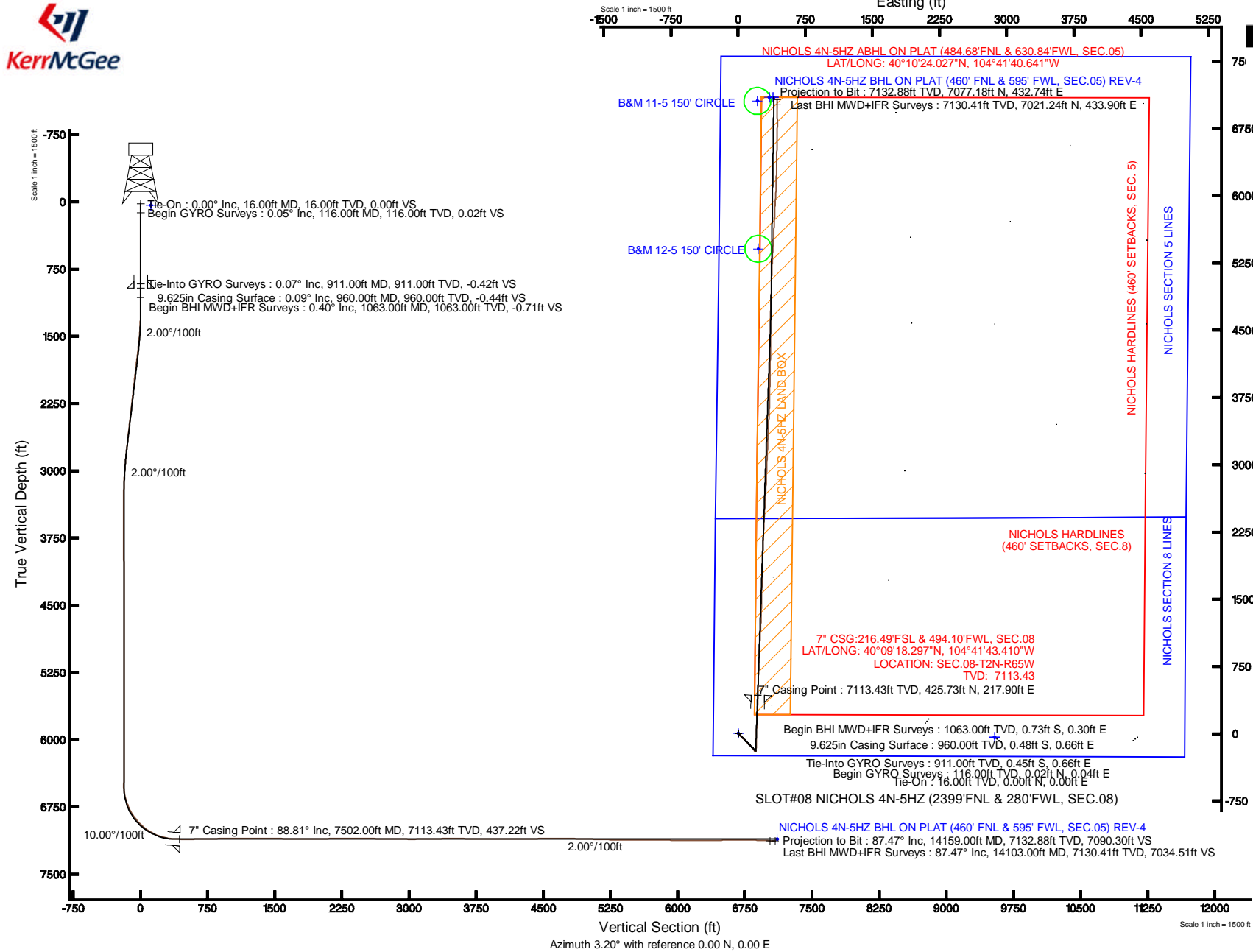


# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#08 NICHOLS 4N-5HZ (2399'FNL & 280'FWL, SEC.08)  
 Field: WELD COUNTY (KERR MCGEE) Well: NICHOLS 4N-5HZ  
 Facility: SEC.08-T2N-R65W Wellbore: NICHOLS 4N-5HZ PWB

Plot reference wellpath is NICHOLS 4N-5HZ (REV-B.0) PWP

True vertical depths are referenced to XTREME 20 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 20 (RKB)	North Reference: True north
XTREME 20 (RKB) to Mean Sea Level: 4962 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#08 NICHOLS 4N-5HZ (2399'FNL & 280'FWL, SEC.08)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: preacin on 3/20/2013





# Actual Wellpath Report

NICHOLS 4N-5HZ AWP

Page 1 of 7



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 NICHOLS 4N-5HZ (2399'FNL & 280'FWL, SEC.08)
Area	COLORADO	Well	NICHOLS 4N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 4N-5HZ AWB
Facility	SEC.08-T2N-R65W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 3.0.2
North Reference	True	User	Precain
Scale	0.999958	Report Generated	3/20/2013 at 10:26:53 AM
Convergence at slot	0.52° East	Database/Source file	WellArchitectDB/NICHOLS_4N-5HZ_AWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	30827.00	27159.99	3224684.23	1299932.50	40°09'14.090"N	104°41'46.216"W
Facility Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"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 20 (RKB) to Facility Vertical Datum	4962.00ft
Horizontal Reference Pt	Slot	XTREME 20 (RKB) to Mean Sea Level	4962.00ft
Vertical Reference Pt	XTREME 20 (RKB)	XTREME 20 (RKB) to Mud Line at Slot (SLOT#08 NICHOLS 4N-5HZ (2399'FNL & 280'FWL, SEC.08))	4962.00ft
MD Reference Pt	XTREME 20 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	3.20°



# Actual Wellpath Report

NICHOLS 4N-5HZ AWP

Page 2 of 7



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 NICHOLS 4N-5HZ (2399'FNL & 280'FWL, SEC.08)
Area	COLORADO	Well	NICHOLS 4N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 4N-5HZ AWB
Facility	SEC.08-T2N-R65W		

## WELLPATH DATA (178 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	59.130	0.00	0.00	0.00	0.00	40°09'14.090"N	104°41'46.216"W	0.00	
16.00	0.000	59.130	16.00	0.00	0.00	0.00	40°09'14.090"N	104°41'46.216"W	0.00	Tie-On
116.00	0.050	59.130	116.00	0.02	0.02	0.04	40°09'14.090"N	104°41'46.216"W	0.05	Begin GYRO Surveys
216.00	0.110	142.870	216.00	-0.02	-0.03	0.13	40°09'14.090"N	104°41'46.214"W	0.12	
316.00	0.060	77.420	316.00	-0.08	-0.10	0.24	40°09'14.089"N	104°41'46.213"W	0.10	
416.00	0.190	44.480	416.00	0.06	0.03	0.41	40°09'14.090"N	104°41'46.211"W	0.14	
516.00	0.190	334.440	516.00	0.33	0.30	0.45	40°09'14.093"N	104°41'46.210"W	0.22	
616.00	0.140	152.210	616.00	0.37	0.34	0.44	40°09'14.093"N	104°41'46.210"W	0.33	
716.00	0.320	159.750	716.00	0.01	-0.03	0.59	40°09'14.090"N	104°41'46.208"W	0.18	
816.00	0.110	208.580	816.00	-0.34	-0.37	0.64	40°09'14.086"N	104°41'46.208"W	0.26	
911.00	0.070	88.930	911.00	-0.42	-0.45	0.66	40°09'14.086"N	104°41'46.208"W	0.17	Tie-Into GYRO Surveys
1063.00	0.400	238.370	1063.00	-0.71	-0.73	0.30	40°09'14.083"N	104°41'46.212"W	0.30	Begin BHI MWD+IFR Surveys
1155.00	0.430	251.540	1154.99	-1.02	-1.01	-0.30	40°09'14.080"N	104°41'46.220"W	0.11	
1247.00	1.930	140.640	1246.98	-2.29	-2.31	0.35	40°09'14.067"N	104°41'46.211"W	2.31	
1335.00	3.510	128.250	1334.88	-4.93	-5.13	3.41	40°09'14.039"N	104°41'46.172"W	1.91	
1420.00	5.180	135.360	1419.63	-9.00	-9.47	8.15	40°09'13.996"N	104°41'46.111"W	2.06	
1505.00	7.160	135.470	1504.13	-15.14	-15.98	14.56	40°09'13.932"N	104°41'46.028"W	2.33	
1591.00	8.630	137.840	1589.32	-23.28	-24.58	22.65	40°09'13.847"N	104°41'45.924"W	1.75	
1676.00	10.010	137.730	1673.19	-32.94	-34.78	31.90	40°09'13.746"N	104°41'45.805"W	1.62	
1761.00	9.880	137.640	1756.91	-43.23	-45.63	41.78	40°09'13.639"N	104°41'45.678"W	0.15	
1846.00	9.570	137.000	1840.69	-53.23	-56.19	51.51	40°09'13.535"N	104°41'45.553"W	0.39	
1932.00	10.140	134.120	1925.42	-63.13	-66.69	61.82	40°09'13.431"N	104°41'45.420"W	0.88	
2017.00	10.030	133.800	2009.11	-72.85	-77.02	72.54	40°09'13.329"N	104°41'45.282"W	0.15	
2102.00	9.520	134.790	2092.88	-82.33	-87.09	82.87	40°09'13.229"N	104°41'45.149"W	0.63	
2187.00	9.650	135.340	2176.69	-91.78	-97.11	92.87	40°09'13.130"N	104°41'45.020"W	0.19	
2273.00	9.750	135.570	2261.46	-101.52	-107.44	103.03	40°09'13.028"N	104°41'44.889"W	0.12	
2358.00	9.580	133.920	2345.25	-110.99	-117.49	113.16	40°09'12.929"N	104°41'44.759"W	0.38	
2443.00	9.930	133.660	2429.02	-120.36	-127.45	123.56	40°09'12.831"N	104°41'44.625"W	0.42	
2528.00	9.600	135.350	2512.79	-129.87	-137.55	133.84	40°09'12.731"N	104°41'44.492"W	0.51	
2613.00	9.540	136.190	2596.61	-139.43	-147.68	143.70	40°09'12.631"N	104°41'44.365"W	0.18	
2698.00	9.810	137.500	2680.40	-149.29	-158.10	153.47	40°09'12.528"N	104°41'44.240"W	0.41	
2784.00	7.730	133.910	2765.39	-158.18	-167.51	162.59	40°09'12.435"N	104°41'44.122"W	2.50	
2869.00	6.970	140.910	2849.69	-165.73	-175.48	169.96	40°09'12.356"N	104°41'44.027"W	1.38	
2954.00	6.740	143.900	2934.09	-173.40	-183.52	176.15	40°09'12.276"N	104°41'43.947"W	0.50	
3039.00	5.350	147.770	3018.61	-180.49	-190.90	181.20	40°09'12.204"N	104°41'43.882"W	1.70	
3125.00	3.920	139.910	3104.33	-185.90	-196.54	185.23	40°09'12.148"N	104°41'43.830"W	1.82	
3210.00	2.200	129.410	3189.21	-188.98	-199.80	188.36	40°09'12.116"N	104°41'43.790"W	2.12	
3295.00	0.870	123.770	3274.17	-190.27	-201.19	190.16	40°09'12.102"N	104°41'43.767"W	1.57	
3381.00	0.570	136.970	3360.17	-190.90	-201.87	191.00	40°09'12.095"N	104°41'43.756"W	0.40	
3466.00	0.500	198.060	3445.16	-191.55	-202.53	191.17	40°09'12.089"N	104°41'43.754"W	0.64	
3551.00	1.120	225.790	3530.16	-192.52	-203.46	190.46	40°09'12.079"N	104°41'43.763"W	0.84	
3636.00	0.270	260.410	3615.15	-193.18	-204.07	189.67	40°09'12.073"N	104°41'43.773"W	1.07	
3721.00	0.340	15.420	3700.15	-192.97	-203.86	189.54	40°09'12.075"N	104°41'43.775"W	0.61	
3807.00	0.490	16.050	3786.15	-192.37	-203.26	189.70	40°09'12.081"N	104°41'43.773"W	0.17	
3892.00	1.170	342.920	3871.14	-191.20	-202.09	189.55	40°09'12.093"N	104°41'43.775"W	0.95	



# Actual Wellpath Report

NICHOLS 4N-5HZ AWP

Page 3 of 7



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 NICHOLS 4N-5HZ (2399'FNL & 280'FWL, SEC.08)
Area	COLORADO	Well	NICHOLS 4N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 4N-5HZ AWB
Facility	SEC.08-T2N-R65W		

## WELLPATH DATA (178 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3977.00	0.950	329.420	3956.12	-189.80	-200.65	188.94	40°09'12.107"N	104°41'43.783"W	0.39	
4062.00	1.050	311.600	4041.11	-188.73	-199.53	188.00	40°09'12.118"N	104°41'43.795"W	0.38	
4148.00	0.870	276.780	4127.10	-188.20	-198.93	186.76	40°09'12.124"N	104°41'43.811"W	0.70	
4233.00	1.280	264.260	4212.08	-188.30	-198.94	185.17	40°09'12.124"N	104°41'43.831"W	0.55	
4318.00	0.500	280.200	4297.07	-188.41	-198.97	183.86	40°09'12.124"N	104°41'43.848"W	0.95	
4404.00	0.870	25.390	4383.07	-187.76	-198.32	183.77	40°09'12.130"N	104°41'43.849"W	1.29	
4489.00	0.650	25.950	4468.06	-186.71	-197.30	184.26	40°09'12.140"N	104°41'43.843"W	0.26	
4574.00	0.820	90.440	4553.05	-186.24	-196.87	185.08	40°09'12.144"N	104°41'43.832"W	0.94	
4660.00	0.720	82.420	4639.05	-186.11	-196.81	186.23	40°09'12.145"N	104°41'43.818"W	0.17	
4745.00	0.430	82.610	4724.04	-185.95	-196.69	187.08	40°09'12.146"N	104°41'43.807"W	0.34	
4830.00	0.290	323.670	4809.04	-185.73	-196.48	187.27	40°09'12.148"N	104°41'43.804"W	0.73	
4915.00	0.550	85.020	4894.04	-185.50	-196.27	187.55	40°09'12.150"N	104°41'43.801"W	0.87	
5001.00	0.690	32.970	4980.04	-184.99	-195.80	188.24	40°09'12.155"N	104°41'43.792"W	0.65	
5086.00	1.510	95.060	5065.02	-184.59	-195.47	189.63	40°09'12.158"N	104°41'43.774"W	1.57	
5171.00	1.630	87.630	5149.99	-184.51	-195.52	191.96	40°09'12.158"N	104°41'43.744"W	0.28	
5256.00	1.530	120.400	5234.96	-184.91	-196.04	194.14	40°09'12.153"N	104°41'43.716"W	1.05	
5341.00	1.050	97.480	5319.94	-185.48	-196.72	195.89	40°09'12.146"N	104°41'43.693"W	0.82	
5426.00	0.900	159.400	5404.93	-186.15	-197.45	196.90	40°09'12.139"N	104°41'43.680"W	1.19	
5512.00	0.830	129.200	5490.92	-187.14	-198.47	197.62	40°09'12.129"N	104°41'43.671"W	0.53	
5597.00	0.530	337.980	5575.92	-187.14	-198.50	197.95	40°09'12.128"N	104°41'43.667"W	1.55	
5683.00	0.320	330.050	5661.91	-186.58	-197.92	197.68	40°09'12.134"N	104°41'43.670"W	0.25	
5768.00	0.160	351.360	5746.91	-186.27	-197.60	197.55	40°09'12.137"N	104°41'43.672"W	0.21	
5853.00	0.220	114.890	5831.91	-186.21	-197.55	197.68	40°09'12.138"N	104°41'43.670"W	0.40	
5938.00	0.960	76.540	5916.91	-186.07	-197.45	198.52	40°09'12.139"N	104°41'43.659"W	0.94	
6023.00	0.100	3.210	6001.90	-185.79	-197.21	199.21	40°09'12.141"N	104°41'43.650"W	1.10	
6109.00	0.030	56.950	6087.90	-185.70	-197.12	199.24	40°09'12.142"N	104°41'43.650"W	0.10	
6194.00	0.880	233.460	6172.90	-186.11	-197.50	198.73	40°09'12.138"N	104°41'43.657"W	1.07	
6279.00	0.740	211.990	6257.89	-187.00	-198.35	197.92	40°09'12.130"N	104°41'43.667"W	0.39	
6364.00	0.480	216.150	6342.89	-187.78	-199.11	197.41	40°09'12.122"N	104°41'43.674"W	0.31	
6449.00	0.650	177.740	6427.88	-188.56	-199.88	197.22	40°09'12.115"N	104°41'43.676"W	0.48	
6477.00	0.620	183.860	6455.88	-188.87	-200.19	197.22	40°09'12.112"N	104°41'43.676"W	0.26	
6535.00	0.500	178.090	6513.88	-189.44	-200.75	197.21	40°09'12.106"N	104°41'43.676"W	0.23	
6577.00	4.230	357.800	6555.84	-188.08	-199.39	197.15	40°09'12.120"N	104°41'43.677"W	11.26	
6620.00	9.720	0.720	6598.51	-182.87	-194.17	197.14	40°09'12.171"N	104°41'43.677"W	12.79	
6663.00	13.700	2.710	6640.61	-174.15	-185.45	197.42	40°09'12.257"N	104°41'43.673"W	9.30	
6706.00	17.930	3.300	6681.97	-162.43	-173.75	198.05	40°09'12.373"N	104°41'43.665"W	9.84	
6747.00	20.290	3.380	6720.71	-149.01	-160.35	198.83	40°09'12.505"N	104°41'43.655"W	5.76	
6791.00	24.310	2.230	6761.41	-132.32	-143.68	199.63	40°09'12.670"N	104°41'43.645"W	9.19	
6833.00	28.420	1.140	6799.03	-113.68	-125.04	200.17	40°09'12.854"N	104°41'43.638"W	9.85	
6876.00	32.900	0.480	6836.01	-91.78	-103.12	200.47	40°09'13.071"N	104°41'43.634"W	10.45	
6918.00	35.920	0.310	6870.66	-68.07	-79.39	200.63	40°09'13.305"N	104°41'43.632"W	7.19	
6962.00	40.030	359.790	6905.34	-41.04	-52.32	200.65	40°09'13.573"N	104°41'43.632"W	9.37	
7004.00	44.640	0.630	6936.37	-12.81	-24.04	200.76	40°09'13.852"N	104°41'43.630"W	11.06	
7047.00	48.530	2.210	6965.92	18.41	7.17	201.55	40°09'14.161"N	104°41'43.620"W	9.43	
7089.00	52.680	3.610	6992.57	50.86	39.58	203.21	40°09'14.481"N	104°41'43.599"W	10.21	



# Actual Wellpath Report

NICHOLS 4N-5HZ AWP

Page 4 of 7



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 NICHOLS 4N-5HZ (2399'FNL & 280'FWL, SEC.08)
Area	COLORADO	Well	NICHOLS 4N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 4N-5HZ AWB
Facility	SEC.08-T2N-R65W		

## WELLPATH DATA (178 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7132.00	56.610	2.890	7017.45	85.92	74.59	205.19	40°09'14.827"N	104°41'43.573"W	9.24	
7174.00	60.360	3.280	7039.40	121.72	110.33	207.12	40°09'15.180"N	104°41'43.549"W	8.96	
7217.00	65.060	3.650	7059.11	159.92	148.47	209.43	40°09'15.557"N	104°41'43.519"W	10.96	
7259.00	69.930	2.660	7075.18	198.71	187.20	211.56	40°09'15.940"N	104°41'43.491"W	11.80	
7303.00	74.000	1.010	7088.80	240.52	229.00	212.89	40°09'16.353"N	104°41'43.474"W	9.91	
7344.00	77.800	1.060	7098.79	280.25	268.76	213.61	40°09'16.746"N	104°41'43.465"W	9.27	
7388.00	82.390	1.720	7106.36	323.56	312.07	214.66	40°09'17.174"N	104°41'43.451"W	10.54	
7430.00	85.520	2.110	7110.78	365.31	353.81	216.06	40°09'17.586"N	104°41'43.433"W	7.51	
7456.00	88.150	1.300	7112.21	391.26	379.76	216.83	40°09'17.843"N	104°41'43.423"W	10.58	
7502.00†	88.814	1.368	7113.43	437.22	425.73	217.90	40°09'18.297"N	104°41'43.410"W	1.45	7" Casing Point
7578.00	89.910	1.480	7114.28	513.18	501.70	219.79	40°09'19.048"N	104°41'43.385"W	1.45	
7670.00	91.110	2.510	7113.46	605.15	593.64	222.99	40°09'19.956"N	104°41'43.344"W	1.72	
7762.00	91.480	2.380	7111.38	697.12	685.53	226.92	40°09'20.864"N	104°41'43.294"W	0.43	
7853.00	91.020	1.900	7109.40	788.08	776.45	230.31	40°09'21.763"N	104°41'43.250"W	0.73	
7944.00	91.040	2.060	7107.76	879.05	867.38	233.46	40°09'22.661"N	104°41'43.209"W	0.18	
8035.00	91.390	2.660	7105.83	970.02	958.28	237.20	40°09'23.560"N	104°41'43.161"W	0.76	
8127.00	90.280	3.100	7104.49	1062.01	1050.15	241.83	40°09'24.468"N	104°41'43.101"W	1.30	
8219.00	90.430	3.610	7103.92	1154.00	1141.99	247.21	40°09'25.375"N	104°41'43.032"W	0.58	
8311.00	89.140	2.660	7104.26	1246.00	1233.85	252.24	40°09'26.283"N	104°41'42.967"W	1.74	
8403.00	88.120	1.270	7106.46	1337.95	1325.77	255.40	40°09'27.191"N	104°41'42.927"W	1.87	
8494.00	90.220	1.370	7107.78	1428.89	1416.73	257.49	40°09'28.090"N	104°41'42.900"W	2.31	
8586.00	89.750	1.170	7107.81	1520.83	1508.70	259.53	40°09'28.999"N	104°41'42.873"W	0.56	
8678.00	89.350	1.150	7108.53	1612.77	1600.68	261.39	40°09'29.908"N	104°41'42.849"W	0.44	
8770.00	88.680	1.400	7110.11	1704.71	1692.65	263.44	40°09'30.817"N	104°41'42.823"W	0.78	
8862.00	89.820	1.060	7111.32	1796.64	1784.61	265.41	40°09'31.726"N	104°41'42.798"W	1.29	
8954.00	89.260	1.410	7112.05	1888.58	1876.59	267.40	40°09'32.635"N	104°41'42.772"W	0.72	
9046.00	91.820	2.280	7111.19	1980.55	1968.53	270.36	40°09'33.543"N	104°41'42.734"W	2.94	
9137.00	91.260	2.210	7108.74	2071.50	2059.43	273.92	40°09'34.441"N	104°41'42.688"W	0.62	
9229.00	90.980	2.370	7106.94	2163.47	2151.34	277.60	40°09'35.350"N	104°41'42.641"W	0.35	
9315.00	90.610	2.860	7105.75	2249.46	2237.24	281.52	40°09'36.198"N	104°41'42.590"W	0.71	
9400.00	89.540	1.950	7105.64	2334.45	2322.16	285.09	40°09'37.038"N	104°41'42.544"W	1.65	
9485.00	89.600	2.520	7106.28	2419.43	2407.09	288.40	40°09'37.877"N	104°41'42.501"W	0.67	
9570.00	89.450	3.090	7106.98	2504.43	2491.99	292.56	40°09'38.716"N	104°41'42.448"W	0.69	
9656.00	89.380	3.260	7107.86	2590.42	2577.85	297.32	40°09'39.564"N	104°41'42.386"W	0.21	
9741.00	89.170	3.670	7108.93	2675.41	2662.69	302.46	40°09'40.403"N	104°41'42.320"W	0.54	
9826.00	88.950	4.100	7110.33	2760.40	2747.48	308.22	40°09'41.241"N	104°41'42.246"W	0.57	
9911.00	89.410	1.950	7111.55	2845.38	2832.35	312.70	40°09'42.079"N	104°41'42.188"W	2.59	
9997.00	88.960	1.500	7112.77	2931.35	2918.30	315.29	40°09'42.929"N	104°41'42.155"W	0.74	
10082.00	89.660	2.270	7113.79	3016.32	3003.25	318.09	40°09'43.768"N	104°41'42.119"W	1.22	
10167.00	91.320	2.450	7113.07	3101.30	3088.17	321.59	40°09'44.607"N	104°41'42.074"W	1.96	
10252.00	91.200	2.570	7111.20	3186.27	3173.07	325.31	40°09'45.446"N	104°41'42.026"W	0.20	
10337.00	90.830	2.510	7109.69	3271.25	3257.97	329.08	40°09'46.285"N	104°41'41.977"W	0.44	
10422.00	91.050	2.880	7108.30	3356.24	3342.86	333.07	40°09'47.124"N	104°41'41.926"W	0.51	
10508.00	91.050	2.980	7106.72	3442.22	3428.74	337.47	40°09'47.973"N	104°41'41.869"W	0.12	
10593.00	89.020	2.400	7106.67	3527.22	3513.64	341.46	40°09'48.812"N	104°41'41.818"W	2.48	



# Actual Wellpath Report

NICHOLS 4N-5HZ AWP

Page 5 of 7



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 NICHOLS 4N-5HZ (2399'FNL & 280'FWL, SEC.08)
Area	COLORADO	Well	NICHOLS 4N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 4N-5HZ AWB
Facility	SEC.08-T2N-R65W		

## WELLPATH DATA (178 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10678.00	88.890	2.640	7108.22	3612.20	3598.54	345.19	40°09'49.651"N	104°41'41.770"W	0.32	
10763.00	88.860	1.530	7109.89	3697.16	3683.47	348.29	40°09'50.490"N	104°41'41.730"W	1.31	
10849.00	88.770	0.900	7111.67	3783.09	3769.43	350.11	40°09'51.340"N	104°41'41.706"W	0.74	
10934.00	90.150	0.810	7112.47	3868.02	3854.42	351.38	40°09'52.180"N	104°41'41.690"W	1.63	
11019.00	89.350	0.790	7112.84	3952.94	3939.41	352.56	40°09'53.019"N	104°41'41.675"W	0.94	
11105.00	90.860	1.350	7112.68	4038.88	4025.39	354.17	40°09'53.869"N	104°41'41.654"W	1.87	
11190.00	90.580	0.880	7111.61	4123.81	4110.36	355.82	40°09'54.709"N	104°41'41.633"W	0.64	
11275.00	90.310	1.280	7110.95	4208.75	4195.35	357.43	40°09'55.549"N	104°41'41.612"W	0.57	
11360.00	89.940	0.400	7110.77	4293.68	4280.34	358.67	40°09'56.388"N	104°41'41.596"W	1.12	
11446.00	91.640	0.900	7109.58	4379.58	4366.32	359.65	40°09'57.238"N	104°41'41.583"W	2.06	
11531.00	90.990	359.920	7107.63	4464.46	4451.29	360.25	40°09'58.078"N	104°41'41.576"W	1.38	
11616.00	90.650	0.040	7106.41	4549.32	4536.28	360.22	40°09'58.918"N	104°41'41.576"W	0.42	
11701.00	89.880	359.950	7106.02	4634.18	4621.28	360.22	40°09'59.758"N	104°41'41.576"W	0.91	
11786.00	89.630	2.090	7106.38	4719.11	4706.26	361.73	40°10'00.598"N	104°41'41.557"W	2.53	
11872.00	89.080	1.470	7107.35	4805.08	4792.22	364.40	40°10'01.447"N	104°41'41.522"W	0.96	
11957.00	88.650	1.800	7109.04	4890.03	4877.16	366.83	40°10'02.286"N	104°41'41.491"W	0.64	
12042.00	88.250	0.570	7111.34	4974.95	4962.11	368.58	40°10'03.126"N	104°41'41.468"W	1.52	
12128.00	88.520	2.060	7113.76	5060.86	5048.05	370.56	40°10'03.975"N	104°41'41.443"W	1.76	
12213.00	88.150	2.000	7116.23	5145.81	5132.96	373.57	40°10'04.814"N	104°41'41.404"W	0.44	
12266.00	88.250	2.260	7117.89	5198.78	5185.90	375.54	40°10'05.337"N	104°41'41.379"W	0.53	
12327.00	89.200	2.440	7119.25	5259.75	5246.83	378.04	40°10'05.939"N	104°41'41.346"W	1.59	
12412.00	88.710	2.740	7120.80	5344.73	5331.73	381.88	40°10'06.778"N	104°41'41.297"W	0.68	
12497.00	90.340	3.920	7121.51	5429.73	5416.58	386.81	40°10'07.617"N	104°41'41.233"W	2.37	
12583.00	90.150	4.140	7121.14	5515.72	5502.37	392.86	40°10'08.465"N	104°41'41.155"W	0.34	
12668.00	89.720	1.860	7121.23	5600.71	5587.25	397.31	40°10'09.303"N	104°41'41.098"W	2.73	
12753.00	89.690	2.320	7121.67	5685.69	5672.19	400.41	40°10'10.143"N	104°41'41.058"W	0.54	
12839.00	89.540	2.980	7122.25	5771.69	5758.09	404.38	40°10'10.992"N	104°41'41.007"W	0.79	
12924.00	89.230	2.130	7123.16	5856.68	5843.00	408.17	40°10'11.831"N	104°41'40.958"W	1.06	
13009.00	89.140	3.700	7124.37	5941.66	5927.88	412.49	40°10'12.670"N	104°41'40.902"W	1.85	
13094.00	89.170	3.610	7125.63	6026.65	6012.70	417.91	40°10'13.508"N	104°41'40.833"W	0.11	
13216.00	89.480	1.110	7127.06	6148.62	6134.58	422.93	40°10'14.712"N	104°41'40.768"W	2.06	
13301.00	90.550	2.010	7127.04	6233.58	6219.55	425.25	40°10'15.552"N	104°41'40.738"W	1.64	
13386.00	90.640	0.600	7126.16	6318.53	6304.52	427.18	40°10'16.391"N	104°41'40.713"W	1.66	
13470.00	90.520	0.610	7125.31	6402.44	6388.51	428.07	40°10'17.221"N	104°41'40.702"W	0.14	
13555.00	90.830	1.760	7124.31	6487.38	6473.48	429.83	40°10'18.061"N	104°41'40.679"W	1.40	
13641.00	90.740	0.730	7123.13	6573.32	6559.45	431.70	40°10'18.911"N	104°41'40.655"W	1.20	
13726.00	90.300	1.250	7122.36	6658.25	6644.44	433.16	40°10'19.751"N	104°41'40.636"W	0.80	
13811.00	89.970	1.410	7122.16	6743.21	6729.41	435.14	40°10'20.590"N	104°41'40.611"W	0.43	
13897.00	88.830	0.120	7123.06	6829.12	6815.40	436.29	40°10'21.440"N	104°41'40.596"W	2.00	
13982.00	87.900	358.810	7125.48	6913.90	6900.36	435.49	40°10'22.280"N	104°41'40.606"W	1.89	
14067.00	87.560	359.680	7128.85	6998.63	6985.28	434.37	40°10'23.119"N	104°41'40.620"W	1.10	
14103.00	87.470	358.810	7130.41	7034.51	7021.24	433.90	40°10'23.474"N	104°41'40.626"W	2.43	Last BHI MWD+IFR Surveys
14159.00	87.470	358.810	7132.88	7090.30	7077.18	432.74	40°10'24.027"N	104°41'40.641"W	0.00	Projection to Bit



# Actual Wellpath Report

NICHOLS 4N-5HZ AWP

Page 6 of 7



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 NICHOLS 4N-5HZ (2399'FNL & 280'FWL, SEC.08)
Area	COLORADO	Well	NICHOLS 4N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 4N-5HZ AWB
Facility	SEC.08-T2N-R65W		

## HOLE & CASING SECTIONS - Ref Wellbore: NICHOLS 4N-5HZ AWB Ref Wellpath: NICHOLS 4N-5HZ 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]
13.5in Open Hole	16.00	960.00	944.00	16.00	960.00	0.00	0.00	-0.48	0.66
9.625in Casing Surface	16.00	960.00	944.00	16.00	960.00	0.00	0.00	-0.48	0.66
8.75in Open Hole	960.00	7512.00	6552.00	960.00	7113.63	-0.48	0.66	435.73	218.14
7in Casing Intermediate	16.00	7502.00	7486.00	16.00	7113.43	0.00	0.00	425.73	217.90
6.125in Open Hole	7502.00	14159.00	6657.00	7113.43	7132.88	425.73	217.90	7077.18	432.74

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
NICHOLS SECTION 5 LINES		34.00	-44.97	2865.53	3227549.93	1299913.51	40°09'13.644"N	104°41'09.312"W	polygon
NICHOLS SECTION 8 LINES		34.00	-44.97	2865.53	3227549.93	1299913.51	40°09'13.644"N	104°41'09.312"W	polygon
NICHOLS 4N-5HZ BHL ON PLAT (460' FNL & 585' FWL, SEC.05) REV-2		7082.00	7102.38	386.83	3225006.65	1307037.79	40°10'24.276"N	104°41'41.233"W	point
NICHOLS 4N-5HZ BHL ON PLAT (460' FNL & 595' FWL, SEC.05) REV-3		7082.00	7102.38	396.83	3225016.65	1307037.88	40°10'24.276"N	104°41'41.104"W	point
B&M 12-5 150' CIRCLE		7083.00	5410.27	222.65	3224857.82	1305344.33	40°10'07.555"N	104°41'43.348"W	circle
NICHOLS 4N-5HZ BHL ON PLAT (460' FNL & 545' FWL, SEC.05) REV-1		7083.00	7102.38	346.83	3224966.65	1307037.42	<b>40°10'24.276"N</b>	<b>104°41'41.748"W</b>	point
NICHOLS 4N-5HZ LAND BOX		7083.00	0.00	0.00	3224684.23	1299932.50	40°09'14.090"N	104°41'46.216"W	polygon
NICHOLS 4N-5HZ BHL ON PLAT (460' FNL & 595' FWL, SEC.05) REV-4		7112.00	7102.38	396.83	3225016.65	1307037.88	40°10'24.276"N	104°41'41.104"W	point
B&M 11-5 150' CIRCLE		7198.50	7061.92	212.67	3224832.87	1306995.75	40°10'23.876"N	104°41'43.476"W	circle
NICHOLS HARDLINES (460' SETBACKS)		7234.00	-44.97	2865.53	3227549.93	1299913.51	40°09'13.644"N	104°41'09.312"W	polygon

## WELLPATH COMPOSITION - Ref Wellbore: NICHOLS 4N-5HZ AWB Ref Wellpath: NICHOLS 4N-5HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	911.00	Generic gyro - continuous (Standard)	GYRODATA SURVEYS <116-911>	NICHOLS 4N-5HZ AWB
911.00	7456.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <1063-7456>	NICHOLS 4N-5HZ AWB
7456.00	14103.00	OnTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS <7578-14103>	NICHOLS 4N-5HZ AWB
14103.00	14159.00	Blind Drilling (std)	Projection to bit	NICHOLS 4N-5HZ AWB



# Actual Wellpath Report

NICHOLS 4N-5HZ AWP

Page 7 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 NICHOLS 4N-5HZ (2399'FNL & 280'FWL, SEC.08)
Area	COLORADO	Well	NICHOLS 4N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 4N-5HZ AWB
Facility	SEC.08-T2N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
16.00	0.000	59.130	16.00	Tie-On
116.00	0.050	59.130	116.00	Begin GYRO Surveys
911.00	0.070	88.930	911.00	Tie-Into GYRO Surveys
1063.00	0.400	238.370	1063.00	Begin BHI MWD+IFR Surveys
7502.00	88.814	1.368	7113.43	7" Casing Point
14103.00	87.470	358.810	7130.41	Last BHI MWD+IFR Surveys
14159.00	87.470	358.810	7132.88	Projection to Bit