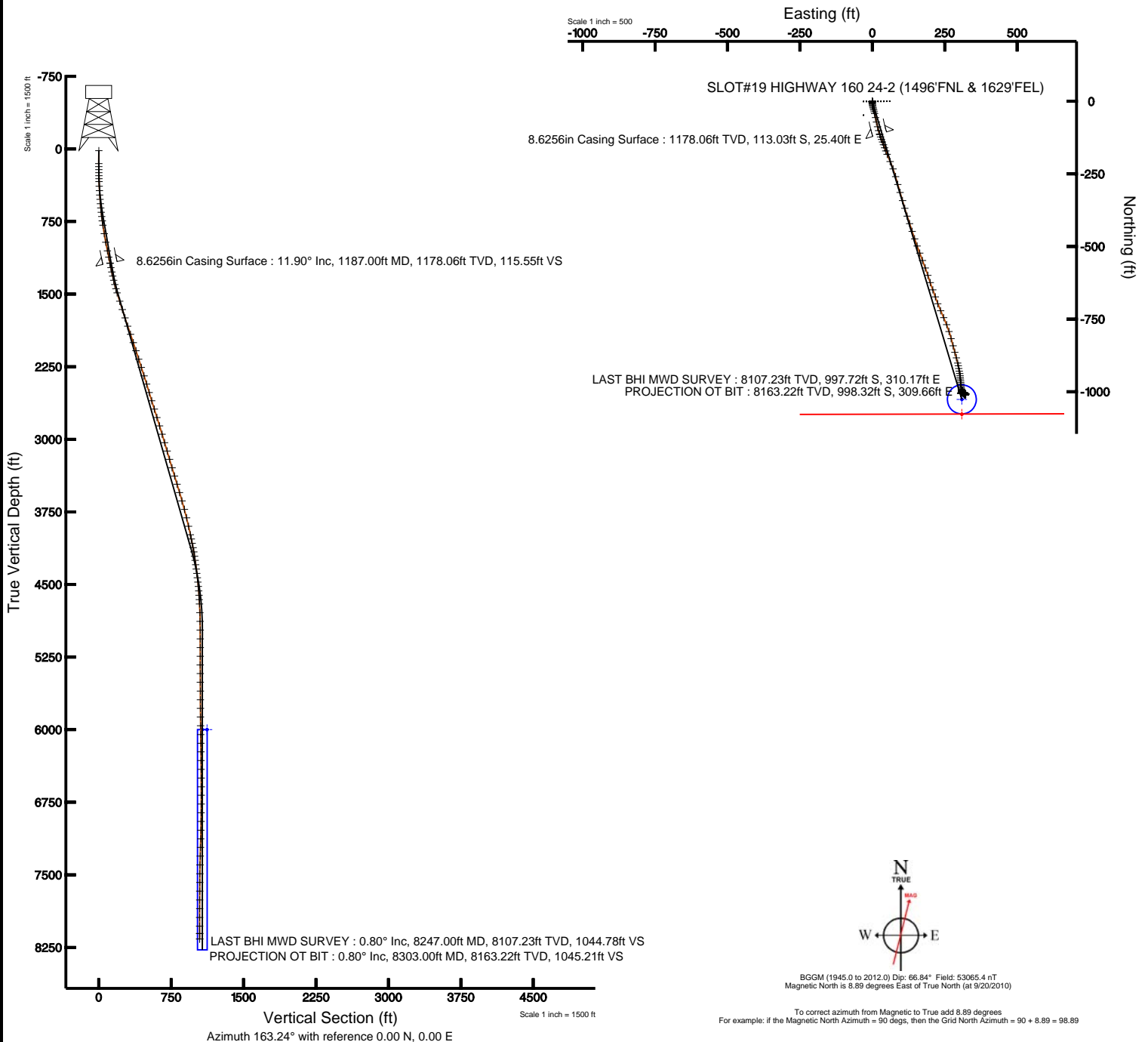


KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#19 HIGHWAY 160 24-2 (1496'FNL & 1629'FEL)
 Field: WELD COUNTY (KERR MCGEE) Well: HIGHWAY 160 24-2
 Facility: SEC.02-T1N-R66W Wellbore: HIGHWAY 160 24-2 PWB



Plot reference wellpath is HIGHWAY 160 24-2 (REV-A.0) PWB	
True vertical depths are referenced to XTREME 8 (RT)	Grid System: NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet
Measured depths are referenced to XTREME 8 (RT)	North Reference: True north
XTREME 8 (RT) to Mean Sea Level: 5122 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: SEC.02-T1N-R66W): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: cookdamm on 10/26/2010





Actual Wellpath Report

HIGHWAY 160 24-2 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 HIGHWAY 160 24-2 (1496'FNL & 1629'FEL)
Area	COLORADO	Well	HIGHWAY 160 24-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 24-2 AWB
Facility	SEC.02-T1N-R66W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet	Software System	WellArchitect® 2.0
North Reference	True	User	Cookdanm
Scale	0.999961	Report Generated	10/26/2010 at 10:43:05 AM
Convergence at slot	0.49° East	Database/Source file	Denver Server/HIGHWAY_160_24-2_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	-298.60	2425.51	3212469.54	1274083.57	40°04'59.711"N	104°44'26.376"W
Facility Reference Pt			3210041.69	1274361.62	40°05'02.663"N	104°44'57.581"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 8 (RT) to Facility Vertical Datum	5122.00ft
Horizontal Reference Pt	Slot	XTREME 8 (RT) to Mean Sea Level	5122.00ft
Vertical Reference Pt	XTREME 8 (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	XTREME 8 (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	163.24°



Actual Wellpath Report

HIGHWAY 160 24-2 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 HIGHWAY 160 24-2 (1496'FNL & 1629'FEL)
Area	COLORADO	Well	HIGHWAY 160 24-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 24-2 AWB
Facility	SEC.02-T1N-R66W		

WELLPATH DATA (115 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	335.500	0.00	0.00	0.00	0.00	0.00	
17.00	0.000	335.500	17.00	0.00	0.00	0.00	0.00	
151.00	0.100	335.500	151.00	-0.12	0.11	-0.05	0.07	
182.00	0.100	249.400	182.00	-0.14	0.12	-0.09	0.44	
213.00	0.400	195.900	213.00	-0.05	0.01	-0.14	1.13	
244.00	0.700	182.200	244.00	0.22	-0.29	-0.18	1.05	
275.00	1.100	185.400	274.99	0.68	-0.77	-0.21	1.30	
306.00	1.400	186.800	305.99	1.30	-1.44	-0.29	0.97	
337.00	2.000	179.400	336.97	2.17	-2.36	-0.32	2.06	
384.00	2.600	178.300	383.94	3.98	-4.25	-0.28	1.28	
430.00	3.400	173.100	429.87	6.34	-6.64	-0.09	1.84	
475.00	4.000	170.300	474.78	9.21	-9.51	0.34	1.39	
520.00	4.400	172.700	519.66	12.47	-12.77	0.82	0.97	
565.00	5.300	169.200	564.50	16.24	-16.53	1.43	2.10	
610.00	5.600	166.000	609.29	20.50	-20.70	2.35	0.95	
655.00	6.400	163.200	654.05	25.20	-25.23	3.60	1.89	
699.00	7.000	163.900	697.74	30.33	-30.15	5.06	1.38	
744.00	7.900	163.300	742.36	36.16	-35.78	6.60	2.04	
789.00	8.400	167.400	786.91	42.53	-41.98	8.10	1.29	
878.00	9.800	167.800	874.79	56.57	-55.73	11.12	1.57	
968.00	10.200	167.400	963.42	72.15	-70.99	14.48	0.45	
1058.00	11.600	166.700	1051.79	89.13	-87.57	18.30	1.56	
1124.00	11.900	164.300	1116.41	102.56	-100.58	21.67	0.87	
1191.00	11.900	162.200	1181.97	116.37	-113.81	25.65	0.65	
1236.00	11.300	159.700	1226.05	125.41	-122.36	28.60	1.74	
1281.00	12.200	159.400	1270.11	134.56	-130.95	31.80	2.00	
1325.00	12.800	159.700	1313.07	144.06	-139.87	35.13	1.37	
1370.00	13.500	159.700	1356.89	154.28	-149.47	38.68	1.56	
1415.00	14.700	159.400	1400.53	165.22	-159.75	42.51	2.67	
1460.00	15.900	159.400	1443.93	177.07	-170.86	46.69	2.67	
1504.00	17.000	157.600	1486.13	189.48	-182.45	51.26	2.76	
1595.00	17.600	157.600	1573.02	216.41	-207.47	61.57	0.66	
1685.00	17.800	158.700	1658.75	243.66	-232.86	71.75	0.43	
1776.00	17.800	164.300	1745.40	271.44	-259.22	80.57	1.88	
1866.00	18.600	164.300	1830.90	299.54	-286.28	88.18	0.89	
1955.00	19.300	163.900	1915.08	328.44	-314.07	96.10	0.80	
2046.00	18.000	162.500	2001.30	357.54	-341.93	104.50	1.51	
2134.00	18.700	164.600	2084.82	385.24	-368.50	112.33	1.09	
2225.00	17.300	162.200	2171.37	413.35	-395.45	120.34	1.74	
2315.00	17.900	161.100	2257.16	440.55	-421.28	128.91	0.76	
2406.00	18.100	161.800	2343.70	468.66	-447.94	137.86	0.32	
2496.00	16.800	162.200	2429.56	495.64	-473.60	146.20	1.45	
2587.00	16.900	159.400	2516.65	521.99	-498.50	154.87	0.90	
2676.00	17.100	159.400	2601.76	547.95	-522.86	164.03	0.22	
2766.00	17.800	160.100	2687.62	574.89	-548.18	173.37	0.81	



Actual Wellpath Report

HIGHWAY 160 24-2 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 HIGHWAY 160 24-2 (1496'FNL & 1629'FEL)
Area	COLORADO	Well	HIGHWAY 160 24-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 24-2 AWB
Facility	SEC.02-T1N-R66W		

WELLPATH DATA (115 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
2857.00	17.300	159.000	2774.39	602.27	-573.89	182.95	0.66	
2948.00	17.400	161.800	2861.25	629.37	-599.45	192.05	0.92	
3038.00	16.600	162.900	2947.31	655.68	-624.52	200.03	0.96	
3129.00	17.300	158.000	3034.36	682.15	-649.49	208.92	1.75	
3219.00	15.900	161.500	3120.61	707.80	-673.59	217.85	1.91	
3309.00	16.400	160.100	3207.06	732.81	-697.23	226.09	0.70	
3400.00	17.000	155.800	3294.23	758.83	-721.45	235.91	1.51	
3489.00	17.100	155.800	3379.32	784.70	-745.25	246.61	0.11	
3578.00	17.100	158.300	3464.38	810.72	-769.34	256.81	0.83	
3667.00	15.600	163.900	3549.79	835.72	-793.00	264.97	2.44	
3758.00	17.300	163.900	3637.06	861.49	-817.76	272.12	1.87	
3848.00	15.700	165.300	3723.35	887.04	-842.40	278.92	1.83	
3939.00	13.500	163.600	3811.41	909.97	-864.50	285.04	2.46	
4029.00	12.100	165.000	3899.17	929.90	-883.69	290.45	1.59	
4118.00	12.000	166.400	3986.21	948.46	-901.69	295.04	0.35	
4163.00	12.400	170.300	4030.19	957.93	-911.00	296.95	2.04	
4208.00	12.300	170.600	4074.15	967.48	-920.49	298.55	0.26	
4254.00	10.900	168.900	4119.21	976.67	-929.59	300.19	3.13	
4299.00	9.900	167.100	4163.47	984.76	-937.54	301.87	2.34	
4344.00	8.500	172.600	4207.89	991.90	-944.61	303.16	3.67	
4387.00	7.900	176.900	4250.45	997.91	-950.71	303.73	1.99	
4433.00	7.200	173.800	4296.05	1003.82	-956.73	304.21	1.76	
4478.00	7.600	176.200	4340.68	1009.49	-962.51	304.71	1.12	
4523.00	7.200	173.800	4385.30	1015.16	-968.28	305.22	1.12	
4569.00	7.100	174.800	4430.94	1020.78	-973.98	305.79	0.35	
4614.00	6.900	174.800	4475.61	1026.15	-979.44	306.28	0.44	
4659.00	5.600	174.100	4520.34	1030.96	-984.31	306.75	2.89	
4705.00	4.500	173.400	4566.16	1034.94	-988.34	307.19	2.40	
4750.00	3.900	175.500	4611.04	1038.17	-991.62	307.51	1.38	
4795.00	3.300	177.300	4655.95	1040.92	-994.44	307.70	1.36	
4840.00	2.900	176.600	4700.89	1043.29	-996.87	307.82	0.89	
4930.00	2.000	185.700	4790.80	1046.95	-1000.70	307.80	1.09	
5021.00	1.500	207.500	4881.76	1049.27	-1003.34	307.10	0.91	
5111.00	1.100	217.000	4971.74	1050.63	-1005.07	306.03	0.50	
5202.00	0.500	227.200	5062.73	1051.32	-1006.04	305.21	0.68	
5292.00	1.300	71.800	5152.72	1051.47	-1005.99	305.90	1.96	
5381.00	1.800	52.100	5241.69	1050.94	-1004.82	307.96	0.81	
5471.00	2.000	78.500	5331.64	1050.57	-1003.63	310.61	0.99	
5560.00	1.900	81.300	5420.59	1050.92	-1003.10	313.59	0.16	
5650.00	0.600	108.400	5510.57	1051.40	-1003.02	315.52	1.55	
5741.00	0.600	156.600	5601.56	1052.15	-1003.61	316.16	0.54	
5831.00	0.900	79.900	5691.56	1052.70	-1003.92	317.04	1.07	
5920.00	0.200	210.300	5780.55	1052.88	-1003.93	317.65	1.17	
6010.00	0.700	105.900	5870.55	1053.29	-1004.22	318.10	0.86	
6100.00	1.200	145.300	5960.54	1054.48	-1005.14	319.16	0.88	



Actual Wellpath Report

HIGHWAY 160 24-2 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 HIGHWAY 160 24-2 (1496'FNL & 1629'FEL)
Area	COLORADO	Well	HIGHWAY 160 24-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 24-2 AWB
Facility	SEC.02-T1N-R66W		

WELLPATH DATA (115 stations)								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
6191.00	1.200	108.400	6051.52	1055.94	-1006.23	320.61	0.83	
6280.00	1.000	140.400	6140.51	1057.19	-1007.12	321.99	0.71	
6369.00	0.400	154.800	6229.50	1058.21	-1008.00	322.62	0.70	
6459.00	0.400	129.100	6319.50	1058.78	-1008.48	322.99	0.20	
6550.00	1.200	204.400	6410.49	1059.76	-1009.55	322.85	1.28	
6640.00	1.000	210.000	6500.47	1061.01	-1011.09	322.07	0.25	
6730.00	0.800	244.100	6590.46	1061.65	-1012.04	321.11	0.62	
6818.00	0.600	293.300	6678.46	1061.45	-1012.13	320.13	0.69	
6909.00	0.400	295.100	6769.45	1060.93	-1011.81	319.41	0.22	
6998.00	0.700	334.400	6858.45	1060.19	-1011.18	318.89	0.52	
7088.00	0.800	312.300	6948.44	1059.10	-1010.27	318.19	0.34	
7179.00	1.300	313.300	7039.43	1057.66	-1009.13	316.97	0.55	
7268.00	1.500	302.100	7128.40	1055.91	-1007.82	315.25	0.38	
7357.00	2.400	303.200	7217.35	1053.61	-1006.18	312.70	1.01	
7447.00	2.000	348.500	7307.29	1050.60	-1003.61	310.81	1.93	
7538.00	1.300	320.000	7398.25	1048.07	-1001.26	309.83	1.16	
7629.00	0.500	355.500	7489.24	1046.74	-1000.07	309.13	1.03	
7719.00	0.300	33.500	7579.24	1046.20	-999.49	309.23	0.36	
7809.00	0.500	12.100	7669.23	1045.71	-998.91	309.45	0.27	
7900.00	0.200	52.100	7760.23	1045.30	-998.42	309.65	0.41	
7990.00	0.500	22.300	7850.23	1044.94	-997.96	309.93	0.38	
8081.00	0.300	40.500	7941.23	1044.50	-997.41	310.23	0.26	
8171.00	0.100	124.900	8031.23	1044.44	-997.28	310.45	0.34	
8247.00	0.800	219.800	8107.23	1044.78	-997.72	310.17	1.07	LAST BHI MWD SURVEY
8303.00	0.800	219.800	8163.22	1045.21	-998.32	309.66	0.00	PROJECTION OT BIT

HOLE & CASING SECTIONS Ref Wellbore: HIGHWAY 160 24-2 AWB Ref Wellpath: HIGHWAY 160 24-2 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	17.00	1187.00	1170.00	17.00	1178.06	0.00	0.00	-113.03	25.40
8.6256in Casing Surface	17.00	1187.00	1170.00	17.00	1178.06	0.00	0.00	-113.03	25.40
7.875in Open Hole	1187.00	8303.00	7116.00	1178.06	8163.22	-113.03	25.40	-998.32	309.66



Actual Wellpath Report

HIGHWAY 160 24-2 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 HIGHWAY 160 24-2 (1496'FNL & 1629'FEL)
Area	COLORADO	Well	HIGHWAY 160 24-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 24-2 AWB
Facility	SEC.02-T1N-R66W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
HIGHWAY 160 24-2 GEO TARGET 50' RADIUS (2525'FNL & 1320'FEL, REV-1)		6000.00	-1026.94	309.22	3212787.52	1273059.36	40°04'49.562"N	104°44'22.398"W	circle
HIGHWAY 160 24-2 HARDLINE 50'S OF GEO TARGET		6000.00	-1077.94	309.22	3212787.96	1273008.36	40°04'49.058"N	104°44'22.398"W	point

WELLPATH COMPOSITION Ref Wellbore: HIGHWAY 160 24-2 AWB Ref Wellpath: HIGHWAY 160 24-2 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1058.00	NaviTrak (Standard)	BHI MWD SURVEYS 12.25 HOLE <151-1058>	HIGHWAY 160 24-2 AWB
1058.00	8247.00	NaviTrak (Standard)	BHI MWD SURVEYS 7.875 HOLE <1124-8247>	HIGHWAY 160 24-2 AWB
8247.00	8303.00	Blind Drilling (std)	Projection to bit	HIGHWAY 160 24-2 AWB



Actual Wellpath Report

HIGHWAY 160 24-2 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 HIGHWAY 160 24-2 (1496'FNL & 1629'FEL)
Area	COLORADO	Well	HIGHWAY 160 24-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 24-2 AWB
Facility	SEC.02-T1N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
8247.00	0.800	219.800	8107.23	LAST BHI MWD SURVEY
8303.00	0.800	219.800	8163.22	PROJECTION OT BIT