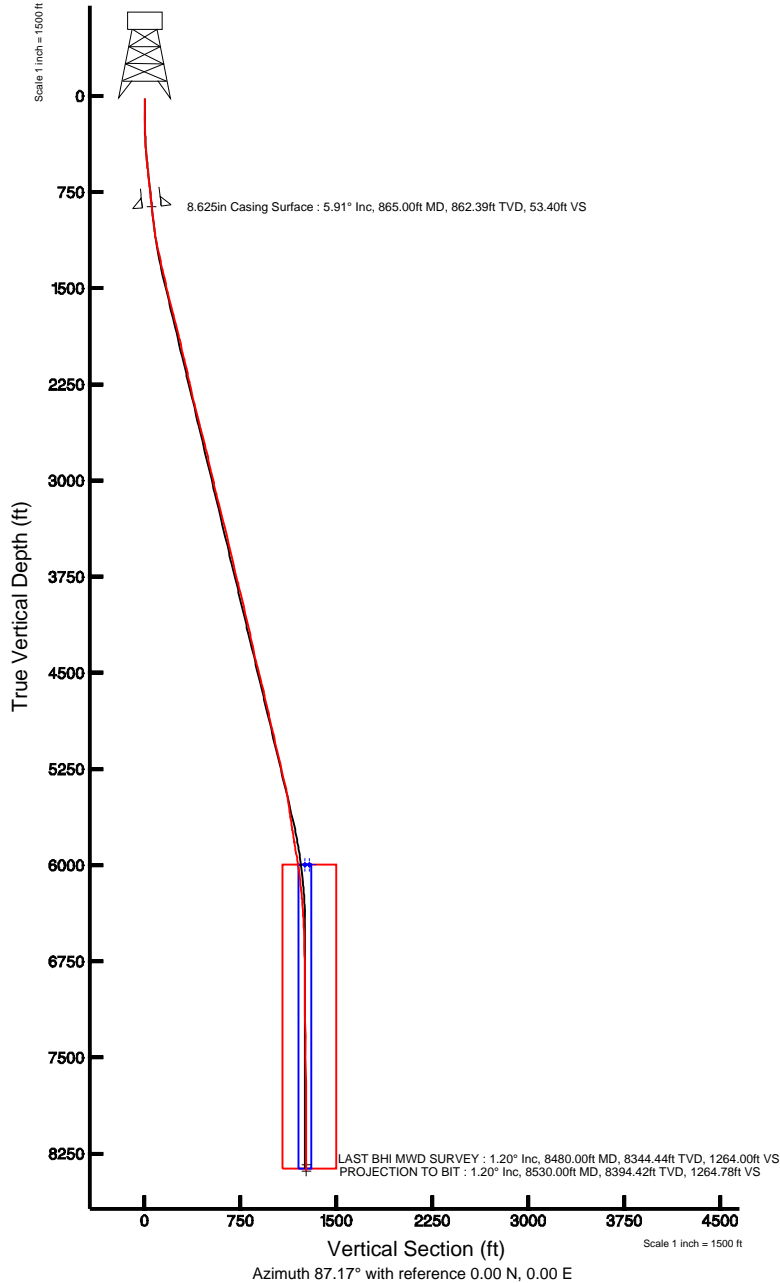
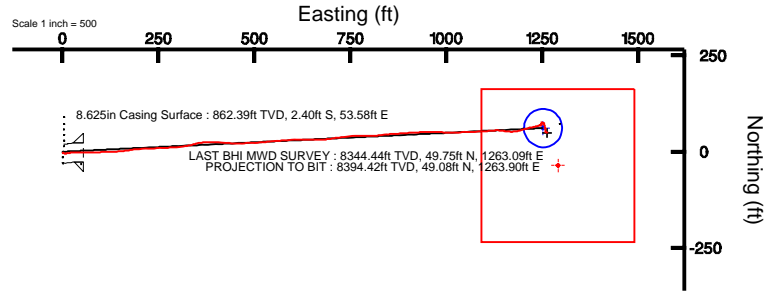


KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#14 RASMUSSEN 16-29 (697FSL & 1963FEL)
 Field: WELD COUNTY (KERR MCGEE) Well: RASMUSSEN 16-29
 Facility: SEC.29-T2N-R68W Wellbore: RASMUSSEN 16-29 PWB



Plot reference wellpath is RASMUSSEN 16-29 (REV-A-0) PWB	
True vertical depths are referenced to XTREME 12 (RT)	Grid System: NAD83 / Lambert Colorado State Planes, Northern Zone (501), 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: wagnjam 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 degrees, then the Grid North Azimuth = 90 + 9.09 = 99.09



Actual Wellpath Report

RASMUSSEN 16-29 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 RASMUSSEN 16-29 (697'FSL & 1963'FEL)
Area	COLORADO	Well	RASMUSSEN 16-29
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RASMUSSEN 16-29 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 11:41:19 AM
Convergence at slot	0.31° East	Database/Source file	WA_Denver/RASMUSSEN_16-29_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	-3883.33	1437.85	3132944.44	1281175.22	40°06'15.264"N	105°01'29.028"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	87.17°



Actual Wellpath Report

RASMUSSEN 16-29 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 RASMUSSEN 16-29 (697'FSL & 1963'FEL)
Area	COLORADO	Well	RASMUSSEN 16-29
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RASMUSSEN 16-29 AWP
Facility	SEC.29-T2N-R68W		

WELLPATH DATA (92 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	179.300	0.00	0.00	0.00	0.00	0.00	
15.00	0.000	179.300	15.00	0.00	0.00	0.00	0.00	
153.00	1.100	179.300	152.99	-0.05	-1.32	0.02	0.80	
246.00	1.300	140.900	245.97	0.54	-3.04	0.69	0.87	
339.00	2.400	105.100	338.93	3.02	-4.36	3.24	1.66	
432.00	4.500	82.900	431.76	8.51	-4.42	8.74	2.64	
523.00	6.000	80.800	522.37	16.80	-3.22	16.98	1.66	
613.00	6.200	84.300	611.86	26.33	-1.98	26.46	0.47	
703.00	6.400	94.200	701.32	36.16	-1.87	36.30	1.23	
820.00	6.000	90.300	817.64	48.74	-2.38	48.91	0.50	
920.00	5.800	90.300	917.11	59.00	-2.43	59.19	0.20	
1007.00	7.200	90.600	1003.55	68.83	-2.51	69.04	1.61	
1096.00	9.700	86.100	1091.57	81.90	-2.06	82.10	2.90	
1187.00	12.500	87.100	1180.86	99.41	-1.04	99.59	3.08	
1277.00	12.400	89.600	1268.75	118.81	-0.48	118.98	0.61	
1366.00	13.400	86.100	1355.50	138.67	0.29	138.82	1.43	
1457.00	12.100	82.900	1444.26	158.72	2.19	158.81	1.63	
1547.00	13.200	81.600	1532.07	178.36	4.85	178.34	1.26	
1637.00	14.800	85.700	1619.40	200.08	7.22	199.97	2.09	
1727.00	14.100	88.500	1706.55	222.53	8.37	222.39	1.10	
1816.00	14.800	88.200	1792.73	244.73	9.01	244.59	0.79	
1905.00	13.500	86.100	1879.03	266.49	10.07	266.31	1.57	
1995.00	13.600	87.500	1966.53	287.57	11.25	287.37	0.38	
2085.00	12.700	83.600	2054.17	308.03	12.81	307.77	1.40	
2175.00	13.600	77.300	2141.81	328.33	16.24	327.93	1.88	
2265.00	12.100	74.500	2229.56	347.96	21.09	347.34	1.80	
2353.00	13.100	87.100	2315.45	366.93	24.06	366.19	3.32	
2443.00	14.700	89.900	2402.81	388.54	24.59	387.80	1.93	
2534.00	13.700	92.800	2491.03	410.80	24.09	410.11	1.35	
2624.00	14.400	94.800	2578.34	432.50	22.63	431.90	0.95	
2714.00	15.100	89.300	2665.38	455.30	21.84	454.78	1.74	
2804.00	13.400	87.500	2752.61	477.45	22.43	476.92	1.95	
2894.00	12.000	88.200	2840.40	497.23	23.18	496.69	1.56	
2984.00	13.700	86.100	2928.15	517.24	24.20	516.68	1.96	
3073.00	13.500	81.900	3014.65	538.13	26.38	537.48	1.13	
3164.00	13.600	86.400	3103.12	559.40	28.55	558.67	1.16	
3253.00	13.500	85.700	3189.65	580.25	29.99	579.48	0.22	
3344.00	14.500	85.700	3277.94	602.26	31.64	601.43	1.10	
3434.00	14.400	92.400	3365.10	624.67	32.01	623.85	1.86	
3524.00	13.700	90.300	3452.41	646.45	31.49	645.69	0.96	
3613.00	12.800	92.100	3539.04	666.80	31.07	666.08	1.11	
3703.00	13.000	81.500	3626.78	686.81	32.20	686.06	2.64	
3793.00	14.000	82.600	3714.29	707.73	35.10	706.86	1.15	
3883.00	13.700	82.900	3801.68	729.21	37.82	728.24	0.34	
3973.00	13.200	82.200	3889.21	750.08	40.53	748.99	0.58	



Actual Wellpath Report

RASMUSSEN 16-29 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 RASMUSSEN 16-29 (697'FSL & 1963'FEL)
Area	COLORADO	Well	RASMUSSEN 16-29
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RASMUSSEN 16-29 AWP
Facility	SEC.29-T2N-R68W		

WELLPATH DATA (92 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
4062.00	14.000	91.700	3975.72	770.94	41.59	769.82	2.66	
4152.00	13.800	90.700	4063.09	792.50	41.14	791.44	0.35	
4242.00	12.800	86.400	4150.67	813.19	41.63	812.12	1.56	
4330.00	11.800	81.900	4236.65	831.90	43.51	830.76	1.57	
4421.00	12.300	85.000	4325.65	850.85	45.67	849.63	0.90	
4511.00	13.100	86.800	4413.45	870.63	47.08	869.36	0.99	
4601.00	13.900	85.700	4500.96	891.63	48.46	890.33	0.93	
4691.00	14.500	87.500	4588.21	913.71	49.76	912.36	0.83	
4781.00	13.300	85.000	4675.57	935.32	51.15	933.93	1.49	
4871.00	13.100	90.700	4763.20	955.84	51.93	954.45	1.46	
4962.00	11.600	91.000	4852.09	975.27	51.64	973.91	1.65	
5052.00	13.500	93.800	4939.94	994.73	50.79	993.44	2.22	
5142.00	14.200	89.200	5027.32	1016.20	50.25	1014.96	1.45	
5232.00	12.700	88.200	5114.85	1037.12	50.71	1035.88	1.69	
5322.00	13.000	88.200	5202.60	1057.14	51.34	1055.89	0.33	
5412.00	13.700	86.100	5290.17	1077.92	52.38	1076.64	0.95	
5502.00	12.700	88.200	5377.79	1098.46	53.42	1097.16	1.23	
5590.00	9.400	84.300	5464.15	1115.32	54.44	1113.99	3.84	
5680.00	8.200	85.000	5553.08	1129.07	55.73	1127.70	1.34	
5771.00	8.100	97.000	5643.17	1141.87	55.51	1140.52	1.87	
5862.00	9.500	98.400	5733.10	1155.56	53.63	1154.32	1.56	
5952.00	8.600	91.000	5821.98	1169.56	52.43	1168.39	1.63	
6042.00	10.200	81.200	5910.77	1184.20	53.53	1183.00	2.51	
6132.00	9.100	74.800	5999.50	1199.08	56.62	1197.74	1.71	
6223.00	7.100	71.300	6089.59	1211.52	60.31	1210.02	2.26	
6313.00	6.100	79.400	6178.99	1221.61	62.97	1219.98	1.52	
6403.00	4.800	76.200	6268.59	1230.04	64.75	1228.34	1.48	
6493.00	3.800	81.200	6358.33	1236.70	66.10	1234.95	1.19	
6583.00	3.000	67.500	6448.17	1241.89	67.46	1240.07	1.26	
6673.00	2.500	79.400	6538.07	1246.05	68.72	1244.18	0.84	
6763.00	1.100	65.300	6628.03	1248.80	69.44	1246.89	1.62	
6853.00	1.400	27.000	6718.01	1250.15	70.78	1248.17	0.96	
6942.00	0.500	61.100	6806.99	1251.04	71.94	1249.01	1.15	
7033.00	0.800	21.800	6897.99	1251.66	72.72	1249.59	0.57	
7122.00	1.000	349.800	6986.98	1251.82	74.06	1249.68	0.60	
7213.00	1.100	346.900	7077.96	1251.56	75.70	1249.35	0.12	
7303.00	1.900	108.600	7167.94	1252.79	76.06	1250.56	2.94	
7393.00	1.100	85.700	7257.91	1255.05	75.65	1252.84	1.09	
7528.00	2.700	153.900	7392.85	1257.60	72.89	1255.53	1.86	
7664.00	2.600	168.300	7528.70	1259.34	67.00	1257.57	0.49	
7800.00	2.200	170.100	7664.58	1260.14	61.40	1258.64	0.30	
7935.00	1.600	173.900	7799.51	1260.56	56.98	1259.29	0.45	
8070.00	0.800	169.100	7934.48	1260.80	54.18	1259.66	0.60	
8205.00	0.800	160.600	8069.47	1261.20	52.36	1260.16	0.09	
8339.00	0.700	118.400	8203.45	1262.17	51.09	1261.19	0.41	



Actual Wellpath Report

RASMUSSEN 16-29 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 RASMUSSEN 16-29 (697'FSL & 1963'FEL)
Area	COLORADO	Well	RASMUSSEN 16-29
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RASMUSSEN 16-29 AWB
Facility	SEC.29-T2N-R68W		

WELLPATH DATA (92 stations)								Comments
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	
8480.00	1.200	129.300	8344.44	1264.00	49.75	1263.09	0.38	LAST BHI MWD SURVEY
8530.00	1.200	129.300	8394.42	1264.78	49.08	1263.90	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS Ref Wellbore: RASMUSSEN 16-29 AWB Ref Wellpath: RASMUSSEN 16-29 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	875.00	860.00	15.00	872.34	0.00	0.00	-2.41	54.61
8.625in Casing Surface	15.00	865.00	850.00	15.00	862.39	0.00	0.00	-2.40	53.58
7.875in Open Hole	865.00	8530.00	7665.00	862.39	8394.42	-2.40	53.58	49.08	1263.90

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
RASMUSSEN 16-29 GEO TARGET 50' RADIUS (770'FSL & 711'FEL, REV-1)		6000.00	61.96	1253.22	3134197.26	1281243.90	40°06'15.876"N	105°01'12.900"W	circle
RASMUSSEN 16-29 LEGAL BOX (103'N,297'S,161'W,239'E)		6000.00	-35.96	1292.22	3134236.78	1281146.19	40°06'14.908"N	105°01'12.398"W	square

WELLPATH COMPOSITION Ref Wellbore: RASMUSSEN 16-29 AWB Ref Wellpath: RASMUSSEN 16-29 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
15.00	820.00	NaviTrak (Standard)	BHI MWD 12.25" HOLE <153-820>	RASMUSSEN 16-29 AWB
820.00	8480.00	NaviTrak (Standard)	BHI MWD 7.875" HOLE <920-8480>	RASMUSSEN 16-29 AWB
8480.00	8530.00	Blind Drilling (std)	Projection to bit	RASMUSSEN 16-29 AWB



Actual Wellpath Report

RASMUSSEN 16-29 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 RASMUSSEN 16-29 (697'FSL & 1963'FEL)
Area	COLORADO	Well	RASMUSSEN 16-29
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RASMUSSEN 16-29 AWB
Facility	SEC.29-T2N-R68W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
8480.00	1.200	129.300	8344.44	LAST BHI MWD SURVEY
8530.00	1.200	129.300	8394.42	PROJECTION TO BIT