

SandRidge Energy

North Park Basin

T7N-R80W-S9

Castle 0780 5-17H20

Wellbore #1

Design #1

Anticollision Summary Report

29 August, 2016

SandRidge Energy

Anticollision Summary Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Castle 0780 5-17H20
Project:	North Park Basin	TVD Reference:	WELL @ 8134.0usft (Original Well Elev)
Reference Site:	T7N-R80W-S9	MD Reference:	WELL @ 8134.0usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Castle 0780 5-17H20	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	8/10/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	18,718.3	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-S9						
Castle 0780 6-17H20 - Wellbore #1 - Design #1	2,500.0	2,502.0	15.1	4.1	1.377	Level 3, CC, ES, SF
Castle 0780 7-17H20 - Wellbore #1 - Design #1	2,500.0	2,502.0	30.2	19.3	2.754	CC, ES, SF
Castle 0780 8-17H20 - Wellbore #1 - Design #1	2,500.0	2,500.0	45.4	34.4	4.131	CC, ES
Castle 0780 8-17H20 - Wellbore #1 - Design #1	2,600.0	2,600.0	47.0	35.6	4.119	SF
Gregory 0780 1-9H - Wellbore #1 - Wellbore #1	0.0	3.0	164.2			
Gregory 0780 1-9H - Wellbore #1 - Wellbore #1	3,500.0	3,481.8	328.9	313.4	21.208	SF
Gregory 0780 2-9H - Wellbore #1 - Design #1	2,500.0	2,500.0	193.5	182.6	17.630	CC, ES
Gregory 0780 2-9H - Wellbore #1 - Design #1	2,800.0	2,799.5	202.1	189.9	16.494	SF
Gregory 0780 3-9H - Wellbore #1 - Design #1	2,500.0	2,500.0	203.2	192.2	18.508	CC, ES
Gregory 0780 3-9H - Wellbore #1 - Design #1	2,900.0	2,898.7	217.7	205.0	17.160	SF
Gregory 0780 4-9H - Wellbore #1 - Design #1	2,500.0	2,500.0	213.4	202.5	19.442	CC, ES
Gregory 0780 4-9H - Wellbore #1 - Design #1	2,700.0	2,692.6	219.8	208.0	18.653	SF
Mutual 0780 5-8H - Wellbore #1 - Design #1	3,587.3	3,613.3	143.6	126.5	8.414	CC
Mutual 0780 5-8H - Wellbore #1 - Design #1	3,600.0	3,626.0	143.6	126.4	8.361	ES
Mutual 0780 5-8H - Wellbore #1 - Design #1	4,900.0	4,923.3	187.0	159.3	6.748	SF
Mutual 0780 6-8H - Wellbore #1 - Design #1	2,500.0	2,500.0	166.3	155.3	15.151	CC, ES
Mutual 0780 6-8H - Wellbore #1 - Design #1	3,500.0	3,537.7	204.4	189.3	13.526	SF
Mutual 0780 7-8H - Wellbore #1 - Design #1	2,500.0	2,500.0	181.4	170.5	16.528	CC, ES
Mutual 0780 7-8H - Wellbore #1 - Design #1	2,800.0	2,799.5	189.2	177.0	15.436	SF
Mutual 0780 8-8H - Wellbore #1 - Design #1	2,500.0	2,500.0	196.6	185.6	17.906	CC, ES
Mutual 0780 8-8H - Wellbore #1 - Design #1	2,900.0	2,898.7	210.9	198.2	16.629	SF

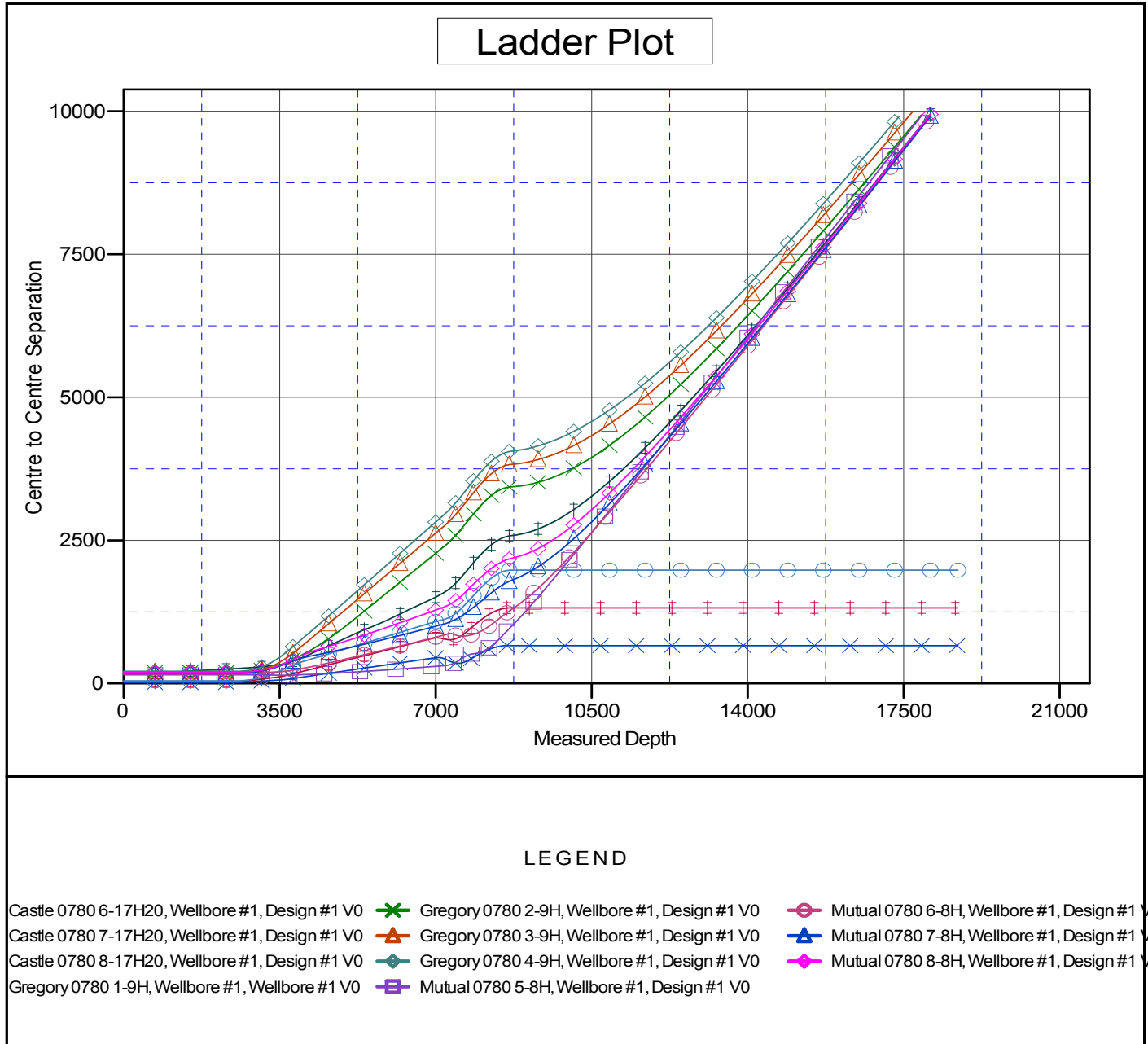
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Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 8134.0usft (Original Well Ele)
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Castle 0780 5-17H20
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: -0.57°



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

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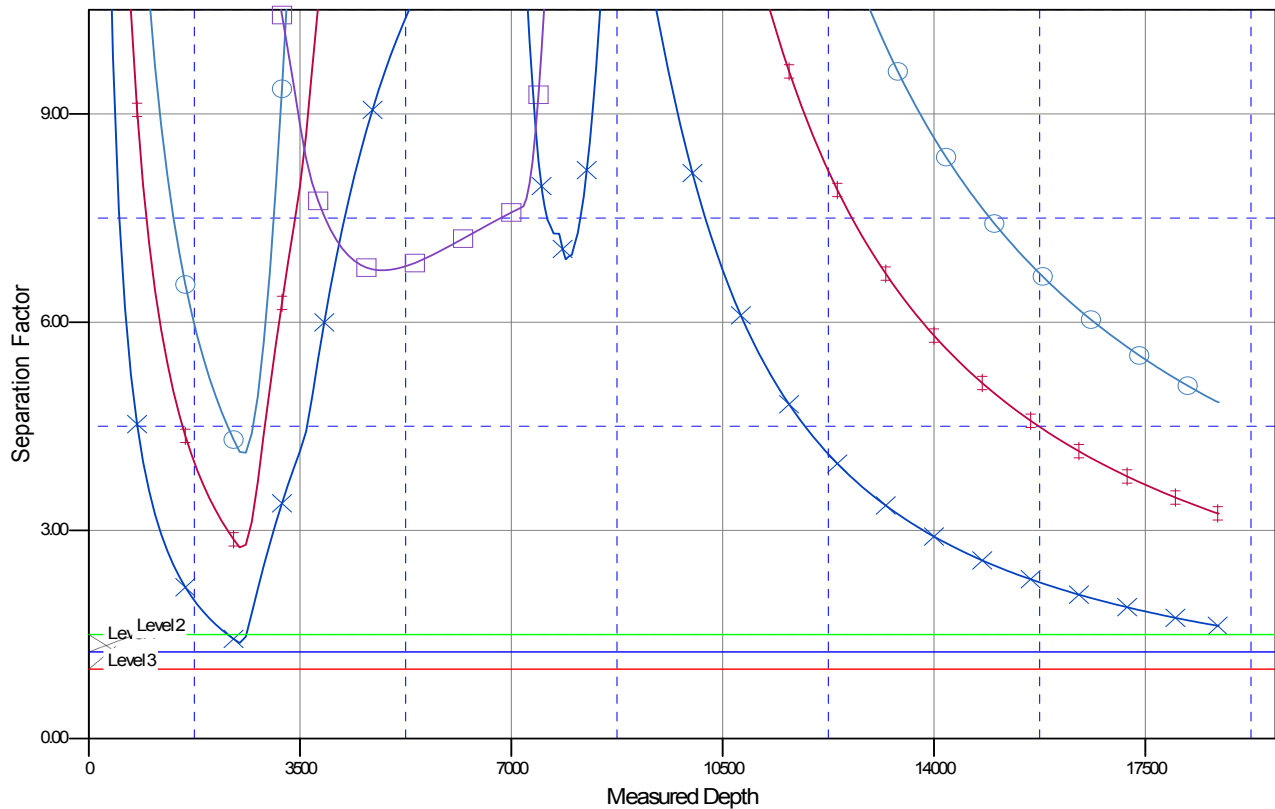
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Separation Factor Plot



LEGEND

- Castle 0780 6-17H20, Wellbore #1, Design #1 V0
 ✕ Gregory 0780 2-9H, Wellbore #1, Design #1 V0
 ⊖ Mutual 0780 6-8H, Wellbore #1, Design #1 V0
- Castle 0780 7-17H20, Wellbore #1, Design #1 V0
 △ Gregory 0780 3-9H, Wellbore #1, Design #1 V0
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