

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#10 NICHOLS 37C-31HZ (346'FSL & 1321'FEL,SEC.6)
Field: WELD COUNTY (KERR MCGEE) Well: NICHOLS 37C-31HZ
Facility: SEC.06-T2N-R65W Wellbore: NICHOLS 37C-31HZ PWB

Plot reference wellpath is NICHOLS 37C-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#10 NICHOLS 37C-31HZ (346'FSL & 1321'FEL,SEC.6)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wlsjef02 on 3/6/2012

Location Information

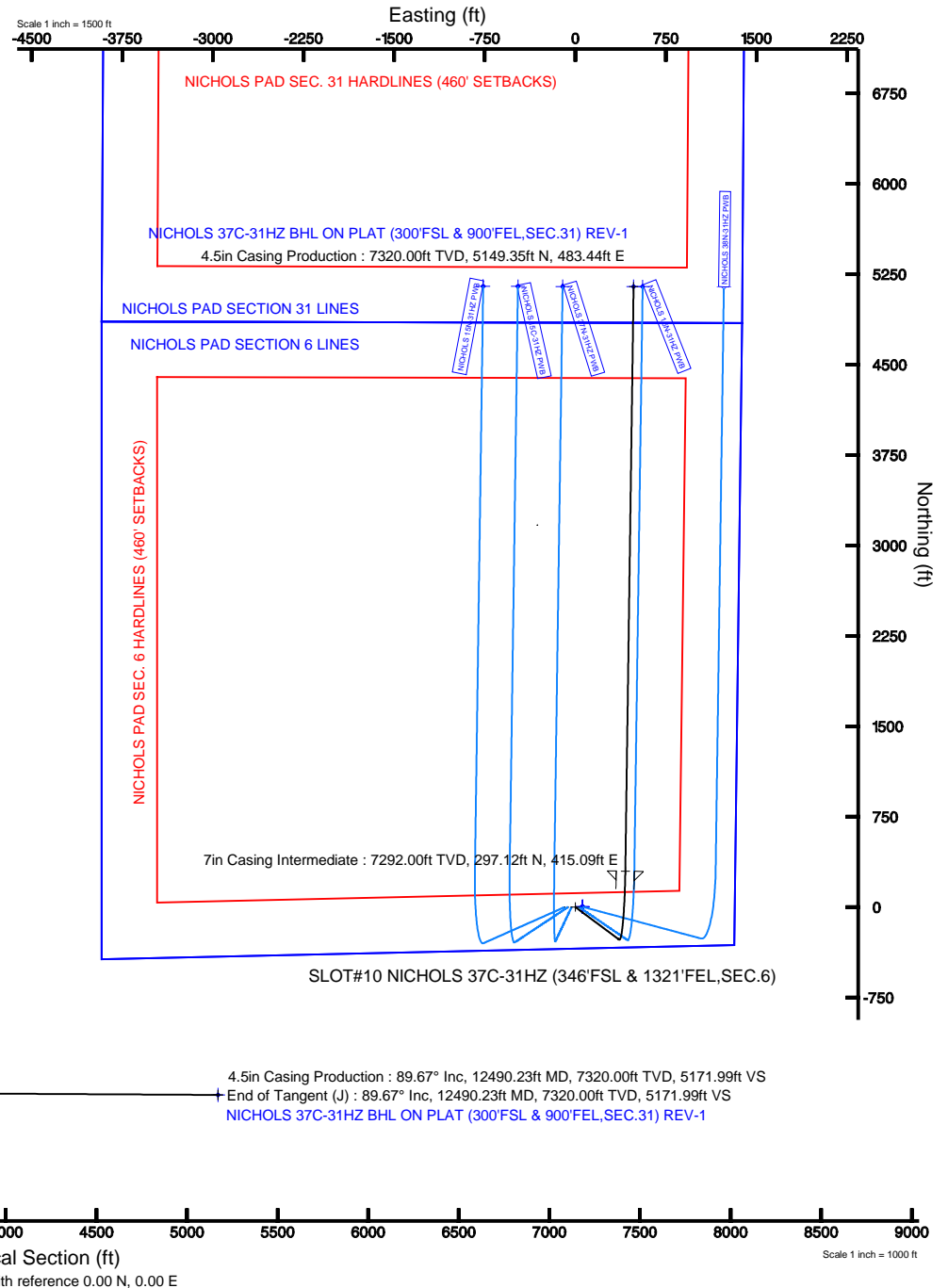
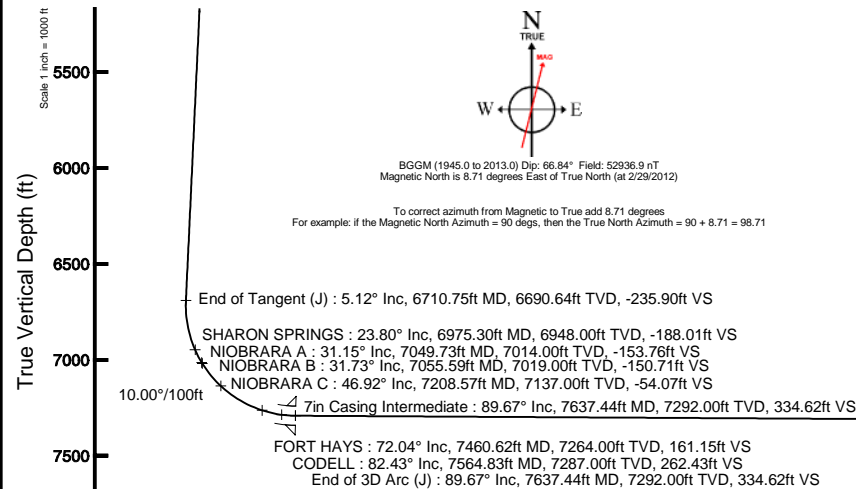
Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.06-T2N-R65W				3222483.590	1306833.950	40°10'22.487"N	104°42'13.759"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SLOT#10 NICHOLS 37C-31HZ (346'FSL & 1321'FEL,SEC.6)	-4205.79	563.76	3223085.058	1302633.577	40°09'40.925"N	104°42'06.498"W	
XTREME 6 (RKB) to Mud line (At Slot: SLOT#10 NICHOLS 37C-31HZ (346'FSL & 1321'FEL,SEC.6))							4942ft
Mean Sea Level to Mud line (At Slot: SLOT#10 NICHOLS 37C-31HZ (346'FSL & 1321'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	126.700	17.00	0.00	0.00	0.00	0.00
End of Tangent	1500.00	0.000	126.700	1500.00	0.00	0.00	0.00	0.00
End of Build (J)	1756.00	5.120	126.700	1755.66	-6.83	9.16	2.00	-5.94
End of Tangent (J)	6710.75	5.120	126.700	6690.64	-271.08	363.69	0.00	-235.90
End of 3D Arc (J)	7637.44	89.669	0.807	7292.00	297.12	415.09	10.00	334.62
End of Tangent (J)	12490.23	89.669	0.807	7320.00	5149.35	483.44	0.00	5171.99

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	1.44	59.81	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W
NICHOLS PAD SECTION 6 LINES		0.00	1.44	59.81	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W
NICHOLS PAD SEC. 31 HARDLINES (460' SETBACKS)		7118.00	1.44	59.81	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W
NICHOLS PAD SEC. 6 HARDLINES (460' SETBACKS)		7118.00	1.44	59.81	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W
NICHOLS 37C-31HZ BHL ON PLAT (300'FSL & 900'FEL,SEC.31) REV-1	12490.23	7320.00	5149.35	483.44	3223022.11	1307786.84	40°10'31.811"N	104°42'00.279"W





Planned Wellpath Report

NICHOLS 37C-31HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 NICHOLS 37C-31HZ (346'FSL & 1321'FEL,SEC.6)
Area	COLORADO	Well	NICHOLS 37C-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 37C-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 11:28:52
Convergence at slot	0.52° East	Database/Source file	WellArchitectDB/NICHOLS_37C-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	-4205.79	563.76	3223085.06	1302633.58	40°09'40.925"N	104°42'06.498"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#10 NICHOLS 37C-31HZ (346'FSL & 1321'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	5.36°



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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 NICHOLS 37C-31HZ (346'FSL & 1321'FEL,SEC.6)
Area	COLORADO	Well	NICHOLS 37C-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 37C-31HZ PWB
Facility	SEC.06-T2N-R65W		

WELLPATH DATA (139 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	126.700	0.00	0.00	0.00	0.00	40°09'40.925"N	104°42'06.498"W	0.00	
17.00	0.000	126.700	17.00	0.00	0.00	0.00	40°09'40.925"N	104°42'06.498"W	0.00	Tie On
117.00†	0.000	126.700	117.00	0.00	0.00	0.00	40°09'40.925"N	104°42'06.498"W	0.00	
217.00†	0.000	126.700	217.00	0.00	0.00	0.00	40°09'40.925"N	104°42'06.498"W	0.00	
317.00†	0.000	126.700	317.00	0.00	0.00	0.00	40°09'40.925"N	104°42'06.498"W	0.00	
417.00†	0.000	126.700	417.00	0.00	0.00	0.00	40°09'40.925"N	104°42'06.498"W	0.00	
517.00†	0.000	126.700	517.00	0.00	0.00	0.00	40°09'40.925"N	104°42'06.498"W	0.00	
617.00†	0.000	126.700	617.00	0.00	0.00	0.00	40°09'40.925"N	104°42'06.498"W	0.00	
717.00†	0.000	126.700	717.00	0.00	0.00	0.00	40°09'40.925"N	104°42'06.498"W	0.00	
817.00†	0.000	126.700	817.00	0.00	0.00	0.00	40°09'40.925"N	104°42'06.498"W	0.00	
917.00†	0.000	126.700	917.00	0.00	0.00	0.00	40°09'40.925"N	104°42'06.498"W	0.00	
1017.00†	0.000	126.700	1017.00	0.00	0.00	0.00	40°09'40.925"N	104°42'06.498"W	0.00	
1117.00†	0.000	126.700	1117.00	0.00	0.00	0.00	40°09'40.925"N	104°42'06.498"W	0.00	
1217.00†	0.000	126.700	1217.00	0.00	0.00	0.00	40°09'40.925"N	104°42'06.498"W	0.00	
1317.00†	0.000	126.700	1317.00	0.00	0.00	0.00	40°09'40.925"N	104°42'06.498"W	0.00	
1417.00†	0.000	126.700	1417.00	0.00	0.00	0.00	40°09'40.925"N	104°42'06.498"W	0.00	
1500.00	0.000	126.700	1500.00	0.00	0.00	0.00	40°09'40.925"N	104°42'06.498"W	0.00	End of Tangent
1517.00†	0.340	126.700	1517.00	-0.03	-0.03	0.04	40°09'40.925"N	104°42'06.497"W	2.00	
1617.00†	2.340	126.700	1616.97	-1.24	-1.43	1.92	40°09'40.911"N	104°42'06.473"W	2.00	
1717.00†	4.340	126.700	1716.79	-4.27	-4.91	6.59	40°09'40.876"N	104°42'06.413"W	2.00	
1756.00	5.120	126.700	1755.66	-5.94	-6.83	9.16	40°09'40.857"N	104°42'06.380"W	2.00	End of Build (J)
1817.00†	5.120	126.700	1816.42	-8.78	-10.08	13.53	40°09'40.825"N	104°42'06.324"W	0.00	
1917.00†	5.120	126.700	1916.02	-13.42	-15.42	20.68	40°09'40.773"N	104°42'06.232"W	0.00	
2017.00†	5.120	126.700	2015.62	-18.06	-20.75	27.84	40°09'40.720"N	104°42'06.139"W	0.00	
2117.00†	5.120	126.700	2115.22	-22.70	-26.08	35.00	40°09'40.667"N	104°42'06.047"W	0.00	
2217.00†	5.120	126.700	2214.82	-27.34	-31.42	42.15	40°09'40.615"N	104°42'05.955"W	0.00	
2317.00†	5.120	126.700	2314.42	-31.98	-36.75	49.31	40°09'40.562"N	104°42'05.863"W	0.00	
2417.00†	5.120	126.700	2414.02	-36.62	-42.08	56.46	40°09'40.509"N	104°42'05.771"W	0.00	
2517.00†	5.120	126.700	2513.62	-41.26	-47.42	63.62	40°09'40.456"N	104°42'05.679"W	0.00	
2617.00†	5.120	126.700	2613.22	-45.91	-52.75	70.77	40°09'40.404"N	104°42'05.586"W	0.00	
2717.00†	5.120	126.700	2712.83	-50.55	-58.08	77.93	40°09'40.351"N	104°42'05.494"W	0.00	
2817.00†	5.120	126.700	2812.43	-55.19	-63.42	85.08	40°09'40.298"N	104°42'05.402"W	0.00	
2917.00†	5.120	126.700	2912.03	-59.83	-68.75	92.24	40°09'40.246"N	104°42'05.310"W	0.00	
3017.00†	5.120	126.700	3011.63	-64.47	-74.08	99.39	40°09'40.193"N	104°42'05.218"W	0.00	
3117.00†	5.120	126.700	3111.23	-69.11	-79.42	106.55	40°09'40.140"N	104°42'05.126"W	0.00	
3217.00†	5.120	126.700	3210.83	-73.75	-84.75	113.70	40°09'40.087"N	104°42'05.034"W	0.00	
3317.00†	5.120	126.700	3310.43	-78.39	-90.08	120.86	40°09'40.035"N	104°42'04.941"W	0.00	
3417.00†	5.120	126.700	3410.03	-83.03	-95.42	128.01	40°09'39.982"N	104°42'04.849"W	0.00	
3517.00†	5.120	126.700	3509.63	-87.68	-100.75	135.17	40°09'39.929"N	104°42'04.757"W	0.00	
3617.00†	5.120	126.700	3609.23	-92.32	-106.08	142.32	40°09'39.877"N	104°42'04.665"W	0.00	
3717.00†	5.120	126.700	3708.83	-96.96	-111.42	149.48	40°09'39.824"N	104°42'04.573"W	0.00	
3817.00†	5.120	126.700	3808.44	-101.60	-116.75	156.63	40°09'39.771"N	104°42'04.481"W	0.00	
3917.00†	5.120	126.700	3908.04	-106.24	-122.08	163.79	40°09'39.719"N	104°42'04.388"W	0.00	
4017.00†	5.120	126.700	4007.64	-110.88	-127.42	170.94	40°09'39.666"N	104°42'04.296"W	0.00	
4018.37†	5.120	126.700	4009.00	-110.94	-127.49	171.04	40°09'39.665"N	104°42'04.295"W	0.00	PARKMAN
4117.00†	5.120	126.700	4107.24	-115.52	-132.75	178.10	40°09'39.613"N	104°42'04.204"W	0.00	
4217.00†	5.120	126.700	4206.84	-120.16	-138.08	185.25	40°09'39.560"N	104°42'04.112"W	0.00	
4317.00†	5.120	126.700	4306.44	-124.80	-143.42	192.41	40°09'39.508"N	104°42'04.020"W	0.00	
4417.00†	5.120	126.700	4406.04	-129.45	-148.75	199.56	40°09'39.455"N	104°42'03.928"W	0.00	
4517.00†	5.120	126.700	4505.64	-134.09	-154.08	206.72	40°09'39.402"N	104°42'03.835"W	0.00	
4554.51†	5.120	126.700	4543.00	-135.83	-156.08	209.40	40°09'39.383"N	104°42'03.801"W	0.00	SUSSEX
4617.00†	5.120	126.700	4605.24	-138.73	-159.42	213.88	40°09'39.350"N	104°42'03.743"W	0.00	
4717.00†	5.120	126.700	4704.84	-143.37	-164.75	221.03	40°09'39.297"N	104°42'03.651"W	0.00	
4817.00†	5.120	126.700	4804.45	-148.01	-170.08	228.19	40°09'39.244"N	104°42'03.559"W	0.00	
4917.00†	5.120	126.700	4904.05	-152.65	-175.42	235.34	40°09'39.192"N	104°42'03.467"W	0.00	
5017.00†	5.120	126.700	5003.65	-157.29	-180.75	242.50	40°09'39.139"N	104°42'03.375"W	0.00	
5117.00†	5.120	126.700	5103.25	-161.93	-186.08	249.65	40°09'39.086"N	104°42'03.283"W	0.00	
5217.00†	5.120	126.700	5202.85	-166.58	-191.42	256.81	40°09'39.033"N	104°42'03.190"W	0.00	
5317.00†	5.120	126.700	5302.45	-171.22	-196.75	263.96	40°09'38.981"N	104°42'03.098"W	0.00	
5417.00†	5.120	126.700	5402.05	-175.86	-202.08	271.12	40°09'38.928"N	104°42'03.006"W	0.00	



Planned Wellpath Report

NICHOLS 37C-31HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 NICHOLS 37C-31HZ (346'FSL & 1321'FEL,SEC.6)
Area	COLORADO	Well	NICHOLS 37C-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 37C-31HZ PWB
Facility	SEC.06-T2N-R65W		

WELLPATH DATA (139 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5517.00†	5.120	126.700	5501.65	-180.50	-207.42	278.27	40°09'38.875"N	104°42'02.914"W	0.00	
5617.00†	5.120	126.700	5601.25	-185.14	-212.75	285.43	40°09'38.823"N	104°42'02.822"W	0.00	
5717.00†	5.120	126.700	5700.85	-189.78	-218.08	292.58	40°09'38.770"N	104°42'02.730"W	0.00	
5817.00†	5.120	126.700	5800.46	-194.42	-223.42	299.74	40°09'38.717"N	104°42'02.637"W	0.00	
5917.00†	5.120	126.700	5900.06	-199.06	-228.75	306.89	40°09'38.664"N	104°42'02.545"W	0.00	
6017.00†	5.120	126.700	5999.66	-203.70	-234.08	314.05	40°09'38.612"N	104°42'02.453"W	0.00	
6117.00†	5.120	126.700	6099.26	-208.35	-239.42	321.20	40°09'38.559"N	104°42'02.361"W	0.00	
6217.00†	5.120	126.700	6198.86	-212.99	-244.75	328.36	40°09'38.506"N	104°42'02.269"W	0.00	
6317.00†	5.120	126.700	6298.46	-217.63	-250.08	335.51	40°09'38.454"N	104°42'02.177"W	0.00	
6417.00†	5.120	126.700	6398.06	-222.27	-255.42	342.67	40°09'38.401"N	104°42'02.084"W	0.00	
6517.00†	5.120	126.700	6497.66	-226.91	-260.75	349.82	40°09'38.348"N	104°42'01.992"W	0.00	
6617.00†	5.120	126.700	6597.26	-231.55	-266.08	356.98	40°09'38.296"N	104°42'01.900"W	0.00	
6710.75	5.120	126.700	6690.64	-235.90	-271.08	363.69	40°09'38.246"N	104°42'01.814"W	0.00	End of Tangent (J)
6717.00†	4.781	120.608	6696.87	-236.16	-271.38	364.14	40°09'38.243"N	104°42'01.808"W	10.00	
6817.00†	8.675	29.182	6796.37	-231.02	-266.91	371.42	40°09'38.287"N	104°42'01.714"W	10.00	
6917.00†	18.091	13.617	6893.58	-208.70	-245.18	378.77	40°09'38.502"N	104°42'01.439"W	10.00	
6975.30†	23.798	10.254	6948.00	-188.01	-224.79	383.00	40°09'38.704"N	104°42'01.565"W	10.00	SHARON SPRINGS
7017.00†	27.910	8.657	6985.52	-169.87	-206.86	385.96	40°09'38.881"N	104°42'01.527"W	10.00	
7049.73†	31.148	7.679	7014.00	-153.76	-190.89	388.25	40°09'39.039"N	104°42'01.497"W	10.00	NIOBRARA A
7055.59†	31.728	7.523	7019.00	-150.71	-187.86	388.65	40°09'39.069"N	104°42'01.492"W	10.00	NIOBRARA B
7117.00†	37.819	6.147	7069.42	-115.71	-153.10	392.79	40°09'39.412"N	104°42'01.439"W	10.00	
7208.57†	46.922	4.674	7137.00	-54.07	-91.73	398.53	40°09'40.019"N	104°42'01.365"W	10.00	NIOBRARA C
7217.00†	47.761	4.561	7142.71	-47.87	-85.55	399.03	40°09'40.080"N	104°42'01.359"W	10.00	
7317.00†	57.719	3.410	7203.18	31.59	-6.25	404.50	40°09'40.863"N	104°42'01.288"W	10.00	
7417.00†	67.686	2.490	7248.98	120.26	82.39	409.04	40°09'41.739"N	104°42'01.230"W	10.00	
7460.62†	72.035	2.131	7264.00	161.15	123.30	410.69	40°09'42.143"N	104°42'01.208"W	10.00	FORT HAYS
7517.00†	77.657	1.693	7278.73	215.44	177.66	412.50	40°09'42.681"N	104°42'01.185"W	10.00	
7564.83†	82.427	1.336	7287.00	262.43	224.74	413.74	40°09'43.146"N	104°42'01.169"W	10.00	CODELL
7617.00†	87.630	0.955	7291.52	314.25	276.69	414.78	40°09'43.659"N	104°42'01.156"W	10.00	
7637.44	89.669	0.807	7292.00	334.62	297.12	415.09	40°09'43.861"N	104°42'01.152"W	10.00	End of 3D Arc (J)
7717.00†	89.669	0.807	7292.46	413.93	376.67	416.21	40°09'44.647"N	104°42'01.137"W	0.00	
7817.00†	89.669	0.807	7293.04	513.61	476.66	417.62	40°09'45.635"N	104°42'01.119"W	0.00	
7917.00†	89.669	0.807	7293.61	613.29	576.65	419.03	40°09'46.623"N	104°42'01.101"W	0.00	
8017.00†	89.669	0.807	7294.19	712.97	676.64	420.44	40°09'47.612"N	104°42'01.083"W	0.00	
8117.00†	89.669	0.807	7294.77	812.66	776.62	421.85	40°09'48.600"N	104°42'01.064"W	0.00	
8217.00†	89.669	0.807	7295.35	912.34	876.61	423.26	40°09'49.588"N	104°42'01.046"W	0.00	
8317.00†	89.669	0.807	7295.92	1012.02	976.60	424.66	40°09'50.576"N	104°42'01.028"W	0.00	
8417.00†	89.669	0.807	7296.50	1111.70	1076.59	426.07	40°09'51.564"N	104°42'01.010"W	0.00	
8517.00†	89.669	0.807	7297.08	1211.38	1176.58	427.48	40°09'52.552"N	104°42'00.992"W	0.00	
8617.00†	89.669	0.807	7297.65	1311.07	1276.57	428.89	40°09'53.540"N	104°42'00.974"W	0.00	
8717.00†	89.669	0.807	7298.23	1410.75	1376.56	430.30	40°09'54.528"N	104°42'00.955"W	0.00	
8817.00†	89.669	0.807	7298.81	1510.43	1476.54	431.71	40°09'55.516"N	104°42'00.937"W	0.00	
8917.00†	89.669	0.807	7299.38	1610.11	1576.53	433.11	40°09'56.504"N	104°42'00.919"W	0.00	
9017.00†	89.669	0.807	7299.96	1709.80	1676.52	434.52	40°09'57.492"N	104°42'00.901"W	0.00	
9117.00†	89.669	0.807	7300.54	1809.48	1776.51	435.93	40°09'58.480"N	104°42'00.883"W	0.00	
9217.00†	89.669	0.807	7301.11	1909.16	1876.50	437.34	40°09'59.469"N	104°42'00.865"W	0.00	
9317.00†	89.669	0.807	7301.69	2008.84	1976.49	438.75	40°10'00.457"N	104°42'00.846"W	0.00	
9417.00†	89.669	0.807	7302.27	2108.53	2076.47	440.16	40°10'01.445"N	104°42'00.828"W	0.00	
9517.00†	89.669	0.807	7302.85	2208.21	2176.46	441.57	40°10'02.433"N	104°42'00.810"W	0.00	
9617.00†	89.669	0.807	7303.42	2307.89	2276.45	442.97	40°10'03.421"N	104°42'00.792"W	0.00	
9717.00†	89.669	0.807	7304.00	2407.57	2376.44	444.38	40°10'04.409"N	104°42'00.774"W	0.00	
9817.00†	89.669	0.807	7304.58	2507.25	2476.43	445.79	40°10'05.397"N	104°42'00.756"W	0.00	
9917.00†	89.669	0.807	7305.15	2606.94	2576.42	447.20	40°10'06.385"N	104°42'00.737"W	0.00	
10017.00†	89.669	0.807	7305.73	2706.62	2676.40	448.61	40°10'07.373"N	104°42'00.719"W	0.00	
10117.00†	89.669	0.807	7306.31	2806.30	2776.39	450.02	40°10'08.361"N	104°42'00.701"W	0.00	
10217.00†	89.669	0.807	7306.88	2905.98	2876.38	451.42	40°10'09.349"N	104°42'00.683"W	0.00	
10317.00†	89.669	0.807	7307.46	3005.67	2976.37	452.83	40°10'10.338"N	104°42'00.665"W	0.00	
10417.00†	89.669	0.807	7308.04	3105.35	3076.36	454.24	40°10'11.326"N	104°42'00.647"W	0.00	
10517.00†	89.669	0.807	7308.62	3205.03	3176.35	455.65	40°10'12.314"N	104°42'00.628"W	0.00	
10617.00†	89.669	0.807	7309.19	3304.71	3276.34	457.06	40°10'13.302"N	104°42'00.610"W	0.00	



Planned Wellpath Report

NICHOLS 37C-31HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 NICHOLS 37C-31HZ (346'FSL & 1321'FEL,SEC.6)
Area	COLORADO	Well	NICHOLS 37C-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 37C-31HZ PWB
Facility	SEC.06-T2N-R65W		

WELLPATH DATA (139 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10717.00†	89.669	0.807	7309.77	3404.40	3376.32	458.47	40°10'14.290"N	104°42'00.592"W	0.00	
10817.00†	89.669	0.807	7310.35	3504.08	3476.31	459.87	40°10'15.278"N	104°42'00.574"W	0.00	
10917.00†	89.669	0.807	7310.92	3603.76	3576.30	461.28	40°10'16.266"N	104°42'00.556"W	0.00	
11017.00†	89.669	0.807	7311.50	3703.44	3676.29	462.69	40°10'17.254"N	104°42'00.538"W	0.00	
11117.00†	89.669	0.807	7312.08	3803.12	3776.28	464.10	40°10'18.242"N	104°42'00.519"W	0.00	
11217.00†	89.669	0.807	7312.65	3902.81	3876.27	465.51	40°10'19.230"N	104°42'00.501"W	0.00	
11317.00†	89.669	0.807	7313.23	4002.49	3976.25	466.92	40°10'20.218"N	104°42'00.483"W	0.00	
11417.00†	89.669	0.807	7313.81	4102.17	4076.24	468.32	40°10'21.207"N	104°42'00.465"W	0.00	
11517.00†	89.669	0.807	7314.38	4201.85	4176.23	469.73	40°10'22.195"N	104°42'00.447"W	0.00	
11617.00†	89.669	0.807	7314.96	4301.54	4276.22	471.14	40°10'23.183"N	104°42'00.429"W	0.00	
11717.00†	89.669	0.807	7315.54	4401.22	4376.21	472.55	40°10'24.171"N	104°42'00.410"W	0.00	
11817.00†	89.669	0.807	7316.12	4500.90	4476.20	473.96	40°10'25.159"N	104°42'00.392"W	0.00	
11917.00†	89.669	0.807	7316.69	4600.58	4576.18	475.37	40°10'26.147"N	104°42'00.374"W	0.00	
12017.00†	89.669	0.807	7317.27	4700.27	4676.17	476.77	40°10'27.135"N	104°42'00.356"W	0.00	
12117.00†	89.669	0.807	7317.85	4799.95	4776.16	478.18	40°10'28.123"N	104°42'00.338"W	0.00	
12217.00†	89.669	0.807	7318.42	4899.63	4876.15	479.59	40°10'29.111"N	104°42'00.320"W	0.00	
12317.00†	89.669	0.807	7319.00	4999.31	4976.14	481.00	40°10'30.099"N	104°42'00.301"W	0.00	
12417.00†	89.669	0.807	7319.58	5098.99	5076.13	482.41	40°10'31.087"N	104°42'00.283"W	0.00	
12490.23	89.669	0.807	7320.00 [†]	5171.99	5149.35	483.44	40°10'31.811"N	104°42'00.270"W	0.00	End of Tangent (J)

HOLE & CASING SECTIONS - Ref Wellbore: NICHOLS 37C-31HZ PWB Ref Wellpath: NICHOLS 37C-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	7637.44	6737.44	900.00	7292.00	0.00	0.00	297.12	415.09
7in Casing Intermediate	17.00	7637.44	7620.44	17.00	7292.00	0.00	0.00	297.12	415.09
6.125in Open Hole	7637.44	12490.23	4852.79	7292.00	7320.00	297.12	415.09	5149.35	483.44
4.5in Casing Production	17.00	12490.23	12473.23	17.00	7320.00	0.00	0.00	5149.35	483.44

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	1.44	59.81	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W	polygon
NICHOLS PAD SECTION 6 LINES		0.00	1.44	59.81	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W	polygon
NICHOLS PAD SEC. 31 HARDLINES (460' SETBACKS)		7118.00	1.44	59.81	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W	polygon
NICHOLS PAD SEC. 6 HARDLINES (460' SETBACKS)		7118.00	1.44	59.81	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W	polygon
1) NICHOLS 37C-31HZ BHL ON PLAT (300'FSL & 900'FEL,SEC.31) REV-1	12490.23	7320.00	5149.35	483.44	3223522.11	1307786.84	40°10'31.811"N	104°42'00.270"W	point

SURVEY PROGRAM - Ref Wellbore: NICHOLS 37C-31HZ PWB Ref Wellpath: NICHOLS 37C-31HZ (PERMIT) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	12490.23	NaviTrak (Standard)		NICHOLS 37C-31HZ PWB



Planned Wellpath Report

NICHOLS 37C-31HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 NICHOLS 37C-31HZ (346'FSL & 1321'FEL,SEC.6)
Area	COLORADO	Well	NICHOLS 37C-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 37C-31HZ PWB
Facility	SEC.06-T2N-R65W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]		Azimuth [°]	TVD [ft]	Comment
4018.37		5.120	126.700	4009.00	PARKMAN
4554.51		5.120	126.700	4543.00	SUSSEX
6975.30		23.798	10.254	6948.00	SHARON SPRINGS
7049.73		31.148	7.679	7014.00	NIOBRARA A
7055.59		31.728	7.523	7019.00	NIOBRARA B
7208.57		46.922	4.674	7137.00	NIOBRARA C
7460.62		72.035	2.131	7264.00	FORT HAYS
7564.83		82.427	1.336	7287.00	CODELL