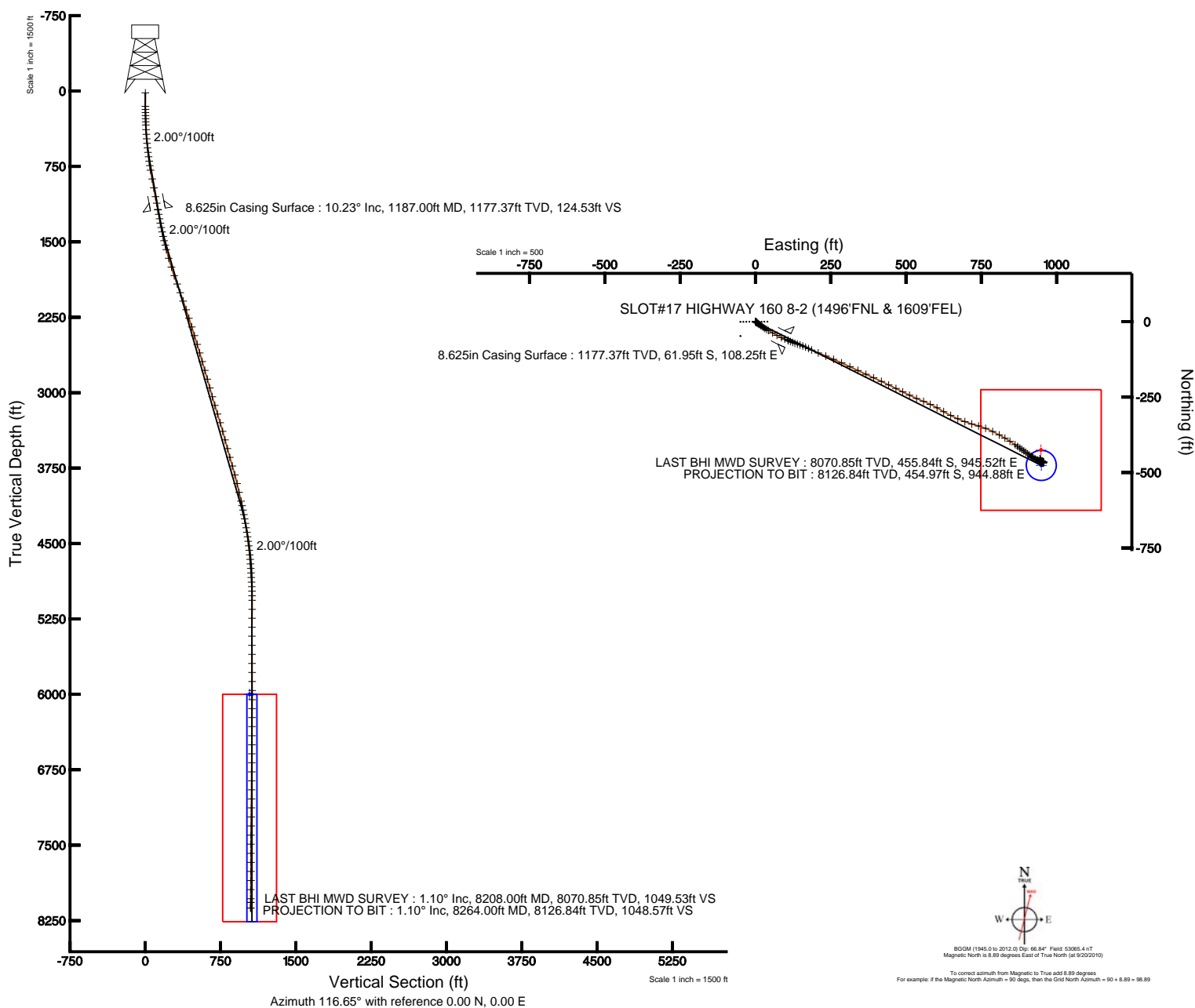


# KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#17 HIGHWAY 160 8-2 (1496'FNL & 1609'FEL)  
 Field: WELD COUNTY (KERR MCGEE) Well: HIGHWAY 160 8-2  
 Facility: SEC.02-T1N-R66W Wellbore: HIGHWAY 160 8-2 PWB



Plot reference wellpath is HIGHWAY 160 8-2 (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: 5121 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: cookdarn on 10/26/2010





# Actual Wellpath Report

HIGHWAY 160 8-2 AWP

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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#17 HIGHWAY 160 8-2 (1496'FNL & 1609'FEL)
Area	COLORADO	Well	HIGHWAY 160 8-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 8-2 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 11:29:04 AM
Convergence at slot	0.49° East	Database/Source file	Denver Server/HIGHWAY_160_8-2_AWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	-298.60	2445.37	3212489.40	1274083.74	40°04'59.711"N	104°44'26.120"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	5121.00ft
Horizontal Reference Pt	Slot	XTREME 8 (RT) to Mean Sea Level	5121.00ft
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	116.65°



# Actual Wellpath Report

HIGHWAY 160 8-2 AWP

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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#17 HIGHWAY 160 8-2 (1496'FNL & 1609'FEL)
Area	COLORADO	Well	HIGHWAY 160 8-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 8-2 AWB
Facility	SEC.02-T1N-R66W		

## WELLPATH DATA (119 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	95.400	0.00	0.00	0.00	0.00	0.00	
17.00	0.000	95.400	17.00	0.00	0.00	0.00	0.00	
151.00	0.500	95.400	151.00	0.54	-0.06	0.58	0.37	
182.00	0.600	91.900	182.00	0.82	-0.07	0.88	0.34	
213.00	0.900	111.900	212.99	1.21	-0.17	1.27	1.27	
244.00	1.000	113.300	243.99	1.72	-0.37	1.74	0.33	
275.00	1.400	120.000	274.98	2.37	-0.66	2.32	1.37	
306.00	1.900	126.700	305.97	3.25	-1.16	3.06	1.73	
337.00	2.400	130.500	336.95	4.39	-1.89	3.96	1.68	
384.00	3.200	130.900	383.89	6.62	-3.39	5.70	1.70	
430.00	4.000	128.100	429.80	9.43	-5.22	7.94	1.78	
475.00	4.800	127.000	474.67	12.82	-7.32	10.68	1.79	
520.00	5.400	126.300	519.49	16.76	-9.71	13.89	1.34	
565.00	6.200	128.100	564.26	21.23	-12.46	17.50	1.82	
610.00	6.900	125.600	608.96	26.28	-15.53	21.61	1.68	
655.00	7.500	122.800	653.61	31.87	-18.70	26.28	1.54	
699.00	8.000	121.400	697.21	37.78	-21.85	31.31	1.21	
744.00	9.000	121.000	741.71	44.41	-25.29	37.00	2.23	
789.00	9.500	121.400	786.13	51.62	-29.04	43.18	1.12	
878.00	10.800	118.900	873.73	67.27	-36.90	56.75	1.54	
968.00	10.600	118.200	962.17	83.97	-44.88	71.43	0.27	
1058.00	10.900	114.400	1050.59	100.75	-52.31	86.48	0.85	
1124.00	10.700	113.700	1115.42	113.11	-57.35	97.77	0.36	
1191.00	10.200	113.700	1181.31	125.24	-62.23	108.90	0.75	
1236.00	9.900	113.700	1225.62	133.09	-65.39	116.09	0.67	
1281.00	10.500	110.500	1269.91	141.03	-68.38	123.47	1.83	
1325.00	11.000	109.100	1313.14	149.17	-71.16	131.19	1.28	
1370.00	11.400	107.600	1357.28	157.82	-73.91	139.49	1.10	
1415.00	12.000	109.800	1401.34	166.86	-76.84	148.13	1.66	
1460.00	13.100	111.600	1445.27	176.58	-80.30	157.27	2.59	
1504.00	13.300	114.700	1488.11	186.61	-84.25	166.51	1.67	
1549.00	14.100	115.400	1531.83	197.26	-88.77	176.16	1.82	
1595.00	14.700	114.700	1576.38	208.70	-93.61	186.53	1.36	
1685.00	16.400	112.300	1663.08	232.78	-103.20	208.66	2.02	
1776.00	18.000	113.300	1750.01	259.63	-113.64	233.46	1.79	
1866.00	18.500	112.600	1835.48	287.75	-124.63	259.41	0.61	
1955.00	20.000	114.700	1919.51	317.05	-136.41	286.28	1.86	
2046.00	19.000	114.700	2005.29	347.41	-149.11	313.87	1.10	
2134.00	19.700	115.400	2088.31	376.55	-161.45	340.29	0.84	
2225.00	18.100	115.100	2174.41	406.02	-174.03	366.94	1.76	
2315.00	18.400	114.400	2259.88	434.19	-185.83	392.54	0.41	
2406.00	17.800	115.100	2346.38	462.45	-197.66	418.22	0.70	
2496.00	17.100	116.500	2432.23	489.43	-209.40	442.52	0.91	
2587.00	17.100	116.100	2519.21	516.19	-221.26	466.50	0.13	
2676.00	16.000	116.800	2604.52	541.54	-232.54	489.20	1.26	



# Actual Wellpath Report

HIGHWAY 160 8-2 AWP

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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#17 HIGHWAY 160 8-2 (1496'FNL & 1609'FEL)
Area	COLORADO	Well	HIGHWAY 160 8-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 8-2 AWP
Facility	SEC.02-T1N-R66W		

## WELLPATH DATA (119 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
2766.00	16.400	116.100	2690.95	566.64	-243.73	511.68	0.49	
2857.00	16.600	113.300	2778.20	592.47	-254.52	535.16	0.90	
2948.00	15.400	111.600	2865.68	617.48	-264.11	558.33	1.42	
3038.00	16.200	115.800	2952.28	641.94	-273.97	580.75	1.55	
3129.00	15.900	118.600	3039.73	667.09	-285.47	603.12	0.91	
3219.00	17.000	120.700	3126.05	692.54	-298.08	625.26	1.39	
3309.00	17.100	116.500	3212.09	718.89	-310.71	648.41	1.37	
3400.00	16.400	113.000	3299.24	745.09	-321.70	672.21	1.35	
3489.00	16.400	111.900	3384.61	770.15	-331.29	695.44	0.35	
3578.00	15.500	105.900	3470.19	794.36	-339.24	718.53	2.11	
3667.00	15.200	106.300	3556.02	817.52	-345.77	741.17	0.36	
3758.00	16.300	110.800	3643.60	841.96	-353.65	764.56	1.81	
3848.00	16.400	117.900	3729.97	867.23	-364.08	787.60	2.22	
3939.00	15.300	116.500	3817.51	892.08	-375.45	809.70	1.28	
4029.00	12.700	122.100	3904.84	913.81	-386.01	828.71	3.25	
4118.00	13.000	121.700	3991.61	933.52	-396.47	845.51	0.35	
4208.00	13.200	124.900	4079.27	953.77	-407.67	862.55	0.84	
4254.00	12.300	126.700	4124.13	963.80	-413.60	870.79	2.14	
4299.00	10.900	124.900	4168.21	972.73	-418.90	878.12	3.21	
4344.00	11.000	124.600	4212.39	981.19	-423.77	885.14	0.26	
4387.00	10.700	126.700	4254.62	989.18	-428.49	891.72	1.15	
4433.00	9.800	127.000	4299.89	997.24	-433.40	898.27	1.96	
4478.00	8.900	124.900	4344.29	1004.45	-437.69	904.19	2.14	
4523.00	8.900	128.800	4388.75	1011.30	-441.87	909.75	1.34	
4569.00	8.500	125.600	4434.22	1018.14	-446.07	915.29	1.36	
4614.00	7.700	124.500	4478.77	1024.41	-449.72	920.48	1.81	
4659.00	6.900	122.100	4523.41	1030.08	-452.86	925.25	1.90	
4705.00	6.200	118.600	4569.10	1035.32	-455.52	929.78	1.75	
4750.00	5.000	116.100	4613.89	1039.71	-457.54	933.67	2.72	
4795.00	4.700	112.600	4658.73	1043.51	-459.12	937.13	0.94	
4840.00	4.400	123.200	4703.59	1047.06	-460.77	940.28	1.98	
4885.00	3.900	118.200	4748.47	1050.31	-462.44	943.07	1.37	
4930.00	3.300	117.900	4793.38	1053.13	-463.77	945.57	1.33	
4975.00	3.300	116.800	4838.31	1055.72	-464.96	947.87	0.14	
5021.00	2.900	115.100	4884.24	1058.21	-466.05	950.10	0.89	
5066.00	2.500	116.800	4929.19	1060.33	-466.97	952.01	0.91	
5111.00	2.400	114.700	4974.15	1062.25	-467.81	953.74	0.30	
5157.00	1.100	134.400	5020.13	1063.63	-468.52	954.93	3.07	
5202.00	0.500	79.900	5065.12	1064.20	-468.79	955.43	2.01	
5292.00	1.600	14.200	5155.11	1064.25	-467.50	956.13	1.63	
5381.00	1.400	340.400	5244.08	1063.19	-465.27	956.07	1.00	
5471.00	1.000	305.300	5334.06	1061.62	-463.78	955.06	0.91	
5560.00	0.800	160.400	5423.05	1061.30	-463.92	954.63	1.93	
5650.00	0.400	154.100	5513.05	1062.01	-464.79	954.98	0.45	
5741.00	0.400	109.400	5604.05	1062.57	-465.19	955.42	0.33	



# Actual Wellpath Report

HIGHWAY 160 8-2 AWP

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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#17 HIGHWAY 160 8-2 (1496'FNL & 1609'FEL)
Area	COLORADO	Well	HIGHWAY 160 8-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 8-2 AWP
Facility	SEC.02-T1N-R66W		

## WELLPATH DATA (119 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
5831.00	0.400	50.000	5694.05	1063.01	-465.09	955.96	0.44	
5920.00	0.800	163.600	5783.04	1063.56	-465.48	956.37	1.15	
6010.00	0.500	151.300	5873.04	1064.31	-466.43	956.74	0.37	
6100.00	0.200	188.500	5963.04	1064.68	-466.93	956.90	0.40	
6191.00	0.300	277.100	6054.03	1064.51	-467.06	956.64	0.39	
6280.00	0.700	280.300	6143.03	1063.77	-466.93	955.88	0.45	
6369.00	1.100	265.900	6232.02	1062.51	-466.90	954.49	0.51	
6459.00	0.100	345.700	6322.01	1061.72	-466.88	953.61	1.21	
6550.00	0.400	349.900	6413.01	1061.47	-466.49	953.53	0.33	
6640.00	0.500	0.500	6503.01	1061.11	-465.79	953.48	0.14	
6730.00	0.800	334.400	6593.00	1060.44	-464.83	953.21	0.46	
6818.00	0.200	159.400	6681.00	1060.07	-464.42	953.00	1.14	
6909.00	0.700	336.600	6772.00	1059.76	-464.06	952.84	0.99	
6998.00	0.300	327.400	6861.00	1059.14	-463.36	952.50	0.46	
7088.00	0.700	301.400	6950.99	1058.39	-462.88	951.90	0.50	
7179.00	0.500	281.400	7041.99	1057.46	-462.51	951.04	0.32	
7268.00	1.200	296.800	7130.98	1056.15	-462.01	949.82	0.82	
7357.00	0.900	219.100	7219.97	1055.07	-462.14	948.55	1.50	
7447.00	1.100	262.700	7309.95	1054.20	-462.80	947.25	0.85	
7538.00	1.700	275.000	7400.93	1052.22	-462.79	945.04	0.73	
7629.00	0.300	76.700	7491.92	1051.15	-462.62	943.92	2.18	
7719.00	0.700	77.100	7581.91	1051.75	-462.44	944.69	0.44	
7809.00	1.000	37.700	7671.90	1052.32	-461.70	945.71	0.71	
7900.00	1.000	350.300	7762.89	1052.01	-460.28	946.06	0.88	
7990.00	0.500	328.800	7852.88	1051.21	-459.17	945.72	0.63	
8081.00	1.100	9.200	7943.87	1050.61	-457.97	945.66	0.87	
8171.00	0.900	356.200	8033.86	1049.99	-456.41	945.75	0.33	
8208.00	1.100	323.900	8070.85	1049.53	-455.84	945.52	1.59	LAST BHI MWD SURVEY
8264.00	1.100	323.900	8126.84	1048.57	-454.97	944.88	0.00	PROJECTION TO BIT

## HOLE & CASING SECTIONS Ref Wellbore: HIGHWAY 160 8-2 AWP Ref Wellpath: HIGHWAY 160 8-2 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	1177.37	0.00	0.00	-61.95	108.25
8.625in Casing Surface	17.00	1187.00	1170.00	17.00	1177.37	0.00	0.00	-61.95	108.25
7.875in Open Hole	1187.00	8264.00	7077.00	1177.37	8126.84	-61.95	108.25	-454.97	944.88



# Actual Wellpath Report

HIGHWAY 160 8-2 AWP

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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#17 HIGHWAY 160 8-2 (1496'FNL & 1609'FEL)
Area	COLORADO	Well	HIGHWAY 160 8-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 8-2 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 8-2 GEO TARGET 50' RADIUS (1980'FNL & 660'FEL, REV-1)		6000.00	-476.48	949.46	3213442.87	1273615.43	40°04'55.002"N	104°44'13.906"W	circle
HIGHWAY 160 8-2 LEGAL BOX (251'N,149'S,201'W,199'E OF GEO TARGET)		6000.00	-425.48	948.46	3213441.43	1273666.42	40°04'55.506"N	104°44'13.918"W	square

## WELLPATH COMPOSITION Ref Wellbore: HIGHWAY 160 8-2 AWB Ref Wellpath: HIGHWAY 160 8-2 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1124.00	NaviTrak (Standard)	BHI MWD SURVEYS 12.25 HOLE <151-1124>	HIGHWAY 160 8-2 AWB
1124.00	8208.00	NaviTrak (Standard)	BHI MWD SURVEYS 7.875 HOLE <1124-8280>	HIGHWAY 160 8-2 AWB
8208.00	8264.00	Blind Drilling (std)	Projection to bit	HIGHWAY 160 8-2 AWB



# Actual Wellpath Report

HIGHWAY 160 8-2 AWP

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**INTEQ**

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#17 HIGHWAY 160 8-2 (1496'FNL & 1609'FEL)
Area	COLORADO	Well	HIGHWAY 160 8-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 8-2 AWB
Facility	SEC.02-T1N-R66W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
8208.00	1.100	323.900	8070.85	LAST BHI MWD SURVEY
8264.00	1.100	323.900	8126.84	PROJECTION TO BIT