

SYSDRILL  
Closest Approach Summary Report  
Wellbore: HDI KF 03-231HN (PWB)  
Wellpath: HDI 03-231HN (PWP#1)

Ellipse separations are reported ONLY if BOTH wells have uncertainty data  
Only Depth and Magnetic Reference Field error terms are correlated across tie points  
Scan limit is calculated on CENTRE to CENTRE distance

Summary data uses Closest Approach clearance calculation for all minima  
Hole size/Casings ARE included  
Hole size/Casings are NOT subtracted from Centre-Centre distance  
Confidence limit of 95.00% / 2.80 SD.

#### Wellbore

Name	HDI KF 03-231HN (PWB)
Created	24-Mar-2016
Last Revised	6-May-2016

#### Well

Name	HDI KF 03-231HN
Government ID	
Last Revised	25-Mar-2016

#### Slot

Name	Slot 01 - HDI KF 03-231HN
Grid Northing	1266084.166
Grid Easting	3239896.352
Latitude	N40 3 38.1888
Longitude	W104 38 34.5192
North	0.000
East	54.580

#### Installation

Name	HDI
Easting	3239841.773
Northing	1266083.639
Map Name	<unknown>
North Alignment	True

#### Field

Name	Wattenburg
Easting	#####
Northing	#####
Map Name	<unknown>
North Alignment	Grid

#### Clearance Summary

Offset WellName	Offset Wellbore	Offset Slot	Offset Structure	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
HDI KF 03-23HDI KF 03-232HN (PWB)		Slot 02 - HDI	HDI	14.840	3027.000	15005.240	9.410	3034.570	2.710	14993.230
HDI KF 03-23HDI KF 03-232HC (PWB)		Slot 03 - HDI	HDI	29.390	3027.000	15005.240	23.960	3034.570	4.130	14993.230
HDI KF 03-23HDI KF 03-233HN (PWB)		Slot 04 - HDI	HDI	44.230	3027.000	15005.240	38.800	3034.570	5.420	14993.230
HDI KF 03-23HDI KF 03-234HN (PWB)		Slot 05 - HDI	HDI	59.900	3027.000	15005.240	54.470	3034.570	7.980	14993.230
HDI KF 03-23HDI KF 03-234HC (PWB)		Slot 06 - HDI	HDI	74.460	3027.000	15005.240	69.030	3034.570	8.440	14993.230
HDI KF 03-23HDI KF 03-236HN (PWB)		Slot 07 - HDI	HDI	89.290	3027.000	15005.240	83.860	3034.570	10.810	14993.230
HDI KF 03-23HDI KF 03-237HN (PWB)		Slot 08 - HDI	HDI	104.970	3027.000	15005.240	99.540	3034.570	13.350	14993.230
HDI KF 03-23HDI KF 03-237HC (PWB)		Slot 09 - HDI	HDI	119.800	3027.000	15005.240	114.370	3034.570	13.780	14993.230
HDI KF 03-23HDI KF 03-238HN (PWB)		Slot 10 - HDI	HDI	134.360	3027.000	15005.240	128.930	3034.570	16.250	14993.230
HDI KF 03-23HDI KF 03-239HC (PWB)		Slot 11 - HDI	HDI	149.200	3027.000	15005.240	143.770	3034.570	17.640	14993.230
HDI KF 03-23HDI KF 03-239HN (PWB)		Slot 12 - HDI	HDI	164.870	3027.000	15005.240	159.440	3034.570	18.930	14993.230
CSPK- Ottesen CSPK- Ottesen 3L-3H-L165 (PWB)		AA - CSPK- C	HDI	179.090	8019.660	14972.820	117.150	8021.450	2.890	8021.450
HDI KF 03-24HDI KF 03-240HN (PWB)		Slot 13 - HDI	HDI	179.430	3027.000	15005.240	174.000	3034.570	21.440	14993.230
CSPK- Ottesen CSPK- Ottesen 3K-3H-L165 (PWB)		AA - CSPK- C	HDI	394.620	8017.880	14960.430	327.340	8021.450	5.860	8021.450
CSPK- Ottesen CSPK- Ottesen 3J-3H-L165 (PWB)		AA - CSPK- C	HDI	605.760	8016.640	8016.640	535.360	8021.450	8.600	8021.450
CSPK- Ottesen CSPK- Ottesen 3I-3H-L165 (PWB)		AA - CSPK- C	HDI	832.570	8016.200	8016.200	762.660	8016.200	11.910	8021.450
GWOG Perry GWOG Perry #1 (AWB)		AA - GWOG	SI HDI	960.940	3677.910	9104.130	952.890	3690.740	85.130	8956.490
KMG- SPAREKMG- SPARBOE 7C-3HZ (AWB)		AA - KMG- S	I HDI	1017.520	15005.240	15005.240	960.330	15005.240	17.790	15005.240
CSPK- Ottesen CSPK- Ottesen 3F-3H-L165 (PWB)		AA - CSPK- C	HDI	1081.430	8016.200	8016.200	1011.550	8014.260	15.470	8005.050
KMG- SPAREKMG- SPARBOE 7N-3HZ (AWB)		AA - KMG- S	I HDI	1156.590	15005.240	15005.240	1073.180	15005.240	13.870	15005.240
CSPK- Ottesen CSPK- Ottesen 3G-3H-L165 (PWB)		AA - CSPK- C	HDI	1314.200	8012.530	8012.530	1243.750	8010.700	18.640	7972.240
CSPK- Ottesen CSPK- Ottesen 3F-3H-L165 (PWB)		AA - CSPK- C	HDI	1503.800	15005.240	15005.240	1436.730	14990.550	21.610	7955.830
KMG- SPAREKMG- SPARBOE 24C-3HZ (AWB)		AA - KMG- S	I HDI	1505.790	15005.240	15005.240	1397.450	15005.240	13.900	15005.240
KMG- SPAREKMG- SPARBOE 24C-3HZ (AWB)		AA - KMG- S	I HDI	1505.790	15005.240	15005.240	1397.450	15005.240	13.900	15005.240
KMG- SPAREKMG- SPARBOE 24N-3HZ (AWB)		AA - KMG- S	I HDI	1664.040	15005.240	15005.240	1550.370	15005.240	14.640	15005.240
KMG- SPAREKMG- SPARBOE 8C-3HZ (AWB)		AA - KMG- S	I HDI	1861.440	15005.240	15005.240	1745.290	15005.240	16.030	15005.240
KMG- SPAREKMG- SPARBOE 8N-3HZ (AWB)		AA - KMG- S	I HDI	2107.790	15005.240	15005.240	1987.470	15005.240	17.520	15005.240
KMG- SPAREKMG- SPARBOE 40C-3HZ (AWB)		AA - KMG- S	I HDI	2474.700	15005.240	15005.240	2350.710	15005.240	19.940	14993.230
KMG- SPAREKMG- SPARBOE 40N-3HZ (AWB)		AA - KMG- S	I HDI	2808.460	15005.240	15005.240	2682.510	15005.240	22.260	14993.230

All data is in Feet unless otherwise stated  
Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 5027.7ft above Mean Sea Level)  
Vertical Section is from 0.00N 0.00E on azimuth 344.030 degrees  
Prepared by Great Western Operating Company  
Date Printed: