SandRidge Energy

North Park Basin
T7N-R80W-S9
Janet 0780 4-16H21

Wellbore #1
Design #1

Anticollision Summary Report

18 December, 2017

SandRidge Energy

Anticollision Summary Report

Company:	SandRidge Energy	**Local Co-ordinate Reference:**	Well Janet 0780 4-16H21
Project:	North Park Basin	**TVD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S9	**MD Reference:**	WELL @ 8151.0usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Janet 0780 4-16H21	**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:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 12/18/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	18,321.2	Design #1 (Wellbore #1)	Sperry MWD	Fixed:v2:standard declination

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
T7N-R80W-S16						
Pintail SWD 0780 1-16D - Wellbore #1 - 33 deg	8,927.6	8,862.4	124.9	41.0	1.489	Level 3, CC, ES, SF
Pintail SWD 0780 2-16D - Wellbore #1 - Design #1	12,010.1	7,402.0	1,852.7	1,762.4	20.507	CC
Pintail SWD 0780 2-16D - Wellbore #1 - Design #1	12,100.0	7,407.0	1,854.9	1,761.6	19.873	ES
Pintail SWD 0780 2-16D - Wellbore #1 - Design #1	12,800.0	7,445.7	2,013.6	1,899.9	17.707	SF
Pintail SWD 0780 3-16D - Wellbore #1 - Design #1	12,381.3	7,279.0	2,323.2	2,227.7	24.309	CC
Pintail SWD 0780 3-16D - Wellbore #1 - Design #1	12,400.0	7,281.7	2,323.3	2,227.4	24.231	ES
Pintail SWD 0780 3-16D - Wellbore #1 - Design #1	13,100.0	7,382.1	2,429.7	2,323.3	22.838	SF
T7N-R80W-S9						
Castle 0780 5-17H20 - Wellbore #1 - Design #1	2,500.0	2,483.0	504.2	493.3	46.134	CC
Castle 0780 5-17H20 - Wellbore #1 - Design #1	2,600.0	2,581.2	504.4	493.0	44.382	ES
Castle 0780 5-17H20 - Wellbore #1 - Design #1	18,321.4	18,937.6	3,989.8	3,582.9	9.805	SF
Castle 0780 6-17H20 - Wellbore #1 - Design #1	2,608.8	2,593.8	497.5	486.0	43.559	CC
Castle 0780 6-17H20 - Wellbore #1 - Design #1	2,800.0	2,781.8	497.9	485.6	40.657	ES
Castle 0780 6-17H20 - Wellbore #1 - Design #1	18,321.4	18,602.0	3,331.8	2,925.9	8.210	SF
Castle 0780 7-17H20 - Wellbore #1 - Design #1	2,800.0	2,785.0	491.1	478.8	39.990	CC
Castle 0780 7-17H20 - Wellbore #1 - Design #1	2,900.0	2,881.6	491.3	478.6	38.682	ES
Castle 0780 7-17H20 - Wellbore #1 - Design #1	18,321.4	18,366.1	2,674.7	2,269.3	6.597	SF
Castle 0780 8-17H20 - Wellbore #1 - Design #1	3,250.9	3,232.0	483.8	469.5	33.933	CC
Castle 0780 8-17H20 - Wellbore #1 - Design #1	3,300.0	3,280.5	483.9	469.4	33.411	ES
Castle 0780 8-17H20 - Wellbore #1 - Design #1	18,321.4	18,294.6	2,019.6	1,614.9	4.990	SF
Gregory 0780 1-9H - Wellbore #1 - Wellbore #1	3,067.7	3,067.0	247.4	234.2	18.713	CC
Gregory 0780 1-9H - Wellbore #1 - Wellbore #1	3,100.0	3,098.8	247.5	234.2	18.511	ES
Gregory 0780 1-9H - Wellbore #1 - Wellbore #1	3,300.0	3,296.1	255.2	240.9	17.817	SF
Gregory 0780 2-9H - Wellbore #1 - Design #1	3,463.8	3,440.9	328.7	313.4	21.505	CC
Gregory 0780 2-9H - Wellbore #1 - Design #1	3,500.0	3,476.1	328.8	313.4	21.258	ES
Gregory 0780 2-9H - Wellbore #1 - Design #1	7,300.0	7,305.5	517.1	480.5	14.119	SF
Gregory 0780 3-9H - Wellbore #1 - Design #1	6,600.0	6,581.2	82.6	46.1	2.262	SF
Gregory 0780 3-9H - Wellbore #1 - Design #1	6,800.0	6,780.5	79.6	44.8	2.288	ES
Gregory 0780 3-9H - Wellbore #1 - Design #1	6,862.6	6,842.9	79.4	45.0	2.309	CC
Gregory 0780 4-9H - Wellbore #1 - Design #1	7,518.2	7,474.4	197.1	149.8	4.169	CC, ES
Gregory 0780 4-9H - Wellbore #1 - Design #1	7,600.0	7,550.0	200.5	152.1	4.146	SF
Janet 0780 1-16H21 - Wellbore #1 - Design #1	2,800.0	2,800.0	45.0	32.7	3.657	CC
Janet 0780 1-16H21 - Wellbore #1 - Design #1	2,900.0	2,900.0	45.1	32.3	3.538	ES
Janet 0780 1-16H21 - Wellbore #1 - Design #1	3,000.0	2,999.8	45.7	32.6	3.472	SF
Janet 0780 2-16H21 - Wellbore #1 - Design #1	2,800.0	2,800.0	30.0	17.7	2.438	CC
Janet 0780 2-16H21 - Wellbore #1 - Design #1	2,900.0	2,900.0	30.1	17.4	2.362	ES

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

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Reference Well:	Janet 0780 4-16H21	**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

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
T7N-R80W-S9						
Janet 0780 2-16H21 - Wellbore #1 - Design #1	3,000.0	2,999.8	31.0	17.8	2.353	SF
Janet 0780 3-16H21 - Wellbore #1 - Design #1	2,800.0	2,800.0	15.0	2.7	1.219	Level 2, CC
Janet 0780 3-16H21 - Wellbore #1 - Design #1	2,900.0	2,900.0	15.2	2.4	1.189	Level 2, ES, SF
Mutual 0780 5-8H - Wellbore #1 - Design #1	2,980.4	2,963.0	633.7	620.6	48.702	CC
Mutual 0780 5-8H - Wellbore #1 - Design #1	3,000.0	2,982.0	633.7	620.6	48.386	ES
Mutual 0780 5-8H - Wellbore #1 - Design #1	3,700.0	3,576.9	705.6	688.8	42.014	SF
Mutual 0780 6-8H - Wellbore #1 - Design #1	3,479.7	3,479.8	628.4	613.0	40.835	CC
Mutual 0780 6-8H - Wellbore #1 - Design #1	3,500.0	3,498.3	628.5	613.0	40.549	ES
Mutual 0780 6-8H - Wellbore #1 - Design #1	4,000.0	3,922.8	688.5	669.8	36.895	SF
Mutual 0780 7-8H - Wellbore #1 - Design #1	3,634.6	3,613.8	654.5	638.3	40.391	CC
Mutual 0780 7-8H - Wellbore #1 - Design #1	3,700.0	3,679.6	654.7	638.2	39.522	ES
Mutual 0780 7-8H - Wellbore #1 - Design #1	4,400.0	4,304.8	720.9	700.1	34.631	SF
Mutual 0780 8-8H - Wellbore #1 - Design #1	3,576.7	3,550.2	667.3	651.4	42.003	CC
Mutual 0780 8-8H - Wellbore #1 - Design #1	3,600.0	3,572.6	667.3	651.3	41.674	ES
Mutual 0780 8-8H - Wellbore #1 - Design #1	4,700.0	4,625.4	747.6	725.0	32.964	SF

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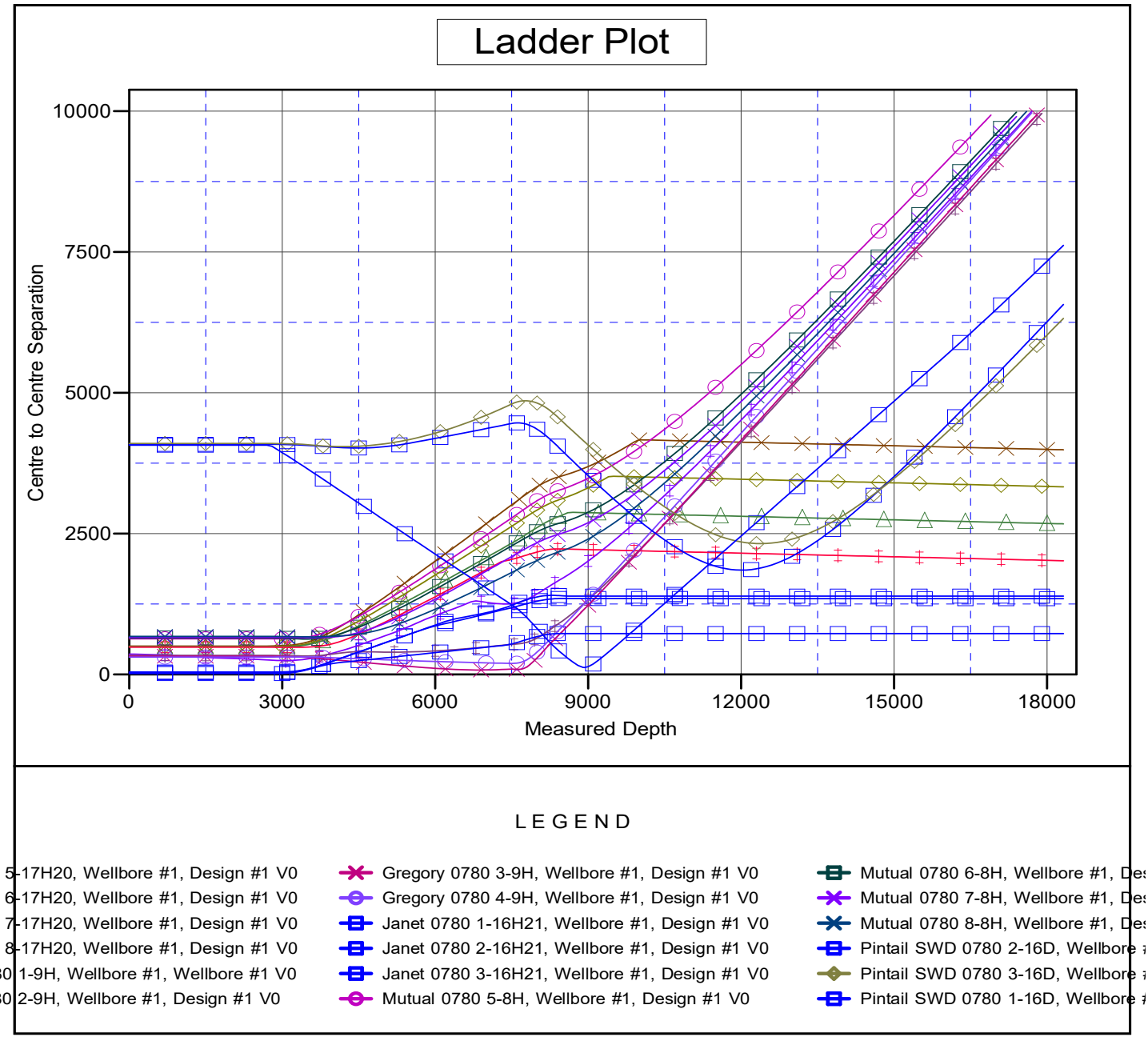
Reference Design:	Design #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 8151.0usft (Original Well Ele
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Janet 0780 4-16H21
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: -0.57°



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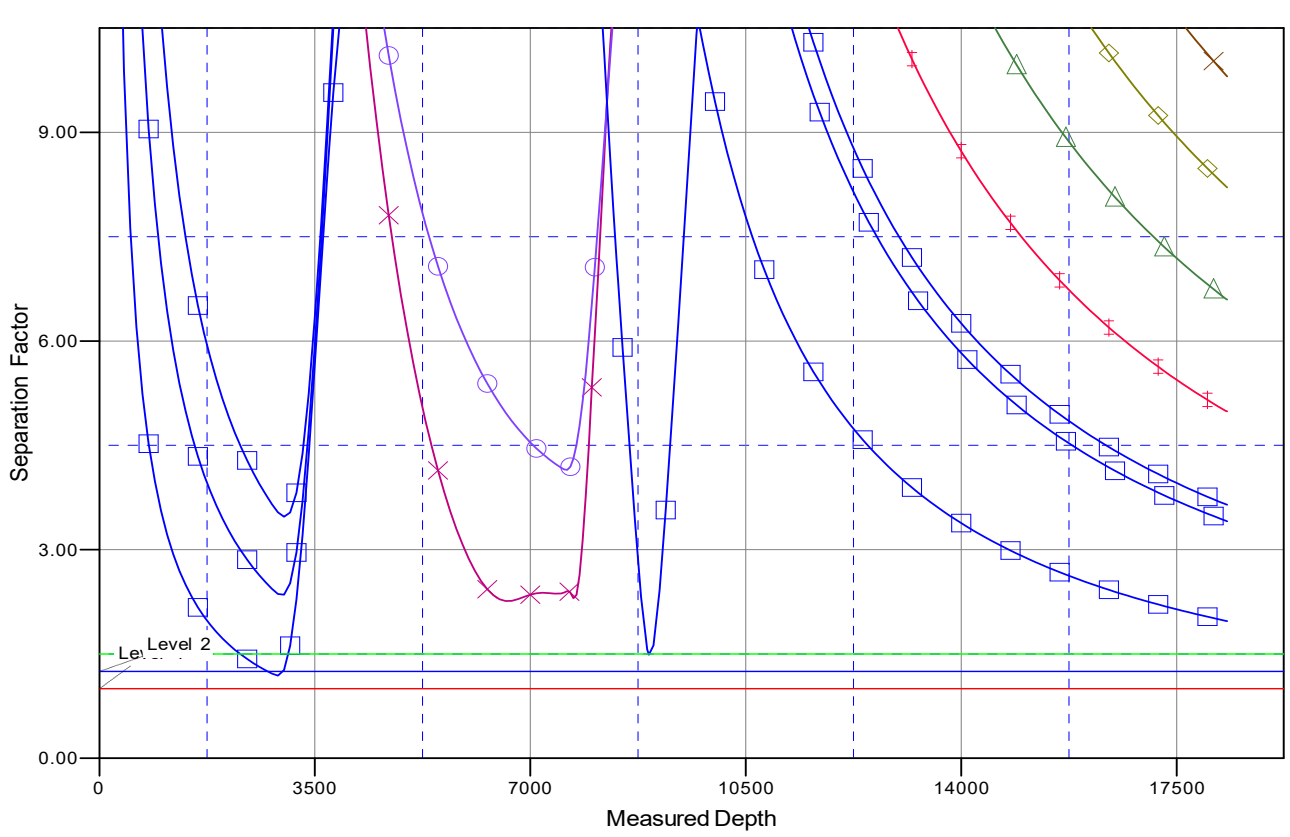

LEGEND

5-17H20, Wellbore #1, Design #1 V0	Gregory 0780 3-9H, Wellbore #1, Design #1 V0	Mutual 0780 6-8H, Wellbore #1, Des
6-17H20, Wellbore #1, Design #1 V0	Gregory 0780 4-9H, Wellbore #1, Design #1 V0	Mutual 0780 7-8H, Wellbore #1, Des
7-17H20, Wellbore #1, Design #1 V0	Janet 0780 1-16H21, Wellbore #1, Design #1 V0	Mutual 0780 8-8H, Wellbore #1, Des
8-17H20, Wellbore #1, Design #1 V0	Janet 0780 2-16H21, Wellbore #1, Design #1 V0	Pintail SWD 0780 2-16D, Wellbore #
1-9H, Wellbore #1, Wellbore #1 V0	Janet 0780 3-16H21, Wellbore #1, Design #1 V0	Pintail SWD 0780 3-16D, Wellbore #
2-9H, Wellbore #1, Design #1 V0	Mutual 0780 5-8H, Wellbore #1, Design #1 V0	Pintail SWD 0780 1-16D, Wellbore #