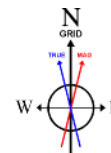


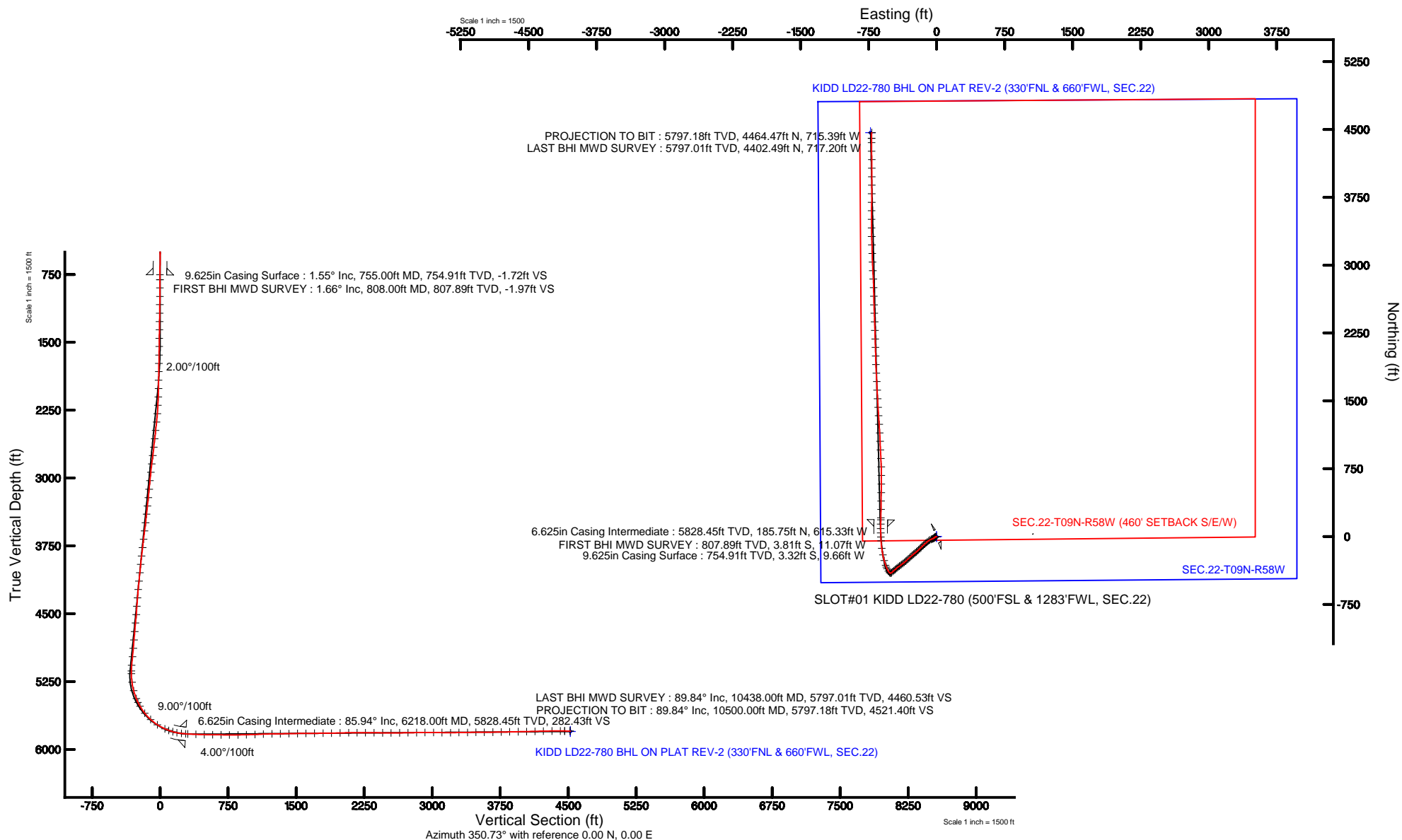
# NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#01 KIDD LD22-780 (500'FSL & 1283'FWL, SEC.22)  
Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: KIDD LD22-780 API 123-41589  
Facility: SEC.22-T09N-R58W Wellbore: KIDD LD22-780 PWB

Plot reference wellpath is KIDD LD22-780 (REV-8.0) PWP	
True vertical depths are referenced to H&P 326 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to H&P 326 (RKB)	North Reference: Grid north
H&P 326 (RKB) to Mean Sea Level: 4852 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#01 KIDD LD22-780 (500'FSL & 1283'FWL, SEC.22)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: adamkat on 9/17/2015



BGGM (1945.0 to 2017.0) Dip: 67.39° Field: 52885.8 nT  
Magnetic North is 3.01 degrees East of True North (at 9/17/2015)  
Grid North is 1.06 degrees East of True North  
To correct azimuth from True to Grid subtract 1.06 degrees  
To correct azimuth from Magnetic to Grid add 6.95 degrees



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 KIDD LD22-780 (500'FSL & 1283'FWL, SEC.22)
Area	COLORADO	Well	KIDD LD22-780
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	KIDD LD22-780 AWB
Facility	SEC.22-T09N-R58W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.1.1
North Reference	Grid	User	Adamkat
Scale	0.999992	Report Generated	9/17/2015 at 10:35:13 AM
Convergence at slot	1.06° East	Database/Source file	WA_DEN_Denver_Defn/KIDD_LD22-780_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	3455934.50	1513322.61	40°43'51.060"N	103°51'17.388"W
Facility Reference Pt			3455934.50	1513322.61	40°43'51.060"N	103°51'17.388"W
Field Reference Pt			3000000.00	4454105.15	48°46'34.315"N	105°30'00.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	H&P 326 (RKB) to Facility Vertical Datum	4852.00ft
Horizontal Reference Pt	Slot	H&P 326 (RKB) to Mean Sea Level	4852.00ft
Vertical Reference Pt	H&P 326 (RKB)	H&P 326 (RKB) to Mud Line at Slot (SLOT#01 KIDD LD22-780 (500'FSL & 1283'FWL, SEC.22))	4852.00ft
MD Reference Pt	H&P 326 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	350.73°

## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Slot	SLOT#01 KIDD LD22-780 (500'FSL & 1283'FWL, SEC.22)
Area	COLORADO	Well	KIDD LD22-780
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	KIDD LD22-780 AWB
Facility	SEC.22-T09N-R58W		

## WELLPATH DATA (110 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00	0.000	251.020	0.00	0.00	0.00	0.00	0.00	
808.00	1.660	251.020	807.89	-1.97	-3.81	-11.07	0.21	FIRST BHI MWD SURVEY
900.00	1.740	247.840	899.85	-2.51	-4.77	-13.62	0.13	
993.00	1.570	247.960	992.81	-3.11	-5.78	-16.11	0.18	
1085.00	1.670	237.150	1084.77	-3.92	-6.98	-18.40	0.35	
1178.00	1.700	229.470	1177.73	-5.18	-8.61	-20.59	0.24	
1271.00	1.600	229.520	1270.69	-6.57	-10.35	-22.63	0.11	
1363.00	1.640	223.460	1362.66	-8.03	-12.14	-24.51	0.19	
1456.00	1.430	225.960	1455.62	-9.50	-13.91	-26.26	0.24	
1548.00	1.390	224.650	1547.59	-10.81	-15.50	-27.87	0.06	
1641.00	2.170	239.520	1640.55	-12.11	-17.20	-30.18	0.97	
1734.00	3.030	237.960	1733.45	-13.70	-19.40	-33.78	0.93	
1825.00	3.080	243.530	1824.32	-15.36	-21.76	-38.01	0.33	
1919.00	4.270	251.200	1918.13	-16.68	-24.01	-43.58	1.37	
2012.00	6.090	249.040	2010.75	-18.25	-26.89	-51.47	1.97	
2106.00	7.590	245.370	2104.07	-20.91	-31.27	-61.77	1.66	
2200.00	9.560	243.240	2197.02	-24.90	-37.37	-74.38	2.12	
2295.00	10.780	235.930	2290.53	-31.00	-45.90	-88.78	1.87	
2389.00	11.690	229.630	2382.73	-39.61	-56.99	-103.32	1.62	
2483.00	11.430	228.450	2474.82	-49.50	-69.34	-117.55	0.37	
2578.00	11.680	227.830	2567.90	-59.75	-82.04	-131.72	0.29	
2672.00	11.780	226.840	2659.93	-70.27	-94.99	-145.77	0.24	
2766.00	11.560	224.930	2751.99	-81.13	-108.22	-159.42	0.47	
2861.00	11.420	224.460	2845.09	-92.26	-121.67	-172.73	0.18	
2956.00	10.590	224.960	2938.34	-102.93	-134.56	-185.49	0.88	
3050.00	9.610	226.070	3030.88	-112.44	-146.12	-197.24	1.06	
3144.00	10.290	228.790	3123.47	-121.35	-157.09	-209.21	0.88	
3239.00	11.500	230.730	3216.75	-130.57	-168.68	-222.92	1.33	
3333.00	11.610	228.580	3308.85	-140.29	-180.87	-237.27	0.47	
3427.00	12.030	229.830	3400.86	-150.36	-193.44	-251.85	0.52	
3522.00	12.430	229.080	3493.70	-160.80	-206.53	-267.14	0.45	
3616.00	12.880	229.470	3585.42	-171.55	-219.96	-282.75	0.49	
3711.00	12.890	228.260	3678.03	-182.73	-233.90	-298.70	0.28	
3805.00	12.340	227.730	3769.76	-193.83	-247.63	-313.96	0.60	
3899.00	11.080	225.030	3861.80	-204.58	-260.77	-327.78	1.46	
3994.00	11.210	230.900	3955.01	-214.50	-273.05	-341.41	1.20	
4088.00	11.690	230.840	4047.14	-223.79	-284.82	-355.88	0.51	
4183.00	11.140	230.580	4140.26	-233.20	-296.73	-370.44	0.58	
4277.00	10.530	230.940	4232.58	-242.02	-307.91	-384.12	0.65	
4371.00	9.160	233.350	4325.20	-249.73	-317.79	-396.79	1.52	
4466.00	9.350	236.220	4418.96	-256.41	-326.59	-409.27	0.53	
4560.00	10.920	236.180	4511.49	-263.28	-335.79	-423.02	1.67	
4654.00	10.790	227.880	4603.81	-271.75	-346.65	-436.94	1.67	
4749.00	9.030	227.520	4697.39	-280.66	-357.65	-449.04	1.85	
4844.00	9.120	231.610	4791.21	-288.41	-367.36	-460.44	0.69	

## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Slot	SLOT#01 KIDD LD22-780 (500'FSL & 1283'FWL, SEC.22)
Area	COLORADO	Well	KIDD LD22-780
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	KIDD LD22-780 AWB
Facility	SEC.22-T09N-R58W		

## WELLPATH DATA (110 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
4938.00	9.790	229.060	4883.93	-296.23	-377.22	-472.31	0.84	
5032.00	10.620	228.890	4976.44	-305.00	-388.16	-484.88	0.88	
5127.00	9.030	226.590	5070.04	-313.80	-399.04	-496.89	1.72	
5190.00	6.700	248.700	5132.46	-317.34	-403.77	-503.91	6.00	
5222.00	6.120	270.340	5164.27	-317.45	-404.44	-507.35	7.71	
5316.00	10.260	307.490	5257.35	-310.51	-399.31	-519.02	6.93	
5411.00	15.770	328.990	5349.92	-292.33	-383.07	-532.40	7.63	
5505.00	22.820	335.410	5438.60	-262.84	-355.51	-546.59	7.82	
5551.00	26.550	338.300	5480.39	-244.19	-337.84	-554.10	8.52	
5599.00	30.470	340.310	5522.56	-221.74	-316.41	-562.17	8.41	
5693.00	38.020	344.250	5600.22	-169.45	-266.03	-578.08	8.37	
5788.00	47.780	348.190	5669.74	-105.07	-203.27	-593.27	10.65	
5882.00	56.420	352.700	5727.44	-31.00	-130.20	-605.39	9.94	
5977.00	66.140	356.540	5773.05	51.99	-47.37	-613.06	10.83	
6024.00	70.490	358.150	5790.42	95.36	-3.75	-615.08	9.79	
6071.00	73.940	358.660	5804.77	139.70	40.98	-616.32	7.41	
6118.00	78.720	0.040	5815.87	184.84	86.63	-616.83	10.56	
6169.00	83.280	1.120	5823.85	234.46	136.99	-616.32	9.18	
6241.00	87.190	1.240	5829.83	305.01	208.71	-614.84	5.43	
6333.00	88.020	1.010	5833.67	395.42	300.61	-613.04	0.94	
6426.00	88.210	0.350	5836.73	486.97	393.55	-611.93	0.74	
6519.00	89.590	0.840	5838.52	578.57	486.53	-610.97	1.57	
6613.00	89.350	0.640	5839.39	671.14	580.51	-609.75	0.33	
6707.00	89.720	359.960	5840.15	763.83	674.51	-609.26	0.82	
6802.00	90.430	358.110	5840.03	857.83	769.49	-610.86	2.09	
6896.00	91.870	357.230	5838.14	951.12	863.39	-614.68	1.80	
6991.00	91.870	357.140	5835.04	1045.47	958.23	-619.35	0.09	
7085.00	92.370	357.710	5831.56	1138.76	1052.07	-623.57	0.81	
7179.00	91.130	357.100	5828.69	1232.08	1145.92	-627.82	1.47	
7274.00	90.430	356.120	5827.40	1326.57	1240.75	-633.44	1.27	
7368.00	91.040	356.170	5826.19	1420.14	1334.53	-639.76	0.65	
7463.00	91.070	356.940	5824.44	1514.63	1429.34	-645.46	0.81	
7557.00	90.700	356.480	5822.99	1608.11	1523.17	-650.86	0.63	
7652.00	90.210	357.130	5822.24	1702.57	1618.02	-656.15	0.86	
7747.00	90.920	357.710	5821.30	1796.92	1712.92	-660.43	0.97	
7841.00	90.300	356.400	5820.30	1890.34	1806.79	-665.26	1.54	
7936.00	91.720	358.240	5818.63	1984.69	1901.66	-669.70	2.45	
8031.00	91.230	358.230	5816.18	2078.85	1996.58	-672.62	0.52	
8125.00	90.240	358.660	5814.97	2171.99	2090.54	-675.17	1.15	
8219.00	89.600	358.060	5815.11	2265.16	2184.50	-677.86	0.93	
8314.00	89.130	358.560	5816.16	2359.32	2279.45	-680.67	0.72	
8409.00	89.530	357.690	5817.27	2453.52	2374.39	-683.77	1.01	
8503.00	90.060	357.630	5817.61	2546.84	2468.31	-687.61	0.57	
8597.00	90.270	358.510	5817.34	2640.06	2562.26	-690.78	0.96	
8691.00	91.260	359.240	5816.08	2733.11	2656.23	-692.62	1.31	

## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Slot	SLOT#01 KIDD LD22-780 (500'FSL & 1283'FWL, SEC.22)
Area	COLORADO	Well	KIDD LD22-780
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	KIDD LD22-780 AWB
Facility	SEC.22-T09N-R58W		

## WELLPATH DATA (110 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
8786.00	90.830	358.230	5814.35	2827.16	2751.19	-694.72	1.16	
8880.00	90.000	357.200	5813.67	2920.46	2845.11	-698.47	1.41	
8975.00	89.690	356.950	5813.92	3014.88	2939.99	-703.32	0.42	
9070.00	89.500	357.910	5814.60	3109.23	3034.89	-707.57	1.03	
9164.00	90.030	358.400	5814.98	3202.44	3128.84	-710.60	0.77	
9258.00	90.950	358.130	5814.18	3295.62	3222.79	-713.45	1.02	
9353.00	90.950	358.520	5812.60	3389.78	3317.74	-716.22	0.41	
9447.00	91.110	359.430	5810.91	3482.79	3411.71	-717.90	0.98	
9541.00	90.000	0.440	5810.00	3575.57	3505.70	-718.01	1.60	
9636.00	90.330	0.930	5809.73	3669.14	3600.69	-716.88	0.62	
9730.00	91.130	0.250	5808.53	3761.75	3694.68	-715.91	1.12	
9825.00	91.200	359.780	5806.60	3855.48	3789.66	-715.88	0.50	
9919.00	91.140	0.980	5804.68	3948.13	3883.63	-715.26	1.28	
10013.00	91.260	0.250	5802.71	4040.71	3977.61	-714.25	0.79	
10108.00	91.350	0.060	5800.55	4134.41	4072.58	-713.99	0.22	
10202.00	91.500	358.980	5798.21	4227.27	4166.55	-714.78	1.16	
10296.00	89.930	358.380	5797.04	4320.36	4260.51	-716.95	1.79	
10391.00	90.120	0.330	5797.00	4414.28	4355.50	-718.02	2.06	
10438.00	89.840	1.670	5797.01	4460.53	4402.49	-717.20	2.91	LAST BHI MWD SURVEY
10500.00	89.840	1.670	5797.18	4521.40	4464.47	-715.39	0.00	PROJECTION TO BIT

## HOLE & CASING SECTIONS - Ref Wellbore: KIDD LD22-780 AWB Ref Wellpath: KIDD LD22-780 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]
9.625in Casing Surface	30.00	755.00	725.00	30.00	754.91	-0.01	-0.02	-3.32	-9.66
8.75in Open Hole	765.00	6228.00	5463.00	764.90	5829.11	-3.41	-9.92	195.73	-615.12
6.625in Casing Intermediate	30.00	6218.00	6188.00	30.00	5828.45	-0.01	-0.02	185.75	-615.33
6.125in Open Hole	6228.00	10500.00	4272.00	5829.11	5797.18	195.73	-615.12	4464.47	-715.39

## TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.22-T09N-R58W	0.00	0.00	0.00	3455934.50	1513322.61	40°43'51.060"N	103°51'17.388"W	polygon
KIDD LD22-780 BHL ON PLAT REV-2 (330'FNL & 660'FWL, SEC.22)	5802.00	4464.92	-728.61	3455205.90	1517787.49	40°44'35.304"N	103°51'25.776"W	point
KIDD LD22-780 BHL ON PLAT REV-1 (330'FNL & 660'FWL, SEC.22)	5803.00	4464.92	-728.61	3455205.90	1517787.49	40°44'35.304"N	103°51'25.776"W	point
SEC.22-T09N-R58W (460' SETBACK S/E/W)	5835.00	0.00	0.00	3455934.50	1513322.61	40°43'51.060"N	103°51'17.388"W	polygon



# Actual Wellpath Report

KIDD LD22-780 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 KIDD LD22-780 (500'FSL & 1283'FWL, SEC.22)
Area	COLORADO	Well	KIDD LD22-780
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	KIDD LD22-780 AWB
Facility	SEC.22-T09N-R58W		

WELLPATH COMPOSITION - Ref Wellbore: KIDD LD22-780 AWB      Ref Wellpath: KIDD LD22-780 AWP				
Start MD	End MD	Positional	Log Name/Comment	Wellbore
[ft]	[ft]	Uncertainty Model		
0.00	6169.00	NaviTrak (MagCorr)	BHI MWD NAVITRAK (MAGCORR) 8 3/4" VERT/CURVE SURVEYS <0-6169>	KIDD LD22-780 AWB
6169.00	10438.00	NaviTrak (MagCorr)	BHI MWD NAVITRAK (MAGCORR) 8 3/4" LATERAL SURVEYS <6169 - 10438>	KIDD LD22-780 AWB
10438.00	10500.00	Blind Drilling (std)	Projection to bit	KIDD LD22-780 AWB



# Actual Wellpath Report

KIDD LD22-780 AWP

Page 6 of 6



## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Slot	SLOT#01 KIDD LD22-780 (500'FSL & 1283'FWL, SEC.22)
Area	COLORADO	Well	KIDD LD22-780
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	KIDD LD22-780 AWB
Facility	SEC.22-T09N-R58W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
808.00	1.660	251.020	807.89	FIRST BHI MWD SURVEY
10438.00	89.840	1.670	5797.01	LAST BHI MWD SURVEY
10500.00	89.840	1.670	5797.18	PROJECTION TO BIT