

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#11 NICHOLS 37N-31HZ (346'FSL & 1352'FEL,SEC.6)
Field: WELD COUNTY (KERR MCGEE) Well: NICHOLS 37N-31HZ
Facility: SEC.06-T2N-R65W Wellbore: NICHOLS 37N-31HZ PWB

Plot reference wellpath is NICHOLS 37N-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#11 NICHOLS 37N-31HZ (346'FSL & 1352'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#11 NICHOLS 37N-31HZ (346'FSL & 1352'FEL,SEC.6)	-4206.50	533.55	3223054.865	1302632.597	40°09'40.918"N	104°42'06.887"W

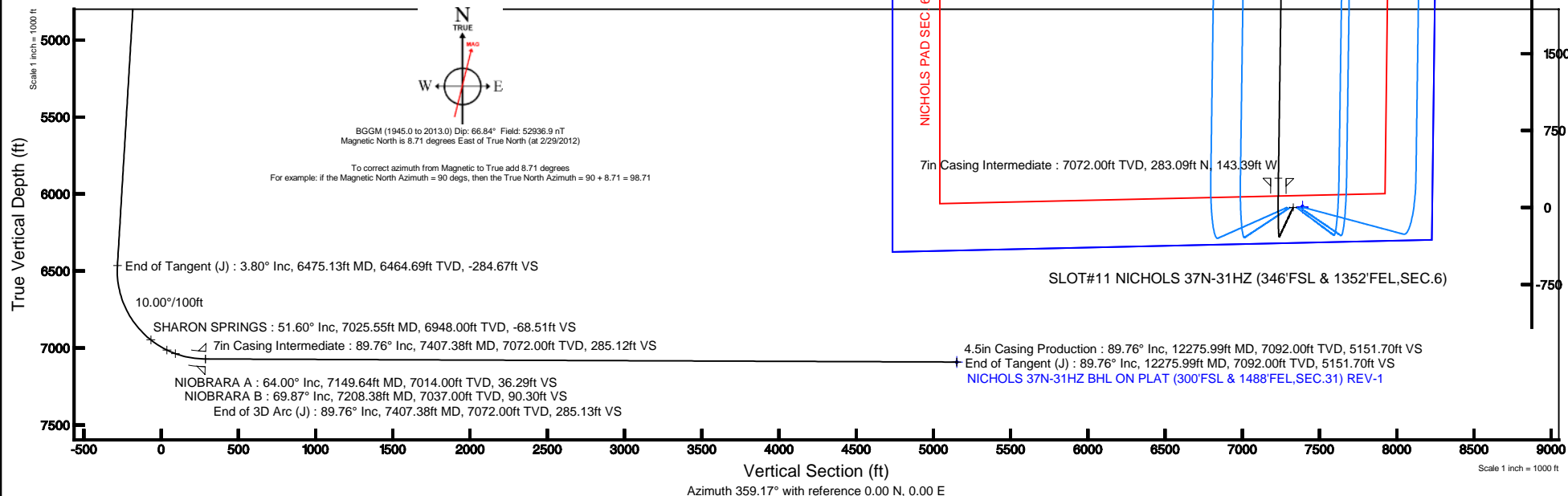
XTREME 6 (RKB) to Mud line (At Slot: SLOT#11 NICHOLS 37N-31HZ (346'FSL & 1352'FEL,SEC.6))	4942R
Mean Sea Level to Mud line (At Slot: SLOT#11 NICHOLS 37N-31HZ (346'FSL & 1352'FEL,SEC.6))	0R
XTREME 6 (RKB) to Mean Sea Level	4942R

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	205.200	17.00	0.00	0.00	0.00	0.00
End of Tangent	1600.00	0.000	205.200	1600.00	0.00	0.00	0.00	0.00
End of Build (J)	1790.00	3.800	205.200	1789.86	-5.70	-2.68	2.00	-5.66
End of Tangent (J)	6475.13	3.800	205.200	6464.69	-286.65	-134.89	0.00	-284.67
End of 3D Arc (J)	7407.38	89.765	0.813	7072.00	283.09	-143.39	10.00	285.13
End of Tangent (J)	12275.99	89.765	0.813	7092.00	5151.17	-74.29	0.00	5151.70

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	2.15	90.02	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W
NICHOLS PAD SECTION 6 LINES		0.00	2.15	90.02	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W
NICHOLS 37N-31HZ BHL ON PLAT (300'FSL & 1488'FEL,SEC.31) REV-1	12275.99	7092.00	5151.17	-74.29	3222934.23	1307782.66	40°10'31.822"N	104°42'07.844"W
NICHOLS PAD SEC. 31 HARDLINES (460' SETBACKS)	7118.00	2.15	90.02	90.02	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W
NICHOLS PAD SEC. 6 HARDLINES (460' SETBACKS)	7118.00	2.15	90.02	90.02	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W





Planned Wellpath Report

NICHOLS 37N-31HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 NICHOLS 37N-31HZ (346'FSL & 1352'FEL,SEC.6)
Area	COLORADO	Well	NICHOLS 37N-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 37N-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 11:42:02
Convergence at slot	0.52° East	Database/Source file	WellArchitectDB/NICHOLS_37N-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	-4206.50	533.55	3223054.87	1302632.60	40°09'40.918"N	104°42'06.887"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#11 NICHOLS 37N-31HZ (346'FSL & 1352'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	359.17°



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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 NICHOLS 37N-31HZ (346'FSL & 1352'FEL,SEC.6)
Area	COLORADO	Well	NICHOLS 37N-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 37N-31HZ PWB
Facility	SEC.06-T2N-R65W		

WELLPATH DATA (134 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	205.200	0.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	
17.00	0.000	205.200	17.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	Tie On
117.00†	0.000	205.200	117.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	
217.00†	0.000	205.200	217.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	
317.00†	0.000	205.200	317.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	
417.00†	0.000	205.200	417.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	
517.00†	0.000	205.200	517.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	
617.00†	0.000	205.200	617.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	
717.00†	0.000	205.200	717.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	
817.00†	0.000	205.200	817.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	
917.00†	0.000	205.200	917.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	
1017.00†	0.000	205.200	1017.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	
1117.00†	0.000	205.200	1117.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	
1217.00†	0.000	205.200	1217.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	
1317.00†	0.000	205.200	1317.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	
1417.00†	0.000	205.200	1417.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	
1517.00†	0.000	205.200	1517.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	
1600.00	0.000	205.200	1600.00	0.00	0.00	0.00	40°09'40.918"N	104°42'06.887"W	0.00	End of Tangent
1617.00†	0.340	205.200	1617.00	-0.05	-0.05	-0.02	40°09'40.918"N	104°42'06.887"W	2.00	
1717.00†	2.340	205.200	1716.97	-2.15	-2.16	-1.02	40°09'40.897"N	104°42'06.900"W	2.00	
1790.00	3.800	205.200	1789.86	-5.66	-5.70	-2.68	40°09'40.862"N	104°42'06.922"W	2.00	End of Build (J)
1817.00†	3.800	205.200	1816.80	-7.27	-7.32	-3.44	40°09'40.846"N	104°42'06.931"W	0.00	
1917.00†	3.800	205.200	1916.58	-13.22	-13.31	-6.27	40°09'40.786"N	104°42'06.968"W	0.00	
2017.00†	3.800	205.200	2016.36	-19.18	-19.31	-9.09	40°09'40.727"N	104°42'07.004"W	0.00	
2117.00†	3.800	205.200	2116.14	-25.13	-25.31	-11.91	40°09'40.668"N	104°42'07.040"W	0.00	
2217.00†	3.800	205.200	2215.92	-31.09	-31.30	-14.73	40°09'40.609"N	104°42'07.077"W	0.00	
2317.00†	3.800	205.200	2315.70	-37.04	-37.30	-17.55	40°09'40.549"N	104°42'07.113"W	0.00	
2417.00†	3.800	205.200	2415.48	-43.00	-43.30	-20.37	40°09'40.490"N	104°42'07.149"W	0.00	
2517.00†	3.800	205.200	2515.26	-48.95	-49.29	-23.20	40°09'40.431"N	104°42'07.186"W	0.00	
2617.00†	3.800	205.200	2615.04	-54.91	-55.29	-26.02	40°09'40.372"N	104°42'07.222"W	0.00	
2717.00†	3.800	205.200	2714.82	-60.87	-61.29	-28.84	40°09'40.312"N	104°42'07.258"W	0.00	
2817.00†	3.800	205.200	2814.60	-66.82	-67.28	-31.66	40°09'40.253"N	104°42'07.295"W	0.00	
2917.00†	3.800	205.200	2914.38	-72.78	-73.28	-34.48	40°09'40.194"N	104°42'07.331"W	0.00	
3017.00†	3.800	205.200	3014.16	-78.73	-79.28	-37.31	40°09'40.135"N	104°42'07.367"W	0.00	
3117.00†	3.800	205.200	3113.94	-84.69	-85.27	-40.13	40°09'40.075"N	104°42'07.404"W	0.00	
3217.00†	3.800	205.200	3213.72	-90.64	-91.27	-42.95	40°09'40.016"N	104°42'07.440"W	0.00	
3317.00†	3.800	205.200	3313.50	-96.60	-97.27	-45.77	40°09'39.957"N	104°42'07.477"W	0.00	
3417.00†	3.800	205.200	3413.28	-102.55	-103.26	-48.59	40°09'39.898"N	104°42'07.513"W	0.00	
3517.00†	3.800	205.200	3513.06	-108.51	-109.26	-51.41	40°09'39.838"N	104°42'07.549"W	0.00	
3617.00†	3.800	205.200	3612.84	-114.46	-115.26	-54.24	40°09'39.779"N	104°42'07.586"W	0.00	
3717.00†	3.800	205.200	3712.62	-120.42	-121.25	-57.06	40°09'39.720"N	104°42'07.622"W	0.00	
3817.00†	3.800	205.200	3812.40	-126.37	-127.25	-59.88	40°09'39.661"N	104°42'07.658"W	0.00	
3917.00†	3.800	205.200	3912.18	-132.33	-133.25	-62.70	40°09'39.601"N	104°42'07.695"W	0.00	
4010.02†	3.800	205.200	4005.00	-137.87	-138.83	-65.33	40°09'39.546"N	104°42'07.728"W	0.00	PARKMAN
4017.00†	3.800	205.200	4011.96	-138.28	-139.24	-65.52	40°09'39.542"N	104°42'07.731"W	0.00	
4117.00†	3.800	205.200	4111.74	-144.24	-145.24	-68.35	40°09'39.483"N	104°42'07.767"W	0.00	
4217.00†	3.800	205.200	4211.52	-150.20	-151.24	-71.17	40°09'39.423"N	104°42'07.804"W	0.00	
4317.00†	3.800	205.200	4311.31	-156.15	-157.23	-73.99	40°09'39.364"N	104°42'07.840"W	0.00	
4417.00†	3.800	205.200	4411.09	-162.11	-163.23	-76.81	40°09'39.305"N	104°42'07.876"W	0.00	
4508.12†	3.800	205.200	4502.00	-167.53	-168.69	-79.38	40°09'39.251"N	104°42'07.909"W	0.00	SUSSEX
4517.00†	3.800	205.200	4510.87	-168.06	-169.23	-79.63	40°09'39.246"N	104°42'07.913"W	0.00	
4617.00†	3.800	205.200	4610.65	-174.02	-175.22	-82.45	40°09'39.186"N	104°42'07.949"W	0.00	
4717.00†	3.800	205.200	4710.43	-179.97	-181.22	-85.28	40°09'39.127"N	104°42'07.985"W	0.00	
4817.00†	3.800	205.200	4810.21	-185.93	-187.22	-88.10	40°09'39.068"N	104°42'08.022"W	0.00	
4917.00†	3.800	205.200	4909.99	-191.88	-193.21	-90.92	40°09'39.009"N	104°42'08.058"W	0.00	
5017.00†	3.800	205.200	5009.77	-197.84	-199.21	-93.74	40°09'38.949"N	104°42'08.094"W	0.00	
5117.00†	3.800	205.200	5109.55	-203.79	-205.21	-96.56	40°09'38.890"N	104°42'08.131"W	0.00	
5217.00†	3.800	205.200	5209.33	-209.75	-211.20	-99.38	40°09'38.831"N	104°42'08.167"W	0.00	
5317.00†	3.800	205.200	5309.11	-215.70	-217.20	-102.21	40°09'38.772"N	104°42'08.203"W	0.00	
5417.00†	3.800	205.200	5408.89	-221.66	-223.20	-105.03	40°09'38.712"N	104°42'08.240"W	0.00	



Planned Wellpath Report

NICHOLS 37N-31HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 NICHOLS 37N-31HZ (346'FSL & 1352'FEL,SEC.6)
Area	COLORADO	Well	NICHOLS 37N-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 37N-31HZ PWB
Facility	SEC.06-T2N-R65W		

WELLPATH DATA (134 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5517.00†	3.800	205.200	5508.67	-227.61	-229.19	-107.85	40°09'38.653"N	104°42'08.276"W	0.00	
5617.00†	3.800	205.200	5608.45	-233.57	-235.19	-110.67	40°09'38.594"N	104°42'08.312"W	0.00	
5717.00†	3.800	205.200	5708.23	-239.53	-241.19	-113.49	40°09'38.535"N	104°42'08.349"W	0.00	
5817.00†	3.800	205.200	5808.01	-245.48	-247.18	-116.32	40°09'38.475"N	104°42'08.385"W	0.00	
5917.00†	3.800	205.200	5907.79	-251.44	-253.18	-119.14	40°09'38.416"N	104°42'08.421"W	0.00	
6017.00†	3.800	205.200	6007.57	-257.39	-259.18	-121.96	40°09'38.357"N	104°42'08.458"W	0.00	
6117.00†	3.800	205.200	6107.35	-263.35	-265.17	-124.78	40°09'38.298"N	104°42'08.494"W	0.00	
6217.00†	3.800	205.200	6207.13	-269.30	-271.17	-127.60	40°09'38.238"N	104°42'08.531"W	0.00	
6317.00†	3.800	205.200	6306.91	-275.26	-277.17	-130.42	40°09'38.179"N	104°42'08.567"W	0.00	
6417.00†	3.800	205.200	6406.69	-281.21	-283.16	-133.25	40°09'38.120"N	104°42'08.603"W	0.00	
6475.13	3.800	205.200	6464.69	-284.67	-286.65	-134.89	40°09'38.085"N	104°42'08.624"W	0.00	End of Tangent (J)
6517.00†	1.730	295.642	6506.52	-285.64	-287.63	-136.05	40°09'38.076"N	104°42'08.639"W	10.00	
6617.00†	10.839	352.587	6605.86	-275.60	-277.63	-138.63	40°09'38.174"N	104°42'08.673"W	10.00	
6717.00†	20.783	356.677	6701.96	-248.47	-250.52	-140.88	40°09'38.442"N	104°42'08.701"W	10.00	
6817.00†	30.762	358.180	6791.90	-205.06	-207.14	-142.72	40°09'38.871"N	104°42'08.725"W	10.00	
6917.00†	40.751	358.996	6872.95	-146.70	-148.80	-144.11	40°09'39.448"N	104°42'08.757"W	10.00	
7017.00†	50.744	359.536	6942.64	-75.17	-77.27	-145.00	40°09'40.154"N	104°42'08.755"W	10.00	
7025.55†	51.598	359.574	6948.00	-68.51	-70.61	-145.05	40°09'40.220"N	104°42'08.755"W	10.00	SHARON SPRINGS
7117.00†	60.738	359.940	6998.86	7.37	5.28	-145.36	40°09'40.970"N	104°42'08.759"W	10.00	
7149.64†	64.001	0.054	7014.00	36.29	34.19	-145.36	40°09'41.256"N	104°42'08.759"W	10.00	NIOBRARA A
7208.38†	69.872	0.244	7037.00	90.30	88.21	-145.22	40°09'41.790"N	104°42'08.757"W	10.00	NIOBRARA B
7217.00†	70.734	0.271	7039.91	98.41	96.33	-145.18	40°09'41.870"N	104°42'08.757"W	10.00	
7317.00†	80.730	0.563	7064.52	195.18	193.12	-144.47	40°09'42.826"N	104°42'08.748"W	10.00	
7407.38	89.765	0.813	7072.00	285.13	283.09	-143.39	40°09'43.715"N	104°42'08.734"W	10.00	End of 3D Arc (J)
7417.00†	89.765	0.813	7072.04	294.74	292.71	-143.25	40°09'43.811"N	104°42'08.732"W	0.00	
7517.00†	89.765	0.813	7072.45	394.70	392.69	-141.83	40°09'44.799"N	104°42'08.714"W	0.00	
7617.00†	89.765	0.813	7072.86	494.66	492.68	-140.41	40°09'45.787"N	104°42'08.696"W	0.00	
7717.00†	89.765	0.813	7073.27	594.62	592.67	-138.99	40°09'46.775"N	104°42'08.677"W	0.00	
7817.00†	89.765	0.813	7073.68	694.57	692.66	-137.57	40°09'47.763"N	104°42'08.659"W	0.00	
7917.00†	89.765	0.813	7074.09	794.53	792.65	-136.15	40°09'48.751"N	104°42'08.641"W	0.00	
8017.00†	89.765	0.813	7074.51	894.49	892.64	-134.74	40°09'49.739"N	104°42'08.622"W	0.00	
8117.00†	89.765	0.813	7074.92	994.45	992.63	-133.32	40°09'50.727"N	104°42'08.604"W	0.00	
8217.00†	89.765	0.813	7075.33	1094.41	1092.62	-131.90	40°09'51.715"N	104°42'08.586"W	0.00	
8317.00†	89.765	0.813	7075.74	1194.36	1192.61	-130.48	40°09'52.703"N	104°42'08.568"W	0.00	
8417.00†	89.765	0.813	7076.15	1294.32	1292.60	-129.06	40°09'53.691"N	104°42'08.549"W	0.00	
8517.00†	89.765	0.813	7076.56	1394.28	1392.59	-127.64	40°09'54.680"N	104°42'08.531"W	0.00	
8617.00†	89.765	0.813	7076.97	1494.24	1492.57	-126.22	40°09'55.668"N	104°42'08.513"W	0.00	
8717.00†	89.765	0.813	7077.38	1594.20	1592.56	-124.80	40°09'56.656"N	104°42'08.495"W	0.00	
8817.00†	89.765	0.813	7077.79	1694.16	1692.55	-123.38	40°09'57.644"N	104°42'08.476"W	0.00	
8917.00†	89.765	0.813	7078.20	1794.11	1792.54	-121.96	40°09'58.632"N	104°42'08.458"W	0.00	
9017.00†	89.765	0.813	7078.61	1894.07	1892.53	-120.54	40°09'59.620"N	104°42'08.440"W	0.00	
9117.00†	89.765	0.813	7079.02	1994.03	1992.52	-119.12	40°10'00.608"N	104°42'08.421"W	0.00	
9217.00†	89.765	0.813	7079.43	2093.99	2092.51	-117.70	40°10'01.596"N	104°42'08.403"W	0.00	
9317.00†	89.765	0.813	7079.85	2193.95	2192.50	-116.28	40°10'02.584"N	104°42'08.385"W	0.00	
9417.00†	89.765	0.813	7080.26	2293.91	2292.49	-114.86	40°10'03.572"N	104°42'08.367"W	0.00	
9517.00†	89.765	0.813	7080.67	2393.86	2392.48	-113.45	40°10'04.561"N	104°42'08.348"W	0.00	
9617.00†	89.765	0.813	7081.08	2493.82	2492.47	-112.03	40°10'05.549"N	104°42'08.330"W	0.00	
9717.00†	89.765	0.813	7081.49	2593.78	2592.45	-110.61	40°10'06.537"N	104°42'08.312"W	0.00	
9817.00†	89.765	0.813	7081.90	2693.74	2692.44	-109.19	40°10'07.525"N	104°42'08.293"W	0.00	
9917.00†	89.765	0.813	7082.31	2793.70	2792.43	-107.77	40°10'08.513"N	104°42'08.275"W	0.00	
10017.00†	89.765	0.813	7082.72	2893.65	2892.42	-106.35	40°10'09.501"N	104°42'08.257"W	0.00	
10117.00†	89.765	0.813	7083.13	2993.61	2992.41	-104.93	40°10'10.489"N	104°42'08.239"W	0.00	
10217.00†	89.765	0.813	7083.54	3093.57	3092.40	-103.51	40°10'11.477"N	104°42'08.220"W	0.00	
10317.00†	89.765	0.813	7083.95	3193.53	3192.39	-102.09	40°10'12.465"N	104°42'08.202"W	0.00	
10417.00†	89.765	0.813	7084.36	3293.49	3292.38	-100.67	40°10'13.453"N	104°42'08.184"W	0.00	
10517.00†	89.765	0.813	7084.77	3393.45	3392.37	-99.25	40°10'14.442"N	104°42'08.166"W	0.00	
10617.00†	89.765	0.813	7085.19	3493.40	3492.36	-97.83	40°10'15.430"N	104°42'08.147"W	0.00	
10717.00†	89.765	0.813	7085.60	3593.36	3592.35	-96.41	40°10'16.418"N	104°42'08.129"W	0.00	
10817.00†	89.765	0.813	7086.01	3693.32	3692.33	-94.99	40°10'17.406"N	104°42'08.111"W	0.00	
10917.00†	89.765	0.813	7086.42	3793.28	3792.32	-93.57	40°10'18.394"N	104°42'08.092"W	0.00	



Planned Wellpath Report

NICHOLS 37N-31HZ (PERMIT) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 NICHOLS 37N-31HZ (346'FSL & 1352'FEL,SEC.6)
Area	COLORADO	Well	NICHOLS 37N-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 37N-31HZ PWB
Facility	SEC.06-T2N-R65W		

WELLPATH DATA (134 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11017.00†	89.765	0.813	7086.83	3893.24	3892.31	-92.16	40°10'19.382"N	104°42'08.074"W	0.00	
11117.00†	89.765	0.813	7087.24	3993.19	3992.30	-90.74	40°10'20.370"N	104°42'08.056"W	0.00	
11217.00†	89.765	0.813	7087.65	4093.15	4092.29	-89.32	40°10'21.358"N	104°42'08.038"W	0.00	
11317.00†	89.765	0.813	7088.06	4193.11	4192.28	-87.90	40°10'22.346"N	104°42'08.019"W	0.00	
11417.00†	89.765	0.813	7088.47	4293.07	4292.27	-86.48	40°10'23.334"N	104°42'08.001"W	0.00	
11517.00†	89.765	0.813	7088.88	4393.03	4392.26	-85.06	40°10'24.322"N	104°42'07.983"W	0.00	
11617.00†	89.765	0.813	7089.29	4492.99	4492.25	-83.64	40°10'25.311"N	104°42'07.964"W	0.00	
11717.00†	89.765	0.813	7089.70	4592.94	4592.24	-82.22	40°10'26.299"N	104°42'07.946"W	0.00	
11817.00†	89.765	0.813	7090.11	4692.90	4692.23	-80.80	40°10'27.287"N	104°42'07.928"W	0.00	
11917.00†	89.765	0.813	7090.53	4792.86	4792.21	-79.38	40°10'28.275"N	104°42'07.910"W	0.00	
12017.00†	89.765	0.813	7090.94	4892.82	4892.20	-77.96	40°10'29.263"N	104°42'07.891"W	0.00	
12117.00†	89.765	0.813	7091.35	4992.78	4992.19	-76.54	40°10'30.251"N	104°42'07.873"W	0.00	
12217.00†	89.765	0.813	7091.76	5092.74	5092.18	-75.12	40°10'31.239"N	104°42'07.855"W	0.00	
12275.99	89.765	0.813	7092.00 ¹	5151.70	5151.17	-74.29	40°10'31.822"N	104°42'07.844"W	0.00	End of Tangent (J)

HOLE & CASING SECTIONS - Ref Wellbore: NICHOLS 37N-31HZ PWB Ref Wellpath: NICHOLS 37N-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	7407.38	6507.38	900.00	7072.00	0.00	0.00	283.09	-143.39
7in Casing Intermediate	17.00	7407.38	7390.38	17.00	7072.00	0.00	0.00	283.09	-143.39
6.125in Open Hole	7407.38	12275.99	4868.61	7072.00	7092.00	283.09	-143.39	5151.17	-74.29
4.5in Casing Production	17.00	12275.99	12258.99	17.00	7092.00	0.00	0.00	5151.17	-74.29

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	2.15	90.02	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W	polygon
NICHOLS PAD SECTION 6 LINES		0.00	2.15	90.02	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W	polygon
1) NICHOLS 37N-31HZ BHL ON PLAT (300'FSL & 1488'FEL,SEC.31) REV-1	12275.99	7092.00	5151.17	-74.29	3222934.23	1307782.66	40°10'31.822"N	104°42'07.844"W	point
NICHOLS PAD SEC. 31 HARDLINES (460' SETBACKS)		7118.00	2.15	90.02	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W	polygon
NICHOLS PAD SEC. 6 HARDLINES (460' SETBACKS)		7118.00	2.15	90.02	3223144.85	1302635.55	40°09'40.939"N	104°42'05.728"W	polygon

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

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	12275.99	NaviTrak (Standard)		NICHOLS 37N-31HZ PWB



Planned Wellpath Report
NICHOLS 37N-31HZ (PERMIT) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 NICHOLS 37N-31HZ (346'FSL & 1352'FEL,SEC.6)
Area	COLORADO	Well	NICHOLS 37N-31HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NICHOLS 37N-31HZ PWB
Facility	SEC.06-T2N-R65W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]		Azimuth [°]	TVD [ft]	Comment
4010.02	3.800		205.200	4005.00	PARKMAN
4508.12	3.800		205.200	4502.00	SUSSEX
7025.55	51.598		359.574	6948.00	SHARON SPRINGS
7149.64	64.001		0.054	7014.00	NIOBRARA A
7208.38	69.872		0.244	7037.00	NIOBRARA B