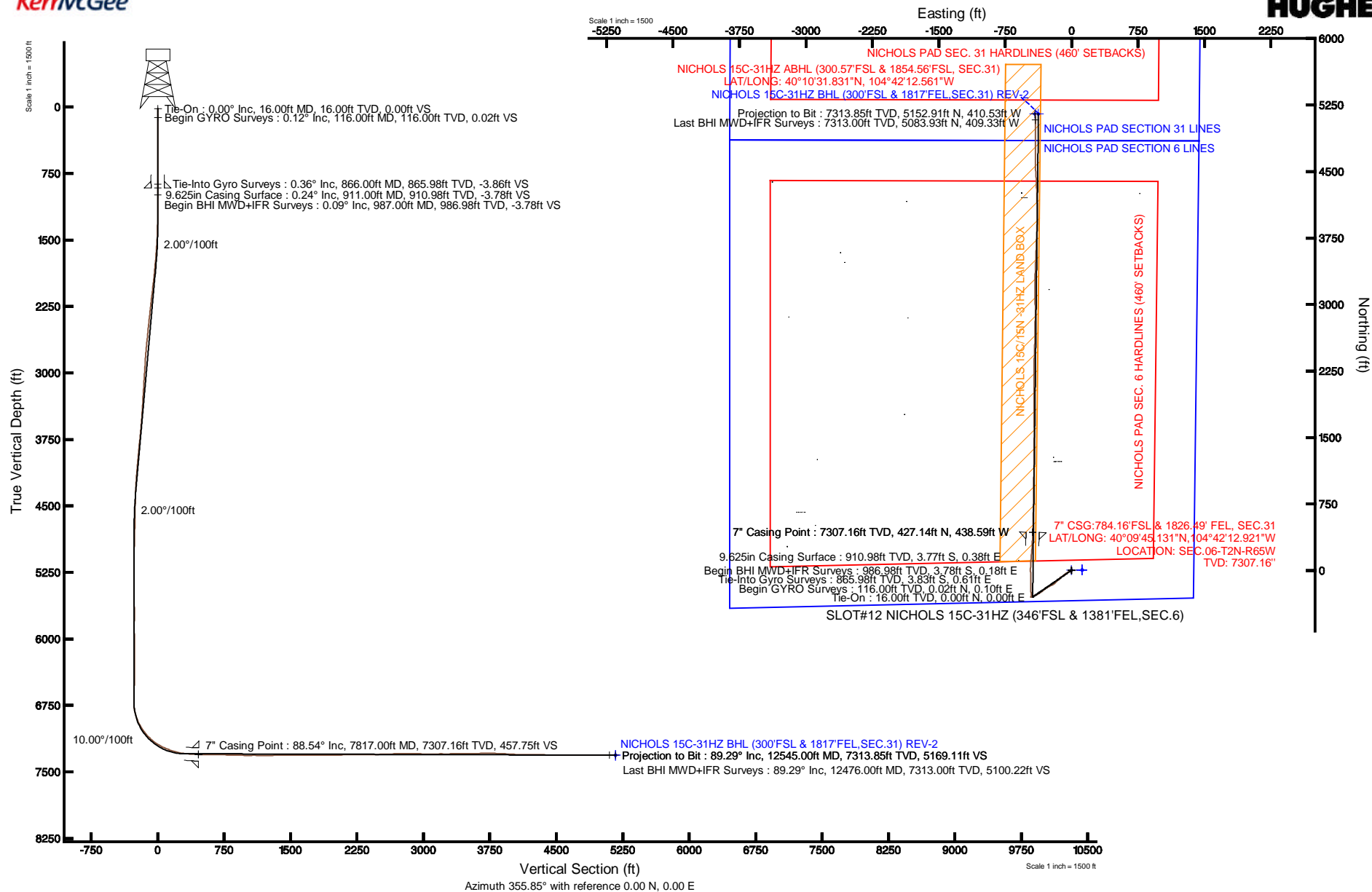


KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#12 NICHOLS 15C-31HZ (346'FSL & 1381'FEL,SEC.6)
 Field: WELD COUNTY (KERR MCGEE) Well: NICHOLS 15C-31HZ
 Facility: SEC.06-T2N-R65W Wellbore: NICHOLS 15C-31HZ PWB

Plot reference wellpath is NICHOLS 15C-31HZ (REV-B.0) PWP

True vertical depths are referenced to XTREME 24 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 24 (RKB)	North Reference: True north
XTREME 24 (RKB) to Mean Sea Level: 4941 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#12 NICHOLS 15C-31HZ (346'FSL & 1381'FEL,SEC.6)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: precain on 3/11/2013





Actual Wellpath Report

NICHOLS 15C-31HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 NICHOLS 15C-31HZ (346'FSL & 1381'FEL,SEC.6)
Area	COLORADO	Well	NICHOLS 15C-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 15C-31HZ AWB
Facility	SEC.06-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	3/11/2013 at 9:37:16 AM
Convergence at slot	0.52° East	Database/Source file	WellArchitectDB/NICHOLS_15C-31HZ_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4207.31	503.66	3223024.98	1302631.52	40°09'40.910"N	104°42'07.272"W
Facility Reference Pt			3222483.59	1306833.95	40°10'22.487"N	104°42'13.759"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 24 (RKB) to Facility Vertical Datum	4941.00ft
Horizontal Reference Pt	Slot	XTREME 24 (RKB) to Mean Sea Level	4941.00ft
Vertical Reference Pt	XTREME 24 (RKB)	XTREME 24 (RKB) to Mud Line at Slot (SLOT#12 NICHOLS 15C-31HZ (346'FSL & 1381'FEL,SEC.6))	4941.00ft
MD Reference Pt	XTREME 24 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	355.85°



Actual Wellpath Report

NICHOLS 15C-31HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 NICHOLS 15C-31HZ (346'FSL & 1381'FEL,SEC.6)
Area	COLORADO	Well	NICHOLS 15C-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 15C-31HZ AWB
Facility	SEC.06-T2N-R65W		

WELLPATH DATA (166 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	76.620	0.00	0.00	0.00	0.00	40°09'40.910"N	104°42'07.272"W	0.00	
16.00	0.000	76.620	16.00	0.00	0.00	0.00	40°09'40.910"N	104°42'07.272"W	0.00	Tie-On
116.00	0.120	76.620	116.00	0.02	0.02	0.10	40°09'40.910"N	104°42'07.271"W	0.12	Begin GYRO Surveys
216.00	0.560	183.910	216.00	-0.45	-0.44	0.17	40°09'40.906"N	104°42'07.270"W	0.61	
316.00	0.540	152.040	315.99	-1.37	-1.34	0.36	40°09'40.897"N	104°42'07.267"W	0.30	
416.00	0.620	139.610	415.99	-2.23	-2.17	0.93	40°09'40.889"N	104°42'07.260"W	0.15	
516.00	0.440	117.150	515.98	-2.87	-2.76	1.62	40°09'40.883"N	104°42'07.251"W	0.27	
616.00	0.180	240.230	615.98	-3.14	-3.01	1.83	40°09'40.880"N	104°42'07.248"W	0.56	
716.00	0.700	231.040	715.98	-3.55	-3.47	1.22	40°09'40.876"N	104°42'07.256"W	0.52	
816.00	0.020	148.510	815.98	-3.92	-3.87	0.75	40°09'40.872"N	104°42'07.262"W	0.70	
866.00	0.360	288.790	865.98	-3.86	-3.83	0.61	40°09'40.872"N	104°42'07.264"W	0.75	Tie-Into Gyro Surveys
987.00	0.090	220.120	986.98	-3.78	-3.78	0.18	40°09'40.873"N	104°42'07.270"W	0.28	Begin BHI MWD+IFR Surveys
1081.00	0.260	232.380	1080.98	-3.95	-3.97	-0.03	40°09'40.871"N	104°42'07.272"W	0.18	
1174.00	0.040	308.450	1173.98	-4.05	-4.08	-0.22	40°09'40.870"N	104°42'07.275"W	0.27	
1268.00	1.670	254.100	1267.96	-4.30	-4.43	-1.57	40°09'40.866"N	104°42'07.292"W	1.75	
1361.00	3.650	238.860	1360.86	-5.92	-6.33	-5.40	40°09'40.847"N	104°42'07.342"W	2.24	
1455.00	5.830	241.260	1454.53	-9.27	-10.18	-12.15	40°09'40.809"N	104°42'07.429"W	2.33	
1540.00	7.830	240.570	1538.92	-13.54	-15.10	-20.98	40°09'40.761"N	104°42'07.542"W	2.35	
1626.00	9.420	242.120	1623.95	-18.87	-21.27	-32.31	40°09'40.700"N	104°42'07.688"W	1.87	
1711.00	11.180	237.290	1707.58	-25.61	-28.97	-45.39	40°09'40.624"N	104°42'07.857"W	2.30	
1796.00	10.680	236.670	1791.04	-33.39	-37.75	-58.90	40°09'40.537"N	104°42'08.031"W	0.60	
1881.00	10.440	234.870	1874.60	-41.20	-46.51	-71.78	40°09'40.450"N	104°42'08.197"W	0.48	
1966.00	12.240	234.150	1957.93	-49.90	-56.22	-85.39	40°09'40.354"N	104°42'08.372"W	2.12	
2052.00	11.880	232.030	2042.04	-59.62	-67.01	-99.75	40°09'40.248"N	104°42'08.557"W	0.66	
2137.00	11.100	229.960	2125.33	-69.28	-77.65	-112.92	40°09'40.143"N	104°42'08.726"W	1.04	
2222.00	10.980	228.900	2208.76	-78.95	-88.24	-125.28	40°09'40.038"N	104°42'08.886"W	0.28	
2307.00	10.800	229.460	2292.23	-88.54	-98.74	-137.43	40°09'39.934"N	104°42'09.042"W	0.25	
2393.00	9.910	228.160	2376.83	-97.84	-108.91	-149.07	40°09'39.834"N	104°42'09.192"W	1.07	
2478.00	9.310	225.650	2460.63	-106.76	-118.60	-159.43	40°09'39.738"N	104°42'09.326"W	0.86	
2563.00	8.570	222.630	2544.60	-115.53	-128.06	-168.64	40°09'39.644"N	104°42'09.444"W	1.03	
2648.00	8.540	222.400	2628.66	-124.21	-137.38	-177.18	40°09'39.552"N	104°42'09.554"W	0.05	
2734.00	9.040	230.190	2713.65	-132.54	-146.42	-186.68	40°09'39.463"N	104°42'09.676"W	1.50	
2819.00	9.260	239.120	2797.57	-139.51	-154.21	-197.68	40°09'39.386"N	104°42'09.818"W	1.69	
2904.00	8.880	242.740	2881.51	-145.16	-160.73	-209.38	40°09'39.322"N	104°42'09.969"W	0.81	
2989.00	9.300	242.080	2965.44	-150.50	-166.95	-221.28	40°09'39.260"N	104°42'10.122"W	0.51	
3074.00	8.520	244.720	3049.41	-155.54	-172.85	-233.05	40°09'39.202"N	104°42'10.274"W	1.04	
3160.00	9.120	242.870	3134.40	-160.50	-178.68	-244.87	40°09'39.144"N	104°42'10.426"W	0.77	
3245.00	8.160	242.910	3218.43	-165.48	-184.50	-256.24	40°09'39.087"N	104°42'10.572"W	1.13	
3330.00	7.670	238.460	3302.62	-170.44	-190.21	-266.44	40°09'39.030"N	104°42'10.704"W	0.92	
3415.00	7.690	239.230	3386.86	-175.60	-196.09	-276.16	40°09'38.972"N	104°42'10.829"W	0.12	
3501.00	7.770	236.920	3472.08	-180.99	-202.21	-285.98	40°09'38.912"N	104°42'10.955"W	0.37	
3586.00	8.980	235.570	3556.17	-187.12	-209.09	-296.27	40°09'38.844"N	104°42'11.088"W	1.44	
3671.00	9.860	233.520	3640.02	-194.36	-217.17	-307.59	40°09'38.764"N	104°42'11.234"W	1.11	
3756.00	10.010	228.270	3723.75	-202.75	-226.42	-318.95	40°09'38.673"N	104°42'11.380"W	1.08	
3841.00	9.800	234.520	3807.49	-211.02	-235.53	-330.36	40°09'38.582"N	104°42'11.527"W	1.29	



Actual Wellpath Report

NICHOLS 15C-31HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 NICHOLS 15C-31HZ (346'FSL & 1381'FEL,SEC.6)
Area	COLORADO	Well	NICHOLS 15C-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 15C-31HZ AWB
Facility	SEC.06-T2N-R65W		

WELLPATH DATA (166 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3927.00	11.170	235.720	3892.05	-219.01	-244.47	-343.20	40°09'38.494"N	104°42'11.692"W	1.61	
4012.00	9.530	234.930	3975.66	-226.76	-253.15	-355.77	40°09'38.408"N	104°42'11.854"W	1.94	
4097.00	10.610	237.850	4059.35	-234.05	-261.36	-368.15	40°09'38.327"N	104°42'12.014"W	1.41	
4182.00	10.330	239.020	4142.94	-241.16	-269.45	-381.31	40°09'38.247"N	104°42'12.183"W	0.41	
4267.00	9.020	243.110	4226.73	-247.18	-276.38	-393.79	40°09'38.179"N	104°42'12.344"W	1.74	
4353.00	7.750	246.170	4311.81	-251.74	-281.78	-405.10	40°09'38.125"N	104°42'12.490"W	1.56	
4438.00	7.000	247.700	4396.10	-255.28	-286.06	-415.14	40°09'38.083"N	104°42'12.619"W	0.91	
4523.00	6.420	253.330	4480.52	-257.93	-289.39	-424.48	40°09'38.050"N	104°42'12.739"W	1.03	
4608.00	6.030	255.620	4565.02	-259.75	-291.86	-433.36	40°09'38.026"N	104°42'12.854"W	0.54	
4693.00	5.140	254.970	4649.62	-261.26	-293.95	-441.36	40°09'38.005"N	104°42'12.957"W	1.05	
4778.00	4.780	254.490	4734.30	-262.68	-295.89	-448.45	40°09'37.986"N	104°42'13.048"W	0.43	
4864.00	3.900	245.020	4820.05	-264.43	-298.08	-454.56	40°09'37.964"N	104°42'13.127"W	1.32	
4949.00	3.530	231.740	4904.87	-266.92	-300.92	-459.23	40°09'37.936"N	104°42'13.187"W	1.10	
5034.00	1.480	228.090	4989.79	-269.06	-303.28	-462.10	40°09'37.913"N	104°42'13.224"W	2.42	
5119.00	0.430	124.140	5074.78	-269.93	-304.19	-462.66	40°09'37.904"N	104°42'13.231"W	1.93	
5204.00	0.330	96.290	5159.78	-270.17	-304.40	-462.15	40°09'37.902"N	104°42'13.224"W	0.24	
5289.00	0.320	101.310	5244.78	-270.28	-304.47	-461.67	40°09'37.901"N	104°42'13.218"W	0.04	
5375.00	0.300	63.810	5330.77	-270.26	-304.42	-461.24	40°09'37.902"N	104°42'13.213"W	0.23	
5460.00	0.350	53.670	5415.77	-270.04	-304.16	-460.83	40°09'37.904"N	104°42'13.207"W	0.09	
5545.00	0.460	21.890	5500.77	-269.59	-303.69	-460.49	40°09'37.909"N	104°42'13.203"W	0.29	
5631.00	0.550	11.690	5586.77	-268.89	-302.97	-460.28	40°09'37.916"N	104°42'13.200"W	0.15	
5716.00	0.640	33.960	5671.76	-268.12	-302.18	-459.93	40°09'37.924"N	104°42'13.196"W	0.29	
5801.00	1.110	110.840	5756.76	-268.09	-302.08	-458.90	40°09'37.925"N	104°42'13.183"W	1.35	
5887.00	1.180	94.740	5842.74	-268.58	-302.44	-457.23	40°09'37.921"N	104°42'13.161"W	0.38	
5972.00	1.090	69.390	5927.72	-268.49	-302.23	-455.61	40°09'37.923"N	104°42'13.140"W	0.59	
6058.00	1.110	58.230	6013.71	-267.87	-301.51	-454.13	40°09'37.930"N	104°42'13.121"W	0.25	
6143.00	1.520	71.140	6098.68	-267.20	-300.71	-452.36	40°09'37.938"N	104°42'13.098"W	0.59	
6228.00	1.470	78.240	6183.66	-266.77	-300.12	-450.23	40°09'37.944"N	104°42'13.071"W	0.23	
6313.00	1.710	90.960	6268.62	-266.74	-299.92	-447.90	40°09'37.946"N	104°42'13.041"W	0.50	
6398.00	1.510	85.540	6353.59	-266.85	-299.85	-445.51	40°09'37.947"N	104°42'13.010"W	0.30	
6483.00	0.730	129.980	6438.57	-267.22	-300.12	-443.98	40°09'37.944"N	104°42'12.990"W	1.31	
6568.00	1.040	179.780	6523.56	-268.37	-301.23	-443.56	40°09'37.933"N	104°42'12.985"W	0.94	
6653.00	1.320	194.810	6608.55	-270.06	-302.95	-443.81	40°09'37.916"N	104°42'12.988"W	0.49	
6710.00	1.750	202.430	6665.53	-271.46	-304.39	-444.31	40°09'37.902"N	104°42'12.995"W	0.83	
6748.00	1.730	206.830	6703.51	-272.47	-305.44	-444.79	40°09'37.892"N	104°42'13.001"W	0.36	
6791.00	2.630	320.800	6746.49	-272.22	-305.25	-445.71	40°09'37.893"N	104°42'13.013"W	8.58	
6833.00	7.640	343.300	6788.31	-268.70	-301.83	-447.12	40°09'37.927"N	104°42'13.031"W	12.63	
6876.00	13.220	345.830	6830.59	-261.06	-294.32	-449.14	40°09'38.001"N	104°42'13.057"W	13.02	
6919.00	17.590	346.750	6872.03	-249.80	-283.22	-451.84	40°09'38.111"N	104°42'13.092"W	10.18	
6961.00	21.990	349.850	6911.54	-235.71	-269.30	-454.68	40°09'38.249"N	104°42'13.128"W	10.77	
7004.00	26.550	351.210	6950.73	-218.11	-251.87	-457.57	40°09'38.421"N	104°42'13.165"W	10.68	
7046.00	30.320	355.310	6987.66	-198.15	-232.02	-459.87	40°09'38.617"N	104°42'13.195"W	10.10	
7089.00	33.800	357.590	7024.10	-175.33	-209.24	-461.26	40°09'38.842"N	104°42'13.213"W	8.57	
7131.00	38.130	359.220	7058.09	-150.70	-184.59	-461.93	40°09'39.086"N	104°42'13.222"W	10.56	
7174.00	42.340	1.770	7090.91	-123.03	-156.83	-461.66	40°09'39.360"N	104°42'13.218"W	10.51	



Actual Wellpath Report

NICHOLS 15C-31HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 NICHOLS 15C-31HZ (346'FSL & 1381'FEL,SEC.6)
Area	COLORADO	Well	NICHOLS 15C-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 15C-31HZ AWB
Facility	SEC.06-T2N-R65W		

WELLPATH DATA (166 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7217.00	45.770	1.710	7121.80	-93.29	-126.95	-460.76	40°09'39.655"N	104°42'13.207"W	7.98	
7259.00	49.940	359.280	7149.98	-62.26	-95.82	-460.51	40°09'39.963"N	104°42'13.203"W	10.81	
7302.00	53.670	357.280	7176.57	-28.51	-62.05	-461.54	40°09'40.297"N	104°42'13.217"W	9.41	
7345.00	59.070	358.030	7200.38	7.27	-26.29	-463.00	40°09'40.650"N	104°42'13.235"W	12.64	
7387.00	64.470	0.040	7220.24	44.20	10.69	-463.60	40°09'41.016"N	104°42'13.243"W	13.53	
7430.00	67.260	2.840	7237.82	83.24	49.91	-462.61	40°09'41.403"N	104°42'13.230"W	8.80	
7472.00	70.150	4.830	7253.07	121.99	88.95	-459.98	40°09'41.789"N	104°42'13.197"W	8.17	
7515.00	71.950	5.160	7267.04	162.14	129.46	-456.44	40°09'42.189"N	104°42'13.151"W	4.25	
7558.00	76.110	4.890	7278.86	202.94	170.64	-452.82	40°09'42.596"N	104°42'13.104"W	9.69	
7600.00	78.780	4.780	7287.99	243.43	211.48	-449.37	40°09'43.000"N	104°42'13.060"W	6.36	
7643.00	83.110	3.490	7294.76	285.44	253.83	-446.31	40°09'43.418"N	104°42'13.021"W	10.50	
7685.00	84.390	2.750	7299.33	326.85	295.51	-444.04	40°09'43.830"N	104°42'12.991"W	3.52	
7728.00	86.450	2.720	7302.76	369.41	338.32	-441.99	40°09'44.253"N	104°42'12.965"W	4.79	
7774.00	86.880	2.090	7305.44	415.03	384.21	-440.06	40°09'44.707"N	104°42'12.940"W	1.66	
7817.00†	88.540	1.851	7307.16	457.75	427.14	-438.59	40°09'45.131"N	104°42'12.921"W	3.90	7" Casing Point
7846.00	89.660	1.690	7307.61	486.59	456.13	-437.69	40°09'45.417"N	104°42'12.910"W	3.90	
7883.00	89.690	1.860	7307.82	523.39	493.11	-436.54	40°09'45.783"N	104°42'12.895"W	0.47	
7968.00	89.780	2.200	7308.22	607.90	578.05	-433.53	40°09'46.622"N	104°42'12.856"W	0.41	
8053.00	88.420	0.620	7309.55	692.48	663.01	-431.44	40°09'47.462"N	104°42'12.829"W	2.45	
8138.00	87.930	0.920	7312.26	777.12	747.96	-430.30	40°09'48.301"N	104°42'12.814"W	0.68	
8224.00	88.300	359.980	7315.09	862.80	833.91	-429.63	40°09'49.151"N	104°42'12.806"W	1.17	
8309.00	89.350	0.880	7316.83	947.51	918.89	-428.99	40°09'49.990"N	104°42'12.798"W	1.63	
8394.00	90.210	1.290	7317.16	1032.15	1003.87	-427.38	40°09'50.830"N	104°42'12.777"W	1.12	
8479.00	89.900	1.350	7317.08	1116.77	1088.85	-425.42	40°09'51.670"N	104°42'12.752"W	0.37	
8564.00	89.660	359.930	7317.40	1201.47	1173.84	-424.47	40°09'52.510"N	104°42'12.739"W	1.69	
8650.00	90.640	0.650	7317.18	1287.21	1259.84	-424.04	40°09'53.360"N	104°42'12.734"W	1.41	
8735.00	90.240	1.250	7316.52	1371.87	1344.82	-422.63	40°09'54.200"N	104°42'12.716"W	0.85	
8820.00	90.360	0.200	7316.08	1456.56	1429.81	-421.55	40°09'55.039"N	104°42'12.702"W	1.24	
8905.00	91.350	0.920	7314.81	1541.26	1514.80	-420.72	40°09'55.879"N	104°42'12.691"W	1.44	
8991.00	90.860	359.030	7313.15	1627.02	1600.78	-420.76	40°09'56.729"N	104°42'12.692"W	2.27	
9076.00	90.000	359.520	7312.51	1711.86	1685.77	-421.83	40°09'57.569"N	104°42'12.706"W	1.16	
9161.00	89.590	359.370	7312.82	1796.70	1770.76	-422.66	40°09'58.409"N	104°42'12.716"W	0.51	
9246.00	89.590	359.520	7313.43	1881.53	1855.76	-423.48	40°09'59.249"N	104°42'12.727"W	0.18	
9331.00	90.400	359.380	7313.43	1966.36	1940.75	-424.30	40°10'00.089"N	104°42'12.737"W	0.97	
9416.00	91.130	0.050	7312.30	2051.16	2025.74	-424.72	40°10'00.928"N	104°42'12.743"W	1.17	
9502.00	90.830	359.560	7310.83	2136.94	2111.73	-425.01	40°10'01.778"N	104°42'12.747"W	0.67	
9587.00	90.950	0.960	7309.51	2221.67	2196.72	-424.63	40°10'02.618"N	104°42'12.742"W	1.65	
9672.00	90.030	0.690	7308.78	2306.35	2281.70	-423.40	40°10'03.458"N	104°42'12.726"W	1.13	
9757.00	90.090	1.460	7308.69	2391.00	2366.69	-421.81	40°10'04.298"N	104°42'12.705"W	0.91	
9842.00	91.510	1.860	7307.51	2475.55	2451.64	-419.35	40°10'05.137"N	104°42'12.674"W	1.74	
9927.00	92.190	1.940	7304.76	2560.03	2536.55	-416.53	40°10'05.976"N	104°42'12.637"W	0.81	
10013.00	91.790	1.720	7301.77	2645.51	2622.45	-413.78	40°10'06.825"N	104°42'12.602"W	0.53	
10098.00	90.950	0.560	7299.74	2730.13	2707.41	-412.09	40°10'07.665"N	104°42'12.580"W	1.68	
10183.00	89.910	0.910	7299.10	2814.81	2792.40	-411.00	40°10'08.505"N	104°42'12.566"W	1.29	
10226.00	90.430	1.000	7298.98	2857.64	2835.39	-410.29	40°10'08.929"N	104°42'12.557"W	1.23	



Actual Wellpath Report

NICHOLS 15C-31HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 NICHOLS 15C-31HZ (346'FSL & 1381'FEL,SEC.6)
Area	COLORADO	Well	NICHOLS 15C-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 15C-31HZ AWB
Facility	SEC.06-T2N-R65W		

WELLPATH DATA (166 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10268.00	88.710	0.610	7299.29	2899.48	2877.39	-409.70	40°10'09.344"N	104°42'12.550"W	4.20	
10311.00	88.120	359.540	7300.48	2942.35	2920.37	-409.64	40°10'09.769"N	104°42'12.549"W	2.84	
10354.00	88.550	359.230	7301.73	2985.25	2963.35	-410.10	40°10'10.194"N	104°42'12.555"W	1.23	
10396.00	89.570	359.260	7302.42	3027.17	3005.34	-410.66	40°10'10.609"N	104°42'12.562"W	2.43	
10439.00	90.740	359.340	7302.30	3070.09	3048.33	-411.18	40°10'11.034"N	104°42'12.569"W	2.73	
10481.00	90.600	357.740	7301.81	3112.04	3090.32	-412.25	40°10'11.449"N	104°42'12.582"W	3.82	
10524.00	90.520	359.040	7301.39	3154.99	3133.30	-413.46	40°10'11.873"N	104°42'12.598"W	3.03	
10609.00	89.410	1.520	7301.44	3239.73	3218.29	-413.04	40°10'12.713"N	104°42'12.593"W	3.20	
10695.00	91.970	0.750	7300.41	3325.35	3304.26	-411.34	40°10'13.563"N	104°42'12.571"W	3.11	
10781.00	91.970	2.180	7297.45	3410.89	3390.18	-409.14	40°10'14.412"N	104°42'12.542"W	1.66	
10866.00	89.630	2.930	7296.27	3495.29	3475.08	-405.35	40°10'15.251"N	104°42'12.494"W	2.89	
10951.00	90.270	1.840	7296.34	3579.74	3560.00	-401.82	40°10'16.090"N	104°42'12.448"W	1.49	
11036.00	90.430	2.450	7295.82	3664.23	3644.94	-398.64	40°10'16.929"N	104°42'12.407"W	0.74	
11122.00	90.150	2.270	7295.39	3749.67	3730.87	-395.09	40°10'17.779"N	104°42'12.362"W	0.39	
11206.00	87.870	1.970	7296.84	3833.15	3814.79	-391.99	40°10'18.608"N	104°42'12.322"W	2.74	
11291.00	87.230	1.350	7300.47	3917.64	3899.68	-389.53	40°10'19.447"N	104°42'12.290"W	1.05	
11376.00	87.010	0.630	7304.74	4002.19	3984.56	-388.06	40°10'20.285"N	104°42'12.271"W	0.88	
11461.00	87.880	359.540	7308.53	4086.87	4069.47	-387.93	40°10'21.125"N	104°42'12.269"W	1.64	
11547.00	90.000	358.120	7310.12	4172.73	4155.43	-389.69	40°10'21.974"N	104°42'12.292"W	2.97	
11632.00	89.970	358.390	7310.14	4257.66	4240.39	-392.28	40°10'22.814"N	104°42'12.325"W	0.32	
11717.00	88.710	357.740	7311.12	4342.58	4325.33	-395.15	40°10'23.653"N	104°42'12.362"W	1.67	
11802.00	88.980	356.810	7312.84	4427.54	4410.22	-399.19	40°10'24.492"N	104°42'12.414"W	1.14	
11888.00	88.520	356.850	7314.71	4513.51	4496.07	-403.94	40°10'25.340"N	104°42'12.476"W	0.54	
11973.00	89.320	358.270	7316.31	4598.45	4580.97	-407.56	40°10'26.179"N	104°42'12.522"W	1.92	
12058.00	90.800	359.860	7316.22	4683.31	4665.95	-408.95	40°10'27.019"N	104°42'12.540"W	2.56	
12143.00	90.640	0.020	7315.16	4768.09	4750.95	-409.04	40°10'27.859"N	104°42'12.541"W	0.27	
12228.00	90.760	359.950	7314.12	4852.86	4835.94	-409.06	40°10'28.699"N	104°42'12.542"W	0.16	
12314.00	90.490	359.860	7313.18	4938.64	4921.94	-409.20	40°10'29.549"N	104°42'12.544"W	0.33	
12399.00	90.210	0.460	7312.66	5023.40	5006.93	-408.96	40°10'30.389"N	104°42'12.541"W	0.78	
12476.00	89.290	359.000	7313.00	5100.22	5083.93	-409.33	40°10'31.150"N	104°42'12.545"W	2.24	Last BHI MWD+IFR Surveys
12545.00	89.290	359.000	7313.85	5169.11	5152.91	-410.53	40°10'31.831"N	104°42'12.561"W	0.00	Projection to Bit



Actual Wellpath Report

NICHOLS 15C-31HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 NICHOLS 15C-31HZ (346'FSL & 1381'FEL,SEC.6)
Area	COLORADO	Well	NICHOLS 15C-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 15C-31HZ AWB
Facility	SEC.06-T2N-R65W		

HOLE & CASING SECTIONS - Ref Wellbore: NICHOLS 15C-31HZ AWB Ref Wellpath: NICHOLS 15C-31HZ 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	911.00	895.00	16.00	910.98	0.00	0.00	-3.77	0.38
9.625in Casing Surface	16.00	911.00	895.00	16.00	910.98	0.00	0.00	-3.77	0.38
7in Casing Intermediate	16.00	7817.00	7801.00	16.00	7307.16	0.00	0.00	427.14	-438.59
8.75in Open Hole	911.00	7826.00	6915.00	910.98	7307.36	-3.77	0.38	436.14	-438.30
6.125in Open Hole	7817.00	12545.00	4728.00	7307.16	7313.85	427.14	-438.59	5152.91	-410.53

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
NICHOLS PAD SECTION 31 LINES		-1.00	2.96	119.91	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W	polygon
NICHOLS PAD SECTION 6 LINES		-1.00	2.96	119.91	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W	polygon
NICHOLS PAD SEC. 31 HARDLINES (460' SETBACKS)		7117.00	2.96	119.91	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W	polygon
NICHOLS PAD SEC. 6 HARDLINES (460' SETBACKS)		7117.00	2.96	119.91	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W	polygon
NICHOLS 15C-31HZ BHL (300'FSL & 1817'FEL,SEC.31) REV-2		7316.00	5152.99	-373.67	3222604.98	1307780.71	40°10'31.832"N	104°42'12.086"W	point
NICHOLS 15C-31HZ BHL ON PLAT (300'FSL & 1858'FEL,SEC.31) REV-1		7316.00	5152.99	-414.67	3222563.98	1307780.34	40°10'31.832"N	104°42'12.614"W	point
NICHOLS 15C/15N -31HZ LAND BOX		7400.00	0.00	0.00	3223024.98	1302631.52	40°09'40.910"N	104°42'07.272"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: NICHOLS 15C-31HZ AWB Ref Wellpath: NICHOLS 15C-31HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	866.00	Generic gyro - continuous (Standard)	MS ENERGY SURVEYS <116-866>	NICHOLS 15C-31HZ AWB
866.00	7774.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <987-7774>	NICHOLS 15C-31HZ AWB
7774.00	12476.00	OnTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 6 1/8" HOLE <7846-12476>	NICHOLS 15C-31HZ AWB
12476.00	12545.00	Blind Drilling (std)	Projection to bit	NICHOLS 15C-31HZ AWB



Actual Wellpath Report

NICHOLS 15C-31HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#12 NICHOLS 15C-31HZ (346'FSL & 1381'FEL,SEC.6)
Area	COLORADO	Well	NICHOLS 15C-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 15C-31HZ AWB
Facility	SEC.06-T2N-R65W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
16.00	0.000	76.620	16.00	Tie-On
116.00	0.120	76.620	116.00	Begin GYRO Surveys
866.00	0.360	288.790	865.98	Tie-Into Gyro Surveys
987.00	0.090	220.120	986.98	Begin BHI MWD+IFR Surveys
7817.00	88.540	1.851	7307.16	7" Casing Point
12476.00	89.290	359.000	7313.00	Last BHI MWD+IFR Surveys
12545.00	89.290	359.000	7313.85	Projection to Bit