



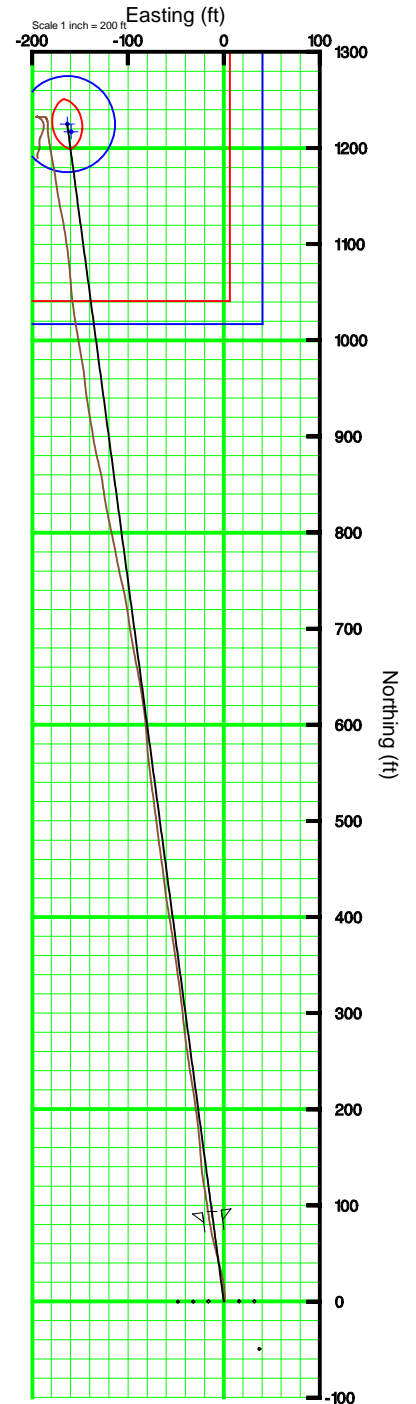
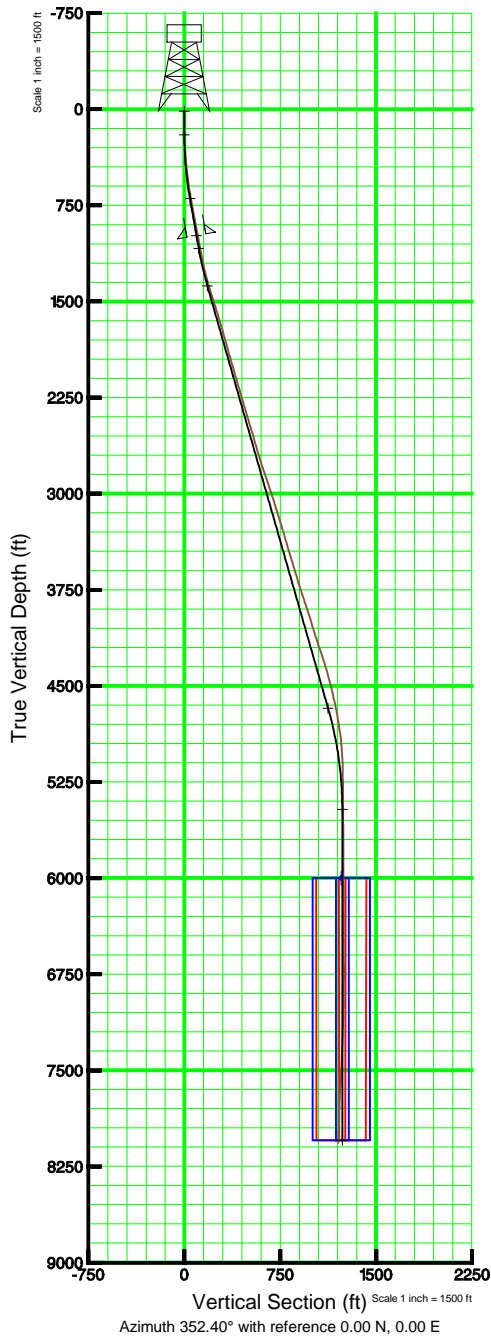
KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#31 RIVERBEND 16-12 (566FNL & 503FEL)
Field: WELD COUNTY (KERR MCGEE) Well: RIVERBEND 16-12
Facility: SEC.13-T1N-R67W Wellbore: RIVERBEND 16-12 PWB



Plot reference wellpath is RIVERBEND 16-12 (REV-A-3) PWB	Grid System NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to XTREME 15 (RKB)	North Reference: True north
Measured depths are referenced to XTREME 15 (RKB)	Scale: True distance
XTREME 15 (RKB) to Mean Sea Level: 4928 feet	Depths are in feet
Mean Sea Level to Mud line (A Slot, SLOT#31 RIVERBEND 16-12 (566FNL & 503FEL)): 0 feet	Created by: harradad on 11/19/2011
Coordinates are in feet referenced to Slot	

Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)
Tie On	15.00	0.000	352.398	15.00	0.00	0.00	0.00
End of Tangent	200.00	0.000	352.398	200.00	0.00	0.00	0.00
End of Build	700.00	10.000	352.398	697.47	43.14	-5.76	2.00
End of Tangent	1093.51	10.000	352.398	1085.00	110.87	-14.80	0.00
Build (S)	1393.51	16.000	352.398	1377.18	177.73	-23.72	2.00
End of Tangent (S)	4824.56	16.000	352.398	4675.31	1115.15	-148.82	0.00
Drop (S)	5624.56	0.000	352.398	5464.96	1225.15	-163.50	2.00
End of Tangent	8207.61	0.000	352.398	8048.00	1225.15	-163.50	0.00





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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#31 RIVERBEND 16-12 (566'FNL & 503'FEL)
Area	COLORADO	Well	RIVERBEND 16-12
Field	WELD COUNTY (KERR MCGEE)	Wellbore	Riverbend 16-12
Facility	SEC.13-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	Harradad
Scale	0.999963	Report Generated	11/19/2011 at 12:56:09 PM
Convergence at slot	0.43° East	Database/Source file	WellArchitectDB_01/Riverbend_16-12.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1486.34	1294.99	3187114.05	1264240.69	40°03'24.458"N	104°49'53.540"W
Facility Reference Pt			3185830.27	1262744.76	40°03'09.770"N	104°50'10.194"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	4928.00ft
Horizontal Reference Pt	Slot	XTREME 15 (RKB) to Mean Sea Level	4928.00ft
Vertical Reference Pt	XTREME 15 (RKB)	XTREME 15 (RKB) to Mud Line at Slot (SLOT#31 RIVERBEND 16-12 (566'FNL & 503'FEL))	4928.00ft
MD Reference Pt	XTREME 15 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	352.40°



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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#31 RIVERBEND 16-12 (566'FNL & 503'FEL)
Area	COLORADO	Well	RIVERBEND 16-12
Field	WELD COUNTY (KERR MCGEE)	Wellbore	Riverbend 16-12
Facility	SEC.13-T1N-R67W		

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	84.400	0.00	0.00	0.00	0.00	0.00	
15.00	0.000	84.400	15.00	0.00	0.00	0.00	0.00	
152.00	0.500	84.400	152.00	-0.02	0.06	0.59	0.36	
244.00	1.700	0.000	243.98	1.32	1.46	0.99	1.87	
337.00	4.400	358.600	336.84	6.23	6.41	0.91	2.90	
429.00	5.700	353.000	428.48	14.31	14.47	0.26	1.51	
518.00	7.000	349.500	516.94	24.15	24.19	-1.26	1.52	
605.00	8.600	344.900	603.13	35.89	35.69	-3.92	1.97	
696.00	10.000	345.600	692.93	50.48	49.91	-7.66	1.54	
784.00	10.700	346.700	779.50	66.20	65.26	-11.44	0.83	
873.00	10.700	351.300	866.95	82.68	81.47	-14.59	0.96	
960.00	10.900	351.300	952.41	98.98	97.58	-17.06	0.23	
995.00	10.900	351.600	986.78	105.60	104.13	-18.04	0.16	
1104.00	10.500	349.800	1093.89	125.82	124.10	-21.31	0.48	
1193.00	11.300	355.800	1181.28	142.63	140.77	-23.38	1.56	
1283.00	14.000	355.800	1269.09	162.30	160.43	-24.82	3.00	
1373.00	15.600	353.000	1356.10	185.27	183.30	-27.10	1.95	
1463.00	17.300	352.300	1442.41	210.76	208.57	-30.36	1.90	
1551.00	18.000	350.200	1526.27	237.43	234.94	-34.43	1.08	
1640.00	16.600	352.700	1611.25	263.88	261.10	-38.39	1.78	
1730.00	16.400	353.400	1697.54	289.44	286.47	-41.48	0.31	
1820.00	15.800	353.400	1784.01	314.40	311.27	-44.35	0.67	
1910.00	15.900	352.000	1870.59	338.98	335.65	-47.47	0.44	
1999.00	16.100	352.300	1956.14	363.51	359.95	-50.82	0.24	
2088.00	16.200	351.300	2041.63	388.26	384.45	-54.36	0.33	
2178.00	16.300	350.200	2128.03	413.44	409.31	-58.40	0.36	
2267.00	16.300	353.700	2213.46	438.40	434.03	-61.90	1.10	
2357.00	16.400	351.600	2299.82	463.73	459.15	-65.14	0.67	
2447.00	16.600	353.000	2386.11	489.29	484.48	-68.57	0.49	
2536.00	16.900	352.700	2471.34	514.94	509.93	-71.76	0.35	
2625.00	16.100	352.000	2556.67	540.22	534.98	-75.12	0.93	
2713.00	16.400	353.400	2641.16	564.84	559.41	-78.25	0.56	
2803.00	17.000	356.900	2727.36	590.66	585.17	-80.42	1.30	
2892.00	18.500	353.000	2812.12	617.75	612.18	-82.84	2.15	
2980.00	19.200	349.800	2895.41	646.17	640.28	-87.11	1.42	
3070.00	17.800	348.800	2980.75	674.69	668.34	-92.40	1.59	
3160.00	18.000	351.300	3066.40	702.32	695.58	-97.17	0.88	
3249.00	17.400	351.300	3151.19	729.37	722.32	-101.27	0.67	
3339.00	16.800	346.000	3237.21	755.75	748.25	-106.45	1.85	
3426.00	16.600	349.500	3320.54	780.66	772.67	-111.76	1.18	
3515.00	16.300	347.700	3405.90	805.81	797.37	-116.73	0.66	
3603.00	17.300	349.100	3490.15	831.18	822.29	-121.84	1.23	
3693.00	16.600	352.000	3576.24	857.39	848.16	-126.16	1.22	
3782.00	16.600	345.600	3661.53	882.73	873.06	-131.09	2.05	
3871.00	18.100	351.300	3746.49	909.18	899.05	-136.34	2.55	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#31 RIVERBEND 16-12 (566'FNL & 503'FEL)
Area	COLORADO	Well	RIVERBEND 16-12
Field	WELD COUNTY (KERR MCGEE)	Wellbore	Riverbend 16-12
Facility	SEC.13-T1N-R67W		

WELLPATH DATA (84 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
3961.00	18.800	349.800	3831.86	937.65	927.14	-141.03	0.94	
4051.00	17.900	354.300	3917.29	965.96	955.18	-144.97	1.86	
4141.00	16.800	350.200	4003.20	992.78	981.76	-148.56	1.83	
4231.00	17.800	349.800	4089.12	1019.52	1008.11	-153.21	1.12	
4321.00	18.500	353.000	4174.65	1047.54	1035.83	-157.38	1.35	
4409.00	18.600	355.500	4258.08	1075.52	1063.67	-160.19	0.91	
4497.00	17.200	353.000	4341.82	1102.54	1090.58	-162.87	1.81	
4587.00	14.700	350.500	4428.35	1127.27	1115.06	-166.38	2.88	
4674.00	14.000	348.400	4512.63	1148.80	1136.25	-170.32	1.00	
4765.00	13.100	351.600	4601.10	1170.09	1157.24	-174.04	1.29	
4855.00	10.600	350.500	4689.17	1188.56	1175.49	-176.89	2.79	
4943.00	9.600	349.100	4775.81	1203.98	1190.68	-179.62	1.17	
5030.00	8.400	351.300	4861.74	1217.58	1204.09	-181.95	1.43	
5120.00	5.100	353.700	4951.10	1228.15	1214.57	-183.38	3.68	
5209.00	4.000	0.700	5039.82	1235.18	1221.60	-183.78	1.38	
5298.00	1.000	1.800	5128.73	1239.02	1225.48	-183.72	3.37	
5433.00	0.700	344.200	5263.71	1240.99	1227.45	-183.91	0.29	
5563.00	0.400	330.900	5393.70	1242.20	1228.61	-184.34	0.25	
5696.00	0.300	6.700	5526.70	1242.97	1229.37	-184.53	0.18	
5828.00	0.400	332.300	5658.70	1243.74	1230.12	-184.70	0.17	
5963.00	0.300	323.500	5793.70	1244.49	1230.82	-185.13	0.08	
6096.00	0.300	333.700	5926.70	1245.13	1231.41	-185.49	0.04	
6228.00	0.400	317.200	6058.69	1245.83	1232.06	-185.96	0.11	
6363.00	0.600	269.700	6193.69	1246.31	1232.40	-186.99	0.33	
6499.00	1.100	268.300	6329.67	1246.53	1232.36	-189.00	0.37	
6630.00	1.500	269.000	6460.64	1246.86	1232.29	-191.97	0.31	
6767.00	0.900	299.000	6597.61	1247.70	1232.78	-194.71	0.62	
6901.00	0.100	271.800	6731.60	1248.35	1233.30	-195.75	0.61	
7034.00	0.800	117.100	6864.60	1247.84	1232.88	-195.03	0.67	
7168.00	1.700	120.600	6998.57	1246.08	1231.44	-192.49	0.67	
7302.00	2.200	146.600	7132.49	1242.53	1228.28	-189.36	0.75	
7438.00	2.300	181.100	7268.39	1237.49	1223.37	-187.98	0.98	
7572.00	2.800	199.000	7402.26	1231.90	1217.59	-189.10	0.70	
7706.00	3.100	203.200	7536.08	1225.86	1211.16	-191.59	0.28	
7838.00	3.300	172.000	7667.89	1219.00	1204.12	-192.47	1.31	
7972.00	2.000	205.700	7801.75	1213.19	1198.19	-192.94	1.48	
8107.00	1.800	194.800	7936.67	1209.26	1194.02	-194.51	0.31	
8195.00	1.900	174.400	8024.63	1206.52	1191.23	-194.72	0.75	
8245.00	1.900	174.400	8074.60	1204.86	1189.58	-194.56	0.00	Projection to Bit



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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#31 RIVERBEND 16-12 (566'FNL & 503'FEL)
Area	COLORADO	Well	RIVERBEND 16-12
Field	WELD COUNTY (KERR MCGEE)	Wellbore	Riverbend 16-12
Facility	SEC.13-T1N-R67W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
RIVERBEND 16-12 GEO TARGET 50' RADIUS (660'FSL & 660'FEL, SEC.12, REV-1)		6000.00	1225.13	-163.52	3186941.31	1265464.50	40°03'36.565"N	104°49'55.643"W	circle
RIVERBEND 16-12 LEGAL BOX (192'N,208'S,196'W,204'E OF GEO TARGET)		6000.00	1217.13	-159.52	3186945.37	1265456.53	40°03'36.486"N	104°49'55.592"W	square

WELLPATH COMPOSITION - Ref Wellbore: Riverbend 16-12 Ref Wellpath: Riverbend 16-12_awp				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
15.00	995.00	NaviTrak (Standard)	Surface 12 1/4	Riverbend 16-12
995.00	8245.00	NaviTrak (Standard)	7 7/8 Production	Riverbend 16-12

SURVEY LOG COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
8245.00	1.900	174.400	8074.60	Projection to Bit