

# **SandRidge Energy**

**North Park Basin**

**T7N-R80W-S9**

**Mutual 0780 6-8H**

**Wellbore #1**

**Design #1**

## **Anticollision Summary Report**

**18 May, 2016**

# SandRidge Energy

## Anticollision Summary Report

<b>Company:</b>	SandRidge Energy	<b>Local Co-ordinate Reference:</b>	Well Mutual 0780 6-8H
<b>Project:</b>	North Park Basin	<b>TVD Reference:</b>	WELL @ 8134.0usft (Original Well Elev)
<b>Reference Site:</b>	T7N-R80W-S9	<b>MD Reference:</b>	WELL @ 8134.0usft (Original Well Elev)
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	Mutual 0780 6-8H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDMProd
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

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

<b>Survey Tool Program</b>	Date	5/18/2016		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	13,159.0	Design #1 (Wellbore #1)	Sperry MWD	Fixed:v2:standard declination

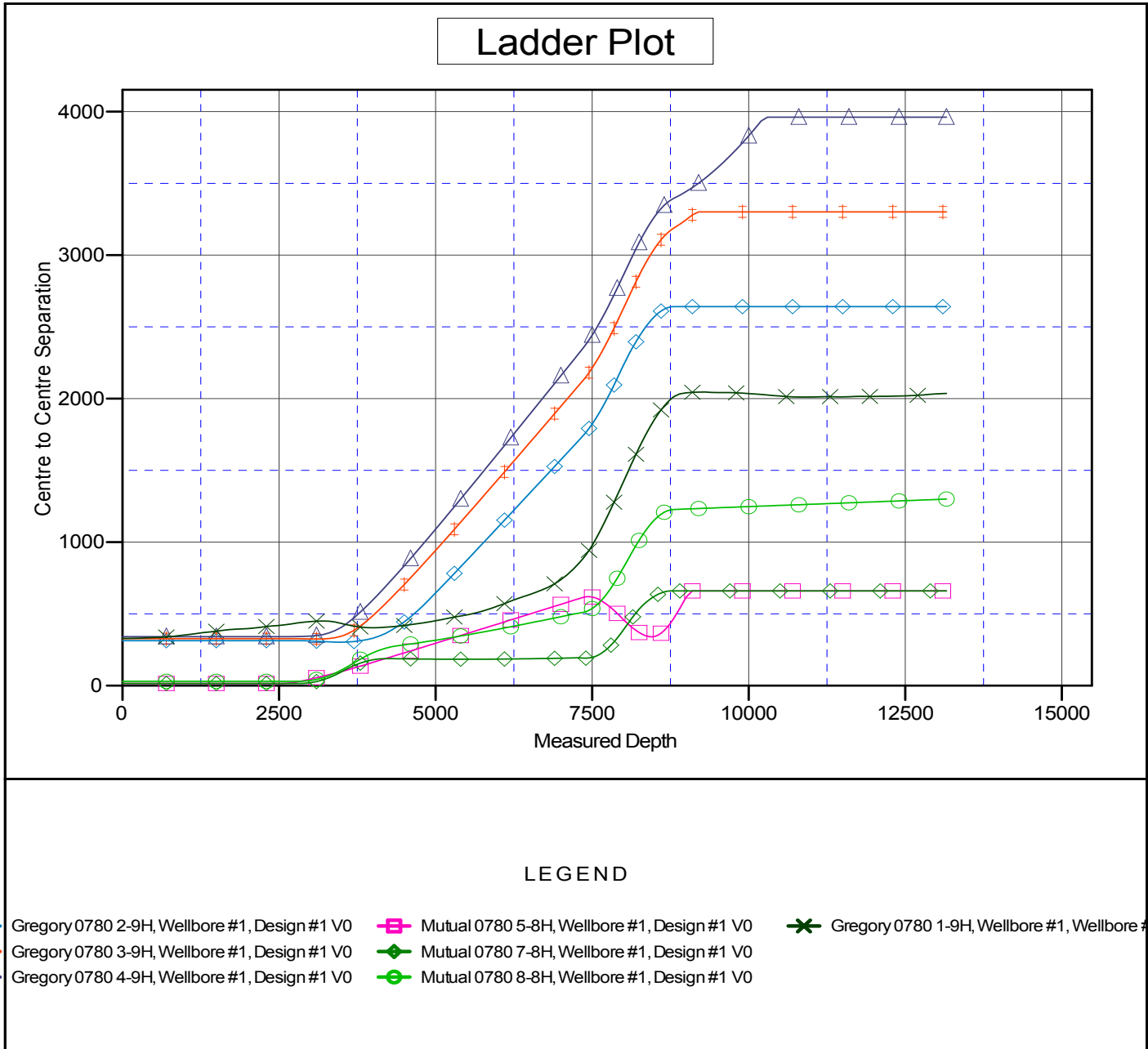
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
<b>Offset Well - Wellbore - Design</b>						
T7N-R80W-S9						
Gregory 0780 1-9H - Wellbore #1 - Wellbore #1	0.0	3.0	329.4			
Gregory 0780 1-9H - Wellbore #1 - Wellbore #1	13,159.3	12,590.9	2,036.6	1,862.5	11.698	SF
Gregory 0780 2-9H - Wellbore #1 - Design #1	3,483.1	3,476.6	303.0	287.6	19.721	CC
Gregory 0780 2-9H - Wellbore #1 - Design #1	3,500.0	3,493.1	303.0	287.6	19.615	ES
Gregory 0780 2-9H - Wellbore #1 - Design #1	13,159.3	13,041.8	2,641.4	2,447.7	13.639	SF
Gregory 0780 3-9H - Wellbore #1 - Design #1	3,127.2	3,119.3	325.1	311.5	23.824	CC, ES
Gregory 0780 3-9H - Wellbore #1 - Design #1	13,159.3	13,084.8	3,301.4	3,108.4	17.102	SF
Gregory 0780 4-9H - Wellbore #1 - Design #1	2,500.0	2,500.0	341.1	330.1	31.075	CC
Gregory 0780 4-9H - Wellbore #1 - Design #1	2,600.0	2,599.1	341.3	329.8	29.907	ES
Gregory 0780 4-9H - Wellbore #1 - Design #1	13,159.3	13,247.7	3,961.5	3,769.5	20.633	SF
Mutual 0780 5-8H - Wellbore #1 - Design #1	2,500.0	2,500.0	15.1	4.1	1.377	Level 3, CC, ES, SF
Mutual 0780 7-8H - Wellbore #1 - Design #1	2,800.0	2,800.0	15.1	2.8	1.227	Level 2, CC, ES, SF
Mutual 0780 8-8H - Wellbore #1 - Design #1	2,800.0	2,800.0	30.2	17.9	2.453	CC, ES, SF

# SandRidge Energy

## Anticollision Summary Report

<b>Company:</b> SandRidge Energy	<b>Local Co-ordinate Reference:</b> Well Mutual 0780 6-8H	
<b>Project:</b> North Park Basin	<b>TVD Reference:</b> WELL @ 8134.0usft (Original Well Elev)	
<b>Reference Site:</b> T7N-R80W-S9	<b>MD Reference:</b> WELL @ 8134.0usft (Original Well Elev)	
<b>Site Error:</b> 0.0 usft	<b>North Reference:</b> Grid	
<b>Reference Well:</b> Mutual 0780 6-8H	<b>Survey Calculation Method:</b> Minimum Curvature	
<b>Well Error:</b> 0.0 usft	<b>Output errors are at:</b> 2.00 sigma	
<b>Reference Wellbore:</b> Wellbore #1	<b>Database:</b> EDMProd	
<b>Reference Design:</b> Design #1	<b>Offset TVD Reference:</b> Offset Datum	

Reference Depths are relative to WELL @ 8134.0usft (Original Well Ele)      Coordinates are relative to: Mutual 0780 6-8H  
 Offset Depths are relative to Offset Datum      Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Central Meridian is 105° 30' 0.000 W      Grid Convergence at Surface is: -0.57°



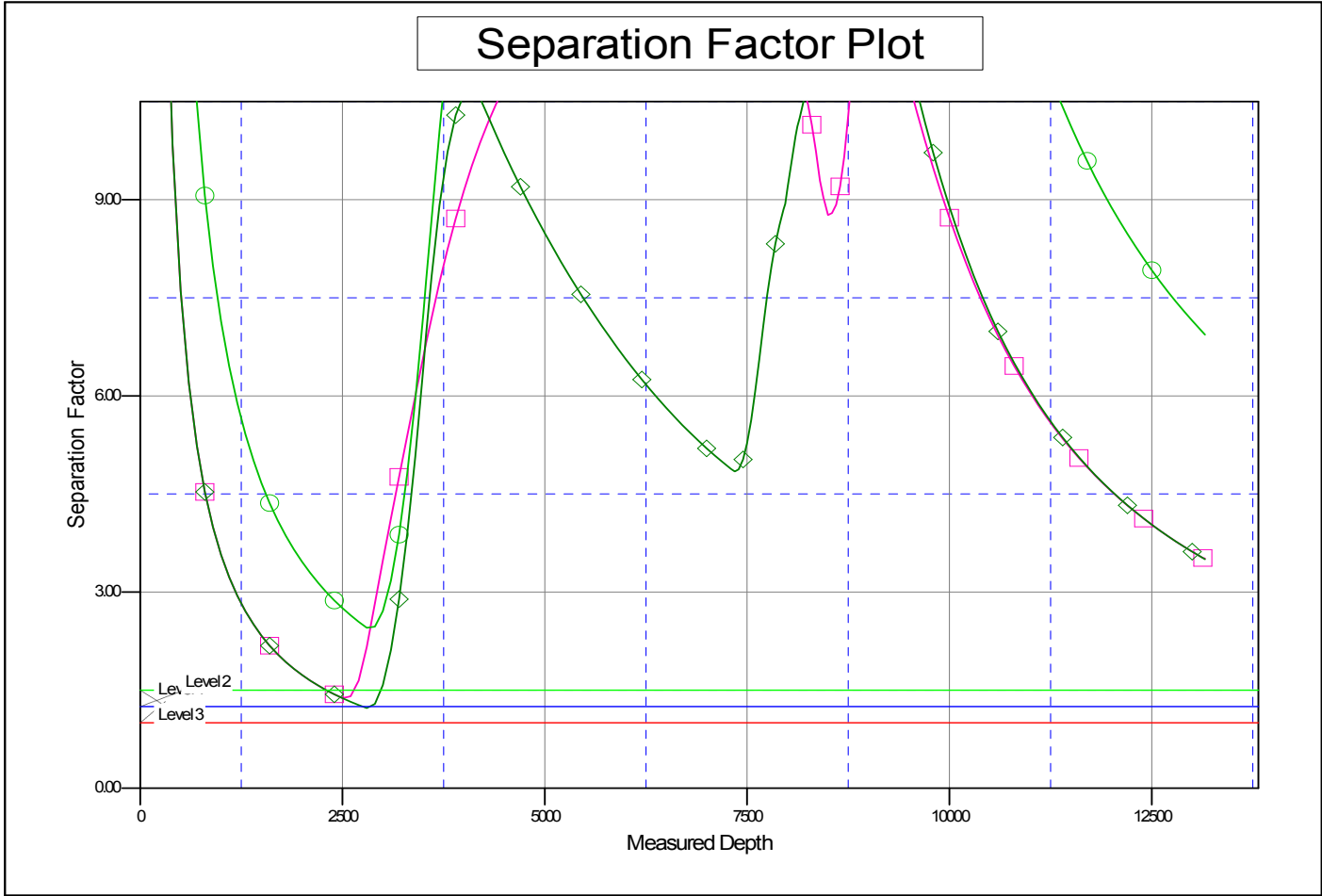
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# SandRidge Energy

## Anticollision Summary Report

<b>Company:</b> SandRidge Energy	<b>Local Co-ordinate Reference:</b> Well Mutual 0780 6-8H	
<b>Project:</b> North Park Basin	<b>TVD Reference:</b> WELL @ 8134.0usft (Original Well Elev)	
<b>Reference Site:</b> T7N-R80W-S9	<b>MD Reference:</b> WELL @ 8134.0usft (Original Well Elev)	
<b>Site Error:</b> 0.0 usft	<b>North Reference:</b> Grid	
<b>Reference Well:</b> Mutual 0780 6-8H	<b>Survey Calculation Method:</b> Minimum Curvature	
<b>Well Error:</b> 0.0 usft	<b>Output errors are at</b> 2.00 sigma	
<b>Reference Wellbore</b> Wellbore #1	<b>Database:</b> EDMProd	
<b>Reference Design:</b> Design #1	<b>Offset TVD Reference:</b> Offset Datum	

Reference Depths are relative to WELL @ 8134.0usft (Original Well Ele)      Coordinates are relative to: Mutual 0780 6-8H  
 Offset Depths are relative to Offset Datum      Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Central Meridian is 105° 30' 0.000 W      Grid Convergence at Surface is: -0.57°



### LEGEND

- Gregory 0780 2-9H, Wellbore #1, Design #1 V0
- Mutual 0780 5-8H, Wellbore #1, Design #1 V0
- Gregory 0780 1-9H, Wellbore #1, Wellbore #1
- Gregory 0780 3-9H, Wellbore #1, Design #1 V0
- Mutual 0780 7-8H, Wellbore #1, Design #1 V0
- Mutual 0780 8-8H, Wellbore #1, Design #1 V0
- Gregory 0780 4-9H, Wellbore #1, Design #1 V0

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