

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#27 NRC 27N-5HZ (500'FNL & 1290'FEL, SEC.08)
Field: WELD COUNTY (KERR MCGEE) Well: NRC 27N-5HZ
Facility: SEC.08-T1N-R67W Wellbore: NRC 27N-5HZ PWB

Plot reference wellpath is NRC 27N-5HZ (PERMIT REV-1) PWP

True vertical depths are referenced to Rig on SLOT#27 NRC 27N-5HZ (500'FNL & 1290'FEL, SEC.08) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to Rig on SLOT#27 NRC 27N-5HZ (500'FNL & 1290'FEL, SEC.08) (RKB)	North Reference: True north
Rig on SLOT#27 NRC 27N-5HZ (500'FNL & 1290'FEL, SEC.08) (RKB) to Mean Sea Level: 5026 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#27 NRC 27N-5HZ (500'FNL & 1290'FEL, SEC.08)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wlljg02 on 12/20/2013

Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.08-T1N-R67W			3165100.027	1265676.420	40°03'40.190"N	104°54'36.529"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#27 NRC 27N-5HZ (500FNL & 1290FEL, SEC.08)	3736.61	117.78	3165192.945	1269413.586	40°04'17.116"N	104°54'35.014"W
Rig on SLOT#27 NRC 27N-5HZ (500FNL & 1290FEL, SEC.08) (RKB) to Mud line (At Slot: SLOT#27 NRC 27N-5HZ (500FNL & 1290FEL, SEC.08))					5026ft	
Mean Sea Level to Mud line (At Slot: SLOT#27 NRC 27N-5HZ (500FNL & 1290FEL, SEC.08))					0ft	
Rig on SLOT#27 NRC 27N-5HZ (500FNL & 1290FEL, SEC.08) (RKB) to Mean Sea Level					5026ft	

Survey Program

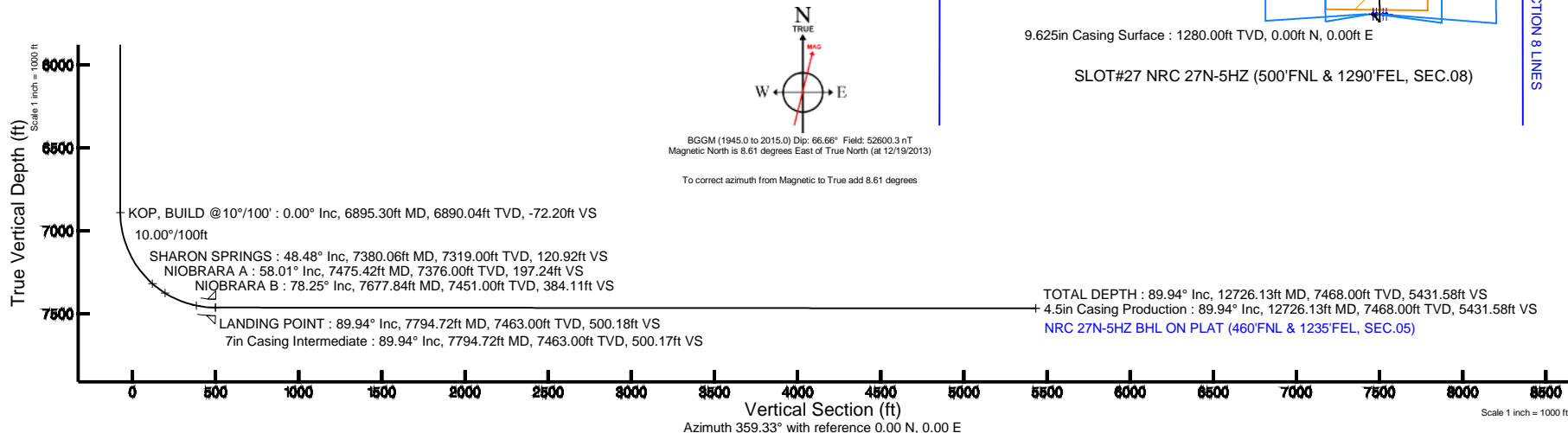
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	7794.72	NaviTrak	NaviTrak (Standard)		NRC 27N-5HZ PWB
7794.72	12726.13	NaviTrak	NaviTrak (Standard)		NRC 27N-5HZ PWB

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	139.600	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1400.00	0.000	139.600	1400.00	0.00	0.00	0.00	0.00
END NUDGE	1800.00	8.000	139.600	1798.70	-21.23	18.07	2.00	-21.44
BEGIN DROP	2073.96	8.000	139.600	2070.00	-50.27	42.78	0.00	-50.76
END DROP	2473.96	0.000	359.335	2468.70	-71.50	60.85	2.00	-72.20
KOP, BUILD @10°/100'	6895.30	0.000	359.335	6890.04	-71.50	60.85	0.00	-72.20
LANDING POINT	7794.72	89.942	359.335	7463.00	500.84	54.21	10.00	500.18
TOTAL DEPTH	12726.13	89.942	359.335	7468.00	5431.91	-3.05	0.00	5431.58

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
NRC 27N-5HZ BHL ON PLAT (460'FNL & 1235'FEL, SEC.05)	12726.13	7468.00	5431.91	-3.05	3165153.74	1274845.14	40°05'10.790"N	104°54'35.053"W
NRC SECTION 5 LINES		7500.00	0.71	-59.86	3165133.08	1269413.90	40°04'17.123"N	104°54'35.784"W
NRC SECTION 8 LINES		7500.00	0.71	-59.86	3165133.08	1269413.90	40°04'17.123"N	104°54'35.784"W
NRC 20-SHAZ07N-5HZ LAND BOX		7700.00	0.30	-29.93	3165163.01	1269413.69	40°04'17.119"N	104°54'35.399"W





Planned Wellpath Report

NRC 27N-5HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#27 NRC 27N-5HZ (500'FNL & 1290'FEL, SEC.08)
Area	COLORADO	Well	NRC 27N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 27N-5HZ PWB
Facility	SEC.08-T1N-R67W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Wilsjef02
Scale	0.999962	Report Generated	12/20/2013 at 09:46:37
Convergence at slot	n/a	Database/Source file	WellArchitectDB/NRC_27N-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	3736.61	117.78	3165192.95	1269413.59	40°04'17.116"N	104°54'35.014"W
Facility Reference Pt			3165100.03	1265676.42	40°03'40.190"N	104°54'36.529"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#27 NRC 27N-5HZ (500'FNL & 1290'FEL, SEC.08) (RKB) to Facility Vertical Datum	5026.00ft
Horizontal Reference Pt	Slot	Rig on SLOT#27 NRC 27N-5HZ (500'FNL & 1290'FEL, SEC.08) (RKB) to Mean Sea Level	5026.00ft
Vertical Reference Pt	Rig on SLOT#27 NRC 27N-5HZ (500'FNL & 1290'FEL, SEC.08) (RKB)	Rig on SLOT#27 NRC 27N-5HZ (500'FNL & 1290'FEL, SEC.08) (RKB) to Mud Line at Slot (SLOT#27 NRC 27N-5HZ (500'FNL & 1290'FEL, SEC.08))	5026.00ft
MD Reference Pt	Rig on SLOT#27 NRC 27N-5HZ (500'FNL & 1290'FEL, SEC.08) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.33°



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Area	COLORADO	Well	NRC 27N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 27N-5HZ PWB
Facility	SEC.08-T1N-R67W		

WELLPATH DATA (141 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	139.600	0.00	0.00	0.00	0.00	40°04'17.116"N	104°54'35.014"W	0.00	
17.00	0.000	139.600	17.00	0.00	0.00	0.00	40°04'17.116"N	104°54'35.014"W	0.00	TIE-ON
117.00†	0.000	139.600	117.00	0.00	0.00	0.00	40°04'17.116"N	104°54'35.014"W	0.00	
217.00†	0.000	139.600	217.00	0.00	0.00	0.00	40°04'17.116"N	104°54'35.014"W	0.00	
317.00†	0.000	139.600	317.00	0.00	0.00	0.00	40°04'17.116"N	104°54'35.014"W	0.00	
417.00†	0.000	139.600	417.00	0.00	0.00	0.00	40°04'17.116"N	104°54'35.014"W	0.00	
517.00†	0.000	139.600	517.00	0.00	0.00	0.00	40°04'17.116"N	104°54'35.014"W	0.00	
617.00†	0.000	139.600	617.00	0.00	0.00	0.00	40°04'17.116"N	104°54'35.014"W	0.00	
717.00†	0.000	139.600	717.00	0.00	0.00	0.00	40°04'17.116"N	104°54'35.014"W	0.00	
817.00†	0.000	139.600	817.00	0.00	0.00	0.00	40°04'17.116"N	104°54'35.014"W	0.00	
917.00†	0.000	139.600	917.00	0.00	0.00	0.00	40°04'17.116"N	104°54'35.014"W	0.00	
1017.00†	0.000	139.600	1017.00	0.00	0.00	0.00	40°04'17.116"N	104°54'35.014"W	0.00	
1117.00†	0.000	139.600	1117.00	0.00	0.00	0.00	40°04'17.116"N	104°54'35.014"W	0.00	
1217.00†	0.000	139.600	1217.00	0.00	0.00	0.00	40°04'17.116"N	104°54'35.014"W	0.00	
1317.00†	0.000	139.600	1317.00	0.00	0.00	0.00	40°04'17.116"N	104°54'35.014"W	0.00	
1400.00	0.000	139.600	1400.00	0.00	0.00	0.00	40°04'17.116"N	104°54'35.014"W	0.00	BEGIN NUDGE
1417.00†	0.340	139.600	1417.00	-0.04	-0.04	0.03	40°04'17.116"N	104°54'35.014"W	2.00	
1517.00†	2.340	139.600	1516.97	-1.84	-1.82	1.55	40°04'17.098"N	104°54'34.994"W	2.00	
1617.00†	4.340	139.600	1616.79	-6.32	-6.26	5.32	40°04'17.054"N	104°54'34.946"W	2.00	
1717.00†	6.340	139.600	1716.35	-13.47	-13.34	11.36	40°04'16.984"N	104°54'34.868"W	2.00	
1800.00	8.000	139.600	1798.70	-21.44	-21.23	18.07	40°04'16.906"N	104°54'34.782"W	2.00	END NUDGE
1817.00†	8.000	139.600	1815.54	-23.26	-23.03	19.60	40°04'16.888"N	104°54'34.762"W	0.00	
1917.00†	8.000	139.600	1914.56	-33.96	-33.63	28.62	40°04'16.784"N	104°54'34.646"W	0.00	
2017.00†	8.000	139.600	2013.59	-44.66	-44.23	37.64	40°04'16.679"N	104°54'34.530"W	0.00	
2073.96	8.000	139.600	2070.00	-50.76	-50.27	42.78	40°04'16.619"N	104°54'34.464"W	0.00	BEGIN DROP
2117.00†	7.139	139.600	2112.66	-55.12	-54.59	46.46	40°04'16.577"N	104°54'34.416"W	2.00	
2217.00†	5.139	139.600	2212.08	-63.34	-62.73	53.39	40°04'16.496"N	104°54'34.327"W	2.00	
2317.00†	3.139	139.600	2311.82	-68.90	-68.23	58.06	40°04'16.442"N	104°54'34.267"W	2.00	
2417.00†	1.139	139.600	2411.74	-71.77	-71.07	60.48	40°04'16.414"N	104°54'34.236"W	2.00	
2473.96	0.000	359.335	2468.70	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	2.00	END DROP
2517.00†	0.000	359.335	2511.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
2617.00†	0.000	359.335	2611.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
2717.00†	0.000	359.335	2711.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
2817.00†	0.000	359.335	2811.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
2917.00†	0.000	359.335	2911.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
3017.00†	0.000	359.335	3011.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
3117.00†	0.000	359.335	3111.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
3217.00†	0.000	359.335	3211.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
3317.00†	0.000	359.335	3311.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
3417.00†	0.000	359.335	3411.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
3517.00†	0.000	359.335	3511.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
3617.00†	0.000	359.335	3611.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
3717.00†	0.000	359.335	3711.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
3817.00†	0.000	359.335	3811.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
3917.00†	0.000	359.335	3911.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	



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NRC 27N-5HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#27 NRC 27N-5HZ (500'FNL & 1290'FEL, SEC.08)
Area	COLORADO	Well	NRC 27N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 27N-5HZ PWB
Facility	SEC.08-T1N-R67W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4017.00†	0.000	359.335	4011.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
4117.00†	0.000	359.335	4111.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
4217.00†	0.000	359.335	4211.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
4220.26†	0.000	359.335	4215.00	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	PARKMAN
4317.00†	0.000	359.335	4311.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
4417.00†	0.000	359.335	4411.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
4517.00†	0.000	359.335	4511.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
4555.26†	0.000	359.335	4550.00	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	SUSSEX
4617.00†	0.000	359.335	4611.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
4717.00†	0.000	359.335	4711.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
4817.00†	0.000	359.335	4811.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
4917.00†	0.000	359.335	4911.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
5017.00†	0.000	359.335	5011.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
5117.00†	0.000	359.335	5111.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
5217.00†	0.000	359.335	5211.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
5317.00†	0.000	359.335	5311.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
5417.00†	0.000	359.335	5411.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
5517.00†	0.000	359.335	5511.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
5617.00†	0.000	359.335	5611.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
5717.00†	0.000	359.335	5711.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
5817.00†	0.000	359.335	5811.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
5917.00†	0.000	359.335	5911.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
6017.00†	0.000	359.335	6011.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
6117.00†	0.000	359.335	6111.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
6217.00†	0.000	359.335	6211.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
6317.00†	0.000	359.335	6311.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
6417.00†	0.000	359.335	6411.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
6517.00†	0.000	359.335	6511.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
6617.00†	0.000	359.335	6611.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
6717.00†	0.000	359.335	6711.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
6817.00†	0.000	359.335	6811.74	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	
6895.30	0.000	359.335	6890.04	-72.20	-71.50	60.85	40°04'16.409"N	104°54'34.231"W	0.00	KOP, BUILD @10°/100'
6917.00†	2.170	359.335	6911.73	-71.79	-71.09	60.85	40°04'16.413"N	104°54'34.231"W	10.00	
7017.00†	12.170	359.335	7010.82	-59.33	-58.63	60.70	40°04'16.537"N	104°54'34.233"W	10.00	
7117.00†	22.170	359.335	7106.25	-29.84	-29.14	60.36	40°04'16.828"N	104°54'34.238"W	10.00	
7217.00†	32.170	359.335	7195.10	15.76	16.46	59.83	40°04'17.279"N	104°54'34.244"W	10.00	
7317.00†	42.170	359.335	7274.68	76.10	76.79	59.13	40°04'17.875"N	104°54'34.253"W	10.00	
7380.06†	48.476	359.335	7319.00	120.92	121.61	58.61	40°04'18.318"N	104°54'34.260"W	10.00	SHARON SPRINGS
7417.00†	52.170	359.335	7342.58	149.35	150.03	58.28	40°04'18.599"N	104°54'34.264"W	10.00	
7475.42†	58.012	359.335	7376.00	197.24	197.92	57.72	40°04'19.072"N	104°54'34.272"W	10.00	NIOBRARA A
7517.00†	62.170	359.335	7396.73	233.27	233.95	57.30	40°04'19.428"N	104°54'34.277"W	10.00	
7617.00†	72.170	359.335	7435.48	325.32	325.99	56.24	40°04'20.338"N	104°54'34.291"W	10.00	
7677.84†	78.253	359.335	7451.00	384.11	384.78	55.55	40°04'20.918"N	104°54'34.299"W	10.00	NIOBRARA B
7717.00†	82.170	359.335	7457.66	422.70	423.36	55.11	40°04'21.300"N	104°54'34.305"W	10.00	
7794.72	89.942	359.335	7463.00	500.18	500.84	54.21	40°04'22.065"N	104°54'34.317"W	10.00	LANDING POINT



Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#27 NRC 27N-5HZ (500'FNL & 1290'FEL, SEC.08)
Area	COLORADO	Well	NRC 27N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 27N-5HZ PWB
Facility	SEC.08-T1N-R67W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7817.00†	89.942	359.335	7463.02	522.45	523.11	53.95	40°04'22.286"N	104°54'34.320"W	0.00	
7917.00†	89.942	359.335	7463.12	622.45	623.11	52.79	40°04'23.274"N	104°54'34.335"W	0.00	
8017.00†	89.942	359.335	7463.22	722.45	723.10	51.63	40°04'24.262"N	104°54'34.350"W	0.00	
8117.00†	89.942	359.335	7463.33	822.45	823.09	50.46	40°04'25.250"N	104°54'34.365"W	0.00	
8217.00†	89.942	359.335	7463.43	922.45	923.09	49.30	40°04'26.238"N	104°54'34.380"W	0.00	
8317.00†	89.942	359.335	7463.53	1022.45	1023.08	48.14	40°04'27.226"N	104°54'34.395"W	0.00	
8417.00†	89.942	359.335	7463.63	1122.45	1123.07	46.98	40°04'28.214"N	104°54'34.410"W	0.00	
8517.00†	89.942	359.335	7463.73	1222.45	1223.07	45.82	40°04'29.203"N	104°54'34.425"W	0.00	
8617.00†	89.942	359.335	7463.83	1322.45	1323.06	44.66	40°04'30.191"N	104°54'34.440"W	0.00	
8717.00†	89.942	359.335	7463.93	1422.45	1423.05	43.50	40°04'31.179"N	104°54'34.454"W	0.00	
8817.00†	89.942	359.335	7464.04	1522.45	1523.05	42.34	40°04'32.167"N	104°54'34.469"W	0.00	
8917.00†	89.942	359.335	7464.14	1622.45	1623.04	41.18	40°04'33.155"N	104°54'34.484"W	0.00	
9017.00†	89.942	359.335	7464.24	1722.45	1723.03	40.02	40°04'34.143"N	104°54'34.499"W	0.00	
9117.00†	89.942	359.335	7464.34	1822.45	1823.03	38.85	40°04'35.131"N	104°54'34.514"W	0.00	
9217.00†	89.942	359.335	7464.44	1922.45	1923.02	37.69	40°04'36.120"N	104°54'34.529"W	0.00	
9317.00†	89.942	359.335	7464.54	2022.45	2023.01	36.53	40°04'37.108"N	104°54'34.544"W	0.00	
9417.00†	89.942	359.335	7464.64	2122.45	2123.00	35.37	40°04'38.096"N	104°54'34.559"W	0.00	
9517.00†	89.942	359.335	7464.75	2222.45	2223.00	34.21	40°04'39.084"N	104°54'34.574"W	0.00	
9617.00†	89.942	359.335	7464.85	2322.45	2322.99	33.05	40°04'40.072"N	104°54'34.589"W	0.00	
9717.00†	89.942	359.335	7464.95	2422.45	2422.98	31.89	40°04'41.060"N	104°54'34.604"W	0.00	
9817.00†	89.942	359.335	7465.05	2522.45	2522.98	30.73	40°04'42.049"N	104°54'34.619"W	0.00	
9917.00†	89.942	359.335	7465.15	2622.45	2622.97	29.57	40°04'43.037"N	104°54'34.634"W	0.00	
10017.00†	89.942	359.335	7465.25	2722.45	2722.96	28.41	40°04'44.025"N	104°54'34.649"W	0.00	
10117.00†	89.942	359.335	7465.35	2822.45	2822.96	27.24	40°04'45.013"N	104°54'34.664"W	0.00	
10217.00†	89.942	359.335	7465.46	2922.45	2922.95	26.08	40°04'46.001"N	104°54'34.678"W	0.00	
10317.00†	89.942	359.335	7465.56	3022.45	3022.94	24.92	40°04'46.989"N	104°54'34.693"W	0.00	
10417.00†	89.942	359.335	7465.66	3122.45	3122.94	23.76	40°04'47.977"N	104°54'34.708"W	0.00	
10517.00†	89.942	359.335	7465.76	3222.45	3222.93	22.60	40°04'48.966"N	104°54'34.723"W	0.00	
10617.00†	89.942	359.335	7465.86	3322.45	3322.92	21.44	40°04'49.954"N	104°54'34.738"W	0.00	
10717.00†	89.942	359.335	7465.96	3422.45	3422.92	20.28	40°04'50.942"N	104°54'34.753"W	0.00	
10817.00†	89.942	359.335	7466.06	3522.45	3522.91	19.12	40°04'51.930"N	104°54'34.768"W	0.00	
10917.00†	89.942	359.335	7466.17	3622.45	3622.90	17.96	40°04'52.918"N	104°54'34.783"W	0.00	
11017.00†	89.942	359.335	7466.27	3722.45	3722.90	16.80	40°04'53.906"N	104°54'34.798"W	0.00	
11117.00†	89.942	359.335	7466.37	3822.45	3822.89	15.63	40°04'54.895"N	104°54'34.813"W	0.00	
11217.00†	89.942	359.335	7466.47	3922.45	3922.88	14.47	40°04'55.883"N	104°54'34.828"W	0.00	
11317.00†	89.942	359.335	7466.57	4022.45	4022.88	13.31	40°04'56.871"N	104°54'34.843"W	0.00	
11417.00†	89.942	359.335	7466.67	4122.45	4122.87	12.15	40°04'57.859"N	104°54'34.858"W	0.00	
11517.00†	89.942	359.335	7466.77	4222.45	4222.86	10.99	40°04'58.847"N	104°54'34.873"W	0.00	
11617.00†	89.942	359.335	7466.88	4322.45	4322.86	9.83	40°04'59.835"N	104°54'34.888"W	0.00	
11717.00†	89.942	359.335	7466.98	4422.45	4422.85	8.67	40°05'00.823"N	104°54'34.902"W	0.00	
11817.00†	89.942	359.335	7467.08	4522.45	4522.84	7.51	40°05'01.812"N	104°54'34.917"W	0.00	
11917.00†	89.942	359.335	7467.18	4622.45	4622.84	6.35	40°05'02.800"N	104°54'34.932"W	0.00	
12017.00†	89.942	359.335	7467.28	4722.45	4722.83	5.19	40°05'03.788"N	104°54'34.947"W	0.00	
12117.00†	89.942	359.335	7467.38	4822.45	4822.82	4.03	40°05'04.776"N	104°54'34.962"W	0.00	
12217.00†	89.942	359.335	7467.48	4922.45	4922.81	2.86	40°05'05.764"N	104°54'34.977"W	0.00	



Planned Wellpath Report

NRC 27N-5HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#27 NRC 27N-5HZ (500'FNL & 1290'FEL, SEC.08)
Area	COLORADO	Well	NRC 27N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 27N-5HZ PWB
Facility	SEC.08-T1N-R67W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12317.00†	89.942	359.335	7467.59	5022.45	5022.81	1.70	40°05'06.752"N	104°54'34.992"W	0.00	
12417.00†	89.942	359.335	7467.69	5122.45	5122.80	0.54	40°05'07.741"N	104°54'35.007"W	0.00	
12517.00†	89.942	359.335	7467.79	5222.45	5222.79	-0.62	40°05'08.729"N	104°54'35.022"W	0.00	
12617.00†	89.942	359.335	7467.89	5322.45	5322.79	-1.78	40°05'09.717"N	104°54'35.037"W	0.00	
12717.00†	89.942	359.335	7467.99	5422.45	5422.78	-2.94	40°05'10.705"N	104°54'35.052"W	0.00	
12726.13	89.942	359.335	7468.00 ¹	5431.58	5431.91	-3.05	40°05'10.795"N	104°54'35.053"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: NRC 27N-5HZ PWB Ref Wellpath: NRC 27N-5HZ (PERMIT REV-1) 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	1280.00	1263.00	17.00	1280.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1280.00	1263.00	17.00	1280.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1280.00	7794.72	6514.72	1280.00	7463.00	0.00	0.00	500.83	54.21
7in Casing Intermediate	17.00	7794.72	7777.72	17.00	7463.00	0.00	0.00	500.83	54.21
6.125in Open Hole	7794.72	12726.13	4931.41	7463.00	7468.00	500.83	54.21	5431.91	-3.05
4.5in Casing Production	17.00	12726.13	12709.13	17.00	7468.00	0.00	0.00	5431.91	-3.05

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) NRC 27N-5HZ BHL ON PLAT (460'FNL & 1235'FEL, SEC.05)	12726.13	7468.00	5431.91	-3.05	3165153.74	1274845.14	40°05'10.795"N	104°54'35.053"W	point
NRC SECTION 5 LINES		7500.00	0.71	-59.86	3165133.08	1269413.90	40°04'17.123"N	104°54'35.784"W	polygon
NRC SECTION 8 LINES		7500.00	0.71	-59.86	3165133.08	1269413.90	40°04'17.123"N	104°54'35.784"W	polygon
NRC 2C-5HZ/27N-5HZ LAND BOX		7700.00	0.30	-29.93	3165163.01	1269413.69	40°04'17.119"N	104°54'35.399"W	polygon

SURVEY PROGRAM - Ref Wellbore: NRC 27N-5HZ PWB Ref Wellpath: NRC 27N-5HZ (PERMIT REV-1) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	7794.72	NaviTrak (Standard)		NRC 27N-5HZ PWB
7794.72	12726.13	NaviTrak (Standard)		NRC 27N-5HZ PWB



Planned Wellpath Report

NRC 27N-5HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#27 NRC 27N-5HZ (500'FNL & 1290'FEL, SEC.08)
Area	COLORADO	Well	NRC 27N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 27N-5HZ PWB
Facility	SEC.08-T1N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
4220.26	0.000	359.335	4215.00	PARKMAN
4555.26	0.000	359.335	4550.00	SUSSEX
7380.06	48.476	359.335	7319.00	SHARON SPRINGS
7475.42	58.012	359.335	7376.00	NIOBRARA A
7677.84	78.253	359.335	7451.00	NIOBRARA B