

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1)
 Field: WELD COUNTY (KERR MCGEE) Well: DOLPH 1N-1HZ
 Facility: SEC.01-T2N-R66W Wellbore: DOLPH 1N-1HZ PWB

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

True vertical depths are referenced to Rig on SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to Rig on SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1) (RKB)	North Reference: True north
Rig on SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1) (RKB) to Mean Sea Level: 5005 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'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

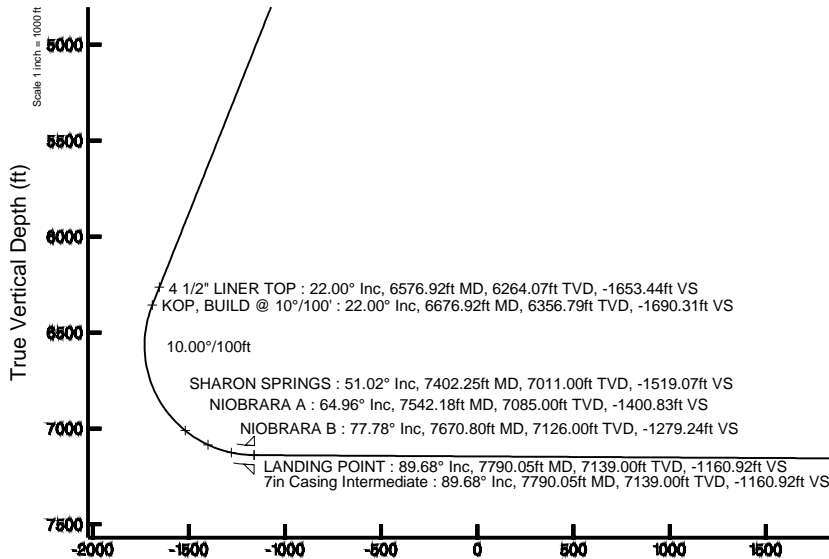
Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.01-T2N-R66W				3215110.595	1303150.300	40°09'46.728"N	104°43'49.152"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1)	-361.84	3350.67	3218464.129	1302817.566	40°09'43.150"N	104°43'05.995"W	
Rig on SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1) (RKB) to Mud line (At Slot: SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1))				5005ft			
Mean Sea Level to Mud line (At Slot: SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1))				0ft			
Rig on SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1) (RKB) to Mean Sea Level				5005ft			

Well Profile Data

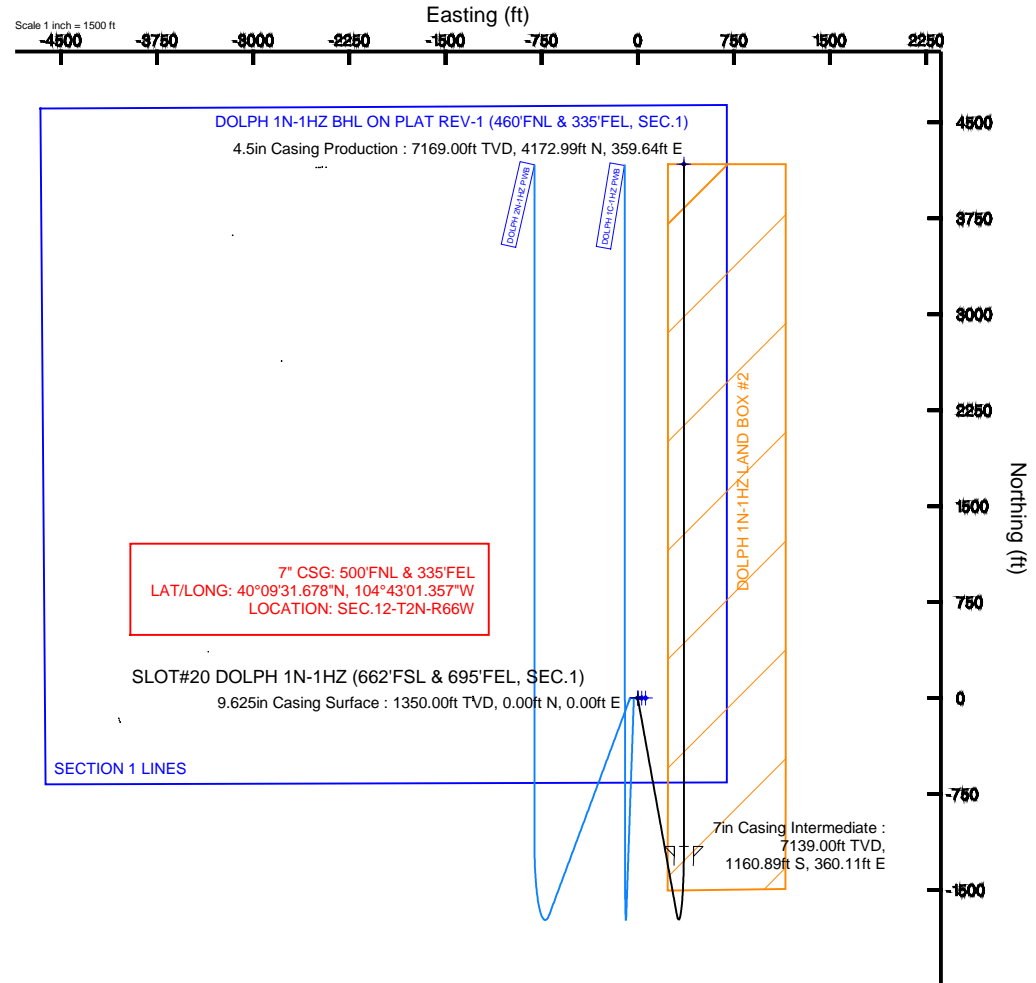
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE-ON	17.00	0.000	169.788	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1549.00	0.000	169.788	1549.00	0.00	0.00	0.00	0.00
END NUDGE	2649.00	22.000	169.788	2622.17	-205.30	36.98	2.00	-205.30
KOP, BUILD @ 10°/100'	6676.92	22.000	169.788	6356.79	-1690.28	304.49	0.00	-1690.31
LANDING POINT	7790.05	89.678	359.995	7139.00	-1160.89	360.11	10.00	-1160.92
TOTAL DEPTH	13124.01	89.678	359.995	7169.00	4172.99	359.64	0.00	4172.96

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	0.00	0.00	3218464.13	1302817.57	40°09'43.150"N	104°43'05.995"W
DOLPH 1N-1HZ BHL ON PLAT REV-1 (460'FNL & 335'FEL, SEC.1)	13124.01	7169.00	4172.99	359.64	3218786.96	1306993.38	40°10'24.388"N	104°43'01.362"W
DOLPH 1N-1HZ LAND BOX		7200.00	0.00	0.00	3218464.13	1302817.57	40°09'43.150"N	104°43'05.995"W
DOLPH 1N-1HZ LAND BOX #2		7200.00	0.00	0.00	3218464.13	1302817.57	40°09'43.150"N	104°43'05.995"W



Azimuth 360.00° with reference 0.00 N, 0.00 E



4.5in Casing Production : 89.68° Inc, 13124.01ft MD, 7169.00ft TVD, 4172.96ft VS
 TOTAL DEPTH : 89.68° Inc, 13124.01ft MD, 7169.00ft TVD, 4172.96ft VS
 DOLPH 1N-1HZ BHL ON PLAT REV-1 (460'FNL & 335'FEL, SEC.1)

Scale 1 inch = 1000 ft



Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 1N-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 1N-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 14:26:07
Convergence at slot	n/a	Database/Source file	WellArchitectDB/DOLPH_1N-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	-361.84	3350.67	3218464.13	1302817.57	40°09'43.150"N	104°43'05.995"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#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1) (RKB) to Facility Vertical Datum	5005.00ft
Horizontal Reference Pt	Slot	Rig on SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1) (RKB) to Mean Sea Level	5005.00ft
Vertical Reference Pt	Rig on SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1) (RKB)	Rig on SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1) (RKB) to Mud Line at Slot (SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1))	5005.00ft
MD Reference Pt	Rig on SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'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 1N-1HZ (PERMIT REV-2) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 1N-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 1N-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	169.788	0.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	
17.00	0.000	169.788	17.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	TIE-ON
117.00†	0.000	169.788	117.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	
217.00†	0.000	169.788	217.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	
317.00†	0.000	169.788	317.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	
417.00†	0.000	169.788	417.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	
517.00†	0.000	169.788	517.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	
617.00†	0.000	169.788	617.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	
717.00†	0.000	169.788	717.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	
817.00†	0.000	169.788	817.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	
917.00†	0.000	169.788	917.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	
1017.00†	0.000	169.788	1017.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	
1117.00†	0.000	169.788	1117.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	
1217.00†	0.000	169.788	1217.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	
1300.00†	0.000	169.788	1300.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	FOX HILLS MARKER
1317.00†	0.000	169.788	1317.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	
1417.00†	0.000	169.788	1417.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	
1517.00†	0.000	169.788	1517.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	
1549.00	0.000	169.788	1549.00	0.00	0.00	0.00	40°09'43.150"N	104°43'05.995"W	0.00	BEGIN NUDGE
1617.00†	1.360	169.788	1616.99	-0.79	-0.79	0.14	40°09'43.142"N	104°43'05.993"W	2.00	
1717.00†	3.360	169.788	1716.90	-4.85	-4.85	0.87	40°09'43.102"N	104°43'05.984"W	2.00	
1817.00†	5.360	169.788	1816.61	-12.33	-12.33	2.22	40°09'43.028"N	104°43'05.966"W	2.00	
1917.00†	7.360	169.788	1915.99	-23.23	-23.23	4.18	40°09'42.920"N	104°43'05.941"W	2.00	
2017.00†	9.360	169.788	2014.92	-37.54	-37.54	6.76	40°09'42.779"N	104°43'05.908"W	2.00	
2117.00†	11.360	169.788	2113.29	-55.24	-55.24	9.95	40°09'42.604"N	104°43'05.867"W	2.00	
2217.00†	13.360	169.788	2210.96	-76.30	-76.30	13.75	40°09'42.396"N	104°43'05.818"W	2.00	
2317.00†	15.360	169.788	2307.83	-100.71	-100.71	18.14	40°09'42.155"N	104°43'05.761"W	2.00	
2417.00†	17.360	169.788	2403.78	-128.43	-128.43	23.14	40°09'41.881"N	104°43'05.697"W	2.00	
2517.00†	19.360	169.788	2498.68	-159.43	-159.43	28.72	40°09'41.575"N	104°43'05.625"W	2.00	
2617.00†	21.360	169.788	2592.43	-193.67	-193.66	34.89	40°09'41.236"N	104°43'05.546"W	2.00	
2649.00	22.000	169.788	2622.17	-205.30	-205.30	36.98	40°09'41.121"N	104°43'05.519"W	2.00	END NUDGE
2717.00†	22.000	169.788	2685.22	-230.37	-230.37	41.50	40°09'40.873"N	104°43'05.460"W	0.00	
2817.00†	22.000	169.788	2777.94	-267.24	-267.24	48.14	40°09'40.509"N	104°43'05.375"W	0.00	
2917.00†	22.000	169.788	2870.65	-304.11	-304.10	54.78	40°09'40.145"N	104°43'05.289"W	0.00	
3017.00†	22.000	169.788	2963.37	-340.98	-340.97	61.42	40°09'39.781"N	104°43'05.204"W	0.00	
3117.00†	22.000	169.788	3056.09	-377.84	-377.84	68.07	40°09'39.416"N	104°43'05.118"W	0.00	
3217.00†	22.000	169.788	3148.81	-414.71	-414.70	74.71	40°09'39.052"N	104°43'05.033"W	0.00	
3317.00†	22.000	169.788	3241.53	-451.58	-451.57	81.35	40°09'38.688"N	104°43'04.947"W	0.00	
3417.00†	22.000	169.788	3334.25	-488.45	-488.44	87.99	40°09'38.323"N	104°43'04.862"W	0.00	
3517.00†	22.000	169.788	3426.96	-525.31	-525.31	94.63	40°09'37.959"N	104°43'04.776"W	0.00	
3617.00†	22.000	169.788	3519.68	-562.18	-562.17	101.27	40°09'37.595"N	104°43'04.691"W	0.00	
3717.00†	22.000	169.788	3612.40	-599.05	-599.04	107.91	40°09'37.230"N	104°43'04.605"W	0.00	
3817.00†	22.000	169.788	3705.12	-635.92	-635.91	114.56	40°09'36.866"N	104°43'04.520"W	0.00	
3917.00†	22.000	169.788	3797.84	-672.79	-672.77	121.20	40°09'36.502"N	104°43'04.434"W	0.00	
4017.00†	22.000	169.788	3890.56	-709.65	-709.64	127.84	40°09'36.137"N	104°43'04.348"W	0.00	



Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 1N-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 1N-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†	22.000	169.788	3983.27	-746.52	-746.51	134.48	40°09'35.773"N	104°43'04.263"W	0.00	
4140.43†	22.000	169.788	4005.00	-755.16	-755.15	136.04	40°09'35.688"N	104°43'04.243"W	0.00	PARKMAN
4217.00†	22.000	169.788	4075.99	-783.39	-783.38	141.12	40°09'35.409"N	104°43'04.177"W	0.00	
4317.00†	22.000	169.788	4168.71	-820.26	-820.24	147.76	40°09'35.044"N	104°43'04.092"W	0.00	
4417.00†	22.000	169.788	4261.43	-857.12	-857.11	154.40	40°09'34.680"N	104°43'04.006"W	0.00	
4517.00†	22.000	169.788	4354.15	-893.99	-893.98	161.05	40°09'34.316"N	104°43'03.921"W	0.00	
4566.45†	22.000	169.788	4400.00	-912.22	-912.21	164.33	40°09'34.135"N	104°43'03.878"W	0.00	SUSSEX
4617.00†	22.000	169.788	4446.87	-930.86	-930.85	167.69	40°09'33.951"N	104°43'03.835"W	0.00	
4717.00†	22.000	169.788	4539.59	-967.73	-967.71	174.33	40°09'33.587"N	104°43'03.750"W	0.00	
4817.00†	22.000	169.788	4632.30	-1004.60	-1004.58	180.97	40°09'33.223"N	104°43'03.664"W	0.00	
4917.00†	22.000	169.788	4725.02	-1041.46	-1041.45	187.61	40°09'32.858"N	104°43'03.579"W	0.00	
5017.00†	22.000	169.788	4817.74	-1078.33	-1078.31	194.25	40°09'32.494"N	104°43'03.493"W	0.00	
5117.00†	22.000	169.788	4910.46	-1115.20	-1115.18	200.89	40°09'32.130"N	104°43'03.408"W	0.00	
5217.00†	22.000	169.788	5003.18	-1152.07	-1152.05	207.54	40°09'31.765"N	104°43'03.322"W	0.00	
5317.00†	22.000	169.788	5095.90	-1188.93	-1188.92	214.18	40°09'31.401"N	104°43'03.237"W	0.00	
5417.00†	22.000	169.788	5188.61	-1225.80	-1225.78	220.82	40°09'31.037"N	104°43'03.151"W	0.00	
5517.00†	22.000	169.788	5281.33	-1262.67	-1262.65	227.46	40°09'30.672"N	104°43'03.065"W	0.00	
5617.00†	22.000	169.788	5374.05	-1299.54	-1299.52	234.10	40°09'30.308"N	104°43'02.980"W	0.00	
5717.00†	22.000	169.788	5466.77	-1336.41	-1336.38	240.74	40°09'29.944"N	104°43'02.894"W	0.00	
5817.00†	22.000	169.788	5559.49	-1373.27	-1373.25	247.38	40°09'29.579"N	104°43'02.809"W	0.00	
5917.00†	22.000	169.788	5652.21	-1410.14	-1410.12	254.03	40°09'29.215"N	104°43'02.723"W	0.00	
6017.00†	22.000	169.788	5744.92	-1447.01	-1446.99	260.67	40°09'28.851"N	104°43'02.638"W	0.00	
6117.00†	22.000	169.788	5837.64	-1483.88	-1483.85	267.31	40°09'28.486"N	104°43'02.552"W	0.00	
6217.00†	22.000	169.788	5930.36	-1520.74	-1520.72	273.95	40°09'28.122"N	104°43'02.467"W	0.00	
6317.00†	22.000	169.788	6023.08	-1557.61	-1557.59	280.59	40°09'27.758"N	104°43'02.381"W	0.00	
6417.00†	22.000	169.788	6115.80	-1594.48	-1594.46	287.23	40°09'27.393"N	104°43'02.296"W	0.00	
6517.00†	22.000	169.788	6208.52	-1631.35	-1631.32	293.87	40°09'27.029"N	104°43'02.210"W	0.00	
6576.92†	22.000	169.788	6264.07	-1653.44	-1653.41	297.85	40°09'26.811"N	104°43'02.159"W	0.00	4 1/2" LINER TOP
6617.00†	22.000	169.788	6301.23	-1668.22	-1668.19	300.52	40°09'26.665"N	104°43'02.125"W	0.00	
6676.92	22.000	169.788	6356.79	-1690.31	-1690.28	304.49	40°09'26.447"N	104°43'02.073"W	0.00	KOP, BUILD @ 10°/100'
6717.00†	18.080	167.333	6394.44	-1703.77	-1703.74	307.19	40°09'26.314"N	104°43'02.039"W	10.00	
6817.00†	8.647	151.956	6491.65	-1725.60	-1725.57	314.15	40°09'26.098"N	104°43'01.949"W	10.00	
6917.00†	4.724	59.797	6591.16	-1730.18	-1730.15	321.26	40°09'26.053"N	104°43'01.857"W	10.00	
7017.00†	13.020	17.967	6689.96	-1717.36	-1717.33	328.31	40°09'26.179"N	104°43'01.767"W	10.00	
7117.00†	22.724	9.793	6785.03	-1687.53	-1687.51	335.09	40°09'26.474"N	104°43'01.679"W	10.00	
7217.00†	32.601	6.385	6873.50	-1641.61	-1641.58	341.38	40°09'26.928"N	104°43'01.598"W	10.00	
7317.00†	42.532	4.438	6952.67	-1580.99	-1580.96	347.01	40°09'27.527"N	104°43'01.526"W	10.00	
7402.25†	51.016	3.286	7011.00	-1519.07	-1519.04	351.14	40°09'28.139"N	104°43'01.472"W	10.00	SHARON SPRINGS
7417.00†	52.485	3.116	7020.13	-1507.50	-1507.47	351.79	40°09'28.253"N	104°43'01.464"W	10.00	
7517.00†	62.449	2.108	7073.84	-1423.39	-1423.36	355.59	40°09'29.084"N	104°43'01.415"W	10.00	
7542.18†	64.959	1.884	7085.00	-1400.83	-1400.80	356.37	40°09'29.307"N	104°43'01.405"W	10.00	NIOBRARA A
7617.00†	72.419	1.269	7112.17	-1331.20	-1331.17	358.28	40°09'29.995"N	104°43'01.381"W	10.00	
7670.80†	77.784	0.858	7126.00	-1279.24	-1279.21	359.24	40°09'30.509"N	104°43'01.368"W	10.00	NIOBRARA B
7717.00†	82.392	0.519	7133.95	-1233.74	-1233.71	359.79	40°09'30.958"N	104°43'01.361"W	10.00	
7790.05	89.678	359.995	7139.00	-1160.92	-1160.89	360.11	40°09'31.678"N	104°43'01.357"W	10.00	LANDING POINT



Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 1N-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 1N-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
7817.00†	89.678	359.995	7139.15	-1133.97	-1133.94	360.11	40°09'31.944"N	104°43'01.357"W	0.00	
7917.00†	89.678	359.995	7139.71	-1033.97	-1033.94	360.10	40°09'32.933"N	104°43'01.357"W	0.00	
8017.00†	89.678	359.995	7140.27	-933.97	-933.94	360.09	40°09'33.921"N	104°43'01.357"W	0.00	
8117.00†	89.678	359.995	7140.84	-833.97	-833.94	360.08	40°09'34.909"N	104°43'01.357"W	0.00	
8217.00†	89.678	359.995	7141.40	-733.98	-733.94	360.07	40°09'35.897"N	104°43'01.357"W	0.00	
8317.00†	89.678	359.995	7141.96	-633.98	-633.95	360.07	40°09'36.885"N	104°43'01.357"W	0.00	
8417.00†	89.678	359.995	7142.52	-533.98	-533.95	360.06	40°09'37.873"N	104°43'01.358"W	0.00	
8517.00†	89.678	359.995	7143.09	-433.98	-433.95	360.05	40°09'38.862"N	104°43'01.358"W	0.00	
8617.00†	89.678	359.995	7143.65	-333.98	-333.95	360.04	40°09'39.850"N	104°43'01.358"W	0.00	
8717.00†	89.678	359.995	7144.21	-233.98	-233.95	360.03	40°09'40.838"N	104°43'01.358"W	0.00	
8817.00†	89.678	359.995	7144.77	-133.99	-133.95	360.02	40°09'41.826"N	104°43'01.358"W	0.00	
8917.00†	89.678	359.995	7145.34	-33.99	-33.96	360.01	40°09'42.814"N	104°43'01.358"W	0.00	
9017.00†	89.678	359.995	7145.90	66.01	66.04	360.00	40°09'43.803"N	104°43'01.358"W	0.00	
9117.00†	89.678	359.995	7146.46	166.01	166.04	360.00	40°09'44.791"N	104°43'01.358"W	0.00	
9217.00†	89.678	359.995	7147.02	266.01	266.04	359.99	40°09'45.779"N	104°43'01.358"W	0.00	
9317.00†	89.678	359.995	7147.59	366.01	366.04	359.98	40°09'46.767"N	104°43'01.358"W	0.00	
9417.00†	89.678	359.995	7148.15	466.00	466.04	359.97	40°09'47.755"N	104°43'01.358"W	0.00	
9517.00†	89.678	359.995	7148.71	566.00	566.03	359.96	40°09'48.744"N	104°43'01.359"W	0.00	
9617.00†	89.678	359.995	7149.27	666.00	666.03	359.95	40°09'49.732"N	104°43'01.359"W	0.00	
9717.00†	89.678	359.995	7149.84	766.00	766.03	359.94	40°09'50.720"N	104°43'01.359"W	0.00	
9817.00†	89.678	359.995	7150.40	866.00	866.03	359.93	40°09'51.708"N	104°43'01.359"W	0.00	
9917.00†	89.678	359.995	7150.96	966.00	966.03	359.92	40°09'52.696"N	104°43'01.359"W	0.00	
10017.00†	89.678	359.995	7151.52	1066.00	1066.03	359.92	40°09'53.684"N	104°43'01.359"W	0.00	
10117.00†	89.678	359.995	7152.09	1165.99	1166.03	359.91	40°09'54.673"N	104°43'01.359"W	0.00	
10217.00†	89.678	359.995	7152.65	1265.99	1266.02	359.90	40°09'55.661"N	104°43'01.359"W	0.00	
10317.00†	89.678	359.995	7153.21	1365.99	1366.02	359.89	40°09'56.649"N	104°43'01.359"W	0.00	
10417.00†	89.678	359.995	7153.77	1465.99	1466.02	359.88	40°09'57.637"N	104°43'01.359"W	0.00	
10517.00†	89.678	359.995	7154.34	1565.99	1566.02	359.87	40°09'58.625"N	104°43'01.360"W	0.00	
10617.00†	89.678	359.995	7154.90	1665.99	1666.02	359.86	40°09'59.614"N	104°43'01.360"W	0.00	
10717.00†	89.678	359.995	7155.46	1765.98	1766.02	359.85	40°10'00.602"N	104°43'01.360"W	0.00	
10817.00†	89.678	359.995	7156.02	1865.98	1866.01	359.84	40°10'01.590"N	104°43'01.360"W	0.00	
10917.00†	89.678	359.995	7156.59	1965.98	1966.01	359.84	40°10'02.578"N	104°43'01.360"W	0.00	
11017.00†	89.678	359.995	7157.15	2065.98	2066.01	359.83	40°10'03.566"N	104°43'01.360"W	0.00	
11117.00†	89.678	359.995	7157.71	2165.98	2166.01	359.82	40°10'04.555"N	104°43'01.360"W	0.00	
11217.00†	89.678	359.995	7158.27	2265.98	2266.01	359.81	40°10'05.543"N	104°43'01.360"W	0.00	
11317.00†	89.678	359.995	7158.84	2365.97	2366.01	359.80	40°10'06.531"N	104°43'01.360"W	0.00	
11417.00†	89.678	359.995	7159.40	2465.97	2466.00	359.79	40°10'07.519"N	104°43'01.360"W	0.00	
11517.00†	89.678	359.995	7159.96	2565.97	2566.00	359.78	40°10'08.507"N	104°43'01.360"W	0.00	
11617.00†	89.678	359.995	7160.52	2665.97	2666.00	359.77	40°10'09.496"N	104°43'01.361"W	0.00	
11717.00†	89.678	359.995	7161.09	2765.97	2766.00	359.77	40°10'10.484"N	104°43'01.361"W	0.00	
11817.00†	89.678	359.995	7161.65	2865.97	2866.00	359.76	40°10'11.472"N	104°43'01.361"W	0.00	
11917.00†	89.678	359.995	7162.21	2965.97	2966.00	359.75	40°10'12.460"N	104°43'01.361"W	0.00	
12017.00†	89.678	359.995	7162.77	3065.96	3065.99	359.74	40°10'13.448"N	104°43'01.361"W	0.00	
12117.00†	89.678	359.995	7163.34	3165.96	3165.99	359.73	40°10'14.436"N	104°43'01.361"W	0.00	
12217.00†	89.678	359.995	7163.90	3265.96	3265.99	359.72	40°10'15.425"N	104°43'01.361"W	0.00	



Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 1N-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 1N-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†	89.678	359.995	7164.46	3365.96	3365.99	359.71	40°10'16.413"N	104°43'01.361"W	0.00	
12417.00†	89.678	359.995	7165.02	3465.96	3465.99	359.70	40°10'17.401"N	104°43'01.361"W	0.00	
12517.00†	89.678	359.995	7165.59	3565.96	3565.99	359.69	40°10'18.389"N	104°43'01.361"W	0.00	
12617.00†	89.678	359.995	7166.15	3665.95	3665.99	359.69	40°10'19.377"N	104°43'01.362"W	0.00	
12717.00†	89.678	359.995	7166.71	3765.95	3765.98	359.68	40°10'20.366"N	104°43'01.362"W	0.00	
12817.00†	89.678	359.995	7167.27	3865.95	3865.98	359.67	40°10'21.354"N	104°43'01.362"W	0.00	
12917.00†	89.678	359.995	7167.84	3965.95	3965.98	359.66	40°10'22.342"N	104°43'01.362"W	0.00	
13017.00†	89.678	359.995	7168.40	4065.95	4065.98	359.65	40°10'23.330"N	104°43'01.362"W	0.00	
13117.00†	89.678	359.995	7168.96	4165.95	4165.98	359.64	40°10'24.318"N	104°43'01.362"W	0.00	
13124.01	89.678	359.995	7169.00 ¹	4172.96	4172.99	359.64	40°10'24.388"N	104°43'01.362"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: DOLPH 1N-1HZ PWB Ref Wellpath: DOLPH 1N-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	7790.05	6440.05	1350.00	7139.00	0.00	0.00	-1160.89	360.11
7in Casing Intermediate	17.00	7790.05	7773.05	17.00	7139.00	0.00	0.00	-1160.89	360.11
6.125in Open Hole	7790.05	13124.01	5333.96	7139.00	7169.00	-1160.89	360.11	4172.99	359.64
4.5in Casing Production	17.00	13124.01	13107.01	17.00	7169.00	0.00	0.00	4172.99	359.64



Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 1N-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 1N-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	0.00	0.00	3218464.13	1302817.57	40°09'43.150"N	104°43'05.995"W	polygon
1) DOLPH 1N-1HZ BHL ON PLAT REV-1 (460'FNL & 335'FEL, SEC.1)	13124.01	7169.00	4172.99	359.64	3218786.96	1306993.38	40°10'24.388"N	104°43'01.362"W	point
DOLPH 1N-1HZ LAND BOX		7200.00	0.00	0.00	3218464.13	1302817.57	40°09'43.150"N	104°43'05.995"W	polygon
DOLPH 1N-1HZ LAND BOX #2		7200.00	0.00	0.00	3218464.13	1302817.57	40°09'43.150"N	104°43'05.995"W	polygon

SURVEY PROGRAM - Ref Wellbore: DOLPH 1N-1HZ PWB Ref Wellpath: DOLPH 1N-1HZ (PERMIT REV-2) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	7790.05	NaviTrak (MAGCORR,IFR)		DOLPH 1N-1HZ PWB
7790.05	13124.01	NaviTrak (MAGCORR,IFR)		DOLPH 1N-1HZ PWB



Planned Wellpath Report

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

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#20 DOLPH 1N-1HZ (662'FSL & 695'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 1N-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 1N-1HZ PWB
Facility	SEC.01-T2N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1300.00	0.000	169.788	1300.00	FOX HILLS MARKER
4140.43	22.000	169.788	4005.00	PARKMAN
4566.45	22.000	169.788	4400.00	SUSSEX
6576.92	22.000	169.788	6264.07	4 1/2" LINER TOP
7402.25	51.016	3.286	7011.00	SHARON SPRINGS
7542.18	64.959	1.884	7085.00	NIOBRARA A
7670.80	77.784	0.858	7126.00	NIOBRARA B