

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1)
 Field: WELD COUNTY (KERR MCGEE) Well: DOLPH 2N-1HZ
 Facility: SEC.01-T2N-R66W Wellbore: DOLPH 2N-1HZ PWB

Plot reference wellpath is DOLPH 2N-1HZ (PERMIT REV-2) PWP

True vertical depths are referenced to Rig on SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to Rig on SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1) (RKB)	North Reference: True north
Rig on SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1) (RKB) to Mean Sea Level: 5005 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: willj02 on 3/17/2014

Location Information

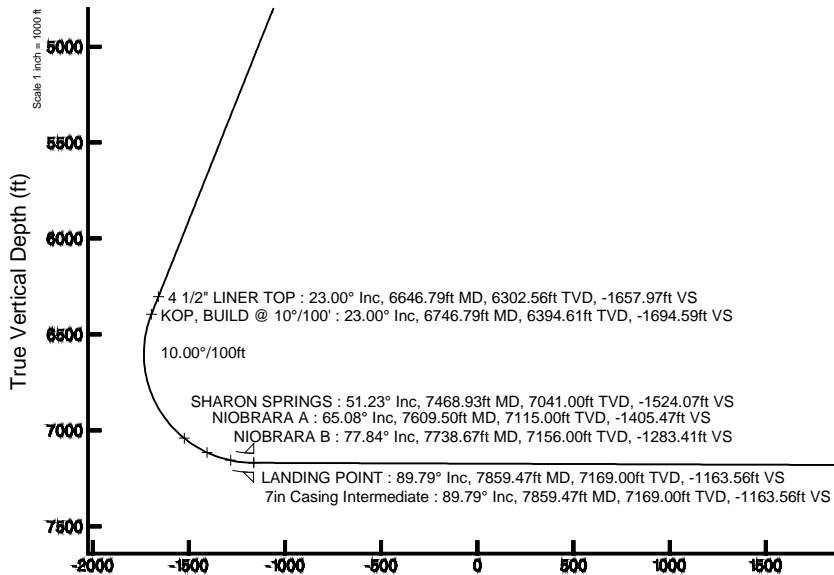
Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.01-T2N-R66W				3215110.595	1303150.300	40°09'46.728"N	104°43'49.152"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1)	-362.26	3290.57	3218404.045	1302816.632	40°09'43.146"N	104°43'06.769"W	
Rig on SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1) (RKB) to Mud line (At Slot: SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1))				5005ft			
Mean Sea Level to Mud line (At Slot: SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1))				0ft			
Rig on SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1) (RKB) to Mean Sea Level				5005ft			

Well Profile Data

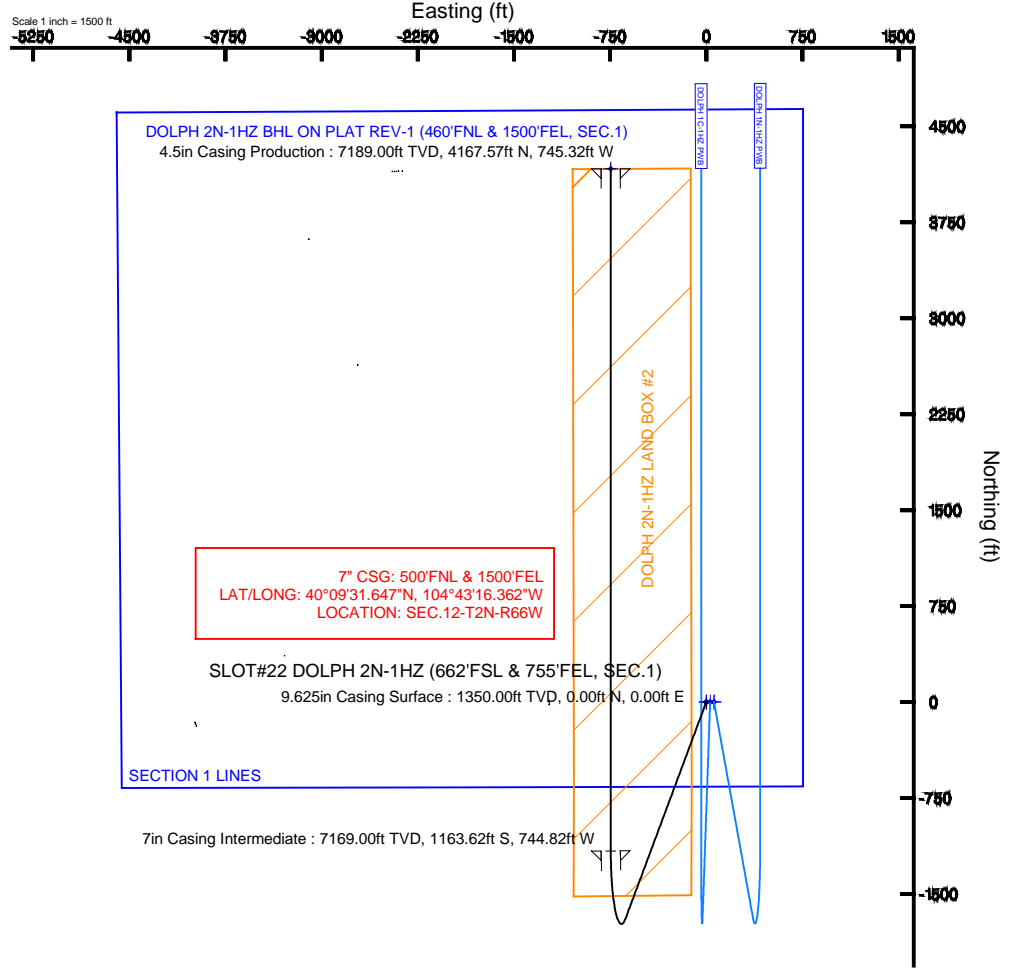
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE-ON	17.00	0.000	200.410	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1552.00	0.000	200.410	1552.00	0.00	0.00	0.00	0.00
END NUDGE	2702.00	23.000	200.410	2671.36	-213.44	-79.42	2.00	-213.43
KOP, BUILD @ 10°/100'	6746.79	23.000	200.410	6394.61	-1694.65	-630.57	0.00	-1694.59
LANDING POINT	7859.47	89.785	359.995	7169.00	-1163.62	-744.82	10.00	-1163.56
TOTAL DEPTH	13190.70	89.785	359.995	7189.00	4167.57	-745.32	0.00	4167.64

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
DOLPH SECTION 1 LINES		7000.00	0.40	60.09	3218464.13	1302817.57	40°09'43.190"N	104°43'06.995"W
DOLPH 2N-1HZ BHL ON PLAT REV-1 (460'FNL & 1500'FEL, SEC.1)	13190.70	7189.00	4167.57	-745.32	3217622.06	1306877.29	40°10'24.330"N	104°43'16.370"W
DOLPH 2N-1HZ LAND BOX		7200.00	0.00	0.00	3218404.05	1302816.63	40°09'43.140"N	104°43'06.769"W
DOLPH 2N-1HZ LAND BOX #2		7200.00	0.00	0.00	3218404.05	1302816.63	40°09'43.140"N	104°43'06.769"W



Vertical Section (ft)
Azimuth 360.00° with reference 0.00 N, 0.00 E



4.5in Casing Production : 89.79° Inc, 13190.70ft MD, 7189.00ft TVD, 4167.64ft VS
 TOTAL DEPTH : 89.79° Inc, 13190.70ft MD, 7189.00ft TVD, 4167.64ft VS
 DOLPH 2N-1HZ BHL ON PLAT REV-1 (460'FNL & 1500'FEL, SEC.1)

Scale 1 inch = 1000 ft



Planned Wellpath Report

DOLPH 2N-1HZ (PERMIT REV-2) PWP

Page 1 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 2N-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 2N-1HZ PWB
Facility	SEC.01-T2N-R66W		

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	0.999958	Report Generated	3/17/2014 at 15:04:50
Convergence at slot	n/a	Database/Source file	WellArchitectDB/DOLPH_2N-1HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-362.26	3290.57	3218404.05	1302816.63	40°09'43.146"N	104°43'06.769"W
Facility Reference Pt			3215110.60	1303150.30	40°09'46.728"N	104°43'49.152"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#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1) (RKB) to Facility Vertical Datum	5005.00ft
Horizontal Reference Pt	Slot	Rig on SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1) (RKB) to Mean Sea Level	5005.00ft
Vertical Reference Pt	Rig on SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1) (RKB)	Rig on SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1) (RKB) to Mud Line at Slot (SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1))	5005.00ft
MD Reference Pt	Rig on SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	360.00°



Planned Wellpath Report

DOLPH 2N-1HZ (PERMIT REV-2) PWP

Page 2 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 2N-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 2N-1HZ PWB
Facility	SEC.01-T2N-R66W		

WELLPATH DATA (145 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	200.410	0.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	
17.00	0.000	200.410	17.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	TIE-ON
117.00†	0.000	200.410	117.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	
217.00†	0.000	200.410	217.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	
317.00†	0.000	200.410	317.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	
417.00†	0.000	200.410	417.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	
517.00†	0.000	200.410	517.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	
617.00†	0.000	200.410	617.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	
717.00†	0.000	200.410	717.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	
817.00†	0.000	200.410	817.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	
917.00†	0.000	200.410	917.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	
1017.00†	0.000	200.410	1017.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	
1117.00†	0.000	200.410	1117.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	
1217.00†	0.000	200.410	1217.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	
1300.00†	0.000	200.410	1300.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	FOX HILLS MARKER
1317.00†	0.000	200.410	1317.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	
1417.00†	0.000	200.410	1417.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	
1517.00†	0.000	200.410	1517.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	
1552.00	0.000	200.410	1552.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.769"W	0.00	BEGIN NUDGE
1617.00†	1.300	200.410	1616.99	-0.69	-0.69	-0.26	40°09'43.139"N	104°43'06.772"W	2.00	
1717.00†	3.300	200.410	1716.91	-4.45	-4.45	-1.66	40°09'43.102"N	104°43'06.790"W	2.00	
1817.00†	5.300	200.410	1816.62	-11.48	-11.48	-4.27	40°09'43.033"N	104°43'06.824"W	2.00	
1917.00†	7.300	200.410	1916.01	-21.76	-21.76	-8.10	40°09'42.931"N	104°43'06.873"W	2.00	
2017.00†	9.300	200.410	2014.96	-35.29	-35.29	-13.13	40°09'42.797"N	104°43'06.938"W	2.00	
2117.00†	11.300	200.410	2113.34	-52.05	-52.05	-19.37	40°09'42.632"N	104°43'07.018"W	2.00	
2217.00†	13.300	200.410	2211.04	-72.01	-72.01	-26.80	40°09'42.434"N	104°43'07.114"W	2.00	
2317.00†	15.300	200.410	2307.94	-95.16	-95.16	-35.41	40°09'42.206"N	104°43'07.225"W	2.00	
2417.00†	17.300	200.410	2403.92	-121.46	-121.46	-45.20	40°09'41.946"N	104°43'07.351"W	2.00	
2517.00†	19.300	200.410	2498.85	-150.89	-150.89	-56.15	40°09'41.655"N	104°43'07.492"W	2.00	
2617.00†	21.300	200.410	2592.64	-183.40	-183.41	-68.24	40°09'41.334"N	104°43'07.648"W	2.00	
2702.00	23.000	200.410	2671.36	-213.43	-213.44	-79.42	40°09'41.037"N	104°43'07.792"W	2.00	END NUDGE
2717.00†	23.000	200.410	2685.17	-218.93	-218.93	-81.46	40°09'40.982"N	104°43'07.818"W	0.00	
2817.00†	23.000	200.410	2777.22	-255.54	-255.55	-95.09	40°09'40.621"N	104°43'07.994"W	0.00	
2917.00†	23.000	200.410	2869.27	-292.16	-292.17	-108.72	40°09'40.259"N	104°43'08.169"W	0.00	
3017.00†	23.000	200.410	2961.32	-328.78	-328.79	-122.34	40°09'39.897"N	104°43'08.345"W	0.00	
3117.00†	23.000	200.410	3053.37	-365.40	-365.41	-135.97	40°09'39.535"N	104°43'08.520"W	0.00	
3217.00†	23.000	200.410	3145.42	-402.02	-402.03	-149.59	40°09'39.173"N	104°43'08.696"W	0.00	
3317.00†	23.000	200.410	3237.47	-438.64	-438.65	-163.22	40°09'38.811"N	104°43'08.871"W	0.00	
3417.00†	23.000	200.410	3329.52	-475.26	-475.27	-176.85	40°09'38.449"N	104°43'09.047"W	0.00	
3517.00†	23.000	200.410	3421.57	-511.88	-511.89	-190.47	40°09'38.087"N	104°43'09.222"W	0.00	
3617.00†	23.000	200.410	3513.62	-548.50	-548.51	-204.10	40°09'37.726"N	104°43'09.398"W	0.00	
3717.00†	23.000	200.410	3605.67	-585.12	-585.13	-217.73	40°09'37.364"N	104°43'09.573"W	0.00	
3817.00†	23.000	200.410	3697.73	-621.73	-621.75	-231.35	40°09'37.002"N	104°43'09.749"W	0.00	
3917.00†	23.000	200.410	3789.78	-658.35	-658.37	-244.98	40°09'36.640"N	104°43'09.924"W	0.00	
4017.00†	23.000	200.410	3881.83	-694.97	-694.99	-258.60	40°09'36.278"N	104°43'10.100"W	0.00	



Planned Wellpath Report

DOLPH 2N-1HZ (PERMIT REV-2) PWP

Page 3 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 2N-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 2N-1HZ PWB
Facility	SEC.01-T2N-R66W		

WELLPATH DATA (145 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	23.000	200.410	3973.88	-731.59	-731.61	-272.23	40°09'35.916"N	104°43'10.275"W	0.00	
4183.40†	23.000	200.410	4035.00	-755.91	-755.93	-281.28	40°09'35.676"N	104°43'10.392"W	0.00	PARKMAN
4217.00†	23.000	200.410	4065.93	-768.21	-768.23	-285.86	40°09'35.554"N	104°43'10.451"W	0.00	
4317.00†	23.000	200.410	4157.98	-804.83	-804.86	-299.48	40°09'35.192"N	104°43'10.626"W	0.00	
4417.00†	23.000	200.410	4250.03	-841.45	-841.48	-313.11	40°09'34.830"N	104°43'10.802"W	0.00	
4517.00†	23.000	200.410	4342.08	-878.07	-878.10	-326.74	40°09'34.469"N	104°43'10.977"W	0.00	
4612.51†	23.000	200.410	4430.00	-913.04	-913.07	-339.75	40°09'34.123"N	104°43'11.145"W	0.00	SUSSEX
4617.00†	23.000	200.410	4434.13	-914.69	-914.72	-340.36	40°09'34.107"N	104°43'11.153"W	0.00	
4717.00†	23.000	200.410	4526.18	-951.30	-951.34	-353.99	40°09'33.745"N	104°43'11.328"W	0.00	
4817.00†	23.000	200.410	4618.23	-987.92	-987.96	-367.61	40°09'33.383"N	104°43'11.504"W	0.00	
4917.00†	23.000	200.410	4710.28	-1024.54	-1024.58	-381.24	40°09'33.021"N	104°43'11.679"W	0.00	
5017.00†	23.000	200.410	4802.33	-1061.16	-1061.20	-394.87	40°09'32.659"N	104°43'11.855"W	0.00	
5117.00†	23.000	200.410	4894.38	-1097.78	-1097.82	-408.49	40°09'32.297"N	104°43'12.030"W	0.00	
5217.00†	23.000	200.410	4986.43	-1134.40	-1134.44	-422.12	40°09'31.935"N	104°43'12.206"W	0.00	
5317.00†	23.000	200.410	5078.48	-1171.02	-1171.06	-435.74	40°09'31.574"N	104°43'12.381"W	0.00	
5417.00†	23.000	200.410	5170.53	-1207.64	-1207.68	-449.37	40°09'31.212"N	104°43'12.557"W	0.00	
5517.00†	23.000	200.410	5262.58	-1244.26	-1244.30	-463.00	40°09'30.850"N	104°43'12.732"W	0.00	
5617.00†	23.000	200.410	5354.63	-1280.88	-1280.92	-476.62	40°09'30.488"N	104°43'12.908"W	0.00	
5717.00†	23.000	200.410	5446.68	-1317.49	-1317.54	-490.25	40°09'30.126"N	104°43'13.083"W	0.00	
5817.00†	23.000	200.410	5538.73	-1354.11	-1354.16	-503.88	40°09'29.764"N	104°43'13.259"W	0.00	
5917.00†	23.000	200.410	5630.79	-1390.73	-1390.78	-517.50	40°09'29.402"N	104°43'13.434"W	0.00	
6017.00†	23.000	200.410	5722.84	-1427.35	-1427.40	-531.13	40°09'29.040"N	104°43'13.610"W	0.00	
6117.00†	23.000	200.410	5814.89	-1463.97	-1464.02	-544.75	40°09'28.678"N	104°43'13.785"W	0.00	
6217.00†	23.000	200.410	5906.94	-1500.59	-1500.64	-558.38	40°09'28.317"N	104°43'13.961"W	0.00	
6317.00†	23.000	200.410	5998.99	-1537.21	-1537.26	-572.01	40°09'27.955"N	104°43'14.136"W	0.00	
6417.00†	23.000	200.410	6091.04	-1573.83	-1573.88	-585.63	40°09'27.593"N	104°43'14.312"W	0.00	
6517.00†	23.000	200.410	6183.09	-1610.45	-1610.50	-599.26	40°09'27.231"N	104°43'14.487"W	0.00	
6617.00†	23.000	200.410	6275.14	-1647.07	-1647.12	-612.89	40°09'26.869"N	104°43'14.663"W	0.00	
6646.79†	23.000	200.410	6302.56	-1657.97	-1658.03	-616.94	40°09'26.761"N	104°43'14.715"W	0.00	4 1/2" LINER TOP
6717.00†	23.000	200.410	6367.19	-1683.68	-1683.74	-626.51	40°09'26.507"N	104°43'14.838"W	0.00	
6746.79	23.000	200.410	6394.61	-1694.59	-1694.65	-630.57	40°09'26.399"N	104°43'14.890"W	0.00	KOP, BUILD @ 10°/100'
6817.00†	16.686	209.579	6460.63	-1716.24	-1716.30	-640.34	40°09'26.185"N	104°43'15.016"W	10.00	
6917.00†	9.514	241.932	6558.09	-1732.66	-1732.71	-654.76	40°09'26.023"N	104°43'15.202"W	10.00	
7017.00†	10.057	303.557	6656.88	-1731.71	-1731.77	-669.36	40°09'26.032"N	104°43'15.390"W	10.00	
7117.00†	17.617	332.277	6754.02	-1713.44	-1713.50	-683.72	40°09'26.213"N	104°43'15.575"W	10.00	
7217.00†	26.796	343.005	6846.54	-1678.40	-1678.46	-697.38	40°09'26.559"N	104°43'15.751"W	10.00	
7317.00†	36.389	348.454	6931.64	-1627.65	-1627.71	-709.94	40°09'27.061"N	104°43'15.912"W	10.00	
7417.00†	46.137	351.858	7006.72	-1562.74	-1562.80	-721.01	40°09'27.702"N	104°43'16.055"W	10.00	
7468.93†	51.231	353.207	7041.00	-1524.07	-1524.13	-726.06	40°09'28.084"N	104°43'16.120"W	10.00	SHARON SPRINGS
7517.00†	55.958	354.294	7069.52	-1485.63	-1485.69	-730.26	40°09'28.464"N	104°43'16.174"W	10.00	
7609.50†	65.075	356.087	7115.00	-1405.47	-1405.54	-736.94	40°09'29.256"N	104°43'16.260"W	10.00	NIOBRARA A
7617.00†	65.816	356.219	7118.12	-1398.67	-1398.73	-737.40	40°09'29.324"N	104°43'16.266"W	10.00	
7717.00†	75.695	357.866	7151.04	-1304.50	-1304.56	-742.23	40°09'30.254"N	104°43'16.328"W	10.00	
7738.67†	77.837	358.200	7156.00	-1283.41	-1283.48	-742.95	40°09'30.462"N	104°43'16.338"W	10.00	NIOBRARA B
7817.00†	85.584	359.372	7167.28	-1205.98	-1206.05	-744.58	40°09'31.228"N	104°43'16.359"W	10.00	



Planned Wellpath Report

DOLPH 2N-1HZ (PERMIT REV-2) PWP

Page 4 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 2N-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 2N-1HZ PWB
Facility	SEC.01-T2N-R66W		

WELLPATH DATA (145 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7859.47	89.785	359.995	7169.00	-1163.56	-1163.62	-744.82	40°09'31.647"N	104°43'16.362"W	10.00	LANDING POINT
7917.00†	89.785	359.995	7169.22	-1106.03	-1106.09	-744.82	40°09'32.215"N	104°43'16.362"W	0.00	
8017.00†	89.785	359.995	7169.59	-1006.03	-1006.10	-744.83	40°09'33.204"N	104°43'16.362"W	0.00	
8117.00†	89.785	359.995	7169.97	-906.03	-906.10	-744.84	40°09'34.192"N	104°43'16.362"W	0.00	
8217.00†	89.785	359.995	7170.34	-806.03	-806.10	-744.85	40°09'35.180"N	104°43'16.362"W	0.00	
8317.00†	89.785	359.995	7170.72	-706.03	-706.10	-744.86	40°09'36.168"N	104°43'16.363"W	0.00	
8417.00†	89.785	359.995	7171.09	-606.03	-606.10	-744.87	40°09'37.156"N	104°43'16.363"W	0.00	
8517.00†	89.785	359.995	7171.47	-506.03	-506.10	-744.88	40°09'38.145"N	104°43'16.363"W	0.00	
8617.00†	89.785	359.995	7171.84	-406.03	-406.10	-744.89	40°09'39.133"N	104°43'16.363"W	0.00	
8717.00†	89.785	359.995	7172.22	-306.04	-306.10	-744.90	40°09'40.121"N	104°43'16.363"W	0.00	
8817.00†	89.785	359.995	7172.59	-206.04	-206.10	-744.91	40°09'41.109"N	104°43'16.363"W	0.00	
8917.00†	89.785	359.995	7172.97	-106.04	-106.10	-744.92	40°09'42.097"N	104°43'16.364"W	0.00	
9017.00†	89.785	359.995	7173.34	-6.04	-6.10	-744.93	40°09'43.086"N	104°43'16.364"W	0.00	
9117.00†	89.785	359.995	7173.72	93.96	93.90	-744.93	40°09'44.074"N	104°43'16.364"W	0.00	
9217.00†	89.785	359.995	7174.09	193.96	193.90	-744.94	40°09'45.062"N	104°43'16.364"W	0.00	
9317.00†	89.785	359.995	7174.47	293.96	293.90	-744.95	40°09'46.050"N	104°43'16.364"W	0.00	
9417.00†	89.785	359.995	7174.84	393.96	393.89	-744.96	40°09'47.038"N	104°43'16.364"W	0.00	
9517.00†	89.785	359.995	7175.22	493.96	493.89	-744.97	40°09'48.027"N	104°43'16.365"W	0.00	
9617.00†	89.785	359.995	7175.59	593.96	593.89	-744.98	40°09'49.015"N	104°43'16.365"W	0.00	
9717.00†	89.785	359.995	7175.97	693.96	693.89	-744.99	40°09'50.003"N	104°43'16.365"W	0.00	
9817.00†	89.785	359.995	7176.34	793.96	793.89	-745.00	40°09'50.991"N	104°43'16.365"W	0.00	
9917.00†	89.785	359.995	7176.72	893.96	893.89	-745.01	40°09'51.979"N	104°43'16.365"W	0.00	
10017.00†	89.785	359.995	7177.09	993.96	993.89	-745.02	40°09'52.968"N	104°43'16.365"W	0.00	
10117.00†	89.785	359.995	7177.47	1093.95	1093.89	-745.03	40°09'53.956"N	104°43'16.365"W	0.00	
10217.00†	89.785	359.995	7177.84	1193.95	1193.89	-745.04	40°09'54.944"N	104°43'16.366"W	0.00	
10317.00†	89.785	359.995	7178.22	1293.95	1293.89	-745.05	40°09'55.932"N	104°43'16.366"W	0.00	
10417.00†	89.785	359.995	7178.59	1393.95	1393.89	-745.06	40°09'56.920"N	104°43'16.366"W	0.00	
10517.00†	89.785	359.995	7178.97	1493.95	1493.89	-745.07	40°09'57.909"N	104°43'16.366"W	0.00	
10617.00†	89.785	359.995	7179.34	1593.95	1593.89	-745.08	40°09'58.897"N	104°43'16.366"W	0.00	
10717.00†	89.785	359.995	7179.72	1693.95	1693.89	-745.09	40°09'59.885"N	104°43'16.366"W	0.00	
10817.00†	89.785	359.995	7180.10	1793.95	1793.89	-745.09	40°10'00.873"N	104°43'16.367"W	0.00	
10917.00†	89.785	359.995	7180.47	1893.95	1893.88	-745.10	40°10'01.861"N	104°43'16.367"W	0.00	
11017.00†	89.785	359.995	7180.85	1993.95	1993.88	-745.11	40°10'02.850"N	104°43'16.367"W	0.00	
11117.00†	89.785	359.995	7181.22	2093.95	2093.88	-745.12	40°10'03.838"N	104°43'16.367"W	0.00	
11217.00†	89.785	359.995	7181.60	2193.95	2193.88	-745.13	40°10'04.826"N	104°43'16.367"W	0.00	
11317.00†	89.785	359.995	7181.97	2293.95	2293.88	-745.14	40°10'05.814"N	104°43'16.367"W	0.00	
11417.00†	89.785	359.995	7182.35	2393.95	2393.88	-745.15	40°10'06.802"N	104°43'16.368"W	0.00	
11517.00†	89.785	359.995	7182.72	2493.95	2493.88	-745.16	40°10'07.791"N	104°43'16.368"W	0.00	
11617.00†	89.785	359.995	7183.10	2593.94	2593.88	-745.17	40°10'08.779"N	104°43'16.368"W	0.00	
11717.00†	89.785	359.995	7183.47	2693.94	2693.88	-745.18	40°10'09.767"N	104°43'16.368"W	0.00	
11817.00†	89.785	359.995	7183.85	2793.94	2793.88	-745.19	40°10'10.755"N	104°43'16.368"W	0.00	
11917.00†	89.785	359.995	7184.22	2893.94	2893.88	-745.20	40°10'11.743"N	104°43'16.368"W	0.00	
12017.00†	89.785	359.995	7184.60	2993.94	2993.88	-745.21	40°10'12.731"N	104°43'16.369"W	0.00	
12117.00†	89.785	359.995	7184.97	3093.94	3093.88	-745.22	40°10'13.720"N	104°43'16.369"W	0.00	
12217.00†	89.785	359.995	7185.35	3193.94	3193.88	-745.23	40°10'14.708"N	104°43'16.369"W	0.00	



Planned Wellpath Report

DOLPH 2N-1HZ (PERMIT REV-2) PWP

Page 5 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 2N-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 2N-1HZ PWB
Facility	SEC.01-T2N-R66W		

WELLPATH DATA (145 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12317.00†	89.785	359.995	7185.72	3293.94	3293.87	-745.24	40°10'15.696"N	104°43'16.369"W	0.00	
12417.00†	89.785	359.995	7186.10	3393.94	3393.87	-745.25	40°10'16.684"N	104°43'16.369"W	0.00	
12517.00†	89.785	359.995	7186.47	3493.94	3493.87	-745.25	40°10'17.672"N	104°43'16.369"W	0.00	
12617.00†	89.785	359.995	7186.85	3593.94	3593.87	-745.26	40°10'18.661"N	104°43'16.369"W	0.00	
12717.00†	89.785	359.995	7187.22	3693.94	3693.87	-745.27	40°10'19.649"N	104°43'16.370"W	0.00	
12817.00†	89.785	359.995	7187.60	3793.94	3793.87	-745.28	40°10'20.637"N	104°43'16.370"W	0.00	
12917.00†	89.785	359.995	7187.97	3893.94	3893.87	-745.29	40°10'21.625"N	104°43'16.370"W	0.00	
13017.00†	89.785	359.995	7188.35	3993.93	3993.87	-745.30	40°10'22.613"N	104°43'16.370"W	0.00	
13117.00†	89.785	359.995	7188.72	4093.93	4093.87	-745.31	40°10'23.602"N	104°43'16.370"W	0.00	
13190.70	89.785	359.995	7189.00 ¹	4167.64	4167.57	-745.32	40°10'24.330"N	104°43'16.370"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: DOLPH 2N-1HZ PWB Ref Wellpath: DOLPH 2N-1HZ (PERMIT REV-2) 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	1350.00	1333.00	17.00	1350.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1350.00	1333.00	17.00	1350.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1350.00	7859.47	6509.47	1350.00	7169.00	0.00	0.00	-1163.62	-744.82
7in Casing Intermediate	17.00	7859.47	7842.47	17.00	7169.00	0.00	0.00	-1163.62	-744.82
6.125in Open Hole	7859.47	13190.70	5331.23	7169.00	7189.00	-1163.62	-744.82	4167.57	-745.32
4.5in Casing Production	17.00	13190.70	13173.70	17.00	7189.00	0.00	0.00	4167.57	-745.32



Planned Wellpath Report

DOLPH 2N-1HZ (PERMIT REV-2) PWP

Page 6 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 2N-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 2N-1HZ PWB
Facility	SEC.01-T2N-R66W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
DOLPH SECTION 1 LINES		7000.00	0.40	60.09	3218464.13	1302817.57	40°09'43.150"N	104°43'05.995"W	polygon
1) DOLPH 2N-1HZ BHL ON PLAT REV-1 (460'FNL & 1500'FEL, SEC.1)	13190.70	7189.00	4167.57	-745.32	3217622.06	1306977.29	40°10'24.330"N	104°43'16.370"W	point
DOLPH 2N-1HZ LAND BOX		7200.00	0.00	0.00	3218404.05	1302816.63	40°09'43.146"N	104°43'06.769"W	polygon
DOLPH 2N-1HZ LAND BOX #2		7200.00	0.00	0.00	3218404.05	1302816.63	40°09'43.146"N	104°43'06.769"W	polygon

SURVEY PROGRAM - Ref Wellbore: DOLPH 2N-1HZ PWB Ref Wellpath: DOLPH 2N-1HZ (PERMIT REV-2) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	7859.47	NaviTrak (MAGCORR,IFR)		DOLPH 2N-1HZ PWB
7859.47	13190.70	NaviTrak (MAGCORR,IFR)		DOLPH 2N-1HZ PWB



Planned Wellpath Report

DOLPH 2N-1HZ (PERMIT REV-2) PWP

Page 7 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#22 DOLPH 2N-1HZ (662'FSL & 755'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 2N-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 2N-1HZ PWB
Facility	SEC.01-T2N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1300.00	0.000	200.410	1300.00	FOX HILLS MARKER
4183.40	23.000	200.410	4035.00	PARKMAN
4612.51	23.000	200.410	4430.00	SUSSEX
6646.79	23.000	200.410	6302.56	4 1/2" LINER TOP
7468.93	51.231	353.207	7041.00	SHARON SPRINGS
7609.50	65.075	356.087	7115.00	NIOBRARA A
7738.67	77.837	358.200	7156.00	NIOBRARA B