

SandRidge Energy

North Park Basin

T7N-R80W-S17

Hebron 0780 4-18H

Wellbore #1

Design #1

Anticollision Report

14 December, 2015

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

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

Survey Tool Program		Date	12/10/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,877.2	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	20.0	18.0	10.067	CC, ES
Castle 0780 1-17H20 - Wellbore #1 - Design #1	4,500.0	4,500.9	45.5	26.1	2.348	SF
Castle 0780 2-17H20 - Wellbore #1 - Design #1	500.0	500.0	39.9	37.9	20.099	CC, ES
Castle 0780 2-17H20 - Wellbore #1 - Design #1	4,500.0	4,500.1	77.2	57.9	3.995	SF
Castle 0780 3-17H20 - Wellbore #1 - Design #1	500.0	500.0	59.9	57.9	30.160	CC, ES
Castle 0780 3-17H20 - Wellbore #1 - Design #1	4,400.0	4,396.2	112.1	93.1	5.893	SF
Castle 0780 4-17H20 - Wellbore #1 - Design #1	500.0	500.0	80.0	78.0	40.242	CC, ES
Castle 0780 4-17H20 - Wellbore #1 - Design #1	4,100.0	4,095.3	141.6	123.9	7.995	SF
Hebron 0780 3-18H - Wellbore #1 - Design #1	3,300.0	3,299.5	120.0	105.6	8.349	CC, ES
Hebron 0780 3-18H - Wellbore #1 - Design #1	11,877.2	12,281.8	639.7	453.6	3.437	SF
Hebron 0780 4-7H - Wellbore #1 - Design #1	3,465.8	3,468.3	192.0	176.9	12.723	CC
Hebron 0780 4-7H - Wellbore #1 - Design #1	3,500.0	3,502.4	192.0	176.8	12.596	ES
Hebron 0780 4-7H - Wellbore #1 - Design #1	6,950.0	6,817.7	247.0	211.7	7.002	SF
Mutual 0780 2-8H - Wellbore #1 - Design #1	500.0	500.0	150.0	148.0	75.487	CC
Mutual 0780 2-8H - Wellbore #1 - Design #1	4,500.0	4,499.5	153.6	133.9	7.786	ES
Mutual 0780 2-8H - Wellbore #1 - Design #1	4,700.0	4,699.1	156.7	136.1	7.605	SF
Mutual 0780 3-8H - Wellbore #1 - Design #1	500.0	500.0	151.3	149.3	76.162	CC, ES
Mutual 0780 3-8H - Wellbore #1 - Design #1	3,100.0	3,089.7	188.7	175.3	14.144	SF
Mutual 0780 4-8H - Wellbore #1 - Design #1	500.0	500.0	155.2	153.3	78.129	CC, ES
Mutual 0780 4-8H - Wellbore #1 - Design #1	3,400.0	3,389.5	184.0	169.5	12.642	SF
Mutual 7-17H - Wellbore #1 - Wellbore #1	5,640.0	5,610.8	96.3	72.2	4.001	CC, ES, SF

T7N-R80W-S17 - Castle 0780 1-17H20 - Wellbore #1 - Design #1												Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance				Warning		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation		Separation Factor	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)		(usft)	
0.0	0.0	0.0	0.0	0.0	0.0	90.95	-0.3	20.0	20.0				
100.0	100.0	100.0	100.0	0.1	0.1	90.95	-0.3	20.0	20.0	19.8	0.19	105.945	
200.0	200.0	200.0	200.0	0.3	0.3	90.95	-0.3	20.0	20.0	19.4	0.64	31.336	
300.0	300.0	300.0	300.0	0.5	0.5	90.95	-0.3	20.0	20.0	18.9	1.09	18.387	
400.0	400.0	400.0	400.0	0.8	0.8	90.95	-0.3	20.0	20.0	18.5	1.54	13.011	
500.0	500.0	500.0	500.0	1.0	1.0	90.95	-0.3	20.0	20.0	18.0	1.99	10.067 CC, ES	
594.9	594.9	595.3	595.3	1.2	1.2	-175.57	-1.6	19.0	20.7	18.3	2.38	8.693	

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

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Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 1-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
600.0	600.0	600.4	600.4	1.2	1.2	-175.20	-1.7	18.9	20.8	18.4	2.40	8.651		
700.0	699.9	700.6	700.4	1.4	1.4	-164.41	-5.8	15.9	21.7	18.9	2.79	7.774		
800.0	799.9	800.4	800.1	1.6	1.6	-152.65	-10.7	12.3	23.2	20.0	3.22	7.215		
900.0	899.8	900.3	899.8	1.8	1.8	-142.67	-15.5	8.6	25.5	21.9	3.66	6.982		
1,000.0	999.8	1,000.2	999.5	2.1	2.0	-134.55	-20.3	5.0	28.5	24.4	4.11	6.937		
1,100.0	1,099.7	1,100.1	1,099.2	2.3	2.3	-128.06	-25.1	1.4	31.9	27.4	4.57	6.993		
1,200.0	1,199.7	1,200.0	1,198.9	2.5	2.5	-122.89	-30.0	-2.2	35.7	30.7	5.03	7.100		
1,300.0	1,299.6	1,299.9	1,298.6	2.8	2.8	-118.72	-34.8	-5.8	39.7	34.2	5.49	7.230		
1,405.6	1,405.1	1,405.8	1,404.4	3.0	3.0	-116.36	-39.1	-9.0	43.6	37.6	5.96	7.312		
1,500.5	1,500.0	1,501.4	1,500.0	3.2	3.2	153.62	-40.3	-10.0	45.0	38.8	6.23	7.220		
1,600.0	1,599.5	1,600.9	1,599.5	3.4	3.4	153.62	-40.3	-10.0	45.0	38.4	6.64	6.780		
1,700.0	1,699.5	1,700.9	1,699.5	3.6	3.6	153.62	-40.3	-10.0	45.0	38.0	7.05	6.382		
1,800.0	1,799.5	1,800.9	1,799.5	3.8	3.8	153.62	-40.3	-10.0	45.0	37.5	7.47	6.024		
1,900.0	1,899.5	1,900.9	1,899.5	4.0	4.0	153.62	-40.3	-10.0	45.0	37.1	7.90	5.702		
2,000.0	1,999.5	2,000.9	1,999.5	4.2	4.2	153.62	-40.3	-10.0	45.0	36.7	8.32	5.410		
2,100.0	2,099.5	2,100.9	2,099.5	4.5	4.4	153.62	-40.3	-10.0	45.0	36.3	8.75	5.146		
2,200.0	2,199.5	2,200.9	2,199.5	4.7	4.6	153.62	-40.3	-10.0	45.0	35.8	9.18	4.905		
2,300.0	2,299.5	2,300.9	2,299.5	4.9	4.8	153.62	-40.3	-10.0	45.0	35.4	9.61	4.685		
2,400.0	2,399.5	2,400.9	2,399.5	5.1	5.0	153.62	-40.3	-10.0	45.0	35.0	10.04	4.483		
2,500.0	2,499.5	2,500.9	2,499.5	5.3	5.2	153.62	-40.3	-10.0	45.0	34.5	10.48	4.297		
2,600.0	2,599.5	2,600.9	2,599.5	5.5	5.5	153.62	-40.3	-10.0	45.0	34.1	10.91	4.125		
2,700.0	2,699.5	2,700.9	2,699.5	5.8	5.7	153.62	-40.3	-10.0	45.0	33.7	11.35	3.967		
2,800.0	2,799.5	2,800.9	2,799.5	6.0	5.9	153.62	-40.3	-10.0	45.0	33.2	11.79	3.819		
2,900.0	2,899.5	2,900.9	2,899.5	6.2	6.1	153.62	-40.3	-10.0	45.0	32.8	12.23	3.682		
3,000.0	2,999.5	3,000.9	2,999.5	6.4	6.3	153.62	-40.3	-10.0	45.0	32.4	12.66	3.554		
3,100.0	3,099.5	3,100.9	3,099.5	6.6	6.5	153.62	-40.3	-10.0	45.0	31.9	13.10	3.435		
3,200.0	3,199.5	3,200.9	3,199.5	6.9	6.8	153.62	-40.3	-10.0	45.0	31.5	13.55	3.323		
3,300.0	3,299.5	3,300.9	3,299.5	7.1	7.0	153.62	-40.3	-10.0	45.0	31.0	13.99	3.219		
3,400.0	3,399.5	3,400.9	3,399.5	7.3	7.2	153.62	-40.3	-10.0	45.0	30.6	14.43	3.120		
3,500.0	3,499.5	3,500.9	3,499.5	7.5	7.4	153.62	-40.3	-10.0	45.0	30.1	14.87	3.027		
3,600.0	3,599.5	3,600.9	3,599.5	7.8	7.6	153.62	-40.3	-10.0	45.0	29.7	15.31	2.940		
3,700.0	3,699.5	3,700.9	3,699.5	8.0	7.9	153.62	-40.3	-10.0	45.0	29.3	15.76	2.857		
3,800.0	3,799.5	3,800.9	3,799.5	8.2	8.1	153.62	-40.3	-10.0	45.0	28.8	16.20	2.779		
3,900.0	3,899.5	3,900.9	3,899.5	8.4	8.3	153.62	-40.3	-10.0	45.0	28.4	16.64	2.705		
4,000.0	3,999.5	4,000.9	3,999.5	8.6	8.5	153.62	-40.3	-10.0	45.0	27.9	17.09	2.634		
4,100.0	4,099.5	4,100.9	4,099.5	8.9	8.7	153.62	-40.3	-10.0	45.0	27.5	17.53	2.568		
4,200.0	4,199.5	4,200.9	4,199.5	9.1	9.0	153.62	-40.3	-10.0	45.0	27.0	17.98	2.504		
4,300.0	4,299.5	4,300.9	4,299.5	9.3	9.2	153.62	-40.3	-10.0	45.0	26.6	18.42	2.444		
4,400.0	4,399.5	4,400.9	4,399.5	9.5	9.4	153.62	-40.3	-10.0	45.0	26.2	18.87	2.386		
4,425.0	4,424.5	4,425.9	4,424.5	9.6	9.5	153.62	-40.3	-10.0	45.0	26.0	18.98	2.372		
4,500.0	4,499.5	4,500.9	4,499.5	9.8	9.6	-117.48	-40.3	-10.0	45.5	26.1	19.36	2.348 SF		
4,600.0	4,599.4	4,600.8	4,599.4	10.0	9.8	-122.10	-40.3	-10.0	47.6	27.8	19.79	2.407		
4,700.0	4,699.1	4,700.5	4,699.1	10.2	10.1	-129.32	-40.3	-10.0	52.2	32.0	20.21	2.585		
4,800.0	4,798.5	4,799.9	4,798.5	10.4	10.3	-137.57	-40.3	-10.0	60.1	39.5	20.61	2.914		
4,900.0	4,897.3	4,898.8	4,897.3	10.7	10.5	-145.41	-40.3	-10.0	71.7	50.7	20.99	3.416		
5,000.0	4,995.7	4,997.1	4,995.7	10.9	10.7	-152.03	-40.3	-10.0	87.4	66.0	21.34	4.094		
5,100.0	5,093.3	5,094.7	5,093.3	11.2	10.9	-157.30	-40.3	-10.0	107.0	85.4	21.68	4.937		
5,200.0	5,190.1	5,191.5	5,190.1	11.5	11.2	-161.38	-40.3	-10.0	130.6	108.6	22.00	5.935		
5,300.0	5,286.0	5,287.4	5,286.0	11.9	11.4	-164.51	-40.3	-10.0	157.8	135.5	22.31	7.075		
5,404.0	5,384.6	5,386.0	5,384.6	12.3	11.6	-167.02	-40.3	-10.0	190.0	167.4	22.61	8.403		
5,500.0	5,475.0	5,476.4	5,475.0	12.7	11.8	-168.88	-40.3	-10.0	221.5	198.5	23.02	9.624		
5,600.0	5,569.2	5,576.9	5,575.5	13.1	12.0	-170.33	-40.6	-11.0	253.7	230.2	23.46	10.816		

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

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Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 1-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,700.0	5,663.5	5,681.6	5,680.0	13.6	12.2	-171.19	-41.6	-15.6	282.9	259.0	23.90	11.835		
5,800.0	5,757.7	5,788.4	5,786.5	14.1	12.5	-171.62	-43.6	-24.1	308.8	284.4	24.36	12.675		
5,900.0	5,851.9	5,897.2	5,894.5	14.6	12.7	-171.73	-46.6	-36.7	331.3	306.5	24.84	13.339		
6,000.0	5,946.1	6,007.6	6,003.5	15.2	13.0	-171.57	-50.6	-53.5	350.3	325.0	25.33	13.831		
6,100.0	6,040.3	6,119.4	6,113.2	15.7	13.2	-171.18	-55.6	-74.8	365.8	340.0	25.84	14.156		
6,200.0	6,134.5	6,232.2	6,222.8	16.3	13.6	-170.56	-61.6	-100.4	377.7	351.3	26.37	14.320		
6,300.0	6,228.8	6,335.7	6,322.8	16.8	13.9	-169.86	-67.8	-126.8	386.9	360.0	26.91	14.379		
6,400.0	6,323.0	6,435.2	6,418.7	17.4	14.2	-169.21	-73.8	-152.4	396.0	368.6	27.44	14.430		
6,500.0	6,417.2	6,534.7	6,514.7	18.0	14.5	-168.59	-79.8	-177.9	405.2	377.2	28.00	14.473		
6,600.0	6,511.4	6,651.1	6,624.7	18.6	15.0	-166.52	-96.0	-211.7	412.5	383.8	28.69	14.377		
6,610.5	6,521.3	6,663.1	6,635.7	18.7	15.0	-166.13	-98.9	-215.7	413.0	384.2	28.78	14.351		
6,650.0	6,558.2	6,707.5	6,675.4	18.9	15.2	-155.96	-111.3	-231.1	415.3	386.2	29.08	14.282		
6,700.0	6,604.0	6,762.4	6,722.5	19.2	15.5	-145.53	-130.8	-251.6	418.8	389.2	29.55	14.172		
6,750.0	6,648.4	6,815.9	6,765.7	19.6	15.8	-137.20	-153.8	-273.0	423.0	392.9	30.16	14.027		
6,800.0	6,691.1	6,868.0	6,805.0	20.0	16.1	-130.36	-180.0	-294.9	428.0	397.1	30.91	13.847		
6,850.0	6,731.7	6,918.8	6,840.4	20.4	16.5	-124.60	-208.8	-317.2	433.7	401.9	31.81	13.635		
6,900.0	6,769.9	6,968.5	6,871.8	20.8	16.9	-119.63	-239.9	-339.7	440.1	407.2	32.85	13.397		
6,950.0	6,805.5	7,017.0	6,899.4	21.3	17.3	-115.27	-273.0	-362.2	447.0	413.0	34.01	13.146		
7,000.0	6,838.1	7,065.0	6,923.7	21.8	17.7	-111.45	-307.6	-384.8	454.5	419.2	35.26	12.890		
7,050.0	6,867.6	7,113.8	6,948.1	22.3	18.2	-108.44	-343.1	-407.7	462.2	425.7	36.52	12.654		
7,089.7	6,888.5	7,152.9	6,967.7	22.8	18.6	-106.64	-371.6	-426.1	468.3	430.7	37.52	12.480		
7,100.0	6,893.7	7,163.1	6,972.8	22.9	18.7	-106.59	-378.9	-430.9	469.8	432.1	37.76	12.443		
7,200.0	6,943.7	7,235.8	7,008.1	24.1	19.5	-106.09	-433.1	-464.2	487.0	447.1	39.87	12.215		
7,239.7	6,963.5	7,260.3	7,019.0	24.6	19.8	-105.76	-452.5	-474.4	495.7	455.0	40.70	12.178		
7,250.0	6,968.6	7,266.6	7,021.7	24.7	19.8	-104.99	-457.5	-476.9	498.1	457.2	40.87	12.185		
7,300.0	6,992.3	7,300.0	7,035.3	25.3	20.2	-101.47	-485.3	-489.7	508.8	467.2	41.61	12.230		
7,350.0	7,014.0	7,327.3	7,045.5	25.9	20.5	-98.52	-508.6	-499.3	518.3	476.2	42.09	12.312		
7,400.0	7,033.6	7,350.0	7,053.4	26.4	20.7	-96.04	-528.6	-506.8	526.3	484.0	42.37	12.424		
7,450.0	7,050.8	7,387.6	7,065.2	26.9	21.2	-93.91	-562.6	-517.8	532.8	490.1	42.68	12.485		
7,500.0	7,065.6	7,417.7	7,073.4	27.4	21.5	-92.25	-590.5	-525.6	537.9	495.1	42.75	12.582		
7,550.0	7,077.9	7,450.0	7,081.0	27.8	21.9	-91.00	-621.0	-532.8	541.4	498.7	42.72	12.672		
7,600.0	7,087.5	7,477.9	7,086.6	28.3	22.2	-90.13	-647.8	-538.0	543.4	500.9	42.54	12.773		
7,650.0	7,094.5	7,500.0	7,090.3	28.7	22.4	-89.62	-669.3	-541.5	543.9	501.7	42.20	12.890		
7,700.0	7,098.6	7,538.0	7,095.3	29.0	22.8	-89.54	-706.7	-546.2	542.8	500.8	41.99	12.925		
7,749.0	7,100.0	7,567.6	7,098.0	29.4	23.2	-89.79	-736.0	-548.7	540.2	498.6	41.65	12.969		
7,800.0	7,100.0	7,600.0	7,099.6	29.8	23.5	-89.96	-768.4	-550.3	537.7	495.1	42.62	12.617		
7,853.7	7,100.0	7,636.2	7,100.0	30.2	23.9	-90.00	-804.6	-550.6	537.1	493.4	43.70	12.291		
7,900.0	7,100.0	7,682.5	7,100.0	30.6	24.4	-90.00	-850.9	-550.6	537.1	492.3	44.83	11.982		
8,000.0	7,100.0	7,782.5	7,100.0	31.5	25.6	-90.00	-950.9	-550.6	537.1	489.7	47.41	11.328		
8,100.0	7,100.0	7,882.5	7,100.0	32.4	26.9	-90.00	-1,050.9	-550.6	537.1	486.9	50.16	10.708		
8,200.0	7,100.0	7,982.5	7,100.0	33.5	28.2	-90.00	-1,150.9	-550.6	537.1	484.0	53.04	10.126		
8,300.0	7,100.0	8,082.5	7,100.0	34.6	29.6	-90.00	-1,250.9	-550.6	537.1	481.0	56.04	9.583		
8,400.0	7,100.0	8,182.5	7,100.0	35.8	31.1	-90.00	-1,350.9	-550.6	537.0	477.9	59.14	9.080		
8,500.0	7,100.0	8,282.5	7,100.0	37.1	32.6	-90.00	-1,450.9	-550.6	537.0	474.7	62.33	8.616		
8,600.0	7,100.0	8,382.5	7,100.0	38.4	34.2	-90.00	-1,550.9	-550.6	537.0	471.4	65.59	8.187		
8,700.0	7,100.0	8,482.5	7,100.0	39.8	35.8	-90.00	-1,650.9	-550.7	537.0	468.1	68.91	7.793		
8,800.0	7,100.0	8,582.5	7,100.0	41.2	37.4	-90.00	-1,750.9	-550.7	537.0	464.7	72.29	7.429		
8,900.0	7,100.0	8,682.5	7,100.0	42.6	39.0	-90.00	-1,850.9	-550.7	537.0	461.3	75.71	7.093		
9,000.0	7,100.0	8,782.5	7,100.0	44.1	40.7	-90.00	-1,950.9	-550.7	537.0	457.8	79.17	6.782		
9,100.0	7,100.0	8,882.5	7,100.0	45.7	42.4	-90.00	-2,050.9	-550.7	536.9	454.3	82.67	6.495		
9,200.0	7,100.0	8,982.5	7,100.0	47.2	44.1	-90.00	-2,150.9	-550.7	536.9	450.7	86.20	6.229		
9,300.0	7,100.0	9,082.5	7,100.0	48.8	45.9	-90.00	-2,250.9	-550.7	536.9	447.2	89.75	5.982		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 1-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,400.0	7,100.0	9,182.5	7,100.0	50.5	47.6	-90.00	-2,350.9	-550.7	536.9	443.6	93.34	5.752		
9,500.0	7,100.0	9,282.5	7,100.0	52.1	49.4	-90.00	-2,450.9	-550.7	536.9	439.9	96.94	5.538		
9,600.0	7,100.0	9,382.5	7,100.0	53.8	51.2	-90.00	-2,550.9	-550.7	536.9	436.3	100.56	5.339		
9,700.0	7,100.0	9,482.5	7,100.0	55.4	53.0	-90.00	-2,650.9	-550.7	536.9	432.7	104.20	5.152		
9,800.0	7,100.0	9,582.5	7,100.0	57.1	54.8	-90.00	-2,750.9	-550.7	536.8	429.0	107.85	4.977		
9,900.0	7,100.0	9,682.5	7,100.0	58.9	56.6	-90.00	-2,850.9	-550.8	536.8	425.3	111.52	4.814		
10,000.0	7,100.0	9,782.5	7,100.0	60.6	58.4	-90.00	-2,950.9	-550.8	536.8	421.6	115.20	4.660		
10,100.0	7,100.0	9,882.5	7,100.0	62.3	60.2	-90.00	-3,050.9	-550.8	536.8	417.9	118.90	4.515		
10,200.0	7,100.0	9,982.5	7,100.0	64.1	62.0	-90.00	-3,150.9	-550.8	536.8	414.2	122.60	4.378		
10,300.0	7,100.0	10,082.5	7,100.0	65.9	63.9	-90.00	-3,250.9	-550.8	536.8	410.5	126.31	4.250		
10,400.0	7,100.0	10,182.5	7,100.0	67.6	65.7	-90.00	-3,350.9	-550.8	536.7	406.7	130.03	4.128		
10,500.0	7,100.0	10,282.5	7,100.0	69.4	67.6	-90.00	-3,450.9	-550.8	536.7	403.0	133.76	4.013		
10,600.0	7,100.0	10,382.5	7,100.0	71.2	69.4	-90.00	-3,550.9	-550.8	536.7	399.2	137.50	3.903		
10,700.0	7,100.0	10,482.5	7,100.0	73.0	71.3	-90.00	-3,650.9	-550.8	536.7	395.5	141.24	3.800		
10,800.0	7,100.0	10,582.5	7,100.0	74.8	73.1	-90.00	-3,750.9	-550.8	536.7	391.7	144.99	3.701		
10,900.0	7,100.0	10,682.5	7,100.0	76.6	75.0	-90.00	-3,850.9	-550.8	536.7	387.9	148.75	3.608		
11,000.0	7,100.0	10,782.5	7,100.0	78.4	76.9	-90.00	-3,950.9	-550.9	536.7	384.1	152.51	3.519		
11,100.0	7,100.0	10,882.5	7,100.0	80.3	78.7	-90.00	-4,050.9	-550.9	536.6	380.4	156.27	3.434		
11,200.0	7,100.0	10,982.5	7,100.0	82.1	80.6	-90.00	-4,150.9	-550.9	536.6	376.6	160.04	3.353		
11,300.0	7,100.0	11,082.5	7,100.0	83.9	82.5	-90.00	-4,250.9	-550.9	536.6	372.8	163.82	3.276		
11,400.0	7,100.0	11,182.5	7,100.0	85.8	84.3	-90.00	-4,350.9	-550.9	536.6	369.0	167.60	3.202		
11,500.0	7,100.0	11,282.5	7,100.0	87.6	86.2	-90.00	-4,450.9	-550.9	536.6	365.2	171.38	3.131		
11,600.0	7,100.0	11,382.5	7,100.0	89.5	88.1	-90.00	-4,550.9	-550.9	536.6	361.4	175.17	3.063		
11,700.0	7,100.0	11,482.5	7,100.0	91.3	90.0	-90.00	-4,650.9	-550.9	536.6	357.6	178.95	2.998		
11,800.0	7,100.0	11,582.5	7,100.0	93.2	91.9	-90.00	-4,750.9	-550.9	536.5	353.8	182.75	2.936		
11,877.2	7,100.0	11,659.7	7,100.0	94.6	93.3	-90.00	-4,828.1	-550.9	536.5	350.8	185.68	2.890		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 2-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.89	-0.6	39.9	39.9					
100.0	100.0	100.0	100.0	0.1	0.1	90.89	-0.6	39.9	39.9	39.7	0.19	211.515		
200.0	200.0	200.0	200.0	0.3	0.3	90.89	-0.6	39.9	39.9	39.3	0.64	62.561		
300.0	300.0	300.0	300.0	0.5	0.5	90.89	-0.6	39.9	39.9	38.8	1.09	36.709		
400.0	400.0	400.0	400.0	0.8	0.8	90.89	-0.6	39.9	39.9	38.4	1.54	25.976		
500.0	500.0	500.0	500.0	1.0	1.0	90.89	-0.6	39.9	39.9	37.9	1.99	20.099 CC, ES		
594.9	594.9	594.9	594.8	1.2	1.2	-176.98	-2.2	39.9	41.6	39.2	2.38	17.483		
600.0	600.0	599.9	599.9	1.2	1.2	-176.75	-2.4	39.9	41.7	39.3	2.40	17.410		
700.0	699.9	699.7	699.6	1.4	1.4	-171.55	-6.7	39.9	45.5	42.7	2.79	16.320		
800.0	799.9	799.6	799.4	1.6	1.6	-167.01	-11.1	39.9	49.6	46.4	3.20	15.503		
900.0	899.8	899.4	899.1	1.8	1.8	-163.19	-15.6	39.9	53.9	50.3	3.62	14.886		
1,000.0	999.8	999.3	998.9	2.1	2.0	-159.94	-20.0	39.9	58.5	54.4	4.06	14.415		
1,100.0	1,099.7	1,099.1	1,098.6	2.3	2.2	-157.17	-24.5	39.9	63.2	58.7	4.50	14.050		
1,200.0	1,199.7	1,199.2	1,198.6	2.5	2.5	-154.88	-28.8	39.9	68.0	63.0	4.94	13.758		
1,300.0	1,299.6	1,300.2	1,299.6	2.8	2.7	-154.72	-30.6	39.9	71.7	66.4	5.37	13.347		
1,405.6	1,405.1	1,405.7	1,405.1	3.0	2.9	-155.86	-30.6	39.9	74.9	69.1	5.83	12.857		
1,500.5	1,500.0	1,500.6	1,500.0	3.2	3.1	113.65	-30.6	39.9	76.3	70.1	6.21	12.287		
1,600.0	1,599.5	1,600.1	1,599.5	3.4	3.3	113.65	-30.6	39.9	76.3	69.7	6.62	11.533		
1,700.0	1,699.5	1,700.1	1,699.5	3.6	3.5	113.65	-30.6	39.9	76.3	69.3	7.04	10.842		
1,800.0	1,799.5	1,800.1	1,799.5	3.8	3.7	113.65	-30.6	39.9	76.3	68.9	7.47	10.225		
1,900.0	1,899.5	1,900.1	1,899.5	4.0	3.9	113.65	-30.6	39.9	76.3	68.4	7.89	9.671		
2,000.0	1,999.5	2,000.1	1,999.5	4.2	4.1	113.65	-30.6	39.9	76.3	68.0	8.32	9.171		
2,100.0	2,099.5	2,100.1	2,099.5	4.5	4.3	113.65	-30.6	39.9	76.3	67.6	8.76	8.719		
2,200.0	2,199.5	2,200.1	2,199.5	4.7	4.5	113.65	-30.6	39.9	76.3	67.2	9.19	8.307		
2,300.0	2,299.5	2,300.1	2,299.5	4.9	4.8	113.65	-30.6	39.9	76.3	66.7	9.62	7.932		
2,400.0	2,399.5	2,400.1	2,399.5	5.1	5.0	113.65	-30.6	39.9	76.3	66.3	10.06	7.588		
2,500.0	2,499.5	2,500.1	2,499.5	5.3	5.2	113.65	-30.6	39.9	76.3	65.8	10.50	7.271		
2,600.0	2,599.5	2,600.1	2,599.5	5.5	5.4	113.65	-30.6	39.9	76.3	65.4	10.94	6.980		
2,700.0	2,699.5	2,700.1	2,699.5	5.8	5.6	113.65	-30.6	39.9	76.3	65.0	11.38	6.710		
2,800.0	2,799.5	2,800.1	2,799.5	6.0	5.9	113.65	-30.6	39.9	76.3	64.5	11.82	6.460		
2,900.0	2,899.5	2,900.1	2,899.5	6.2	6.1	113.65	-30.6	39.9	76.3	64.1	12.26	6.228		
3,000.0	2,999.5	3,000.1	2,999.5	6.4	6.3	113.65	-30.6	39.9	76.3	63.6	12.70	6.012		
3,100.0	3,099.5	3,100.1	3,099.5	6.6	6.5	113.65	-30.6	39.9	76.3	63.2	13.14	5.809		
3,200.0	3,199.5	3,200.1	3,199.5	6.9	6.7	113.65	-30.6	39.9	76.3	62.8	13.58	5.620		
3,300.0	3,299.5	3,300.1	3,299.5	7.1	7.0	113.65	-30.6	39.9	76.3	62.3	14.03	5.443		
3,400.0	3,399.5	3,400.1	3,399.5	7.3	7.2	113.65	-30.6	39.9	76.3	61.9	14.47	5.276		
3,500.0	3,499.5	3,500.1	3,499.5	7.5	7.4	113.65	-30.6	39.9	76.3	61.4	14.91	5.119		
3,600.0	3,599.5	3,600.1	3,599.5	7.8	7.6	113.65	-30.6	39.9	76.3	61.0	15.36	4.971		
3,700.0	3,699.5	3,700.1	3,699.5	8.0	7.8	113.65	-30.6	39.9	76.3	60.5	15.80	4.831		
3,800.0	3,799.5	3,800.1	3,799.5	8.2	8.1	113.65	-30.6	39.9	76.3	60.1	16.25	4.699		
3,900.0	3,899.5	3,900.1	3,899.5	8.4	8.3	113.65	-30.6	39.9	76.3	59.6	16.69	4.574		
4,000.0	3,999.5	4,000.1	3,999.5	8.6	8.5	113.65	-30.6	39.9	76.3	59.2	17.14	4.455		
4,100.0	4,099.5	4,100.1	4,099.5	8.9	8.7	113.65	-30.6	39.9	76.3	58.8	17.58	4.342		
4,200.0	4,199.5	4,200.1	4,199.5	9.1	8.9	113.65	-30.6	39.9	76.3	58.3	18.03	4.235		
4,300.0	4,299.5	4,300.1	4,299.5	9.3	9.2	113.65	-30.6	39.9	76.3	57.9	18.47	4.133		
4,400.0	4,399.5	4,400.1	4,399.5	9.5	9.4	113.65	-30.6	39.9	76.3	57.4	18.92	4.035		
4,425.0	4,424.5	4,425.1	4,424.5	9.6	9.5	113.65	-30.6	39.9	76.3	57.3	19.03	4.011		
4,500.0	4,499.5	4,500.1	4,499.5	9.8	9.6	-156.64	-30.6	39.9	77.2	57.9	19.34	3.995 SF		
4,600.0	4,599.4	4,600.0	4,599.4	10.0	9.8	-157.83	-30.6	39.9	81.3	61.5	19.75	4.114		
4,700.0	4,699.1	4,699.7	4,699.1	10.2	10.1	-159.69	-30.6	39.9	88.6	68.4	20.16	4.394		
4,800.0	4,798.5	4,799.1	4,798.5	10.4	10.3	-161.89	-30.6	39.9	99.3	78.7	20.55	4.832		
4,900.0	4,897.3	4,898.0	4,897.3	10.7	10.5	-164.13	-30.6	39.9	113.4	92.5	20.92	5.421		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 2-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,995.7	4,996.3	4,995.7	10.9	10.7	-166.22	-30.6	39.9	131.1	109.8	21.28	6.159		
5,100.0	5,093.3	5,093.9	5,093.3	11.2	10.9	-168.07	-30.6	39.9	152.2	130.6	21.62	7.038		
5,200.0	5,190.1	5,190.7	5,190.1	11.5	11.2	-169.66	-30.6	39.9	176.8	154.8	21.95	8.054		
5,300.0	5,286.0	5,286.6	5,286.0	11.9	11.4	-170.99	-30.6	39.9	204.8	182.6	22.26	9.200		
5,404.0	5,384.6	5,385.2	5,384.6	12.3	11.6	-172.15	-30.6	39.9	237.6	215.0	22.57	10.525		
5,500.0	5,475.0	5,475.7	5,475.0	12.7	11.8	-173.08	-30.6	39.9	269.5	246.5	22.99	11.723		
5,600.0	5,569.2	5,569.9	5,569.2	13.1	12.0	-173.84	-30.6	39.9	302.8	279.4	23.43	12.926		
5,700.0	5,663.5	5,664.1	5,663.5	13.6	12.2	-174.46	-30.6	39.9	336.2	312.3	23.87	14.084		
5,800.0	5,757.7	5,758.3	5,757.7	14.1	12.4	-174.96	-30.6	39.9	369.6	345.3	24.32	15.197		
5,900.0	5,851.9	5,852.5	5,851.9	14.6	12.6	-175.38	-30.6	39.9	403.0	378.2	24.77	16.268		
6,000.0	5,946.1	5,946.7	5,946.1	15.2	12.8	-175.73	-30.6	39.9	436.4	411.2	25.23	17.298		
6,100.0	6,040.3	6,041.0	6,040.3	15.7	13.1	-176.03	-30.6	39.9	469.8	444.2	25.69	18.290		
6,200.0	6,134.5	6,135.2	6,134.5	16.3	13.3	-176.30	-30.6	39.9	503.3	477.1	26.15	19.244		
6,300.0	6,228.8	6,229.4	6,228.8	16.8	13.5	-176.53	-30.6	39.9	536.7	510.1	26.62	20.163		
6,400.0	6,323.0	6,323.6	6,323.0	17.4	13.7	-176.73	-30.6	39.9	570.2	543.1	27.09	21.049		
6,500.0	6,417.2	6,417.8	6,417.2	18.0	13.9	-176.91	-30.6	39.9	603.7	576.1	27.56	21.901		
6,600.0	6,511.4	6,504.0	6,503.3	18.6	14.1	-176.84	-33.0	40.1	637.5	609.5	28.01	22.757		
6,610.5	6,521.3	6,512.5	6,511.8	18.7	14.1	-176.77	-33.8	40.2	641.2	613.1	28.06	22.851		
6,650.0	6,558.2	6,544.0	6,543.0	18.9	14.2	-166.71	-38.0	40.6	655.7	627.6	28.12	23.320		
6,700.0	6,604.0	6,582.9	6,581.1	19.2	14.2	-156.30	-45.5	41.2	676.1	647.9	28.23	23.947		
6,750.0	6,648.4	6,620.7	6,617.6	19.6	14.3	-147.83	-55.3	42.1	698.7	670.2	28.44	24.567		
6,800.0	6,691.1	6,657.4	6,652.3	20.0	14.4	-140.68	-67.0	43.1	723.1	694.3	28.77	25.138		
6,850.0	6,731.7	6,693.0	6,685.3	20.4	14.5	-134.43	-80.5	44.3	749.2	720.0	29.24	25.621		
6,900.0	6,769.9	6,727.7	6,716.5	20.8	14.5	-128.79	-95.6	45.6	776.8	746.9	29.89	25.992		
6,950.0	6,805.5	6,761.6	6,746.0	21.3	14.6	-123.58	-112.1	47.1	805.6	774.9	30.69	26.249		
7,000.0	6,838.1	6,794.6	6,773.9	21.8	14.7	-118.70	-129.8	48.6	835.5	803.8	31.64	26.408		
7,050.0	6,867.6	6,827.1	6,800.1	22.3	14.8	-114.08	-148.8	50.3	866.1	833.4	32.69	26.498		
7,089.7	6,888.5	6,850.0	6,818.1	22.8	14.9	-110.52	-163.1	51.5	890.9	857.3	33.56	26.546		
7,100.0	6,893.7	6,859.0	6,824.9	22.9	14.9	-110.70	-168.9	52.0	897.3	863.7	33.68	26.645		
7,200.0	6,943.7	6,923.5	6,871.3	24.1	15.2	-111.62	-213.4	55.9	960.9	925.9	34.94	27.504		
7,239.7	6,963.5	6,950.0	6,888.9	24.6	15.3	-111.82	-233.2	57.7	986.4	950.9	35.49	27.796		
7,250.0	6,968.6	6,956.1	6,892.8	24.7	15.4	-110.68	-237.9	58.1	993.0	957.3	35.69	27.820		
7,300.0	6,992.3	6,989.6	6,913.4	25.3	15.6	-105.66	-264.2	60.4	1,023.8	987.2	36.55	28.012		
7,350.0	7,014.0	7,024.4	6,933.1	25.9	15.8	-101.38	-292.8	62.9	1,052.4	1,015.2	37.23	28.269		
7,400.0	7,033.6	7,062.1	6,952.5	26.4	16.0	-97.77	-325.0	65.7	1,078.6	1,040.9	37.77	28.562		
7,450.0	7,050.8	7,105.6	6,974.2	26.9	16.3	-94.91	-362.5	69.0	1,102.2	1,064.0	38.21	28.847		
7,500.0	7,065.6	7,150.0	6,996.4	27.4	16.7	-92.75	-400.8	72.3	1,122.9	1,084.3	38.58	29.107		
7,550.0	7,077.9	7,194.9	7,018.9	27.8	17.1	-91.21	-439.5	75.7	1,140.6	1,101.8	38.87	29.344		
7,600.0	7,087.5	7,253.0	7,045.9	28.3	17.6	-90.36	-490.8	79.8	1,155.2	1,115.9	39.26	29.422		
7,650.0	7,094.5	7,317.4	7,069.8	28.7	18.3	-89.91	-550.4	83.4	1,166.0	1,126.2	39.75	29.333		
7,700.0	7,098.6	7,385.4	7,087.6	29.0	19.1	-89.76	-616.0	86.1	1,172.8	1,132.5	40.32	29.089		
7,749.0	7,100.0	7,454.7	7,097.8	29.4	19.9	-89.90	-684.4	87.6	1,175.4	1,134.5	40.94	28.711		
7,800.0	7,100.0	7,521.1	7,100.0	29.8	20.7	-90.00	-750.8	88.0	1,175.7	1,133.3	42.36	27.753		
7,900.0	7,100.0	7,621.1	7,100.0	30.6	22.1	-90.00	-850.8	88.0	1,175.7	1,130.8	44.88	26.194		
8,000.0	7,100.0	7,721.1	7,100.0	31.5	23.5	-90.00	-950.8	88.0	1,175.7	1,128.1	47.58	24.707		
8,100.0	7,100.0	7,821.1	7,100.0	32.4	25.0	-90.00	-1,050.8	88.0	1,175.7	1,125.2	50.44	23.310		
8,200.0	7,100.0	7,921.1	7,100.0	33.5	26.6	-90.00	-1,150.8	88.0	1,175.7	1,122.3	53.41	22.010		
8,300.0	7,100.0	8,021.1	7,100.0	34.6	28.2	-90.00	-1,250.8	88.0	1,175.7	1,119.2	56.50	20.809		
8,400.0	7,100.0	8,121.1	7,100.0	35.8	29.9	-90.00	-1,350.8	88.0	1,175.7	1,116.0	59.68	19.701		
8,500.0	7,100.0	8,221.1	7,100.0	37.1	31.5	-90.00	-1,450.8	88.0	1,175.7	1,112.7	62.93	18.683		
8,600.0	7,100.0	8,321.1	7,100.0	38.4	33.2	-90.00	-1,550.8	88.0	1,175.7	1,109.4	66.24	17.747		
8,700.0	7,100.0	8,421.1	7,100.0	39.8	35.0	-90.00	-1,650.8	88.0	1,175.7	1,106.1	69.62	16.887		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 2-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,800.0	7,100.0	8,521.1	7,100.0	41.2	36.7	-90.00	-1,750.8	88.0	1,175.7	1,102.6	73.04	16.096		
8,900.0	7,100.0	8,621.1	7,100.0	42.6	38.5	-90.00	-1,850.8	88.0	1,175.7	1,099.2	76.51	15.367		
9,000.0	7,100.0	8,721.1	7,100.0	44.1	40.3	-90.00	-1,950.8	88.0	1,175.7	1,095.7	80.01	14.695		
9,100.0	7,100.0	8,821.1	7,100.0	45.7	42.0	-90.00	-2,050.8	88.0	1,175.7	1,092.1	83.54	14.073		
9,200.0	7,100.0	8,921.1	7,100.0	47.2	43.9	-90.00	-2,150.8	88.0	1,175.7	1,088.6	87.10	13.498		
9,300.0	7,100.0	9,021.1	7,100.0	48.8	45.7	-90.00	-2,250.8	88.0	1,175.7	1,085.0	90.68	12.964		
9,400.0	7,100.0	9,121.1	7,100.0	50.5	47.5	-90.00	-2,350.8	88.1	1,175.7	1,081.4	94.29	12.468		
9,500.0	7,100.0	9,221.1	7,100.0	52.1	49.3	-90.00	-2,450.8	88.1	1,175.7	1,077.7	97.92	12.007		
9,600.0	7,100.0	9,321.1	7,100.0	53.8	51.2	-90.00	-2,550.8	88.1	1,175.7	1,074.1	101.56	11.576		
9,700.0	7,100.0	9,421.1	7,100.0	55.4	53.0	-90.00	-2,650.8	88.1	1,175.7	1,070.4	105.22	11.173		
9,800.0	7,100.0	9,521.1	7,100.0	57.1	54.9	-90.00	-2,750.8	88.1	1,175.7	1,066.8	108.89	10.796		
9,900.0	7,100.0	9,621.1	7,100.0	58.9	56.7	-90.00	-2,850.8	88.1	1,175.7	1,063.1	112.58	10.443		
10,000.0	7,100.0	9,721.1	7,100.0	60.6	58.6	-90.00	-2,950.8	88.1	1,175.7	1,059.4	116.28	10.111		
10,100.0	7,100.0	9,821.1	7,100.0	62.3	60.5	-90.00	-3,050.8	88.1	1,175.7	1,055.7	119.99	9.798		
10,200.0	7,100.0	9,921.1	7,100.0	64.1	62.3	-90.00	-3,150.8	88.1	1,175.7	1,051.9	123.70	9.504		
10,300.0	7,100.0	10,021.1	7,100.0	65.9	64.2	-90.00	-3,250.8	88.1	1,175.7	1,048.2	127.43	9.226		
10,400.0	7,100.0	10,121.1	7,100.0	67.6	66.1	-90.00	-3,350.8	88.1	1,175.6	1,044.5	131.16	8.963		
10,500.0	7,100.0	10,221.1	7,100.0	69.4	68.0	-90.00	-3,450.8	88.1	1,175.6	1,040.7	134.91	8.715		
10,600.0	7,100.0	10,321.1	7,100.0	71.2	69.8	-90.00	-3,550.8	88.1	1,175.6	1,037.0	138.65	8.479		
10,700.0	7,100.0	10,421.1	7,100.0	73.0	71.7	-90.00	-3,650.8	88.1	1,175.6	1,033.2	142.41	8.255		
10,800.0	7,100.0	10,521.1	7,100.0	74.8	73.6	-90.00	-3,750.8	88.1	1,175.6	1,029.5	146.17	8.043		
10,900.0	7,100.0	10,621.1	7,100.0	76.6	75.5	-90.00	-3,850.8	88.1	1,175.6	1,025.7	149.93	7.841		
11,000.0	7,100.0	10,721.1	7,100.0	78.4	77.4	-90.00	-3,950.8	88.1	1,175.6	1,021.9	153.70	7.649		
11,100.0	7,100.0	10,821.1	7,100.0	80.3	79.3	-90.00	-4,050.8	88.1	1,175.6	1,018.2	157.48	7.465		
11,200.0	7,100.0	10,921.1	7,100.0	82.1	81.2	-90.00	-4,150.8	88.1	1,175.6	1,014.4	161.26	7.291		
11,300.0	7,100.0	11,021.1	7,100.0	83.9	83.1	-90.00	-4,250.8	88.2	1,175.6	1,010.6	165.04	7.123		
11,400.0	7,100.0	11,121.1	7,100.0	85.8	85.0	-90.00	-4,350.8	88.2	1,175.6	1,006.8	168.82	6.964		
11,500.0	7,100.0	11,221.1	7,100.0	87.6	86.9	-90.00	-4,450.8	88.2	1,175.6	1,003.0	172.61	6.811		
11,600.0	7,100.0	11,321.1	7,100.0	89.5	88.8	-90.00	-4,550.8	88.2	1,175.6	999.2	176.41	6.664		
11,700.0	7,100.0	11,421.1	7,100.0	91.3	90.7	-90.00	-4,650.8	88.2	1,175.6	995.4	180.20	6.524		
11,800.0	7,100.0	11,521.1	7,100.0	93.2	92.6	-90.00	-4,750.8	88.2	1,175.6	991.6	184.00	6.389		
11,877.2	7,100.0	11,598.3	7,100.0	94.6	94.1	-90.00	-4,828.0	88.2	1,175.6	988.7	186.93	6.289		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 3-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.84	-0.9	59.9	59.9					
100.0	100.0	100.0	100.0	0.1	0.1	90.84	-0.9	59.9	59.9	59.7	0.19	317.401		
200.0	200.0	200.0	200.0	0.3	0.3	90.84	-0.9	59.9	59.9	59.3	0.64	93.879		
300.0	300.0	300.0	300.0	0.5	0.5	90.84	-0.9	59.9	59.9	58.8	1.09	55.086		
400.0	400.0	400.0	400.0	0.8	0.8	90.84	-0.9	59.9	59.9	58.4	1.54	38.979		
500.0	500.0	500.0	500.0	1.0	1.0	90.84	-0.9	59.9	59.9	57.9	1.99	30.160 CC, ES		
594.9	594.9	593.1	593.1	1.2	1.2	-178.58	-1.6	61.3	62.9	60.5	2.38	26.380		
600.0	600.0	598.0	598.0	1.2	1.2	-178.52	-1.6	61.4	63.2	60.8	2.40	26.288		
700.0	699.9	697.6	697.5	1.4	1.4	-177.29	-3.3	64.8	69.9	67.1	2.81	24.909		
800.0	799.9	797.4	797.2	1.6	1.6	-176.26	-5.0	68.1	76.7	73.5	3.22	23.827		
900.0	899.8	897.1	896.9	1.8	1.8	-175.41	-6.7	71.5	83.5	79.9	3.64	22.934		
1,000.0	999.8	996.9	996.6	2.1	2.0	-174.68	-8.4	74.9	90.3	86.2	4.07	22.192		
1,100.0	1,099.7	1,096.8	1,096.4	2.3	2.3	-174.05	-10.0	78.2	97.1	92.6	4.50	21.572		
1,200.0	1,199.7	1,200.0	1,199.6	2.5	2.5	-173.88	-10.9	79.9	102.1	97.2	4.92	20.736		
1,300.0	1,299.6	1,300.0	1,299.6	2.8	2.7	-174.07	-10.9	79.9	105.4	100.1	5.35	19.704		
1,405.6	1,405.1	1,405.5	1,405.1	3.0	2.9	-174.26	-10.9	79.9	108.9	103.1	5.81	18.747		
1,500.5	1,500.0	1,500.4	1,500.0	3.2	3.1	95.65	-10.9	79.9	110.5	104.2	6.28	17.591		
1,600.0	1,599.5	1,599.9	1,599.5	3.4	3.3	95.65	-10.9	79.9	110.5	103.8	6.69	16.507		
1,700.0	1,699.5	1,699.9	1,699.5	3.6	3.5	95.65	-10.9	79.9	110.5	103.3	7.12	15.516		
1,800.0	1,799.5	1,799.9	1,799.5	3.8	3.7	95.65	-10.9	79.9	110.5	102.9	7.55	14.633		
1,900.0	1,899.5	1,899.9	1,899.5	4.0	4.0	95.65	-10.9	79.9	110.5	102.5	7.98	13.841		
2,000.0	1,999.5	1,999.9	1,999.5	4.2	4.2	95.65	-10.9	79.9	110.5	102.0	8.41	13.127		
2,100.0	2,099.5	2,099.9	2,099.5	4.5	4.4	95.65	-10.9	79.9	110.5	101.6	8.85	12.482		
2,200.0	2,199.5	2,199.9	2,199.5	4.7	4.6	95.65	-10.9	79.9	110.5	101.2	9.29	11.895		
2,300.0	2,299.5	2,299.9	2,299.5	4.9	4.8	95.65	-10.9	79.9	110.5	100.7	9.72	11.359		
2,400.0	2,399.5	2,399.9	2,399.5	5.1	5.1	95.65	-10.9	79.9	110.5	100.3	10.16	10.869		
2,500.0	2,499.5	2,499.9	2,499.5	5.3	5.3	95.65	-10.9	79.9	110.5	99.9	10.60	10.418		
2,600.0	2,599.5	2,599.9	2,599.5	5.5	5.5	95.65	-10.9	79.9	110.5	99.4	11.04	10.002		
2,700.0	2,699.5	2,699.9	2,699.5	5.8	5.7	95.65	-10.9	79.9	110.5	99.0	11.48	9.618		
2,800.0	2,799.5	2,799.9	2,799.5	6.0	5.9	95.65	-10.9	79.9	110.5	98.5	11.93	9.262		
2,900.0	2,899.5	2,899.9	2,899.5	6.2	6.2	95.65	-10.9	79.9	110.5	98.1	12.37	8.930		
3,000.0	2,999.5	2,999.9	2,999.5	6.4	6.4	95.65	-10.9	79.9	110.5	97.6	12.81	8.622		
3,100.0	3,099.5	3,099.9	3,099.5	6.6	6.6	95.65	-10.9	79.9	110.5	97.2	13.25	8.333		
3,200.0	3,199.5	3,199.9	3,199.5	6.9	6.8	95.65	-10.9	79.9	110.5	96.8	13.70	8.063		
3,300.0	3,299.5	3,299.9	3,299.5	7.1	7.1	95.65	-10.9	79.9	110.5	96.3	14.14	7.810		
3,400.0	3,399.5	3,399.9	3,399.5	7.3	7.3	95.65	-10.9	79.9	110.5	95.9	14.59	7.572		
3,500.0	3,499.5	3,499.9	3,499.5	7.5	7.5	95.65	-10.9	79.9	110.5	95.4	15.03	7.348		
3,600.0	3,599.5	3,599.9	3,599.5	7.8	7.7	95.65	-10.9	79.9	110.5	95.0	15.48	7.137		
3,700.0	3,699.5	3,699.9	3,699.5	8.0	7.9	95.65	-10.9	79.9	110.5	94.5	15.92	6.937		
3,800.0	3,799.5	3,799.9	3,799.5	8.2	8.2	95.65	-10.9	79.9	110.5	94.1	16.37	6.748		
3,900.0	3,899.5	3,899.9	3,899.5	8.4	8.4	95.65	-10.9	79.9	110.5	93.6	16.81	6.570		
4,000.0	3,999.5	3,999.9	3,999.5	8.6	8.6	95.65	-10.9	79.9	110.5	93.2	17.26	6.400		
4,100.0	4,099.5	4,099.9	4,099.5	8.9	8.8	95.65	-10.9	79.9	110.5	92.8	17.71	6.239		
4,200.0	4,199.5	4,199.9	4,199.5	9.1	9.1	95.65	-10.9	79.9	110.5	92.3	18.15	6.085		
4,300.0	4,299.5	4,299.9	4,299.5	9.3	9.3	95.65	-10.9	79.9	110.5	91.9	18.60	5.939		
4,400.0	4,399.5	4,396.2	4,395.8	9.5	9.5	95.70	-11.1	81.5	112.1	93.1	19.03	5.893 SF		
4,425.0	4,424.5	4,420.2	4,419.8	9.6	9.5	95.73	-11.3	82.4	113.1	93.9	19.13	5.910		
4,500.0	4,499.5	4,492.1	4,491.6	9.8	9.7	-174.20	-11.9	86.3	118.1	98.7	19.39	6.093		
4,600.0	4,599.4	4,587.2	4,586.3	10.0	9.9	-174.16	-13.1	94.1	130.8	111.0	19.77	6.614		
4,700.0	4,699.1	4,680.8	4,679.2	10.2	10.1	-174.18	-14.8	104.9	150.1	130.0	20.14	7.452		
4,800.0	4,798.5	4,772.2	4,769.6	10.4	10.3	-174.22	-17.0	118.3	176.0	155.5	20.50	8.585		
4,900.0	4,897.3	4,860.9	4,856.9	10.7	10.5	-174.27	-19.5	134.0	208.2	187.3	20.83	9.991		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 3-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,995.7	4,946.5	4,940.6	10.9	10.8	-174.31	-22.3	151.7	246.4	225.3	21.15	11.651		
5,100.0	5,093.3	5,028.6	5,020.4	11.2	11.0	-174.34	-25.3	170.9	290.5	269.1	21.45	13.546		
5,200.0	5,190.1	5,106.8	5,095.8	11.5	11.3	-174.34	-28.6	191.4	340.2	318.4	21.72	15.660		
5,300.0	5,286.0	5,180.9	5,166.7	11.9	11.5	-174.33	-31.9	212.6	395.0	373.0	21.98	17.974		
5,404.0	5,384.6	5,257.8	5,239.8	12.3	11.8	-174.31	-35.7	236.4	457.1	434.9	22.23	20.562		
5,500.0	5,475.0	5,333.5	5,311.5	12.7	12.1	-174.43	-39.5	260.2	516.2	493.6	22.60	22.835		
5,600.0	5,569.2	5,412.3	5,386.2	13.1	12.4	-174.53	-43.4	284.9	577.7	554.7	23.00	25.120		
5,700.0	5,663.5	5,491.1	5,460.9	13.6	12.8	-174.61	-47.3	309.6	639.3	615.9	23.40	27.319		
5,800.0	5,757.7	5,569.9	5,535.7	14.1	13.1	-174.67	-51.3	334.4	700.8	677.0	23.81	29.435		
5,900.0	5,851.9	5,648.7	5,610.4	14.6	13.5	-174.73	-55.2	359.1	762.3	738.1	24.22	31.472		
6,000.0	5,946.1	5,727.6	5,685.1	15.2	13.9	-174.78	-59.1	383.8	823.9	799.2	24.64	33.433		
6,100.0	6,040.3	5,806.4	5,759.9	15.7	14.3	-174.82	-63.0	408.6	885.4	860.4	25.07	35.321		
6,200.0	6,134.5	5,885.2	5,834.6	16.3	14.7	-174.85	-67.0	433.3	947.0	921.5	25.50	37.136		
6,300.0	6,228.8	5,964.0	5,909.4	16.8	15.1	-174.88	-70.9	458.0	1,008.5	982.6	25.94	38.884		
6,400.0	6,323.0	6,042.8	5,984.1	17.4	15.5	-174.91	-74.8	482.7	1,070.0	1,043.7	26.38	40.567		
6,500.0	6,417.2	6,121.7	6,058.8	18.0	15.9	-174.93	-78.7	507.5	1,131.6	1,104.8	26.82	42.187		
6,600.0	6,511.4	6,200.5	6,133.6	18.6	16.3	-174.96	-82.7	532.2	1,193.1	1,165.9	27.27	43.747		
6,610.5	6,521.3	6,208.8	6,141.4	18.7	16.4	-174.96	-83.1	534.8	1,199.6	1,172.3	27.32	43.907		
6,650.0	6,558.2	6,239.5	6,170.5	18.9	16.6	-163.73	-84.6	544.5	1,224.4	1,196.9	27.42	44.655		
6,700.0	6,604.0	6,277.1	6,206.2	19.2	16.8	-151.90	-86.5	556.2	1,256.9	1,229.3	27.67	45.428		
6,750.0	6,648.4	6,312.9	6,240.1	19.6	17.0	-142.06	-88.3	567.5	1,290.7	1,262.6	28.11	45.911		
6,800.0	6,691.1	6,346.7	6,272.2	20.0	17.2	-133.59	-90.0	578.1	1,325.4	1,296.7	28.78	46.053		
6,850.0	6,731.7	6,378.2	6,302.1	20.4	17.3	-126.05	-91.5	588.0	1,361.0	1,331.3	29.68	45.862		
6,900.0	6,769.9	6,407.2	6,329.6	20.8	17.5	-119.13	-93.0	597.1	1,397.2	1,366.5	30.77	45.408		
6,950.0	6,805.5	6,433.5	6,354.5	21.3	17.6	-112.66	-94.3	605.3	1,434.0	1,402.0	32.01	44.803		
7,000.0	6,838.1	6,456.8	6,376.6	21.8	17.8	-106.50	-95.4	612.6	1,471.1	1,437.8	33.30	44.181		
7,050.0	6,867.6	6,477.0	6,395.7	22.3	17.9	-100.59	-96.4	619.0	1,508.3	1,473.8	34.54	43.666		
7,089.7	6,888.5	6,490.7	6,408.8	22.8	18.0	-96.06	-97.1	623.3	1,538.0	1,502.5	35.44	43.402		
7,100.0	6,893.7	6,494.0	6,411.9	22.9	18.0	-96.22	-97.3	624.3	1,545.6	1,510.1	35.56	43.469		
7,200.0	6,943.7	6,525.9	6,442.1	24.1	18.2	-97.77	-98.9	634.3	1,621.5	1,584.7	36.80	44.062		
7,239.7	6,963.5	6,538.6	6,454.2	24.6	18.2	-98.37	-99.5	638.3	1,652.2	1,614.9	37.31	44.286		
7,250.0	6,968.6	6,541.9	6,457.2	24.7	18.3	-97.27	-99.7	639.3	1,660.1	1,622.7	37.41	44.376		
7,300.0	6,992.3	6,557.2	6,471.8	25.3	18.4	-92.42	-100.4	644.1	1,697.6	1,659.9	37.70	45.025		
7,350.0	7,014.0	6,668.3	6,576.7	25.9	18.9	-92.12	-114.9	677.1	1,733.0	1,695.3	37.69	45.979		
7,400.0	7,033.6	7,175.8	6,958.8	26.4	21.5	-98.02	-415.2	748.3	1,759.3	1,721.8	37.54	46.860		
7,450.0	7,050.8	7,220.9	6,981.4	26.9	21.8	-95.30	-454.3	748.3	1,779.5	1,741.5	37.98	46.855		
7,500.0	7,065.6	7,266.8	7,004.3	27.4	22.1	-93.19	-494.0	748.3	1,796.7	1,758.3	38.43	46.754		
7,550.0	7,077.9	7,312.1	7,027.0	27.8	22.4	-91.64	-533.3	748.3	1,810.8	1,771.9	38.90	46.546		
7,600.0	7,087.5	7,355.1	7,046.6	28.3	22.8	-90.53	-571.6	748.3	1,821.9	1,782.4	39.44	46.189		
7,650.0	7,094.5	7,400.0	7,063.9	28.7	23.1	-89.85	-613.0	748.3	1,829.8	1,789.7	40.07	45.663		
7,700.0	7,098.6	7,446.0	7,078.2	29.0	23.6	-89.56	-656.7	748.3	1,834.6	1,793.8	40.79	44.979		
7,749.0	7,100.0	7,492.7	7,089.1	29.4	24.0	-89.66	-702.0	748.3	1,836.1	1,794.5	41.57	44.170		
7,800.0	7,100.0	7,542.4	7,096.6	29.8	24.5	-89.90	-751.2	748.3	1,836.0	1,793.3	42.77	42.932		
7,900.0	7,100.0	7,642.2	7,100.0	30.6	25.7	-90.00	-850.8	748.3	1,836.0	1,790.8	45.27	40.558		
8,000.0	7,100.0	7,742.2	7,100.0	31.5	26.9	-90.00	-950.8	748.3	1,836.0	1,788.1	47.95	38.294		
8,100.0	7,100.0	7,842.2	7,100.0	32.4	28.2	-90.00	-1,050.8	748.3	1,836.0	1,785.2	50.77	36.162		
8,200.0	7,100.0	7,942.2	7,100.0	33.5	29.6	-90.00	-1,150.8	748.3	1,836.0	1,782.3	53.73	34.172		
8,300.0	7,100.0	8,042.2	7,100.0	34.6	31.0	-90.00	-1,250.8	748.3	1,836.0	1,779.2	56.79	32.328		
8,400.0	7,100.0	8,142.2	7,100.0	35.8	32.5	-90.00	-1,350.8	748.3	1,836.0	1,776.0	59.95	30.625		
8,500.0	7,100.0	8,242.2	7,100.0	37.1	34.1	-90.00	-1,450.8	748.3	1,836.0	1,772.8	63.19	29.057		
8,600.0	7,100.0	8,342.2	7,100.0	38.4	35.6	-90.00	-1,550.8	748.3	1,836.0	1,769.5	66.49	27.614		
8,700.0	7,100.0	8,442.2	7,100.0	39.8	37.2	-90.00	-1,650.8	748.3	1,836.0	1,766.1	69.85	26.285		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 3-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,800.0	7,100.0	8,542.2	7,100.0	41.2	38.9	-90.00	-1,750.8	748.3	1,836.0	1,762.7	73.26	25.062		
8,900.0	7,100.0	8,642.2	7,100.0	42.6	40.5	-90.00	-1,850.8	748.3	1,836.0	1,759.3	76.71	23.934		
9,000.0	7,100.0	8,742.2	7,100.0	44.1	42.2	-90.00	-1,950.8	748.3	1,836.0	1,755.8	80.20	22.892		
9,100.0	7,100.0	8,842.2	7,100.0	45.7	43.9	-90.00	-2,050.8	748.3	1,836.0	1,752.2	83.72	21.929		
9,200.0	7,100.0	8,942.2	7,100.0	47.2	45.7	-90.00	-2,150.8	748.3	1,835.9	1,748.7	87.27	21.037		
9,300.0	7,100.0	9,042.2	7,100.0	48.8	47.4	-90.00	-2,250.8	748.3	1,835.9	1,745.1	90.85	20.208		
9,400.0	7,100.0	9,142.2	7,100.0	50.5	49.2	-90.00	-2,350.8	748.3	1,835.9	1,741.5	94.45	19.438		
9,500.0	7,100.0	9,242.2	7,100.0	52.1	50.9	-90.00	-2,450.8	748.3	1,835.9	1,737.9	98.07	18.721		
9,600.0	7,100.0	9,342.2	7,100.0	53.8	52.7	-90.00	-2,550.8	748.3	1,835.9	1,734.2	101.71	18.051		
9,700.0	7,100.0	9,442.2	7,100.0	55.4	54.5	-90.00	-2,650.8	748.3	1,835.9	1,730.6	105.36	17.425		
9,800.0	7,100.0	9,542.2	7,100.0	57.1	56.3	-90.00	-2,750.8	748.3	1,835.9	1,726.9	109.03	16.839		
9,900.0	7,100.0	9,642.2	7,100.0	58.9	58.1	-90.00	-2,850.8	748.3	1,835.9	1,723.2	112.71	16.289		
10,000.0	7,100.0	9,742.2	7,100.0	60.6	60.0	-90.00	-2,950.8	748.3	1,835.9	1,719.5	116.40	15.772		
10,100.0	7,100.0	9,842.2	7,100.0	62.3	61.8	-90.00	-3,050.8	748.3	1,835.9	1,715.8	120.10	15.286		
10,200.0	7,100.0	9,942.2	7,100.0	64.1	63.6	-90.00	-3,150.8	748.3	1,835.9	1,712.1	123.82	14.827		
10,300.0	7,100.0	10,042.2	7,100.0	65.9	65.4	-90.00	-3,250.8	748.3	1,835.9	1,708.3	127.54	14.395		
10,400.0	7,100.0	10,142.2	7,100.0	67.6	67.3	-90.00	-3,350.8	748.3	1,835.9	1,704.6	131.27	13.986		
10,500.0	7,100.0	10,242.2	7,100.0	69.4	69.1	-90.00	-3,450.8	748.3	1,835.9	1,700.9	135.01	13.598		
10,600.0	7,100.0	10,342.2	7,100.0	71.2	71.0	-90.00	-3,550.8	748.3	1,835.8	1,697.1	138.75	13.231		
10,700.0	7,100.0	10,442.2	7,100.0	73.0	72.8	-90.00	-3,650.8	748.3	1,835.8	1,693.3	142.50	12.883		
10,800.0	7,100.0	10,542.2	7,100.0	74.8	74.7	-90.00	-3,750.8	748.3	1,835.8	1,689.6	146.26	12.552		
10,900.0	7,100.0	10,642.2	7,100.0	76.6	76.6	-90.00	-3,850.8	748.3	1,835.8	1,685.8	150.02	12.237		
11,000.0	7,100.0	10,742.2	7,100.0	78.4	78.4	-90.00	-3,950.8	748.3	1,835.8	1,682.0	153.79	11.938		
11,100.0	7,100.0	10,842.2	7,100.0	80.3	80.3	-90.00	-4,050.8	748.3	1,835.8	1,678.3	157.56	11.652		
11,200.0	7,100.0	10,942.2	7,100.0	82.1	82.2	-90.00	-4,150.8	748.3	1,835.8	1,674.5	161.33	11.379		
11,300.0	7,100.0	11,042.2	7,100.0	83.9	84.0	-90.00	-4,250.8	748.3	1,835.8	1,670.7	165.11	11.119		
11,400.0	7,100.0	11,142.2	7,100.0	85.8	85.9	-90.00	-4,350.8	748.3	1,835.8	1,666.9	168.90	10.869		
11,500.0	7,100.0	11,242.2	7,100.0	87.6	87.8	-90.00	-4,450.8	748.3	1,835.8	1,663.1	172.68	10.631		
11,600.0	7,100.0	11,342.2	7,100.0	89.5	89.7	-90.00	-4,550.8	748.3	1,835.8	1,659.3	176.47	10.403		
11,700.0	7,100.0	11,442.2	7,100.0	91.3	91.6	-90.00	-4,650.8	748.3	1,835.8	1,655.5	180.27	10.184		
11,800.0	7,100.0	11,542.2	7,100.0	93.2	93.5	-90.00	-4,750.8	748.3	1,835.8	1,651.7	184.06	9.974		
11,877.2	7,100.0	11,619.4	7,100.0	94.6	94.9	-90.00	-4,828.0	748.3	1,835.8	1,648.8	186.99	9.817		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 4-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	90.83	-1.2	79.9	80.0					
100.0	100.0	100.0	100.0	0.1	0.1	90.83	-1.2	79.9	80.0	79.8	0.19	423.500		
200.0	200.0	200.0	200.0	0.3	0.3	90.83	-1.2	79.9	80.0	79.3	0.64	125.261		
300.0	300.0	300.0	300.0	0.5	0.5	90.83	-1.2	79.9	80.0	78.9	1.09	73.500		
400.0	400.0	400.0	400.0	0.8	0.8	90.83	-1.2	79.9	80.0	78.4	1.54	52.009		
500.0	500.0	500.0	500.0	1.0	1.0	90.83	-1.2	79.9	80.0	78.0	1.99	40.242 CC, ES		
594.9	594.9	592.2	592.2	1.2	1.2	-179.20	-1.2	81.4	83.1	80.7	2.39	34.777		
600.0	600.0	597.2	597.2	1.2	1.2	-179.20	-1.2	81.6	83.4	81.0	2.41	34.589		
700.0	699.9	697.0	696.9	1.4	1.4	-179.26	-1.2	84.9	90.0	87.2	2.82	31.923		
800.0	799.9	796.8	796.7	1.6	1.6	-179.31	-1.2	88.2	96.6	93.4	3.24	29.848		
900.0	899.8	896.6	896.4	1.8	1.8	-179.35	-1.2	91.5	103.3	99.6	3.66	28.186		
1,000.0	999.8	996.4	996.1	2.1	2.1	-179.39	-1.2	94.8	109.9	105.8	4.09	26.835		
1,100.0	1,099.7	1,096.1	1,095.8	2.3	2.3	-179.43	-1.2	98.1	116.5	112.0	4.53	25.719		
1,200.0	1,199.7	1,195.9	1,195.6	2.5	2.5	-179.46	-1.2	101.4	123.1	118.2	4.97	24.784		
1,300.0	1,299.6	1,295.7	1,295.3	2.8	2.7	-179.49	-1.2	104.7	129.7	124.3	5.41	23.991		
1,405.6	1,405.1	1,401.0	1,400.6	3.0	3.0	-179.51	-1.2	108.2	136.7	130.9	5.87	23.276		
1,500.5	1,500.0	1,500.5	1,500.0	3.2	3.2	90.47	-1.2	109.9	140.0	133.6	6.37	21.954		
1,600.0	1,599.5	1,600.0	1,599.5	3.4	3.4	90.47	-1.2	109.9	140.0	133.2	6.77	20.669		
1,700.0	1,699.5	1,700.0	1,699.5	3.6	3.6	90.47	-1.2	109.9	140.0	132.8	7.19	19.458		
1,800.0	1,799.5	1,800.0	1,799.5	3.8	3.8	90.47	-1.2	109.9	140.0	132.3	7.62	18.374		
1,900.0	1,899.5	1,900.0	1,899.5	4.0	4.0	90.47	-1.2	109.9	140.0	131.9	8.04	17.398		
2,000.0	1,999.5	2,000.0	1,999.5	4.2	4.2	90.47	-1.2	109.9	140.0	131.5	8.47	16.516		
2,100.0	2,099.5	2,100.0	2,099.5	4.5	4.5	90.47	-1.2	109.9	140.0	131.0	8.91	15.715		
2,200.0	2,199.5	2,200.0	2,199.5	4.7	4.7	90.47	-1.2	109.9	140.0	130.6	9.34	14.986		
2,300.0	2,299.5	2,300.0	2,299.5	4.9	4.9	90.47	-1.2	109.9	140.0	130.2	9.77	14.320		
2,400.0	2,399.5	2,400.0	2,399.5	5.1	5.1	90.47	-1.2	109.9	140.0	129.7	10.21	13.708		
2,500.0	2,499.5	2,500.0	2,499.5	5.3	5.3	90.47	-1.2	109.9	140.0	129.3	10.65	13.145		
2,600.0	2,599.5	2,600.0	2,599.5	5.5	5.5	90.47	-1.2	109.9	140.0	128.9	11.08	12.626		
2,700.0	2,699.5	2,700.0	2,699.5	5.8	5.8	90.47	-1.2	109.9	140.0	128.4	11.52	12.145		
2,800.0	2,799.5	2,800.0	2,799.5	6.0	6.0	90.47	-1.2	109.9	140.0	128.0	11.96	11.698		
2,900.0	2,899.5	2,900.0	2,899.5	6.2	6.2	90.47	-1.2	109.9	140.0	127.6	12.40	11.283		
3,000.0	2,999.5	3,000.0	2,999.5	6.4	6.4	90.47	-1.2	109.9	140.0	127.1	12.85	10.895		
3,100.0	3,099.5	3,100.0	3,099.5	6.6	6.6	90.47	-1.2	109.9	140.0	126.7	13.29	10.533		
3,200.0	3,199.5	3,200.0	3,199.5	6.9	6.9	90.47	-1.2	109.9	140.0	126.2	13.73	10.194		
3,300.0	3,299.5	3,300.0	3,299.5	7.1	7.1	90.47	-1.2	109.9	140.0	125.8	14.17	9.876		
3,400.0	3,399.5	3,400.0	3,399.5	7.3	7.3	90.47	-1.2	109.9	140.0	125.3	14.61	9.576		
3,500.0	3,499.5	3,500.0	3,499.5	7.5	7.5	90.47	-1.2	109.9	140.0	124.9	15.06	9.294		
3,600.0	3,599.5	3,600.0	3,599.5	7.8	7.8	90.47	-1.2	109.9	140.0	124.5	15.50	9.028		
3,700.0	3,699.5	3,700.0	3,699.5	8.0	8.0	90.47	-1.2	109.9	140.0	124.0	15.95	8.777		
3,800.0	3,799.5	3,800.0	3,799.5	8.2	8.2	90.47	-1.2	109.9	140.0	123.6	16.39	8.539		
3,900.0	3,899.5	3,900.0	3,899.5	8.4	8.4	90.47	-1.2	109.9	140.0	123.1	16.84	8.313		
4,000.0	3,999.5	4,000.0	3,999.5	8.6	8.6	90.47	-1.2	109.9	140.0	122.7	17.28	8.099		
4,100.0	4,099.5	4,095.3	4,094.8	8.9	8.8	90.40	-1.0	111.5	141.6	123.9	17.71	7.995 SF		
4,200.0	4,199.5	4,190.5	4,189.8	9.1	9.1	90.19	-0.5	116.2	146.6	128.4	18.14	8.079		
4,300.0	4,299.5	4,285.2	4,284.2	9.3	9.3	89.87	0.3	124.1	154.8	136.2	18.58	8.332		
4,400.0	4,399.5	4,379.3	4,377.7	9.5	9.5	89.48	1.5	134.9	166.3	147.3	19.02	8.743		
4,425.0	4,424.5	4,400.0	4,398.2	9.6	9.5	89.39	1.8	137.7	169.7	150.6	19.13	8.873		
4,500.0	4,499.5	4,472.4	4,469.7	9.8	9.7	179.05	3.0	148.6	182.0	162.7	19.34	9.415		
4,600.0	4,599.4	4,563.7	4,559.6	10.0	10.0	178.64	4.7	164.9	204.2	184.5	19.72	10.354		
4,700.0	4,699.1	4,653.6	4,647.5	10.2	10.2	178.27	6.7	183.7	232.8	212.7	20.10	11.584		
4,800.0	4,798.5	4,748.0	4,739.5	10.4	10.5	177.95	8.9	204.6	265.9	245.4	20.46	12.994		
4,900.0	4,897.3	4,841.1	4,830.3	10.7	10.8	177.72	11.1	225.2	302.2	281.4	20.81	14.523		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 4-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,995.7	4,932.9	4,919.8	10.9	11.1	177.56	13.3	245.5	341.8	320.7	21.14	16.167		
5,100.0	5,093.3	5,023.3	5,007.9	11.2	11.4	177.44	15.4	265.5	384.6	363.1	21.46	17.922		
5,200.0	5,190.1	5,112.2	5,094.6	11.5	11.7	177.36	17.5	285.2	430.4	408.7	21.76	19.786		
5,300.0	5,286.0	5,199.4	5,179.6	11.9	12.0	177.30	19.5	304.4	479.4	457.3	22.04	21.754		
5,404.0	5,384.6	5,288.2	5,266.2	12.3	12.3	177.25	21.6	324.1	533.5	511.2	22.31	23.909		
5,500.0	5,475.0	5,369.3	5,345.2	12.7	12.6	177.27	23.5	342.0	584.9	562.2	22.71	25.757		
5,600.0	5,569.2	5,453.7	5,427.6	13.1	12.9	177.29	25.5	360.7	638.5	615.3	23.12	27.610		
5,700.0	5,663.5	5,538.2	5,509.9	13.6	13.3	177.30	27.5	379.3	692.0	668.5	23.55	29.390		
5,800.0	5,757.7	5,622.6	5,592.2	14.1	13.6	177.32	29.5	398.0	745.6	721.6	23.97	31.100		
5,900.0	5,851.9	5,707.1	5,674.6	14.6	13.9	177.33	31.5	416.7	799.1	774.7	24.41	32.743		
6,000.0	5,946.1	5,791.5	5,756.9	15.2	14.3	177.34	33.5	435.4	852.7	827.9	24.84	34.322		
6,100.0	6,040.3	5,876.0	5,839.2	15.7	14.6	177.35	35.4	454.0	906.3	881.0	25.29	35.840		
6,200.0	6,134.5	5,960.4	5,921.6	16.3	14.9	177.35	37.4	472.7	959.8	934.1	25.73	37.300		
6,300.0	6,228.8	6,044.8	6,003.9	16.8	15.3	177.36	39.4	491.4	1,013.4	987.2	26.18	38.703		
6,400.0	6,323.0	6,129.3	6,086.2	17.4	15.6	177.37	41.4	510.1	1,066.9	1,040.3	26.64	40.053		
6,500.0	6,417.2	6,213.7	6,168.6	18.0	16.0	177.37	43.4	528.7	1,120.5	1,093.4	27.10	41.352		
6,600.0	6,511.4	6,298.2	6,250.9	18.6	16.3	177.38	45.4	547.4	1,174.1	1,146.5	27.56	42.602		
6,610.5	6,521.3	6,307.1	6,259.5	18.7	16.4	177.38	45.6	549.4	1,179.7	1,152.1	27.61	42.730		
6,650.0	6,558.2	6,340.0	6,291.6	18.9	16.5	-172.07	46.4	556.6	1,201.5	1,173.9	27.61	43.515		
6,700.0	6,604.0	6,380.2	6,330.9	19.2	16.7	-161.06	47.3	565.5	1,230.8	1,203.1	27.67	44.475		
6,750.0	6,648.4	6,418.6	6,368.3	19.6	16.8	-152.00	48.2	574.0	1,261.8	1,234.0	27.86	45.296		
6,800.0	6,691.1	6,448.3	6,397.3	20.0	17.0	-144.11	48.9	580.6	1,294.5	1,266.2	28.22	45.872		
6,850.0	6,731.7	6,450.0	6,398.9	20.4	17.0	-136.26	48.9	581.0	1,329.0	1,300.2	28.86	46.053		
6,900.0	6,769.9	6,467.8	6,416.2	20.8	17.1	-129.11	49.3	585.3	1,365.1	1,335.3	29.82	45.785		
6,950.0	6,805.5	6,475.8	6,423.9	21.3	17.1	-121.77	49.4	587.4	1,402.7	1,371.6	31.10	45.096		
7,000.0	6,838.1	6,500.0	6,447.0	21.8	17.2	-115.19	49.7	594.5	1,441.7	1,409.1	32.53	44.317		
7,050.0	6,867.6	6,500.0	6,447.0	22.3	17.2	-107.62	49.7	594.5	1,480.8	1,446.7	34.14	43.370		
7,089.7	6,888.5	6,500.0	6,447.0	22.8	17.2	-101.64	49.7	594.5	1,512.3	1,477.0	35.35	42.786		
7,100.0	6,893.7	6,500.0	6,447.0	22.9	17.2	-101.64	49.7	594.5	1,520.5	1,485.0	35.47	42.866		
7,200.0	6,943.7	6,500.0	6,447.0	24.1	17.2	-101.64	49.7	594.5	1,601.5	1,564.7	36.76	43.561		
7,239.7	6,963.5	6,500.0	6,447.0	24.6	17.2	-101.64	49.7	594.5	1,634.2	1,596.9	37.30	43.814		
7,250.0	6,968.6	6,500.0	6,447.0	24.7	17.2	-100.17	49.7	594.5	1,642.7	1,605.2	37.47	43.844		
7,300.0	6,992.3	6,500.0	6,447.0	25.3	17.2	-93.76	49.7	594.5	1,683.0	1,645.0	37.98	44.315		
7,350.0	7,014.0	6,500.0	6,447.0	25.9	17.2	-88.39	49.7	594.5	1,721.7	1,683.6	38.12	45.172		
7,400.0	7,033.6	6,500.0	6,447.0	26.4	17.2	-83.90	49.7	594.5	1,758.6	1,720.7	37.96	46.330		
7,450.0	7,050.8	6,500.0	6,447.0	26.9	17.2	-80.15	49.7	594.5	1,793.6	1,756.0	37.58	47.729		
7,500.0	7,065.6	6,518.6	6,464.6	27.4	17.3	-77.79	49.8	600.6	1,826.0	1,788.9	37.12	49.190		
7,550.0	7,077.9	6,520.2	6,466.1	27.8	17.3	-75.27	49.8	601.2	1,856.5	1,820.0	36.48	50.888		
7,600.0	7,087.5	6,521.5	6,467.3	28.3	17.3	-73.22	49.8	601.6	1,884.6	1,848.8	35.77	52.692		
7,650.0	7,094.5	6,522.4	6,468.2	28.7	17.4	-71.60	49.8	601.9	1,910.2	1,875.2	35.02	54.551		
7,700.0	7,098.6	6,523.0	6,468.7	29.0	17.4	-70.37	49.8	602.1	1,933.4	1,899.1	34.27	56.408		
7,749.0	7,100.0	6,523.1	6,468.8	29.4	17.4	-69.52	49.8	602.2	1,953.5	1,919.9	33.59	58.163		
7,800.0	7,100.0	6,523.1	6,468.8	29.8	17.4	-69.52	49.8	602.2	1,973.6	1,939.5	34.10	57.878		
7,900.0	7,100.0	6,523.1	6,468.8	30.6	17.4	-69.52	49.8	602.1	2,016.2	1,981.1	35.16	57.337		
8,000.0	7,100.0	6,523.0	6,468.8	31.5	17.4	-69.52	49.8	602.1	2,062.8	2,026.5	36.33	56.781		
8,100.0	7,100.0	6,523.0	6,468.7	32.4	17.4	-69.52	49.8	602.1	2,113.1	2,075.6	37.58	56.233		
8,200.0	7,100.0	6,523.0	6,468.7	33.5	17.4	-69.52	49.8	602.1	2,166.9	2,128.0	38.90	55.705		
8,300.0	7,100.0	6,522.9	6,468.7	34.6	17.4	-69.51	49.8	602.1	2,223.9	2,183.6	40.28	55.208		
8,400.0	7,100.0	6,522.9	6,468.6	35.8	17.4	-69.51	49.8	602.1	2,283.8	2,242.1	41.72	54.746		
8,500.0	7,100.0	6,522.9	6,468.6	37.1	17.4	-69.51	49.8	602.1	2,346.4	2,303.2	43.19	54.324		
8,600.0	7,100.0	6,522.8	6,468.5	38.4	17.4	-69.51	49.8	602.1	2,411.6	2,366.9	44.71	53.940		
8,700.0	7,100.0	6,522.8	6,468.5	39.8	17.4	-69.51	49.8	602.0	2,479.1	2,432.9	46.26	53.594		

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

SandRidge Energy

Anticollision Report

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Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Castle 0780 4-17H20 - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,800.0	7,100.0	9,109.4	7,100.0	41.2	47.0	-90.00	-1,755.3	1,423.0	2,510.7	2,436.0	74.70	33.610		
8,900.0	7,100.0	9,209.4	7,100.0	42.6	48.4	-90.00	-1,855.3	1,422.9	2,510.5	2,432.4	78.12	32.138		
9,000.0	7,100.0	9,309.4	7,100.0	44.1	49.8	-90.00	-1,955.3	1,422.7	2,510.3	2,428.7	81.57	30.773		
9,100.0	7,100.0	9,409.4	7,100.0	45.7	51.2	-90.00	-2,055.3	1,422.5	2,510.1	2,425.1	85.07	29.508		
9,200.0	7,100.0	9,509.4	7,100.0	47.2	52.7	-90.00	-2,155.3	1,422.3	2,510.0	2,421.4	88.59	28.333		
9,300.0	7,100.0	9,609.4	7,100.0	48.8	54.2	-90.00	-2,255.3	1,422.2	2,509.8	2,417.6	92.14	27.239		
9,400.0	7,100.0	9,709.4	7,100.0	50.5	55.7	-90.00	-2,355.3	1,422.0	2,509.6	2,413.9	95.71	26.220		
9,500.0	7,100.0	9,809.4	7,100.0	52.1	57.3	-90.00	-2,455.3	1,421.8	2,509.4	2,410.1	99.31	25.269		
9,600.0	7,100.0	9,909.4	7,100.0	53.8	58.9	-90.00	-2,555.3	1,421.6	2,509.2	2,406.3	102.92	24.379		
9,700.0	7,100.0	10,009.4	7,100.0	55.4	60.5	-90.00	-2,655.3	1,421.4	2,509.0	2,402.5	106.56	23.547		
9,800.0	7,100.0	10,109.4	7,100.0	57.1	62.1	-90.00	-2,755.3	1,421.3	2,508.9	2,398.7	110.20	22.766		
9,900.0	7,100.0	10,209.4	7,100.0	58.9	63.7	-90.00	-2,855.3	1,421.1	2,508.7	2,394.8	113.87	22.032		
10,000.0	7,100.0	10,309.4	7,100.0	60.6	65.4	-90.00	-2,955.3	1,420.9	2,508.5	2,390.9	117.54	21.341		
10,100.0	7,100.0	10,409.4	7,100.0	62.3	67.1	-90.00	-3,055.3	1,420.7	2,508.3	2,387.1	121.23	20.691		
10,200.0	7,100.0	10,509.4	7,100.0	64.1	68.7	-90.00	-3,155.3	1,420.6	2,508.1	2,383.2	124.92	20.077		
10,300.0	7,100.0	10,609.4	7,100.0	65.9	70.4	-90.00	-3,255.3	1,420.4	2,507.9	2,379.3	128.63	19.497		
10,400.0	7,100.0	10,709.4	7,100.0	67.6	72.2	-90.00	-3,355.3	1,420.2	2,507.8	2,375.4	132.35	18.948		
10,500.0	7,100.0	10,809.4	7,100.0	69.4	73.9	-90.00	-3,455.3	1,420.0	2,507.6	2,371.5	136.07	18.429		
10,600.0	7,100.0	10,909.4	7,100.0	71.2	75.6	-90.00	-3,555.3	1,419.8	2,507.4	2,367.6	139.80	17.935		
10,700.0	7,100.0	11,009.4	7,100.0	73.0	77.4	-90.00	-3,655.3	1,419.7	2,507.2	2,363.7	143.54	17.467		
10,800.0	7,100.0	11,109.4	7,100.0	74.8	79.1	-90.00	-3,755.3	1,419.5	2,507.0	2,359.7	147.28	17.022		
10,900.0	7,100.0	11,209.4	7,100.0	76.6	80.9	-90.00	-3,855.3	1,419.3	2,506.8	2,355.8	151.03	16.598		
11,000.0	7,100.0	11,309.4	7,100.0	78.4	82.7	-90.00	-3,955.3	1,419.1	2,506.7	2,351.9	154.79	16.194		
11,100.0	7,100.0	11,409.4	7,100.0	80.3	84.4	-90.00	-4,055.3	1,419.0	2,506.5	2,347.9	158.55	15.809		
11,200.0	7,100.0	11,509.4	7,100.0	82.1	86.2	-90.00	-4,155.3	1,418.8	2,506.3	2,344.0	162.32	15.441		
11,300.0	7,100.0	11,609.4	7,100.0	83.9	88.0	-90.00	-4,255.3	1,418.6	2,506.1	2,340.0	166.09	15.089		
11,400.0	7,100.0	11,709.4	7,100.0	85.8	89.8	-90.00	-4,355.3	1,418.4	2,505.9	2,336.1	169.86	14.753		
11,500.0	7,100.0	11,809.4	7,100.0	87.6	91.6	-90.00	-4,455.3	1,418.3	2,505.7	2,332.1	173.64	14.431		
11,600.0	7,100.0	11,909.4	7,100.0	89.5	93.4	-90.00	-4,555.3	1,418.1	2,505.5	2,328.1	177.42	14.122		
11,700.0	7,100.0	12,009.4	7,100.0	91.3	95.2	-90.00	-4,655.3	1,417.9	2,505.4	2,324.2	181.21	13.826		
11,800.0	7,100.0	12,109.4	7,100.0	93.2	97.1	-90.00	-4,755.3	1,417.7	2,505.2	2,320.2	184.99	13.542		
11,877.2	7,100.0	12,186.6	7,100.0	94.6	98.5	-90.00	-4,832.5	1,417.6	2,505.0	2,317.1	187.92	13.330		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 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	-89.09	2.4	-150.0	150.0					
100.0	100.0	100.0	100.0	0.1	0.1	-89.09	2.4	-150.0	150.0	149.8	0.19	794.470		
200.0	200.0	200.0	200.0	0.3	0.3	-89.09	2.4	-150.0	150.0	149.4	0.64	234.984		
300.0	300.0	300.0	300.0	0.5	0.5	-89.09	2.4	-150.0	150.0	148.9	1.09	137.883		
400.0	400.0	400.0	400.0	0.8	0.8	-89.09	2.4	-150.0	150.0	148.5	1.54	97.567		
500.0	500.0	500.0	500.0	1.0	1.0	-89.09	2.4	-150.0	150.0	148.0	1.99	75.493		
594.9	594.9	594.9	594.9	1.2	1.2	0.92	2.4	-150.0	148.4	146.0	2.40	61.756		
600.0	600.0	600.0	600.0	1.2	1.2	0.92	2.4	-150.0	148.3	145.8	2.42	61.138		
700.0	699.9	699.9	699.9	1.4	1.4	0.94	2.4	-150.0	144.9	142.1	2.85	50.799		
800.0	799.9	799.9	799.9	1.6	1.7	0.96	2.4	-150.0	141.6	138.3	3.29	43.081		
900.0	899.8	899.8	899.8	1.8	1.9	0.99	2.4	-150.0	138.3	134.6	3.73	37.125		
1,000.0	999.8	999.8	999.8	2.1	2.1	1.01	2.4	-150.0	135.0	130.8	4.17	32.403		
1,100.0	1,099.7	1,099.7	1,099.7	2.3	2.3	1.04	2.4	-150.0	131.7	127.1	4.61	28.572		
1,200.0	1,199.7	1,199.7	1,199.7	2.5	2.6	1.06	2.4	-150.0	128.4	123.3	5.05	25.405		
1,300.0	1,299.6	1,299.6	1,299.6	2.8	2.8	1.09	2.4	-150.0	125.1	119.6	5.50	22.746		
1,405.6	1,405.1	1,405.1	1,405.1	3.0	3.0	1.12	2.4	-150.0	121.6	115.6	5.97	20.366		
1,500.5	1,500.0	1,500.0	1,500.0	3.2	3.2	-88.86	2.4	-150.0	120.0	113.6	6.43	18.661		
1,600.0	1,599.5	1,599.5	1,599.5	3.4	3.5	-88.86	2.4	-150.0	120.0	113.2	6.85	17.512		
1,700.0	1,699.5	1,699.5	1,699.5	3.6	3.7	-88.86	2.4	-150.0	120.0	112.7	7.29	16.466		
1,800.0	1,799.5	1,799.5	1,799.5	3.8	3.9	-88.86	2.4	-150.0	120.0	112.3	7.72	15.535		
1,900.0	1,899.5	1,899.5	1,899.5	4.0	4.1	-88.86	2.4	-150.0	120.0	111.8	8.16	14.701		
2,000.0	1,999.5	1,999.5	1,999.5	4.2	4.4	-88.86	2.4	-150.0	120.0	111.4	8.60	13.950		
2,100.0	2,099.5	2,099.5	2,099.5	4.5	4.6	-88.86	2.4	-150.0	120.0	111.0	9.04	13.270		
2,200.0	2,199.5	2,199.5	2,199.5	4.7	4.8	-88.86	2.4	-150.0	120.0	110.5	9.48	12.653		
2,300.0	2,299.5	2,299.5	2,299.5	4.9	5.0	-88.86	2.4	-150.0	120.0	110.1	9.93	12.089		
2,400.0	2,399.5	2,399.5	2,399.5	5.1	5.3	-88.86	2.4	-150.0	120.0	109.6	10.37	11.573		
2,500.0	2,499.5	2,499.5	2,499.5	5.3	5.5	-88.86	2.4	-150.0	120.0	109.2	10.81	11.099		
2,600.0	2,599.5	2,599.5	2,599.5	5.5	5.7	-88.86	2.4	-150.0	120.0	108.7	11.26	10.661		
2,700.0	2,699.5	2,699.5	2,699.5	5.8	5.9	-88.86	2.4	-150.0	120.0	108.3	11.70	10.256		
2,800.0	2,799.5	2,799.5	2,799.5	6.0	6.2	-88.86	2.4	-150.0	120.0	107.9	12.15	9.881		
2,900.0	2,899.5	2,899.5	2,899.5	6.2	6.4	-88.86	2.4	-150.0	120.0	107.4	12.59	9.532		
3,000.0	2,999.5	2,999.5	2,999.5	6.4	6.6	-88.86	2.4	-150.0	120.0	107.0	13.04	9.206		
3,100.0	3,099.5	3,099.5	3,099.5	6.6	6.8	-88.86	2.4	-150.0	120.0	106.5	13.48	8.902		
3,200.0	3,199.5	3,199.5	3,199.5	6.9	7.1	-88.86	2.4	-150.0	120.0	106.1	13.93	8.617		
3,300.0	3,299.5	3,299.5	3,299.5	7.1	7.3	-88.86	2.4	-150.0	120.0	105.6	14.37	8.349 CC, ES		
3,400.0	3,399.5	3,395.5	3,395.5	7.3	7.5	-88.74	2.7	-151.5	121.6	106.8	14.80	8.219		
3,500.0	3,499.5	3,491.3	3,491.2	7.5	7.7	-88.39	3.6	-156.3	126.6	111.4	15.22	8.317		
3,600.0	3,599.5	3,586.7	3,586.2	7.8	7.9	-87.86	5.0	-164.1	134.8	119.2	15.64	8.619		
3,700.0	3,699.5	3,681.4	3,680.3	8.0	8.1	-87.21	7.1	-174.9	146.3	130.3	16.07	9.104		
3,800.0	3,799.5	3,775.3	3,773.1	8.2	8.3	-86.53	9.6	-188.6	161.1	144.6	16.51	9.756		
3,900.0	3,899.5	3,868.2	3,864.4	8.4	8.6	-85.84	12.7	-205.2	179.1	162.1	16.97	10.554		
4,000.0	3,999.5	3,959.8	3,954.0	8.6	8.8	-85.20	16.3	-224.3	200.3	182.8	17.44	11.481		
4,100.0	4,099.5	4,050.2	4,041.6	8.9	9.1	-84.61	20.4	-246.0	224.5	206.6	17.94	12.517		
4,200.0	4,199.5	4,139.7	4,127.8	9.1	9.4	-84.08	24.9	-270.1	251.8	233.3	18.45	13.644		
4,300.0	4,299.5	4,235.6	4,219.6	9.3	9.7	-83.60	29.9	-297.0	280.3	261.3	19.03	14.731		
4,400.0	4,399.5	4,331.4	4,311.4	9.5	10.1	-83.21	35.0	-323.9	308.8	289.2	19.62	15.739		
4,425.0	4,424.5	4,355.4	4,334.4	9.6	10.2	-83.12	36.3	-330.6	315.9	296.2	19.77	15.979		
4,500.0	4,499.5	4,427.5	4,403.5	9.8	10.5	7.08	40.1	-350.9	336.4	317.0	19.39	17.352		
4,600.0	4,599.4	4,524.5	4,496.4	10.0	10.9	7.38	45.2	-378.1	360.8	341.0	19.80	18.217		
4,700.0	4,699.1	4,622.2	4,590.1	10.2	11.3	7.72	50.3	-405.6	381.8	361.6	20.22	18.885		
4,800.0	4,798.5	4,720.6	4,684.4	10.4	11.8	8.09	55.5	-433.2	399.4	378.8	20.62	19.368		
4,900.0	4,897.3	4,819.5	4,779.2	10.7	12.2	8.51	60.7	-461.0	413.7	392.6	21.02	19.677		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 3-18H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,995.7	4,918.8	4,874.4	10.9	12.7	8.97	65.9	-488.9	424.5	403.1	21.42	19.821		
5,100.0	5,093.3	5,018.5	4,969.8	11.2	13.2	9.50	71.2	-516.9	432.0	410.2	21.81	19.810		
5,200.0	5,190.1	5,118.3	5,065.5	11.5	13.7	10.10	76.4	-545.0	436.0	413.8	22.19	19.649		
5,300.0	5,286.0	5,218.1	5,161.2	11.9	14.2	10.78	81.7	-573.0	436.7	414.1	22.57	19.347		
5,404.0	5,384.6	5,321.9	5,260.7	12.3	14.8	11.60	87.2	-602.2	433.8	410.9	22.97	18.887		
5,500.0	5,475.0	5,417.6	5,352.3	12.7	15.3	12.41	92.2	-629.1	429.6	406.1	23.46	18.308		
5,600.0	5,569.2	5,517.3	5,447.9	13.1	15.8	13.26	97.5	-657.1	425.2	401.2	23.99	17.722		
5,700.0	5,663.5	5,617.0	5,543.4	13.6	16.3	14.13	102.7	-685.1	421.0	396.5	24.54	17.155		
5,800.0	5,757.7	5,716.7	5,639.0	14.1	16.9	15.02	108.0	-713.1	416.8	391.7	25.10	16.605		
5,900.0	5,851.9	5,816.4	5,734.5	14.6	17.4	15.93	113.2	-741.1	412.8	387.1	25.68	16.072		
6,000.0	5,946.1	5,916.1	5,830.0	15.2	18.0	16.86	118.5	-769.1	408.9	382.6	26.29	15.555		
6,100.0	6,040.3	6,015.8	5,925.6	15.7	18.5	17.80	123.7	-797.1	405.0	378.1	26.91	15.053		
6,200.0	6,134.5	6,115.5	6,021.1	16.3	19.1	18.76	129.0	-825.1	401.3	373.8	27.55	14.566		
6,300.0	6,228.8	6,215.2	6,116.7	16.8	19.7	19.74	134.2	-853.1	397.7	369.5	28.22	14.094		
6,400.0	6,323.0	6,314.9	6,212.2	17.4	20.2	20.73	139.5	-881.1	394.2	365.3	28.91	13.635		
6,500.0	6,417.2	6,414.6	6,307.7	18.0	20.8	21.75	144.7	-909.2	390.9	361.2	29.63	13.190		
6,600.0	6,511.4	6,514.3	6,403.3	18.6	21.4	22.78	150.0	-937.2	387.6	357.2	30.38	12.758		
6,610.5	6,521.3	6,524.8	6,413.3	18.7	21.4	22.88	150.5	-940.1	387.3	356.8	30.46	12.713		
6,650.0	6,558.2	6,559.9	6,447.0	18.9	21.6	31.99	152.4	-950.0	385.9	355.1	30.77	12.542		
6,700.0	6,604.0	6,600.0	6,485.0	19.2	21.9	41.20	154.0	-962.5	384.8	353.6	31.21	12.328		
6,706.6	6,610.0	6,600.0	6,485.0	19.3	21.9	42.10	154.0	-962.5	384.8	353.5	31.24	12.316		
6,750.0	6,648.4	6,629.7	6,512.7	19.6	22.1	48.07	154.5	-973.4	385.3	353.7	31.67	12.168		
6,800.0	6,691.1	6,663.2	6,543.1	20.0	22.3	53.53	154.4	-987.2	387.7	355.4	32.23	12.029		
6,850.0	6,731.7	6,700.0	6,575.7	20.4	22.6	58.07	153.5	-1,004.3	391.9	359.0	32.91	11.908		
6,900.0	6,769.9	6,729.6	6,601.1	20.8	22.9	61.48	152.2	-1,019.4	398.0	364.4	33.58	11.853		
6,950.0	6,805.5	6,762.4	6,628.4	21.3	23.3	64.40	150.0	-1,037.5	406.2	371.8	34.35	11.825		
7,000.0	6,838.1	6,800.0	6,658.3	21.8	23.7	67.07	146.7	-1,060.1	416.5	381.2	35.26	11.813		
7,050.0	6,867.6	6,827.1	6,678.9	22.3	24.0	68.68	143.8	-1,077.4	428.8	392.8	36.02	11.903		
7,089.7	6,888.5	6,850.0	6,695.7	22.8	24.3	69.74	141.0	-1,092.7	440.1	403.4	36.67	12.002		
7,100.0	6,893.7	6,858.9	6,702.0	22.9	24.4	70.29	139.8	-1,098.8	443.2	406.3	36.96	11.990		
7,200.0	6,943.7	6,924.4	6,745.9	24.1	25.3	73.70	129.8	-1,146.5	477.8	438.3	39.44	12.116		
7,239.7	6,963.5	6,950.0	6,761.4	24.6	25.7	74.71	125.2	-1,166.2	493.2	452.8	40.40	12.209		
7,250.0	6,968.6	6,958.3	6,766.3	24.7	25.8	75.21	123.6	-1,172.8	497.4	456.9	40.45	12.298		
7,300.0	6,992.3	6,991.5	6,784.8	25.3	26.3	76.98	116.9	-1,199.6	520.2	479.8	40.41	12.873		
7,350.0	7,014.0	7,026.0	6,802.4	25.9	26.9	78.13	109.5	-1,228.3	546.7	506.4	40.24	13.584		
7,400.0	7,033.6	7,064.0	6,821.3	26.4	27.5	78.91	101.1	-1,260.1	576.2	536.2	40.03	14.394		
7,450.0	7,050.8	7,099.1	6,838.9	26.9	28.1	79.10	93.4	-1,289.4	608.5	568.8	39.69	15.328		
7,500.0	7,065.6	7,131.0	6,854.9	27.4	28.6	78.58	86.3	-1,316.2	643.3	604.0	39.30	16.368		
7,550.0	7,077.9	7,961.2	7,100.0	27.8	37.0	88.45	-504.8	-1,726.9	665.7	618.9	46.85	14.208		
7,600.0	7,087.5	8,008.9	7,100.0	28.3	37.1	89.17	-552.5	-1,726.9	654.0	608.1	45.91	14.245		
7,650.0	7,094.5	8,057.7	7,100.0	28.7	37.3	89.65	-601.3	-1,726.9	645.7	600.8	44.96	14.361		
7,700.0	7,098.6	8,107.3	7,100.0	29.0	37.6	89.92	-650.9	-1,726.9	640.8	596.8	44.01	14.560		
7,749.0	7,100.0	8,156.2	7,100.0	29.4	37.8	90.01	-699.7	-1,726.9	639.2	596.1	43.13	14.820		
7,749.0	7,100.0	8,156.3	7,100.0	29.4	37.8	90.01	-699.8	-1,726.9	639.2	596.1	43.13	14.821		
7,800.0	7,100.0	8,207.2	7,100.0	29.8	38.1	90.01	-750.8	-1,726.9	639.2	595.0	44.22	14.455		
7,900.0	7,100.0	8,307.2	7,100.0	30.6	38.6	90.01	-850.8	-1,726.9	639.2	592.7	46.52	13.740		
8,000.0	7,100.0	8,407.2	7,100.0	31.5	39.2	90.01	-950.8	-1,726.9	639.2	590.2	49.02	13.039		
8,100.0	7,100.0	8,507.2	7,100.0	32.4	39.9	90.01	-1,050.8	-1,726.9	639.2	587.5	51.69	12.367		
8,200.0	7,100.0	8,607.2	7,100.0	33.5	40.7	90.01	-1,150.8	-1,726.9	639.2	584.7	54.50	11.729		
8,300.0	7,100.0	8,707.2	7,100.0	34.6	41.5	90.01	-1,250.8	-1,726.9	639.3	581.8	57.43	11.130		
8,400.0	7,100.0	8,807.2	7,100.0	35.8	42.4	90.01	-1,350.8	-1,726.9	639.3	578.8	60.47	10.571		
8,500.0	7,100.0	8,907.2	7,100.0	37.1	43.4	90.01	-1,450.8	-1,727.0	639.3	575.7	63.60	10.052		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 3-18H - 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 Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
8,600.0	7,100.0	9,007.2	7,100.0	38.4	44.4	90.01	-1,550.8	-1,727.0	639.3	572.5	66.80	9.570		
8,700.0	7,100.0	9,107.2	7,100.0	39.8	45.5	90.01	-1,650.8	-1,727.0	639.3	569.2	70.07	9.123		
8,800.0	7,100.0	9,207.2	7,100.0	41.2	46.6	90.01	-1,750.8	-1,727.0	639.3	565.9	73.40	8.710		
8,900.0	7,100.0	9,307.2	7,100.0	42.6	47.8	90.01	-1,850.8	-1,727.0	639.3	562.6	76.78	8.327		
9,000.0	7,100.0	9,407.2	7,100.0	44.1	49.1	90.01	-1,950.8	-1,727.0	639.3	559.1	80.20	7.972		
9,100.0	7,100.0	9,507.2	7,100.0	45.7	50.4	90.01	-2,050.8	-1,727.0	639.4	555.7	83.66	7.642		
9,200.0	7,100.0	9,607.2	7,100.0	47.2	51.8	90.01	-2,150.8	-1,727.0	639.4	552.2	87.16	7.336		
9,300.0	7,100.0	9,707.2	7,100.0	48.8	53.2	90.01	-2,250.8	-1,727.0	639.4	548.7	90.68	7.051		
9,400.0	7,100.0	9,807.2	7,100.0	50.5	54.6	90.01	-2,350.8	-1,727.0	639.4	545.2	94.23	6.785		
9,500.0	7,100.0	9,907.2	7,100.0	52.1	56.1	90.01	-2,450.8	-1,727.0	639.4	541.6	97.81	6.538		
9,600.0	7,100.0	10,007.2	7,100.0	53.8	57.6	90.01	-2,550.8	-1,727.0	639.4	538.0	101.40	6.306		
9,700.0	7,100.0	10,107.2	7,100.0	55.4	59.1	90.01	-2,650.8	-1,727.0	639.4	534.4	105.01	6.089		
9,800.0	7,100.0	10,207.2	7,100.0	57.1	60.7	90.01	-2,750.8	-1,727.0	639.5	530.8	108.65	5.886		
9,900.0	7,100.0	10,307.2	7,100.0	58.9	62.3	90.01	-2,850.8	-1,727.0	639.5	527.2	112.29	5.695		
10,000.0	7,100.0	10,407.2	7,100.0	60.6	63.9	90.01	-2,950.8	-1,727.1	639.5	523.5	115.95	5.515		
10,100.0	7,100.0	10,507.2	7,100.0	62.3	65.5	90.01	-3,050.8	-1,727.1	639.5	519.9	119.63	5.346		
10,200.0	7,100.0	10,607.2	7,100.0	64.1	67.1	90.01	-3,150.8	-1,727.1	639.5	516.2	123.31	5.186		
10,300.0	7,100.0	10,707.2	7,100.0	65.9	68.8	90.01	-3,250.8	-1,727.1	639.5	512.5	127.01	5.035		
10,400.0	7,100.0	10,807.2	7,100.0	67.6	70.5	90.01	-3,350.8	-1,727.1	639.5	508.8	130.71	4.893		
10,500.0	7,100.0	10,907.2	7,100.0	69.4	72.2	90.01	-3,450.8	-1,727.1	639.5	505.1	134.43	4.758		
10,600.0	7,100.0	11,007.2	7,100.0	71.2	73.9	90.01	-3,550.8	-1,727.1	639.6	501.4	138.15	4.630		
10,700.0	7,100.0	11,107.2	7,100.0	73.0	75.6	90.01	-3,650.8	-1,727.1	639.6	497.7	141.88	4.508		
10,800.0	7,100.0	11,207.2	7,100.0	74.8	77.4	90.01	-3,750.8	-1,727.1	639.6	494.0	145.61	4.392		
10,900.0	7,100.0	11,307.2	7,100.0	76.6	79.1	90.01	-3,850.8	-1,727.1	639.6	490.2	149.36	4.282		
11,000.0	7,100.0	11,407.2	7,100.0	78.4	80.9	90.01	-3,950.8	-1,727.1	639.6	486.5	153.11	4.178		
11,100.0	7,100.0	11,507.2	7,100.0	80.3	82.6	90.01	-4,050.8	-1,727.1	639.6	482.8	156.86	4.078		
11,200.0	7,100.0	11,607.2	7,100.0	82.1	84.4	90.01	-4,150.8	-1,727.1	639.6	479.0	160.62	3.982		
11,300.0	7,100.0	11,707.2	7,100.0	83.9	86.2	90.01	-4,250.8	-1,727.1	639.7	475.3	164.38	3.891		
11,400.0	7,100.0	11,807.2	7,100.0	85.8	88.0	90.01	-4,350.8	-1,727.1	639.7	471.5	168.15	3.804		
11,500.0	7,100.0	11,907.2	7,100.0	87.6	89.8	90.01	-4,450.8	-1,727.2	639.7	467.8	171.93	3.721		
11,600.0	7,100.0	12,007.2	7,100.0	89.5	91.6	90.01	-4,550.8	-1,727.2	639.7	464.0	175.70	3.641		
11,700.0	7,100.0	12,107.2	7,100.0	91.3	93.4	90.01	-4,650.8	-1,727.2	639.7	460.2	179.48	3.564		
11,800.0	7,100.0	12,207.2	7,100.0	93.2	95.2	90.01	-4,750.8	-1,727.2	639.7	456.5	183.27	3.491		
11,843.7	7,100.0	12,250.9	7,100.0	94.0	96.0	90.01	-4,794.4	-1,727.2	639.7	454.8	184.92	3.459		
11,877.2	7,100.0	12,281.8	7,100.0	94.6	96.7	90.01	-4,825.4	-1,727.2	639.7	453.6	186.14	3.437 SF		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 4-7H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	3.0	3.0	0.0	0.0	-44.13	152.0	-147.4	211.7					
100.0	100.0	103.0	103.0	0.1	0.1	-44.13	152.0	-147.4	211.7	211.5	0.19	1,101.637		
200.0	200.0	203.0	203.0	0.3	0.3	-44.13	152.0	-147.4	211.7	211.1	0.64	329.913		
300.0	300.0	303.0	303.0	0.5	0.5	-44.13	152.0	-147.4	211.7	210.6	1.09	194.006		
400.0	400.0	403.0	403.0	0.8	0.8	-44.13	152.0	-147.4	211.7	210.2	1.54	137.403		
500.0	500.0	503.0	503.0	1.0	1.0	-44.13	152.0	-147.4	211.7	209.7	1.99	106.369		
594.9	594.9	597.9	597.9	1.2	1.2	46.19	152.0	-147.4	210.6	208.2	2.41	87.536		
600.0	600.0	603.0	603.0	1.2	1.2	46.23	152.0	-147.4	210.5	208.1	2.43	86.707		
700.0	699.9	702.9	702.9	1.4	1.4	46.89	152.0	-147.4	208.2	205.4	2.86	72.835		
800.0	799.9	802.9	802.9	1.6	1.7	47.56	152.0	-147.4	206.0	202.7	3.30	62.478		
900.0	899.8	902.8	902.8	1.8	1.9	48.25	152.0	-147.4	203.7	200.0	3.74	54.492		
1,000.0	999.8	1,002.8	1,002.8	2.1	2.1	48.95	152.0	-147.4	201.6	197.4	4.18	48.166		
1,100.0	1,099.7	1,102.7	1,102.7	2.3	2.3	49.67	152.0	-147.4	199.4	194.8	4.63	43.044		
1,200.0	1,199.7	1,202.7	1,202.7	2.5	2.6	50.40	152.0	-147.4	197.3	192.2	5.08	38.817		
1,300.0	1,299.6	1,302.6	1,302.6	2.8	2.8	51.15	152.0	-147.4	195.2	189.6	5.53	35.275		
1,405.6	1,405.1	1,408.1	1,408.1	3.0	3.0	51.96	152.0	-147.4	193.0	187.0	6.01	32.112		
1,500.5	1,500.0	1,503.0	1,503.0	3.2	3.2	-37.69	152.0	-147.4	192.0	185.6	6.40	30.023		
1,600.0	1,599.5	1,602.5	1,602.5	3.4	3.5	-37.69	152.0	-147.4	192.0	185.2	6.82	28.157		
1,700.0	1,699.5	1,702.5	1,702.5	3.6	3.7	-37.69	152.0	-147.4	192.0	184.8	7.26	26.462		
1,800.0	1,799.5	1,802.5	1,802.5	3.8	3.9	-37.69	152.0	-147.4	192.0	184.3	7.69	24.955		
1,900.0	1,899.5	1,902.5	1,902.5	4.0	4.1	-37.69	152.0	-147.4	192.0	183.9	8.13	23.607		
2,000.0	1,999.5	2,002.5	2,002.5	4.2	4.4	-37.69	152.0	-147.4	192.0	183.5	8.57	22.395		
2,100.0	2,099.5	2,102.5	2,102.5	4.5	4.6	-37.69	152.0	-147.4	192.0	183.0	9.02	21.298		
2,200.0	2,199.5	2,202.5	2,202.5	4.7	4.8	-37.69	152.0	-147.4	192.0	182.6	9.46	20.303		
2,300.0	2,299.5	2,302.5	2,302.5	4.9	5.0	-37.69	152.0	-147.4	192.0	182.1	9.90	19.395		
2,400.0	2,399.5	2,402.5	2,402.5	5.1	5.3	-37.69	152.0	-147.4	192.0	181.7	10.34	18.563		
2,500.0	2,499.5	2,502.5	2,502.5	5.3	5.5	-37.69	152.0	-147.4	192.0	181.2	10.79	17.799		
2,600.0	2,599.5	2,602.5	2,602.5	5.5	5.7	-37.69	152.0	-147.4	192.0	180.8	11.23	17.095		
2,700.0	2,699.5	2,702.5	2,702.5	5.8	5.9	-37.69	152.0	-147.4	192.0	180.4	11.68	16.444		
2,800.0	2,799.5	2,802.5	2,802.5	6.0	6.2	-37.69	152.0	-147.4	192.0	179.9	12.12	15.840		
2,900.0	2,899.5	2,902.5	2,902.5	6.2	6.4	-37.69	152.0	-147.4	192.0	179.5	12.57	15.279		
3,000.0	2,999.5	3,002.5	3,002.5	6.4	6.6	-37.69	152.0	-147.4	192.0	179.0	13.01	14.756		
3,100.0	3,099.5	3,102.5	3,102.5	6.6	6.8	-37.69	152.0	-147.4	192.0	178.6	13.46	14.267		
3,200.0	3,199.5	3,202.5	3,202.5	6.9	7.1	-37.69	152.0	-147.4	192.0	178.1	13.91	13.809		
3,300.0	3,299.5	3,302.5	3,302.5	7.1	7.3	-37.69	152.0	-147.4	192.0	177.7	14.35	13.379		
3,400.0	3,399.5	3,402.5	3,402.5	7.3	7.5	-37.69	152.0	-147.4	192.0	177.2	14.80	12.976		
3,465.8	3,465.3	3,468.3	3,468.3	7.5	7.7	-37.69	152.0	-147.4	192.0	176.9	15.09	12.723 CC		
3,500.0	3,499.5	3,502.4	3,502.4	7.5	7.7	-37.69	152.0	-147.4	192.0	176.8	15.25	12.596 ES		
3,600.0	3,599.5	3,600.0	3,600.0	7.8	7.9	-38.16	151.6	-149.1	192.8	177.1	15.67	12.304		
3,700.0	3,699.5	3,696.5	3,696.3	8.0	8.1	-39.47	150.6	-154.0	195.2	179.1	16.08	12.136		
3,800.0	3,799.5	3,792.9	3,792.4	8.2	8.3	-41.57	148.9	-162.0	199.3	182.8	16.49	12.081		
3,900.0	3,899.5	3,888.7	3,887.5	8.4	8.5	-44.34	146.5	-173.2	205.4	188.5	16.91	12.147		
4,000.0	3,999.5	3,983.6	3,981.3	8.6	8.7	-47.61	143.6	-187.3	214.0	196.6	17.33	12.344		
4,100.0	4,099.5	4,077.5	4,073.6	8.9	9.0	-51.21	140.0	-204.2	225.3	207.5	17.77	12.682		
4,200.0	4,199.5	4,170.1	4,164.0	9.1	9.2	-54.96	135.9	-223.7	239.7	221.5	18.21	13.163		
4,300.0	4,299.5	4,261.3	4,252.4	9.3	9.5	-58.70	131.2	-245.8	257.5	238.8	18.68	13.784		
4,400.0	4,399.5	4,354.5	4,342.0	9.5	9.8	-62.39	125.9	-270.8	278.4	259.2	19.18	14.516		
4,425.0	4,424.5	4,378.5	4,365.0	9.6	9.9	-63.27	124.6	-277.3	283.9	264.6	19.31	14.701		
4,500.0	4,499.5	4,450.8	4,434.5	9.8	10.1	24.22	120.4	-296.9	299.8	280.3	19.51	15.362		
4,600.0	4,599.4	4,547.9	4,527.8	10.0	10.5	21.47	114.8	-323.3	318.9	298.9	19.94	15.990		
4,700.0	4,699.1	4,645.8	4,621.9	10.2	10.9	19.24	109.2	-349.9	335.3	315.0	20.37	16.465		
4,800.0	4,798.5	4,744.4	4,716.5	10.4	11.3	17.40	103.6	-376.7	348.9	328.1	20.78	16.787		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 4-7H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.0	4,897.3	4,843.4	4,811.7	10.7	11.7	15.87	97.9	-403.6	359.4	338.3	21.19	16.960		
5,000.0	4,995.7	4,942.8	4,907.2	10.9	12.1	14.58	92.2	-430.6	366.8	345.2	21.60	16.986		
5,100.0	5,093.3	5,042.5	5,002.9	11.2	12.6	13.49	86.5	-457.7	371.0	349.0	21.99	16.870		
5,200.0	5,190.1	5,142.3	5,098.8	11.5	13.0	12.55	80.8	-484.8	371.9	349.5	22.38	16.618		
5,300.0	5,286.0	5,242.1	5,194.7	11.9	13.5	11.73	75.1	-511.9	369.5	346.7	22.76	16.234		
5,404.0	5,384.6	5,345.8	5,294.4	12.3	14.0	11.00	69.1	-540.1	363.4	340.3	23.15	15.701		
5,500.0	5,475.0	5,441.4	5,386.2	12.7	14.5	10.32	63.6	-566.0	356.2	332.5	23.62	15.076		
5,600.0	5,569.2	5,541.0	5,481.9	13.1	15.0	9.59	57.9	-593.1	348.7	324.5	24.12	14.453		
5,700.0	5,663.5	5,640.7	5,577.6	13.6	15.5	8.83	52.2	-620.1	341.2	316.6	24.62	13.857		
5,800.0	5,757.7	5,740.3	5,673.3	14.1	16.0	8.03	46.5	-647.2	333.8	308.7	25.12	13.288		
5,900.0	5,851.9	5,839.9	5,769.0	14.6	16.5	7.20	40.8	-674.3	326.5	300.9	25.62	12.744		
6,000.0	5,946.1	5,939.5	5,864.7	15.2	17.0	6.33	35.1	-701.3	319.3	293.2	26.12	12.224		
6,100.0	6,040.3	6,039.1	5,960.4	15.7	17.6	5.42	29.4	-728.4	312.1	285.5	26.62	11.727		
6,200.0	6,134.5	6,138.7	6,056.1	16.3	18.1	4.46	23.7	-755.4	305.0	277.9	27.11	11.252		
6,300.0	6,228.8	6,238.4	6,151.8	16.8	18.6	3.47	18.0	-782.5	298.0	270.4	27.60	10.798		
6,400.0	6,323.0	6,338.0	6,247.5	17.4	19.2	2.42	12.3	-809.6	291.1	263.0	28.09	10.364		
6,500.0	6,417.2	6,437.6	6,343.2	18.0	19.7	1.32	6.6	-836.6	284.3	255.8	28.58	9.948		
6,600.0	6,511.4	6,538.7	6,440.4	18.6	20.3	0.24	1.1	-864.0	277.6	248.5	29.08	9.547		
6,610.5	6,521.3	6,550.0	6,451.2	18.7	20.3	0.21	1.0	-867.0	276.8	247.7	29.13	9.502		
6,650.0	6,558.2	6,592.1	6,491.9	18.9	20.5	9.55	2.5	-877.9	273.0	243.7	29.25	9.332		
6,700.0	6,604.0	6,643.2	6,541.1	19.2	20.7	20.70	8.3	-890.4	265.8	236.2	29.54	8.997		
6,750.0	6,648.4	6,690.1	6,585.8	19.6	20.9	31.46	17.6	-901.2	257.1	226.9	30.16	8.524		
6,800.0	6,691.1	6,731.4	6,624.5	20.0	21.0	41.80	28.8	-910.0	248.6	217.4	31.20	7.967		
6,850.0	6,731.7	6,766.4	6,656.8	20.4	21.1	51.24	40.5	-916.9	242.6	210.0	32.58	7.446		
6,885.0	6,758.8	6,787.1	6,675.5	20.7	21.2	56.99	48.4	-920.8	241.2	207.6	33.61	7.175		
6,900.0	6,769.9	6,795.1	6,682.6	20.8	21.2	59.18	51.6	-922.3	241.5	207.4	34.03	7.095		
6,950.0	6,805.5	6,817.7	6,702.8	21.3	21.3	65.18	61.3	-926.3	247.0	211.7	35.28	7.002 SF		
7,000.0	6,838.1	6,834.9	6,717.8	21.8	21.3	69.05	69.1	-929.1	260.1	223.9	36.20	7.185		
7,050.0	6,867.6	6,850.0	6,730.8	22.3	21.3	71.36	76.4	-931.5	280.7	243.7	36.91	7.604		
7,089.7	6,888.5	6,850.0	6,730.8	22.8	21.3	69.72	76.4	-931.5	301.6	264.7	36.86	8.183		
7,100.0	6,893.7	6,850.0	6,730.8	22.9	21.3	69.72	76.4	-931.5	307.6	270.6	36.97	8.320		
7,200.0	6,943.7	6,868.1	6,746.2	24.1	21.4	73.76	85.5	-934.3	375.2	336.3	38.99	9.625		
7,239.7	6,963.5	6,872.4	6,749.8	24.6	21.4	74.70	87.8	-934.9	405.7	366.0	39.68	10.224		
7,250.0	6,968.6	6,873.4	6,750.6	24.7	21.4	74.52	88.3	-935.1	413.9	374.3	39.56	10.462		
7,300.0	6,992.3	6,876.9	6,753.5	25.3	21.4	72.09	90.1	-935.6	455.8	417.1	38.63	11.798		
7,350.0	7,014.0	6,878.0	6,754.5	25.9	21.4	66.52	90.8	-935.7	500.4	463.3	37.09	13.492		
7,400.0	7,033.6	6,877.2	6,753.8	26.4	21.4	56.87	90.3	-935.6	546.9	512.3	34.64	15.791		
7,450.0	7,050.8	6,874.7	6,751.7	26.9	21.4	42.72	89.0	-935.2	594.5	563.4	31.10	19.117		
7,500.0	7,065.6	6,870.6	6,748.3	27.4	21.4	25.78	86.9	-934.7	642.5	615.1	27.34	23.499		
7,550.0	7,077.9	6,865.3	6,743.8	27.8	21.4	9.83	84.1	-933.9	690.5	665.5	25.02	27.601		
7,600.0	7,087.5	6,850.0	6,730.8	28.3	21.3	-3.04	76.4	-931.5	738.2	713.9	24.27	30.422		
7,650.0	7,094.5	6,850.0	6,730.8	28.7	21.3	-11.52	76.4	-931.5	784.9	760.8	24.15	32.496		
7,700.0	7,098.6	6,850.0	6,730.8	29.0	21.3	-17.92	76.4	-931.5	830.9	806.7	24.18	34.362		
7,749.0	7,100.0	6,834.3	6,717.3	29.4	21.3	-22.37	68.8	-929.0	874.6	850.4	24.20	36.147		
7,800.0	7,100.0	6,825.2	6,709.3	29.8	21.3	-22.15	64.6	-927.5	919.6	895.2	24.39	37.701		
7,900.0	7,100.0	6,800.0	6,687.1	30.6	21.2	-21.59	53.6	-923.2	1,009.0	984.2	24.78	40.725		
8,000.0	7,100.0	6,800.0	6,687.1	31.5	21.2	-21.59	53.6	-923.2	1,099.6	1,074.2	25.32	43.426		
8,100.0	7,100.0	6,780.6	6,669.7	32.4	21.2	-21.21	45.9	-919.6	1,191.1	1,165.3	25.82	46.135		
8,200.0	7,100.0	6,768.7	6,658.8	33.5	21.1	-20.99	41.4	-917.4	1,283.6	1,257.2	26.39	48.649		
8,300.0	7,100.0	6,750.0	6,641.7	34.6	21.1	-20.67	34.8	-913.7	1,376.9	1,350.0	26.95	51.086		
8,400.0	7,100.0	6,750.0	6,641.7	35.8	21.1	-20.67	34.8	-913.7	1,470.7	1,443.1	27.63	53.222		
8,500.0	7,100.0	6,750.0	6,641.7	37.1	21.1	-20.67	34.8	-913.7	1,565.3	1,537.0	28.34	55.231		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Hebron 0780 4-7H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,600.0	7,100.0	6,730.8	6,624.0	38.4	21.0	-20.38	28.7	-909.9	1,660.1	1,631.1	28.97	57.297		
8,700.0	7,100.0	6,723.3	6,617.0	39.8	21.0	-20.27	26.4	-908.3	1,755.4	1,725.7	29.68	59.142		
8,800.0	7,100.0	6,700.0	6,595.1	41.2	20.9	-19.96	20.0	-903.3	1,851.5	1,821.1	30.33	61.049		
8,900.0	7,100.0	6,700.0	6,595.1	42.6	20.9	-19.96	20.0	-903.3	1,947.3	1,916.2	31.10	62.609		
9,000.0	7,100.0	6,700.0	6,595.1	44.1	20.9	-19.96	20.0	-903.3	2,043.6	2,011.7	31.89	64.077		
9,100.0	7,100.0	6,700.0	6,595.1	45.7	20.9	-19.96	20.0	-903.3	2,140.2	2,107.5	32.70	65.459		
9,200.0	7,100.0	6,700.0	6,595.1	47.2	20.9	-19.96	20.0	-903.3	2,237.1	2,203.6	33.51	66.760		
9,300.0	7,100.0	6,700.0	6,595.1	48.8	20.9	-19.96	20.0	-903.3	2,334.3	2,299.9	34.33	67.986		
9,400.0	7,100.0	6,700.0	6,595.1	50.5	20.9	-19.96	20.0	-903.3	2,431.6	2,396.5	35.17	69.142		
9,500.0	7,100.0	6,700.0	6,595.1	52.1	20.9	-19.96	20.0	-903.3	2,529.2	2,493.2	36.01	70.234		
9,600.0	7,100.0	6,675.7	6,572.1	53.8	20.8	-19.68	14.4	-897.9	2,626.4	2,589.7	36.71	71.552		
9,700.0	7,100.0	6,672.0	6,568.6	55.4	20.8	-19.64	13.6	-897.1	2,724.1	2,686.6	37.53	72.576		
9,800.0	7,100.0	6,650.0	6,547.6	57.1	20.7	-19.42	9.4	-892.0	2,822.4	2,784.1	38.26	73.770		
9,900.0	7,100.0	6,650.0	6,547.6	58.9	20.7	-19.42	9.4	-892.0	2,920.2	2,881.1	39.12	74.651		
10,000.0	7,100.0	6,650.0	6,547.6	60.6	20.7	-19.42	9.4	-892.0	3,018.3	2,978.3	39.98	75.489		
10,100.0	7,100.0	6,650.0	6,547.6	62.3	20.7	-19.42	9.4	-892.0	3,116.4	3,075.5	40.85	76.284		
10,200.0	7,100.0	6,650.0	6,547.6	64.1	20.7	-19.42	9.4	-892.0	3,214.6	3,172.9	41.73	77.042		
10,300.0	7,100.0	6,650.0	6,547.6	65.9	20.7	-19.42	9.4	-892.0	3,313.0	3,270.4	42.60	77.763		
10,400.0	7,100.0	6,650.0	6,547.6	67.6	20.7	-19.42	9.4	-892.0	3,411.5	3,368.0	43.49	78.451		
10,500.0	7,100.0	6,650.0	6,547.6	69.4	20.7	-19.42	9.4	-892.0	3,510.0	3,465.6	44.37	79.107		
10,600.0	7,100.0	6,650.0	6,547.6	71.2	20.7	-19.42	9.4	-892.0	3,608.6	3,563.4	45.26	79.734		
10,700.0	7,100.0	6,650.0	6,547.6	73.0	20.7	-19.42	9.4	-892.0	3,707.3	3,661.2	46.15	80.334		
10,800.0	7,100.0	6,650.0	6,547.6	74.8	20.7	-19.42	9.4	-892.0	3,806.1	3,759.0	47.04	80.907		
10,900.0	7,100.0	6,650.0	6,547.6	76.6	20.7	-19.42	9.4	-892.0	3,904.9	3,857.0	47.94	81.456		
11,000.0	7,100.0	6,650.0	6,547.6	78.4	20.7	-19.42	9.4	-892.0	4,003.8	3,955.0	48.84	81.982		
11,100.0	7,100.0	6,650.0	6,547.6	80.3	20.7	-19.42	9.4	-892.0	4,102.7	4,053.0	49.74	82.487		
11,200.0	7,100.0	6,650.0	6,547.6	82.1	20.7	-19.42	9.4	-892.0	4,201.7	4,151.1	50.64	82.972		
11,300.0	7,100.0	6,650.0	6,547.6	83.9	20.7	-19.42	9.4	-892.0	4,300.8	4,249.2	51.55	83.437		
11,400.0	7,100.0	6,650.0	6,547.6	85.8	20.7	-19.42	9.4	-892.0	4,399.8	4,347.4	52.45	83.884		
11,500.0	7,100.0	6,650.0	6,547.6	87.6	20.7	-19.42	9.4	-892.0	4,499.0	4,445.6	53.36	84.314		
11,600.0	7,100.0	6,650.0	6,547.6	89.5	20.7	-19.42	9.4	-892.0	4,598.1	4,543.8	54.27	84.729		
11,700.0	7,100.0	6,626.5	6,525.0	91.3	20.6	-19.21	5.9	-886.4	4,696.8	4,641.8	54.97	85.436		
11,800.0	7,100.0	6,625.1	6,523.7	93.2	20.6	-19.20	5.7	-886.1	4,795.9	4,740.1	55.87	85.839		
11,877.2	7,100.0	6,624.0	6,522.7	94.6	20.6	-19.19	5.6	-885.8	4,872.5	4,816.0	56.56	86.141		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 0780 2-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	0.89	150.0	2.3	150.0					
100.0	100.0	100.0	100.0	0.1	0.1	0.89	150.0	2.3	150.0	149.8	0.19	794.414		
200.0	200.0	200.0	200.0	0.3	0.3	0.89	150.0	2.3	150.0	149.3	0.64	234.968		
300.0	300.0	300.0	300.0	0.5	0.5	0.89	150.0	2.3	150.0	148.9	1.09	137.874		
400.0	400.0	400.0	400.0	0.8	0.8	0.89	150.0	2.3	150.0	148.5	1.54	97.560		
500.0	500.0	500.0	500.0	1.0	1.0	0.89	150.0	2.3	150.0	148.0	1.99	75.487 CC		
594.9	594.9	594.9	594.9	1.2	1.2	91.49	150.0	2.3	150.0	147.6	2.40	62.455		
600.0	600.0	600.0	600.0	1.2	1.2	91.56	150.0	2.3	150.0	147.6	2.42	61.897		
700.0	699.9	699.9	699.9	1.4	1.4	92.82	150.0	2.3	150.2	147.3	2.86	52.558		
800.0	799.9	799.9	799.9	1.6	1.7	94.08	150.0	2.3	150.4	147.1	3.30	45.606		
900.0	899.8	899.8	899.8	1.8	1.9	95.34	150.0	2.3	150.6	146.9	3.74	40.264		
1,000.0	999.8	999.8	999.8	2.1	2.1	96.59	150.0	2.3	151.0	146.8	4.19	36.048		
1,100.0	1,099.7	1,099.7	1,099.7	2.3	2.3	97.83	150.0	2.3	151.4	146.7	4.64	32.647		
1,200.0	1,199.7	1,199.7	1,199.7	2.5	2.6	99.07	150.0	2.3	151.9	146.8	5.09	29.852		
1,300.0	1,299.6	1,299.6	1,299.6	2.8	2.8	100.30	150.0	2.3	152.4	146.9	5.54	27.520		
1,405.6	1,405.1	1,405.1	1,405.1	3.0	3.0	101.59	150.0	2.3	153.1	147.1	6.02	25.447		
1,500.5	1,500.0	1,500.0	1,500.0	3.2	3.2	12.17	150.0	2.3	153.4	147.0	6.38	24.032		
1,600.0	1,599.5	1,599.5	1,599.5	3.4	3.5	12.17	150.0	2.3	153.4	146.6	6.81	22.534		
1,700.0	1,699.5	1,699.5	1,699.5	3.6	3.7	12.17	150.0	2.3	153.4	146.2	7.24	21.176		
1,800.0	1,799.5	1,799.5	1,799.5	3.8	3.9	12.17	150.0	2.3	153.4	145.7	7.68	19.969		
1,900.0	1,899.5	1,899.5	1,899.5	4.0	4.1	12.17	150.0	2.3	153.4	145.3	8.12	18.888		
2,000.0	1,999.5	1,999.5	1,999.5	4.2	4.4	12.17	150.0	2.3	153.4	144.9	8.56	17.917		
2,100.0	2,099.5	2,099.5	2,099.5	4.5	4.6	12.17	150.0	2.3	153.4	144.4	9.00	17.039		
2,200.0	2,199.5	2,199.5	2,199.5	4.7	4.8	12.17	150.0	2.3	153.4	144.0	9.45	16.241		
2,300.0	2,299.5	2,299.5	2,299.5	4.9	5.0	12.17	150.0	2.3	153.4	143.5	9.89	15.514		
2,400.0	2,399.5	2,399.5	2,399.5	5.1	5.3	12.17	150.0	2.3	153.4	143.1	10.33	14.848		
2,500.0	2,499.5	2,499.5	2,499.5	5.3	5.5	12.17	150.0	2.3	153.4	142.6	10.78	14.237		
2,600.0	2,599.5	2,599.5	2,599.5	5.5	5.7	12.17	150.0	2.3	153.4	142.2	11.22	13.673		
2,700.0	2,699.5	2,699.5	2,699.5	5.8	5.9	12.17	150.0	2.3	153.4	141.8	11.67	13.152		
2,800.0	2,799.5	2,799.5	2,799.5	6.0	6.2	12.17	150.0	2.3	153.4	141.3	12.11	12.668		
2,900.0	2,899.5	2,899.5	2,899.5	6.2	6.4	12.17	150.0	2.3	153.4	140.9	12.56	12.219		
3,000.0	2,999.5	2,999.5	2,999.5	6.4	6.6	12.17	150.0	2.3	153.4	140.4	13.00	11.800		
3,100.0	3,099.5	3,099.5	3,099.5	6.6	6.8	12.17	150.0	2.3	153.4	140.0	13.45	11.409		
3,200.0	3,199.5	3,199.5	3,199.5	6.9	7.1	12.17	150.0	2.3	153.4	139.5	13.89	11.042		
3,300.0	3,299.5	3,299.5	3,299.5	7.1	7.3	12.17	150.0	2.3	153.4	139.1	14.34	10.698		
3,400.0	3,399.5	3,399.5	3,399.5	7.3	7.5	12.17	150.0	2.3	153.4	138.6	14.79	10.375		
3,500.0	3,499.5	3,499.5	3,499.5	7.5	7.7	12.17	150.0	2.3	153.4	138.2	15.23	10.071		
3,600.0	3,599.5	3,599.5	3,599.5	7.8	8.0	12.17	150.0	2.3	153.4	137.7	15.68	9.784		
3,700.0	3,699.5	3,699.5	3,699.5	8.0	8.2	12.17	150.0	2.3	153.4	137.3	16.13	9.513		
3,800.0	3,799.5	3,799.5	3,799.5	8.2	8.4	12.17	150.0	2.3	153.4	136.8	16.57	9.256		
3,900.0	3,899.5	3,899.5	3,899.5	8.4	8.6	12.17	150.0	2.3	153.4	136.4	17.02	9.013		
4,000.0	3,999.5	3,999.5	3,999.5	8.6	8.9	12.17	150.0	2.3	153.4	135.9	17.47	8.782		
4,100.0	4,099.5	4,099.5	4,099.5	8.9	9.1	12.17	150.0	2.3	153.4	135.5	17.92	8.563		
4,200.0	4,199.5	4,199.5	4,199.5	9.1	9.3	12.17	150.0	2.3	153.4	135.1	18.36	8.354		
4,300.0	4,299.5	4,299.5	4,299.5	9.3	9.5	12.17	150.0	2.3	153.4	134.6	18.81	8.155		
4,400.0	4,399.5	4,399.5	4,399.5	9.5	9.8	12.17	150.0	2.3	153.4	134.2	19.26	7.965		
4,425.0	4,424.5	4,424.5	4,424.5	9.6	9.8	12.17	150.0	2.3	153.4	134.0	19.37	7.919		
4,500.0	4,499.5	4,499.5	4,499.5	9.8	10.0	102.52	150.0	2.3	153.6	133.9	19.73	7.786 ES		
4,600.0	4,599.4	4,599.4	4,599.4	10.0	10.2	104.08	150.0	2.3	154.6	134.5	20.17	7.667		
4,700.0	4,699.1	4,699.1	4,699.1	10.2	10.4	106.81	150.0	2.3	156.7	136.1	20.61	7.605 SF		
4,800.0	4,798.5	4,798.5	4,798.5	10.4	10.7	110.60	150.0	2.3	160.4	139.3	21.05	7.619		
4,900.0	4,897.3	4,897.3	4,897.3	10.7	10.9	115.22	150.0	2.3	166.2	144.7	21.49	7.735		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 0780 2-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,995.7	4,995.7	4,995.7	10.9	11.1	120.42	150.0	2.3	174.8	152.9	21.91	7.978		
5,100.0	5,093.3	5,097.0	5,097.0	11.2	11.3	125.68	150.0	0.7	185.9	163.6	22.32	8.330		
5,200.0	5,190.1	5,199.3	5,199.1	11.5	11.5	130.33	150.0	-4.6	198.4	175.7	22.70	8.740		
5,300.0	5,286.0	5,302.3	5,301.8	11.9	11.7	134.40	150.0	-13.6	212.0	188.9	23.08	9.187		
5,404.0	5,384.6	5,410.3	5,408.9	12.3	12.0	138.09	150.0	-27.0	227.0	203.6	23.46	9.678		
5,500.0	5,475.0	5,508.8	5,506.2	12.7	12.2	140.97	150.0	-42.6	240.4	216.5	23.89	10.064		
5,600.0	5,569.2	5,607.3	5,603.3	13.1	12.4	143.43	150.0	-58.9	254.2	229.9	24.34	10.445		
5,700.0	5,663.5	5,705.8	5,700.4	13.6	12.6	145.63	150.0	-75.2	268.5	243.7	24.80	10.827		
5,800.0	5,757.7	5,804.2	5,797.5	14.1	12.9	147.62	150.0	-91.6	283.1	257.9	25.26	11.208		
5,900.0	5,851.9	5,902.7	5,894.6	14.6	13.1	149.40	150.0	-107.9	298.0	272.3	25.72	11.586		
6,000.0	5,946.1	6,001.2	5,991.7	15.2	13.4	151.02	150.0	-124.2	313.2	287.0	26.19	11.958		
6,100.0	6,040.3	6,099.7	6,088.8	15.7	13.7	152.49	150.0	-140.6	328.6	301.9	26.66	12.325		
6,200.0	6,134.5	6,198.1	6,185.9	16.3	13.9	153.82	150.0	-156.9	344.2	317.1	27.13	12.685		
6,300.0	6,228.8	6,296.6	6,283.0	16.8	14.2	155.04	150.0	-173.3	360.0	332.3	27.61	13.037		
6,400.0	6,323.0	6,395.1	6,380.2	17.4	14.5	156.16	150.0	-189.6	375.9	347.8	28.09	13.382		
6,500.0	6,417.2	6,487.3	6,471.1	18.0	14.8	157.08	150.3	-204.9	392.1	363.5	28.56	13.728		
6,600.0	6,511.4	6,560.8	6,543.3	18.6	15.0	156.88	157.5	-216.3	412.7	383.6	29.08	14.192		
6,610.5	6,521.3	6,568.4	6,550.7	18.7	15.0	156.80	158.7	-217.4	415.2	386.1	29.14	14.249		
6,650.0	6,558.2	6,600.0	6,581.3	18.9	15.1	165.31	165.1	-222.0	426.4	397.3	29.10	14.649		
6,700.0	6,604.0	6,629.2	6,609.3	19.2	15.2	173.71	172.4	-225.9	444.8	415.8	28.93	15.373		
6,750.0	6,648.4	6,659.0	6,637.4	19.6	15.2	179.95	181.4	-229.8	467.9	439.3	28.67	16.321		
6,800.0	6,691.1	6,685.3	6,661.9	20.0	15.3	-175.07	190.6	-233.0	495.7	467.4	28.31	17.512		
6,850.0	6,731.7	6,700.0	6,675.4	20.4	15.4	-170.13	196.2	-234.8	527.8	500.0	27.81	18.981		
6,900.0	6,769.9	6,726.5	6,699.3	20.8	15.4	-166.42	207.1	-237.7	563.6	536.3	27.36	20.604		
6,950.0	6,805.5	6,750.0	6,720.1	21.3	15.5	-162.64	217.7	-240.2	603.0	576.1	26.92	22.396		
7,000.0	6,838.1	6,750.0	6,720.1	21.8	15.5	-155.74	217.7	-240.2	644.9	618.2	26.75	24.110		
7,050.0	6,867.6	6,761.5	6,730.1	22.3	15.5	-148.90	223.2	-241.3	689.2	662.1	27.14	25.397		
7,089.7	6,888.5	6,766.1	6,734.1	22.8	15.5	-141.41	225.5	-241.8	725.7	697.5	28.20	25.729		
7,100.0	6,893.7	6,767.0	6,734.9	22.9	15.5	-141.59	226.0	-241.9	735.2	707.0	28.24	26.035		
7,200.0	6,943.7	6,775.6	6,742.3	24.1	15.6	-143.17	230.3	-242.7	829.0	800.3	28.63	28.956		
7,239.7	6,963.5	6,778.7	6,744.9	24.6	15.6	-143.72	231.9	-243.0	866.5	837.7	28.80	30.088		
7,250.0	6,968.6	6,779.4	6,745.5	24.7	15.6	-140.31	232.2	-243.1	876.3	846.8	29.47	29.737		
7,300.0	6,992.3	6,781.9	6,747.6	25.3	15.6	-124.43	233.5	-243.3	923.6	890.9	32.77	28.189		
7,350.0	7,014.0	6,782.6	6,748.3	25.9	15.6	-110.59	233.9	-243.4	970.7	935.4	35.31	27.492		
7,400.0	7,033.6	6,781.8	6,747.6	26.4	15.6	-99.28	233.5	-243.3	1,017.1	980.4	36.72	27.703		
7,450.0	7,050.8	6,779.6	6,745.7	26.9	15.6	-90.34	232.4	-243.1	1,062.7	1,025.5	37.19	28.578		
7,500.0	7,065.6	6,776.2	6,742.8	27.4	15.6	-83.34	230.6	-242.8	1,107.2	1,070.2	37.03	29.901		
7,550.0	7,077.9	6,771.8	6,739.0	27.8	15.6	-77.85	228.4	-242.3	1,150.4	1,113.9	36.49	31.529		
7,600.0	7,087.5	6,766.3	6,734.3	28.3	15.5	-73.56	225.6	-241.8	1,192.1	1,156.4	35.72	33.371		
7,650.0	7,094.5	6,750.0	6,720.1	28.7	15.5	-69.59	217.7	-240.2	1,232.2	1,197.4	34.74	35.468		
7,700.0	7,098.6	6,750.0	6,720.1	29.0	15.5	-67.44	217.7	-240.2	1,270.2	1,236.3	33.89	37.476		
7,749.0	7,100.0	6,750.0	6,720.1	29.4	15.5	-65.86	217.7	-240.2	1,305.6	1,272.5	33.09	39.456		
7,800.0	7,100.0	6,750.0	6,720.1	29.8	15.5	-65.86	217.7	-240.2	1,341.9	1,308.3	33.59	39.952		
7,900.0	7,100.0	6,723.6	6,696.7	30.6	15.4	-64.63	205.9	-237.4	1,415.0	1,380.7	34.33	41.218		
8,000.0	7,100.0	6,700.0	6,675.4	31.5	15.4	-63.54	196.2	-234.8	1,491.1	1,455.9	35.17	42.391		
8,100.0	7,100.0	6,700.0	6,675.4	32.4	15.4	-63.54	196.2	-234.8	1,569.3	1,532.9	36.37	43.152		
8,200.0	7,100.0	6,700.0	6,675.4	33.5	15.4	-63.54	196.2	-234.8	1,649.9	1,612.3	37.63	43.845		
8,300.0	7,100.0	6,678.5	6,655.6	34.6	15.3	-62.55	188.1	-232.2	1,732.0	1,693.3	38.67	44.789		
8,400.0	7,100.0	6,669.5	6,647.3	35.8	15.3	-62.15	184.9	-231.1	1,815.8	1,775.9	39.91	45.499		
8,500.0	7,100.0	6,650.0	6,629.0	37.1	15.2	-61.27	178.6	-228.7	1,901.2	1,860.2	41.03	46.338		
8,600.0	7,100.0	6,650.0	6,629.0	38.4	15.2	-61.27	178.6	-228.7	1,987.6	1,945.1	42.46	46.815		
8,700.0	7,100.0	6,650.0	6,629.0	39.8	15.2	-61.27	178.6	-228.7	2,075.2	2,031.3	43.92	47.254		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 0780 2-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,800.0	7,100.0	6,650.0	6,629.0	41.2	15.2	-61.27	178.6	-228.7	2,163.8	2,118.4	45.40	47.661		
8,900.0	7,100.0	6,650.0	6,629.0	42.6	15.2	-61.27	178.6	-228.7	2,253.5	2,206.5	46.91	48.037		
9,000.0	7,100.0	6,628.1	6,608.2	44.1	15.2	-60.30	172.1	-225.8	2,343.4	2,295.3	48.06	48.757		
9,100.0	7,100.0	6,622.7	6,603.1	45.7	15.1	-60.06	170.7	-225.1	2,434.3	2,384.8	49.50	49.176		
9,200.0	7,100.0	6,600.0	6,581.3	47.2	15.1	-59.08	165.1	-222.0	2,526.2	2,475.6	50.63	49.893		
9,300.0	7,100.0	6,600.0	6,581.3	48.8	15.1	-59.08	165.1	-222.0	2,618.2	2,566.0	52.18	50.176		
9,400.0	7,100.0	6,600.0	6,581.3	50.5	15.1	-59.08	165.1	-222.0	2,710.7	2,657.0	53.74	50.441		
9,500.0	7,100.0	6,600.0	6,581.3	52.1	15.1	-59.08	165.1	-222.0	2,803.8	2,748.5	55.31	50.690		
9,600.0	7,100.0	6,600.0	6,581.3	53.8	15.1	-59.08	165.1	-222.0	2,897.3	2,840.4	56.89	50.925		
9,700.0	7,100.0	6,600.0	6,581.3	55.4	15.1	-59.08	165.1	-222.0	2,991.3	2,932.8	58.48	51.148		
9,800.0	7,100.0	6,600.0	6,581.3	57.1	15.1	-59.08	165.1	-222.0	3,085.6	3,025.5	60.08	51.358		
9,900.0	7,100.0	6,600.0	6,581.3	58.9	15.1	-59.08	165.1	-222.0	3,180.3	3,118.6	61.68	51.557		
10,000.0	7,100.0	6,600.0	6,581.3	60.6	15.1	-59.08	165.1	-222.0	3,275.2	3,211.9	63.30	51.745		
10,100.0	7,100.0	6,600.0	6,581.3	62.3	15.1	-59.08	165.1	-222.0	3,370.5	3,305.6	64.91	51.925		
10,200.0	7,100.0	6,600.0	6,581.3	64.1	15.1	-59.08	165.1	-222.0	3,466.1	3,399.5	66.53	52.095		
10,300.0	7,100.0	6,578.2	6,560.2	65.9	15.0	-58.15	160.5	-218.9	3,561.4	3,493.7	67.61	52.673		
10,400.0	7,100.0	6,575.6	6,557.7	67.6	15.0	-58.04	160.0	-218.5	3,657.3	3,588.1	69.16	52.878		
10,500.0	7,100.0	6,573.1	6,555.3	69.4	15.0	-57.94	159.6	-218.1	3,753.3	3,682.6	70.72	53.074		
10,600.0	7,100.0	6,550.0	6,532.7	71.2	14.9	-56.99	155.8	-214.7	3,850.1	3,778.3	71.72	53.680		
10,700.0	7,100.0	6,550.0	6,532.7	73.0	14.9	-56.99	155.8	-214.7	3,946.4	3,873.1	73.33	53.814		
10,800.0	7,100.0	6,550.0	6,532.7	74.8	14.9	-56.99	155.8	-214.7	4,043.0	3,968.0	74.95	53.944		
10,900.0	7,100.0	6,550.0	6,532.7	76.6	14.9	-56.99	155.8	-214.7	4,139.7	4,063.1	76.57	54.067		
11,000.0	7,100.0	6,550.0	6,532.7	78.4	14.9	-56.99	155.8	-214.7	4,236.5	4,158.3	78.18	54.186		
11,100.0	7,100.0	6,550.0	6,532.7	80.3	14.9	-56.99	155.8	-214.7	4,333.5	4,253.7	79.81	54.300		
11,200.0	7,100.0	6,550.0	6,532.7	82.1	14.9	-56.99	155.8	-214.7	4,430.7	4,349.2	81.43	54.410		
11,300.0	7,100.0	6,550.0	6,532.7	83.9	14.9	-56.99	155.8	-214.7	4,527.9	4,444.9	83.06	54.516		
11,400.0	7,100.0	6,550.0	6,532.7	85.8	14.9	-56.99	155.8	-214.7	4,625.3	4,540.6	84.69	54.617		
11,500.0	7,100.0	6,550.0	6,532.7	87.6	14.9	-56.99	155.8	-214.7	4,722.8	4,636.5	86.32	54.715		
11,600.0	7,100.0	6,550.0	6,532.7	89.5	14.9	-56.99	155.8	-214.7	4,820.4	4,732.4	87.95	54.810		
11,700.0	7,100.0	6,550.0	6,532.7	91.3	14.9	-56.99	155.8	-214.7	4,918.1	4,828.5	89.58	54.901		
11,800.0	7,100.0	6,550.0	6,532.7	93.2	14.9	-56.99	155.8	-214.7	5,015.9	4,924.6	91.22	54.989		
11,877.2	7,100.0	6,550.0	6,532.7	94.6	14.9	-56.99	155.8	-214.7	5,091.4	4,998.9	92.48	55.055		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 0780 3-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	8.49	149.7	22.3	151.3					
100.0	100.0	100.0	100.0	0.1	0.1	8.49	149.7	22.3	151.3	151.1	0.19	801.518		
200.0	200.0	200.0	200.0	0.3	0.3	8.49	149.7	22.3	151.3	150.7	0.64	237.069		
300.0	300.0	300.0	300.0	0.5	0.5	8.49	149.7	22.3	151.3	150.2	1.09	139.107		
400.0	400.0	400.0	400.0	0.8	0.8	8.49	149.7	22.3	151.3	149.8	1.54	98.432		
500.0	500.0	500.0	500.0	1.0	1.0	8.49	149.7	22.3	151.3	149.3	1.99	76.162 CC, ES		
594.9	594.9	592.3	592.3	1.2	1.2	99.18	150.7	22.9	152.7	150.3	2.40	63.751		
600.0	600.0	597.4	597.4	1.2	1.2	99.25	150.8	22.9	152.8	150.4	2.42	63.226		
700.0	699.9	697.3	697.3	1.4	1.4	100.65	152.4	23.7	155.1	152.3	2.85	54.464		
800.0	799.9	797.2	797.1	1.6	1.7	102.02	154.0	24.5	157.5	154.2	3.29	47.929		
900.0	899.8	897.1	897.0	1.8	1.9	103.34	155.6	25.3	160.0	156.3	3.73	42.901		
1,000.0	999.8	997.0	996.9	2.1	2.1	104.62	157.2	26.1	162.5	158.4	4.17	38.931		
1,100.0	1,099.7	1,096.9	1,096.8	2.3	2.3	105.86	158.8	26.9	165.2	160.5	4.62	35.729		
1,200.0	1,199.7	1,196.8	1,196.7	2.5	2.6	107.06	160.4	27.7	167.9	162.8	5.07	33.097		
1,300.0	1,299.6	1,296.7	1,296.6	2.8	2.8	108.22	162.0	28.5	170.6	165.1	5.52	30.901		
1,405.6	1,405.1	1,402.1	1,402.0	3.0	3.0	109.40	163.7	29.4	173.6	167.6	6.00	28.949		
1,500.5	1,500.0	1,497.0	1,496.9	3.2	3.2	20.00	165.2	30.1	175.9	169.5	6.38	27.574		
1,600.0	1,599.5	1,596.5	1,596.4	3.4	3.5	20.06	166.8	30.9	177.6	170.8	6.80	26.112		
1,700.0	1,699.5	1,696.5	1,696.3	3.6	3.7	20.13	168.4	31.7	179.4	172.2	7.24	24.781		
1,800.0	1,799.7	1,799.7	1,799.5	3.8	3.9	20.18	169.7	32.3	180.8	173.1	7.67	23.564		
1,900.0	1,899.5	1,899.7	1,899.5	4.0	4.1	20.18	169.7	32.3	180.8	172.7	8.08	22.365		
2,000.0	1,999.5	1,999.7	1,999.5	4.2	4.3	20.18	169.7	32.3	180.8	172.2	8.52	21.217		
2,100.0	2,099.5	2,099.7	2,099.5	4.5	4.5	20.18	169.7	32.3	180.8	171.8	8.96	20.178		
2,200.0	2,199.5	2,199.7	2,199.5	4.7	4.8	20.18	169.7	32.3	180.8	171.4	9.40	19.233		
2,300.0	2,299.5	2,299.7	2,299.5	4.9	5.0	20.18	169.7	32.3	180.8	170.9	9.84	18.372		
2,400.0	2,399.5	2,399.7	2,399.5	5.1	5.2	20.18	169.7	32.3	180.8	170.5	10.28	17.583		
2,500.0	2,499.5	2,499.7	2,499.5	5.3	5.4	20.18	169.7	32.3	180.8	170.0	10.72	16.858		
2,600.0	2,599.5	2,599.7	2,599.5	5.5	5.7	20.18	169.7	32.3	180.8	169.6	11.17	16.190		
2,700.0	2,699.5	2,699.7	2,699.5	5.8	5.9	20.18	169.7	32.3	180.8	169.2	11.61	15.572		
2,800.0	2,799.5	2,799.7	2,799.5	6.0	6.1	20.18	169.7	32.3	180.8	168.7	12.05	14.998		
2,900.0	2,899.5	2,896.7	2,896.5	6.2	6.3	20.63	169.9	34.0	181.6	169.1	12.48	14.548		
3,000.0	2,999.5	2,993.4	2,993.1	6.4	6.5	21.95	170.7	38.8	184.2	171.3	12.91	14.267		
3,100.0	3,099.5	3,089.7	3,089.0	6.6	6.7	24.06	172.0	46.8	188.7	175.3	13.34	14.144 SF		
3,200.0	3,199.5	3,185.3	3,184.0	6.9	7.0	26.82	173.8	57.9	195.4	181.6	13.78	14.186		
3,300.0	3,299.5	3,283.3	3,281.0	7.1	7.2	29.99	176.1	71.6	204.1	189.9	14.22	14.351		
3,400.0	3,399.5	3,382.3	3,378.9	7.3	7.5	32.94	178.4	85.5	213.5	198.8	14.68	14.542		
3,500.0	3,499.5	3,481.3	3,476.9	7.5	7.7	35.63	180.6	99.5	223.4	208.2	15.15	14.748		
3,600.0	3,599.5	3,580.2	3,574.9	7.8	8.0	38.10	182.9	113.4	233.7	218.1	15.62	14.964		
3,700.0	3,699.5	3,679.2	3,672.8	8.0	8.2	40.36	185.2	127.4	244.5	228.4	16.10	15.185		
3,800.0	3,799.5	3,778.2	3,770.8	8.2	8.5	42.42	187.5	141.3	255.6	239.0	16.59	15.407		
3,900.0	3,899.5	3,877.2	3,868.7	8.4	8.8	44.31	189.7	155.3	267.0	249.9	17.08	15.629		
4,000.0	3,999.5	3,976.1	3,966.7	8.6	9.1	46.05	192.0	169.2	278.6	261.0	17.58	15.848		
4,100.0	4,099.5	4,075.1	4,064.7	8.9	9.4	47.65	194.3	183.1	290.5	272.4	18.08	16.064		
4,200.0	4,199.5	4,174.1	4,162.6	9.1	9.7	49.12	196.6	197.1	302.6	284.0	18.59	16.274		
4,300.0	4,299.5	4,273.1	4,260.6	9.3	10.0	50.48	198.8	211.0	314.9	295.8	19.11	16.479		
4,400.0	4,399.5	4,372.1	4,358.6	9.5	10.3	51.73	201.1	225.0	327.3	307.7	19.63	16.677		
4,425.0	4,424.5	4,396.8	4,383.1	9.6	10.3	52.03	201.7	228.4	330.4	310.7	19.76	16.726		
4,500.0	4,499.5	4,470.9	4,456.4	9.8	10.6	142.87	203.4	238.9	340.7	321.0	19.67	17.320		
4,600.0	4,599.4	4,569.1	4,553.6	10.0	10.9	144.16	205.6	252.7	356.9	336.8	20.09	17.766		
4,700.0	4,699.1	4,666.7	4,650.2	10.2	11.2	145.59	207.9	266.5	376.2	355.7	20.49	18.357		
4,800.0	4,798.5	4,763.4	4,745.9	10.4	11.5	147.11	210.1	280.1	398.6	377.7	20.88	19.089		
4,900.0	4,897.3	4,859.2	4,840.8	10.7	11.8	148.65	212.3	293.6	424.2	403.0	21.25	19.961		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 0780 3-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.0	4,995.7	4,954.0	4,934.5	10.9	12.1	150.19	214.5	306.9	453.1	431.5	21.61	20.970		
5,100.0	5,093.3	5,047.6	5,027.2	11.2	12.4	151.68	216.7	320.1	485.4	463.4	21.95	22.113		
5,200.0	5,190.1	5,139.9	5,118.5	11.5	12.7	153.10	218.8	333.1	520.9	498.7	22.27	23.386		
5,300.0	5,286.0	5,230.8	5,208.5	11.9	13.0	154.43	220.9	345.9	559.8	537.2	22.59	24.785		
5,404.0	5,384.6	5,323.7	5,300.5	12.3	13.3	155.72	223.0	359.0	603.7	580.8	22.90	26.367		
5,500.0	5,475.0	5,408.7	5,384.6	12.7	13.6	157.15	225.0	371.0	646.0	622.7	23.29	27.735		
5,600.0	5,569.2	5,497.2	5,472.2	13.1	13.8	158.46	227.0	383.5	690.4	666.7	23.72	29.114		
5,700.0	5,663.5	5,585.7	5,559.8	13.6	14.1	159.61	229.0	395.9	735.1	711.0	24.14	30.446		
5,800.0	5,757.7	5,674.3	5,647.4	14.1	14.4	160.63	231.1	408.4	780.0	755.4	24.58	31.732		
5,900.0	5,851.9	5,762.8	5,735.1	14.6	14.7	161.54	233.1	420.9	825.0	800.0	25.02	32.972		
6,000.0	5,946.1	5,851.3	5,822.7	15.2	15.0	162.36	235.1	433.3	870.2	844.8	25.47	34.169		
6,100.0	6,040.3	5,939.9	5,910.3	15.7	15.3	163.10	237.2	445.8	915.6	889.7	25.92	35.323		
6,200.0	6,134.5	6,028.4	5,997.9	16.3	15.6	163.77	239.2	458.3	961.0	934.7	26.38	36.435		
6,300.0	6,228.8	6,116.9	6,085.6	16.8	15.9	164.38	241.2	470.8	1,006.6	979.7	26.84	37.508		
6,400.0	6,323.0	6,205.5	6,173.2	17.4	16.2	164.94	243.3	483.2	1,052.2	1,024.9	27.30	38.542		
6,500.0	6,417.2	6,294.0	6,260.8	18.0	16.5	165.45	245.3	495.7	1,097.9	1,070.1	27.77	39.540		
6,600.0	6,511.4	6,382.5	6,348.4	18.6	16.8	165.92	247.4	508.2	1,143.7	1,115.4	28.24	40.502		
6,610.5	6,521.3	6,391.8	6,357.6	18.7	16.8	165.97	247.6	509.5	1,148.5	1,120.2	28.29	40.601		
6,650.0	6,558.2	6,426.4	6,391.9	18.9	16.9	176.05	248.4	514.3	1,167.4	1,139.3	28.15	41.471		
6,700.0	6,604.0	6,468.9	6,433.9	19.2	17.1	-173.53	249.3	520.3	1,193.8	1,165.8	27.95	42.713		
6,750.0	6,648.4	6,492.6	6,457.4	19.6	17.1	-164.92	249.9	523.7	1,222.7	1,195.0	27.73	44.094		
6,800.0	6,691.1	6,500.0	6,464.7	20.0	17.2	-157.21	250.2	524.9	1,254.7	1,227.1	27.59	45.485		
6,850.0	6,731.7	6,517.8	6,482.2	20.4	17.2	-150.13	251.2	528.0	1,289.3	1,261.6	27.68	46.569		
6,900.0	6,769.9	6,528.3	6,492.5	20.8	17.3	-143.04	251.9	530.0	1,326.2	1,298.0	28.13	47.147		
6,950.0	6,805.5	6,550.0	6,513.6	21.3	17.4	-136.21	253.9	534.5	1,365.2	1,336.2	29.00	47.079		
7,000.0	6,838.1	6,550.0	6,513.6	21.8	17.4	-128.22	253.9	534.5	1,405.4	1,374.9	30.45	46.157		
7,050.0	6,867.6	6,550.0	6,513.6	22.3	17.4	-119.67	253.9	534.5	1,446.9	1,414.6	32.36	44.716		
7,089.7	6,888.5	6,550.0	6,513.6	22.8	17.4	-112.54	253.9	534.5	1,480.6	1,446.6	34.03	43.513		
7,100.0	6,893.7	6,550.0	6,513.6	22.9	17.4	-112.54	253.9	534.5	1,489.4	1,455.2	34.14	43.625		
7,200.0	6,943.7	6,550.0	6,513.6	24.1	17.4	-112.54	253.9	534.5	1,575.7	1,540.4	35.32	44.613		
7,239.7	6,963.5	6,550.0	6,513.6	24.6	17.4	-112.54	253.9	534.5	1,610.4	1,574.6	35.81	44.971		
7,250.0	6,968.6	6,550.0	6,513.6	24.7	17.4	-110.61	253.9	534.5	1,619.4	1,583.3	36.16	44.789		
7,300.0	6,992.3	6,570.5	6,533.3	25.3	17.5	-103.37	256.3	539.3	1,662.1	1,624.8	37.29	44.575		
7,350.0	7,014.0	6,573.1	6,535.9	25.9	17.5	-96.43	256.6	540.0	1,703.8	1,665.8	37.99	44.849		
7,400.0	7,033.6	6,575.1	6,537.8	26.4	17.5	-90.66	256.9	540.5	1,744.1	1,705.8	38.23	45.620		
7,450.0	7,050.8	6,576.6	6,539.2	26.9	17.5	-85.87	257.1	540.8	1,782.7	1,744.6	38.12	46.769		
7,500.0	7,065.6	6,577.5	6,540.1	27.4	17.5	-81.90	257.2	541.1	1,819.5	1,781.7	37.74	48.213		
7,550.0	7,077.9	6,577.9	6,540.5	27.8	17.5	-78.64	257.3	541.2	1,854.3	1,817.1	37.17	49.887		
7,600.0	7,087.5	6,577.9	6,540.4	28.3	17.5	-75.97	257.3	541.2	1,886.9	1,850.5	36.47	51.733		
7,650.0	7,094.5	6,577.3	6,540.0	28.7	17.5	-73.84	257.2	541.0	1,917.3	1,881.6	35.71	53.696		
7,700.0	7,098.6	6,576.4	6,539.0	29.0	17.5	-72.17	257.1	540.8	1,945.3	1,910.4	34.92	55.714		
7,749.0	7,100.0	6,575.1	6,537.8	29.4	17.5	-70.95	256.9	540.5	1,970.4	1,936.2	34.16	57.677		
7,800.0	7,100.0	6,573.5	6,536.3	29.8	17.5	-70.90	256.7	540.1	1,995.6	1,960.9	34.67	57.561		
7,900.0	7,100.0	6,570.6	6,533.5	30.6	17.5	-70.80	256.3	539.3	2,047.9	2,012.2	35.72	57.328		
8,000.0	7,100.0	6,550.0	6,513.6	31.5	17.4	-70.13	253.9	534.5	2,104.0	2,067.3	36.73	57.284		
8,100.0	7,100.0	6,550.0	6,513.6	32.4	17.4	-70.13	253.9	534.5	2,162.8	2,124.8	37.98	56.940		
8,200.0	7,100.0	6,550.0	6,513.6	33.5	17.4	-70.13	253.9	534.5	2,224.5	2,185.2	39.31	56.589		
8,300.0	7,100.0	6,550.0	6,513.6	34.6	17.4	-70.13	253.9	534.5	2,289.0	2,248.3	40.70	56.243		
8,400.0	7,100.0	6,550.0	6,513.6	35.8	17.4	-70.13	253.9	534.5	2,355.9	2,313.8	42.14	55.910		
8,500.0	7,100.0	6,550.0	6,513.6	37.1	17.4	-70.13	253.9	534.5	2,425.2	2,381.5	43.62	55.595		
8,600.0	7,100.0	6,550.0	6,513.6	38.4	17.4	-70.13	253.9	534.5	2,496.5	2,451.3	45.14	55.301		
8,700.0	7,100.0	6,550.0	6,513.6	39.8	17.4	-70.13	253.9	534.5	2,569.7	2,523.0	46.70	55.028		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 0780 3-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,800.0	7,100.0	6,550.0	6,513.6	41.2	17.4	-70.13	253.9	534.5	2,644.6	2,596.4	48.28	54.778		
8,900.0	7,100.0	6,550.0	6,513.6	42.6	17.4	-70.13	253.9	534.5	2,721.2	2,671.3	49.89	54.549		
9,000.0	7,100.0	6,550.0	6,513.6	44.1	17.4	-70.13	253.9	534.5	2,799.3	2,747.8	51.51	54.341		
9,100.0	7,100.0	6,550.0	6,513.6	45.7	17.4	-70.13	253.9	534.5	2,878.7	2,825.5	53.16	54.152		
9,200.0	7,100.0	6,550.0	6,513.6	47.2	17.4	-70.13	253.9	534.5	2,959.4	2,904.5	54.82	53.982		
9,300.0	7,100.0	6,550.0	6,513.6	48.8	17.4	-70.13	253.9	534.5	3,041.2	2,984.7	56.50	53.828		
9,400.0	7,100.0	6,550.0	6,513.6	50.5	17.4	-70.13	253.9	534.5	3,124.1	3,065.9	58.19	53.690		
9,500.0	7,100.0	6,550.0	6,513.6	52.1	17.4	-70.13	253.9	534.5	3,207.9	3,148.0	59.89	53.566		
9,600.0	7,100.0	6,550.0	6,513.6	53.8	17.4	-70.13	253.9	534.5	3,292.7	3,231.1	61.60	53.455		
9,700.0	7,100.0	6,550.0	6,513.6	55.4	17.4	-70.13	253.9	534.5	3,378.2	3,314.9	63.32	53.355		
9,800.0	7,100.0	6,550.0	6,513.6	57.1	17.4	-70.13	253.9	534.5	3,464.6	3,399.6	65.04	53.266		
9,900.0	7,100.0	6,550.0	6,513.6	58.9	17.4	-70.13	253.9	534.5	3,551.7	3,484.9	66.78	53.186		
10,000.0	7,100.0	6,550.0	6,513.6	60.6	17.4	-70.13	253.9	534.5	3,639.4	3,570.9	68.52	53.115		
10,100.0	7,100.0	6,550.0	6,513.6	62.3	17.4	-70.13	253.9	534.5	3,727.8	3,657.5	70.27	53.052		
10,200.0	7,100.0	6,550.0	6,513.6	64.1	17.4	-70.13	253.9	534.5	3,816.7	3,744.7	72.02	52.996		
10,300.0	7,100.0	6,550.0	6,513.6	65.9	17.4	-70.13	253.9	534.5	3,906.2	3,832.4	73.78	52.947		
10,400.0	7,100.0	6,527.9	6,492.1	67.6	17.3	-69.41	251.9	529.9	3,995.7	3,920.5	75.20	53.135		
10,500.0	7,100.0	6,526.9	6,491.1	69.4	17.3	-69.37	251.8	529.7	4,086.1	4,009.1	76.94	53.106		
10,600.0	7,100.0	6,525.9	6,490.2	71.2	17.3	-69.34	251.8	529.5	4,176.9	4,098.2	78.69	53.082		
10,700.0	7,100.0	6,525.0	6,489.2	73.0	17.3	-69.31	251.7	529.3	4,268.1	4,187.7	80.44	53.061		
10,800.0	7,100.0	6,524.1	6,488.3	74.8	17.3	-69.28	251.6	529.1	4,359.7	4,277.5	82.19	53.045		
10,900.0	7,100.0	6,523.2	6,487.5	76.6	17.3	-69.25	251.6	529.0	4,451.7	4,367.8	83.95	53.031		
11,000.0	7,100.0	6,522.3	6,486.6	78.4	17.3	-69.22	251.5	528.8	4,544.0	4,458.3	85.70	53.020		
11,100.0	7,100.0	6,500.0	6,464.7	80.3	17.2	-68.50	250.2	524.9	4,637.1	4,550.0	87.08	53.252		
11,200.0	7,100.0	6,500.0	6,464.7	82.1	17.2	-68.50	250.2	524.9	4,730.0	4,641.1	88.85	53.236		
11,300.0	7,100.0	6,500.0	6,464.7	83.9	17.2	-68.50	250.2	524.9	4,823.2	4,732.5	90.62	53.223		
11,400.0	7,100.0	6,500.0	6,464.7	85.8	17.2	-68.50	250.2	524.9	4,916.6	4,824.2	92.40	53.212		
11,500.0	7,100.0	6,500.0	6,464.7	87.6	17.2	-68.50	250.2	524.9	5,010.3	4,916.1	94.17	53.203		
11,600.0	7,100.0	6,500.0	6,464.7	89.5	17.2	-68.50	250.2	524.9	5,104.3	5,008.3	95.95	53.195		
11,700.0	7,100.0	6,500.0	6,464.7	91.3	17.2	-68.50	250.2	524.9	5,198.4	5,100.7	97.73	53.190		
11,800.0	7,100.0	6,500.0	6,464.7	93.2	17.2	-68.50	250.2	524.9	5,292.8	5,193.3	99.52	53.186		
11,877.2	7,100.0	6,500.0	6,464.7	94.6	17.2	-68.50	250.2	524.9	5,365.8	5,264.9	100.89	53.184		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 0780 4-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	15.82	149.4	42.3	155.2					
100.0	100.0	100.0	100.0	0.1	0.1	15.82	149.4	42.3	155.2	155.0	0.19	822.214		
200.0	200.0	200.0	200.0	0.3	0.3	15.82	149.4	42.3	155.2	154.6	0.64	243.190		
300.0	300.0	300.0	300.0	0.5	0.5	15.82	149.4	42.3	155.2	154.1	1.09	142.698		
400.0	400.0	400.0	400.0	0.8	0.8	15.82	149.4	42.3	155.2	153.7	1.54	100.974		
500.0	500.0	500.0	500.0	1.0	1.0	15.82	149.4	42.3	155.2	153.3	1.99	78.129 CC, ES		
594.9	594.9	593.4	593.4	1.2	1.2	106.88	149.4	43.8	156.1	153.7	2.39	65.382		
600.0	600.0	598.5	598.5	1.2	1.2	107.00	149.4	44.0	156.2	153.8	2.41	64.854		
700.0	699.9	698.3	698.2	1.4	1.4	109.29	149.4	47.3	158.3	155.5	2.82	56.042		
800.0	799.9	798.1	797.9	1.6	1.6	111.51	149.4	50.6	160.6	157.3	3.25	49.375		
900.0	899.8	897.8	897.6	1.8	1.8	113.66	149.4	53.9	163.1	159.4	3.69	44.226		
1,000.0	999.8	997.6	997.4	2.1	2.1	115.75	149.4	57.2	165.9	161.8	4.13	40.170		
1,100.0	1,099.7	1,097.4	1,097.1	2.3	2.3	117.77	149.4	60.5	168.9	164.3	4.57	36.916		
1,200.0	1,199.7	1,200.0	1,199.6	2.5	2.5	119.32	149.4	62.3	171.3	166.3	5.01	34.200		
1,300.0	1,299.6	1,299.9	1,299.6	2.8	2.7	120.28	149.4	62.3	173.0	167.5	5.43	31.828		
1,405.6	1,405.1	1,405.4	1,405.1	3.0	2.9	121.27	149.4	62.3	174.8	168.9	5.90	29.629		
1,500.5	1,500.0	1,500.3	1,500.0	3.2	3.1	31.72	149.4	62.3	175.6	169.3	6.27	28.004		
1,600.0	1,599.5	1,599.8	1,599.5	3.4	3.3	31.72	149.4	62.3	175.6	168.9	6.69	26.260		
1,700.0	1,699.5	1,699.8	1,699.5	3.6	3.6	31.72	149.4	62.3	175.6	168.5	7.12	24.674		
1,800.0	1,799.5	1,799.8	1,799.5	3.8	3.8	31.72	149.4	62.3	175.6	168.0	7.55	23.262		
1,900.0	1,899.5	1,899.8	1,899.5	4.0	4.0	31.72	149.4	62.3	175.6	167.6	7.98	21.997		
2,000.0	1,999.5	1,999.8	1,999.5	4.2	4.2	31.72	149.4	62.3	175.6	167.2	8.42	20.859		
2,100.0	2,099.5	2,099.8	2,099.5	4.5	4.4	31.72	149.4	62.3	175.6	166.7	8.85	19.829		
2,200.0	2,199.5	2,199.8	2,199.5	4.7	4.7	31.72	149.4	62.3	175.6	166.3	9.29	18.894		
2,300.0	2,299.5	2,299.8	2,299.5	4.9	4.9	31.72	149.4	62.3	175.6	165.9	9.73	18.041		
2,400.0	2,399.5	2,399.8	2,399.5	5.1	5.1	31.72	149.4	62.3	175.6	165.4	10.17	17.261		
2,500.0	2,499.5	2,499.8	2,499.5	5.3	5.3	31.72	149.4	62.3	175.6	165.0	10.61	16.544		
2,600.0	2,599.5	2,599.8	2,599.5	5.5	5.6	31.72	149.4	62.3	175.6	164.5	11.05	15.883		
2,700.0	2,699.5	2,699.8	2,699.5	5.8	5.8	31.72	149.4	62.3	175.6	164.1	11.50	15.272		
2,800.0	2,799.5	2,799.8	2,799.5	6.0	6.0	31.72	149.4	62.3	175.6	163.6	11.94	14.706		
2,900.0	2,899.5	2,899.8	2,899.5	6.2	6.2	31.72	149.4	62.3	175.6	163.2	12.38	14.179		
3,000.0	2,999.5	2,999.8	2,999.5	6.4	6.4	31.72	149.4	62.3	175.6	162.8	12.83	13.689		
3,066.6	3,066.1	3,066.4	3,066.1	6.6	6.6	31.72	149.4	62.3	175.6	162.5	13.12	13.380		
3,100.0	3,099.5	3,099.6	3,099.3	6.6	6.7	31.72	149.4	62.3	175.6	162.3	13.27	13.231		
3,200.0	3,199.5	3,196.7	3,196.3	6.9	6.9	32.17	149.4	64.0	176.5	162.8	13.70	12.881		
3,300.0	3,299.5	3,293.3	3,292.8	7.1	7.1	33.50	149.4	68.9	179.2	165.1	14.13	12.687		
3,400.0	3,399.5	3,389.5	3,388.7	7.3	7.3	35.61	149.4	77.0	184.0	169.5	14.56	12.642 SF		
3,500.0	3,499.5	3,485.0	3,483.5	7.5	7.5	38.36	149.4	88.2	191.1	176.1	14.99	12.749		
3,600.0	3,599.5	3,579.7	3,577.1	7.8	7.8	41.56	149.4	102.4	200.9	185.4	15.44	13.014		
3,700.0	3,699.5	3,673.3	3,669.2	8.0	8.0	45.04	149.4	119.6	213.5	197.6	15.89	13.438		
3,800.0	3,799.5	3,765.7	3,759.4	8.2	8.3	48.60	149.4	139.4	229.4	213.0	16.36	14.018		
3,900.0	3,899.5	3,856.7	3,847.6	8.4	8.6	52.09	149.4	161.8	248.6	231.7	16.86	14.744		
4,000.0	3,999.5	3,950.8	3,938.2	8.6	8.9	55.48	149.4	187.2	270.6	253.2	17.39	15.558		
4,100.0	4,099.5	4,047.0	4,030.8	8.9	9.3	58.46	149.4	213.3	293.7	275.7	17.96	16.349		
4,200.0	4,199.5	4,143.3	4,123.4	9.1	9.7	61.00	149.4	239.5	317.3	298.8	18.55	17.105		
4,300.0	4,299.5	4,239.5	4,216.1	9.3	10.1	63.19	149.4	265.6	341.6	322.4	19.16	17.822		
4,400.0	4,399.5	4,335.7	4,308.7	9.5	10.5	65.10	149.4	291.8	366.2	346.4	19.79	18.500		
4,425.0	4,424.5	4,359.8	4,331.8	9.6	10.6	65.54	149.4	298.3	372.4	352.4	19.95	18.663		
4,500.0	4,499.5	4,431.7	4,401.0	9.8	10.9	156.66	149.4	317.8	392.0	372.5	19.56	20.043		
4,600.0	4,599.4	4,526.7	4,492.4	10.0	11.4	158.11	149.4	343.6	421.2	401.2	19.98	21.081		
4,700.0	4,699.1	4,620.5	4,582.7	10.2	11.8	159.49	149.4	369.1	453.7	433.3	20.38	22.266		
4,800.0	4,798.5	4,713.0	4,671.7	10.4	12.2	160.78	149.4	394.3	489.7	468.9	20.76	23.590		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 0780 4-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.0	4,897.3	4,804.2	4,759.5	10.7	12.7	161.97	149.4	419.0	528.9	507.8	21.12	25.050		
5,000.0	4,995.7	4,893.8	4,845.8	10.9	13.1	163.06	149.4	443.4	571.5	550.1	21.45	26.640		
5,100.0	5,093.3	4,981.9	4,930.5	11.2	13.6	164.05	149.4	467.3	617.4	595.6	21.77	28.355		
5,200.0	5,190.1	5,068.3	5,013.7	11.5	14.0	164.94	149.4	490.8	666.4	644.3	22.07	30.190		
5,300.0	5,286.0	5,152.8	5,095.0	11.9	14.4	165.74	149.4	513.8	718.5	696.1	22.35	32.141		
5,404.0	5,384.6	5,238.8	5,177.7	12.3	14.9	166.48	149.4	537.1	776.0	753.3	22.63	34.289		
5,500.0	5,475.0	5,317.0	5,253.1	12.7	15.3	167.37	149.4	558.4	830.5	807.5	23.02	36.083		
5,600.0	5,569.2	5,398.6	5,331.6	13.1	15.7	168.18	149.4	580.6	887.5	864.0	23.43	37.883		
5,700.0	5,663.5	5,480.2	5,410.0	13.6	16.1	168.89	149.4	602.7	944.5	920.7	23.84	39.613		
5,800.0	5,757.7	5,561.7	5,488.5	14.1	16.5	169.53	149.4	624.9	1,001.7	977.4	24.27	41.275		
5,900.0	5,851.9	5,643.3	5,567.0	14.6	17.0	170.09	149.4	647.0	1,058.9	1,034.2	24.70	42.873		
6,000.0	5,946.1	5,724.9	5,645.5	15.2	17.4	170.60	149.4	669.2	1,116.3	1,091.1	25.14	44.408		
6,100.0	6,040.3	5,806.4	5,724.0	15.7	17.9	171.06	149.4	691.4	1,173.6	1,148.0	25.58	45.885		
6,200.0	6,134.5	5,888.0	5,802.5	16.3	18.3	171.48	149.4	713.5	1,231.0	1,205.0	26.02	47.303		
6,300.0	6,228.8	5,969.6	5,881.0	16.8	18.7	171.86	149.4	735.7	1,288.5	1,262.0	26.47	48.667		
6,400.0	6,323.0	6,051.1	5,959.5	17.4	19.2	172.20	149.4	757.8	1,345.9	1,319.0	26.93	49.979		
6,500.0	6,417.2	6,132.7	6,038.0	18.0	19.6	172.52	149.4	780.0	1,403.4	1,376.1	27.39	51.240		
6,600.0	6,511.4	6,214.3	6,116.5	18.6	20.1	172.82	149.4	802.2	1,461.0	1,433.1	27.85	52.454		
6,610.5	6,521.3	6,222.8	6,124.8	18.7	20.1	172.85	149.4	804.5	1,467.0	1,439.1	27.90	52.579		
6,650.0	6,558.2	6,254.6	6,155.4	18.9	20.3	-176.36	149.4	813.1	1,490.4	1,462.7	27.73	53.749		
6,700.0	6,604.0	6,293.4	6,192.7	19.2	20.5	-164.96	149.4	823.7	1,521.9	1,494.3	27.58	55.182		
6,750.0	6,648.4	6,330.3	6,228.2	19.6	20.7	-155.38	149.4	833.7	1,555.2	1,527.6	27.60	56.343		
6,800.0	6,691.1	6,365.1	6,261.7	20.0	20.9	-146.99	149.4	843.2	1,590.2	1,562.3	27.91	56.983		
6,850.0	6,731.7	6,397.5	6,292.8	20.4	21.1	-139.31	149.4	851.9	1,626.5	1,597.9	28.58	56.905		
6,900.0	6,769.9	6,427.2	6,321.4	20.8	21.2	-132.00	149.4	860.0	1,664.0	1,634.3	29.68	56.058		
6,950.0	6,805.5	6,454.0	6,347.2	21.3	21.4	-124.88	149.4	867.3	1,702.5	1,671.3	31.19	54.580		
7,000.0	6,838.1	6,477.7	6,370.1	21.8	21.5	-117.81	149.4	873.7	1,741.8	1,708.8	33.01	52.765		
7,050.0	6,867.6	6,498.2	6,389.7	22.3	21.6	-110.76	149.4	879.3	1,781.6	1,746.7	34.96	50.954		
7,089.7	6,888.5	6,512.0	6,403.0	22.8	21.7	-105.18	149.4	883.1	1,813.5	1,777.0	36.47	49.720		
7,100.0	6,893.7	6,515.3	6,406.2	22.9	21.7	-105.33	149.4	884.0	1,821.8	1,785.2	36.58	49.805		
7,200.0	6,943.7	6,546.0	6,435.8	24.1	21.9	-106.69	149.4	892.3	1,903.1	1,865.4	37.65	50.545		
7,239.7	6,963.5	6,550.0	6,439.6	24.6	21.9	-106.86	149.4	893.4	1,935.7	1,897.6	38.14	50.749		
7,250.0	6,968.6	6,550.0	6,439.6	24.7	21.9	-105.31	149.4	893.4	1,944.2	1,905.8	38.38	50.650		
7,300.0	6,992.3	6,550.0	6,439.6	25.3	21.9	-98.47	149.4	893.4	1,984.4	1,945.3	39.17	50.663		
7,350.0	7,014.0	6,550.0	6,439.6	25.9	21.9	-92.72	149.4	893.4	2,023.1	1,983.6	39.45	51.275		
7,400.0	7,033.6	6,550.0	6,439.6	26.4	21.9	-87.90	149.4	893.4	2,059.9	2,020.6	39.35	52.345		
7,450.0	7,050.8	6,550.0	6,439.6	26.9	21.9	-83.87	149.4	893.4	2,094.8	2,055.9	38.96	53.766		
7,500.0	7,065.6	6,550.0	6,439.6	27.4	21.9	-80.53	149.4	893.4	2,127.6	2,089.2	38.37	55.453		
7,550.0	7,077.9	6,550.0	6,439.6	27.8	21.9	-77.78	149.4	893.4	2,158.1	2,120.4	37.64	57.329		
7,600.0	7,087.5	6,550.0	6,439.6	28.3	21.9	-75.56	149.4	893.4	2,186.1	2,149.3	36.86	59.312		
7,650.0	7,094.5	6,550.0	6,439.6	28.7	21.9	-73.81	149.4	893.4	2,211.6	2,175.6	36.07	61.315		
7,700.0	7,098.6	6,550.0	6,439.6	29.0	21.9	-72.48	149.4	893.4	2,234.5	2,199.2	35.33	63.242		
7,749.0	7,100.0	6,550.0	6,439.6	29.4	21.9	-71.57	149.4	893.4	2,254.4	2,219.6	34.70	64.959		
7,800.0	7,100.0	6,550.0	6,439.6	29.8	21.9	-71.57	149.4	893.4	2,274.0	2,238.8	35.23	64.557		
7,900.0	7,100.0	6,550.0	6,439.6	30.6	21.9	-71.57	149.4	893.4	2,315.4	2,279.1	36.31	63.775		
8,000.0	7,100.0	6,550.0	6,439.6	31.5	21.9	-71.57	149.4	893.4	2,360.4	2,322.9	37.49	62.963		
8,100.0	7,100.0	6,550.0	6,439.6	32.4	21.9	-71.57	149.4	893.4	2,408.6	2,369.8	38.75	62.151		
8,200.0	7,100.0	6,550.0	6,439.6	33.5	21.9	-71.57	149.4	893.4	2,459.9	2,419.8	40.09	61.357		
8,300.0	7,100.0	6,550.0	6,439.6	34.6	21.9	-71.57	149.4	893.4	2,514.2	2,472.7	41.49	60.595		
8,400.0	7,100.0	6,550.0	6,439.6	35.8	21.9	-71.57	149.4	893.4	2,571.2	2,528.3	42.94	59.875		
8,500.0	7,100.0	6,550.0	6,439.6	37.1	21.9	-71.57	149.4	893.4	2,630.8	2,586.4	44.44	59.200		
8,600.0	7,100.0	6,550.0	6,439.6	38.4	21.9	-71.57	149.4	893.4	2,692.8	2,646.9	45.97	58.573		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 0780 4-8H - Wellbore #1 - Design #1													Offset Site Error:	0.0 usft
Survey Program: 0-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,700.0	7,100.0	6,550.0	6,439.6	39.8	21.9	-71.57	149.4	893.4	2,757.1	2,709.5	47.54	57.994		
8,800.0	7,100.0	6,550.0	6,439.6	41.2	21.9	-71.57	149.4	893.4	2,823.4	2,774.2	49.14	57.461		
8,900.0	7,100.0	6,550.0	6,439.6	42.6	21.9	-71.57	149.4	893.4	2,891.6	2,840.9	50.75	56.973		
9,000.0	7,100.0	6,550.0	6,439.6	44.1	21.9	-71.57	149.4	893.4	2,961.7	2,909.3	52.39	56.526		
9,100.0	7,100.0	6,550.0	6,439.6	45.7	21.9	-71.57	149.4	893.4	3,033.4	2,979.3	54.05	56.119		
9,200.0	7,100.0	6,550.0	6,439.6	47.2	21.9	-71.57	149.4	893.4	3,106.7	3,050.9	55.73	55.747		
9,300.0	7,100.0	6,550.0	6,439.6	48.8	21.9	-71.57	149.4	893.4	3,181.4	3,124.0	57.42	55.409		
9,400.0	7,100.0	6,550.0	6,439.6	50.5	21.9	-71.57	149.4	893.4	3,257.5	3,198.4	59.12	55.101		
9,500.0	7,100.0	6,550.0	6,439.6	52.1	21.9	-71.57	149.4	893.4	3,334.9	3,274.1	60.83	54.821		
9,600.0	7,100.0	6,550.0	6,439.6	53.8	21.9	-71.57	149.4	893.4	3,413.4	3,350.9	62.55	54.567		
9,700.0	7,100.0	6,550.0	6,439.6	55.4	21.9	-71.57	149.4	893.4	3,493.1	3,428.8	64.29	54.335		
9,800.0	7,100.0	6,550.0	6,439.6	57.1	21.9	-71.57	149.4	893.4	3,573.7	3,507.7	66.03	54.125		
9,900.0	7,100.0	6,550.0	6,439.6	58.9	21.9	-71.57	149.4	893.4	3,655.3	3,587.6	67.77	53.934		
10,000.0	7,100.0	6,550.0	6,439.6	60.6	21.9	-71.57	149.4	893.4	3,737.9	3,668.3	69.53	53.760		
10,100.0	7,100.0	6,550.0	6,439.6	62.3	21.9	-71.57	149.4	893.4	3,821.2	3,749.9	71.29	53.602		
10,200.0	7,100.0	6,550.0	6,439.6	64.1	21.9	-71.57	149.4	893.4	3,905.3	3,832.3	73.05	53.458		
10,300.0	7,100.0	6,550.0	6,439.6	65.9	21.9	-71.57	149.4	893.4	3,990.2	3,915.4	74.82	53.327		
10,400.0	7,100.0	6,550.0	6,439.6	67.6	21.9	-71.57	149.4	893.4	4,075.7	3,999.1	76.60	53.208		
10,500.0	7,100.0	6,550.0	6,439.6	69.4	21.9	-71.57	149.4	893.4	4,161.9	4,083.5	78.38	53.100		
10,600.0	7,100.0	6,550.0	6,439.6	71.2	21.9	-71.57	149.4	893.4	4,248.7	4,168.6	80.16	53.002		
10,700.0	7,100.0	6,550.0	6,439.6	73.0	21.9	-71.57	149.4	893.4	4,336.1	4,254.1	81.95	52.913		
10,800.0	7,100.0	6,550.0	6,439.6	74.8	21.9	-71.57	149.4	893.4	4,424.0	4,340.3	83.74	52.832		
10,900.0	7,100.0	6,550.0	6,439.6	76.6	21.9	-71.57	149.4	893.4	4,512.4	4,426.9	85.53	52.758		
11,000.0	7,100.0	6,550.0	6,439.6	78.4	21.9	-71.57	149.4	893.4	4,601.3	4,513.9	87.32	52.691		
11,100.0	7,100.0	6,550.0	6,439.6	80.3	21.9	-71.57	149.4	893.4	4,690.6	4,601.5	89.12	52.631		
11,200.0	7,100.0	6,550.0	6,439.6	82.1	21.9	-71.57	149.4	893.4	4,780.3	4,689.4	90.92	52.576		
11,300.0	7,100.0	6,550.0	6,439.6	83.9	21.9	-71.57	149.4	893.4	4,870.5	4,777.8	92.73	52.526		
11,400.0	7,100.0	6,550.0	6,439.6	85.8	21.9	-71.57	149.4	893.4	4,961.0	4,866.5	94.53	52.481		
11,500.0	7,100.0	6,550.0	6,439.6	87.6	21.9	-71.57	149.4	893.4	5,051.9	4,955.6	96.34	52.441		
11,600.0	7,100.0	6,550.0	6,439.6	89.5	21.9	-71.57	149.4	893.4	5,143.1	5,045.0	98.14	52.404		
11,700.0	7,100.0	6,550.0	6,439.6	91.3	21.9	-71.57	149.4	893.4	5,234.7	5,134.7	99.95	52.371		
11,800.0	7,100.0	6,550.0	6,439.6	93.2	21.9	-71.57	149.4	893.4	5,326.5	5,224.8	101.77	52.341		
11,877.2	7,100.0	6,550.0	6,439.6	94.6	21.9	-71.57	149.4	893.4	5,397.6	5,294.5	103.16	52.320		

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 7-17H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 1031-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	3.0	3.0	0.0	0.0	-106.29	-84.1	-287.9	299.9					
100.0	100.0	104.4	104.4	0.1	0.1	-106.30	-84.1	-287.6	299.7	299.5	0.22	1,378.441		
200.0	200.0	205.8	205.8	0.3	0.2	-106.32	-84.0	-286.9	299.0	298.4	0.56	532.380		
300.0	300.0	307.1	307.1	0.5	0.4	-106.36	-83.9	-285.7	297.8	296.9	0.91	328.807		
400.0	400.0	408.5	408.5	0.8	0.5	-106.40	-83.6	-284.1	296.2	294.9	1.25	236.979		
500.0	500.0	509.8	509.8	1.0	0.6	-106.46	-83.3	-282.0	294.1	292.5	1.59	184.518		
594.9	594.9	605.9	605.8	1.2	0.7	-16.65	-83.0	-279.6	290.2	288.3	1.88	154.274		
600.0	600.0	611.1	611.0	1.2	0.7	-16.66	-83.0	-279.4	289.9	288.0	1.90	152.815		
700.0	699.9	712.2	712.0	1.4	0.8	-16.95	-82.6	-276.4	283.8	281.5	2.22	128.038		
800.0	799.9	813.2	813.0	1.6	1.0	-17.27	-82.1	-272.9	277.2	274.6	2.54	109.073		
900.0	899.8	914.2	913.9	1.8	1.1	-17.62	-81.5	-268.9	270.1	267.2	2.87	94.127		
1,000.0	999.8	1,015.1	1,014.8	2.1	1.2	-18.00	-80.9	-264.5	262.6	259.4	3.20	82.046		
1,100.0	1,099.7	1,096.3	1,095.9	2.3	1.3	-18.75	-83.3	-263.5	259.1	255.5	3.55	72.899		
1,200.0	1,199.7	1,198.1	1,197.6	2.5	1.5	-19.79	-87.4	-264.5	258.2	254.2	3.99	64.788		
1,300.0	1,299.6	1,299.9	1,299.3	2.8	1.8	-20.53	-90.0	-265.3	256.7	252.3	4.42	58.010		
1,405.6	1,405.1	1,405.8	1,405.2	3.0	2.0	-20.97	-91.1	-266.2	254.6	249.7	4.88	52.190		
1,461.0	1,460.5	1,460.9	1,460.3	3.1	2.1	-21.13	-91.6	-266.7	254.1	248.9	5.10	49.804		
1,500.5	1,500.0	1,499.9	1,499.4	3.2	2.1	-111.21	-92.0	-267.1	254.3	249.0	5.31	47.880		
1,600.0	1,599.5	1,597.0	1,596.4	3.4	2.3	-111.36	-93.3	-268.5	256.2	250.5	5.69	45.007		
1,700.0	1,699.5	1,693.6	1,692.9	3.6	2.5	-111.52	-95.0	-271.0	259.2	253.1	6.09	42.600		
1,800.0	1,799.5	1,798.8	1,798.1	3.8	2.7	-111.66	-96.8	-273.6	262.2	255.6	6.52	40.217		
1,900.0	1,899.5	1,903.1	1,902.4	4.0	3.0	-111.69	-97.1	-274.2	262.9	255.9	6.96	37.771		
2,000.0	1,999.5	2,003.4	2,002.7	4.2	3.2	-111.70	-97.2	-274.2	262.8	255.4	7.39	35.584		
2,100.0	2,099.5	2,103.2	2,102.5	4.5	3.4	-111.72	-97.3	-274.1	262.8	255.0	7.81	33.652		
2,200.0	2,199.5	2,203.2	2,202.5	4.7	3.6	-111.72	-97.3	-274.1	262.8	254.5	8.24	31.895		
2,300.0	2,299.5	2,303.3	2,302.5	4.9	3.8	-111.72	-97.3	-274.1	262.8	254.1	8.66	30.333		
2,400.0	2,399.5	2,403.4	2,402.7	5.1	4.0	-111.70	-97.1	-274.1	262.7	253.6	9.09	28.910		
2,500.0	2,499.5	2,503.3	2,502.6	5.3	4.2	-111.69	-97.1	-274.1	262.7	253.2	9.52	27.608		
2,600.0	2,599.5	2,603.3	2,602.6	5.5	4.4	-111.66	-97.0	-274.1	262.7	252.7	9.95	26.409		
2,700.0	2,699.5	2,703.2	2,702.5	5.8	4.6	-111.65	-96.9	-274.1	262.7	252.3	10.38	25.303		
2,800.0	2,799.5	2,803.2	2,802.5	6.0	4.8	-111.65	-96.9	-274.1	262.7	251.9	10.81	24.304		
2,900.0	2,899.5	2,903.2	2,902.5	6.2	5.0	-111.65	-96.9	-274.1	262.7	251.4	11.23	23.383		
3,000.0	2,999.5	3,003.2	3,002.5	6.4	5.2	-111.65	-96.9	-274.1	262.7	251.0	11.66	22.528		
3,100.0	3,099.5	3,103.2	3,102.5	6.6	5.5	-111.65	-96.9	-274.1	262.7	250.6	12.09	21.723		
3,200.0	3,199.5	3,203.2	3,202.5	6.9	5.7	-111.65	-96.9	-274.1	262.7	250.1	12.52	20.972		
3,300.0	3,299.5	3,303.2	3,302.5	7.1	5.9	-111.65	-96.9	-274.1	262.7	249.7	12.95	20.282		
3,400.0	3,399.5	3,403.2	3,402.5	7.3	6.1	-111.65	-96.9	-274.1	262.7	249.3	13.38	19.637		
3,500.0	3,499.5	3,503.2	3,502.5	7.5	6.3	-111.65	-96.9	-274.1	262.7	248.9	13.80	19.027		
3,600.0	3,599.5	3,603.2	3,602.5	7.8	6.5	-111.65	-96.9	-274.1	262.7	248.4	14.23	18.453		
3,700.0	3,699.5	3,703.2	3,702.5	8.0	6.7	-111.65	-96.9	-274.1	262.7	248.0	14.67	17.908		
3,800.0	3,799.5	3,803.4	3,802.7	8.2	6.9	-111.64	-96.8	-274.1	262.6	247.5	15.10	17.387		
3,900.0	3,899.5	3,903.2	3,902.5	8.4	7.1	-111.62	-96.8	-274.1	262.6	247.1	15.54	16.897		
4,000.0	3,999.5	4,003.2	4,002.5	8.6	7.3	-111.62	-96.8	-274.1	262.6	246.6	15.97	16.441		
4,100.0	4,099.5	4,103.2	4,102.5	8.9	7.5	-111.62	-96.8	-274.1	262.6	246.2	16.40	16.008		
4,158.7	4,158.2	4,162.0	4,161.2	9.0	7.7	-111.62	-96.8	-274.1	262.6	245.9	16.66	15.761		
4,200.0	4,199.5	4,203.2	4,202.5	9.1	7.8	-111.62	-96.8	-274.1	262.6	245.8	16.84	15.593		
4,300.0	4,299.5	4,303.1	4,302.3	9.3	8.0	-111.60	-96.7	-274.2	262.7	245.4	17.27	15.206		
4,400.0	4,399.5	4,403.2	4,402.5	9.5	8.2	-111.59	-96.7	-274.3	262.7	245.0	17.70	14.840		
4,425.0	4,424.5	4,428.2	4,427.5	9.6	8.2	-111.59	-96.7	-274.3	262.7	244.9	17.81	14.751		
4,500.0	4,499.5	4,503.2	4,502.5	9.8	8.4	-21.67	-96.6	-274.3	261.8	243.7	18.10	14.464		
4,600.0	4,599.4	4,603.1	4,602.3	10.0	8.6	-22.03	-96.5	-274.3	257.8	239.3	18.50	13.929		
4,700.0	4,699.1	4,702.8	4,702.1	10.2	8.8	-22.76	-96.5	-274.4	250.5	231.6	18.90	13.253		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 7-17H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 1031-Sperry MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,800.0	4,798.5	4,802.2	4,801.5	10.4	9.0	-23.89	-96.5	-274.4	240.1	220.8	19.29	12.444		
4,900.0	4,897.3	4,901.1	4,900.3	10.7	9.2	-25.51	-96.5	-274.4	226.6	207.0	19.68	11.514		
5,000.0	4,995.7	4,999.4	4,998.7	10.9	9.4	-27.80	-96.5	-274.4	210.3	190.2	20.07	10.476		
5,100.0	5,093.3	5,097.0	5,096.3	11.2	9.6	-31.00	-96.5	-274.4	191.3	170.9	20.47	9.345		
5,200.0	5,190.1	5,193.8	5,193.1	11.5	9.8	-35.55	-96.5	-274.4	170.2	149.3	20.91	8.141		
5,300.0	5,286.0	5,289.7	5,289.0	11.9	10.1	-42.16	-96.5	-274.4	147.7	126.3	21.41	6.898		
5,404.0	5,384.6	5,388.3	5,387.6	12.3	10.3	-52.48	-96.5	-274.4	124.5	102.4	22.08	5.640		
5,500.0	5,475.0	5,478.8	5,478.1	12.7	10.5	-65.58	-96.5	-274.4	107.1	84.2	22.89	4.679		
5,600.0	5,569.2	5,573.1	5,572.4	13.1	10.7	-82.75	-96.3	-274.4	97.2	73.5	23.76	4.091		
5,640.0	5,606.9	5,610.8	5,610.1	13.3	10.7	-90.23	-96.3	-274.4	96.3	72.2	24.07	4.001	CC, ES, SF	
5,700.0	5,663.5	5,667.3	5,666.6	13.6	10.9	-101.38	-96.2	-274.3	98.4	74.0	24.41	4.030		
5,800.0	5,757.7	5,761.4	5,760.7	14.1	11.1	-117.97	-96.1	-274.2	110.3	85.6	24.74	4.459		
5,900.0	5,851.9	5,855.8	5,855.0	14.6	11.2	-130.74	-96.0	-274.1	130.1	105.1	24.93	5.218		
6,000.0	5,946.1	5,950.0	5,949.3	15.2	11.4	-139.98	-95.9	-274.2	154.5	129.4	25.12	6.151		
6,100.0	6,040.3	6,044.2	6,043.5	15.7	11.6	-146.70	-95.7	-274.3	181.9	156.5	25.37	7.170		
6,200.0	6,134.5	6,138.3	6,137.6	16.3	11.8	-151.67	-95.6	-274.2	211.1	185.4	25.66	8.225		
6,300.0	6,228.8	6,232.7	6,232.0	16.8	12.0	-155.46	-95.4	-274.2	241.4	215.4	26.00	9.286		
6,400.0	6,323.0	6,326.7	6,326.0	17.4	12.2	-158.37	-95.4	-274.2	272.4	246.1	26.37	10.332		
6,500.0	6,417.2	6,421.3	6,420.6	18.0	12.4	-160.70	-95.3	-274.3	304.0	277.2	26.76	11.359		
6,600.0	6,511.4	6,516.5	6,515.7	18.6	12.6	-162.60	-95.2	-274.5	335.8	308.6	27.17	12.358		
6,610.5	6,521.3	6,526.5	6,525.7	18.7	12.6	-162.78	-95.2	-274.5	339.1	311.9	27.22	12.460		
6,650.0	6,558.2	6,564.4	6,563.7	18.9	12.7	-153.93	-95.0	-274.7	352.0	324.6	27.39	12.850		
6,700.0	6,604.0	6,611.8	6,611.1	19.2	12.8	-145.68	-94.6	-275.0	369.2	341.6	27.60	13.375		
6,750.0	6,648.4	6,659.0	6,658.3	19.6	12.9	-139.97	-94.0	-275.5	387.6	359.7	27.81	13.934		
6,800.0	6,691.1	6,701.8	6,701.0	20.0	13.0	-135.75	-93.7	-276.7	406.8	378.8	28.04	14.510		
6,850.0	6,731.7	6,726.8	6,726.0	20.4	13.1	-131.78	-92.0	-276.3	429.2	400.8	28.34	15.142		
6,900.0	6,769.9	6,751.0	6,750.0	20.8	13.1	-128.42	-89.2	-275.3	454.7	426.0	28.73	15.829		
6,950.0	6,805.5	6,773.2	6,771.9	21.3	13.2	-125.21	-85.8	-273.9	483.4	454.1	29.23	16.537		
7,000.0	6,838.1	6,790.4	6,788.8	21.8	13.2	-121.54	-82.7	-272.4	515.0	485.0	29.93	17.206		
7,050.0	6,867.6	6,804.4	6,802.4	22.3	13.3	-117.32	-79.9	-271.1	549.2	518.4	30.84	17.810		
7,089.7	6,888.5	6,814.0	6,811.7	22.8	13.3	-113.57	-77.9	-270.1	578.0	546.3	31.69	18.242		
7,100.0	6,893.7	6,814.0	6,811.7	22.9	13.3	-113.57	-77.9	-270.1	585.7	553.9	31.80	18.418		
7,200.0	6,943.7	6,831.6	6,828.7	24.1	13.3	-115.91	-73.8	-268.1	663.5	630.8	32.64	20.328		
7,239.7	6,963.5	6,837.2	6,834.1	24.6	13.3	-116.65	-72.4	-267.4	695.8	662.8	33.00	21.085		
7,250.0	6,968.6	6,845.0	6,841.6	24.7	13.3	-115.94	-70.3	-266.5	704.3	671.2	33.13	21.258		
7,300.0	6,992.3	6,845.0	6,841.6	25.3	13.3	-108.09	-70.3	-266.5	745.1	710.8	34.29	21.728		
7,350.0	7,014.0	6,845.0	6,841.6	25.9	13.3	-101.14	-70.3	-266.5	785.3	750.2	35.10	22.374		
7,400.0	7,033.6	6,845.0	6,841.6	26.4	13.3	-95.08	-70.3	-266.5	824.8	789.2	35.56	23.195		
7,450.0	7,050.8	6,845.0	6,841.6	26.9	13.3	-89.86	-70.3	-266.5	863.3	827.6	35.71	24.176		
7,500.0	7,065.6	6,845.0	6,841.6	27.4	13.3	-85.42	-70.3	-266.5	900.8	865.2	35.60	25.304		
7,550.0	7,077.9	6,845.0	6,841.6	27.8	13.3	-81.67	-70.3	-266.5	937.1	901.9	35.28	26.561		
7,600.0	7,087.5	6,845.0	6,841.6	28.3	13.3	-78.55	-70.3	-266.5	972.1	937.3	34.80	27.930		
7,650.0	7,094.5	6,845.0	6,841.6	28.7	13.3	-75.98	-70.3	-266.5	1,005.6	971.4	34.21	29.393		
7,700.0	7,098.6	6,845.0	6,841.6	29.0	13.3	-73.92	-70.3	-266.5	1,037.6	1,004.0	33.55	30.925		
7,749.0	7,100.0	6,845.0	6,841.6	29.4	13.3	-72.34	-70.3	-266.5	1,067.3	1,034.4	32.87	32.467		
7,800.0	7,100.0	6,830.9	6,828.1	29.8	13.3	-71.46	-74.0	-268.2	1,097.9	1,064.6	33.25	33.019		
7,900.0	7,100.0	6,814.0	6,811.7	30.6	13.3	-70.40	-77.9	-270.1	1,162.2	1,128.1	34.14	34.042		
8,000.0	7,100.0	6,814.0	6,811.7	31.5	13.3	-70.40	-77.9	-270.1	1,231.0	1,195.7	35.31	34.860		
8,100.0	7,100.0	6,814.0	6,811.7	32.4	13.3	-70.40	-77.9	-270.1	1,303.8	1,267.2	36.57	35.653		
8,200.0	7,100.0	6,801.0	6,799.1	33.5	13.2	-69.58	-80.6	-271.4	1,379.8	1,342.1	37.73	36.572		
8,300.0	7,100.0	6,794.0	6,792.2	34.6	13.2	-69.15	-82.0	-272.1	1,458.7	1,419.7	39.02	37.387		
8,400.0	7,100.0	6,782.0	6,780.5	35.8	13.2	-68.40	-84.3	-273.2	1,540.0	1,499.7	40.28	38.237		

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

SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design T7N-R80W-S17 - Mutual 7-17H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.0 usft
Survey Program: 1031-Sperry MWD													Offset Well Error:	0.0 usft
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	7,100.0	6,782.0	6,780.5	37.1	13.2	-68.40	-84.3	-273.2	1,623.2	1,581.5	41.74	38.886		
8,600.0	7,100.0	6,782.0	6,780.5	38.4	13.2	-68.40	-84.3	-273.2	1,708.3	1,665.0	43.25	39.498		
8,700.0	7,100.0	6,782.0	6,780.5	39.8	13.2	-68.40	-84.3	-273.2	1,794.8	1,750.1	44.79	40.075		
8,800.0	7,100.0	6,769.1	6,767.8	41.2	13.2	-67.61	-86.5	-274.2	1,882.6	1,836.4	46.13	40.806		
8,900.0	7,100.0	6,765.5	6,764.3	42.6	13.2	-67.39	-87.1	-274.4	1,971.5	1,923.9	47.65	41.372		
9,000.0	7,100.0	6,751.0	6,750.0	44.1	13.1	-66.52	-89.2	-275.3	2,061.6	2,012.6	48.99	42.085		
9,100.0	7,100.0	6,751.0	6,750.0	45.7	13.1	-66.52	-89.2	-275.3	2,152.3	2,101.7	50.60	42.539		
9,200.0	7,100.0	6,751.0	6,750.0	47.2	13.1	-66.52	-89.2	-275.3	2,243.8	2,191.6	52.22	42.967		
9,300.0	7,100.0	6,751.0	6,750.0	48.8	13.1	-66.52	-89.2	-275.3	2,336.0	2,282.2	53.86	43.370		
9,400.0	7,100.0	6,751.0	6,750.0	50.5	13.1	-66.52	-89.2	-275.3	2,428.9	2,373.3	55.51	43.751		
9,500.0	7,100.0	6,751.0	6,750.0	52.1	13.1	-66.52	-89.2	-275.3	2,522.2	2,465.1	57.18	44.111		
9,600.0	7,100.0	6,751.0	6,750.0	53.8	13.1	-66.52	-89.2	-275.3	2,616.1	2,557.2	58.85	44.452		
9,700.0	7,100.0	6,751.0	6,750.0	55.4	13.1	-66.52	-89.2	-275.3	2,710.4	2,649.9	60.53	44.774		
9,800.0	7,100.0	6,751.0	6,750.0	57.1	13.1	-66.52	-89.2	-275.3	2,805.1	2,742.9	62.23	45.080		
9,900.0	7,100.0	6,751.0	6,750.0	58.9	13.1	-66.52	-89.2	-275.3	2,900.2	2,836.2	63.92	45.370		
10,000.0	7,100.0	6,751.0	6,750.0	60.6	13.1	-66.52	-89.2	-275.3	2,995.5	2,929.9	65.63	45.645		
10,100.0	7,100.0	6,736.5	6,735.6	62.3	13.1	-65.65	-91.0	-276.0	3,091.0	3,024.0	66.96	46.159		
10,200.0	7,100.0	6,734.8	6,734.0	64.1	13.1	-65.55	-91.2	-276.1	3,186.9	3,118.2	68.63	46.439		
10,300.0	7,100.0	6,720.0	6,719.2	65.9	13.1	-64.68	-92.6	-276.5	3,283.2	3,213.2	69.92	46.953		
10,400.0	7,100.0	6,720.0	6,719.2	67.6	13.1	-64.68	-92.6	-276.5	3,379.5	3,307.8	71.63	47.181		
10,500.0	7,100.0	6,720.0	6,719.2	69.4	13.1	-64.68	-92.6	-276.5	3,476.0	3,402.7	73.34	47.398		
10,600.0	7,100.0	6,720.0	6,719.2	71.2	13.1	-64.68	-92.6	-276.5	3,572.7	3,497.6	75.05	47.606		
10,700.0	7,100.0	6,720.0	6,719.2	73.0	13.1	-64.68	-92.6	-276.5	3,669.6	3,592.8	76.76	47.805		
10,800.0	7,100.0	6,720.0	6,719.2	74.8	13.1	-64.68	-92.6	-276.5	3,766.6	3,688.1	78.48	47.995		
10,900.0	7,100.0	6,720.0	6,719.2	76.6	13.1	-64.68	-92.6	-276.5	3,863.8	3,783.6	80.20	48.177		
11,000.0	7,100.0	6,720.0	6,719.2	78.4	13.1	-64.68	-92.6	-276.5	3,961.1	3,879.2	81.92	48.351		
11,100.0	7,100.0	6,720.0	6,719.2	80.3	13.1	-64.68	-92.6	-276.5	4,058.6	3,975.0	83.65	48.519		
11,200.0	7,100.0	6,720.0	6,719.2	82.1	13.1	-64.68	-92.6	-276.5	4,156.2	4,070.8	85.38	48.679		
11,300.0	7,100.0	6,720.0	6,719.2	83.9	13.1	-64.68	-92.6	-276.5	4,253.9	4,166.8	87.11	48.834		
11,400.0	7,100.0	6,720.0	6,719.2	85.8	13.1	-64.68	-92.6	-276.5	4,351.7	4,262.8	88.84	48.982		
11,500.0	7,100.0	6,720.0	6,719.2	87.6	13.1	-64.68	-92.6	-276.5	4,449.6	4,359.0	90.58	49.125		
11,600.0	7,100.0	6,720.0	6,719.2	89.5	13.1	-64.68	-92.6	-276.5	4,547.6	4,455.3	92.31	49.263		
11,700.0	7,100.0	6,720.0	6,719.2	91.3	13.1	-64.68	-92.6	-276.5	4,645.6	4,551.6	94.05	49.395		
11,800.0	7,100.0	6,720.0	6,719.2	93.2	13.1	-64.68	-92.6	-276.5	4,743.8	4,648.0	95.79	49.523		
11,877.2	7,100.0	6,720.0	6,719.2	94.6	13.1	-64.68	-92.6	-276.5	4,819.6	4,722.5	97.13	49.619		

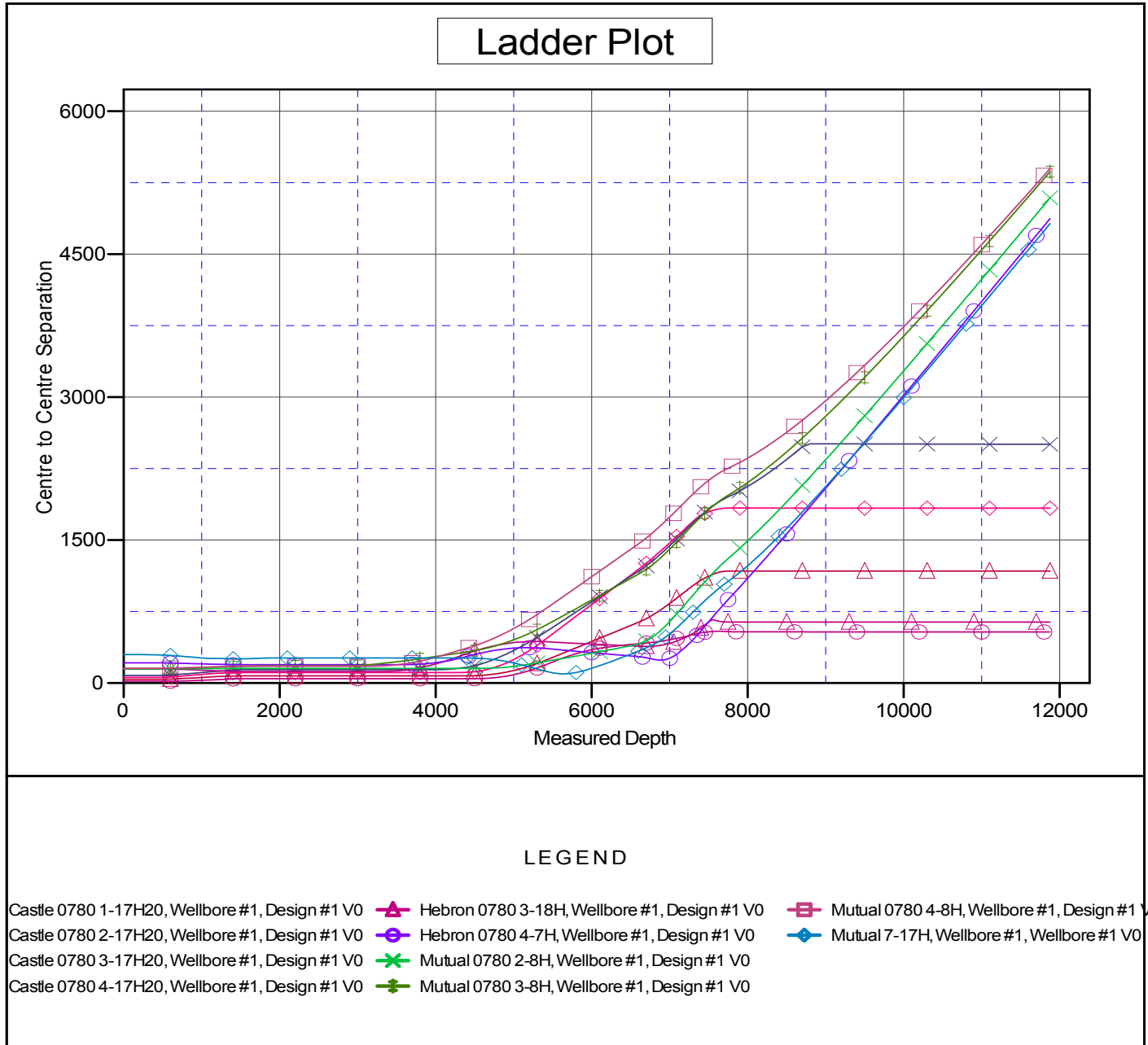
SandRidge Energy

Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

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

Coordinates are relative to: Hebron 0780 4-18H
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: -0.58°



SandRidge Energy

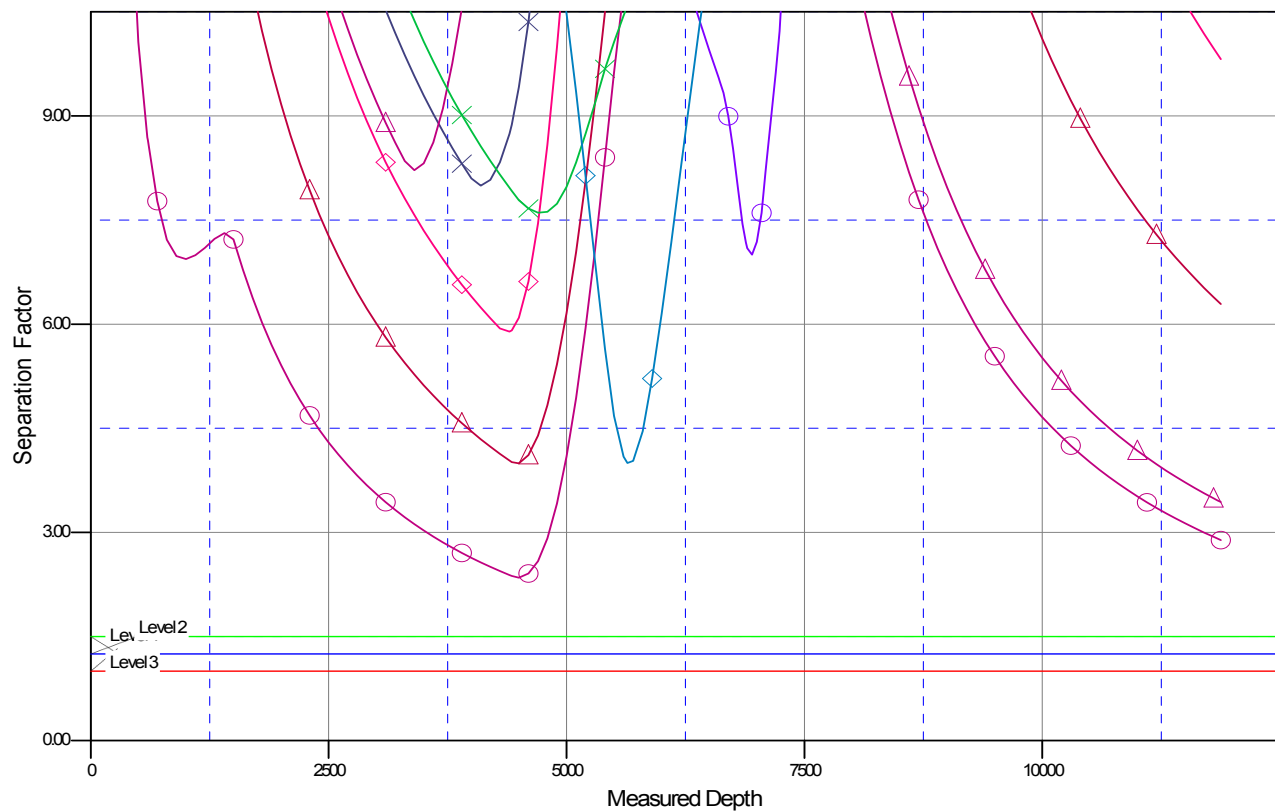
Anticollision Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Hebron 0780 4-18H
Project:	North Park Basin	TVD Reference:	WELL @ 8172.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S17	MD Reference:	WELL @ 8172.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Hebron 0780 4-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMProd
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

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

Coordinates are relative to: Hebron 0780 4-18H
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: -0.58°

Separation Factor Plot



LEGEND

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