





Actual Wellpath Report

HOWARD 10-29 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 HOWARD 10-29 (1103'FSL & 1323'FEL)
Area	COLORADO	Well	HOWARD 10-29
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 10-29 AWB
Facility	SEC.29-T1N-R67W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 3.0.0
North Reference	True	User	Doddanna
Scale	0.999965	Report Generated	10/28/2011 at 6:19:46 PM
Convergence at slot	0.38° East	Database/Source file	WA_Denver/HOWARD_10-29_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4.45	8.87	3165354.79	1249904.34	40°01'04.307"N	104°54'34.603"W
Facility Reference Pt			3165345.89	1249908.73	40°01'04.351"N	104°54'34.717"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	XTREME 15 (RKB) to Facility Vertical Datum	5038.00ft
Horizontal Reference Pt	Slot	XTREME 15 (RKB) to Mean Sea Level	5038.00ft
Vertical Reference Pt	XTREME 15 (RKB)	XTREME 15 (RKB) to Mud Line at Slot (SLOT#02 HOWARD 10-29 (1103'FSL & 1323'FEL))	5038.00ft
MD Reference Pt	XTREME 15 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	328.51°



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WELLPATH DATA (84 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	316.100	0.00	0.00	0.00	0.00	0.00	
15.00	0.000	316.100	15.00	0.00	0.00	0.00	0.00	
153.00	0.300	316.100	153.00	0.35	0.26	-0.25	0.22	
245.00	0.400	344.200	245.00	0.90	0.74	-0.50	0.21	
338.00	2.300	316.800	337.97	3.04	2.42	-1.87	2.10	
429.00	4.000	316.100	428.83	7.93	6.03	-5.32	1.87	
518.00	5.500	323.500	517.52	15.21	11.70	-10.01	1.82	
608.00	7.400	326.700	606.95	25.30	20.01	-15.76	2.15	
698.00	9.500	330.500	695.97	38.51	31.32	-22.60	2.41	
785.00	10.500	330.500	781.64	53.61	44.47	-30.04	1.15	
874.00	10.900	329.500	869.09	70.13	58.78	-38.30	0.50	
964.00	10.500	330.900	957.53	86.83	73.28	-46.61	0.53	
1055.00	10.100	331.600	1047.06	103.08	87.54	-54.44	0.46	
1162.00	9.700	330.500	1152.47	121.46	103.64	-63.34	0.41	
1239.00	9.700	329.500	1228.37	134.43	114.87	-69.83	0.22	
1329.00	10.400	336.200	1316.99	150.06	128.84	-76.95	1.51	
1416.00	11.100	346.000	1402.47	165.83	144.15	-82.15	2.25	
1506.00	13.300	337.600	1490.44	184.32	162.13	-88.19	3.13	
1595.00	15.300	328.100	1576.69	206.18	181.57	-98.30	3.46	
1683.00	17.800	325.600	1661.04	231.22	202.53	-112.04	2.95	
1773.00	17.300	324.900	1746.85	258.32	224.83	-127.50	0.60	
1861.00	16.700	325.300	1831.00	284.00	245.93	-142.22	0.69	
1950.00	17.700	329.800	1916.03	310.30	268.14	-156.31	1.87	
2037.00	16.000	330.200	1999.29	335.51	289.97	-168.92	1.96	
2128.00	15.600	329.100	2086.85	360.28	311.36	-181.44	0.55	
2216.00	16.400	324.900	2171.44	384.51	331.67	-194.66	1.60	
2306.00	17.800	326.000	2257.46	410.93	353.48	-209.66	1.60	
2396.00	17.800	328.800	2343.16	438.43	376.65	-224.48	0.95	
2483.00	17.800	324.900	2425.99	465.00	398.90	-239.01	1.37	
2571.00	18.300	323.100	2509.66	492.18	420.95	-255.04	0.85	
2660.00	19.000	324.200	2593.99	520.54	443.88	-271.91	0.88	
2752.00	18.900	326.300	2681.00	550.36	468.42	-288.93	0.75	
2842.00	18.100	331.600	2766.36	578.89	492.85	-303.67	2.07	
2930.00	17.000	329.100	2850.26	605.41	515.91	-316.78	1.52	
3020.00	17.500	322.800	2936.22	632.03	537.98	-331.72	2.15	
3109.00	17.800	328.100	3021.04	658.95	560.19	-347.00	1.84	
3197.00	17.900	328.800	3104.80	685.92	583.18	-361.11	0.27	
3286.00	17.900	331.200	3189.49	713.26	606.86	-374.79	0.83	
3374.00	17.300	330.500	3273.38	739.85	630.10	-387.75	0.72	
3465.00	16.600	327.400	3360.42	766.37	652.83	-401.41	1.26	
3555.00	16.800	327.700	3446.63	792.23	674.66	-415.29	0.24	
3644.00	16.800	330.200	3531.83	817.94	696.69	-428.55	0.81	
3733.00	16.400	332.600	3617.12	843.33	719.01	-440.73	0.89	
3824.00	16.300	332.300	3704.44	868.89	741.72	-452.58	0.14	
3913.00	15.100	326.300	3790.13	892.94	762.42	-464.82	2.27	



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Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 10-29 AWB
Facility	SEC.29-T1N-R67W		

WELLPATH DATA (84 stations)								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
4003.00	14.400	329.500	3877.16	915.84	781.82	-477.00	1.19	
4092.00	13.600	329.800	3963.52	937.37	800.40	-487.88	0.90	
4181.00	11.200	330.200	4050.43	956.47	816.94	-497.44	2.70	
4270.00	9.700	328.100	4137.96	972.61	830.81	-505.70	1.74	
4358.00	9.000	328.100	4224.79	986.91	842.95	-513.26	0.80	
4448.00	7.500	325.300	4313.85	999.81	853.75	-520.32	1.72	
4537.00	6.500	323.900	4402.19	1010.63	862.60	-526.59	1.14	
4626.00	6.300	339.000	4490.64	1020.46	871.23	-531.31	1.90	
4714.00	5.300	337.900	4578.19	1029.21	879.50	-534.57	1.14	
4804.00	1.500	294.300	4668.02	1034.29	883.84	-537.21	4.82	
4891.00	1.600	304.900	4754.99	1036.35	885.00	-539.24	0.35	
5025.00	0.700	0.100	4888.97	1038.76	886.89	-540.78	0.99	
5157.00	0.600	50.300	5020.96	1039.54	888.14	-540.24	0.42	
5292.00	1.200	29.200	5155.94	1040.34	889.83	-539.01	0.50	
5427.00	1.100	16.200	5290.91	1041.90	892.31	-537.96	0.21	
5560.00	1.100	12.000	5423.89	1043.68	894.78	-537.34	0.06	
5690.00	1.100	3.600	5553.87	1045.61	897.25	-537.00	0.12	
5824.00	1.000	353.000	5687.84	1047.73	899.69	-537.06	0.16	
5960.00	0.800	8.500	5823.83	1049.53	901.81	-537.07	0.23	
6096.00	0.900	358.000	5959.81	1051.19	903.81	-536.96	0.14	
6227.00	1.300	1.100	6090.79	1053.34	906.33	-536.97	0.31	
6361.00	1.100	359.700	6224.76	1055.72	909.13	-536.95	0.15	
6494.00	0.300	18.700	6357.75	1057.04	910.74	-536.84	0.62	
6629.00	0.400	320.700	6492.75	1057.73	911.44	-537.03	0.26	
6761.00	0.300	355.100	6624.74	1058.49	912.14	-537.35	0.17	
6894.00	0.700	122.400	6757.74	1058.08	912.05	-536.69	0.69	
7026.00	0.100	99.200	6889.74	1057.28	911.60	-535.90	0.46	
7161.00	0.400	299.900	7024.74	1057.61	911.82	-536.19	0.37	
7294.00	0.200	114.300	7157.73	1057.83	911.95	-536.38	0.45	
7428.00	0.400	122.800	7291.73	1057.21	911.60	-535.78	0.15	
7562.00	1.300	56.700	7425.72	1056.84	912.19	-534.11	0.89	
7696.00	1.500	80.600	7559.68	1056.23	913.31	-531.11	0.46	
7829.00	1.400	205.400	7692.66	1054.69	912.12	-530.09	1.93	
7963.00	1.000	200.800	7826.63	1053.08	909.55	-531.21	0.31	
8097.00	0.500	200.800	7960.62	1052.00	907.91	-531.83	0.37	
8231.00	0.400	0.800	8094.62	1052.04	907.83	-532.03	0.66	
8365.00	0.400	311.900	8228.61	1052.89	908.61	-532.37	0.25	
8405.00	0.400	331.600	8268.61	1053.16	908.83	-532.54	0.34	LAST BHI MWD SURVEY
8455.00	0.400	331.600	8318.61	1053.51	909.14	-532.71	0.00	PROJECTION TO BIT



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Area	COLORADO	Well	HOWARD 10-29
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HOWARD 10-29 AWB
Facility	SEC.29-T1N-R67W		

HOLE & CASING SECTIONS - Ref Wellbore: HOWARD 10-29 AWB Ref Wellpath: HOWARD 10-29 AWP									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
12.25in Open Hole	15.00	1217.00	1202.00	15.00	1206.68	0.00	0.00	111.68	-67.95
8.625in Casing Surface	15.00	1209.00	1194.00	15.00	1198.80	0.00	0.00	110.51	-67.28
7.875in Open Hole	1217.00	8455.00	7238.00	1206.68	8318.61	111.68	-67.95	909.14	-532.71

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
HOWARD 10-29 GEO TARGET 50' RADIUS (1980'FSL & 1855'FEL, REV-1)		6000.00	876.83	-537.21	3164811.77	1250777.54	40°01'12.972"N	104°54'41.508"W	circle
HOWARD 10-29 LEGAL BOX (196'N,204'S,63'E,337'W OF GEO TARGET)		6000.00	872.83	-674.21	3164674.81	1250772.63	40°01'12.932"N	104°54'43.269"W	square

WELLPATH COMPOSITION - Ref Wellbore: HOWARD 10-29 AWB Ref Wellpath: HOWARD 10-29 AWP					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore
15.00	8405.00	NaviTrak (Standard)	BHI MWD SURVEYS <153-8405>		HOWARD 10-29 AWB
8405.00	8455.00	Blind Drilling (std)	Projection to bit		HOWARD 10-29 AWB