6,575.7	68.7	22.6	-54.95	3.6	-1,006.6	3,597.3	3,524.0	73.32	49.065		
10,400.0	7,099.8	6,700.0	6,575.7	70.6	22.6	-54.95	3.6	-1,006.6	3,694.1	3,619.2	74.90	49.317		
10,500.0	7,099.8	6,700.0	6,575.7	72.5	22.6	-54.95	3.6	-1,006.6	3,791.1	3,714.6	76.49	49.560		
10,600.0	7,099.8	6,700.0	6,575.7	74.4	22.6	-54.95	3.6	-1,006.6	3,888.2	3,810.1	78.09	49.793		
10,700.0	7,099.8	6,700.0	6,575.7	76.2	22.6	-54.95	3.6	-1,006.6	3,985.5	3,905.8	79.68	50.018		
10,800.0	7,099.8	6,700.0	6,575.7	78.1	22.6	-54.95	3.6	-1,006.6	4,082.9	4,001.6	81.28	50.234		
10,900.0	7,099.8	6,700.0	6,575.7	80.0	22.6	-54.95	3.6	-1,006.6	4,180.4	4,097.5	82.88	50.442		
11,000.0	7,099.8	6,700.0	6,575.7	81.9	22.6	-54.95	3.6	-1,006.6	4,278.1	4,193.6	84.48	50.642		
11,100.0	7,099.8	6,700.0	6,575.7	83.8	22.6	-54.95	3.6	-1,006.6	4,375.8	4,289.7	86.08	50.836		
11,200.0	7,099.8	6,700.0	6,575.7	85.7	22.6	-54.95	3.6	-1,006.6	4,473.7	4,386.0	87.68	51.022		
11,300.0	7,099.8	6,700.0	6,575.7	87.6	22.6	-54.95	3.6	-1,006.6	4,571.6	4,482.3	89.28	51.202		
11,400.0	7,099.8	6,700.0	6,575.7	89.5	22.6	-54.95	3.6	-1,006.6	4,669.6	4,578.7	90.89	51.376		
11,500.0	7,099.8	6,700.0	6,575.7	91.4	22.6	-54.95	3.6	-1,006.6	4,767.7	4,675.2	92.50	51.544		
11,600.0	7,099.8	6,700.0	6,575.7	93.3	22.6	-54.95	3.6	-1,006.6	4,865.9	4,771.8	94.11	51.707		
11,700.0	7,099.8	6,700.0	6,575.7	95.2	22.6	-54.95	3.6	-1,006.6	4,964.2	4,868.5	95.72	51.864		
11,800.0	7,099.8	6,700.0	6,575.7	97.1	22.6	-54.95	3.6	-1,006.6	5,062.5	4,965.2	97.33	52.016		
11,853.4	7,099.8	6,700.0	6,575.7	97.9	22.6	-54.95	3.6	-1,006.6	5,115.1	5,017.1	98.00	52.193		

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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	-179.11	-150.0	-2.3	150.0					
100.0	100.0	100.0	100.0	0.1	0.1	-179.11	-150.0	-2.3	150.0	149.8	0.19	794.414		
200.0	200.0	200.0	200.0	0.3	0.3	-179.11	-150.0	-2.3	150.0	149.3	0.64	234.968		
300.0	300.0	300.0	300.0	0.5	0.5	-179.11	-150.0	-2.3	150.0	148.9	1.09	137.874		
400.0	400.0	400.0	400.0	0.8	0.8	-179.11	-150.0	-2.3	150.0	148.5	1.54	97.560		
500.0	500.0	500.0	500.0	1.0	1.0	-179.11	-150.0	-2.3	150.0	148.0	1.99	75.487 CC		
600.0	600.0	599.9	599.9	1.2	1.2	-178.44	-150.0	-4.1	150.0	147.6	2.43	61.851		
700.0	700.0	699.8	699.8	1.4	1.4	-177.18	-150.0	-7.4	150.2	147.3	2.85	52.610		
800.0	800.0	799.8	799.6	1.7	1.6	-175.92	-150.0	-10.7	150.4	147.1	3.29	45.721		
900.0	900.0	899.7	899.5	1.9	1.8	-174.66	-150.0	-14.0	150.6	146.9	3.73	40.416		
1,000.0	1,000.0	999.7	999.4	2.1	2.1	-173.41	-150.0	-17.3	151.0	146.8	4.17	36.221		
1,100.0	1,100.0	1,099.6	1,099.3	2.3	2.3	-172.17	-150.0	-20.6	151.4	146.8	4.61	32.829		
1,200.0	1,200.0	1,199.6	1,199.2	2.6	2.5	-170.93	-150.0	-23.9	151.9	146.8	5.06	30.037		
1,300.0	1,300.0	1,299.5	1,299.1	2.8	2.8	-169.70	-150.0	-27.3	152.4	146.9	5.50	27.703		
1,400.0	1,400.0	1,399.4	1,399.0	3.0	3.0	-168.48	-150.0	-30.6	153.1	147.1	5.95	25.726		
1,500.0	1,500.0	1,500.5	1,500.0	3.2	3.2	-167.83	-150.0	-32.3	153.4	147.0	6.38	24.032		
1,600.0	1,600.0	1,600.5	1,600.0	3.5	3.4	-167.83	-150.0	-32.3	153.4	146.6	6.81	22.527		
1,700.0	1,700.0	1,700.5	1,700.0	3.7	3.6	-167.83	-150.0	-32.3	153.4	146.2	7.25	21.170		
1,800.0	1,800.0	1,800.5	1,800.0	3.9	3.8	-167.83	-150.0	-32.3	153.4	145.7	7.69	19.963		
1,900.0	1,900.0	1,900.5	1,900.0	4.1	4.0	-167.83	-150.0	-32.3	153.4	145.3	8.12	18.884		
2,000.0	2,000.0	2,000.5	2,000.0	4.4	4.2	-167.83	-150.0	-32.3	153.4	144.9	8.56	17.912		
2,100.0	2,100.0	2,100.5	2,100.0	4.6	4.5	-167.83	-150.0	-32.3	153.4	144.4	9.01	17.035		
2,200.0	2,200.0	2,200.5	2,200.0	4.8	4.7	-167.83	-150.0	-32.3	153.4	144.0	9.45	16.238		
2,300.0	2,300.0	2,300.5	2,300.0	5.0	4.9	-167.83	-150.0	-32.3	153.4	143.5	9.89	15.511		
2,400.0	2,400.0	2,400.5	2,400.0	5.3	5.1	-167.83	-150.0	-32.3	153.4	143.1	10.33	14.845		
2,500.0	2,500.0	2,500.5	2,500.0	5.5	5.3	-167.83	-150.0	-32.3	153.4	142.6	10.78	14.234		
2,600.0	2,600.0	2,600.5	2,600.0	5.7	5.5	-167.83	-150.0	-32.3	153.4	142.2	11.22	13.670		
2,700.0	2,700.0	2,700.5	2,700.0	5.9	5.8	-167.83	-150.0	-32.3	153.4	141.7	11.67	13.149		
2,800.0	2,800.0	2,800.5	2,800.0	6.2	6.0	-167.83	-150.0	-32.3	153.4	141.3	12.11	12.666		
2,900.0	2,900.0	2,900.5	2,900.0	6.4	6.2	-167.83	-150.0	-32.3	153.4	140.9	12.56	12.217		
3,000.0	3,000.0	3,000.5	3,000.0	6.6	6.4	-167.83	-150.0	-32.3	153.4	140.4	13.00	11.798		
3,100.0	3,100.0	3,100.5	3,100.0	6.8	6.6	-167.83	-150.0	-32.3	153.4	140.0	13.45	11.407		
3,200.0	3,200.0	3,200.5	3,200.0	7.1	6.9	-167.83	-150.0	-32.3	153.4	139.5	13.90	11.041		
3,300.0	3,300.0	3,300.5	3,300.0	7.3	7.1	-167.83	-150.0	-32.3	153.4	139.1	14.34	10.697		
3,400.0	3,400.0	3,400.5	3,400.0	7.5	7.3	-167.83	-150.0	-32.3	153.4	138.6	14.79	10.374		
3,500.0	3,500.0	3,500.5	3,500.0	7.7	7.5	-167.83	-150.0	-32.3	153.4	138.2	15.24	10.070		
3,600.0	3,600.0	3,600.5	3,600.0	8.0	7.8	-167.83	-150.0	-32.3	153.4	137.7	15.68	9.783		
3,700.0	3,700.0	3,700.5	3,700.0	8.2	8.0	-167.83	-150.0	-32.3	153.4	137.3	16.13	9.512		
3,800.0	3,800.0	3,800.5	3,800.0	8.4	8.2	-167.83	-150.0	-32.3	153.4	136.8	16.58	9.255		
3,900.0	3,900.0	3,900.5	3,900.0	8.6	8.4	-167.83	-150.0	-32.3	153.4	136.4	17.02	9.012		
4,000.0	4,000.0	4,000.5	4,000.0	8.9	8.6	-167.83	-150.0	-32.3	153.4	135.9	17.47	8.781		
4,100.0	4,100.0	4,100.5	4,100.0	9.1	8.9	-167.83	-150.0	-32.3	153.4	135.5	17.92	8.562		
4,200.0	4,200.0	4,200.5	4,200.0	9.3	9.1	-167.83	-150.0	-32.3	153.4	135.1	18.37	8.353		
4,300.0	4,300.0	4,300.5	4,300.0	9.5	9.3	-167.83	-150.0	-32.3	153.4	134.6	18.81	8.154		
4,400.0	4,400.0	4,400.5	4,400.0	9.8	9.5	-167.83	-150.0	-32.3	153.4	134.2	19.26	7.965		
4,500.0	4,500.0	4,500.0	4,499.5	10.0	9.8	-167.47	-150.0	-33.3	153.6	133.9	19.70	7.797 ES		
4,600.0	4,600.0	4,598.3	4,597.7	10.2	10.0	-165.93	-150.0	-37.6	154.6	134.5	20.13	7.680		
4,700.0	4,700.0	4,696.6	4,695.7	10.4	10.2	-163.23	-150.0	-45.2	156.7	136.1	20.57	7.619 SF		
4,800.0	4,800.0	4,794.2	4,792.7	10.7	10.4	-159.49	-150.0	-56.1	160.3	139.3	21.00	7.631		
4,900.0	4,900.0	4,891.0	4,888.5	10.9	10.6	-154.93	-150.0	-70.2	166.0	144.5	21.44	7.740		
5,000.0	5,000.0	4,986.7	4,982.7	11.1	10.9	-149.81	-150.0	-87.2	174.4	152.5	21.89	7.964		
5,100.0	5,100.0	5,081.6	5,075.4	11.3	11.2	-54.67	-150.0	-107.3	185.0	162.6	22.40	8.261		

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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		
5,200.0	5,199.8	5,175.8	5,166.8	11.5	11.4	-50.14	-150.0	-130.2	196.9	174.1	22.82	8.627		
5,300.0	5,299.5	5,269.5	5,256.9	11.7	11.8	-46.18	-150.0	-155.9	209.7	186.4	23.24	9.021		
5,400.0	5,398.7	5,362.7	5,345.5	11.9	12.1	-42.72	-150.0	-184.4	223.2	199.6	23.66	9.434		
5,477.5	5,475.3	5,436.4	5,415.1	12.1	12.4	-40.31	-150.0	-208.9	233.9	210.0	23.98	9.754		
5,500.0	5,497.5	5,458.6	5,436.0	12.2	12.5	-39.70	-150.0	-216.3	237.0	212.9	24.09	9.837		
5,600.0	5,596.1	5,557.0	5,528.8	12.4	12.9	-37.17	-150.0	-249.3	250.7	226.1	24.56	10.207		
5,700.0	5,694.7	5,655.5	5,621.5	12.6	13.4	-34.90	-150.0	-282.3	264.9	239.8	25.03	10.580		
5,800.0	5,793.3	5,754.0	5,714.3	12.9	13.9	-32.87	-150.0	-315.3	279.4	253.9	25.51	10.952		
5,900.0	5,891.9	5,852.5	5,807.1	13.1	14.4	-31.03	-150.0	-348.3	294.2	268.2	25.98	11.323		
6,000.0	5,990.6	5,950.9	5,899.9	13.4	14.9	-29.38	-150.0	-381.3	309.3	282.9	26.46	11.691		
6,100.0	6,089.2	6,049.4	5,992.7	13.7	15.4	-27.87	-150.0	-414.3	324.7	297.7	26.94	12.054		
6,200.0	6,187.8	6,147.9	6,085.4	13.9	16.0	-26.51	-150.0	-447.3	340.2	312.8	27.41	12.411		
6,300.0	6,286.4	6,246.3	6,178.2	14.2	16.5	-25.26	-150.0	-480.3	355.9	328.1	27.89	12.762		
6,400.0	6,385.0	6,344.8	6,271.0	14.5	17.1	-24.11	-150.0	-513.3	371.8	343.4	28.37	13.105		
6,467.8	6,451.9	6,411.6	6,333.9	14.7	17.5	-23.39	-150.0	-535.7	382.7	354.0	28.70	13.334		
6,500.0	6,483.6	6,443.3	6,363.7	14.8	17.7	-41.62	-150.0	-546.3	388.2	359.4	28.87	13.448		
6,550.0	6,532.7	6,492.1	6,409.8	14.9	18.0	-64.56	-150.0	-562.7	398.6	369.5	29.12	13.685		
6,600.0	6,581.3	6,540.4	6,455.2	15.1	18.3	-78.76	-150.0	-578.8	410.9	381.5	29.37	13.993		
6,650.0	6,629.0	6,587.5	6,499.6	15.2	18.5	-87.38	-150.0	-594.6	425.2	395.7	29.59	14.372		
6,700.0	6,675.4	6,624.2	6,534.2	15.4	18.8	-92.64	-150.1	-607.0	441.9	412.2	29.75	14.857		
6,750.0	6,720.1	6,650.0	6,558.2	15.5	18.9	-95.61	-151.1	-616.2	462.4	432.5	29.84	15.496		
6,800.0	6,762.9	6,672.6	6,579.1	15.6	19.1	-97.10	-152.8	-624.8	486.6	456.7	29.91	16.270		
6,850.0	6,803.4	6,700.0	6,604.0	15.8	19.2	-97.98	-155.9	-635.7	514.7	484.6	30.02	17.145		
6,900.0	6,841.3	6,700.0	6,604.0	16.0	19.2	-95.71	-155.9	-635.7	545.9	515.9	30.08	18.149		
6,950.0	6,876.2	6,723.3	6,624.9	16.1	19.4	-94.58	-159.4	-645.4	580.0	549.7	30.28	19.152		
7,000.0	6,908.1	6,734.4	6,634.8	16.3	19.5	-91.44	-161.3	-650.2	616.7	586.2	30.53	20.198		
7,050.0	6,936.5	6,750.0	6,648.4	16.6	19.6	-87.97	-164.3	-657.0	655.6	624.7	30.85	21.250		
7,072.4	6,948.1	6,750.0	6,648.4	16.7	19.6	-85.29	-164.3	-657.0	673.4	642.5	30.98	21.738		
7,100.0	6,961.9	6,750.0	6,648.4	16.9	19.6	-85.29	-164.3	-657.0	695.9	664.7	31.16	22.333		
7,200.0	7,011.9	6,750.0	6,648.4	17.5	19.6	-85.29	-164.3	-657.0	779.9	748.0	31.89	24.457		
7,222.4	7,023.1	6,750.0	6,648.4	17.7	19.6	-85.29	-164.3	-657.0	799.2	767.2	32.07	24.922		
7,250.0	7,036.3	6,765.1	6,661.5	17.9	19.7	-82.46	-167.6	-663.9	822.9	790.6	32.30	25.472		
7,300.0	7,057.2	6,768.2	6,664.2	18.4	19.7	-74.17	-168.3	-665.3	866.5	834.0	32.43	26.721		
7,350.0	7,074.1	6,769.6	6,665.4	18.9	19.7	-65.93	-168.6	-665.9	910.1	877.9	32.19	28.272		
7,400.0	7,086.8	6,769.5	6,665.3	19.4	19.7	-58.17	-168.6	-665.8	953.6	921.9	31.63	30.149		
7,450.0	7,095.2	6,767.9	6,664.0	19.9	19.7	-51.15	-168.2	-665.1	996.5	965.7	30.87	32.285		
7,500.0	7,099.4	6,750.0	6,648.4	20.5	19.6	-43.61	-164.3	-657.0	1,039.0	1,009.3	29.73	34.945		
7,522.4	7,099.8	6,750.0	6,648.4	20.8	19.6	-41.38	-164.3	-657.0	1,057.6	1,028.1	29.46	35.903		
7,600.0	7,099.8	6,750.0	6,648.4	21.8	19.6	-41.38	-164.3	-657.0	1,122.3	1,092.2	30.12	37.262		
7,700.0	7,099.8	6,750.0	6,648.4	23.1	19.6	-41.38	-164.3	-657.0	1,207.9	1,176.9	31.03	38.926		
7,800.0	7,099.8	6,750.0	6,648.4	24.5	19.6	-41.38	-164.3	-657.0	1,295.6	1,263.6	32.00	40.486		
7,900.0	7,099.8	6,750.0	6,648.4	26.0	19.6	-41.38	-164.3	-657.0	1,384.9	1,351.9	33.02	41.943		
8,000.0	7,099.8	6,750.0	6,648.4	27.6	19.6	-41.38	-164.3	-657.0	1,475.6	1,441.5	34.08	43.298		
8,100.0	7,099.8	6,728.3	6,629.3	29.2	19.4	-39.52	-160.2	-647.5	1,566.9	1,532.4	34.51	45.405		
8,200.0	7,099.8	6,723.7	6,625.3	30.8	19.4	-39.14	-159.4	-645.6	1,659.4	1,624.0	35.46	46.802		
8,300.0	7,099.8	6,719.5	6,621.6	32.5	19.4	-38.79	-158.8	-643.8	1,752.8	1,716.3	36.43	48.117		
8,400.0	7,099.8	6,700.0	6,604.0	34.1	19.2	-37.20	-155.9	-635.7	1,847.0	1,810.2	36.87	50.089		
8,500.0	7,099.8	6,700.0	6,604.0	35.9	19.2	-37.20	-155.9	-635.7	1,941.5	1,903.5	37.99	51.106		
8,600.0	7,099.8	6,700.0	6,604.0	37.6	19.2	-37.20	-155.9	-635.7	2,036.5	1,997.3	39.12	52.054		
8,700.0	7,099.8	6,700.0	6,604.0	39.3	19.2	-37.20	-155.9	-635.7	2,131.9	2,091.6	40.27	52.941		
8,800.0	7,099.8	6,700.0	6,604.0	41.1	19.2	-37.20	-155.9	-635.7	2,227.7	2,186.3	41.43	53.771		
8,900.0	7,099.8	6,700.0	6,604.0	42.9	19.2	-37.20	-155.9	-635.7	2,323.9	2,281.3	42.60	54.549		

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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		
9,000.0	7,099.8	6,700.0	6,604.0	44.7	19.2	-37.20	-155.9	-635.7	2,420.4	2,376.6	43.78	55.279		
9,100.0	7,099.8	6,700.0	6,604.0	46.5	19.2	-37.20	-155.9	-635.7	2,517.2	2,472.2	44.98	55.966		
9,200.0	7,099.8	6,700.0	6,604.0	48.3	19.2	-37.20	-155.9	-635.7	2,614.2	2,568.0	46.18	56.611		
9,300.0	7,099.8	6,700.0	6,604.0	50.1	19.2	-37.20	-155.9	-635.7	2,711.4	2,664.0	47.39	57.220		
9,400.0	7,099.8	6,700.0	6,604.0	52.0	19.2	-37.20	-155.9	-635.7	2,808.8	2,760.2	48.60	57.795		
9,500.0	7,099.8	6,700.0	6,604.0	53.8	19.2	-37.20	-155.9	-635.7	2,906.4	2,856.6	49.82	58.337		
9,600.0	7,099.8	6,700.0	6,604.0	55.7	19.2	-37.20	-155.9	-635.7	3,004.2	2,953.1	51.05	58.851		
9,700.0	7,099.8	6,700.0	6,604.0	57.5	19.2	-37.20	-155.9	-635.7	3,102.1	3,049.8	52.28	59.337		
9,800.0	7,099.8	6,700.0	6,604.0	59.4	19.2	-37.20	-155.9	-635.7	3,200.1	3,146.6	53.51	59.799		
9,900.0	7,099.8	6,678.8	6,584.8	61.2	19.1	-35.53	-153.4	-627.2	3,297.8	3,244.3	53.52	61.619		
10,000.0	7,099.8	6,677.2	6,583.3	63.1	19.1	-35.41	-153.3	-626.6	3,396.0	3,341.4	54.64	62.157		
10,100.0	7,099.8	6,675.7	6,582.0	65.0	19.1	-35.30	-153.1	-626.0	3,494.3	3,438.6	55.76	62.671		
10,200.0	7,099.8	6,674.3	6,580.7	66.8	19.1	-35.19	-153.0	-625.4	3,592.7	3,535.8	56.88	63.164		
10,300.0	7,099.8	6,672.9	6,579.4	68.7	19.1	-35.08	-152.9	-624.9	3,691.2	3,633.2	58.00	63.636		
10,400.0	7,099.8	6,671.6	6,578.2	70.6	19.1	-34.98	-152.7	-624.4	3,789.7	3,730.6	59.13	64.089		
10,500.0	7,099.8	6,650.0	6,558.2	72.5	18.9	-33.38	-151.1	-616.2	3,888.7	3,829.8	58.94	65.972		
10,600.0	7,099.8	6,650.0	6,558.2	74.4	18.9	-33.38	-151.1	-616.2	3,987.3	3,927.2	60.13	66.316		
10,700.0	7,099.8	6,650.0	6,558.2	76.2	18.9	-33.38	-151.1	-616.2	4,086.0	4,024.7	61.31	66.646		
10,800.0	7,099.8	6,650.0	6,558.2	78.1	18.9	-33.38	-151.1	-616.2	4,184.8	4,122.3	62.49	66.963		
10,900.0	7,099.8	6,650.0	6,558.2	80.0	18.9	-33.38	-151.1	-616.2	4,283.6	4,219.9	63.68	67.266		
11,000.0	7,099.8	6,650.0	6,558.2	81.9	18.9	-33.38	-151.1	-616.2	4,382.5	4,317.6	64.87	67.557		
11,100.0	7,099.8	6,650.0	6,558.2	83.8	18.9	-33.38	-151.1	-616.2	4,481.4	4,415.4	66.06	67.837		
11,200.0	7,099.8	6,650.0	6,558.2	85.7	18.9	-33.38	-151.1	-616.2	4,580.4	4,513.1	67.25	68.106		
11,300.0	7,099.8	6,650.0	6,558.2	87.6	18.9	-33.38	-151.1	-616.2	4,679.4	4,611.0	68.45	68.365		
11,400.0	7,099.8	6,650.0	6,558.2	89.5	18.9	-33.38	-151.1	-616.2	4,778.5	4,708.8	69.64	68.615		
11,500.0	7,099.8	6,650.0	6,558.2	91.4	18.9	-33.38	-151.1	-616.2	4,877.6	4,806.7	70.84	68.855		
11,600.0	7,099.8	6,650.0	6,558.2	93.3	18.9	-33.38	-151.1	-616.2	4,976.7	4,904.6	72.04	69.087		
11,700.0	7,099.8	6,650.0	6,558.2	95.2	18.9	-33.38	-151.1	-616.2	5,075.8	5,002.6	73.23	69.310		
11,800.0	7,099.8	6,650.0	6,558.2	97.1	18.9	-33.38	-151.1	-616.2	5,175.0	5,100.6	74.43	69.526		
11,853.4	7,099.8	6,650.0	6,558.2	97.9	18.9	-33.38	-151.1	-616.2	5,228.0	5,153.1	74.90	69.799		

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 4-7H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	3.0	3.0	0.0	0.0	-89.24	2.0	-149.7	149.8					
100.0	100.0	103.0	103.0	0.1	0.1	-89.24	2.0	-149.7	149.8	149.6	0.19	779.274		
200.0	200.0	203.0	203.0	0.3	0.3	-89.24	2.0	-149.7	149.8	149.1	0.64	233.373		
300.0	300.0	303.0	303.0	0.5	0.5	-89.24	2.0	-149.7	149.8	148.7	1.09	137.236		
400.0	400.0	403.0	403.0	0.8	0.8	-89.24	2.0	-149.7	149.8	148.2	1.54	97.196		
500.0	500.0	503.0	503.0	1.0	1.0	-89.24	2.0	-149.7	149.8	147.8	1.99	75.243		
600.0	600.0	603.0	603.0	1.2	1.2	-89.24	2.0	-149.7	149.8	147.3	2.44	61.380		
700.0	700.0	703.0	703.0	1.4	1.4	-89.24	2.0	-149.7	149.8	146.9	2.89	51.830		
800.0	800.0	803.0	803.0	1.7	1.7	-89.24	2.0	-149.7	149.8	146.4	3.34	44.852		
900.0	900.0	903.0	903.0	1.9	1.9	-89.24	2.0	-149.7	149.8	146.0	3.79	39.530		
1,000.0	1,000.0	1,003.0	1,003.0	2.1	2.1	-89.24	2.0	-149.7	149.8	145.5	4.24	35.337		
1,100.0	1,100.0	1,103.0	1,103.0	2.3	2.3	-89.24	2.0	-149.7	149.8	145.1	4.69	31.948		
1,200.0	1,200.0	1,203.0	1,203.0	2.6	2.6	-89.24	2.0	-149.7	149.8	144.6	5.14	29.152		
1,300.0	1,300.0	1,303.0	1,303.0	2.8	2.8	-89.24	2.0	-149.7	149.8	144.2	5.59	26.807		
1,400.0	1,400.0	1,403.0	1,403.0	3.0	3.0	-89.24	2.0	-149.7	149.8	143.7	6.04	24.810		
1,500.0	1,500.0	1,503.0	1,503.0	3.2	3.2	-89.24	2.0	-149.7	149.8	143.3	6.49	23.091		
1,600.0	1,600.0	1,603.0	1,603.0	3.5	3.5	-89.24	2.0	-149.7	149.8	142.8	6.94	21.594		
1,700.0	1,700.0	1,703.0	1,703.0	3.7	3.7	-89.24	2.0	-149.7	149.8	142.4	7.38	20.279		
1,800.0	1,800.0	1,803.0	1,803.0	3.9	3.9	-89.24	2.0	-149.7	149.8	141.9	7.83	19.116		
1,900.0	1,900.0	1,903.0	1,903.0	4.1	4.1	-89.24	2.0	-149.7	149.8	141.5	8.28	18.078		
2,000.0	2,000.0	2,003.0	2,003.0	4.4	4.4	-89.24	2.0	-149.7	149.8	141.0	8.73	17.148		
2,100.0	2,100.0	2,103.0	2,103.0	4.6	4.6	-89.24	2.0	-149.7	149.8	140.6	9.18	16.308		
2,200.0	2,200.0	2,203.0	2,203.0	4.8	4.8	-89.24	2.0	-149.7	149.8	140.1	9.63	15.547		
2,300.0	2,300.0	2,303.0	2,303.0	5.0	5.0	-89.24	2.0	-149.7	149.8	139.7	10.08	14.854		
2,400.0	2,400.0	2,403.0	2,403.0	5.3	5.3	-89.24	2.0	-149.7	149.8	139.2	10.53	14.220		
2,500.0	2,500.0	2,503.0	2,503.0	5.5	5.5	-89.24	2.0	-149.7	149.8	138.8	10.98	13.638		
2,600.0	2,600.0	2,603.0	2,603.0	5.7	5.7	-89.24	2.0	-149.7	149.8	138.3	11.43	13.102		
2,700.0	2,700.0	2,703.0	2,703.0	5.9	5.9	-89.24	2.0	-149.7	149.8	137.9	11.88	12.606		
2,800.0	2,800.0	2,803.0	2,803.0	6.2	6.2	-89.24	2.0	-149.7	149.8	137.4	12.33	12.146		
2,900.0	2,900.0	2,903.0	2,903.0	6.4	6.4	-89.24	2.0	-149.7	149.8	137.0	12.78	11.719		
3,000.0	3,000.0	3,003.0	3,003.0	6.6	6.6	-89.24	2.0	-149.7	149.8	136.5	13.23	11.321		
3,100.0	3,100.0	3,103.0	3,103.0	6.8	6.8	-89.24	2.0	-149.7	149.8	136.1	13.68	10.949		
3,200.0	3,200.0	3,203.0	3,203.0	7.1	7.1	-89.24	2.0	-149.7	149.8	135.6	14.13	10.600		
3,300.0	3,300.0	3,303.0	3,303.0	7.3	7.3	-89.24	2.0	-149.7	149.8	135.2	14.58	10.273		
3,400.0	3,400.0	3,403.0	3,403.0	7.5	7.5	-89.24	2.0	-149.7	149.8	134.7	15.03	9.966		
3,465.6	3,465.6	3,468.6	3,468.6	7.7	7.7	-89.24	2.0	-149.7	149.8	134.4	15.32	9.774 CC		
3,500.0	3,500.0	3,502.9	3,502.9	7.7	7.7	-89.24	2.0	-149.7	149.8	134.3	15.48	9.677 ES		
3,600.0	3,600.0	3,600.0	3,600.0	8.0	7.9	-89.38	1.6	-151.5	151.5	135.6	15.90	9.526		
3,700.0	3,700.0	3,692.9	3,692.7	8.2	8.1	-89.76	0.7	-156.1	156.4	140.1	16.31	9.592		
3,800.0	3,800.0	3,787.3	3,786.8	8.4	8.3	-90.34	-1.0	-163.8	164.6	147.9	16.72	9.845		
3,900.0	3,900.0	3,881.2	3,880.1	8.6	8.5	-91.06	-3.2	-174.5	176.1	158.9	17.14	10.269		
4,000.0	4,000.0	3,974.2	3,972.0	8.9	8.7	-91.86	-6.1	-188.1	190.7	173.1	17.57	10.850		
4,100.0	4,100.0	4,066.2	4,062.6	9.1	8.9	-92.67	-9.5	-204.3	208.5	190.5	18.02	11.571		
4,200.0	4,200.0	4,157.1	4,151.4	9.3	9.2	-93.46	-13.5	-223.2	229.5	211.0	18.48	12.416		
4,300.0	4,300.0	4,246.7	4,238.2	9.5	9.4	-94.21	-18.0	-244.4	253.5	234.5	18.96	13.367		
4,400.0	4,400.0	4,337.5	4,325.7	9.8	9.7	-94.91	-23.1	-268.5	280.4	260.9	19.48	14.396		
4,500.0	4,500.0	4,433.6	4,418.0	10.0	10.1	-95.54	-28.6	-294.6	308.0	287.9	20.03	15.373		
4,600.0	4,600.0	4,529.7	4,510.3	10.2	10.4	-96.07	-34.1	-320.7	335.6	315.0	20.61	16.282		
4,700.0	4,700.0	4,625.7	4,602.6	10.4	10.8	-96.51	-39.6	-346.8	363.2	342.0	21.21	17.127		
4,800.0	4,800.0	4,721.8	4,694.9	10.7	11.2	-96.89	-45.1	-372.9	390.9	369.0	21.82	17.913		
4,900.0	4,900.0	4,817.9	4,787.2	10.9	11.6	-97.23	-50.6	-399.0	418.5	396.1	22.45	18.643		
5,000.0	5,000.0	4,914.0	4,879.5	11.1	12.0	-97.52	-56.1	-425.1	446.2	423.1	23.09	19.322		

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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	5,100.0	5,010.5	4,972.2	11.3	12.4	-7.73	-61.6	-451.3	472.2	450.0	22.19	21.281		
5,200.0	5,199.8	5,107.8	5,065.7	11.5	12.9	-7.98	-67.2	-477.8	494.9	472.3	22.60	21.899		
5,300.0	5,299.5	5,205.9	5,159.9	11.7	13.3	-8.27	-72.8	-504.4	514.2	491.2	23.00	22.358		
5,400.0	5,398.7	5,304.6	5,254.7	11.9	13.8	-8.60	-78.5	-531.2	530.2	506.8	23.39	22.664		
5,477.5	5,475.3	5,381.3	5,328.5	12.1	14.2	-8.89	-82.9	-552.0	540.2	516.5	23.69	22.803		
5,500.0	5,497.5	5,403.7	5,349.9	12.2	14.3	-8.98	-84.2	-558.1	542.8	519.0	23.79	22.818		
5,600.0	5,596.1	5,502.9	5,445.3	12.4	14.8	-9.39	-89.8	-585.1	554.4	530.2	24.23	22.879		
5,700.0	5,694.7	5,602.2	5,540.6	12.6	15.3	-9.78	-95.5	-612.0	566.1	541.4	24.68	22.934		
5,800.0	5,793.3	5,701.4	5,636.0	12.9	15.8	-10.16	-101.2	-639.0	577.8	552.6	25.14	22.985		
5,900.0	5,891.9	5,800.7	5,731.3	13.1	16.3	-10.52	-106.9	-665.9	589.5	563.9	25.59	23.032		
6,000.0	5,990.6	5,899.9	5,826.7	13.4	16.8	-10.87	-112.6	-692.9	601.2	575.2	26.06	23.074		
6,100.0	6,089.2	5,999.1	5,922.0	13.7	17.4	-11.20	-118.3	-719.9	613.0	586.5	26.52	23.112		
6,200.0	6,187.8	6,098.4	6,017.3	13.9	17.9	-11.53	-124.0	-746.8	624.7	597.8	26.99	23.146		
6,300.0	6,286.4	6,197.6	6,112.7	14.2	18.4	-11.84	-129.7	-773.8	636.5	609.1	27.46	23.177		
6,400.0	6,385.0	6,296.9	6,208.0	14.5	19.0	-12.14	-135.3	-800.7	648.3	620.4	27.94	23.204		
6,467.8	6,451.9	6,364.2	6,272.7	14.7	19.3	-12.33	-139.2	-819.0	656.4	628.1	28.27	23.221		
6,500.0	6,483.6	6,396.0	6,303.3	14.8	19.5	-31.04	-141.0	-827.7	660.4	632.0	28.44	23.219		
6,550.0	6,532.7	6,445.1	6,350.4	14.9	19.8	-54.59	-143.8	-841.0	667.9	639.2	28.71	23.259		
6,600.0	6,581.3	6,493.2	6,396.6	15.1	20.0	-69.24	-146.6	-854.1	676.7	647.8	28.97	23.356		
6,650.0	6,629.0	6,560.6	6,461.5	15.2	20.4	-78.63	-148.9	-872.1	686.7	657.5	29.28	23.457		
6,700.0	6,675.4	6,655.2	6,552.5	15.4	20.8	-85.13	-139.6	-895.6	695.7	666.0	29.63	23.479		
6,750.0	6,720.1	6,755.8	6,647.0	15.5	21.1	-89.46	-113.2	-917.2	702.7	672.7	29.98	23.440		
6,800.0	6,762.9	6,860.6	6,739.8	15.6	21.4	-92.26	-68.3	-935.5	707.4	677.1	30.34	23.313		
6,850.0	6,803.4	6,967.1	6,825.0	15.8	21.6	-93.87	-6.1	-949.0	709.7	678.9	30.76	23.072		
6,900.0	6,841.3	7,072.3	6,897.3	16.0	21.8	-94.51	69.7	-956.8	709.4	678.2	31.23	22.719		
6,950.0	6,876.2	7,168.1	6,950.9	16.1	21.9	-94.50	148.9	-958.9	706.9	675.1	31.81	22.222		
7,000.0	6,908.1	7,217.3	6,975.5	16.3	22.0	-94.98	191.6	-958.9	704.4	672.1	32.22	21.862		
7,050.0	6,936.5	7,267.1	7,000.4	16.6	22.1	-95.47	234.7	-958.9	703.2	670.5	32.67	21.521		
7,072.3	6,948.0	7,289.5	7,011.6	16.7	22.2	-95.71	254.1	-958.9	703.0	670.2	32.88	21.381		
7,072.4	6,948.1	7,289.5	7,011.6	16.7	22.2	-95.71	254.1	-958.9	703.0	670.2	32.88	21.380		
7,100.0	6,961.9	7,317.8	7,025.7	16.9	22.2	-95.71	278.6	-958.9	703.0	669.8	33.25	21.147		
7,200.0	7,011.9	7,430.0	7,071.1	17.5	22.7	-94.74	381.0	-958.9	702.1	667.2	34.86	20.137		
7,222.4	7,023.1	7,454.2	7,078.2	17.7	22.8	-94.30	404.2	-958.9	701.6	666.4	35.26	19.900		
7,250.0	7,036.3	7,483.6	7,085.5	17.9	22.9	-93.76	432.6	-958.9	701.2	665.4	35.74	19.617		
7,300.0	7,057.2	7,535.8	7,094.8	18.4	23.3	-92.77	484.0	-958.9	700.4	663.8	36.67	19.099		
7,350.0	7,074.1	7,586.7	7,099.4	18.9	23.6	-91.77	534.7	-958.9	699.9	662.2	37.68	18.574		
7,400.0	7,086.8	7,636.0	7,100.0	19.4	24.0	-90.82	584.0	-958.9	699.6	660.9	38.76	18.050		
7,450.0	7,095.2	7,685.3	7,100.0	19.9	24.4	-90.14	633.3	-958.9	699.6	659.7	39.90	17.531		
7,462.1	7,096.6	7,697.4	7,100.0	20.1	24.5	-90.03	645.3	-958.9	699.6	659.4	40.19	17.406		
7,500.0	7,099.4	7,735.1	7,100.0	20.5	24.8	-89.80	683.1	-958.9	699.6	658.4	41.12	17.012		
7,522.4	7,099.8	7,757.5	7,100.0	20.8	25.1	-89.77	705.5	-958.9	699.6	657.9	41.68	16.784		
7,600.0	7,099.8	7,835.1	7,100.0	21.8	25.9	-89.77	783.1	-958.9	699.6	655.9	43.68	16.018		
7,700.0	7,099.8	7,935.1	7,100.0	23.1	27.0	-89.77	883.1	-958.9	699.6	653.2	46.41	15.074		
7,800.0	7,099.8	8,035.1	7,100.0	24.5	28.2	-89.77	983.1	-958.9	699.6	650.3	49.29	14.192		
7,900.0	7,099.8	8,135.1	7,100.0	26.0	29.5	-89.77	1,083.1	-958.9	699.6	647.3	52.30	13.376		
8,000.0	7,099.8	8,235.1	7,100.0	27.6	30.9	-89.77	1,183.1	-958.9	699.6	644.2	55.42	12.623		
8,100.0	7,099.8	8,335.1	7,100.0	29.2	32.4	-89.77	1,283.1	-958.9	699.6	641.0	58.63	11.933		
8,200.0	7,099.8	8,435.1	7,100.0	30.8	33.9	-89.77	1,383.1	-958.9	699.6	637.7	61.91	11.301		
8,300.0	7,099.8	8,535.1	7,100.0	32.5	35.4	-89.77	1,483.1	-959.0	699.6	634.4	65.25	10.722		
8,400.0	7,099.8	8,635.1	7,100.0	34.1	37.0	-89.77	1,583.1	-959.0	699.6	631.0	68.65	10.191		
8,500.0	7,099.8	8,735.1	7,100.0	35.9	38.6	-89.77	1,683.1	-959.0	699.6	627.5	72.09	9.704		
8,600.0	7,099.8	8,835.1	7,100.0	37.6	40.3	-89.77	1,783.1	-959.0	699.6	624.0	75.58	9.257		

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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		
8,700.0	7,099.8	8,935.1	7,100.0	39.3	42.0	-89.77	1,883.1	-959.0	699.6	620.5	79.10	8.845		
8,800.0	7,099.8	9,035.1	7,100.0	41.1	43.6	-89.77	1,983.1	-959.0	699.6	617.0	82.65	8.465		
8,900.0	7,099.8	9,135.1	7,100.0	42.9	45.4	-89.77	2,083.1	-959.0	699.6	613.4	86.23	8.114		
9,000.0	7,099.8	9,235.1	7,100.0	44.7	47.1	-89.77	2,183.1	-959.0	699.6	609.8	89.83	7.788		
9,100.0	7,099.8	9,335.1	7,100.0	46.5	48.8	-89.77	2,283.1	-959.0	699.6	606.2	93.46	7.486		
9,200.0	7,099.8	9,435.1	7,100.0	48.3	50.6	-89.77	2,383.1	-959.0	699.7	602.6	97.10	7.206		
9,300.0	7,099.8	9,535.1	7,100.0	50.1	52.4	-89.77	2,483.1	-959.0	699.7	598.9	100.75	6.944		
9,400.0	7,099.8	9,635.1	7,100.0	52.0	54.1	-89.77	2,583.1	-959.0	699.7	595.2	104.43	6.700		
9,500.0	7,099.8	9,735.1	7,100.0	53.8	55.9	-89.77	2,683.1	-959.0	699.7	591.6	108.11	6.472		
9,600.0	7,099.8	9,835.1	7,100.0	55.7	57.7	-89.77	2,783.1	-959.0	699.7	587.9	111.81	6.258		
9,700.0	7,099.8	9,935.1	7,100.0	57.5	59.5	-89.77	2,883.1	-959.0	699.7	584.2	115.52	6.057		
9,800.0	7,099.8	10,035.1	7,100.0	59.4	61.4	-89.77	2,983.1	-959.0	699.7	580.4	119.24	5.868		
9,900.0	7,099.8	10,135.1	7,100.0	61.2	63.2	-89.77	3,083.1	-959.0	699.7	576.7	122.96	5.690		
10,000.0	7,099.8	10,235.1	7,100.0	63.1	65.0	-89.77	3,183.1	-959.0	699.7	573.0	126.70	5.523		
10,100.0	7,099.8	10,335.1	7,100.0	65.0	66.8	-89.77	3,283.1	-959.0	699.7	569.3	130.44	5.364		
10,200.0	7,099.8	10,435.1	7,100.0	66.8	68.7	-89.77	3,383.1	-959.0	699.7	565.5	134.19	5.214		
10,300.0	7,099.8	10,535.1	7,100.0	68.7	70.5	-89.77	3,483.1	-959.0	699.7	561.8	137.94	5.072		
10,400.0	7,099.8	10,635.1	7,100.0	70.6	72.4	-89.77	3,583.1	-959.0	699.7	558.0	141.71	4.938		
10,500.0	7,099.8	10,735.1	7,100.0	72.5	74.2	-89.77	3,683.1	-959.0	699.7	554.2	145.47	4.810		
10,600.0	7,099.8	10,835.1	7,100.0	74.4	76.1	-89.77	3,783.1	-959.0	699.7	550.5	149.24	4.688		
10,700.0	7,099.8	10,935.1	7,100.0	76.2	78.0	-89.77	3,883.1	-959.0	699.7	546.7	153.02	4.573		
10,800.0	7,099.8	11,035.1	7,100.0	78.1	79.8	-89.77	3,983.1	-959.0	699.7	542.9	156.80	4.463		
10,900.0	7,099.8	11,135.1	7,100.0	80.0	81.7	-89.77	4,083.1	-959.0	699.7	539.2	160.58	4.357		
11,000.0	7,099.8	11,235.1	7,100.0	81.9	83.6	-89.77	4,183.1	-959.0	699.7	535.4	164.37	4.257		
11,100.0	7,099.8	11,335.1	7,100.0	83.8	85.4	-89.77	4,283.1	-959.0	699.7	531.6	168.16	4.161		
11,200.0	7,099.8	11,435.1	7,100.0	85.7	87.3	-89.77	4,383.1	-959.0	699.8	527.8	171.96	4.069		
11,300.0	7,099.8	11,535.1	7,100.0	87.6	89.2	-89.77	4,483.1	-959.0	699.8	524.0	175.75	3.981		
11,400.0	7,099.8	11,635.1	7,100.0	89.5	91.1	-89.77	4,583.1	-959.0	699.8	520.2	179.55	3.897		
11,500.0	7,099.8	11,735.1	7,100.0	91.4	92.9	-89.77	4,683.1	-959.0	699.8	516.4	183.36	3.816		
11,600.0	7,099.8	11,835.1	7,100.0	93.3	94.8	-89.77	4,783.1	-959.0	699.8	512.6	187.16	3.739		
11,700.0	7,099.8	11,935.1	7,100.0	95.2	96.7	-89.77	4,883.1	-959.0	699.8	508.8	190.97	3.664		
11,800.0	7,099.8	12,035.1	7,100.0	97.1	98.6	-89.77	4,983.1	-959.0	699.8	505.0	194.78	3.593		
11,853.4	7,099.8	12,088.5	7,100.0	97.9	99.6	-89.77	5,036.5	-959.0	699.8	503.2	196.62	3.559 SF		

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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	90.86	-0.3	20.0	20.0					
100.0	100.0	100.0	100.0	0.1	0.1	90.86	-0.3	20.0	20.0	19.8	0.19	105.995		
200.0	200.0	200.0	200.0	0.3	0.3	90.86	-0.3	20.0	20.0	19.4	0.64	31.351		
300.0	300.0	300.0	300.0	0.5	0.5	90.86	-0.3	20.0	20.0	18.9	1.09	18.396		
400.0	400.0	400.0	400.0	0.8	0.8	90.86	-0.3	20.0	20.0	18.5	1.54	13.017		
500.0	500.0	500.0	500.0	1.0	1.0	90.86	-0.3	20.0	20.0	18.0	1.99	10.072 CC, ES		
600.0	600.0	599.8	599.8	1.2	1.2	87.53	0.9	20.6	20.6	18.2	2.44	8.470		
700.0	700.0	699.8	699.8	1.4	1.4	83.37	2.5	21.4	21.5	18.7	2.88	7.476		
800.0	800.0	799.8	799.8	1.7	1.7	79.56	4.1	22.2	22.6	19.2	3.33	6.779		
900.0	900.0	899.8	899.7	1.9	1.9	76.10	5.7	23.0	23.7	19.9	3.78	6.270		
1,000.0	1,000.0	999.8	999.7	2.1	2.1	72.97	7.3	23.8	24.9	20.7	4.23	5.888		
1,100.0	1,100.0	1,099.8	1,099.7	2.3	2.3	70.13	8.9	24.6	26.2	21.5	4.68	5.593		
1,200.0	1,200.0	1,199.7	1,199.6	2.6	2.6	67.56	10.5	25.4	27.5	22.4	5.13	5.361		
1,300.0	1,300.0	1,299.7	1,299.6	2.8	2.8	65.22	12.1	26.2	28.9	23.3	5.58	5.175		
1,400.0	1,400.0	1,399.7	1,399.6	3.0	3.0	63.11	13.7	27.0	30.3	24.3	6.03	5.024		
1,500.0	1,500.0	1,499.7	1,499.5	3.2	3.2	61.18	15.3	27.8	31.7	25.3	6.48	4.900		
1,600.0	1,600.0	1,599.7	1,599.5	3.5	3.5	59.43	16.9	28.6	33.2	26.3	6.93	4.796		
1,700.0	1,700.0	1,699.7	1,699.5	3.7	3.7	57.83	18.5	29.4	34.7	27.4	7.38	4.709		
1,800.0	1,800.0	1,800.2	1,800.0	3.9	3.9	56.72	19.7	30.0	35.9	28.1	7.82	4.593		
1,900.0	1,900.0	1,900.2	1,900.0	4.1	4.1	56.72	19.7	30.0	35.9	27.7	8.24	4.358		
2,000.0	2,000.0	2,000.2	2,000.0	4.4	4.3	56.72	19.7	30.0	35.9	27.2	8.68	4.133		
2,100.0	2,100.0	2,100.2	2,100.0	4.6	4.5	56.72	19.7	30.0	35.9	26.8	9.13	3.931		
2,200.0	2,200.0	2,200.2	2,200.0	4.8	4.8	56.72	19.7	30.0	35.9	26.3	9.58	3.747		
2,300.0	2,300.0	2,300.2	2,300.0	5.0	5.0	56.72	19.7	30.0	35.9	25.9	10.03	3.580		
2,400.0	2,400.0	2,400.2	2,400.0	5.3	5.2	56.72	19.7	30.0	35.9	25.4	10.48	3.427		
2,500.0	2,500.0	2,500.2	2,500.0	5.5	5.4	56.72	19.7	30.0	35.9	25.0	10.92	3.286		
2,600.0	2,600.0	2,600.2	2,600.0	5.7	5.7	56.72	19.7	30.0	35.9	24.5	11.37	3.157		
2,700.0	2,700.0	2,700.2	2,700.0	5.9	5.9	56.72	19.7	30.0	35.9	24.1	11.82	3.037		
2,766.6	2,766.6	2,766.8	2,766.6	6.1	6.0	56.72	19.7	30.0	35.9	23.8	12.12	2.962		
2,800.0	2,800.0	2,799.9	2,799.7	6.2	6.1	56.72	19.7	30.0	35.9	23.6	12.27	2.926 SF		
2,900.0	2,900.0	2,899.0	2,898.8	6.4	6.3	57.78	20.0	31.7	37.5	24.8	12.71	2.950		
3,000.0	3,000.0	2,997.6	2,997.3	6.6	6.5	60.49	20.8	36.7	42.3	29.2	13.14	3.219		
3,100.0	3,100.0	3,095.7	3,095.0	6.8	6.8	63.82	22.2	45.1	50.5	36.9	13.59	3.714		
3,200.0	3,200.0	3,193.2	3,191.7	7.1	7.0	66.99	24.0	56.6	62.1	48.0	14.04	4.420		
3,300.0	3,300.0	3,291.8	3,289.4	7.3	7.2	69.53	26.3	70.5	76.0	61.4	14.51	5.235		
3,400.0	3,400.0	3,390.8	3,387.3	7.5	7.5	71.29	28.6	84.4	90.0	75.0	14.98	6.007		
3,500.0	3,500.0	3,489.7	3,485.3	7.7	7.7	72.58	30.9	98.3	104.1	88.6	15.47	6.731		
3,600.0	3,600.0	3,588.7	3,583.3	8.0	8.0	73.56	33.1	112.3	118.3	102.3	15.96	7.411		
3,700.0	3,700.0	3,687.7	3,681.2	8.2	8.3	74.33	35.4	126.2	132.4	116.0	16.45	8.049		
3,800.0	3,800.0	3,786.7	3,779.2	8.4	8.5	74.95	37.7	140.2	146.6	129.7	16.96	8.648		
3,900.0	3,900.0	3,885.7	3,877.1	8.6	8.8	75.46	40.0	154.1	160.8	143.4	17.46	9.211		
4,000.0	4,000.0	3,984.6	3,975.1	8.9	9.1	75.89	42.2	168.0	175.1	157.1	17.97	9.740		
4,100.0	4,100.0	4,083.6	4,073.1	9.1	9.4	76.26	44.5	182.0	189.3	170.8	18.49	10.238		
4,200.0	4,200.0	4,182.6	4,171.0	9.3	9.7	76.57	46.8	195.9	203.5	184.5	19.01	10.707		
4,300.0	4,300.0	4,281.6	4,269.0	9.5	10.0	76.84	49.1	209.9	217.8	198.2	19.53	11.150		
4,400.0	4,400.0	4,380.5	4,367.0	9.8	10.3	77.08	51.3	223.8	232.0	211.9	20.06	11.568		
4,500.0	4,500.0	4,479.5	4,464.9	10.0	10.6	77.29	53.6	237.8	246.2	225.7	20.58	11.963		
4,600.0	4,600.0	4,578.5	4,562.9	10.2	10.9	77.48	55.9	251.7	260.5	239.4	21.11	12.337		
4,700.0	4,700.0	4,677.5	4,660.8	10.4	11.2	77.65	58.2	265.6	274.7	253.1	21.65	12.691		
4,800.0	4,800.0	4,776.4	4,758.8	10.7	11.5	77.80	60.4	279.6	289.0	266.8	22.18	13.028		
4,900.0	4,900.0	4,875.4	4,856.8	10.9	11.8	77.94	62.7	293.5	303.3	280.5	22.72	13.347		
5,000.0	5,000.0	4,974.4	4,954.7	11.1	12.2	78.06	65.0	307.5	317.5	294.2	23.26	13.650		

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



# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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		
5,100.0	5,100.0	5,073.1	5,052.4	11.3	12.5	168.17	67.3	321.4	333.5	311.0	22.46	14.850		
5,200.0	5,199.8	5,171.2	5,149.5	11.5	12.8	168.37	69.5	335.2	352.8	329.9	22.84	15.443		
5,300.0	5,299.5	5,268.6	5,245.9	11.7	13.1	168.63	71.8	348.9	375.4	352.2	23.21	16.174		
5,400.0	5,398.7	5,365.1	5,341.4	11.9	13.4	168.94	74.0	362.5	401.4	377.9	23.56	17.036		
5,477.5	5,475.3	5,439.2	5,414.8	12.1	13.7	169.20	75.7	372.9	423.9	400.0	23.82	17.792		
5,500.0	5,497.5	5,460.7	5,436.0	12.2	13.7	169.31	76.2	376.0	430.7	406.8	23.92	18.006		
5,600.0	5,596.1	5,555.9	5,530.3	12.4	14.0	169.72	78.4	389.4	460.9	436.6	24.34	18.938		
5,700.0	5,694.7	5,651.2	5,624.6	12.6	14.3	170.09	80.6	402.8	491.2	466.4	24.76	19.837		
5,800.0	5,793.3	5,746.5	5,718.9	12.9	14.7	170.41	82.8	416.2	521.5	496.3	25.18	20.705		
5,900.0	5,891.9	5,841.7	5,813.2	13.1	15.0	170.70	84.9	429.6	551.7	526.1	25.61	21.542		
6,000.0	5,990.6	5,937.0	5,907.5	13.4	15.3	170.96	87.1	443.1	582.0	556.0	26.04	22.350		
6,100.0	6,089.2	6,032.3	6,001.8	13.7	15.6	171.19	89.3	456.5	612.4	585.9	26.47	23.131		
6,200.0	6,187.8	6,127.5	6,096.1	13.9	15.9	171.41	91.5	469.9	642.7	615.8	26.91	23.885		
6,300.0	6,286.4	6,222.8	6,190.4	14.2	16.2	171.60	93.7	483.3	673.0	645.7	27.34	24.613		
6,400.0	6,385.0	6,318.1	6,284.6	14.5	16.6	171.77	95.9	496.7	703.3	675.5	27.78	25.318		
6,467.8	6,451.9	6,382.7	6,348.6	14.7	16.8	171.88	97.4	505.9	723.9	695.8	28.08	25.782		
6,500.0	6,483.6	6,413.4	6,379.0	14.8	16.9	152.10	98.1	510.2	733.5	705.2	28.26	25.950		
6,550.0	6,532.7	6,461.0	6,426.1	14.9	17.0	127.42	99.2	516.9	747.5	718.9	28.56	26.175		
6,600.0	6,581.3	6,495.4	6,460.2	15.1	17.2	111.99	100.1	521.8	760.7	731.8	28.82	26.397		
6,650.0	6,629.0	6,518.0	6,482.4	15.2	17.2	102.32	101.2	525.7	774.2	745.1	29.05	26.651		
6,700.0	6,675.4	6,550.0	6,513.6	15.4	17.4	96.15	103.9	532.2	788.2	758.9	29.29	26.907		
6,750.0	6,720.1	6,550.0	6,513.6	15.5	17.4	90.97	103.9	532.2	802.6	773.1	29.47	27.234		
6,800.0	6,762.9	6,582.7	6,545.1	15.6	17.5	87.89	108.0	540.1	817.1	787.3	29.71	27.498		
6,850.0	6,803.4	6,600.0	6,561.5	15.8	17.6	85.06	110.6	544.8	832.0	802.1	29.92	27.806		
6,900.0	6,841.3	6,622.9	6,583.0	16.0	17.7	82.95	114.6	551.5	847.3	817.2	30.15	28.101		
6,950.0	6,876.2	6,650.0	6,608.0	16.1	17.9	81.40	120.2	560.3	862.9	832.5	30.40	28.382		
7,000.0	6,908.1	6,650.0	6,608.0	16.3	17.9	78.97	120.2	560.3	878.8	848.2	30.58	28.739		
7,050.0	6,936.5	6,678.3	6,633.7	16.6	18.1	77.99	126.9	570.3	894.7	863.8	30.87	28.981		
7,072.4	6,948.1	6,686.1	6,640.6	16.7	18.1	77.39	128.9	573.2	901.9	870.9	30.99	29.103		
7,100.0	6,961.9	6,700.0	6,652.8	16.9	18.2	78.04	132.7	578.6	911.2	879.9	31.24	29.168		
7,200.0	7,011.9	6,731.4	6,679.9	17.5	18.4	79.44	142.0	591.5	948.9	916.8	32.14	29.529		
7,222.4	7,023.1	6,750.0	6,695.6	17.7	18.5	80.22	148.0	599.6	958.4	926.0	32.40	29.576		
7,250.0	7,036.3	6,750.0	6,695.6	17.9	18.5	78.95	148.0	599.6	970.1	937.5	32.58	29.774		
7,300.0	7,057.2	6,767.4	6,709.9	18.4	18.7	77.34	153.9	607.5	992.0	959.0	32.99	30.072		
7,350.0	7,074.1	6,784.1	6,723.4	18.9	18.8	75.66	159.9	615.3	1,014.5	981.1	33.39	30.384		
7,400.0	7,086.8	6,800.0	6,735.9	19.4	18.9	73.93	165.9	623.0	1,037.6	1,003.8	33.78	30.712		
7,450.0	7,095.2	6,814.6	6,747.2	19.9	19.1	72.12	171.6	630.3	1,061.0	1,026.9	34.17	31.056		
7,500.0	7,099.4	6,828.2	6,757.5	20.5	19.2	70.26	177.1	637.3	1,084.8	1,050.3	34.53	31.416		
7,522.4	7,099.8	6,834.0	6,761.8	20.8	19.2	69.41	179.5	640.3	1,095.6	1,060.9	34.69	31.583		
7,600.0	7,099.8	6,850.0	6,773.5	21.8	19.4	70.24	186.3	648.8	1,134.6	1,098.8	35.79	31.703		
7,700.0	7,099.8	6,883.5	6,797.1	23.1	19.7	71.91	201.4	667.2	1,189.5	1,152.1	37.44	31.773		
7,800.0	7,099.8	6,916.3	6,818.8	24.5	20.0	73.45	217.1	686.2	1,248.9	1,209.8	39.16	31.891		
7,900.0	7,099.8	6,974.8	7,100.0	26.0	31.8	90.01	1,083.1	1,041.1	1,300.5	1,248.8	51.68	25.163		
8,000.0	7,099.8	8,074.8	7,100.0	27.6	32.9	90.01	1,183.1	1,041.1	1,300.5	1,245.9	54.63	23.806		
8,100.0	7,099.8	8,174.8	7,100.0	29.2	34.1	90.01	1,283.1	1,041.2	1,300.5	1,242.8	57.68	22.546		
8,200.0	7,099.8	8,274.8	7,100.0	30.8	35.3	90.01	1,383.1	1,041.2	1,300.5	1,239.7	60.83	21.381		
8,300.0	7,099.8	8,374.8	7,100.0	32.5	36.6	90.01	1,483.1	1,041.2	1,300.5	1,236.5	64.05	20.305		
8,400.0	7,099.8	8,474.8	7,100.0	34.1	38.0	90.01	1,583.1	1,041.2	1,300.5	1,233.2	67.34	19.313		
8,500.0	7,099.8	8,574.8	7,100.0	35.9	39.4	90.01	1,683.1	1,041.2	1,300.5	1,229.8	70.69	18.398		
8,600.0	7,099.8	8,674.8	7,100.0	37.6	40.8	90.01	1,783.1	1,041.2	1,300.5	1,226.4	74.08	17.554		
8,700.0	7,099.8	8,774.8	7,100.0	39.3	42.3	90.01	1,883.1	1,041.2	1,300.5	1,223.0	77.53	16.775		
8,800.0	7,099.8	8,874.8	7,100.0	41.1	43.8	90.01	1,983.1	1,041.2	1,300.5	1,219.5	81.00	16.055		

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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		
8,900.0	7,099.8	8,974.8	7,100.0	42.9	45.4	90.01	2,083.1	1,041.2	1,300.5	1,216.0	84.52	15.387		
9,000.0	7,099.8	9,074.8	7,100.0	44.7	47.0	90.01	2,183.1	1,041.2	1,300.5	1,212.4	88.06	14.769		
9,100.0	7,099.8	9,174.8	7,100.0	46.5	48.6	90.01	2,283.1	1,041.2	1,300.5	1,208.9	91.63	14.193		
9,200.0	7,099.8	9,274.8	7,100.0	48.3	50.2	90.01	2,383.1	1,041.2	1,300.5	1,205.3	95.22	13.658		
9,300.0	7,099.8	9,374.8	7,100.0	50.1	51.9	90.01	2,483.1	1,041.2	1,300.5	1,201.7	98.83	13.159		
9,400.0	7,099.8	9,474.8	7,100.0	52.0	53.5	90.01	2,583.1	1,041.2	1,300.5	1,198.0	102.46	12.693		
9,500.0	7,099.8	9,574.8	7,100.0	53.8	55.2	90.01	2,683.1	1,041.2	1,300.5	1,194.4	106.11	12.257		
9,600.0	7,099.8	9,674.8	7,100.0	55.7	56.9	90.01	2,783.1	1,041.2	1,300.5	1,190.7	109.77	11.848		
9,700.0	7,099.8	9,774.8	7,100.0	57.5	58.7	90.01	2,883.1	1,041.2	1,300.5	1,187.1	113.44	11.464		
9,800.0	7,099.8	9,874.8	7,100.0	59.4	60.4	90.01	2,983.1	1,041.2	1,300.5	1,183.4	117.13	11.103		
9,900.0	7,099.8	9,974.8	7,100.0	61.2	62.1	90.01	3,083.1	1,041.2	1,300.5	1,179.7	120.82	10.764		
10,000.0	7,099.8	10,074.8	7,100.0	63.1	63.9	90.01	3,183.1	1,041.2	1,300.5	1,176.0	124.53	10.443		
10,100.0	7,099.8	10,174.8	7,100.0	65.0	65.7	90.01	3,283.1	1,041.2	1,300.5	1,172.3	128.25	10.141		
10,200.0	7,099.8	10,274.8	7,100.0	66.8	67.5	90.01	3,383.1	1,041.2	1,300.5	1,168.5	131.97	9.854		
10,300.0	7,099.8	10,374.8	7,100.0	68.7	69.2	90.01	3,483.1	1,041.2	1,300.5	1,164.8	135.71	9.583		
10,400.0	7,099.8	10,474.8	7,100.0	70.6	71.0	90.01	3,583.1	1,041.2	1,300.5	1,161.1	139.45	9.326		
10,500.0	7,099.8	10,574.8	7,100.0	72.5	72.8	90.01	3,683.1	1,041.2	1,300.5	1,157.3	143.19	9.082		
10,600.0	7,099.8	10,674.8	7,100.0	74.4	74.6	90.01	3,783.1	1,041.2	1,300.5	1,153.6	146.95	8.850		
10,700.0	7,099.8	10,774.8	7,100.0	76.2	76.5	90.01	3,883.1	1,041.2	1,300.5	1,149.8	150.70	8.630		
10,800.0	7,099.8	10,874.8	7,100.0	78.1	78.3	90.01	3,983.1	1,041.2	1,300.5	1,146.0	154.47	8.419		
10,900.0	7,099.8	10,974.8	7,100.0	80.0	80.1	90.01	4,083.1	1,041.2	1,300.5	1,142.3	158.23	8.219		
11,000.0	7,099.8	11,074.8	7,100.0	81.9	81.9	90.01	4,183.1	1,041.2	1,300.5	1,138.5	162.01	8.028		
11,100.0	7,099.8	11,174.8	7,100.0	83.8	83.8	90.01	4,283.1	1,041.2	1,300.5	1,134.7	165.78	7.845		
11,200.0	7,099.8	11,274.8	7,100.0	85.7	85.6	90.01	4,383.1	1,041.2	1,300.5	1,131.0	169.56	7.670		
11,300.0	7,099.8	11,374.8	7,100.0	87.6	87.5	90.01	4,483.1	1,041.3	1,300.5	1,127.2	173.35	7.502		
11,400.0	7,099.8	11,474.8	7,100.0	89.5	89.3	90.01	4,583.1	1,041.3	1,300.5	1,123.4	177.13	7.342		
11,500.0	7,099.8	11,574.8	7,100.0	91.4	91.2	90.01	4,683.1	1,041.3	1,300.5	1,119.6	180.93	7.188		
11,600.0	7,099.8	11,674.8	7,100.0	93.3	93.0	90.01	4,783.1	1,041.3	1,300.5	1,115.8	184.72	7.041		
11,700.0	7,099.8	11,774.8	7,100.0	95.2	94.9	90.01	4,883.1	1,041.3	1,300.5	1,112.0	188.51	6.899		
11,800.0	7,099.8	11,874.8	7,100.0	97.1	96.7	90.01	4,983.1	1,041.3	1,300.5	1,108.2	192.31	6.762		
11,853.4	7,099.8	11,928.2	7,100.0	97.9	97.7	90.01	5,036.5	1,041.3	1,300.5	1,106.4	194.15	6.699		

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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	90.87	-0.6	40.0	40.0					
100.0	100.0	100.0	100.0	0.1	0.1	90.87	-0.6	40.0	40.0	39.8	0.19	211.726		
200.0	200.0	200.0	200.0	0.3	0.3	90.87	-0.6	40.0	40.0	39.3	0.64	62.623		
300.0	300.0	300.0	300.0	0.5	0.5	90.87	-0.6	40.0	40.0	38.9	1.09	36.746		
400.0	400.0	400.0	400.0	0.8	0.8	90.87	-0.6	40.0	40.0	38.4	1.54	26.001		
500.0	500.0	500.0	500.0	1.0	1.0	90.87	-0.6	40.0	40.0	38.0	1.99	20.119 CC, ES		
600.0	600.0	598.6	598.6	1.2	1.2	90.84	-0.6	41.7	41.7	39.3	2.42	17.221		
700.0	700.0	698.6	698.5	1.4	1.4	90.78	-0.6	45.0	45.0	42.1	2.85	15.766		
800.0	800.0	798.5	798.4	1.7	1.6	90.72	-0.6	48.3	48.3	45.0	3.29	14.665		
900.0	900.0	898.5	898.3	1.9	1.8	90.68	-0.6	51.6	51.6	47.9	3.74	13.807		
1,000.0	1,000.0	998.4	998.2	2.1	2.1	90.64	-0.6	54.9	54.9	50.7	4.18	13.122		
1,100.0	1,100.0	1,098.4	1,098.1	2.3	2.3	90.60	-0.6	58.2	58.2	53.6	4.63	12.563		
1,200.0	1,200.0	1,200.3	1,200.0	2.6	2.5	90.58	-0.6	60.0	60.0	54.9	5.07	11.832		
1,300.0	1,300.0	1,300.3	1,300.0	2.8	2.7	90.58	-0.6	60.0	60.0	54.5	5.49	10.916		
1,400.0	1,400.0	1,400.3	1,400.0	3.0	2.9	90.58	-0.6	60.0	60.0	54.0	5.93	10.108		
1,500.0	1,500.0	1,500.3	1,500.0	3.2	3.1	90.58	-0.6	60.0	60.0	53.6	6.37	9.409		
1,600.0	1,600.0	1,600.3	1,600.0	3.5	3.4	90.58	-0.6	60.0	60.0	53.2	6.82	8.799		
1,700.0	1,700.0	1,700.3	1,700.0	3.7	3.6	90.58	-0.6	60.0	60.0	52.7	7.26	8.262		
1,800.0	1,800.0	1,800.3	1,800.0	3.9	3.8	90.58	-0.6	60.0	60.0	52.3	7.70	7.786		
1,900.0	1,900.0	1,900.3	1,900.0	4.1	4.0	90.58	-0.6	60.0	60.0	51.8	8.15	7.362		
2,000.0	2,000.0	2,000.3	2,000.0	4.4	4.2	90.58	-0.6	60.0	60.0	51.4	8.59	6.981		
2,100.0	2,100.0	2,100.3	2,100.0	4.6	4.4	90.58	-0.6	60.0	60.0	50.9	9.04	6.637		
2,200.0	2,200.0	2,200.3	2,200.0	4.8	4.7	90.58	-0.6	60.0	60.0	50.5	9.48	6.325		
2,300.0	2,300.0	2,300.3	2,300.0	5.0	4.9	90.58	-0.6	60.0	60.0	50.0	9.93	6.041		
2,400.0	2,400.0	2,400.3	2,400.0	5.3	5.1	90.58	-0.6	60.0	60.0	49.6	10.37	5.781		
2,500.0	2,500.0	2,500.3	2,500.0	5.5	5.3	90.58	-0.6	60.0	60.0	49.2	10.82	5.542		
2,600.0	2,600.0	2,600.3	2,600.0	5.7	5.6	90.58	-0.6	60.0	60.0	48.7	11.27	5.322		
2,700.0	2,700.0	2,700.3	2,700.0	5.9	5.8	90.58	-0.6	60.0	60.0	48.3	11.72	5.119		
2,800.0	2,800.0	2,800.3	2,800.0	6.2	6.0	90.58	-0.6	60.0	60.0	47.8	12.16	4.931		
2,900.0	2,900.0	2,900.3	2,900.0	6.4	6.2	90.58	-0.6	60.0	60.0	47.4	12.61	4.756		
3,000.0	3,000.0	3,000.3	3,000.0	6.6	6.4	90.58	-0.6	60.0	60.0	46.9	13.06	4.593		
3,066.4	3,066.4	3,066.7	3,066.4	6.8	6.6	90.58	-0.6	60.0	60.0	46.6	13.35	4.491		
3,100.0	3,100.0	3,099.6	3,099.3	6.8	6.7	90.58	-0.6	60.0	60.0	46.5	13.50	4.442		
3,200.0	3,200.0	3,198.2	3,197.9	7.1	6.9	90.57	-0.6	61.7	61.7	47.8	13.94	4.426 SF		
3,300.0	3,300.0	3,295.9	3,295.4	7.3	7.1	90.52	-0.6	66.7	66.9	52.5	14.38	4.650		
3,400.0	3,400.0	3,393.1	3,392.3	7.5	7.3	90.47	-0.6	75.0	75.4	60.6	14.82	5.087		
3,500.0	3,500.0	3,489.7	3,488.2	7.7	7.5	90.40	-0.6	86.5	87.3	72.0	15.27	5.716		
3,600.0	3,600.0	3,585.3	3,582.7	8.0	7.8	90.35	-0.6	101.0	102.5	86.8	15.74	6.514		
3,700.0	3,700.0	3,679.9	3,675.7	8.2	8.0	90.29	-0.6	118.5	121.0	104.8	16.22	7.462		
3,800.0	3,800.0	3,773.2	3,766.7	8.4	8.3	90.25	-0.6	138.8	142.7	126.0	16.72	8.536		
3,900.0	3,900.0	3,865.1	3,855.7	8.6	8.6	90.22	-0.6	161.6	167.6	150.3	17.25	9.716		
4,000.0	4,000.0	3,960.0	3,947.1	8.9	9.0	90.19	-0.6	187.3	194.7	176.9	17.82	10.927		
4,100.0	4,100.0	4,056.3	4,039.7	9.1	9.3	90.16	-0.6	213.5	221.8	203.4	18.41	12.050		
4,200.0	4,200.0	4,152.5	4,132.3	9.3	9.7	90.15	-0.6	239.6	249.0	230.0	19.02	13.092		
4,300.0	4,300.0	4,248.8	4,225.0	9.5	10.1	90.13	-0.6	265.8	276.2	256.5	19.65	14.056		
4,400.0	4,400.0	4,345.0	4,317.6	9.8	10.5	90.12	-0.6	291.9	303.4	283.1	20.29	14.951		
4,500.0	4,500.0	4,441.2	4,410.2	10.0	11.0	90.11	-0.6	318.1	330.5	309.6	20.94	15.781		
4,600.0	4,600.0	4,537.5	4,502.8	10.2	11.4	90.10	-0.6	344.2	357.7	336.1	21.61	16.552		
4,700.0	4,700.0	4,633.7	4,595.4	10.4	11.9	90.09	-0.6	370.4	384.9	362.6	22.29	17.269		
4,800.0	4,800.0	4,729.9	4,688.0	10.7	12.3	90.09	-0.6	396.5	412.0	389.1	22.97	17.937		
4,900.0	4,900.0	4,826.2	4,780.7	10.9	12.8	90.08	-0.6	422.7	439.2	415.5	23.66	18.561		
5,000.0	5,000.0	4,922.4	4,873.3	11.1	13.3	90.08	-0.6	448.8	466.4	442.0	24.36	19.143		

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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		
5,100.0	5,100.0	5,018.2	4,965.4	11.3	13.7	-179.93	-0.6	474.8	495.2	472.9	22.31	22.193		
5,200.0	5,199.8	5,112.8	5,056.5	11.5	14.2	-179.93	-0.6	500.6	527.4	504.7	22.70	23.231		
5,300.0	5,299.5	5,206.3	5,146.5	11.7	14.7	-179.93	-0.6	526.0	562.8	539.8	23.07	24.398		
5,400.0	5,398.7	5,298.6	5,235.3	11.9	15.2	-179.94	-0.6	551.0	601.5	578.1	23.42	25.690		
5,477.5	5,475.3	5,369.0	5,303.1	12.1	15.5	-179.94	-0.6	570.2	633.7	610.0	23.67	26.774		
5,500.0	5,497.5	5,389.4	5,322.7	12.2	15.6	-179.94	-0.6	575.7	643.3	619.6	23.76	27.072		
5,600.0	5,596.1	5,479.8	5,409.7	12.4	16.1	-179.94	-0.6	600.3	686.1	661.9	24.19	28.364		
5,700.0	5,694.7	5,570.2	5,496.7	12.6	16.6	-179.95	-0.6	624.8	728.9	704.2	24.62	29.608		
5,800.0	5,793.3	5,660.6	5,583.7	12.9	17.1	-179.95	-0.6	649.4	771.6	746.6	25.05	30.805		
5,900.0	5,891.9	5,751.0	5,670.7	13.1	17.6	-179.95	-0.6	674.0	814.4	788.9	25.48	31.959		
6,000.0	5,990.6	5,841.4	5,757.7	13.4	18.0	-179.95	-0.6	698.5	857.1	831.2	25.92	33.070		
6,100.0	6,089.2	5,931.8	5,844.7	13.7	18.5	-179.96	-0.6	723.1	899.9	873.5	26.36	34.140		
6,200.0	6,187.8	6,022.2	5,931.7	13.9	19.0	-179.96	-0.6	747.6	942.7	915.9	26.80	35.172		
6,300.0	6,286.4	6,112.6	6,018.6	14.2	19.5	-179.96	-0.6	772.2	985.4	958.2	27.25	36.168		
6,400.0	6,385.0	6,203.0	6,105.6	14.5	20.0	-179.96	-0.6	796.8	1,028.2	1,000.5	27.69	37.128		
6,467.8	6,451.9	6,264.3	6,164.7	14.7	20.3	-179.96	-0.6	813.4	1,057.2	1,029.2	28.00	37.760		
6,500.0	6,483.6	6,293.4	6,192.7	14.8	20.5	159.65	-0.6	821.3	1,070.9	1,042.7	28.18	37.999		
6,550.0	6,532.7	6,338.5	6,236.1	14.9	20.7	133.94	-0.6	833.6	1,091.7	1,063.2	28.50	38.307		
6,600.0	6,581.3	6,383.3	6,279.2	15.1	21.0	117.61	-0.6	845.8	1,112.0	1,083.2	28.83	38.566		
6,650.0	6,629.0	6,427.4	6,321.6	15.2	21.2	107.42	-0.6	857.7	1,131.7	1,102.5	29.17	38.794		
6,700.0	6,675.4	6,470.3	6,363.0	15.4	21.5	100.70	-0.6	869.4	1,150.7	1,121.2	29.50	39.007		
6,750.0	6,720.1	6,511.9	6,403.0	15.5	21.7	96.00	-0.6	880.7	1,169.2	1,139.3	29.82	39.212		
6,800.0	6,762.9	6,548.0	6,437.7	15.6	21.9	92.45	-0.6	890.5	1,187.1	1,156.9	30.11	39.417		
6,850.0	6,803.4	6,550.0	6,439.6	15.8	21.9	88.70	-0.6	891.1	1,205.1	1,174.7	30.37	39.683		
6,900.0	6,841.3	6,572.4	6,461.0	16.0	22.0	86.08	-0.5	897.7	1,223.2	1,192.5	30.64	39.919		
6,950.0	6,876.2	6,583.2	6,471.2	16.1	22.1	83.45	-0.4	901.2	1,241.6	1,210.7	30.89	40.195		
7,000.0	6,908.1	6,600.0	6,487.0	16.3	22.2	81.33	-0.1	907.0	1,260.2	1,229.1	31.14	40.473		
7,050.0	6,936.5	6,600.0	6,487.0	16.6	22.2	78.77	-0.1	907.0	1,278.7	1,247.4	31.33	40.811		
7,072.4	6,948.1	6,600.0	6,487.0	16.7	22.2	77.68	-0.1	907.0	1,287.1	1,255.7	31.41	40.974		
7,100.0	6,961.9	6,600.0	6,487.0	16.9	22.2	77.68	-0.1	907.0	1,297.7	1,266.1	31.60	41.069		
7,200.0	7,011.9	6,626.1	6,511.2	17.5	22.4	78.74	0.6	916.9	1,339.3	1,306.8	32.43	41.291		
7,222.4	7,023.1	6,629.7	6,514.4	17.7	22.4	78.89	0.7	918.4	1,349.4	1,316.7	32.63	41.352		
7,250.0	7,036.3	6,650.0	6,532.8	17.9	22.6	78.31	1.4	926.9	1,362.3	1,329.4	32.89	41.424		
7,300.0	7,057.2	6,650.0	6,532.8	18.4	22.6	75.77	1.4	926.9	1,385.5	1,352.3	33.20	41.732		
7,350.0	7,074.1	6,650.0	6,532.8	18.9	22.6	73.18	1.4	926.9	1,409.1	1,375.7	33.46	42.119		
7,400.0	7,086.8	6,650.0	6,532.8	19.4	22.6	70.60	1.4	926.9	1,433.0	1,399.4	33.65	42.586		
7,450.0	7,095.2	6,650.0	6,532.8	19.9	22.6	68.04	1.4	926.9	1,457.0	1,423.2	33.79	43.124		
7,500.0	7,099.4	6,650.0	6,532.8	20.5	22.6	65.55	1.4	926.9	1,480.9	1,447.0	33.88	43.711		
7,522.4	7,099.8	6,650.0	6,532.8	20.8	22.6	64.45	1.4	926.9	1,491.5	1,457.6	33.91	43.982		
7,600.0	7,099.8	6,650.0	6,532.8	21.8	22.6	64.45	1.4	926.9	1,529.6	1,494.8	34.79	43.962		
7,700.0	7,099.8	6,650.0	6,532.8	23.1	22.6	64.45	1.4	926.9	1,583.1	1,547.1	36.01	43.960		
7,800.0	7,099.8	6,650.0	6,532.8	24.5	22.6	64.45	1.4	926.9	1,640.9	1,603.6	37.30	43.987		
7,900.0	7,099.8	6,650.0	6,532.8	26.0	22.6	64.45	1.4	926.9	1,702.6	1,663.9	38.66	44.043		
8,000.0	7,099.8	6,650.0	6,532.8	27.6	22.6	64.45	1.4	926.9	1,767.8	1,727.7	40.06	44.125		
8,100.0	7,099.8	6,650.0	6,532.8	29.2	22.6	64.45	1.4	926.9	1,836.1	1,794.6	41.51	44.230		
8,200.0	7,099.8	6,666.4	6,547.4	30.8	22.7	65.17	2.1	934.3	1,907.1	1,863.9	43.21	44.132		
8,300.0	7,099.8	8,814.3	7,100.0	32.5	44.8	90.01	1,483.1	1,701.6	1,961.0	1,896.2	64.76	30.280		
8,400.0	7,099.8	8,914.3	7,100.0	34.1	45.8	90.01	1,583.1	1,701.6	1,961.0	1,892.9	68.03	28.824		
8,500.0	7,099.8	9,014.3	7,100.0	35.9	46.8	90.01	1,683.1	1,701.6	1,960.9	1,889.6	71.36	27.478		
8,600.0	7,099.8	9,114.3	7,100.0	37.6	47.9	90.01	1,783.1	1,701.6	1,960.9	1,886.2	74.74	26.235		
8,700.0	7,099.8	9,214.3	7,100.0	39.3	49.1	90.01	1,883.1	1,701.6	1,960.9	1,882.8	78.17	25.085		
8,800.0	7,099.8	9,314.3	7,100.0	41.1	50.3	90.01	1,983.1	1,701.6	1,960.9	1,879.3	81.64	24.021		

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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		
8,900.0	7,099.8	9,414.3	7,100.0	42.9	51.6	90.01	2,083.1	1,701.6	1,960.9	1,875.8	85.13	23.033		
9,000.0	7,099.8	9,514.3	7,100.0	44.7	52.9	90.01	2,183.1	1,701.6	1,960.9	1,872.3	88.66	22.117		
9,100.0	7,099.8	9,614.3	7,100.0	46.5	54.2	90.01	2,283.1	1,701.6	1,960.9	1,868.7	92.22	21.264		
9,200.0	7,099.8	9,714.3	7,100.0	48.3	55.6	90.01	2,383.1	1,701.6	1,960.9	1,865.1	95.80	20.469		
9,300.0	7,099.8	9,814.3	7,100.0	50.1	57.0	90.01	2,483.1	1,701.6	1,960.9	1,861.5	99.40	19.728		
9,400.0	7,099.8	9,914.3	7,100.0	52.0	58.5	90.01	2,583.1	1,701.6	1,960.9	1,857.9	103.02	19.035		
9,500.0	7,099.8	10,014.3	7,100.0	53.8	60.0	90.01	2,683.1	1,701.6	1,960.9	1,854.2	106.65	18.385		
9,600.0	7,099.8	10,114.3	7,100.0	55.7	61.5	90.01	2,783.1	1,701.6	1,960.9	1,850.6	110.31	17.777		
9,700.0	7,099.8	10,214.3	7,100.0	57.5	63.0	90.01	2,883.1	1,701.6	1,960.9	1,846.9	113.97	17.205		
9,800.0	7,099.8	10,314.3	7,100.0	59.4	64.6	90.01	2,983.1	1,701.6	1,960.9	1,843.2	117.65	16.667		
9,900.0	7,099.8	10,414.3	7,100.0	61.2	66.2	90.01	3,083.1	1,701.6	1,960.9	1,839.5	121.34	16.160		
10,000.0	7,099.8	10,514.3	7,100.0	63.1	67.8	90.01	3,183.1	1,701.6	1,960.9	1,835.8	125.04	15.682		
10,100.0	7,099.8	10,614.3	7,100.0	65.0	69.5	90.01	3,283.1	1,701.6	1,960.9	1,832.1	128.75	15.230		
10,200.0	7,099.8	10,714.3	7,100.0	66.8	71.1	90.01	3,383.1	1,701.6	1,960.9	1,828.4	132.47	14.802		
10,300.0	7,099.8	10,814.3	7,100.0	68.7	72.8	90.01	3,483.1	1,701.6	1,960.9	1,824.7	136.20	14.397		
10,400.0	7,099.8	10,914.3	7,100.0	70.6	74.5	90.01	3,583.1	1,701.6	1,960.9	1,820.9	139.93	14.013		
10,500.0	7,099.8	11,014.3	7,100.0	72.5	76.2	90.01	3,683.1	1,701.6	1,960.9	1,817.2	143.67	13.648		
10,600.0	7,099.8	11,114.3	7,100.0	74.4	77.9	90.01	3,783.1	1,701.6	1,960.8	1,813.4	147.42	13.301		
10,700.0	7,099.8	11,214.3	7,100.0	76.2	79.6	90.01	3,883.1	1,701.6	1,960.8	1,809.7	151.17	12.971		
10,800.0	7,099.8	11,314.3	7,100.0	78.1	81.4	90.01	3,983.1	1,701.6	1,960.8	1,805.9	154.93	12.656		
10,900.0	7,099.8	11,414.3	7,100.0	80.0	83.1	90.01	4,083.1	1,701.6	1,960.8	1,802.1	158.69	12.356		
11,000.0	7,099.8	11,514.3	7,100.0	81.9	84.9	90.01	4,183.1	1,701.6	1,960.8	1,798.4	162.46	12.070		
11,100.0	7,099.8	11,614.3	7,100.0	83.8	86.6	90.01	4,283.1	1,701.6	1,960.8	1,794.6	166.23	11.796		
11,200.0	7,099.8	11,714.3	7,100.0	85.7	88.4	90.01	4,383.1	1,701.6	1,960.8	1,790.8	170.01	11.534		
11,300.0	7,099.8	11,814.3	7,100.0	87.6	90.2	90.01	4,483.1	1,701.6	1,960.8	1,787.0	173.79	11.283		
11,400.0	7,099.8	11,914.3	7,100.0	89.5	91.9	90.01	4,583.1	1,701.5	1,960.8	1,783.2	177.57	11.042		
11,500.0	7,099.8	12,014.3	7,100.0	91.4	93.7	90.01	4,683.1	1,701.5	1,960.8	1,779.4	181.36	10.812		
11,600.0	7,099.8	12,114.3	7,100.0	93.3	95.5	90.01	4,783.1	1,701.5	1,960.8	1,775.7	185.15	10.590		
11,700.0	7,099.8	12,214.3	7,100.0	95.2	97.3	90.01	4,883.1	1,701.5	1,960.8	1,771.9	188.94	10.378		
11,800.0	7,099.8	12,314.3	7,100.0	97.1	99.2	90.01	4,983.1	1,701.5	1,960.8	1,768.1	192.74	10.173		
11,853.4	7,099.8	12,367.7	7,100.0	97.9	100.1	90.01	5,036.6	1,701.5	1,960.8	1,766.2	194.57	10.078		

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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	-128.89	-234.1	-290.2	372.9					
100.0	100.0	104.5	104.5	0.1	0.1	-128.91	-234.1	-290.0	372.7	372.4	0.22	1,728.911		
200.0	200.0	206.0	206.0	0.3	0.2	-128.97	-234.0	-289.2	372.0	371.5	0.56	666.866		
300.0	300.0	307.5	307.5	0.5	0.4	-129.07	-233.8	-288.1	371.0	370.1	0.90	412.164		
400.0	400.0	408.9	408.9	0.8	0.5	-129.20	-233.6	-286.4	369.6	368.4	1.24	297.498		
500.0	500.0	510.4	510.3	1.0	0.6	-129.37	-233.3	-284.3	367.9	366.3	1.58	232.124		
600.0	600.0	611.8	611.7	1.2	0.7	-129.58	-232.9	-281.7	365.7	363.7	1.93	189.776		
700.0	700.0	713.2	713.0	1.4	0.8	-129.84	-232.5	-278.7	363.1	360.8	2.27	160.035		
800.0	800.0	814.5	814.3	1.7	1.0	-130.14	-232.0	-275.2	360.1	357.5	2.61	137.945		
900.0	900.0	915.9	915.6	1.9	1.1	-130.48	-231.5	-271.2	356.8	353.8	2.95	120.848		
1,000.0	1,000.0	1,017.1	1,016.8	2.1	1.2	-130.87	-230.9	-266.8	353.1	349.8	3.29	107.189		
1,043.2	1,043.2	1,046.6	1,046.2	2.2	1.3	-131.00	-230.9	-265.6	352.0	348.5	3.44	102.412		
1,100.0	1,100.0	1,088.9	1,088.5	2.3	1.3	-131.22	-232.9	-265.8	353.7	350.0	3.64	97.217		
1,200.0	1,200.0	1,192.9	1,192.4	2.6	1.5	-131.64	-237.2	-266.8	357.2	353.1	4.06	88.027		
1,300.0	1,300.0	1,297.5	1,297.0	2.8	1.7	-131.88	-239.9	-267.6	359.5	355.0	4.50	79.928		
1,400.0	1,400.0	1,399.2	1,398.6	3.0	2.0	-131.92	-241.0	-268.4	360.8	355.8	4.93	73.171		
1,500.0	1,500.0	1,497.9	1,497.3	3.2	2.1	-131.92	-241.9	-269.4	362.1	356.8	5.35	67.726		
1,600.0	1,600.0	1,594.7	1,594.1	3.5	2.3	-131.93	-243.2	-270.8	364.1	358.3	5.76	63.260		
1,700.0	1,700.0	1,689.7	1,689.1	3.7	2.5	-131.87	-244.9	-273.2	367.2	361.0	6.16	59.579		
1,800.0	1,800.0	1,797.3	1,796.6	3.9	2.7	-131.80	-246.7	-275.9	370.2	363.6	6.62	55.952		
1,900.0	1,900.0	1,903.6	1,902.9	4.1	3.0	-131.78	-247.1	-276.6	370.9	363.8	7.07	52.438		
2,000.0	2,000.0	2,003.8	2,003.0	4.4	3.2	-131.79	-247.2	-276.5	370.9	363.4	7.51	49.387		
2,100.0	2,100.0	2,103.7	2,103.0	4.6	3.4	-131.80	-247.2	-276.5	370.9	362.9	7.94	46.695		
2,200.0	2,200.0	2,203.7	2,203.0	4.8	3.6	-131.80	-247.2	-276.5	370.9	362.5	8.38	44.252		
2,300.0	2,300.0	2,303.8	2,303.1	5.0	3.8	-131.80	-247.2	-276.5	370.9	362.1	8.81	42.082		
2,400.0	2,400.0	2,404.1	2,403.4	5.3	4.0	-131.79	-247.1	-276.5	370.8	361.6	9.25	40.105		
2,500.0	2,500.0	2,503.8	2,503.1	5.5	4.2	-131.79	-247.1	-276.5	370.8	361.1	9.68	38.305		
2,600.0	2,600.0	2,604.0	2,603.3	5.7	4.4	-131.77	-246.9	-276.5	370.7	360.6	10.12	36.642		
2,700.0	2,700.0	2,703.7	2,703.0	5.9	4.6	-131.77	-246.9	-276.5	370.7	360.1	10.56	35.116		
2,800.0	2,800.0	2,803.7	2,803.0	6.2	4.8	-131.77	-246.9	-276.5	370.7	359.7	10.99	33.736		
2,900.0	2,900.0	2,903.7	2,903.0	6.4	5.0	-131.77	-246.9	-276.5	370.7	359.2	11.42	32.463		
3,000.0	3,000.0	3,003.7	3,003.0	6.6	5.2	-131.77	-246.9	-276.5	370.7	358.8	11.85	31.283		
3,100.0	3,100.0	3,103.7	3,103.0	6.8	5.5	-131.77	-246.9	-276.5	370.7	358.4	12.28	30.172		
3,200.0	3,200.0	3,203.7	3,203.0	7.1	5.7	-131.77	-246.9	-276.5	370.7	357.9	12.72	29.137		
3,300.0	3,300.0	3,303.7	3,303.0	7.3	5.9	-131.77	-246.9	-276.5	370.7	357.5	13.15	28.185		
3,400.0	3,400.0	3,403.7	3,403.0	7.5	6.1	-131.77	-246.9	-276.5	370.7	357.1	13.58	27.295		
3,500.0	3,500.0	3,503.7	3,503.0	7.7	6.3	-131.77	-246.9	-276.5	370.7	356.6	14.01	26.453		
3,600.0	3,600.0	3,603.7	3,603.0	8.0	6.5	-131.77	-246.9	-276.5	370.7	356.2	14.44	25.661		
3,700.0	3,700.0	3,703.7	3,703.0	8.2	6.7	-131.77	-246.9	-276.5	370.7	355.8	14.88	24.910		
3,800.0	3,800.0	3,804.2	3,803.4	8.4	6.9	-131.76	-246.8	-276.5	370.6	355.3	15.32	24.189		
3,900.0	3,900.0	3,903.7	3,903.0	8.6	7.1	-131.75	-246.7	-276.5	370.5	354.8	15.76	23.513		
4,000.0	4,000.0	4,003.7	4,003.0	8.9	7.3	-131.75	-246.7	-276.5	370.5	354.4	16.19	22.884		
4,100.0	4,100.0	4,103.7	4,103.0	9.1	7.6	-131.75	-246.7	-276.5	370.5	353.9	16.63	22.285		
4,158.5	4,158.5	4,162.2	4,161.5	9.2	7.7	-131.75	-246.7	-276.5	370.5	353.7	16.88	21.947		
4,200.0	4,200.0	4,203.7	4,203.0	9.3	7.8	-131.75	-246.7	-276.5	370.5	353.5	17.07	21.713		
4,300.0	4,300.0	4,303.6	4,302.9	9.5	8.0	-131.73	-246.7	-276.6	370.6	353.1	17.50	21.175		
4,400.0	4,400.0	4,403.7	4,403.0	9.8	8.2	-131.72	-246.6	-276.6	370.6	352.6	17.93	20.668		
4,500.0	4,500.0	4,503.7	4,503.0	10.0	8.4	-131.72	-246.6	-276.6	370.6	352.2	18.36	20.182		
4,600.0	4,600.0	4,603.7	4,603.0	10.2	8.6	-131.70	-246.5	-276.7	370.6	351.8	18.80	19.714		
4,672.9	4,672.9	4,676.6	4,675.9	10.4	8.7	-131.70	-246.5	-276.7	370.6	351.5	19.11	19.389		
4,700.0	4,700.0	4,703.7	4,703.0	10.4	8.8	-131.70	-246.5	-276.7	370.6	351.3	19.23	19.271		
4,800.0	4,800.0	4,803.7	4,803.0	10.7	9.0	-131.70	-246.5	-276.7	370.6	350.9	19.67	18.843		

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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	4,900.0	4,903.7	4,903.0	10.9	9.2	-131.70	-246.5	-276.7	370.6	350.5	20.10	18.432		
5,000.0	5,000.0	5,003.7	5,003.0	11.1	9.4	-131.70	-246.5	-276.7	370.6	350.0	20.54	18.038		
5,100.0	5,100.0	5,103.7	5,103.0	11.3	9.7	-41.89	-246.5	-276.7	369.3	348.3	20.97	17.612		
5,200.0	5,199.8	5,203.6	5,202.8	11.5	9.9	-42.49	-246.5	-276.7	365.4	344.0	21.37	17.101		
5,300.0	5,299.5	5,303.2	5,302.5	11.7	10.1	-43.52	-246.5	-276.7	359.0	337.2	21.76	16.496		
5,400.0	5,398.7	5,402.4	5,401.7	11.9	10.3	-45.01	-246.5	-276.7	350.2	328.1	22.16	15.804		
5,477.5	5,475.3	5,479.2	5,478.5	12.1	10.5	-46.52	-246.5	-276.7	341.9	319.5	22.47	15.215		
5,500.0	5,497.5	5,501.5	5,500.7	12.2	10.5	-46.97	-246.4	-276.7	339.3	316.8	22.57	15.034		
5,600.0	5,596.1	5,600.2	5,599.5	12.4	10.7	-49.06	-246.3	-276.7	328.0	305.0	23.00	14.260		
5,700.0	5,694.7	5,699.0	5,698.3	12.6	10.9	-51.31	-246.1	-276.6	317.2	293.7	23.45	13.527		
5,800.0	5,793.3	5,797.5	5,796.8	12.9	11.1	-53.71	-246.1	-276.5	306.8	282.9	23.89	12.843		
5,900.0	5,891.9	5,895.7	5,895.0	13.1	11.3	-56.24	-246.0	-276.5	297.1	272.8	24.34	12.206		
6,000.0	5,990.6	5,994.7	5,994.0	13.4	11.5	-58.94	-245.8	-276.6	288.1	263.2	24.82	11.608		
6,100.0	6,089.2	6,093.3	6,092.6	13.7	11.7	-61.80	-245.6	-276.6	279.6	254.3	25.29	11.054		
6,200.0	6,187.8	6,191.9	6,191.2	13.9	11.9	-64.84	-245.5	-276.5	271.9	246.1	25.78	10.547		
6,300.0	6,286.4	6,290.3	6,289.6	14.2	12.1	-68.02	-245.3	-276.6	265.1	238.8	26.28	10.088		
6,400.0	6,385.0	6,388.8	6,388.1	14.5	12.4	-71.37	-245.3	-276.6	259.2	232.5	26.79	9.678		
6,467.8	6,451.9	6,455.4	6,454.7	14.7	12.5	-73.71	-245.3	-276.7	255.8	228.7	27.13	9.427		
6,493.5	6,477.2	6,480.8	6,480.1	14.8	12.6	-89.85	-245.3	-276.7	255.2	227.9	27.28	9.356		
6,500.0	6,483.6	6,487.4	6,486.6	14.8	12.6	-93.82	-245.3	-276.7	255.2	227.9	27.31	9.347		
6,550.0	6,532.7	6,537.5	6,536.7	14.9	12.7	-119.43	-245.1	-276.9	258.0	230.5	27.50	9.384		
6,600.0	6,581.3	6,586.9	6,586.2	15.1	12.8	-135.93	-244.8	-277.1	265.2	237.6	27.58	9.617		
6,650.0	6,629.0	6,635.7	6,635.0	15.2	12.9	-146.49	-244.3	-277.5	276.8	249.3	27.55	10.049		
6,700.0	6,675.4	6,677.5	6,676.8	15.4	13.0	-153.44	-243.8	-278.3	292.9	265.5	27.40	10.690		
6,750.0	6,720.1	6,784.6	6,783.1	15.5	13.2	-161.20	-233.8	-275.3	309.2	282.0	27.24	11.352		
6,800.0	6,762.9	6,943.4	6,930.8	15.6	13.6	-170.66	-181.6	-255.9	320.5	293.5	27.01	11.867		
6,850.0	6,803.4	7,113.3	7,055.1	15.8	14.1	179.80	-70.9	-227.6	315.7	289.0	26.75	11.803		
6,900.0	6,841.3	7,286.3	7,125.0	16.0	15.2	167.03	81.4	-190.8	297.1	270.3	26.78	11.094		
6,950.0	6,876.2	7,361.7	7,134.3	16.1	15.8	159.09	153.8	-171.8	271.4	244.5	26.88	10.095		
7,000.0	6,908.1	7,404.8	7,135.9	16.3	16.2	154.30	195.3	-160.6	247.5	220.6	26.96	9.183		
7,050.0	6,936.5	7,448.5	7,135.9	16.6	16.7	148.83	237.1	-147.6	228.3	201.0	27.37	8.343		
7,072.4	6,948.1	7,467.0	7,135.3	16.7	16.9	146.31	254.5	-141.5	221.4	193.8	27.66	8.005		
7,100.0	6,961.9	7,488.1	7,134.5	16.9	17.1	143.03	274.4	-134.3	214.3	185.9	28.34	7.560		
7,200.0	7,011.9	7,568.4	7,131.4	17.5	17.9	129.57	349.9	-107.2	198.0	166.6	31.41	6.303		
7,222.4	7,023.1	7,584.6	7,130.9	17.7	18.1	126.77	365.1	-101.8	196.8	164.7	32.11	6.130		
7,231.9	7,027.8	7,591.6	7,130.8	17.8	18.2	125.59	371.7	-99.4	196.7	164.3	32.37	6.076 CC		
7,250.0	7,036.3	7,605.6	7,130.7	17.9	18.3	123.27	384.9	-94.7	197.1	164.2	32.90	5.992 ES		
7,300.0	7,057.2	7,647.5	7,130.5	18.4	18.8	116.57	424.3	-80.5	202.7	168.2	34.52	5.872		
7,350.0	7,074.1	7,694.5	7,129.9	18.9	19.4	109.86	468.6	-64.7	212.6	176.3	36.27	5.861 SF		
7,400.0	7,086.8	7,740.0	7,128.8	19.4	19.9	104.30	511.5	-49.6	225.4	187.6	37.81	5.961		
7,450.0	7,095.2	7,786.5	7,127.9	19.9	20.5	99.89	555.4	-34.3	240.0	200.9	39.18	6.126		
7,500.0	7,099.4	7,834.6	7,127.2	20.5	21.1	96.63	600.9	-18.6	255.6	215.1	40.50	6.312		
7,522.4	7,099.8	7,855.6	7,126.8	20.8	21.3	95.54	620.7	-11.8	262.8	221.7	41.07	6.399		
7,600.0	7,099.8	7,928.6	7,126.4	21.8	22.3	94.97	689.7	12.0	288.0	245.0	42.97	6.701		
7,700.0	7,099.8	8,025.0	7,125.0	23.1	23.7	94.20	781.0	43.1	320.0	274.4	45.60	7.017		
7,800.0	7,099.8	8,122.7	7,121.7	24.5	25.1	93.25	873.7	73.7	351.1	302.7	48.39	7.255		
7,900.0	7,099.8	8,214.5	7,120.1	26.0	26.4	92.73	960.8	102.7	382.5	331.4	51.17	7.476		
8,000.0	7,099.8	8,309.7	7,119.4	27.6	27.9	92.42	1,050.9	133.3	414.7	360.6	54.08	7.667		
8,100.0	7,099.8	8,401.8	7,118.5	29.2	29.3	92.13	1,138.1	163.0	446.9	389.8	57.05	7.833		
8,200.0	7,099.8	8,505.9	7,113.7	30.8	31.0	91.37	1,236.5	196.6	479.0	418.8	60.27	7.948		
8,300.0	7,099.8	8,603.8	7,107.0	32.5	32.5	90.49	1,329.5	226.3	509.3	445.9	63.40	8.034		
8,400.0	7,099.8	8,697.1	7,101.6	34.1	34.0	89.87	1,418.2	254.5	539.7	473.2	66.49	8.116		

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

# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
8,500.0	7,099.8	8,785.0	7,098.5	35.9	35.4	89.54	1,501.9	281.4	570.3	500.8	69.56	8.199		
8,600.0	7,099.8	8,876.3	7,095.2	37.6	36.9	89.24	1,588.3	310.7	602.4	529.7	72.71	8.285		
8,700.0	7,099.8	8,994.5	7,093.2	39.3	38.9	89.10	1,700.6	347.5	633.7	557.4	76.31	8.305		
8,800.0	7,099.8	9,092.8	7,094.6	41.1	40.5	89.26	1,794.9	375.1	661.9	582.2	79.63	8.312		
8,900.0	7,099.8	9,176.5	7,095.6	42.9	41.9	89.38	1,874.7	400.3	691.8	609.0	82.76	8.359		
9,000.0	7,099.8	9,256.1	7,095.4	44.7	43.3	89.38	1,950.4	425.0	722.9	637.0	85.84	8.421		
9,100.0	7,099.8	9,358.2	7,093.8	46.5	45.0	89.28	2,047.0	457.8	755.0	665.8	89.28	8.457		
9,200.0	7,099.8	9,447.9	7,091.8	48.3	46.5	89.16	2,132.2	485.9	786.4	693.9	92.55	8.497		
9,300.0	7,099.8	9,541.1	7,088.8	50.1	48.1	88.96	2,220.5	515.7	818.4	722.5	95.88	8.535		
9,400.0	7,099.8	9,629.2	7,086.3	52.0	49.6	88.82	2,303.9	544.0	850.6	751.5	99.15	8.579		
9,500.0	7,099.8	9,724.7	7,084.5	53.8	51.3	88.75	2,394.0	575.5	883.7	781.1	102.53	8.619		
9,600.0	7,099.8	9,806.3	7,082.6	55.7	52.7	88.66	2,470.9	602.8	917.1	811.4	105.71	8.676		
9,700.0	7,099.8	9,902.7	7,080.0	57.5	54.4	88.54	2,561.5	635.3	951.0	841.8	109.13	8.714		
9,800.0	7,099.8	9,990.6	7,078.0	59.4	55.9	88.46	2,644.2	665.4	985.2	872.8	112.40	8.765		
9,900.0	7,099.8	10,098.4	7,075.4	61.2	57.7	88.37	2,745.6	701.6	1,018.9	902.9	116.00	8.783		
10,000.0	7,099.8	10,176.3	7,073.0	63.1	59.1	88.27	2,818.9	727.9	1,052.7	933.5	119.14	8.836		
10,100.0	7,099.8	10,289.5	7,070.4	65.0	61.1	88.19	2,925.5	766.0	1,086.4	963.5	122.85	8.843		
10,200.0	7,099.8	10,394.0	7,068.6	66.8	62.9	88.15	3,024.3	799.9	1,118.8	992.4	126.44	8.849		
10,300.0	7,099.8	10,483.5	7,069.7	68.7	64.5	88.26	3,109.1	828.7	1,150.9	1,021.1	129.81	8.866		
10,400.0	7,099.8	10,590.0	7,072.5	70.6	66.3	88.45	3,209.9	862.7	1,182.8	1,049.3	133.47	8.862		
10,500.0	7,099.8	10,691.9	7,075.7	72.5	68.1	88.65	3,306.5	895.1	1,214.5	1,077.5	137.05	8.862		
10,600.0	7,099.8	10,780.4	7,077.8	74.4	69.7	88.79	3,390.5	922.7	1,245.8	1,105.3	140.42	8.871		
10,700.0	7,099.8	10,865.0	7,080.2	76.2	71.2	88.93	3,470.7	949.8	1,277.7	1,133.9	143.73	8.889		
10,800.0	7,099.8	10,946.6	7,081.8	78.1	72.6	89.02	3,547.8	976.6	1,310.5	1,163.5	146.99	8.916		
10,900.0	7,099.8	11,055.4	7,083.0	80.0	74.5	89.11	3,650.7	1,011.8	1,342.8	1,192.1	150.68	8.911		
11,000.0	7,099.8	11,172.3	7,084.5	81.9	76.5	89.20	3,761.9	1,047.6	1,373.2	1,218.7	154.53	8.887		
11,100.0	7,099.8	11,256.4	7,087.1	83.8	78.0	89.32	3,841.8	1,073.6	1,404.1	1,246.3	157.82	8.897		
11,200.0	7,099.8	11,354.9	7,091.1	85.7	79.8	89.51	3,935.4	1,104.4	1,435.4	1,274.0	161.37	8.895		
11,300.0	7,099.8	11,439.1	7,096.8	87.6	81.2	89.75	4,015.2	1,130.6	1,466.5	1,301.8	164.69	8.905		
11,400.0	7,099.8	11,530.1	7,103.9	89.5	82.8	90.04	4,101.2	1,159.2	1,498.1	1,330.0	168.12	8.911		
11,500.0	7,099.8	11,620.8	7,111.1	91.4	84.4	90.33	4,186.9	1,188.1	1,530.1	1,358.5	171.52	8.921		
11,600.0	7,099.8	11,727.6	7,119.7	93.3	86.3	90.65	4,287.9	1,221.8	1,561.8	1,386.6	175.19	8.914		
11,700.0	7,099.8	11,855.7	7,129.8	95.2	88.5	91.02	4,409.4	1,261.1	1,592.7	1,413.4	179.23	8.886		
11,800.0	7,099.8	11,944.3	7,137.4	97.1	90.1	91.28	4,493.5	1,287.8	1,623.1	1,440.5	182.59	8.889		
11,853.4	7,099.8	11,993.0	7,141.5	97.9	90.9	91.42	4,539.9	1,302.2	1,639.0	1,454.8	184.21	8.897		



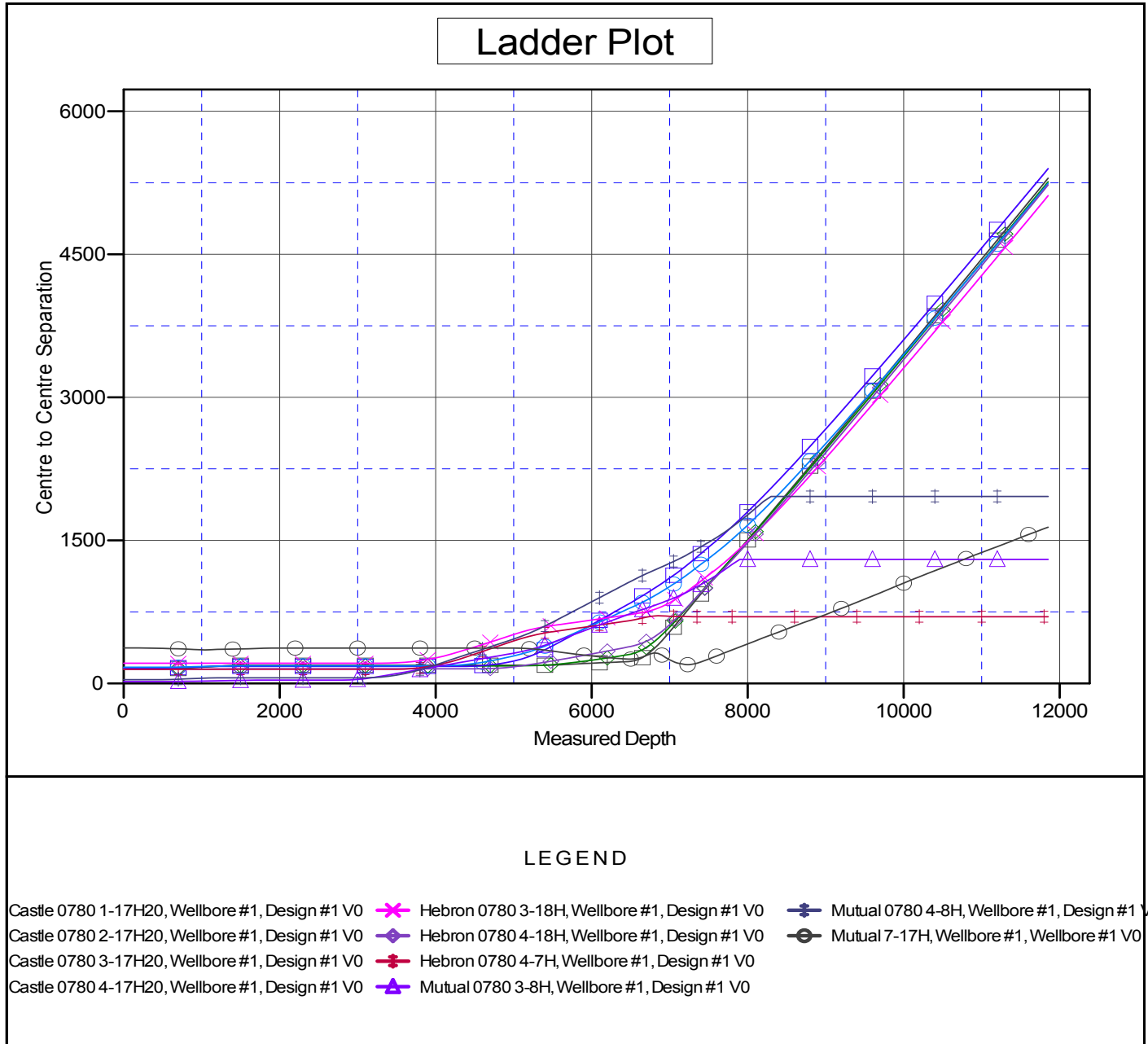
# SandRidge Energy

## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

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

Coordinates are relative to: Mutual 0780 2-8H  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: -0.58°



# SandRidge Energy

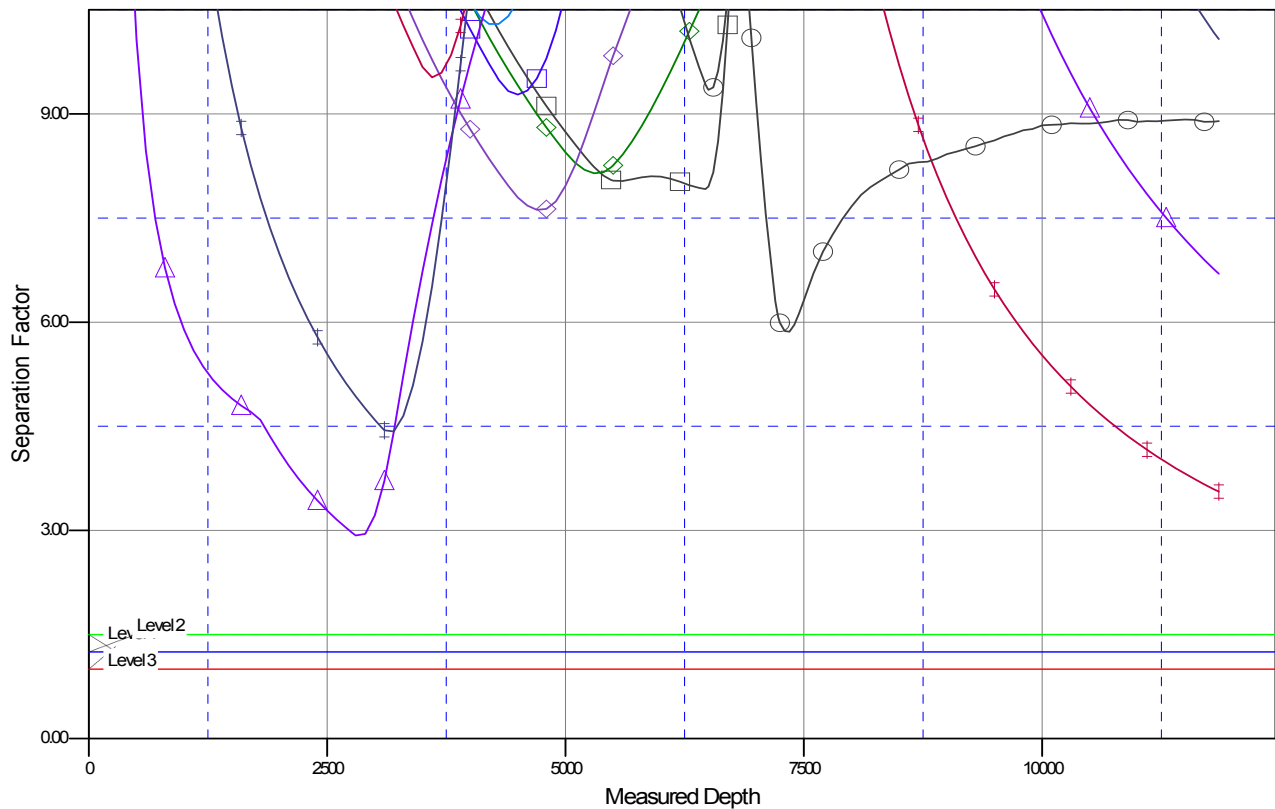
## Anticollision Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 2-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S17	<b>MD Reference:</b>	WELL @ 8172.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 2-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

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

Coordinates are relative to: Mutual 0780 2-8H  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: -0.58°

### Separation Factor Plot



### LEGEND

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