

# **SandRidge Energy**

**North Park Basin**

**T7N-R80W-S9**

**Castle 0780 8-17H20**

**Wellbore #1**

**Design #1**

## **Anticollision Summary Report**

**29 August, 2016**

# SandRidge Energy

## Anticollision Summary Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Castle 0780 8-17H20
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8134.0usft
<b>Reference Site:</b>	T7N-R80W-S9	<b>MD Reference:</b>	WELL @ 8134.0usft
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Castle 0780 8-17H20	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

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

Survey Tool Program		Date	8/10/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	18,064.5	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 5-17H20 - Wellbore #1 - Design #1	2,500.0	2,500.0	45.4	34.4	4.132	CC, ES
Castle 0780 5-17H20 - Wellbore #1 - Design #1	2,600.0	2,598.5	47.0	35.6	4.117	SF
Castle 0780 6-17H20 - Wellbore #1 - Design #1	2,630.6	2,632.6	30.2	18.7	2.614	CC, ES
Castle 0780 6-17H20 - Wellbore #1 - Design #1	2,700.0	2,701.5	30.7	18.8	2.585	SF
Castle 0780 7-17H20 - Wellbore #1 - Design #1	2,766.0	2,768.0	15.1	2.9	1.242	Level 2, CC
Castle 0780 7-17H20 - Wellbore #1 - Design #1	2,800.0	2,802.0	15.1	2.8	1.227	Level 2, ES, SF
Gregory 0780 1-9H - Wellbore #1 - Wellbore #1	0.0	3.0	168.5			
Gregory 0780 1-9H - Wellbore #1 - Wellbore #1	100.0	102.4	168.6	168.4	844.790	ES
Gregory 0780 1-9H - Wellbore #1 - Wellbore #1	4,000.0	3,993.6	326.1	308.9	18.969	SF
Gregory 0780 2-9H - Wellbore #1 - Design #1	3,500.0	3,500.0	160.4	145.0	10.368	CC, ES
Gregory 0780 2-9H - Wellbore #1 - Design #1	3,700.0	3,699.8	165.4	149.1	10.125	SF
Gregory 0780 3-9H - Wellbore #1 - Design #1	2,900.0	2,900.0	171.9	159.2	13.458	CC, ES
Gregory 0780 3-9H - Wellbore #1 - Design #1	3,200.0	3,190.9	179.5	165.4	12.784	SF
Gregory 0780 4-9H - Wellbore #1 - Design #1	2,500.0	2,500.0	183.9	173.0	16.756	CC, ES
Gregory 0780 4-9H - Wellbore #1 - Design #1	2,900.0	2,890.2	193.7	181.0	15.266	SF
Mutual 0780 5-8H - Wellbore #1 - Design #1	2,928.0	2,929.6	148.9	136.1	11.614	CC, ES
Mutual 0780 5-8H - Wellbore #1 - Design #1	3,100.0	3,098.0	152.0	138.4	11.188	SF
Mutual 0780 6-8H - Wellbore #1 - Design #1	3,498.5	3,505.6	142.6	127.3	9.305	CC
Mutual 0780 6-8H - Wellbore #1 - Design #1	4,235.2	4,228.0	144.5	125.9	7.749	ES
Mutual 0780 6-8H - Wellbore #1 - Design #1	4,400.0	4,390.3	147.3	128.1	7.644	SF
Mutual 0780 7-8H - Wellbore #1 - Design #1	4,735.9	4,747.2	19.2	-1.5	0.928	Level 1, CC, ES, SF
Mutual 0780 8-8H - Wellbore #1 - Design #1	4,726.9	4,744.5	130.7	110.1	6.346	CC, ES
Mutual 0780 8-8H - Wellbore #1 - Design #1	7,722.8	7,550.0	179.1	143.7	5.062	SF

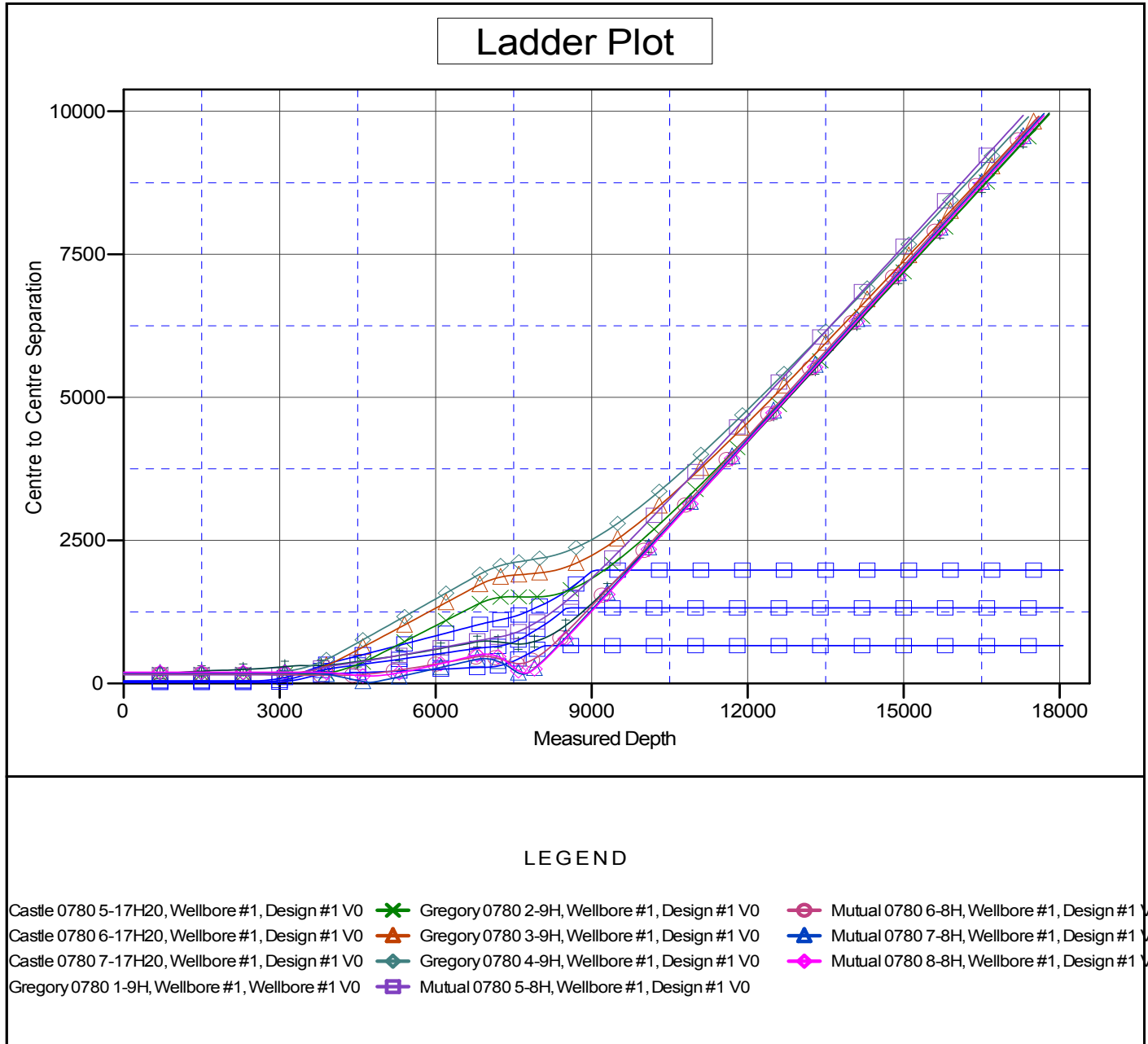
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<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

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

Coordinates are relative to: Castle 0780 8-17H20  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: -0.57°



# SandRidge Energy

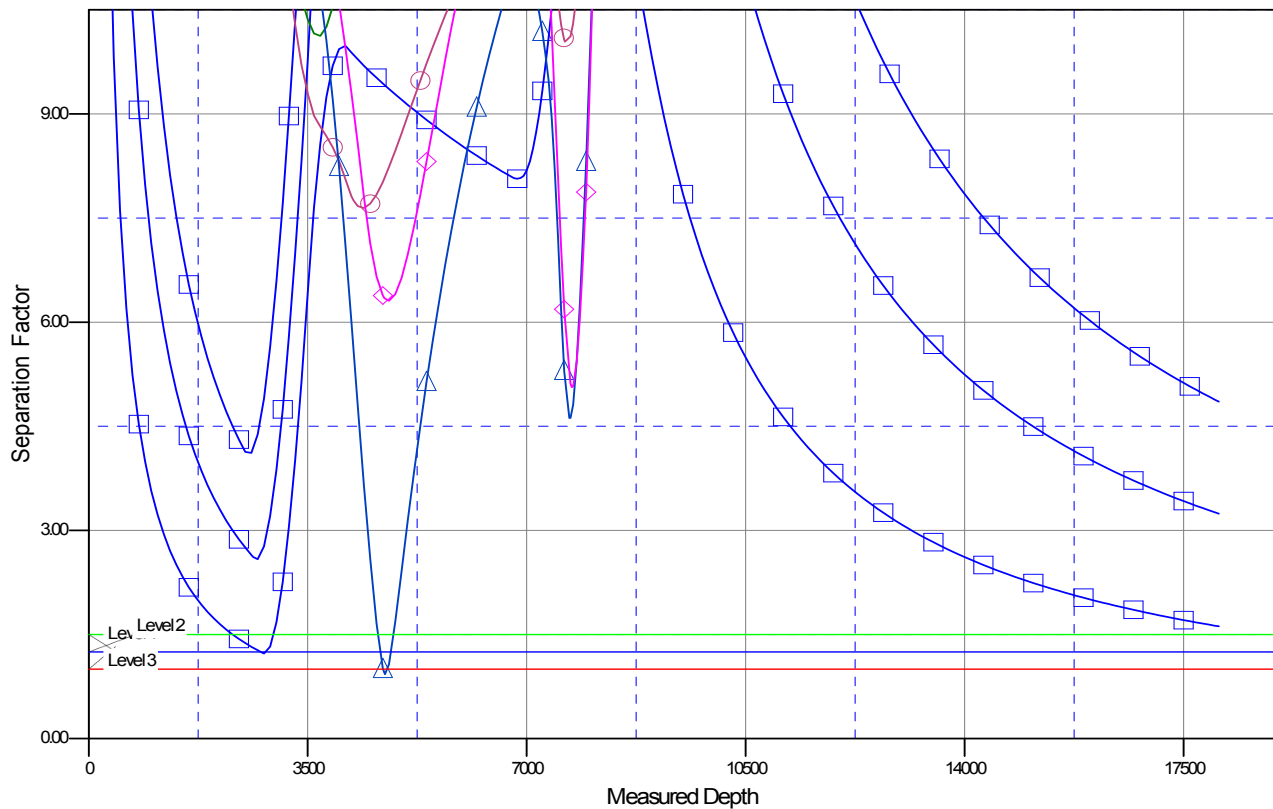
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### Separation Factor Plot



### LEGEND

- Castle 0780 5-17H20, Wellbore #1, Design #1 V0
- Castle 0780 6-17H20, Wellbore #1, Design #1 V0
- Castle 0780 7-17H20, Wellbore #1, Design #1 V0
- Gregory 0780 1-9H, Wellbore #1, Wellbore #1 V0
- ✱ Gregory 0780 2-9H, Wellbore #1, Design #1 V0
- △ Gregory 0780 3-9H, Wellbore #1, Design #1 V0
- ◇ Gregory 0780 4-9H, Wellbore #1, Design #1 V0
- ⊠ Mutual 0780 5-8H, Wellbore #1, Design #1 V0
- ⊙ Mutual 0780 6-8H, Wellbore #1, Design #1 V0
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