



KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#18 MOSER 34-4 (2250'FSL & 2450'FWL)
 Field: WELD COUNTY (KERR MCGEE) Well: MOSER 34-4
 Facility: SEC.04-T2N-R65W Wellbore: MOSER 34-4 PWB

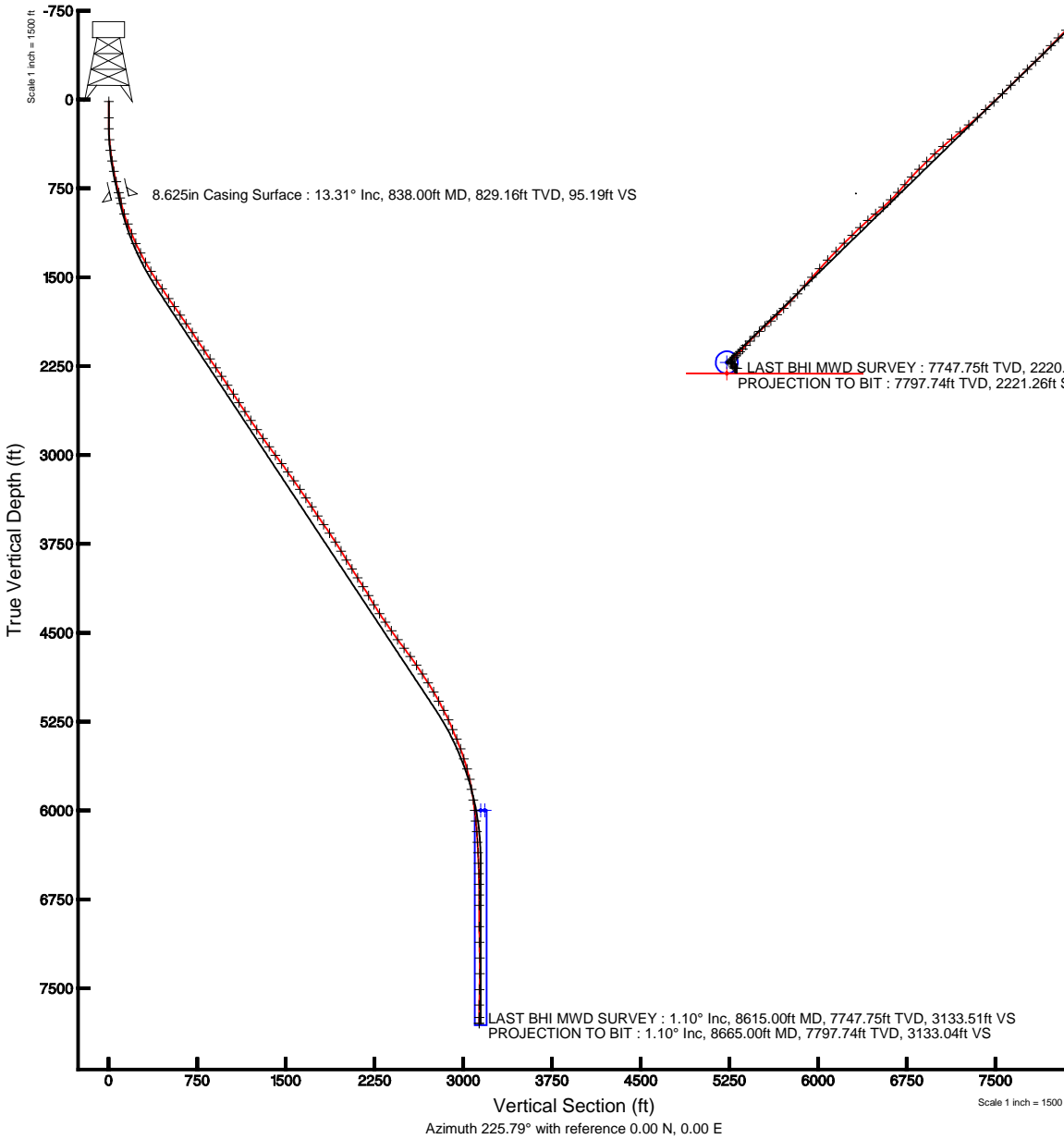
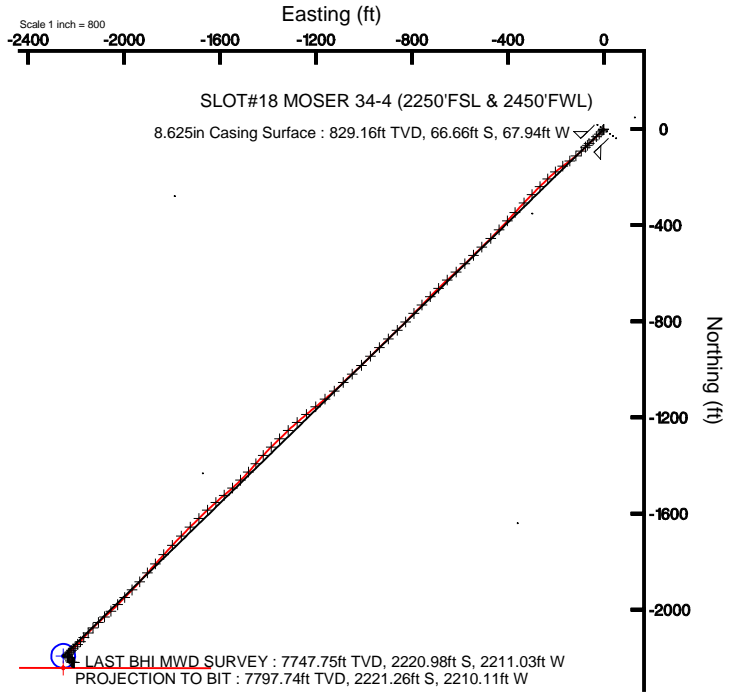


Plot reference wellpath is MOSER 34-4 (REV.8.0) PWB	
True vertical depths are referenced to XTREME 15 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (801), US feet
Measured depths are referenced to XTREME 15 (RKB)	North Reference: True north
XTREME 15 (RKB) to Mean Sea Level: 4874 feet	Scale: True distance
Mean Sea Level to Mudline (At Slot: SLOT#18 MOSER 34-4 (2250'FSL & 2450'FWL)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: cookdam on 9/8/2011



BGGM (1945.0 to 2012.0) Dip: 66.89° Field: 53035.1 nT
 Magnetic North is 8.76 degrees East of True North (at 6/9/2011)

To correct azimuth from Magnetic to True add 8.76 degrees
 For example: if the Magnetic North Azimuth = 90 degs, then the True North Azimuth = 90 + 8.76 = 98.76





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REFERENCE WELLPATH IDENTIFICATION

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Field	WELD COUNTY (KERR MCGEE)	Wellbore	MOSER 34-4 AWB
Facility	SEC.04-T2N-R65W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 3.0.1
North Reference	True	User	Cookdanm
Scale	0.999958	Report Generated	9/8/2011 at 1:56:30 PM
Convergence at slot	0.54° East	Database/Source file	WA_Denver/MOSER_34-4_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-681.96	-71.83	3232122.00	1304656.80	40°10'00.098"N	104°40'09.858"W
Facility Reference Pt			3232187.43	1305339.38	40°10'06.838"N	104°40'08.933"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	4874.00ft
Horizontal Reference Pt	Slot	XTREME 15 (RKB) to Mean Sea Level	4874.00ft
Vertical Reference Pt	XTREME 15 (RKB)	XTREME 15 (RKB) to Mud Line at Slot (SLOT#18 MOSER 34-4 (2250'FSL & 2450'FWL))	4874.00ft
MD Reference Pt	XTREME 15 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	225.79°



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Field	WELD COUNTY (KERR MCGEE)	Wellbore	MOSER 34-4 AWB
Facility	SEC.04-T2N-R65W		

WELLPATH DATA (95 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	305.100	0.00	0.00	0.00	0.00	0.00	
15.00	0.000	305.100	15.00	0.00	0.00	0.00	0.00	
153.00	0.200	305.100	153.00	0.04	0.14	-0.20	0.14	
245.00	1.600	213.000	244.99	1.33	-0.85	-1.03	1.76	
338.00	4.200	221.100	337.86	5.99	-4.50	-3.97	2.82	
428.00	7.000	223.900	427.42	14.76	-10.94	-9.94	3.12	
518.00	9.100	224.600	516.53	27.35	-19.96	-18.75	2.34	
607.00	11.400	227.800	604.11	43.18	-30.88	-30.21	2.66	
697.00	13.200	226.000	692.04	62.35	-43.99	-44.19	2.04	
793.00	13.700	226.700	785.40	84.68	-59.40	-60.35	0.55	
886.00	12.900	225.000	875.91	106.07	-74.30	-75.70	0.96	
979.00	17.700	226.400	965.59	130.60	-91.40	-93.29	5.18	
1068.00	21.000	230.200	1049.55	160.04	-110.94	-115.35	3.97	
1157.00	23.300	232.700	1131.98	193.42	-131.82	-141.60	2.79	
1246.00	24.800	233.400	1213.25	229.40	-153.62	-170.59	1.72	
1336.00	27.200	229.900	1294.14	268.63	-178.13	-201.49	3.16	
1426.00	29.400	225.700	1373.39	311.25	-206.81	-233.04	3.30	
1515.00	32.000	226.000	1449.91	356.68	-238.45	-265.64	2.93	
1603.00	32.700	223.900	1524.25	403.76	-271.78	-298.90	1.50	
1690.00	34.100	223.600	1596.88	451.62	-306.38	-332.01	1.62	
1789.00	34.400	222.500	1678.71	507.27	-347.09	-370.05	0.69	
1870.00	35.300	222.900	1745.19	553.49	-381.11	-401.44	1.15	
1959.00	34.700	223.200	1818.09	604.48	-418.41	-436.28	0.70	
2048.00	34.500	225.000	1891.35	654.99	-454.70	-471.45	1.17	
2139.00	34.300	226.000	1966.44	706.40	-490.74	-508.11	0.66	
2226.00	33.700	225.000	2038.56	755.04	-524.83	-542.82	0.94	
2318.00	33.800	226.700	2115.06	806.15	-560.43	-579.49	1.03	
2407.00	33.900	227.400	2188.98	855.71	-594.21	-615.77	0.45	
2497.00	34.000	227.400	2263.63	905.96	-628.23	-652.77	0.11	
2585.00	34.200	225.700	2336.50	955.28	-662.16	-688.58	1.11	
2674.00	33.600	224.600	2410.38	1004.92	-697.16	-723.78	0.96	
2763.00	33.300	224.300	2484.63	1053.96	-732.18	-758.13	0.38	
2852.00	33.200	223.900	2559.06	1102.74	-767.22	-792.09	0.27	
2941.00	33.400	224.300	2633.45	1151.58	-802.31	-826.09	0.33	
3031.00	34.100	225.700	2708.28	1201.57	-837.66	-861.45	1.16	
3123.00	34.100	226.400	2784.46	1253.15	-873.46	-898.59	0.43	
3214.00	35.200	226.700	2859.32	1304.88	-909.04	-936.15	1.22	
3302.00	36.600	223.900	2930.61	1356.47	-945.34	-972.80	2.45	
3391.00	37.400	226.000	3001.69	1410.02	-983.24	-1010.64	1.68	
3480.00	36.100	227.800	3073.00	1463.25	-1019.63	-1049.51	1.90	
3567.00	35.300	225.200	3143.66	1514.01	-1054.56	-1086.34	1.97	
3657.00	35.400	227.800	3217.07	1566.06	-1090.39	-1124.10	1.68	
3747.00	34.500	230.300	3290.84	1617.53	-1124.19	-1163.03	1.88	
3835.00	33.800	230.900	3363.67	1666.75	-1155.54	-1201.20	0.88	
3925.00	33.800	229.900	3438.46	1716.66	-1187.46	-1239.77	0.62	



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Area	COLORADO	Well	MOSER 34-4
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MOSER 34-4 AWB
Facility	SEC.04-T2N-R65W		

WELLPATH DATA (95 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
4016.00	34.700	229.200	3513.68	1767.76	-1220.69	-1278.74	1.08	
4104.00	34.600	226.700	3586.07	1817.75	-1254.19	-1315.89	1.62	
4194.00	33.900	226.000	3660.47	1868.40	-1289.15	-1352.54	0.89	
4283.00	32.900	224.600	3734.77	1917.39	-1323.60	-1387.37	1.42	
4373.00	31.700	223.100	3810.84	1965.45	-1358.27	-1420.69	1.60	
4461.00	31.500	219.900	3885.80	2011.41	-1392.80	-1451.24	1.92	
4551.00	31.600	223.100	3962.50	2058.36	-1428.05	-1482.43	1.86	
4639.00	32.500	225.000	4037.09	2105.03	-1461.61	-1514.90	1.54	
4727.00	31.800	227.700	4111.60	2151.84	-1493.93	-1548.77	1.82	
4816.00	30.700	229.900	4187.69	2197.95	-1524.35	-1583.50	1.78	
4905.00	31.800	228.500	4263.77	2244.03	-1554.52	-1618.44	1.48	
4993.00	33.100	226.900	4338.03	2291.22	-1586.30	-1653.35	1.77	
5082.00	34.600	225.500	4411.95	2340.79	-1620.62	-1689.12	1.90	
5171.00	35.700	225.000	4484.72	2392.02	-1656.70	-1725.51	1.28	
5261.00	35.900	224.300	4557.71	2444.66	-1694.15	-1762.51	0.51	
5351.00	36.900	223.600	4630.15	2498.04	-1732.60	-1799.57	1.20	
5440.00	36.700	221.500	4701.42	2551.26	-1771.87	-1835.62	1.43	
5530.00	34.000	222.200	4774.82	2603.20	-1810.66	-1870.35	3.03	
5620.00	33.400	221.800	4849.70	2653.03	-1847.77	-1903.76	0.71	
5709.00	33.200	220.800	4924.08	2701.74	-1884.48	-1936.01	0.66	
5798.00	29.800	224.600	4999.96	2748.14	-1918.68	-1967.47	4.42	
5888.00	28.800	224.300	5078.45	2792.17	-1950.12	-1998.32	1.12	
5977.00	27.600	225.000	5156.88	2834.22	-1980.04	-2027.87	1.40	
6065.00	24.700	228.000	5235.87	2872.99	-2006.77	-2055.95	3.62	
6154.00	23.000	228.100	5317.27	2908.94	-2030.82	-2082.72	1.91	
6243.00	22.400	226.400	5399.38	2943.27	-2054.13	-2107.94	1.00	
6331.00	20.400	225.000	5481.30	2975.38	-2076.54	-2130.93	2.35	
6420.00	18.500	222.900	5565.22	3004.99	-2097.86	-2151.51	2.27	
6509.00	15.500	220.800	5650.33	3030.95	-2117.21	-2168.90	3.44	
6599.00	12.500	222.500	5737.64	3052.66	-2133.49	-2183.34	3.36	
6686.00	9.900	227.800	5822.98	3069.54	-2145.46	-2195.24	3.21	
6776.00	8.500	222.900	5911.82	3083.91	-2155.53	-2205.50	1.78	
6865.00	6.900	228.500	6000.02	3095.82	-2163.89	-2213.99	1.98	
6955.00	5.400	225.000	6089.50	3105.46	-2170.47	-2221.03	1.72	
7045.00	4.500	221.100	6179.16	3113.21	-2176.13	-2226.34	1.07	
7135.00	3.800	215.100	6268.92	3119.66	-2181.23	-2230.38	0.91	
7224.00	2.900	209.200	6357.77	3124.72	-2185.60	-2233.17	1.08	
7314.00	2.200	205.300	6447.68	3128.52	-2189.15	-2235.02	0.80	
7402.00	1.800	192.600	6535.63	3131.25	-2192.03	-2236.05	0.68	
7491.00	1.400	178.200	6624.59	3133.16	-2194.48	-2236.32	0.63	
7580.00	1.100	168.700	6713.57	3134.35	-2196.40	-2236.12	0.41	
7669.00	1.100	134.600	6802.56	3134.80	-2197.84	-2235.34	0.72	
7848.00	1.800	142.400	6981.50	3135.09	-2201.28	-2232.40	0.41	
7982.00	3.300	152.200	7115.36	3136.42	-2206.36	-2229.32	1.16	
8114.00	3.700	154.700	7247.12	3138.87	-2213.57	-2225.73	0.32	



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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#18 MOSER 34-4 (2250'FSL & 2450'FWL)
Area	COLORADO	Well	MOSER 34-4
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MOSER 34-4 AWB
Facility	SEC.04-T2N-R65W		

WELLPATH DATA (95 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
8246.00	3.000	120.200	7378.90	3139.33	-2219.16	-2220.92	1.59	
8380.00	1.500	83.600	7512.80	3137.00	-2220.72	-2216.15	1.50	
8512.00	1.200	93.800	7644.77	3134.71	-2220.62	-2213.05	0.29	
8615.00	1.100	106.800	7747.75	3133.51	-2220.98	-2211.03	0.27	LAST BHI MWD SURVEY
8665.00	1.100	106.800	7797.74	3133.04	-2221.26	-2210.11	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: MOSER 34-4 AWB Ref Wellpath: MOSER 34-4 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	848.00	833.00	15.00	838.89	0.00	0.00	-68.26	-69.59
8.625in Casing Surface	15.00	838.00	823.00	15.00	829.16	0.00	0.00	-66.66	-67.94
7.875in Open Hole	848.00	8665.00	7817.00	838.89	7797.74	-68.26	-69.59	-2221.26	-2210.11

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
MOSER 34-4 GEO TARGET 50' RADIUS (50'FSL & 218'FWL, REV-1)		6000.00	-2193.72	-2255.07	3229887.68	1302442.15	40°09'38.419"N	104°40'38.903"W	circle
MOSER 34-4 HARDLINE 50'S OF GEO TARGET		6000.00	-2243.70	-2255.05	3229888.17	1302392.17	40°09'37.925"N	104°40'38.903"W	point

WELLPATH COMPOSITION - Ref Wellbore: MOSER 34-4 AWB Ref Wellpath: MOSER 34-4 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
15.00	8615.00	NaviTrak (Standard)	BHI MWD SURVEYS <153-8615>	MOSER 34-4 AWB
8615.00	8665.00	Blind Drilling (std)	Projection to bit	MOSER 34-4 AWB



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WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
8615.00	1.100	106.800	7747.75	LAST BHI MWD SURVEY
8665.00	1.100	106.800	7797.74	PROJECTION TO BIT