

# **SandRidge Energy**

**North Park Basin**

**T8N-R81W-S7**

**Hebron 0781 5-12H**

**Wellbore #1**

**Design #1**

## **Anticollision Summary Report**

**08 December, 2016**

# SandRidge Energy

## Anticollision Summary Report

|                           |                   |                                     |                        |
|---------------------------|-------------------|-------------------------------------|------------------------|
| <b>Company:</b>           | SandRidge Energy  | <b>Local Co-ordinate Reference:</b> | Well Hebron 0781 5-12H |
| <b>Project:</b>           | North Park Basin  | <b>TVD Reference:</b>               | KB @ 8146.0usft        |
| <b>Reference Site:</b>    | T8N-R81W-S7       | <b>MD Reference:</b>                | KB @ 8146.0usft        |
| <b>Site Error:</b>        | 0.0 usft          | <b>North Reference:</b>             | Grid                   |
| <b>Reference Well:</b>    | Hebron 0781 5-12H | <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> | <b>Date</b> 9/29/2016 |                          |                  |                               |
| <b>From (usft)</b>         | <b>To (usft)</b>      | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Description</b>            |
| 0.0                        | 11,957.6              | Design #1 (Wellbore #1)  | Sperry MWD       | Fixed:v2:standard declination |

| <b>Summary</b>                                |                                 |                              |                                 |                                  |                   |                     |
|---|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|---------------------|
| 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               |                                 |                              |                                 |                                  |                   |                     |
| T8N-R81W-S7                                   |                                 |                              |                                 |                                  |                   |                     |
| Grizzly 0881 1-1H36 - Wellbore #1 - Design #1 | 2,800.0                         | 2,800.0                      | 156.6                           | 144.3                            | 12.705            | CC                  |
| Grizzly 0881 1-1H36 - Wellbore #1 - Design #1 | 2,900.0                         | 2,900.0                      | 156.9                           | 144.1                            | 12.292            | ES                  |
| Grizzly 0881 1-1H36 - Wellbore #1 - Design #1 | 3,200.0                         | 3,198.7                      | 163.4                           | 149.3                            | 11.619            | SF                  |
| Grizzly 0881 2-1H36 - Wellbore #1 - Design #1 | 2,737.7                         | 2,738.0                      | 152.7                           | 140.7                            | 12.723            | CC                  |
| Grizzly 0881 2-1H36 - Wellbore #1 - Design #1 | 3,200.0                         | 3,199.8                      | 152.9                           | 138.9                            | 10.924            | ES                  |
| Grizzly 0881 2-1H36 - Wellbore #1 - Design #1 | 3,500.0                         | 3,497.0                      | 158.7                           | 143.3                            | 10.295            | SF                  |
| Grizzly 0881 3-1H36 - Wellbore #1 - Design #1 | 4,072.3                         | 4,062.5                      | 114.5                           | 94.0                             | 5.581             | CC, ES              |
| Grizzly 0881 3-1H36 - Wellbore #1 - Design #1 | 4,100.0                         | 4,089.4                      | 114.7                           | 94.0                             | 5.539             | SF                  |
| Grizzly 0881 4-1H36 - Wellbore #1 - Design #1 | 5,077.6                         | 5,048.8                      | 31.5                            | -2.8                             | 0.919             | Level 1, CC, ES, SF |
| Hebron 0781 1-12H - Wellbore #1 - Design #1   | 2,800.0                         | 2,800.0                      | 45.1                            | 32.7                             | 3.656             | CC, ES, SF          |
| Hebron 0781 2-12H - Wellbore #1 - Design #1   | 2,800.0                         | 2,800.0                      | 30.1                            | 17.7                             | 2.440             | CC, ES, SF          |
| Hebron 0781 4-12H - Wellbore #1 - Design #1   | 2,800.0                         | 2,800.0                      | 15.1                            | 2.8                              | 1.224             | Level 2, CC, ES, SF |
| Hebron 3-12H - Wellbore #1 - Wellbore #1      | 4,700.0                         | 4,616.0                      | 33.2                            | 6.9                              | 1.261             | Level 3, ES, SF     |
| Hebron 3-12H - Wellbore #1 - Wellbore #1      | 4,701.1                         | 4,617.0                      | 33.2                            | 6.9                              | 1.262             | Level 3, CC         |

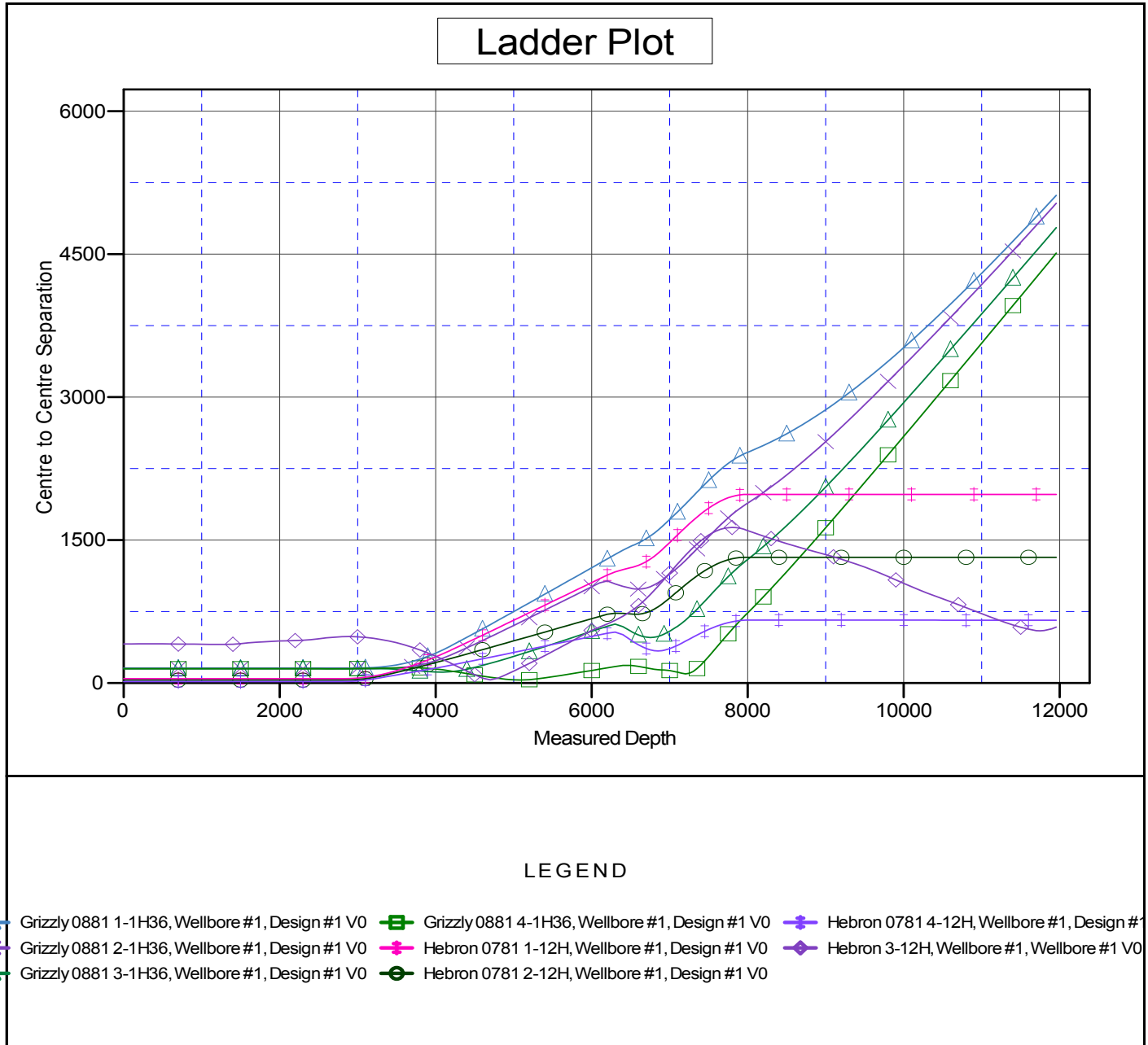
# SandRidge Energy

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

Reference Depths are relative to KB @ 8146.0usft  
Offset Depths are relative to Offset Datum  
Central Meridian is 105° 30' 0.000 W

Coordinates are relative to: Hebron 0781 5-12H  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: -0.60°



# SandRidge Energy

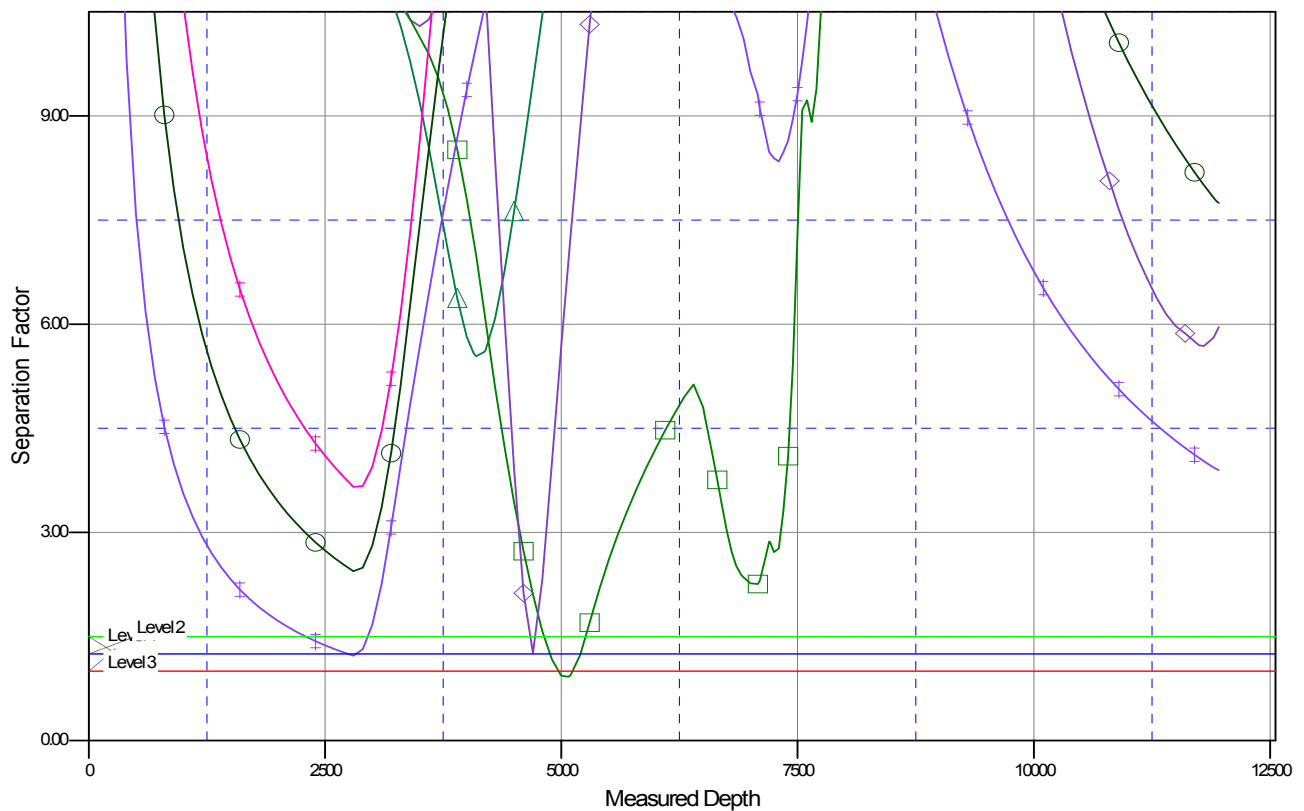
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### Separation Factor Plot



### LEGEND

- Grizzly 0881 1-1H36, Wellbore #1, Design #1 V0
- Grizzly 0881 2-1H36, Wellbore #1, Design #1 V0
- Grizzly 0881 3-1H36, Wellbore #1, Design #1 V0
- Grizzly 0881 4-1H36, Wellbore #1, Design #1 V0
- Hebron 0781 1-12H, Wellbore #1, Design #1 V0
- Hebron 0781 2-12H, Wellbore #1, Design #1 V0
- Hebron 0781 3-12H, Wellbore #1, Design #1 V0
- Hebron 0781 4-12H, Wellbore #1, Design #1 V0
- Hebron 0781 5-12H, Wellbore #1, Design #1 V0