





Planned Wellpath Report

NICHOLS 3C-5HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 NICHOLS 3C-5HZ (2268'FNL & 2387'FWL, SEC. 08)
Area	COLORADO	Well	NICHOLS 3C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 3C-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	Wilsjef02
Scale	0.999958	Report Generated	5/31/2012 at 14:36:49
Convergence at slot	0.52° East	Database/Source file	WellArchitectDB/NICHOLS_3C-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	30966.41	29268.67	3226791.64	1300088.71	40°09'15.444"N	104°41'19.057"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#06 NICHOLS 3C-5HZ (2268'FNL & 2387'FWL, SEC. 08) (RKB) to Facility Vertical Datum
Horizontal Reference Pt	Slot	Rig on SLOT#06 NICHOLS 3C-5HZ (2268'FNL & 2387'FWL, SEC. 08) (RKB) to Mean Sea Level
Vertical Reference Pt	Rig on SLOT#06 NICHOLS 3C-5HZ (2268'FNL & 2387'FWL, SEC. 08) (RKB)	Rig on SLOT#06 NICHOLS 3C-5HZ (2268'FNL & 2387'FWL, SEC. 08) (RKB) to Mud Line at Slot (SLOT#06 NICHOLS 3C-
MD Reference Pt	Rig on SLOT#06 NICHOLS 3C-5HZ (2268'FNL & 2387'FWL, SEC. 08) (RKB)	Section Origin
Field Vertical Reference	Mean Sea Level	Section Azimuth



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Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 NICHOLS 3C-5HZ (2268'FNL & 2387'FWL, SEC. 08)
Area	COLORADO	Well	NICHOLS 3C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 3C-5HZ PWB
Facility	SEC.08-T2N-R6SW		

WELLPATH DATA (154 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°09'15.444"N	104°41'19.057"W	0.00	
17.00	0.000	270.000	17.00	0.00	0.00	0.00	40°09'15.444"N	104°41'19.057"W	0.00	Tie On
117.00†	0.000	270.000	117.00	0.00	0.00	0.00	40°09'15.444"N	104°41'19.057"W	0.00	
217.00†	0.000	270.000	217.00	0.00	0.00	0.00	40°09'15.444"N	104°41'19.057"W	0.00	
317.00†	0.000	270.000	317.00	0.00	0.00	0.00	40°09'15.444"N	104°41'19.057"W	0.00	
417.00†	0.000	270.000	417.00	0.00	0.00	0.00	40°09'15.444"N	104°41'19.057"W	0.00	
517.00†	0.000	270.000	517.00	0.00	0.00	0.00	40°09'15.444"N	104°41'19.057"W	0.00	
617.00†	0.000	270.000	617.00	0.00	0.00	0.00	40°09'15.444"N	104°41'19.057"W	0.00	
717.00†	0.000	270.000	717.00	0.00	0.00	0.00	40°09'15.444"N	104°41'19.057"W	0.00	
817.00†	0.000	270.000	817.00	0.00	0.00	0.00	40°09'15.444"N	104°41'19.057"W	0.00	
917.00†	0.000	270.000	917.00	0.00	0.00	0.00	40°09'15.444"N	104°41'19.057"W	0.00	
1017.00†	0.000	270.000	1017.00	0.00	0.00	0.00	40°09'15.444"N	104°41'19.057"W	0.00	
1100.00	0.000	270.000	1100.00	0.00	0.00	0.00	40°09'15.444"N	104°41'19.057"W	0.00	End of Tangent
1117.00†	0.340	270.000	1117.00	0.00	0.00	-0.05	40°09'15.444"N	104°41'19.058"W	2.00	
1217.00†	2.340	270.000	1216.97	0.18	0.00	-2.39	40°09'15.444"N	104°41'19.088"W	2.00	
1317.00†	4.340	270.000	1316.79	0.63	0.00	-8.21	40°09'15.444"N	104°41'19.163"W	2.00	
1384.00	5.680	270.000	1383.54	1.07	0.00	-14.07	40°09'15.444"N	104°41'19.238"W	2.00	End of Build (J)
1417.00†	5.680	270.000	1416.37	1.32	0.00	-17.33	40°09'15.444"N	104°41'19.280"W	0.00	
1517.00†	5.680	270.000	1515.88	2.08	0.00	-27.23	40°09'15.444"N	104°41'19.408"W	0.00	
1617.00†	5.680	270.000	1615.39	2.84	0.00	-37.13	40°09'15.444"N	104°41'19.535"W	0.00	
1717.00†	5.680	270.000	1714.90	3.59	0.00	-47.02	40°09'15.444"N	104°41'19.663"W	0.00	
1817.00†	5.680	270.000	1814.41	4.35	0.00	-56.92	40°09'15.444"N	104°41'19.790"W	0.00	
1917.00†	5.680	270.000	1913.92	5.10	0.00	-66.82	40°09'15.444"N	104°41'19.918"W	0.00	
2017.00†	5.680	270.000	2013.43	5.86	0.00	-76.72	40°09'15.444"N	104°41'20.045"W	0.00	
2117.00†	5.680	270.000	2112.94	6.62	0.00	-86.61	40°09'15.444"N	104°41'20.172"W	0.00	
2217.00†	5.680	270.000	2212.45	7.37	0.00	-96.51	40°09'15.444"N	104°41'20.300"W	0.00	
2317.00†	5.680	270.000	2311.95	8.13	0.00	-106.41	40°09'15.444"N	104°41'20.427"W	0.00	
2417.00†	5.680	270.000	2411.46	8.88	0.00	-116.30	40°09'15.444"N	104°41'20.555"W	0.00	
2517.00†	5.680	270.000	2510.97	9.64	0.00	-126.20	40°09'15.444"N	104°41'20.682"W	0.00	
2617.00†	5.680	270.000	2610.48	10.40	0.00	-136.10	40°09'15.444"N	104°41'20.810"W	0.00	
2717.00†	5.680	270.000	2709.99	11.15	0.00	-146.00	40°09'15.444"N	104°41'20.937"W	0.00	
2817.00†	5.680	270.000	2809.50	11.91	0.00	-155.89	40°09'15.444"N	104°41'21.065"W	0.00	
2917.00†	5.680	270.000	2909.01	12.66	0.00	-165.79	40°09'15.444"N	104°41'21.192"W	0.00	
3017.00†	5.680	270.000	3008.52	13.42	0.00	-175.69	40°09'15.444"N	104°41'21.320"W	0.00	
3117.00†	5.680	270.000	3108.03	14.18	0.00	-185.58	40°09'15.444"N	104°41'21.447"W	0.00	
3217.00†	5.680	270.000	3207.54	14.93	0.00	-195.48	40°09'15.444"N	104°41'21.575"W	0.00	
3317.00†	5.680	270.000	3307.04	15.69	0.00	-205.38	40°09'15.444"N	104°41'21.702"W	0.00	
3417.00†	5.680	270.000	3406.55	16.44	0.00	-215.28	40°09'15.444"N	104°41'21.829"W	0.00	
3517.00†	5.680	270.000	3506.06	17.20	0.00	-225.17	40°09'15.444"N	104°41'21.957"W	0.00	
3617.00†	5.680	270.000	3605.57	17.96	0.00	-235.07	40°09'15.444"N	104°41'22.084"W	0.00	
3717.00†	5.680	270.000	3705.08	18.71	0.00	-244.97	40°09'15.444"N	104°41'22.212"W	0.00	
3817.00†	5.680	270.000	3804.59	19.47	0.00	-254.87	40°09'15.444"N	104°41'22.339"W	0.00	
3917.00†	5.680	270.000	3904.10	20.22	0.00	-264.76	40°09'15.444"N	104°41'22.467"W	0.00	
3939.01†	5.680	270.000	3926.00	20.39	0.00	-266.94	40°09'15.444"N	104°41'22.495"W	0.00	PARKMAN
4017.00†	5.680	270.000	4003.61	20.98	0.00	-274.66	40°09'15.444"N	104°41'22.594"W	0.00	



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Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 NICHOLS 3C-5HZ (2268°FNL & 2387°FWL, SEC. 08)
Area	COLORADO	Well	NICHOLS 3C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 3C-5HZ PWB
Facility	SEC.08-T2N-R6SW		

WELLPATH DATA (154 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	5.680	270.000	4103.12	21.74	0.00	-284.56	40°09'15.444"N	104°41'22.722"W	0.00	
4217.00†	5.680	270.000	4202.63	22.49	0.00	-294.45	40°09'15.444"N	104°41'22.849"W	0.00	
4317.00†	5.680	270.000	4302.13	23.25	0.00	-304.35	40°09'15.444"N	104°41'22.977"W	0.00	
4417.00†	5.680	270.000	4401.64	24.00	0.00	-314.25	40°09'15.444"N	104°41'23.104"W	0.00	
4482.68†	5.680	270.000	4467.00	24.50	0.00	-320.75	40°09'15.444"N	104°41'23.188"W	0.00	SUSSEX
4517.00†	5.680	270.000	4501.15	24.76	0.00	-324.15	40°09'15.444"N	104°41'23.232"W	0.00	
4617.00†	5.680	270.000	4600.66	25.52	0.00	-334.04	40°09'15.444"N	104°41'23.359"W	0.00	
4717.00†	5.680	270.000	4700.17	26.27	0.00	-343.94	40°09'15.444"N	104°41'23.486"W	0.00	
4817.00†	5.680	270.000	4799.68	27.03	0.00	-353.84	40°09'15.444"N	104°41'23.614"W	0.00	
4917.00†	5.680	270.000	4899.19	27.79	0.00	-363.74	40°09'15.444"N	104°41'23.741"W	0.00	
5017.00†	5.680	270.000	4998.70	28.54	0.00	-373.63	40°09'15.444"N	104°41'23.869"W	0.00	
5117.00†	5.680	270.000	5098.21	29.30	0.00	-383.53	40°09'15.444"N	104°41'23.996"W	0.00	
5217.00†	5.680	270.000	5197.72	30.05	0.00	-393.43	40°09'15.444"N	104°41'24.124"W	0.00	
5317.00†	5.680	270.000	5297.22	30.81	0.00	-403.32	40°09'15.444"N	104°41'24.251"W	0.00	
5417.00†	5.680	270.000	5396.73	31.57	0.00	-413.22	40°09'15.444"N	104°41'24.379"W	0.00	
5517.00†	5.680	270.000	5496.24	32.32	0.00	-423.12	40°09'15.444"N	104°41'24.506"W	0.00	
5617.00†	5.680	270.000	5595.75	33.08	0.00	-433.02	40°09'15.444"N	104°41'24.634"W	0.00	
5717.00†	5.680	270.000	5695.26	33.83	0.00	-442.91	40°09'15.444"N	104°41'24.761"W	0.00	
5817.00†	5.680	270.000	5794.77	34.59	0.00	-452.81	40°09'15.444"N	104°41'24.889"W	0.00	
5917.00†	5.680	270.000	5894.28	35.35	0.00	-462.71	40°09'15.444"N	104°41'25.016"W	0.00	
6017.00†	5.680	270.000	5993.79	36.10	0.00	-472.60	40°09'15.444"N	104°41'25.144"W	0.00	
6117.00†	5.680	270.000	6093.30	36.86	0.00	-482.50	40°09'15.444"N	104°41'25.271"W	0.00	
6217.00†	5.680	270.000	6192.81	37.61	0.00	-492.40	40°09'15.444"N	104°41'25.398"W	0.00	
6317.00†	5.680	270.000	6292.31	38.37	0.00	-502.30	40°09'15.444"N	104°41'25.526"W	0.00	
6417.00†	5.680	270.000	6391.82	39.13	0.00	-512.19	40°09'15.444"N	104°41'25.653"W	0.00	
6517.00†	5.680	270.000	6491.33	39.88	0.00	-522.09	40°09'15.444"N	104°41'25.781"W	0.00	
6617.00†	5.680	270.000	6590.84	40.64	0.00	-531.99	40°09'15.444"N	104°41'25.908"W	0.00	
6717.00†	5.680	270.000	6690.35	41.39	0.00	-541.89	40°09'15.444"N	104°41'26.036"W	0.00	
6726.01	5.680	270.000	6699.32	41.46	0.00	-542.78	40°09'15.444"N	104°41'26.047"W	0.00	End of Tangent (J)
6817.00†	10.668	328.675	6789.49	49.33	7.21	-551.68	40°09'15.515"N	104°41'26.162"W	10.00	
6917.00†	19.844	344.547	6885.90	74.30	31.54	-561.04	40°09'15.756"N	104°41'26.282"W	10.00	
6952.60†	23.271	347.173	6919.00	87.19	44.22	-564.21	40°09'15.881"N	104°41'26.323"W	10.00	SHARON SPRINGS
7017.00†	29.548	350.439	6976.66	115.62	72.32	-569.68	40°09'16.159"N	104°41'26.394"W	10.00	
7028.96†	30.720	350.909	6987.00	121.60	78.24	-570.65	40°09'16.217"N	104°41'26.406"W	10.00	NIOBRARA A
7057.30†	33.504	351.903	7011.00	136.62	93.13	-572.89	40°09'16.364"N	104°41'26.435"W	10.00	NIOBRARA B
7117.00†	39.391	353.587	7059.01	172.03	128.30	-577.33	40°09'16.712"N	104°41'26.492"W	10.00	
7186.58†	46.274	355.085	7110.00	219.29	175.35	-581.96	40°09'17.177"N	104°41'26.552"W	10.00	NIOBRARA C
7217.00†	49.289	355.635	7130.44	241.82	197.80	-583.78	40°09'17.399"N	104°41'26.575"W	10.00	
7317.00†	59.214	357.147	7188.79	322.86	278.70	-588.81	40°09'18.198"N	104°41'26.640"W	10.00	
7417.00†	69.153	358.373	7232.29	412.70	368.54	-592.29	40°09'19.086"N	104°41'26.685"W	10.00	
7443.03†	71.741	358.664	7241.00	437.20	393.05	-592.92	40°09'19.328"N	104°41'26.693"W	10.00	FORT HAYS
7517.00†	79.100	359.446	7259.61	508.61	464.58	-594.09	40°09'20.035"N	104°41'26.708"W	10.00	
7617.00†	89.050	0.449	7269.92	607.66	563.92	-594.18	40°09'21.017"N	104°41'26.709"W	10.00	
7626.46	89.991	0.543	7270.00	617.09	573.38	-594.09	40°09'21.110"N	104°41'26.708"W	10.00	End of 3D Arc (J)
7717.00†	89.991	0.543	7270.01	707.29	663.92	-593.24	40°09'22.005"N	104°41'26.697"W	0.00	



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Area	COLORADO	Well	NICHOLS 3C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 3C-5HZ PWB
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7817.00†	89.991	0.543	7270.03	806.93	763.91	-592.29	40°09'22.993"N	104°41'26.685"W	0.00	
7917.00†	89.991	0.543	7270.04	906.56	863.91	-591.34	40°09'23.981"N	104°41'26.673"W	0.00	
8017.00†	89.991	0.543	7270.06	1006.19	963.90	-590.39	40°09'24.969"N	104°41'26.661"W	0.00	
8117.00†	89.991	0.543	7270.07	1105.82	1063.90	-589.44	40°09'25.957"N	104°41'26.649"W	0.00	
8217.00†	89.991	0.543	7270.09	1205.45	1163.90	-588.50	40°09'26.946"N	104°41'26.636"W	0.00	
8317.00†	89.991	0.543	7270.11	1305.08	1263.89	-587.55	40°09'27.934"N	104°41'26.624"W	0.00	
8417.00†	89.991	0.543	7270.12	1404.71	1363.89	-586.60	40°09'28.922"N	104°41'26.612"W	0.00	
8517.00†	89.991	0.543	7270.14	1504.34	1463.88	-585.65	40°09'29.910"N	104°41'26.600"W	0.00	
8617.00†	89.991	0.543	7270.15	1603.97	1563.88	-584.71	40°09'30.898"N	104°41'26.588"W	0.00	
8717.00†	89.991	0.543	7270.17	1703.60	1663.87	-583.76	40°09'31.886"N	104°41'26.576"W	0.00	
8817.00†	89.991	0.543	7270.18	1803.23	1763.87	-582.81	40°09'32.875"N	104°41'26.563"W	0.00	
8917.00†	89.991	0.543	7270.20	1902.87	1863.86	-581.86	40°09'33.863"N	104°41'26.551"W	0.00	
9017.00†	89.991	0.543	7270.22	2002.50	1963.86	-580.91	40°09'34.851"N	104°41'26.539"W	0.00	
9117.00†	89.991	0.543	7270.23	2102.13	2063.86	-579.97	40°09'35.839"N	104°41'26.527"W	0.00	
9217.00†	89.991	0.543	7270.25	2201.76	2163.85	-579.02	40°09'36.827"N	104°41'26.515"W	0.00	
9317.00†	89.991	0.543	7270.26	2301.39	2263.85	-578.07	40°09'37.815"N	104°41'26.502"W	0.00	
9417.00†	89.991	0.543	7270.28	2401.02	2363.84	-577.12	40°09'38.804"N	104°41'26.490"W	0.00	
9517.00†	89.991	0.543	7270.29	2500.65	2463.84	-576.18	40°09'39.792"N	104°41'26.478"W	0.00	
9617.00†	89.991	0.543	7270.31	2600.28	2563.83	-575.23	40°09'40.780"N	104°41'26.466"W	0.00	
9717.00†	89.991	0.543	7270.33	2699.91	2663.83	-574.28	40°09'41.768"N	104°41'26.454"W	0.00	
9817.00†	89.991	0.543	7270.34	2799.54	2763.82	-573.33	40°09'42.756"N	104°41'26.442"W	0.00	
9917.00†	89.991	0.543	7270.36	2899.18	2863.82	-572.38	40°09'43.744"N	104°41'26.429"W	0.00	
10017.00†	89.991	0.543	7270.37	2998.81	2963.81	-571.44	40°09'44.733"N	104°41'26.417"W	0.00	
10117.00†	89.991	0.543	7270.39	3098.44	3063.81	-570.49	40°09'45.721"N	104°41'26.405"W	0.00	
10217.00†	89.991	0.543	7270.40	3198.07	3163.81	-569.54	40°09'46.709"N	104°41'26.393"W	0.00	
10317.00†	89.991	0.543	7270.42	3297.70	3263.80	-568.59	40°09'47.697"N	104°41'26.381"W	0.00	
10417.00†	89.991	0.543	7270.44	3397.33	3363.80	-567.65	40°09'48.685"N	104°41'26.369"W	0.00	
10517.00†	89.991	0.543	7270.45	3496.96	3463.79	-566.70	40°09'49.673"N	104°41'26.356"W	0.00	
10617.00†	89.991	0.543	7270.47	3596.59	3563.79	-565.75	40°09'50.661"N	104°41'26.344"W	0.00	
10717.00†	89.991	0.543	7270.48	3696.22	3663.78	-564.80	40°09'51.650"N	104°41'26.332"W	0.00	
10817.00†	89.991	0.543	7270.50	3795.85	3763.78	-563.85	40°09'52.638"N	104°41'26.320"W	0.00	
10917.00†	89.991	0.543	7270.51	3895.48	3863.77	-562.91	40°09'53.626"N	104°41'26.308"W	0.00	
11017.00†	89.991	0.543	7270.53	3995.12	3963.77	-561.96	40°09'54.614"N	104°41'26.295"W	0.00	
11117.00†	89.991	0.543	7270.54	4094.75	4063.77	-561.01	40°09'55.602"N	104°41'26.283"W	0.00	
11217.00†	89.991	0.543	7270.56	4194.38	4163.76	-560.06	40°09'56.590"N	104°41'26.271"W	0.00	
11317.00†	89.991	0.543	7270.58	4294.01	4263.76	-559.12	40°09'57.579"N	104°41'26.259"W	0.00	
11417.00†	89.991	0.543	7270.59	4393.64	4363.75	-558.17	40°09'58.567"N	104°41'26.247"W	0.00	
11517.00†	89.991	0.543	7270.61	4493.27	4463.75	-557.22	40°09'59.555"N	104°41'26.235"W	0.00	
11617.00†	89.991	0.543	7270.62	4592.90	4563.74	-556.27	40°10'00.543"N	104°41'26.222"W	0.00	
11717.00†	89.991	0.543	7270.64	4692.53	4663.74	-555.32	40°10'01.531"N	104°41'26.210"W	0.00	
11817.00†	89.991	0.543	7270.65	4792.16	4763.73	-554.38	40°10'02.519"N	104°41'26.198"W	0.00	
11917.00†	89.991	0.543	7270.67	4891.79	4863.73	-553.43	40°10'03.508"N	104°41'26.186"W	0.00	
12017.00†	89.991	0.543	7270.69	4991.42	4963.72	-552.48	40°10'04.496"N	104°41'26.174"W	0.00	
12117.00†	89.991	0.543	7270.70	5091.06	5063.72	-551.53	40°10'05.484"N	104°41'26.161"W	0.00	
12217.00†	89.991	0.543	7270.72	5190.69	5163.72	-550.59	40°10'06.472"N	104°41'26.149"W	0.00	



Planned Wellpath Report

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

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 NICHOLS 3C-5HZ (2268'FNL & 2387'FWL, SEC. 08)
Area	COLORADO	Well	NICHOLS 3C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 3C-5HZ PWB
Facility	SEC.08-T2N-R65W		

WELLPATH DATA (154 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12317.00†	89.991	0.543	7270.73	5290.32	5263.71	-549.64	40°10'07.460"N	104°41'26.137"W	0.00	
12417.00†	89.991	0.543	7270.75	5389.95	5363.71	-548.69	40°10'08.448"N	104°41'26.125"W	0.00	
12517.00†	89.991	0.543	7270.76	5489.58	5463.70	-547.74	40°10'09.437"N	104°41'26.113"W	0.00	
12617.00†	89.991	0.543	7270.78	5589.21	5563.70	-546.80	40°10'10.425"N	104°41'26.101"W	0.00	
12717.00†	89.991	0.543	7270.80	5688.84	5663.69	-545.85	40°10'11.413"N	104°41'26.088"W	0.00	
12817.00†	89.991	0.543	7270.81	5788.47	5763.69	-544.90	40°10'12.401"N	104°41'26.076"W	0.00	
12917.00†	89.991	0.543	7270.83	5888.10	5863.68	-543.95	40°10'13.389"N	104°41'26.064"W	0.00	
13017.00†	89.991	0.543	7270.84	5987.73	5963.68	-543.00	40°10'14.377"N	104°41'26.052"W	0.00	
13117.00†	89.991	0.543	7270.86	6087.37	6063.68	-542.06	40°10'15.365"N	104°41'26.040"W	0.00	
13217.00†	89.991	0.543	7270.87	6187.00	6163.67	-541.11	40°10'16.354"N	104°41'26.027"W	0.00	
13317.00†	89.991	0.543	7270.89	6286.63	6263.67	-540.16	40°10'17.342"N	104°41'26.015"W	0.00	
13417.00†	89.991	0.543	7270.91	6386.26	6363.66	-539.21	40°10'18.330"N	104°41'26.003"W	0.00	
13517.00†	89.991	0.543	7270.92	6485.89	6463.66	-538.27	40°10'19.318"N	104°41'25.991"W	0.00	
13617.00†	89.991	0.543	7270.94	6585.52	6563.65	-537.32	40°10'20.306"N	104°41'25.979"W	0.00	
13717.00†	89.991	0.543	7270.95	6685.15	6663.65	-536.37	40°10'21.294"N	104°41'25.967"W	0.00	
13817.00†	89.991	0.543	7270.97	6784.78	6763.64	-535.42	40°10'22.283"N	104°41'25.954"W	0.00	
13917.00†	89.991	0.543	7270.98	6884.41	6863.64	-534.47	40°10'23.271"N	104°41'25.942"W	0.00	
14017.00†	89.991	0.543	7271.00	6984.04	6963.64	-533.53	40°10'24.259"N	104°41'25.930"W	0.00	
14017.31	89.991	0.543	7271.00 [†]	6984.36	6963.95	-533.52	40°10'24.262"N	104°41'25.930"W	0.00	End of Tangent (J)

HOLE & CASING SECTIONS - Ref Wellbore: NICHOLS 3C-5HZ PWB Ref Wellpath: NICHOLS 3C-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	7626.46	6801.46	825.00	7270.00	0.00	0.00	573.38	-594.09
7in Casing Intermediate	17.00	7626.46	7609.46	17.00	7270.00	0.00	0.00	573.38	-594.09
6.125in Open Hole	7626.46	14017.31	6390.85	7270.00	7271.00	573.38	-594.09	6963.95	-533.52
4.5in Casing Production	17.00	14017.31	14000.31	17.00	7271.00	0.00	0.00	6963.95	-533.52



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NICHOLS 3C-5HZ (PERMIT) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 NICHOLS 3C-5HZ (2268'FNL & 2387'FWL, SEC. 08)
Area	COLORADO	Well	NICHOLS 3C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 3C-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	-182.14	756.68	3227549.93	1299913.51	40°09'13.644"N	104°41'09.312"W	polygon
NICHOLS SECTION 8 LINES		1.00	-182.14	756.68	3227549.93	1299913.51	40°09'13.644"N	104°41'09.312"W	polygon
NICHOLS HARDLINES (460' SETBACKS)		7201.00	-182.14	756.68	3227549.93	1299913.51	40°09'13.644"N	104°41'09.312"W	polygon
1) NICHOLS 3C-5HZ BHL ON PLAT (460'FNL & 1773'FWL, SEC.5) REV-1	14017.31	7271.00	6963.95	-533.52	3226194.45	1307047.18	40°10'24.262"N	104°41'25.930"W	point

SURVEY PROGRAM - Ref Wellbore: NICHOLS 3C-5HZ PWB Ref Wellpath: NICHOLS 3C-5HZ (PERMIT) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	14017.31	NaviTrak (Standard)		NICHOLS 3C-5HZ PWB



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NICHOLS 3C-5HZ (PERMIT) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 NICHOLS 3C-5HZ (2268'FNL & 2387'FWL, SEC. 08)
Area	COLORADO	Well	NICHOLS 3C-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 3C-5HZ PWB
Facility	SEC.08-T2N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
3939.01	5.680	270.000	3926.00	PARKMAN
4482.68	5.680	270.000	4467.00	SUSSEX
6952.60	23.271	347.173	6919.00	SHARON SPRINGS
7028.96	30.720	350.909	6987.00	NIOBRARA A
7057.30	33.504	351.903	7011.00	NIOBRARA B
7186.58	46.274	355.085	7110.00	NIOBRARA C
7443.03	71.741	358.664	7241.00	FORT HAYS