

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08)
 Field: WELD COUNTY (KERR MCGEE) Well: NICHOLS 3N-5HZ
 Facility: SEC.08-T2N-R65W Wellbore: NICHOLS 3N-5HZ PWB

Plot reference wellpath is NICHOLS 3N-5HZ (PERMIT) PWB

True vertical depths are referenced to Rig on SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to Rig on SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08) (RKB)	North Reference: True north
Rig on SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08) (RKB) to Mean Sea Level: 4929 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wisjef02 on 5/31/2012

Location Information

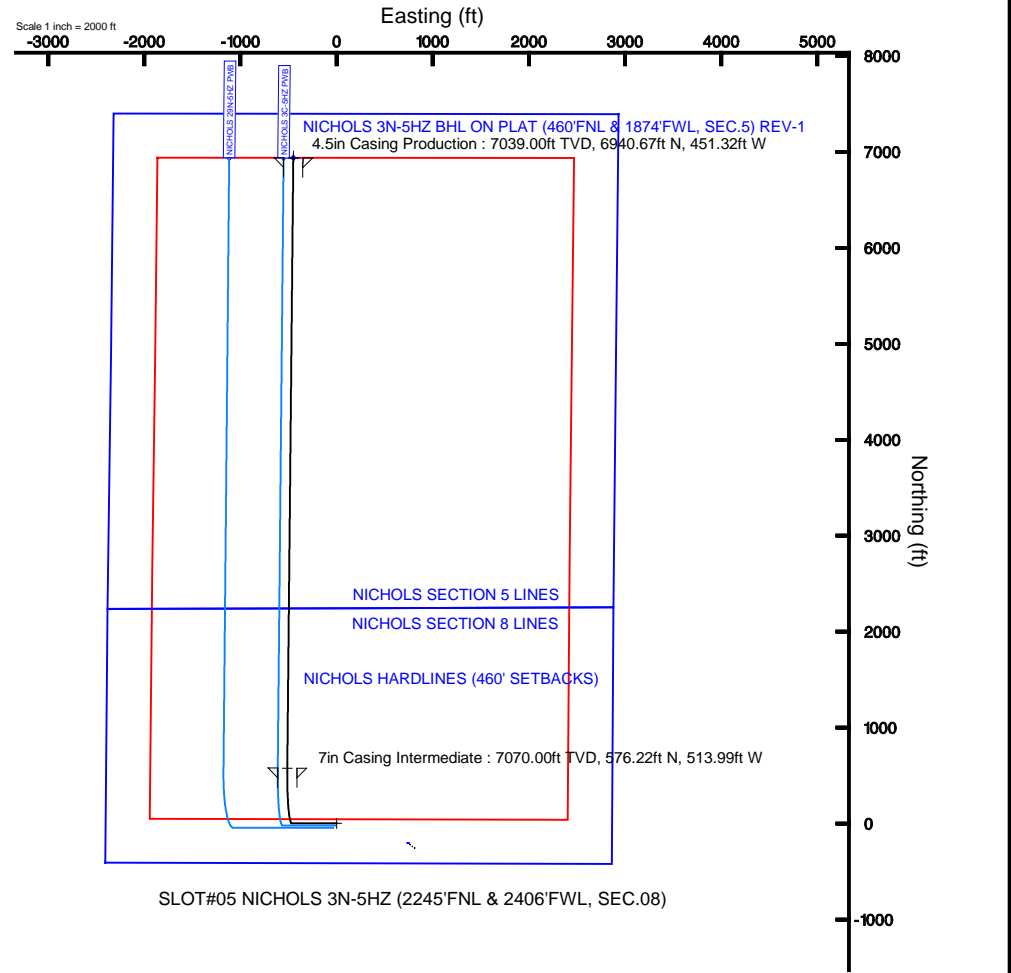
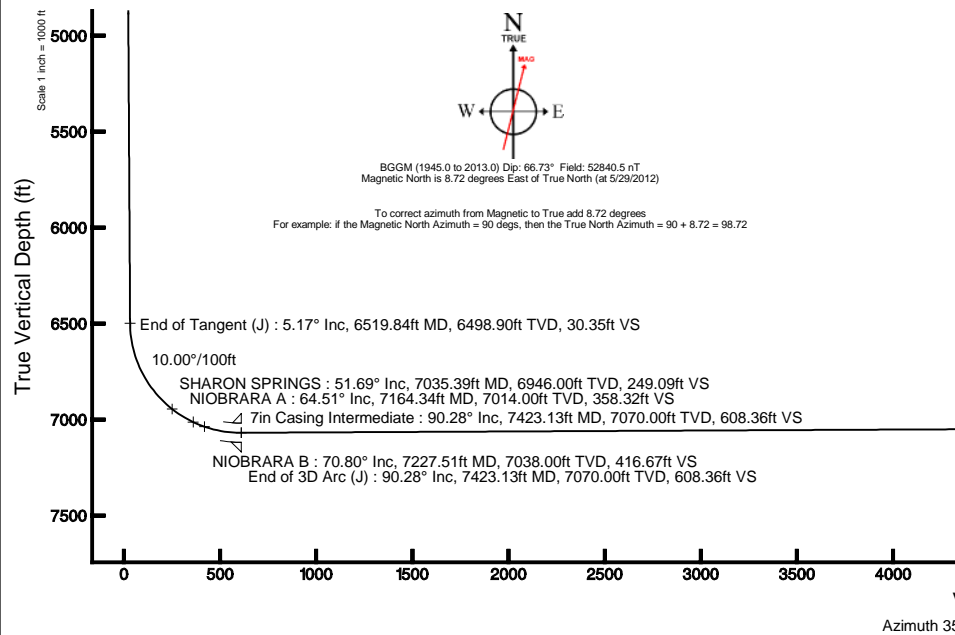
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude		
SEC.08-T2N-R65W	3197771.840	1268891.290	40°04'09.600"N	104°47'38.000"W		
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08)	30889.71	29287.67	3226810.451	1300112.158	40°09'15.674"N	104°41'18.812"W
Rig on SLOTS#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08) (RKB) to Mud line (At Slot: SLOTS#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08))					4929ft	
Mean Sea Level to Mud line (At Slot: SLOTS#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08))					0ft	
Rig on SLOTS#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08) (RKB) to Mean Sea Level					4929ft	

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	0.00	270.000	17.00	0.00	0.00	0.00	0.00
End of Tangent	1200.00	0.00	270.000	1200.00	0.00	0.00	0.00	0.00
End of Build (J)	1458.50	5.170	270.000	1458.15	0.00	-11.65	2.00	0.76
End of Tangent (J)	6519.84	5.170	270.000	6498.90	0.00	-467.74	0.00	30.35
End of 3D Arc (J)	7423.13	90.279	0.564	7070.00	576.22	-513.99	10.00	608.36
End of Tangent (J)	13787.96	90.279	0.564	7039.00	6940.67	-451.32	0.00	6955.33

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
NICHOLS SECTION 5 LINES	1.00	-205.41	737.66	3227549.93	1299913.51	40°09'13.644"N	104°41'09.312"W	
NICHOLS SECTION 8 LINES	1.00	-205.41	737.66	3227549.93	1299913.51	40°09'13.644"N	104°41'09.312"W	
NICHOLS 3N-5HZ BHL ON PLAT (460'FNL & 1874'FWL, SEC.5) REV-1	13787.96	7039.00	6940.67	-451.32	3226295.66	1307048.11	40°10'24.262"N	104°41'24.626"W
NICHOLS HARDLINES (460' SETBACKS)	7201.00	-205.41	737.66	3227549.93	1299913.51	40°09'13.644"N	104°41'09.312"W	



Scale 1 inch = 1000 ft



Planned Wellpath Report

NICHOLS 3N-5HZ (PERMIT) PWP
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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08)
Area	COLORADO	Well	NICHOLS 3N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 3N-5HZ PWB
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	Wilsje02
Scale	0.999958	Report Generated	5/31/2012 at 14:50:59
Convergence at slot	0.52° East	Database/Source file	WellArchitectDB/_NICHOLS_3N-5HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	30989.71	29287.67	3226810.45	1300112.16	40°09'15.674"N	104°41'18.812"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	Rig on SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08) (RKB) to Facility Vertical Datum
Horizontal Reference Pt	Slot	Rig on SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08) (RKB) to Mean Sea Level
Vertical Reference Pt	Rig on SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08) (RKB)	Rig on SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08) (RKB) to Mud Line at Slot (SLOT#05 NICHOLS 3N-5HZ)
MD Reference Pt	Rig on SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08) (RKB)	Section Origin
Field Vertical Reference	Mean Sea Level	Section Azimuth



Planned Wellpath Report

NICHOLS 3N-5HZ (PERMIT) PWP
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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08)
Area	COLORADO	Well	NICHOLS 3N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 3N-5HZ PWB
Facility	SEC.08-T2N-R65W		

WELLPATH DATA (149 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	270.000	0.00	0.00	0.00	0.00	40°09'15.674"N	104°41'18.812"W	0.00	
17.00	0.000	270.000	17.00	0.00	0.00	0.00	40°09'15.674"N	104°41'18.812"W	0.00	Tie On
117.00†	0.000	270.000	117.00	0.00	0.00	0.00	40°09'15.674"N	104°41'18.812"W	0.00	
217.00†	0.000	270.000	217.00	0.00	0.00	0.00	40°09'15.674"N	104°41'18.812"W	0.00	
317.00†	0.000	270.000	317.00	0.00	0.00	0.00	40°09'15.674"N	104°41'18.812"W	0.00	
417.00†	0.000	270.000	417.00	0.00	0.00	0.00	40°09'15.674"N	104°41'18.812"W	0.00	
517.00†	0.000	270.000	517.00	0.00	0.00	0.00	40°09'15.674"N	104°41'18.812"W	0.00	
617.00†	0.000	270.000	617.00	0.00	0.00	0.00	40°09'15.674"N	104°41'18.812"W	0.00	
717.00†	0.000	270.000	717.00	0.00	0.00	0.00	40°09'15.674"N	104°41'18.812"W	0.00	
817.00†	0.000	270.000	817.00	0.00	0.00	0.00	40°09'15.674"N	104°41'18.812"W	0.00	
917.00†	0.000	270.000	917.00	0.00	0.00	0.00	40°09'15.674"N	104°41'18.812"W	0.00	
1017.00†	0.000	270.000	1017.00	0.00	0.00	0.00	40°09'15.674"N	104°41'18.812"W	0.00	
1117.00†	0.000	270.000	1117.00	0.00	0.00	0.00	40°09'15.674"N	104°41'18.812"W	0.00	
1200.00	0.000	270.000	1200.00	0.00	0.00	0.00	40°09'15.674"N	104°41'18.812"W	0.00	End of Tangent
1217.00†	0.340	270.000	1217.00	0.00	0.00	-0.05	40°09'15.674"N	104°41'18.813"W	2.00	
1317.00†	2.340	270.000	1316.97	0.16	0.00	-2.39	40°09'15.674"N	104°41'18.843"W	2.00	
1417.00†	4.340	270.000	1416.79	0.53	0.00	-8.21	40°09'15.674"N	104°41'18.918"W	2.00	
1458.50	5.170	270.000	1458.15	0.76	0.00	-11.65	40°09'15.674"N	104°41'18.962"W	2.00	End of Build (J)
1517.00†	5.170	270.000	1516.41	1.10	0.00	-16.93	40°09'15.674"N	104°41'19.030"W	0.00	
1617.00†	5.170	270.000	1616.00	1.68	0.00	-25.94	40°09'15.674"N	104°41'19.146"W	0.00	
1717.00†	5.170	270.000	1715.60	2.27	0.00	-34.95	40°09'15.674"N	104°41'19.262"W	0.00	
1817.00†	5.170	270.000	1815.19	2.85	0.00	-43.96	40°09'15.674"N	104°41'19.378"W	0.00	
1917.00†	5.170	270.000	1914.78	3.44	0.00	-52.97	40°09'15.674"N	104°41'19.494"W	0.00	
2017.00†	5.170	270.000	2014.38	4.02	0.00	-61.98	40°09'15.674"N	104°41'19.610"W	0.00	
2117.00†	5.170	270.000	2113.97	4.61	0.00	-70.99	40°09'15.674"N	104°41'19.726"W	0.00	
2217.00†	5.170	270.000	2213.56	5.19	0.00	-80.00	40°09'15.674"N	104°41'19.842"W	0.00	
2317.00†	5.170	270.000	2313.16	5.78	0.00	-89.02	40°09'15.674"N	104°41'19.958"W	0.00	
2417.00†	5.170	270.000	2412.75	6.36	0.00	-98.03	40°09'15.674"N	104°41'20.074"W	0.00	
2517.00†	5.170	270.000	2512.34	6.95	0.00	-107.04	40°09'15.674"N	104°41'20.191"W	0.00	
2617.00†	5.170	270.000	2611.94	7.53	0.00	-116.05	40°09'15.674"N	104°41'20.307"W	0.00	
2717.00†	5.170	270.000	2711.53	8.11	0.00	-125.06	40°09'15.674"N	104°41'20.423"W	0.00	
2817.00†	5.170	270.000	2811.12	8.70	0.00	-134.07	40°09'15.674"N	104°41'20.539"W	0.00	
2917.00†	5.170	270.000	2910.72	9.28	0.00	-143.08	40°09'15.674"N	104°41'20.655"W	0.00	
3017.00†	5.170	270.000	3010.31	9.87	0.00	-152.09	40°09'15.674"N	104°41'20.771"W	0.00	
3117.00†	5.170	270.000	3109.90	10.45	0.00	-161.10	40°09'15.674"N	104°41'20.887"W	0.00	
3217.00†	5.170	270.000	3209.50	11.04	0.00	-170.12	40°09'15.674"N	104°41'21.003"W	0.00	
3317.00†	5.170	270.000	3309.09	11.62	0.00	-179.13	40°09'15.674"N	104°41'21.119"W	0.00	
3417.00†	5.170	270.000	3408.68	12.21	0.00	-188.14	40°09'15.674"N	104°41'21.235"W	0.00	
3517.00†	5.170	270.000	3508.27	12.79	0.00	-197.15	40°09'15.674"N	104°41'21.351"W	0.00	
3617.00†	5.170	270.000	3607.87	13.38	0.00	-206.16	40°09'15.674"N	104°41'21.467"W	0.00	
3717.00†	5.170	270.000	3707.46	13.96	0.00	-215.17	40°09'15.674"N	104°41'21.583"W	0.00	
3817.00†	5.170	270.000	3807.05	14.55	0.00	-224.18	40°09'15.674"N	104°41'21.699"W	0.00	
3917.00†	5.170	270.000	3906.65	15.13	0.00	-233.19	40°09'15.674"N	104°41'21.815"W	0.00	
3963.54†	5.170	270.000	3953.00	15.40	0.00	-237.39	40°09'15.674"N	104°41'21.869"W	0.00	PARKMAN
4017.00†	5.170	270.000	4006.24	15.72	0.00	-242.20	40°09'15.674"N	104°41'21.931"W	0.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08)
Area	COLORADO	Well	NICHOLS 3N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 3N-5HZ PWB
Facility	SEC.08-T2N-R65W		

WELLPATH DATA (149 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	5.170	270.000	4105.83	16.30	0.00	-251.22	40°09'15.674"N	104°41'22.047"W	0.00	
4217.00†	5.170	270.000	4205.43	16.89	0.00	-260.23	40°09'15.674"N	104°41'22.163"W	0.00	
4317.00†	5.170	270.000	4305.02	17.47	0.00	-269.24	40°09'15.674"N	104°41'22.279"W	0.00	
4417.00†	5.170	270.000	4404.61	18.05	0.00	-278.25	40°09'15.674"N	104°41'22.395"W	0.00	
4506.75†	5.170	270.000	4494.00	18.58	0.00	-286.34	40°09'15.674"N	104°41'22.500"W	0.00	SUSSEX
4517.00†	5.170	270.000	4504.21	18.64	0.00	-287.26	40°09'15.674"N	104°41'22.512"W	0.00	
4617.00†	5.170	270.000	4603.80	19.22	0.00	-296.27	40°09'15.674"N	104°41'22.628"W	0.00	
4717.00†	5.170	270.000	4703.39	19.81	0.00	-305.28	40°09'15.674"N	104°41'22.744"W	0.00	
4817.00†	5.170	270.000	4802.99	20.39	0.00	-314.29	40°09'15.674"N	104°41'22.860"W	0.00	
4917.00†	5.170	270.000	4902.58	20.98	0.00	-323.30	40°09'15.674"N	104°41'22.976"W	0.00	
5017.00†	5.170	270.000	5002.17	21.56	0.00	-332.32	40°09'15.674"N	104°41'23.092"W	0.00	
5117.00†	5.170	270.000	5101.77	22.15	0.00	-341.33	40°09'15.674"N	104°41'23.208"W	0.00	
5217.00†	5.170	270.000	5201.36	22.73	0.00	-350.34	40°09'15.674"N	104°41'23.324"W	0.00	
5317.00†	5.170	270.000	5300.95	23.32	0.00	-359.35	40°09'15.674"N	104°41'23.440"W	0.00	
5417.00†	5.170	270.000	5400.55	23.90	0.00	-368.36	40°09'15.674"N	104°41'23.556"W	0.00	
5517.00†	5.170	270.000	5500.14	24.49	0.00	-377.37	40°09'15.674"N	104°41'23.672"W	0.00	
5617.00†	5.170	270.000	5599.73	25.07	0.00	-386.38	40°09'15.674"N	104°41'23.788"W	0.00	
5717.00†	5.170	270.000	5699.32	25.66	0.00	-395.39	40°09'15.674"N	104°41'23.904"W	0.00	
5817.00†	5.170	270.000	5798.92	26.24	0.00	-404.40	40°09'15.674"N	104°41'24.020"W	0.00	
5917.00†	5.170	270.000	5898.51	26.83	0.00	-413.42	40°09'15.674"N	104°41'24.136"W	0.00	
6017.00†	5.170	270.000	5998.10	27.41	0.00	-422.43	40°09'15.674"N	104°41'24.252"W	0.00	
6117.00†	5.170	270.000	6097.70	28.00	0.00	-431.44	40°09'15.674"N	104°41'24.368"W	0.00	
6217.00†	5.170	270.000	6197.29	28.58	0.00	-440.45	40°09'15.674"N	104°41'24.484"W	0.00	
6317.00†	5.170	270.000	6296.88	29.16	0.00	-449.46	40°09'15.674"N	104°41'24.600"W	0.00	
6417.00†	5.170	270.000	6396.48	29.75	0.00	-458.47	40°09'15.674"N	104°41'24.716"W	0.00	
6517.00†	5.170	270.000	6496.07	30.33	0.00	-467.48	40°09'15.674"N	104°41'24.833"W	0.00	
6519.84	5.170	270.000	6498.90	30.35	0.00	-467.74	40°09'15.674"N	104°41'24.836"W	0.00	End of Tangent (J)
6617.00†	10.951	332.662	6595.21	39.11	8.22	-476.37	40°09'15.755"N	104°41'24.947"W	10.00	
6717.00†	20.310	346.389	6691.43	64.98	33.59	-484.84	40°09'16.006"N	104°41'25.056"W	10.00	
6817.00†	30.074	351.550	6781.82	107.15	75.34	-492.63	40°09'16.419"N	104°41'25.156"W	10.00	
6917.00†	39.948	354.338	6863.63	164.35	132.22	-499.49	40°09'16.981"N	104°41'25.245"W	10.00	
7017.00†	49.865	356.164	6934.37	234.84	202.49	-505.23	40°09'17.675"N	104°41'25.319"W	10.00	
7035.39†	51.692	356.440	6946.00	249.09	216.71	-506.15	40°09'17.815"N	104°41'25.331"W	10.00	SHARON SPRINGS
7117.00†	59.804	357.521	6991.90	316.48	284.01	-509.67	40°09'18.481"N	104°41'25.376"W	10.00	
7164.34†	64.513	358.067	7014.00	358.32	325.83	-511.28	40°09'18.894"N	104°41'25.397"W	10.00	NIOBRARA A
7217.00†	69.754	358.627	7034.45	406.79	374.31	-512.67	40°09'19.373"N	104°41'25.415"W	10.00	
7227.51†	70.800	358.733	7038.00	416.67	384.20	-512.90	40°09'19.471"N	104°41'25.418"W	10.00	NIOBRARA B
7317.00†	79.710	359.598	7060.76	503.02	470.65	-514.15	40°09'20.325"N	104°41'25.434"W	10.00	
7417.00†	89.669	0.509	7070.00	602.25	570.09	-514.05	40°09'21.308"N	104°41'25.432"W	10.00	
7423.13	90.279	0.564	7070.00	608.36	576.22	-513.99	40°09'21.368"N	104°41'25.432"W	10.00	End of 3D Arc (J)
7517.00†	90.279	0.564	7069.55	701.97	670.09	-513.07	40°09'22.296"N	104°41'25.420"W	0.00	
7617.00†	90.279	0.564	7069.06	801.69	770.08	-512.08	40°09'23.284"N	104°41'25.407"W	0.00	
7717.00†	90.279	0.564	7068.57	901.41	870.07	-511.10	40°09'24.272"N	104°41'25.394"W	0.00	
7817.00†	90.279	0.564	7068.08	1001.12	970.07	-510.11	40°09'25.260"N	104°41'25.382"W	0.00	
7917.00†	90.279	0.564	7067.60	1100.84	1070.06	-509.13	40°09'26.248"N	104°41'25.369"W	0.00	



Planned Wellpath Report

NICHOLS 3N-5HZ (PERMIT) PWP
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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08)
Area	COLORADO	Well	NICHOLS 3N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 3N-5HZ PWB
Facility	SEC.08-T2N-R65W		

WELLPATH DATA (149 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8017.00†	90.279	0.564	7067.11	1200.56	1170.06	-508.14	40°09'27.237"N	104°41'25.357"W	0.00	
8117.00†	90.279	0.564	7066.62	1300.28	1270.05	-507.16	40°09'28.225"N	104°41'25.344"W	0.00	
8217.00†	90.279	0.564	7066.14	1400.00	1370.04	-506.17	40°09'29.213"N	104°41'25.331"W	0.00	
8317.00†	90.279	0.564	7065.65	1499.72	1470.04	-505.19	40°09'30.201"N	104°41'25.319"W	0.00	
8417.00†	90.279	0.564	7065.16	1599.44	1570.03	-504.20	40°09'31.189"N	104°41'25.306"W	0.00	
8517.00†	90.279	0.564	7064.67	1699.16	1670.03	-503.22	40°09'32.177"N	104°41'25.293"W	0.00	
8617.00†	90.279	0.564	7064.19	1798.88	1770.02	-502.23	40°09'33.165"N	104°41'25.281"W	0.00	
8717.00†	90.279	0.564	7063.70	1898.60	1870.01	-501.25	40°09'34.154"N	104°41'25.268"W	0.00	
8817.00†	90.279	0.564	7063.21	1998.32	1970.01	-500.27	40°09'35.142"N	104°41'25.255"W	0.00	
8917.00†	90.279	0.564	7062.73	2098.04	2070.00	-499.28	40°09'36.130"N	104°41'25.243"W	0.00	
9017.00†	90.279	0.564	7062.24	2197.76	2170.00	-498.30	40°09'37.118"N	104°41'25.230"W	0.00	
9117.00†	90.279	0.564	7061.75	2297.48	2269.99	-497.31	40°09'38.106"N	104°41'25.217"W	0.00	
9217.00†	90.279	0.564	7061.26	2397.20	2369.98	-496.33	40°09'39.094"N	104°41'25.205"W	0.00	
9317.00†	90.279	0.564	7060.78	2496.91	2469.98	-495.34	40°09'40.082"N	104°41'25.192"W	0.00	
9417.00†	90.279	0.564	7060.29	2596.63	2569.97	-494.36	40°09'41.071"N	104°41'25.179"W	0.00	
9517.00†	90.279	0.564	7059.80	2696.35	2669.97	-493.37	40°09'42.059"N	104°41'25.167"W	0.00	
9617.00†	90.279	0.564	7059.32	2796.07	2769.96	-492.39	40°09'43.047"N	104°41'25.154"W	0.00	
9717.00†	90.279	0.564	7058.83	2895.79	2869.95	-491.40	40°09'44.035"N	104°41'25.141"W	0.00	
9817.00†	90.279	0.564	7058.34	2995.51	2969.95	-490.42	40°09'45.023"N	104°41'25.129"W	0.00	
9917.00†	90.279	0.564	7057.85	3095.23	3069.94	-489.43	40°09'46.011"N	104°41'25.116"W	0.00	
10017.00†	90.279	0.564	7057.37	3194.95	3169.94	-488.45	40°09'46.999"N	104°41'25.103"W	0.00	
10117.00†	90.279	0.564	7056.88	3294.67	3269.93	-487.46	40°09'47.988"N	104°41'25.091"W	0.00	
10217.00†	90.279	0.564	7056.39	3394.39	3369.92	-486.48	40°09'48.976"N	104°41'25.078"W	0.00	
10317.00†	90.279	0.564	7055.91	3494.11	3469.92	-485.50	40°09'49.964"N	104°41'25.065"W	0.00	
10417.00†	90.279	0.564	7055.42	3593.83	3569.91	-484.51	40°09'50.952"N	104°41'25.053"W	0.00	
10517.00†	90.279	0.564	7054.93	3693.55	3669.91	-483.53	40°09'51.940"N	104°41'25.040"W	0.00	
10617.00†	90.279	0.564	7054.45	3793.27	3769.90	-482.54	40°09'52.928"N	104°41'25.027"W	0.00	
10717.00†	90.279	0.564	7053.96	3892.99	3869.89	-481.56	40°09'53.916"N	104°41'25.015"W	0.00	
10817.00†	90.279	0.564	7053.47	3992.70	3969.89	-480.57	40°09'54.905"N	104°41'25.002"W	0.00	
10917.00†	90.279	0.564	7052.98	4092.42	4069.88	-479.59	40°09'55.893"N	104°41'24.989"W	0.00	
11017.00†	90.279	0.564	7052.50	4192.14	4169.88	-478.60	40°09'56.881"N	104°41'24.977"W	0.00	
11117.00†	90.279	0.564	7052.01	4291.86	4269.87	-477.62	40°09'57.869"N	104°41'24.964"W	0.00	
11217.00†	90.279	0.564	7051.52	4391.58	4369.86	-476.63	40°09'58.857"N	104°41'24.951"W	0.00	
11317.00†	90.279	0.564	7051.04	4491.30	4469.86	-475.65	40°09'59.845"N	104°41'24.939"W	0.00	
11417.00†	90.279	0.564	7050.55	4591.02	4569.85	-474.66	40°10'00.833"N	104°41'24.926"W	0.00	
11517.00†	90.279	0.564	7050.06	4690.74	4669.85	-473.68	40°10'01.822"N	104°41'24.914"W	0.00	
11617.00†	90.279	0.564	7049.57	4790.46	4769.84	-472.69	40°10'02.810"N	104°41'24.901"W	0.00	
11717.00†	90.279	0.564	7049.09	4890.18	4869.83	-471.71	40°10'03.798"N	104°41'24.888"W	0.00	
11817.00†	90.279	0.564	7048.60	4989.90	4969.83	-470.73	40°10'04.786"N	104°41'24.876"W	0.00	
11917.00†	90.279	0.564	7048.11	5089.62	5069.82	-469.74	40°10'05.774"N	104°41'24.863"W	0.00	
12017.00†	90.279	0.564	7047.63	5189.34	5169.82	-468.76	40°10'06.762"N	104°41'24.850"W	0.00	
12117.00†	90.279	0.564	7047.14	5289.06	5269.81	-467.77	40°10'07.750"N	104°41'24.838"W	0.00	
12217.00†	90.279	0.564	7046.65	5388.78	5369.80	-466.79	40°10'08.739"N	104°41'24.825"W	0.00	
12317.00†	90.279	0.564	7046.16	5488.49	5469.80	-465.80	40°10'09.727"N	104°41'24.812"W	0.00	
12417.00†	90.279	0.564	7045.68	5588.21	5569.79	-464.82	40°10'10.715"N	104°41'24.800"W	0.00	



Planned Wellpath Report

NICHOLS 3N-5HZ (PERMIT) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08)
Area	COLORADO	Well	NICHOLS 3N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 3N-5HZ PWB
Facility	SEC.08-T2N-R65W		

WELLPATH DATA (149 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12517.00†	90.279	0.564	7045.19	5687.93	5669.79	-463.83	40°10'11.703"N	104°41'24.787"W	0.00	
12617.00†	90.279	0.564	7044.70	5787.65	5769.78	-462.85	40°10'12.691"N	104°41'24.774"W	0.00	
12717.00†	90.279	0.564	7044.22	5887.37	5869.77	-461.86	40°10'13.679"N	104°41'24.762"W	0.00	
12817.00†	90.279	0.564	7043.73	5987.09	5969.77	-460.88	40°10'14.667"N	104°41'24.749"W	0.00	
12917.00†	90.279	0.564	7043.24	6086.81	6069.76	-459.89	40°10'15.656"N	104°41'24.736"W	0.00	
13017.00†	90.279	0.564	7042.76	6186.53	6169.75	-458.91	40°10'16.644"N	104°41'24.724"W	0.00	
13117.00†	90.279	0.564	7042.27	6286.25	6269.75	-457.92	40°10'17.632"N	104°41'24.711"W	0.00	
13217.00†	90.279	0.564	7041.78	6385.97	6369.74	-456.94	40°10'18.620"N	104°41'24.698"W	0.00	
13317.00†	90.279	0.564	7041.29	6485.69	6469.74	-455.95	40°10'19.608"N	104°41'24.686"W	0.00	
13417.00†	90.279	0.564	7040.81	6585.41	6569.73	-454.97	40°10'20.596"N	104°41'24.673"W	0.00	
13517.00†	90.279	0.564	7040.32	6685.13	6669.72	-453.99	40°10'21.584"N	104°41'24.660"W	0.00	
13617.00†	90.279	0.564	7039.83	6784.85	6769.72	-453.00	40°10'22.573"N	104°41'24.648"W	0.00	
13717.00†	90.279	0.564	7039.35	6884.57	6869.71	-452.02	40°10'23.561"N	104°41'24.635"W	0.00	
13787.96	90.279	0.564	7039.00†	6955.33	6940.67	-451.32	40°10'24.262"N	104°41'24.626"W	0.00	End of Tangent (J)

HOLE & CASING SECTIONS - Ref Wellbore: NICHOLS 3N-5HZ PWB Ref Wellpath: NICHOLS 3N-5HZ (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	825.00	808.00	17.00	825.00	0.00	0.00	0.00	0.00	
9.625in Casing Surface	17.00	825.00	808.00	17.00	825.00	0.00	0.00	0.00	0.00	
8.75in Open Hole	825.00	7423.13	6598.13	825.00	7070.00	0.00	0.00	576.22	-513.99	
7in Casing Intermediate	17.00	7423.13	7406.13	17.00	7070.00	0.00	0.00	576.22	-513.99	
6.125in Open Hole	7423.13	13787.96	6364.83	7070.00	7039.00	576.22	-513.99	6940.67	-451.32	
4.5in Casing Production	17.00	13787.96	13770.96	17.00	7039.00	0.00	0.00	6940.67	-451.32	



Planned Wellpath Report

NICHOLS 3N-5HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08)
Area	COLORADO	Well	NICHOLS 3N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 3N-5HZ PWB
Facility	SEC.08-T2N-R65W		

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		1.00	-205.41	737.66	3227549.93	1299913.51	40°09'13.644"N	104°41'09.312"W	polygon
NICHOLS SECTION 8 LINES		1.00	-205.41	737.66	3227549.93	1299913.51	40°09'13.644"N	104°41'09.312"W	polygon
1) NICHOLS 3N-5HZ BHL ON PLAT (460'FNL & 1874'FWL, SEC.5) REV-1	13787.96	7039.00	6940.67	-451.32	3226295.66	1307048.11	40°10'24.262"N	104°41'24.626"W	point
NICHOLS HARDLINES (460' SETBACKS)		7201.00	-205.41	737.66	3227549.93	1299913.51	40°09'13.644"N	104°41'09.312"W	polygon

SURVEY PROGRAM - Ref Wellbore: NICHOLS 3N-5HZ PWB Ref Wellpath: NICHOLS 3N-5HZ (PERMIT) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	13787.96	NaviTrak (Standard)		NICHOLS 3N-5HZ PWB



Planned Wellpath Report
 NICHOLS 3N-5HZ (PERMIT) PWP
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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#05 NICHOLS 3N-5HZ (2245'FNL & 2406'FWL, SEC.08)
Area	COLORADO	Well	NICHOLS 3N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 3N-5HZ PWB
Facility	SEC.08-T2N-R65W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
3963.54	5.170	270.000	3953.00	PARKMAN
4506.75	5.170	270.000	4494.00	SUSSEX
7035.39	51.692	356.440	6946.00	SHARON SPRINGS
7164.34	64.513	358.067	7014.00	NIOBRARA A
7227.51	70.800	358.733	7038.00	NIOBRARA B