

SandRidge Energy

North Park Basin

T7N-R80W-S16

Evans 0780 8-21H

Wellbore #1

Design #1

Anticollision Summary Report

08 July, 2016

SandRidge Energy

Anticollision Summary Report

Company:	SandRidge Energy	Local Co-ordinate Reference:	Well Evans 0780 8-21H
Project:	North Park Basin	TVD Reference:	KB @ 8152.0usft
Reference Site:	T7N-R80W-S16	MD Reference:	KB @ 8152.0usft
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Evans 0780 8-21H	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	7/8/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	14,502.0	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-S16						
Evans 0780 5-21H - Wellbore #1 - Design #1	2,600.0	2,600.0	45.0	33.6	3.938	CC
Evans 0780 5-21H - Wellbore #1 - Design #1	2,680.3	2,680.2	45.2	33.5	3.840	ES
Evans 0780 5-21H - Wellbore #1 - Design #1	3,400.0	3,399.7	53.4	38.5	3.586	SF
Evans 0780 6-21H - Wellbore #1 - Design #1	2,600.0	2,602.0	30.0	18.6	2.625	CC
Evans 0780 6-21H - Wellbore #1 - Design #1	2,680.3	2,682.2	30.2	18.5	2.567	ES
Evans 0780 6-21H - Wellbore #1 - Design #1	2,900.0	2,901.9	32.2	19.5	2.532	SF
Evans 0780 7-21H - Wellbore #1 - Design #1	2,600.0	2,600.0	15.0	3.6	1.313	Level 3, CC
Evans 0780 7-21H - Wellbore #1 - Design #1	2,680.3	2,680.2	15.3	3.5	1.296	Level 3, ES, SF
Ray Ranch 0780 5-16H - Wellbore #1 - Design #1	3,060.2	3,060.1	58.8	45.4	4.384	CC
Ray Ranch 0780 5-16H - Wellbore #1 - Design #1	3,400.0	3,399.7	59.6	44.7	3.999	ES
Ray Ranch 0780 5-16H - Wellbore #1 - Design #1	4,100.0	4,100.0	64.6	46.7	3.608	SF
Ray Ranch 0780 6-16H - Wellbore #1 - Design #1	2,955.2	2,955.1	44.1	31.2	3.404	CC
Ray Ranch 0780 6-16H - Wellbore #1 - Design #1	3,200.0	3,199.8	44.7	30.6	3.184	ES
Ray Ranch 0780 6-16H - Wellbore #1 - Design #1	4,558.3	4,559.6	53.8	34.1	2.723	SF
Ray Ranch 0780 7-16H - Wellbore #1 - Design #1	4,171.5	4,173.6	21.1	3.0	1.166	Level 2, CC, ES, SF
Ray Ranch 0780 8-16H - Wellbore #1 - Design #1	2,788.3	2,788.6	8.3	-3.9	0.682	Level 1, CC, ES, SF

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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-S21						
Evans 0780 1-21H - Wellbore #1 - Design #1	3,250.2	3,400.0	2,352.7	2,338.2	162.676	CC
Evans 0780 1-21H - Wellbore #1 - Design #1	3,300.0	3,435.6	2,352.8	2,338.2	160.792	ES
Evans 0780 1-21H - Wellbore #1 - Design #1	14,502.0	13,156.3	2,708.0	2,433.5	9.866	SF
Evans 0780 2-21H - Wellbore #1 - Design #1	3,273.9	3,427.5	2,352.3	2,337.7	160.615	CC
Evans 0780 2-21H - Wellbore #1 - Design #1	3,300.0	3,442.5	2,352.4	2,337.6	159.741	ES
Evans 0780 2-21H - Wellbore #1 - Design #1	14,502.0	13,264.7	3,368.1	3,149.6	15.415	SF
Evans 0780 3-21H - Wellbore #1 - Design #1	3,280.3	3,433.7	2,373.6	2,358.9	161.977	CC
Evans 0780 3-21H - Wellbore #1 - Design #1	3,300.0	3,444.5	2,373.6	2,358.9	161.290	ES
Evans 0780 3-21H - Wellbore #1 - Design #1	14,502.0	13,424.2	4,030.3	3,812.9	18.536	SF
Evans 0780 4-21H - Wellbore #1 - Design #1	3,300.0	3,444.2	2,387.8	2,373.0	162.060	CC, ES
Evans 0780 4-21H - Wellbore #1 - Design #1	14,502.0	13,616.9	4,674.4	4,457.7	21.575	SF
Ray Ranch 0780 1-16H - Wellbore #1 - Design #1	2,600.1	2,698.2	2,408.0	2,396.4	208.031	CC, ES
Ray Ranch 0780 1-16H - Wellbore #1 - Design #1	12,700.0	7,850.0	3,964.2	3,859.1	37.722	SF
Ray Ranch 0780 2-16H - Wellbore #1 - Design #1	2,400.0	2,498.0	2,419.0	2,408.3	225.059	CC, ES
Ray Ranch 0780 2-16H - Wellbore #1 - Design #1	13,900.0	7,800.0	5,208.9	5,081.3	40.831	SF
Ray Ranch 0780 3-16H - Wellbore #1 - Design #1	2,400.0	2,498.0	2,430.0	2,419.3	226.085	CC, ES
Ray Ranch 0780 3-16H - Wellbore #1 - Design #1	14,502.0	7,793.2	5,908.7	5,769.4	42.406	SF
Ray Ranch 0780 4-16H - Wellbore #1 - Design #1	2,400.0	2,498.0	2,441.1	2,430.3	227.113	CC, ES
Ray Ranch 0780 4-16H - Wellbore #1 - Design #1	14,502.0	7,053.0	6,414.9	6,281.8	48.204	SF

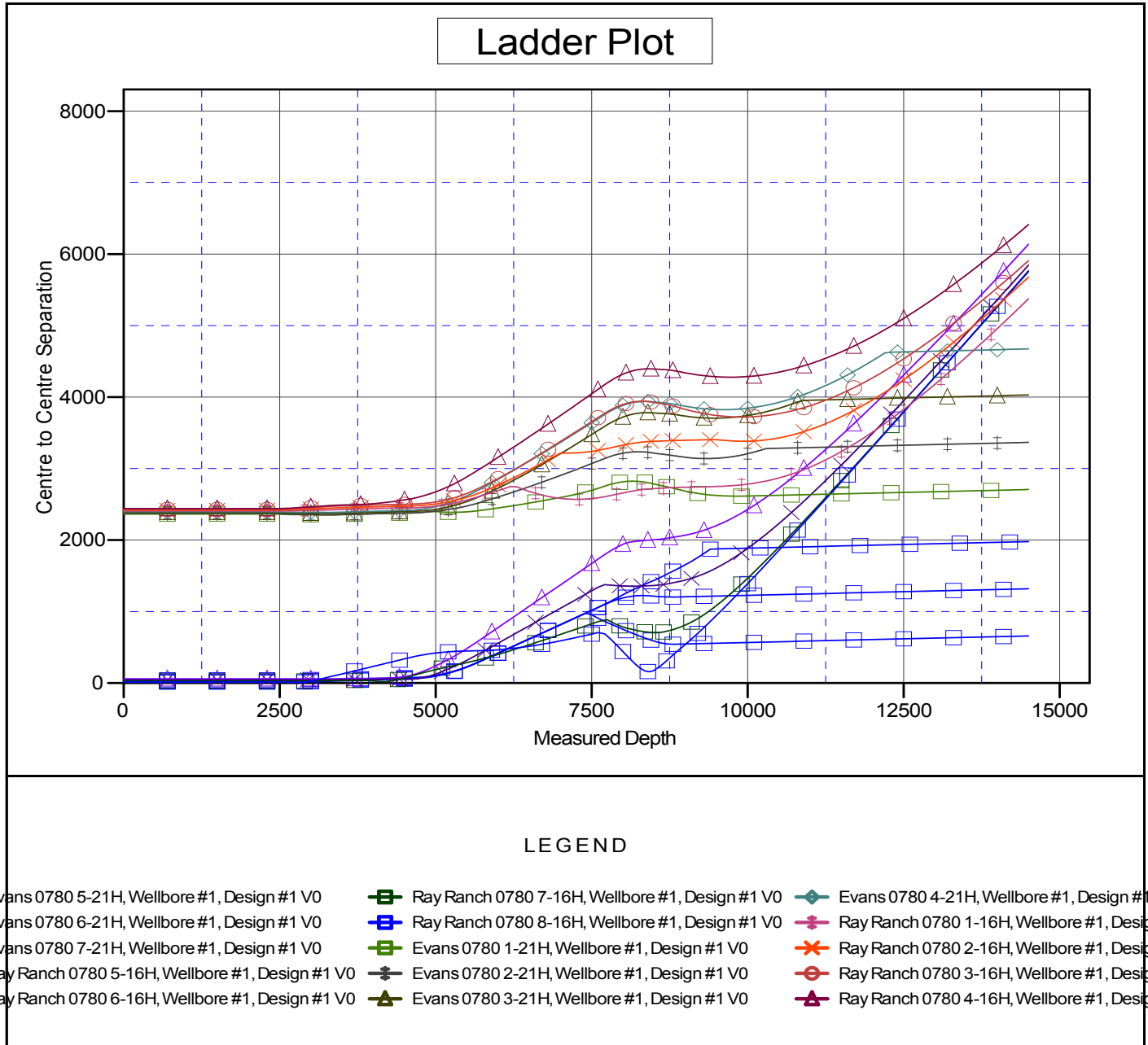
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Reference Depths are relative to KB @ 8152.0usft
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Evans 0780 8-21H
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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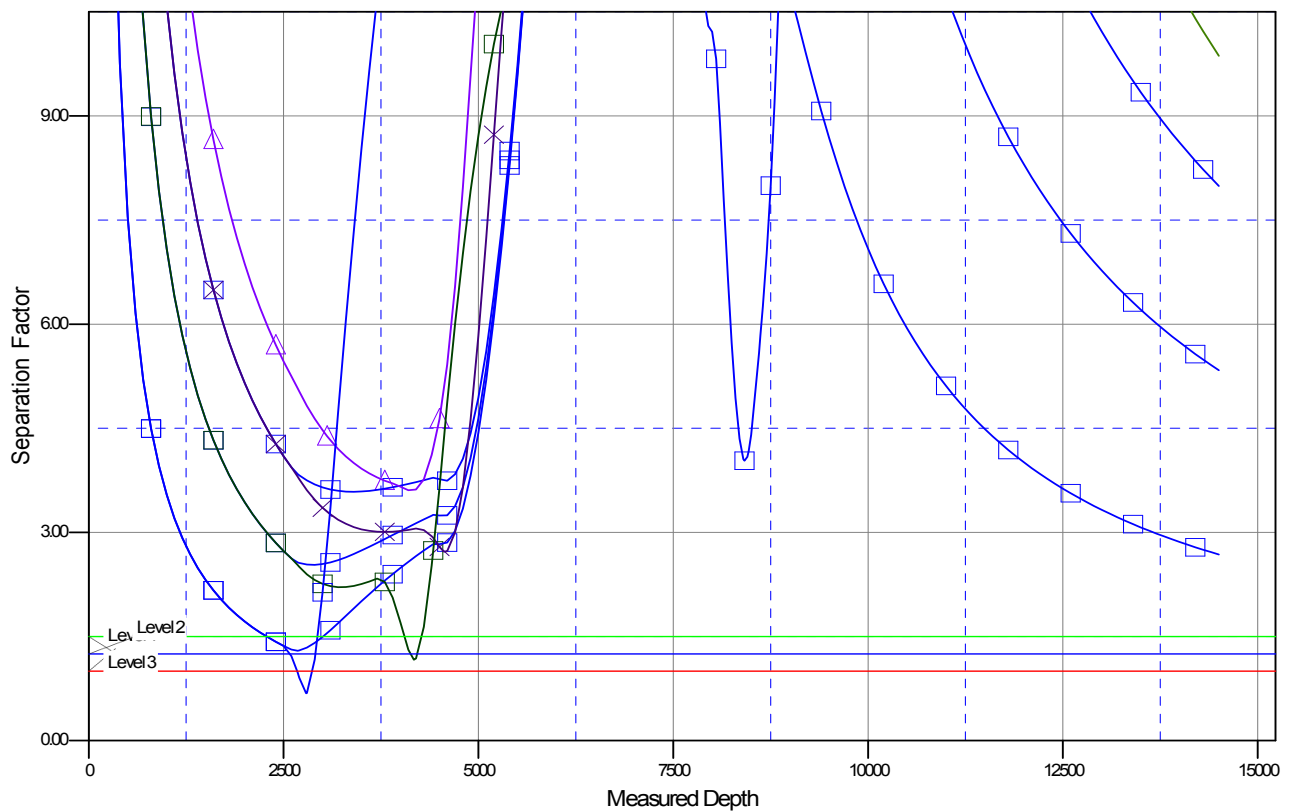
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Grid Convergence at Surface is: -0.57°

Separation Factor Plot



LEGEND

Evans 0780 5-21H, Wellbore #1, Design #1 V0	Ray Ranch 0780 7-16H, Wellbore #1, Design #1 V0	Evans 0780 4-21H, Wellbore #1, Design #1 V0
Evans 0780 6-21H, Wellbore #1, Design #1 V0	Ray Ranch 0780 8-16H, Wellbore #1, Design #1 V0	Ray Ranch 0780 1-16H, Wellbore #1, Design #1 V0
Evans 0780 7-21H, Wellbore #1, Design #1 V0	Evans 0780 1-21H, Wellbore #1, Design #1 V0	Ray Ranch 0780 2-16H, Wellbore #1, Design #1 V0
Ray Ranch 0780 5-16H, Wellbore #1, Design #1 V0	Evans 0780 2-21H, Wellbore #1, Design #1 V0	Ray Ranch 0780 3-16H, Wellbore #1, Design #1 V0
Ray Ranch 0780 6-16H, Wellbore #1, Design #1 V0	Evans 0780 3-21H, Wellbore #1, Design #1 V0	Ray Ranch 0780 4-16H, Wellbore #1, Design #1 V0