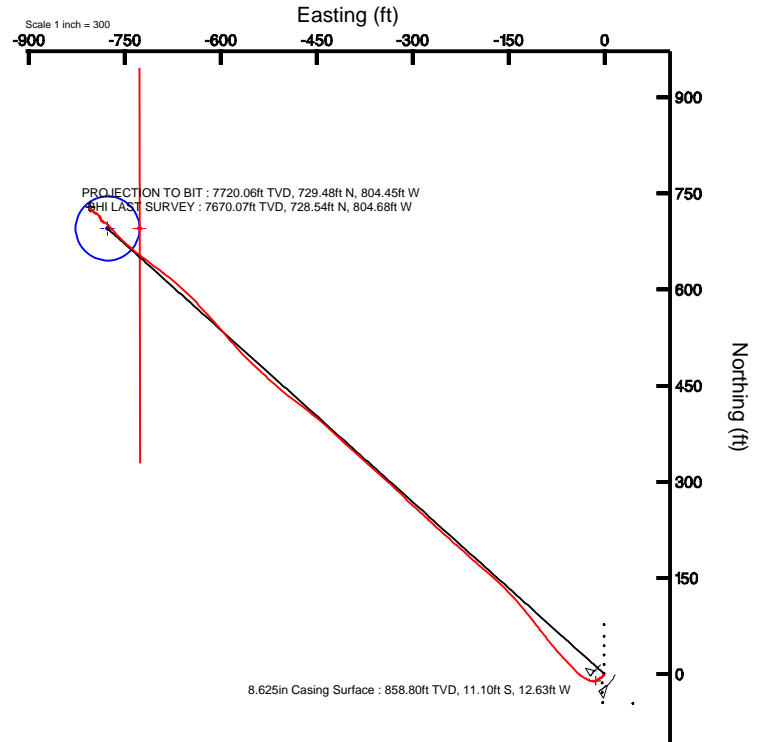
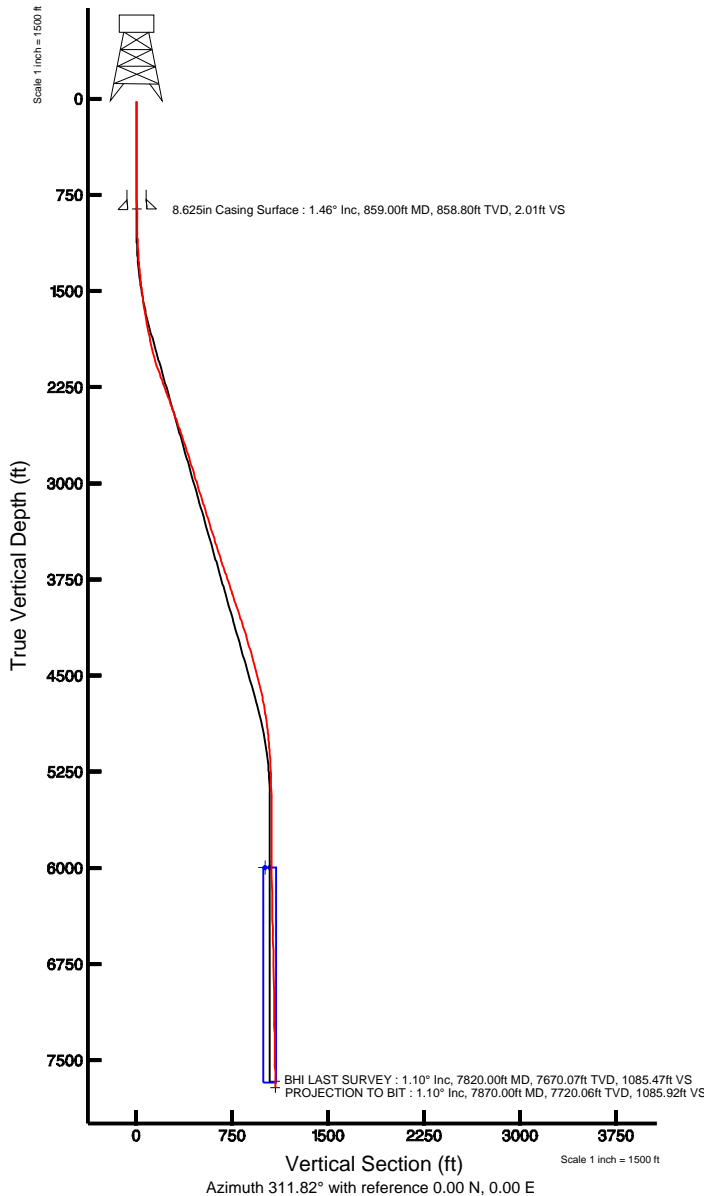


KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#13 RASMUSSEN 23-29 (712°FSL & 1962°FEL)
 Field: WELD COUNTY (KERR MCGEE) Well: RASMUSSEN 23-29
 Facility: SEC.29-T2N-R68W Wellbore: RASMUSSEN 23-29 PIWB

Plot reference wellpath is RASMUSSEN 23-29 (REV-A.0) PWP
 True vertical depths are referenced to XTREME 12 (RT) Grid System: NAD83 / Lambert Colorado State Planes, Northern Zone (S01), US feet
 Measured depths are referenced to XTREME 12 (RT) North Reference: True north
 XTREME 12 (RT) to Mean Sea Level: 4950 feet Scale: True distance
 Mean Sea Level to Mud line (Facility: SEC.29-T2N-R68W): 0 feet Depths are in feet
 Coordinates are in feet referenced to Slot Created by: wagner on 7/19/2010



BGGM (1945.0 to 2011.0) Dip: 66.83° Field: 53123.1 nT
 Magnetic North is 9.09 degrees East of True North (at 5/4/2010)

To correct azimuth from Magnetic to True add 9.09 degrees
 For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 9.09 = 99.09



Actual Wellpath Report

Rasmussen 23-29 AWB_awp

Page 1 of 5



INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 RASMUSSEN 23-29 (712'FSL & 1962'FEL)
Area	COLORADO	Well	RASMUSSEN 23-29
Field	WELD COUNTY (KERR MCGEE)	Wellbore	Rasmussen 23-29 AWB
Facility	SEC.29-T2N-R68W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet	Software System	WellArchitect® 2.0
North Reference	True	User	Wagnjam
Scale	0.99996	Report Generated	7/19/2010 at 2:21:36 PM
Convergence at slot	0.31° East	Database/Source file	WA_Denver/Rasmussen_23-29_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	-3868.76	1440.65	3132947.16	1281189.81	40°06'15.408"N	105°01'28.992"W
Facility Reference Pt			3131486.09	1285050.71	40°06'53.640"N	105°01'47.532"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 12 (RT) to Facility Vertical Datum	4950.00ft
Horizontal Reference Pt	Slot	XTREME 12 (RT) to Mean Sea Level	4950.00ft
Vertical Reference Pt	XTREME 12 (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	XTREME 12 (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	311.82°



Actual Wellpath Report

Rasmussen 23-29 AWB_awp

Page 2 of 5



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 RASMUSSEN 23-29 (712'FSL & 1962'FEL)
Area	COLORADO	Well	RASMUSSEN 23-29
Field	WELD COUNTY (KERR MCGEE)	Wellbore	Rasmussen 23-29 AWB
Facility	SEC.29-T2N-R68W		

WELLPATH DATA (82 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	197.200	0.00	0.00	0.00	0.00	0.00	
15.00	0.000	197.200	15.00	0.00	0.00	0.00	0.00	
151.00	0.900	197.200	150.99	-0.44	-1.02	-0.32	0.66	
244.00	1.500	203.200	243.97	-1.14	-2.84	-1.01	0.66	
337.00	1.400	225.300	336.94	-1.46	-4.75	-2.30	0.61	
446.00	1.000	241.800	445.92	-1.05	-6.14	-4.08	0.48	
536.00	1.000	249.600	535.91	-0.42	-6.79	-5.51	0.15	
627.00	1.300	235.500	626.89	0.20	-7.65	-7.11	0.45	
717.00	1.900	232.300	716.85	0.71	-9.14	-9.13	0.67	
815.00	1.500	246.000	814.81	1.53	-10.65	-11.59	0.58	
921.00	1.400	249.900	920.78	2.71	-11.66	-14.07	0.13	
1011.00	1.900	269.300	1010.74	4.33	-12.06	-16.59	0.83	
1101.00	2.600	284.400	1100.67	7.24	-11.57	-20.06	1.01	
1190.00	3.500	296.700	1189.54	11.65	-9.85	-24.44	1.24	
1278.00	4.600	298.100	1277.32	17.67	-6.98	-29.96	1.25	
1368.00	6.100	305.800	1366.93	25.93	-2.48	-37.02	1.84	
1459.00	6.900	316.400	1457.35	36.19	4.31	-44.71	1.58	
1549.00	7.600	318.800	1546.63	47.49	12.70	-52.36	0.85	
1639.00	8.700	314.600	1635.72	60.20	21.96	-61.13	1.39	
1729.00	9.700	318.100	1724.56	74.53	32.38	-71.04	1.27	
1819.00	11.600	321.300	1813.01	90.99	45.09	-81.76	2.21	
1909.00	12.400	320.900	1901.04	109.46	59.65	-93.51	0.89	
1999.00	13.700	323.400	1988.71	129.45	75.70	-105.96	1.57	
2089.00	19.600	320.200	2074.90	154.84	95.88	-121.99	6.63	
2179.00	20.900	318.100	2159.34	185.74	119.42	-142.38	1.65	
2269.00	19.400	312.800	2243.84	216.64	141.53	-164.07	2.62	
2359.00	20.200	310.000	2328.52	247.12	161.68	-186.94	1.38	
2449.00	19.900	312.100	2413.06	277.97	181.93	-210.21	0.87	
2538.00	19.800	311.400	2496.78	308.19	202.06	-232.75	0.29	
2628.00	18.500	311.800	2581.79	337.71	221.66	-254.83	1.45	
2718.00	19.000	313.500	2667.02	366.63	241.26	-276.11	0.82	
2808.00	17.800	311.400	2752.42	395.04	260.44	-297.05	1.52	
2898.00	17.200	316.400	2838.25	422.06	279.18	-316.55	1.80	
2987.00	17.200	310.400	2923.28	448.33	297.23	-335.65	1.99	
3075.00	17.300	311.800	3007.32	474.42	314.39	-355.31	0.49	
3165.00	17.500	311.100	3093.20	501.34	332.20	-375.48	0.32	
3254.00	17.700	312.500	3178.04	528.25	350.14	-395.54	0.53	
3344.00	17.200	314.300	3263.90	555.22	368.68	-415.15	0.82	
3434.00	16.900	311.100	3349.94	581.60	386.57	-434.53	1.09	
3524.00	17.700	309.000	3435.87	608.34	403.78	-455.02	1.13	
3612.00	18.000	306.500	3519.64	635.24	420.29	-476.35	0.94	
3701.00	18.000	308.600	3604.28	662.66	437.05	-498.15	0.73	
3791.00	19.300	312.500	3689.56	691.42	455.77	-519.99	2.00	
3881.00	18.800	312.100	3774.63	720.80	475.54	-541.71	0.57	
3970.00	17.500	315.300	3859.20	748.50	494.67	-561.77	1.84	



Actual Wellpath Report

Rasmussen 23-29 AWB_awp

Page 3 of 5



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 RASMUSSEN 23-29 (712'FSL & 1962'FEL)
Area	COLORADO	Well	RASMUSSEN 23-29
Field	WELD COUNTY (KERR MCGEE)	Wellbore	Rasmussen 23-29 AWB
Facility	SEC.29-T2N-R68W		

WELLPATH DATA (82 stations)								Comments
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	
4060.00	19.000	319.500	3944.68	776.52	515.43	-580.80	2.22	
4149.00	19.000	319.200	4028.83	805.25	537.41	-599.68	0.11	
4239.00	18.000	316.700	4114.18	833.64	558.63	-618.79	1.42	
4328.00	16.000	318.100	4199.28	859.53	577.77	-636.41	2.29	
4419.00	16.100	312.800	4286.74	884.62	595.67	-654.05	1.61	
4509.00	15.600	310.400	4373.32	909.19	612.00	-672.42	0.92	
4599.00	15.600	306.200	4460.01	933.33	626.99	-691.40	1.25	
4689.00	14.300	306.900	4546.96	956.45	640.81	-710.06	1.46	
4780.00	12.300	308.600	4635.51	977.33	653.61	-726.62	2.24	
4870.00	10.400	310.400	4723.75	995.02	664.85	-740.30	2.15	
4960.00	8.400	311.400	4812.54	1009.72	674.47	-751.42	2.23	
5050.00	7.300	315.000	4901.69	1022.00	682.86	-760.39	1.34	
5141.00	5.500	321.000	4992.12	1032.08	690.33	-767.23	2.11	
5231.00	4.800	319.900	5081.76	1040.07	696.57	-772.37	0.79	
5320.00	3.200	317.100	5170.54	1046.23	701.23	-776.46	1.81	
5410.00	1.900	294.600	5260.45	1050.15	703.70	-779.52	1.80	
5498.00	2.100	285.500	5348.40	1052.99	704.73	-782.40	0.43	
5589.00	1.000	314.300	5439.36	1055.28	705.73	-784.58	1.45	
5679.00	1.100	313.200	5529.35	1056.93	706.87	-785.77	0.11	
5769.00	0.400	258.400	5619.34	1057.98	707.40	-786.71	1.03	
5860.00	0.100	288.600	5710.34	1058.24	707.36	-787.09	0.35	
5995.00	0.200	259.400	5845.34	1058.49	707.36	-787.44	0.09	
6131.00	0.300	28.100	5981.34	1058.72	707.63	-787.50	0.33	
6265.00	0.500	356.100	6115.34	1059.22	708.52	-787.38	0.22	
6400.00	1.000	328.700	6250.32	1060.77	710.12	-788.03	0.45	
6535.00	1.300	334.600	6385.30	1063.31	712.51	-789.30	0.24	
6670.00	1.800	327.300	6520.25	1066.77	715.67	-791.10	0.40	
6806.00	1.300	298.100	6656.20	1070.32	718.20	-793.61	0.68	
6941.00	1.000	291.800	6791.17	1072.92	719.36	-796.06	0.24	
7077.00	0.600	311.400	6927.16	1074.75	720.27	-797.70	0.35	
7212.00	0.500	311.100	7062.15	1076.04	721.12	-798.67	0.07	
7348.00	1.200	299.500	7198.14	1078.03	722.21	-800.36	0.53	
7484.00	1.100	312.500	7334.11	1080.72	723.80	-802.56	0.20	
7619.00	0.900	334.300	7469.09	1083.00	725.63	-803.97	0.32	
7709.00	0.800	332.500	7559.08	1084.24	726.82	-804.57	0.11	
7820.00	1.100	13.700	7670.07	1085.47	728.54	-804.68	0.65	BHI LAST SURVEY
7870.00	1.100	13.700	7720.06	1085.92	729.48	-804.45	0.00	PROJECTION TO BIT



Actual Wellpath Report

Rasmussen 23-29 AWB_awp

Page 4 of 5



INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 RASMUSSEN 23-29 (712'FSL & 1962'FEL)
Area	COLORADO	Well	RASMUSSEN 23-29
Field	WELD COUNTY (KERR MCGEE)	Wellbore	Rasmussen 23-29 AWB
Facility	SEC.29-T2N-R68W		

HOLE & CASING SECTIONS Ref Wellbore: Rasmussen 23-29 AWB Ref Wellpath: Rasmussen 23-29 AWB_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	870.00	855.00	15.00	869.79	0.00	0.00	-11.21	-12.89
8.625in Casing Surface	15.00	859.00	844.00	15.00	858.80	0.00	0.00	-11.10	-12.63
7.875in Open Hole	859.00	7870.00	7011.00	858.80	7720.06	-11.10	-12.63	729.48	-804.45

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
RASMUSSEN 23-29 GEO TARGET 50' RADIUS (1400'FSL & 2610'FWL, REV- 1)		6000.00	695.81	-777.65	3132165.83	1281881.41	40°06'22.284"N	105°01'39.000"W	circle
RASMUSSEN 23-29 HARDLINE 50'E OF GEO TARGET		6000.00	695.81	-727.65	3132215.82	1281881.68	40°06'22.284"N	105°01'38.357"W	point

WELLPATH COMPOSITION Ref Wellbore: Rasmussen 23-29 AWB Ref Wellpath: Rasmussen 23-29 AWB_awp

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
15.00	815.00	NaviTrak (Standard)	BHI MWD NAVI 12.25 HOLE <151-815>	Rasmussen 23-29 AWB
815.00	7820.00	NaviTrak (Standard)	BHI MWD NAVI 7.875 HOLE <921-7820>	Rasmussen 23-29 AWB
7820.00	7870.00	Blind Drilling (std)	Projection to bit	Rasmussen 23-29 AWB



Actual Wellpath Report

Rasmussen 23-29 AWB_awp

Page 5 of 5



INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#13 RASMUSSEN 23-29 (712'FSL & 1962'FEL)
Area	COLORADO	Well	RASMUSSEN 23-29
Field	WELD COUNTY (KERR MCGEE)	Wellbore	Rasmussen 23-29 AWB
Facility	SEC.29-T2N-R68W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
7820.00	1.100	13.700	7670.07	BHI LAST SURVEY
7870.00	1.100	13.700	7720.06	PROJECTION TO BIT