

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#08 NICHOLS 38N-31HZ (346'FSL & 1262'FEL, SEC.6)
Field: WELD COUNTY (KERR MCGEE) Well: NICHOLS 38N-31HZ
Facility: SEC.06-T2N-R65W Wellbore: NICHOLS 38N-31HZ PWB

Plot reference wellpath is NICHOLS 38N-31HZ (PERMIT) PWP

True vertical depths are referenced to XTREME 6 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 6 (RKB)	North Reference: True north
XTREME 6 (RKB) to Mean Sea Level: 4942 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#08 NICHOLS 38N-31HZ (346'FSL & 1262'FEL, SEC.6)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: willie02 on 3/6/2012

Location Information

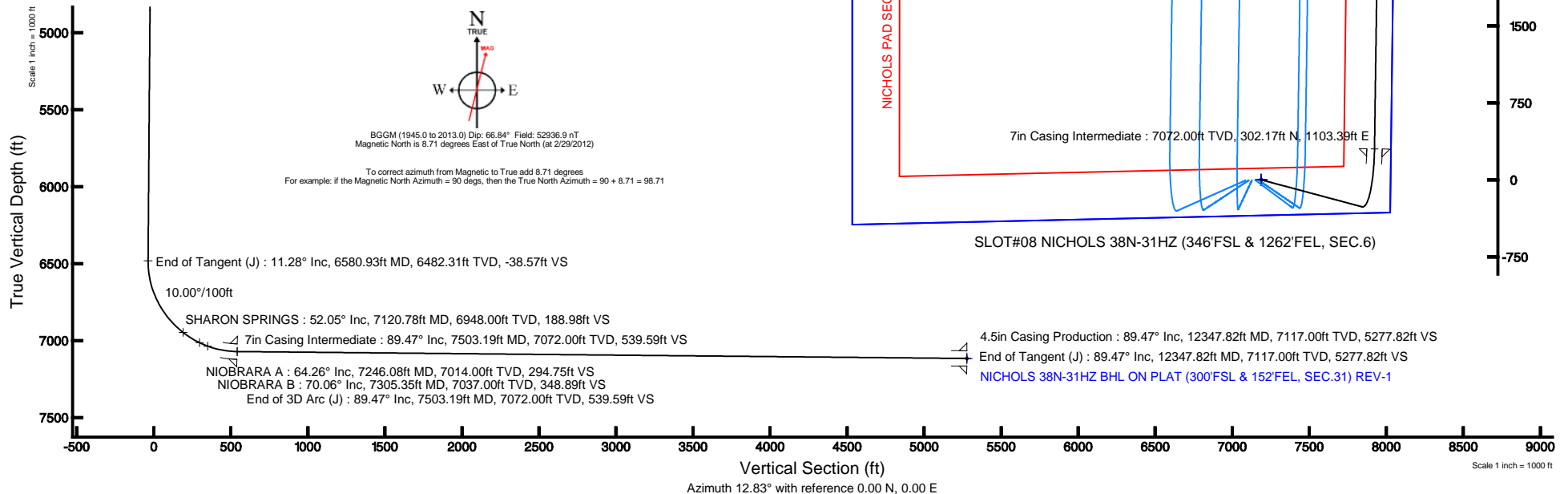
Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.06-T2N-R65W			3222483.590	1306833.950	40°10'22.487"N	104°42'13.759"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#08 NICHOLS 38N-31HZ (346'FSL & 1262'FEL, SEC.6)	-4204.35	623.57	3223144.854	1302635.552	40°09'40.939"N	104°42'05.728"W
XTREME 6 (RKB) to Mud line (At Slot: SLOT#08 NICHOLS 38N-31HZ (346'FSL & 1262'FEL, SEC.6))					4942ft	
Mean Sea Level to Mud line (At Slot: SLOT#08 NICHOLS 38N-31HZ (346'FSL & 1262'FEL, SEC.6))					0ft	
XTREME 6 (RKB) to Mean Sea Level					4942ft	

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	105.000	17.00	0.00	0.00	0.00	0.00
End of Tangent	1100.00	0.000	105.000	1100.00	0.00	0.00	0.00	0.00
End of Build (J)	1664.00	11.280	105.000	1660.36	-14.32	53.45	2.00	-2.10
End of Tangent (J)	6580.93	11.280	105.000	6482.31	-263.25	982.45	0.00	-38.57
End of 3D Arc (J)	7503.19	89.468	0.808	7072.00	302.18	1103.39	10.00	539.59
End of Tangent (J)	12347.82	89.468	0.808	7117.00	5146.11	1171.70	0.00	5277.82

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
NICHOLS PAD SECTION 31 LINES		0.00	0.00	0.00	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W
NICHOLS PAD SECTION 6 LINES		0.00	0.00	0.00	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W
NICHOLS 38N-31HZ BHL ON PLAT (300'FSL & 152'FEL, SEC.31) REV-1	12347.82	7117.00	5146.11	1171.70	3224270.12	1307791.78	40°10'31.793"N	104°41'50.633"W
NICHOLS PAD SEC. 31 HARDLINES (460' SETBACKS)		7118.00	0.00	0.00	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W
NICHOLS PAD SEC. 6 HARDLINES (460' SETBACKS)		7118.00	0.00	0.00	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W





Planned Wellpath Report

NICHOLS 38N-31HZ (PERMIT) PWP

Page 1 of 5



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 NICHOLS 38N-31HZ (346'FSL & 1262'FEL, SEC.6)
Area	COLORADO	Well	NICHOLS 38N-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 38N-31HZ PWB
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	Wilsjef02
Scale	0.999958	Report Generated	3/6/2012 at 10:45:45
Convergence at slot	0.52° East	Database/Source file	WellArchitectDB/NICHOLS_38N-31HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4204.35	623.57	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"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 6 (RKB) to Facility Vertical Datum	4942.00ft
Horizontal Reference Pt	Slot	XTREME 6 (RKB) to Mean Sea Level	4942.00ft
Vertical Reference Pt	XTREME 6 (RKB)	XTREME 6 (RKB) to Mud Line at Slot (SLOT#08 NICHOLS 38N-31HZ (346'FSL & 1262'FEL, SEC.6))	4942.00ft
MD Reference Pt	XTREME 6 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	12.83°



Planned Wellpath Report

NICHOLS 38N-31HZ (PERMIT) PWP

Page 2 of 5



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 NICHOLS 38N-31HZ (346'FSL & 1262'FEL, SEC.6)
Area	COLORADO	Well	NICHOLS 38N-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 38N-31HZ PWB
Facility	SEC.06-T2N-R65W		

WELLPATH DATA (135 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	105.000	0.00	0.00	0.00	0.00	40°09'40.939"N	104°42'05.728"W	0.00	
17.00	0.000	105.000	17.00	0.00	0.00	0.00	40°09'40.939"N	104°42'05.728"W	0.00	Tie On
117.00†	0.000	105.000	117.00	0.00	0.00	0.00	40°09'40.939"N	104°42'05.728"W	0.00	
217.00†	0.000	105.000	217.00	0.00	0.00	0.00	40°09'40.939"N	104°42'05.728"W	0.00	
317.00†	0.000	105.000	317.00	0.00	0.00	0.00	40°09'40.939"N	104°42'05.728"W	0.00	
417.00†	0.000	105.000	417.00	0.00	0.00	0.00	40°09'40.939"N	104°42'05.728"W	0.00	
517.00†	0.000	105.000	517.00	0.00	0.00	0.00	40°09'40.939"N	104°42'05.728"W	0.00	
617.00†	0.000	105.000	617.00	0.00	0.00	0.00	40°09'40.939"N	104°42'05.728"W	0.00	
717.00†	0.000	105.000	717.00	0.00	0.00	0.00	40°09'40.939"N	104°42'05.728"W	0.00	
817.00†	0.000	105.000	817.00	0.00	0.00	0.00	40°09'40.939"N	104°42'05.728"W	0.00	
917.00†	0.000	105.000	917.00	0.00	0.00	0.00	40°09'40.939"N	104°42'05.728"W	0.00	
1017.00†	0.000	105.000	1017.00	0.00	0.00	0.00	40°09'40.939"N	104°42'05.728"W	0.00	
1100.00	0.000	105.000	1100.00	0.00	0.00	0.00	40°09'40.939"N	104°42'05.728"W	0.00	End of Tangent
1117.00†	0.340	105.000	1117.00	0.00	-0.01	0.05	40°09'40.939"N	104°42'05.727"W	2.00	
1217.00†	2.340	105.000	1216.97	-0.09	-0.62	2.31	40°09'40.933"N	104°42'05.698"W	2.00	
1317.00†	4.340	105.000	1316.79	-0.31	-2.13	7.93	40°09'40.918"N	104°42'05.625"W	2.00	
1417.00†	6.340	105.000	1416.35	-0.66	-4.53	16.92	40°09'40.894"N	104°42'05.510"W	2.00	
1517.00†	8.340	105.000	1515.53	-1.15	-7.84	29.26	40°09'40.862"N	104°42'05.351"W	2.00	
1617.00†	10.340	105.000	1614.20	-1.76	-12.04	44.94	40°09'40.820"N	104°42'05.149"W	2.00	
1664.00	11.280	105.000	1660.36	-2.10	-14.32	53.45	40°09'40.798"N	104°42'05.039"W	2.00	End of Build (J)
1717.00†	11.280	105.000	1712.34	-2.49	-17.01	63.47	40°09'40.771"N	104°42'04.910"W	0.00	
1817.00†	11.280	105.000	1810.41	-3.23	-22.07	82.36	40°09'40.721"N	104°42'04.667"W	0.00	
1917.00†	11.280	105.000	1908.48	-3.98	-27.13	101.26	40°09'40.671"N	104°42'04.423"W	0.00	
2017.00†	11.280	105.000	2006.54	-4.72	-32.19	120.15	40°09'40.621"N	104°42'04.180"W	0.00	
2117.00†	11.280	105.000	2104.61	-5.46	-37.26	139.04	40°09'40.571"N	104°42'03.937"W	0.00	
2217.00†	11.280	105.000	2202.68	-6.20	-42.32	157.94	40°09'40.521"N	104°42'03.693"W	0.00	
2317.00†	11.280	105.000	2300.75	-6.94	-47.38	176.83	40°09'40.471"N	104°42'03.450"W	0.00	
2417.00†	11.280	105.000	2398.82	-7.68	-52.44	195.72	40°09'40.421"N	104°42'03.207"W	0.00	
2517.00†	11.280	105.000	2496.89	-8.43	-57.51	214.62	40°09'40.371"N	104°42'02.963"W	0.00	
2617.00†	11.280	105.000	2594.95	-9.17	-62.57	233.51	40°09'40.321"N	104°42'02.720"W	0.00	
2717.00†	11.280	105.000	2693.02	-9.91	-67.63	252.41	40°09'40.271"N	104°42'02.477"W	0.00	
2817.00†	11.280	105.000	2791.09	-10.65	-72.69	271.30	40°09'40.221"N	104°42'02.233"W	0.00	
2917.00†	11.280	105.000	2889.16	-11.39	-77.76	290.19	40°09'40.171"N	104°42'01.990"W	0.00	
3017.00†	11.280	105.000	2987.23	-12.13	-82.82	309.09	40°09'40.121"N	104°42'01.747"W	0.00	
3117.00†	11.280	105.000	3085.30	-12.88	-87.88	327.98	40°09'40.071"N	104°42'01.503"W	0.00	
3217.00†	11.280	105.000	3183.36	-13.62	-92.94	346.88	40°09'40.021"N	104°42'01.260"W	0.00	
3317.00†	11.280	105.000	3281.43	-14.36	-98.01	365.77	40°09'39.971"N	104°42'01.017"W	0.00	
3417.00†	11.280	105.000	3379.50	-15.10	-103.07	384.66	40°09'39.921"N	104°42'00.773"W	0.00	
3517.00†	11.280	105.000	3477.57	-15.84	-108.13	403.56	40°09'39.871"N	104°42'00.530"W	0.00	
3617.00†	11.280	105.000	3575.64	-16.58	-113.20	422.45	40°09'39.821"N	104°42'00.286"W	0.00	
3717.00†	11.280	105.000	3673.71	-17.33	-118.26	441.34	40°09'39.771"N	104°42'00.043"W	0.00	
3817.00†	11.280	105.000	3771.77	-18.07	-123.32	460.24	40°09'39.720"N	104°41'59.800"W	0.00	
3917.00†	11.280	105.000	3869.84	-18.81	-128.38	479.13	40°09'39.670"N	104°41'59.556"W	0.00	
4017.00†	11.280	105.000	3967.91	-19.55	-133.45	498.03	40°09'39.620"N	104°41'59.313"W	0.00	
4054.82†	11.280	105.000	4005.00	-19.83	-135.36	505.17	40°09'39.602"N	104°41'59.221"W	0.00	PARKMAN
4117.00†	11.280	105.000	4065.98	-20.29	-138.51	516.92	40°09'39.570"N	104°41'59.070"W	0.00	
4217.00†	11.280	105.000	4164.05	-21.04	-143.57	535.81	40°09'39.520"N	104°41'58.826"W	0.00	
4317.00†	11.280	105.000	4262.12	-21.78	-148.63	554.71	40°09'39.470"N	104°41'58.583"W	0.00	
4417.00†	11.280	105.000	4360.18	-22.52	-153.70	573.60	40°09'39.420"N	104°41'58.340"W	0.00	
4517.00†	11.280	105.000	4458.25	-23.26	-158.76	592.50	40°09'39.370"N	104°41'58.096"W	0.00	
4561.61†	11.280	105.000	4502.00	-23.59	-161.02	600.92	40°09'39.348"N	104°41'57.988"W	0.00	SUSSEX
4617.00†	11.280	105.000	4556.32	-24.00	-163.82	611.39	40°09'39.320"N	104°41'57.853"W	0.00	
4717.00†	11.280	105.000	4654.39	-24.74	-168.88	630.28	40°09'39.270"N	104°41'57.610"W	0.00	
4817.00†	11.280	105.000	4752.46	-25.49	-173.95	649.18	40°09'39.220"N	104°41'57.366"W	0.00	
4917.00†	11.280	105.000	4850.53	-26.23	-179.01	668.07	40°09'39.170"N	104°41'57.123"W	0.00	
5017.00†	11.280	105.000	4948.59	-26.97	-184.07	686.97	40°09'39.120"N	104°41'56.880"W	0.00	
5117.00†	11.280	105.000	5046.66	-27.71	-189.13	705.86	40°09'39.070"N	104°41'56.636"W	0.00	
5217.00†	11.280	105.000	5144.73	-28.45	-194.20	724.75	40°09'39.020"N	104°41'56.393"W	0.00	
5317.00†	11.280	105.000	5242.80	-29.19	-199.26	743.65	40°09'38.970"N	104°41'56.149"W	0.00	
5417.00†	11.280	105.000	5340.87	-29.94	-204.32	762.54	40°09'38.920"N	104°41'55.906"W	0.00	



Planned Wellpath Report

NICHOLS 38N-31HZ (PERMIT) PWP

Page 3 of 5



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 NICHOLS 38N-31HZ (346'FSL & 1262'FEL, SEC.6)
Area	COLORADO	Well	NICHOLS 38N-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 38N-31HZ PWB
Facility	SEC.06-T2N-R65W		

WELLPATH DATA (135 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5517.00†	11.280	105.000	5438.94	-30.68	-209.38	781.43	40°09'38.870"N	104°41'55.663"W	0.00	
5617.00†	11.280	105.000	5537.00	-31.42	-214.45	800.33	40°09'38.820"N	104°41'55.419"W	0.00	
5717.00†	11.280	105.000	5635.07	-32.16	-219.51	819.22	40°09'38.770"N	104°41'55.176"W	0.00	
5817.00†	11.280	105.000	5733.14	-32.90	-224.57	838.12	40°09'38.720"N	104°41'54.933"W	0.00	
5917.00†	11.280	105.000	5831.21	-33.65	-229.64	857.01	40°09'38.670"N	104°41'54.689"W	0.00	
6017.00†	11.280	105.000	5929.28	-34.39	-234.70	875.90	40°09'38.620"N	104°41'54.446"W	0.00	
6117.00†	11.280	105.000	6027.35	-35.13	-239.76	894.80	40°09'38.570"N	104°41'54.203"W	0.00	
6217.00†	11.280	105.000	6125.41	-35.87	-244.82	913.69	40°09'38.520"N	104°41'53.959"W	0.00	
6317.00†	11.280	105.000	6223.48	-36.61	-249.89	932.59	40°09'38.470"N	104°41'53.716"W	0.00	
6417.00†	11.280	105.000	6321.55	-37.35	-254.95	951.48	40°09'38.420"N	104°41'53.473"W	0.00	
6517.00†	11.280	105.000	6419.62	-38.10	-260.01	970.37	40°09'38.370"N	104°41'53.229"W	0.00	
6580.93	11.280	105.000	6482.31	-38.57	-263.25	982.45	40°09'38.338"N	104°41'53.074"W	0.00	End of Tangent (J)
6617.00†	10.971	86.294	6517.72	-37.73	-263.94	989.29	40°09'38.331"N	104°41'52.986"W	10.00	
6717.00†	15.353	45.451	6615.27	-23.83	-254.01	1008.27	40°09'38.429"N	104°41'52.741"W	10.00	
6817.00†	23.422	27.204	6709.60	6.65	-226.98	1026.83	40°09'38.696"N	104°41'52.502"W	10.00	
6917.00†	32.540	18.338	6797.86	52.79	-183.66	1044.42	40°09'39.124"N	104°41'52.276"W	10.00	
7017.00†	42.029	13.088	6877.35	113.18	-125.38	1060.51	40°09'39.700"N	104°41'52.068"W	10.00	
7117.00†	51.682	9.491	6945.67	186.01	-53.90	1074.59	40°09'40.406"N	104°41'51.887"W	10.00	
7120.78†	52.049	9.375	6948.00	188.98	-50.97	1075.08	40°09'40.435"N	104°41'51.881"W	10.00	SHARON SPRINGS
7217.00†	61.418	6.750	7000.73	269.04	28.60	1086.25	40°09'41.222"N	104°41'51.737"W	10.00	
7246.08†	64.259	6.052	7014.00	294.75	54.31	1089.13	40°09'41.476"N	104°41'51.700"W	10.00	NIOBRARA A
7305.35†	70.059	4.726	7037.00	348.89	108.67	1094.25	40°09'42.013"N	104°41'51.634"W	10.00	NIOBRARA B
7317.00†	71.200	4.478	7040.86	359.76	119.62	1095.13	40°09'42.121"N	104°41'51.622"W	10.00	
7417.00†	81.007	2.458	7064.85	455.41	216.40	1100.96	40°09'43.077"N	104°41'51.547"W	10.00	
7503.19	89.468	0.808	7072.00	539.59	302.18	1103.39	40°09'43.925"N	104°41'51.516"W	10.00	End of 3D Arc (J)
7517.00†	89.468	0.808	7072.13	553.10	315.98	1103.59	40°09'44.062"N	104°41'51.513"W	0.00	
7617.00†	89.468	0.808	7073.06	650.90	415.97	1105.00	40°09'45.050"N	104°41'51.495"W	0.00	
7717.00†	89.468	0.808	7073.99	748.71	515.95	1106.41	40°09'46.038"N	104°41'51.477"W	0.00	
7817.00†	89.468	0.808	7074.92	846.51	615.94	1107.82	40°09'47.026"N	104°41'51.459"W	0.00	
7917.00†	89.468	0.808	7075.85	944.31	715.92	1109.23	40°09'48.014"N	104°41'51.440"W	0.00	
8017.00†	89.468	0.808	7076.78	1042.12	815.91	1110.64	40°09'49.002"N	104°41'51.422"W	0.00	
8117.00†	89.468	0.808	7077.71	1139.92	915.90	1112.05	40°09'49.990"N	104°41'51.404"W	0.00	
8217.00†	89.468	0.808	7078.63	1237.72	1015.88	1113.46	40°09'50.978"N	104°41'51.386"W	0.00	
8317.00†	89.468	0.808	7079.56	1335.53	1115.87	1114.87	40°09'51.966"N	104°41'51.367"W	0.00	
8417.00†	89.468	0.808	7080.49	1433.33	1215.85	1116.28	40°09'52.954"N	104°41'51.349"W	0.00	
8517.00†	89.468	0.808	7081.42	1531.13	1315.84	1117.69	40°09'53.942"N	104°41'51.331"W	0.00	
8617.00†	89.468	0.808	7082.35	1628.94	1415.82	1119.10	40°09'54.930"N	104°41'51.313"W	0.00	
8717.00†	89.468	0.808	7083.28	1726.74	1515.81	1120.51	40°09'55.918"N	104°41'51.295"W	0.00	
8817.00†	89.468	0.808	7084.21	1824.55	1615.80	1121.92	40°09'56.906"N	104°41'51.276"W	0.00	
8917.00†	89.468	0.808	7085.14	1922.35	1715.78	1123.33	40°09'57.894"N	104°41'51.258"W	0.00	
9017.00†	89.468	0.808	7086.06	2020.15	1815.77	1124.74	40°09'58.882"N	104°41'51.240"W	0.00	
9117.00†	89.468	0.808	7086.99	2117.96	1915.75	1126.15	40°09'59.871"N	104°41'51.222"W	0.00	
9217.00†	89.468	0.808	7087.92	2215.76	2015.74	1127.56	40°10'00.859"N	104°41'51.203"W	0.00	
9317.00†	89.468	0.808	7088.85	2313.56	2115.72	1128.97	40°10'01.847"N	104°41'51.185"W	0.00	
9417.00†	89.468	0.808	7089.78	2411.37	2215.71	1130.38	40°10'02.835"N	104°41'51.167"W	0.00	
9517.00†	89.468	0.808	7090.71	2509.17	2315.70	1131.79	40°10'03.823"N	104°41'51.149"W	0.00	
9617.00†	89.468	0.808	7091.64	2606.97	2415.68	1133.20	40°10'04.811"N	104°41'51.131"W	0.00	
9717.00†	89.468	0.808	7092.57	2704.78	2515.67	1134.61	40°10'05.799"N	104°41'51.112"W	0.00	
9817.00†	89.468	0.808	7093.49	2802.58	2615.65	1136.02	40°10'06.787"N	104°41'51.094"W	0.00	
9917.00†	89.468	0.808	7094.42	2900.39	2715.64	1137.43	40°10'07.775"N	104°41'51.076"W	0.00	
10017.00†	89.468	0.808	7095.35	2998.19	2815.63	1138.84	40°10'08.763"N	104°41'51.058"W	0.00	
10117.00†	89.468	0.808	7096.28	3095.99	2915.61	1140.25	40°10'09.751"N	104°41'51.040"W	0.00	
10217.00†	89.468	0.808	7097.21	3193.80	3015.60	1141.66	40°10'10.739"N	104°41'51.021"W	0.00	
10317.00†	89.468	0.808	7098.14	3291.60	3115.58	1143.07	40°10'11.727"N	104°41'51.003"W	0.00	
10417.00†	89.468	0.808	7099.07	3389.40	3215.57	1144.48	40°10'12.715"N	104°41'50.985"W	0.00	
10517.00†	89.468	0.808	7100.00	3487.21	3315.55	1145.89	40°10'13.703"N	104°41'50.967"W	0.00	
10617.00†	89.468	0.808	7100.92	3585.01	3415.54	1147.29	40°10'14.691"N	104°41'50.948"W	0.00	
10717.00†	89.468	0.808	7101.85	3682.82	3515.53	1148.70	40°10'15.679"N	104°41'50.930"W	0.00	
10817.00†	89.468	0.808	7102.78	3780.62	3615.51	1150.11	40°10'16.668"N	104°41'50.912"W	0.00	
10917.00†	89.468	0.808	7103.71	3878.42	3715.50	1151.52	40°10'17.656"N	104°41'50.894"W	0.00	



Planned Wellpath Report

NICHOLS 38N-31HZ (PERMIT) PWP

Page 4 of 5



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 NICHOLS 38N-31HZ (346'FSL & 1262'FEL, SEC.6)
Area	COLORADO	Well	NICHOLS 38N-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 38N-31HZ PWB
Facility	SEC.06-T2N-R65W		

WELLPATH DATA (135 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11017.00†	89.468	0.808	7104.64	3976.23	3815.48	1152.93	40°10'18.644"N	104°41'50.876"W	0.00	
11117.00†	89.468	0.808	7105.57	4074.03	3915.47	1154.34	40°10'19.632"N	104°41'50.857"W	0.00	
11217.00†	89.468	0.808	7106.50	4171.83	4015.45	1155.75	40°10'20.620"N	104°41'50.839"W	0.00	
11317.00†	89.468	0.808	7107.43	4269.64	4115.44	1157.16	40°10'21.608"N	104°41'50.821"W	0.00	
11417.00†	89.468	0.808	7108.35	4367.44	4215.43	1158.57	40°10'22.596"N	104°41'50.803"W	0.00	
11517.00†	89.468	0.808	7109.28	4465.24	4315.41	1159.98	40°10'23.584"N	104°41'50.784"W	0.00	
11617.00†	89.468	0.808	7110.21	4563.05	4415.40	1161.39	40°10'24.572"N	104°41'50.766"W	0.00	
11717.00†	89.468	0.808	7111.14	4660.85	4515.38	1162.80	40°10'25.560"N	104°41'50.748"W	0.00	
11817.00†	89.468	0.808	7112.07	4758.66	4615.37	1164.21	40°10'26.548"N	104°41'50.730"W	0.00	
11917.00†	89.468	0.808	7113.00	4856.46	4715.35	1165.62	40°10'27.536"N	104°41'50.712"W	0.00	
12017.00†	89.468	0.808	7113.93	4954.26	4815.34	1167.03	40°10'28.524"N	104°41'50.693"W	0.00	
12117.00†	89.468	0.808	7114.86	5052.07	4915.33	1168.44	40°10'29.512"N	104°41'50.675"W	0.00	
12217.00†	89.468	0.808	7115.78	5149.87	5015.31	1169.85	40°10'30.500"N	104°41'50.657"W	0.00	
12317.00†	89.468	0.808	7116.71	5247.67	5115.30	1171.26	40°10'31.488"N	104°41'50.639"W	0.00	
12347.82	89.468	0.808	7117.00 ¹	5277.82	5146.11	1171.70	40°10'31.793"N	104°41'50.633"W	0.00	End of Tangent (J)

HOLE & CASING SECTIONS - Ref Wellbore: NICHOLS 38N-31HZ PWB Ref Wellpath: NICHOLS 38N-31HZ (PERMIT) PWP

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	17.00	900.00	883.00	17.00	900.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	900.00	883.00	17.00	900.00	0.00	0.00	0.00	0.00
8.75in Open Hole	900.00	7503.19	6603.19	900.00	7072.00	0.00	0.00	302.17	1103.39
7in Casing Intermediate	17.00	7503.19	7486.19	17.00	7072.00	0.00	0.00	302.17	1103.39
6.125in Open Hole	7503.19	12347.82	4844.63	7072.00	7117.00	302.17	1103.39	5146.11	1171.70
4.5in Casing Production	17.00	12347.82	12330.82	17.00	7117.00	0.00	0.00	5146.11	1171.70

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		0.00	0.00	0.00	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W	polygon
NICHOLS PAD SECTION 6 LINES		0.00	0.00	0.00	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W	polygon
1) NICHOLS 38N-31HZ BHL ON PLAT (300'FSL & 152'FEL, SEC.31) REV-1	12347.82	7117.00	5146.11	1171.70	3224270.12	1307791.78	40°10'31.793"N	104°41'50.633"W	point
NICHOLS PAD SEC. 31 HARDLINES (460' SETBACKS)		7118.00	0.00	0.00	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W	polygon
NICHOLS PAD SEC. 6 HARDLINES (460' SETBACKS)		7118.00	0.00	0.00	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W	polygon

SURVEY PROGRAM - Ref Wellbore: NICHOLS 38N-31HZ PWB Ref Wellpath: NICHOLS 38N-31HZ (PERMIT) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	12347.82	NaviTrak (Standard)		NICHOLS 38N-31HZ PWB



Planned Wellpath Report

NICHOLS 38N-31HZ (PERMIT) PWP

Page 5 of 5

**REFERENCE WELLPATH IDENTIFICATION**

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 NICHOLS 38N-31HZ (346'FSL & 1262'FEL, SEC.6)
Area	COLORADO	Well	NICHOLS 38N-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 38N-31HZ PWB
Facility	SEC.06-T2N-R65W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
4054.82	11.280	105.000	4005.00	PARKMAN
4561.61	11.280	105.000	4502.00	SUSSEX
7120.78	52.049	9.375	6948.00	SHARON SPRINGS
7246.08	64.259	6.052	7014.00	NIOBRARA A
7305.35	70.059	4.726	7037.00	NIOBRARA B