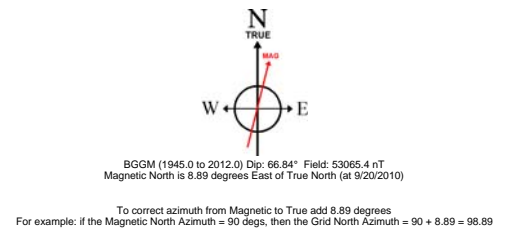
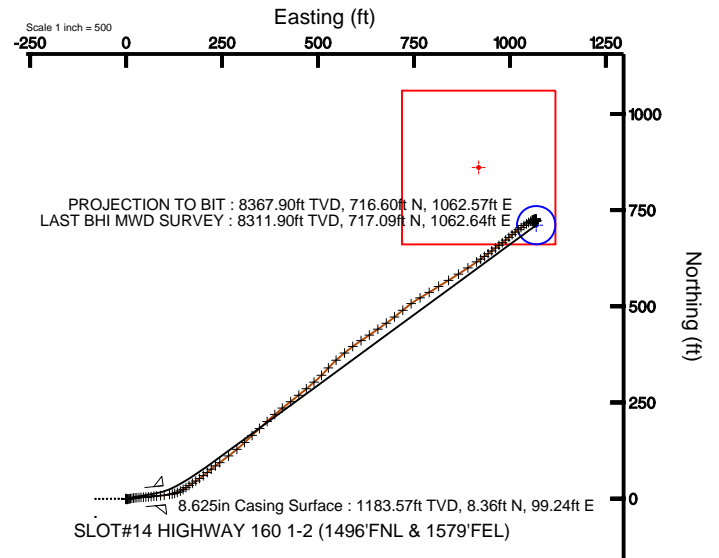
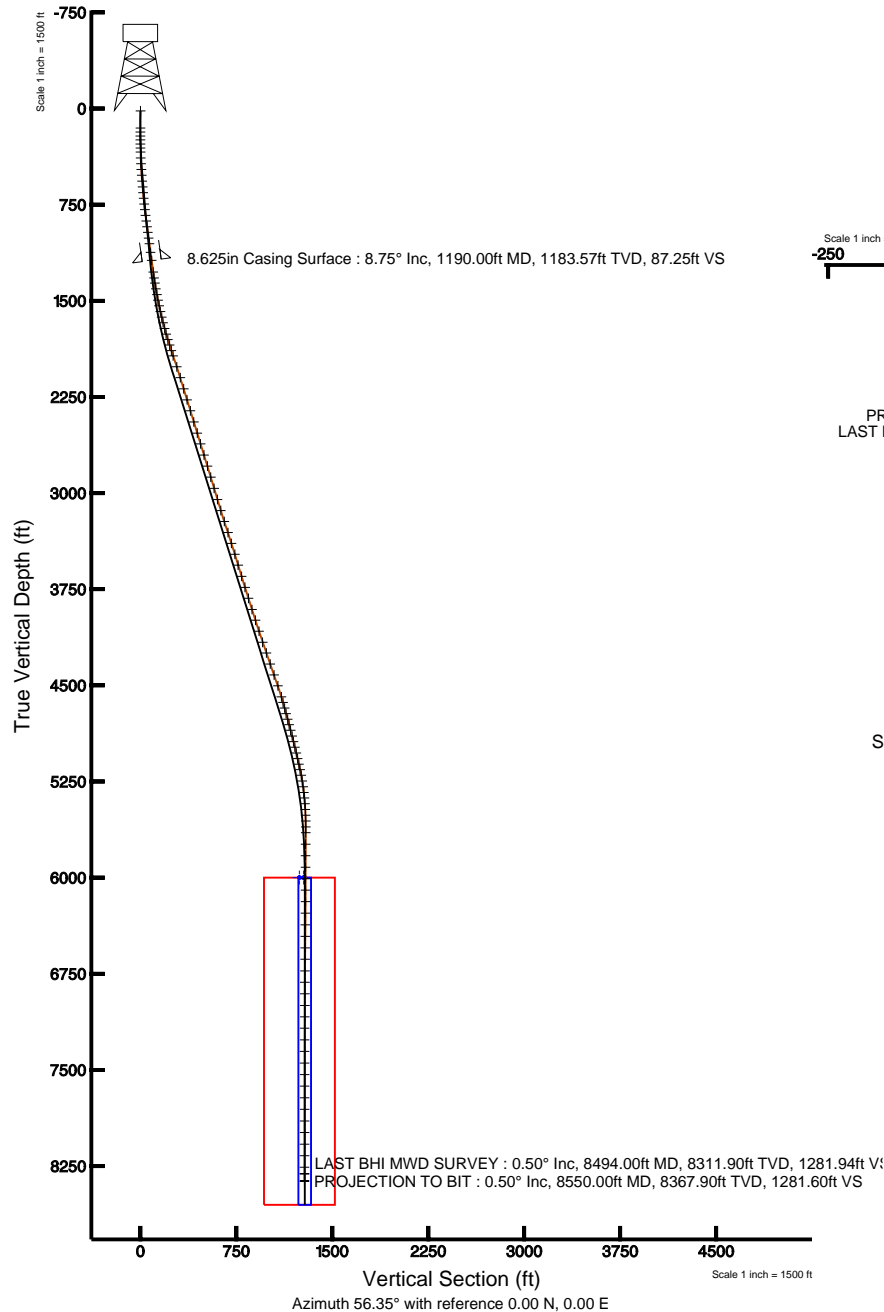


KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#14 HIGHWAY 160 1-2 (1496°FNL & 1579°FEL)
 Field: WELD COUNTY (KERR MCGEE) Well: HIGHWAY 160 1-2
 Facility: SEC.02-T1N-R66W Wellbore: HIGHWAY 160 1-2 PWB



Plot reference wellpath is HIGHWAY 160 1-2 (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 11/1/2010





Actual Wellpath Report

HIGHWAY 160 1-2 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 HIGHWAY 160 1-2 (1496'FNL & 1579'FEL)
Area	COLORADO	Well	HIGHWAY 160 1-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 1-2 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	11/1/2010 at 5:38:32 PM
Convergence at slot	0.49° East	Database/Source file	Denver Server/HIGHWAY_160_1-2_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	-298.23	2475.31	3212519.34	1274084.36	40°04'59.714"N	104°44'25.735"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	56.35°



Actual Wellpath Report

HIGHWAY 160 1-2 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 HIGHWAY 160 1-2 (1496'FNL & 1579'FEL)
Area	COLORADO	Well	HIGHWAY 160 1-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 1-2 AWB
Facility	SEC.02-T1N-R66W		

WELLPATH DATA (128 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	196.300	0.00	0.00	0.00	0.00	0.00	
17.00	0.000	196.300	17.00	0.00	0.00	0.00	0.00	
151.00	0.900	196.300	150.99	-0.81	-1.01	-0.30	0.67	
182.00	0.500	183.300	181.99	-1.07	-1.38	-0.37	1.38	
213.00	0.600	162.900	212.99	-1.20	-1.67	-0.33	0.70	
244.00	0.600	106.300	243.99	-1.14	-1.87	-0.13	1.84	
276.00	0.800	107.300	275.99	-0.89	-1.98	0.25	0.63	
307.00	1.100	99.600	306.98	-0.54	-2.10	0.75	1.05	
338.00	1.600	88.000	337.97	0.04	-2.13	1.47	1.83	
385.00	2.500	78.900	384.94	1.55	-1.91	3.13	2.03	
430.00	3.300	78.200	429.89	3.66	-1.46	5.36	1.78	
475.00	3.800	79.200	474.80	6.23	-0.91	8.10	1.12	
520.00	4.500	76.390	519.68	9.27	-0.22	11.28	1.62	
566.00	4.800	81.000	565.53	12.71	0.51	14.93	1.04	
611.00	5.700	82.400	610.34	16.43	1.10	19.01	2.02	
656.00	5.400	83.800	655.13	20.32	1.62	23.33	0.73	
700.00	6.400	84.500	698.90	24.32	2.08	27.83	2.28	
745.00	6.900	86.200	743.59	28.87	2.50	33.02	1.19	
790.00	7.700	85.500	788.23	33.85	2.92	38.72	1.79	
835.00	7.900	86.600	832.81	39.16	3.34	44.82	0.55	
879.00	8.700	86.200	876.35	44.65	3.74	51.15	1.82	
924.00	8.900	84.100	920.82	50.69	4.32	58.01	0.84	
969.00	9.100	83.400	965.27	56.94	5.09	65.01	0.51	
1014.00	8.900	83.400	1009.71	63.21	5.89	72.00	0.44	
1059.00	9.000	85.900	1054.16	69.37	6.55	78.97	0.89	
1127.00	9.000	85.200	1121.33	78.65	7.37	89.58	0.16	
1282.00	8.400	79.900	1274.55	99.65	10.37	112.81	0.65	
1329.00	9.000	77.100	1321.01	106.24	11.79	119.77	1.56	
1370.00	9.600	73.900	1361.47	112.50	13.46	126.18	1.93	
1415.00	10.100	68.700	1405.80	119.93	15.93	133.46	2.27	
1461.00	10.900	62.000	1451.03	128.20	19.44	141.06	3.17	
1505.00	10.900	57.400	1494.24	136.50	23.63	148.24	1.98	
1550.00	11.900	57.400	1538.35	145.39	28.43	155.73	2.22	
1596.00	12.700	55.700	1583.30	155.19	33.83	163.90	1.91	
1641.00	13.500	57.400	1627.13	165.39	39.45	172.41	1.97	
1686.00	14.200	56.000	1670.82	176.16	45.36	181.42	1.72	
1732.00	15.400	54.200	1715.29	187.90	52.09	191.05	2.79	
1777.00	16.400	52.500	1758.57	200.21	59.46	200.93	2.45	
1822.00	17.300	50.700	1801.64	213.21	67.56	211.15	2.31	
1867.00	18.200	50.400	1844.49	226.86	76.28	221.74	2.01	
1912.00	18.200	52.500	1887.24	240.86	85.04	232.73	1.46	
1956.00	18.600	53.200	1928.99	254.72	93.42	243.80	1.04	
2046.00	18.400	52.800	2014.34	283.23	110.61	266.61	0.26	
2135.00	17.800	50.400	2098.94	310.78	127.77	288.28	1.08	
2226.00	17.000	46.600	2185.78	337.73	145.78	308.67	1.53	



Actual Wellpath Report

HIGHWAY 160 1-2 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 HIGHWAY 160 1-2 (1496'FNL & 1579'FEL)
Area	COLORADO	Well	HIGHWAY 160 1-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 1-2 AWP
Facility	SEC.02-T1N-R66W		

WELLPATH DATA (128 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
2316.00	17.300	46.500	2271.78	363.88	164.03	327.93	0.33	
2406.00	17.100	47.600	2357.75	390.14	182.16	347.41	0.42	
2497.00	17.300	47.200	2444.68	416.72	200.38	367.22	0.26	
2588.00	17.200	48.300	2531.59	443.40	218.52	387.19	0.37	
2676.00	17.100	50.700	2615.68	469.16	235.37	406.92	0.81	
2767.00	17.700	53.900	2702.51	496.30	252.00	428.45	1.24	
2858.00	16.900	49.700	2789.40	523.26	268.70	449.72	1.63	
2948.00	16.800	49.300	2875.54	549.16	285.65	469.55	0.17	
3039.00	17.000	49.700	2962.61	575.42	302.83	489.67	0.25	
3130.00	16.400	45.100	3049.77	601.24	320.50	508.92	1.59	
3220.00	17.800	41.600	3135.79	627.00	339.76	527.05	1.93	
3310.00	18.900	48.600	3221.23	654.75	359.69	547.12	2.73	
3401.00	18.100	50.000	3307.52	683.41	378.52	569.00	1.01	
3490.00	17.700	53.200	3392.22	710.66	395.51	590.43	1.19	
3579.00	17.100	56.400	3477.15	737.25	410.86	612.16	1.27	
3668.00	16.900	56.400	3562.26	763.27	425.26	633.84	0.22	
3759.00	17.600	54.600	3649.16	790.25	440.55	656.07	0.97	
3849.00	17.100	54.600	3735.07	817.08	456.09	677.94	0.56	
3939.00	17.500	50.700	3821.00	843.77	472.33	699.20	1.36	
4030.00	18.000	51.100	3907.67	871.39	489.83	720.73	0.57	
4119.00	18.600	52.800	3992.17	899.25	507.04	742.74	0.90	
4209.00	17.200	61.600	4077.82	926.83	522.05	765.88	3.38	
4300.00	18.600	56.700	4164.42	954.74	536.42	789.85	2.26	
4388.00	19.600	58.500	4247.58	983.53	551.84	814.17	1.32	
4479.00	19.300	58.800	4333.38	1013.80	567.61	840.04	0.35	
4570.00	20.000	57.800	4419.08	1044.39	583.69	866.08	0.85	
4660.00	18.400	54.900	4504.08	1073.98	600.06	890.72	2.07	
4750.00	17.000	55.700	4589.81	1101.33	615.64	913.21	1.58	
4796.00	16.000	54.600	4633.92	1114.39	623.10	923.94	2.28	
4841.00	14.900	54.600	4677.29	1126.38	630.05	933.71	2.44	
4886.00	15.700	53.900	4720.70	1138.24	636.99	943.34	1.82	
4931.00	15.400	52.100	4764.05	1150.28	644.24	952.98	1.26	
4976.00	15.100	52.100	4807.47	1162.09	651.51	962.32	0.67	
5021.00	14.800	52.100	4850.94	1173.66	658.65	971.48	0.67	
5067.00	14.000	50.700	4895.50	1185.06	665.78	980.42	1.90	
5112.00	14.000	51.800	4939.16	1195.90	672.59	988.91	0.59	
5157.00	13.900	49.000	4982.83	1206.69	679.51	997.27	1.52	
5203.00	13.900	50.700	5027.49	1217.67	686.63	1005.71	0.89	
5248.00	13.300	52.100	5071.23	1228.21	693.23	1013.98	1.52	
5293.00	12.700	52.100	5115.07	1238.30	699.45	1021.97	1.33	
5336.00	12.000	54.200	5157.08	1247.48	704.97	1029.32	1.93	
5381.00	10.600	53.900	5201.20	1256.29	710.15	1036.46	3.11	
5427.00	9.600	58.800	5246.49	1264.35	714.63	1043.16	2.86	
5472.00	7.700	57.400	5290.98	1271.12	718.19	1048.91	4.25	
5517.00	6.400	59.500	5335.64	1276.64	721.09	1053.61	2.94	



Actual Wellpath Report

HIGHWAY 160 1-2 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 HIGHWAY 160 1-2 (1496'FNL & 1579'FEL)
Area	COLORADO	Well	HIGHWAY 160 1-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 1-2 AWB
Facility	SEC.02-T1N-R66W		

WELLPATH DATA (128 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
5560.00	5.700	58.800	5378.40	1281.16	723.41	1057.50	1.64	
5606.00	4.300	60.600	5424.22	1285.17	725.44	1060.96	3.06	
5651.00	3.300	69.000	5469.12	1288.11	726.74	1063.64	2.54	
5696.00	3.000	80.600	5514.05	1290.45	727.39	1066.01	1.56	
5741.00	1.300	103.500	5559.02	1291.87	727.47	1067.67	4.16	
5787.00	0.800	175.500	5605.01	1292.07	727.02	1068.20	2.82	
5832.00	1.000	175.500	5650.01	1291.72	726.32	1068.26	0.44	
5921.00	0.900	172.700	5739.00	1291.04	724.85	1068.41	0.12	
6011.00	0.200	152.700	5828.99	1290.70	724.01	1068.57	0.79	
6101.00	0.400	156.900	5918.99	1290.63	723.58	1068.76	0.22	
6191.00	0.300	140.700	6008.99	1290.60	723.11	1069.04	0.16	
6280.00	0.300	137.600	6097.99	1290.65	722.76	1069.34	0.02	
6370.00	0.200	251.500	6187.99	1290.54	722.53	1069.35	0.47	
6460.00	0.500	241.300	6277.99	1290.00	722.30	1068.86	0.34	
6551.00	0.800	263.800	6368.98	1289.04	722.04	1067.88	0.43	
6641.00	0.600	291.900	6458.97	1288.21	722.15	1066.82	0.43	
6730.00	0.800	286.300	6547.97	1287.55	722.49	1065.79	0.24	
6819.00	0.700	260.300	6636.96	1286.65	722.58	1064.66	0.39	
6910.00	0.600	284.900	6727.95	1285.83	722.60	1063.65	0.32	
6999.00	0.800	301.000	6816.95	1285.25	723.04	1062.66	0.31	
7089.00	0.900	334.400	6906.94	1285.08	724.01	1061.82	0.55	
7180.00	0.500	267.300	6997.93	1284.84	724.63	1061.11	0.93	
7269.00	0.600	216.300	7086.93	1284.07	724.24	1060.45	0.54	
7358.00	0.400	205.400	7175.92	1283.37	723.58	1060.04	0.25	
7448.00	0.400	171.000	7265.92	1282.97	722.99	1059.96	0.26	
7539.00	0.600	154.800	7356.92	1282.77	722.24	1060.21	0.27	
7630.00	0.400	130.500	7447.92	1282.78	721.61	1060.65	0.32	
7720.00	0.200	127.700	7537.91	1282.92	721.31	1061.02	0.22	
7810.00	0.300	172.700	7627.91	1282.86	720.98	1061.17	0.24	
7901.00	0.300	134.400	7718.91	1282.81	720.57	1061.37	0.22	
7991.00	0.300	115.100	7808.91	1282.98	720.31	1061.75	0.11	
8081.00	0.300	171.700	7898.91	1283.00	719.97	1062.00	0.32	
8172.00	0.500	158.300	7989.91	1282.82	719.37	1062.18	0.24	
8262.00	0.400	176.200	8079.91	1282.58	718.69	1062.35	0.19	
8352.00	0.400	156.200	8169.90	1282.37	718.09	1062.50	0.15	
8442.00	0.400	173.400	8259.90	1282.17	717.49	1062.66	0.13	
8494.00	0.500	188.900	8311.90	1281.94	717.09	1062.64	0.30	LAST BHI MWD SURVEY
8550.00	0.500	188.900	8367.90	1281.60	716.60	1062.57	0.00	PROJECTION TO BIT



Actual Wellpath Report

HIGHWAY 160 1-2 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 HIGHWAY 160 1-2 (1496'FNL & 1579'FEL)
Area	COLORADO	Well	HIGHWAY 160 1-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 1-2 AWB
Facility	SEC.02-T1N-R66W		

HOLE & CASING SECTIONS Ref Wellbore: HIGHWAY 160 1-2 AWB Ref Wellpath: HIGHWAY 160 1-2 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	1190.00	1173.00	17.00	1183.57	0.00	0.00	8.36	99.24
8.625in Casing Surface	17.00	1190.00	1173.00	17.00	1183.57	0.00	0.00	8.36	99.24
7.875in Open Hole	1190.00	8550.00	7360.00	1183.57	8367.90	8.36	99.24	716.60	1062.57

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
HIGHWAY 160 1-2 BHL ON PLAT (810'FNL & 510'FEL, REV-1)		6000.00	694.36	1069.73	3213583.04	1274787.83	40°05'06.576"N	104°44'11.972"W	point
HIGHWAY 160 1-2 GEO TARGET 50' RADIUS (793'FNL & 511'FEL, REV-2)		6000.00	711.36	1068.73	3213581.89	1274804.82	40°05'06.744"N	104°44'11.985"W	circle
HIGHWAY 160 1-2 LEGAL BOX (350'N,50'S,350'W,50'E OF GEO TARGET)		6000.00	861.36	918.73	3213430.62	1274953.52	40°05'08.226"N	104°44'13.915"W	square

WELLPATH COMPOSITION Ref Wellbore: HIGHWAY 160 1-2 AWB Ref Wellpath: HIGHWAY 160 1-2 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1127.00	NaviTrak (Standard)	BHI MWD SURVEYS 12.25 HOLE <151-1127>	HIGHWAY 160 1-2 AWB
1127.00	8494.00	NaviTrak (Standard)	BHI MWD SURVEYS 7.875 HOLE <1282-8494>	HIGHWAY 160 1-2 AWB
8494.00	8550.00	Blind Drilling (std)	Projection to bit	HIGHWAY 160 1-2 AWB



Actual Wellpath Report

HIGHWAY 160 1-2 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 HIGHWAY 160 1-2 (1496'FNL & 1579'FEL)
Area	COLORADO	Well	HIGHWAY 160 1-2
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HIGHWAY 160 1-2 AWB
Facility	SEC.02-T1N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
8494.00	0.500	188.900	8311.90	LAST BHI MWD SURVEY
8550.00	0.500	188.900	8367.90	PROJECTION TO BIT