

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1)  
 Field: WELD COUNTY (KERR MCGEE) Well: DOLPH 1C-1HZ  
 Facility: SEC.01-T2N-R66W Wellbore: DOLPH 1C-1HZ PWB

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

True vertical depths are referenced to Rig on SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to Rig on SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1) (RKB)	North Reference: True north
Rig on SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1) (RKB) to Mean Sea Level: 5005 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'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

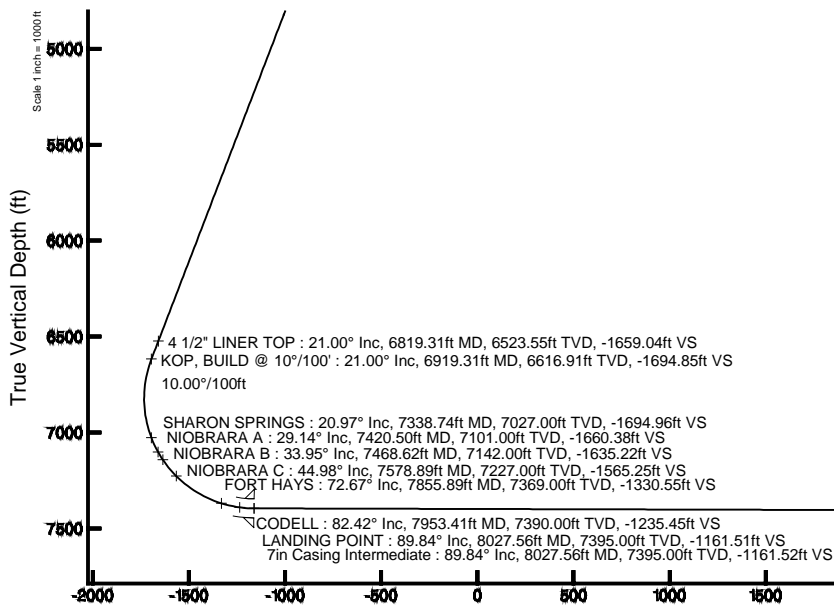
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude		
SEC.01-T2N-R66W	3215110.595	1303150.300	40°09'46.728"N	104°43'49.152"W		
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1)	-362.25	3320.47	3218433.934	1302816.895	40°09'43.146"N	104°43'06.384"W
Rig on SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1) (RKB) to Mud line (At Slot: SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1))						5005ft
Mean Sea Level to Mud line (At Slot: SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1))						0ft
Rig on SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1) (RKB) to Mean Sea Level						5005ft

## Well Profile Data

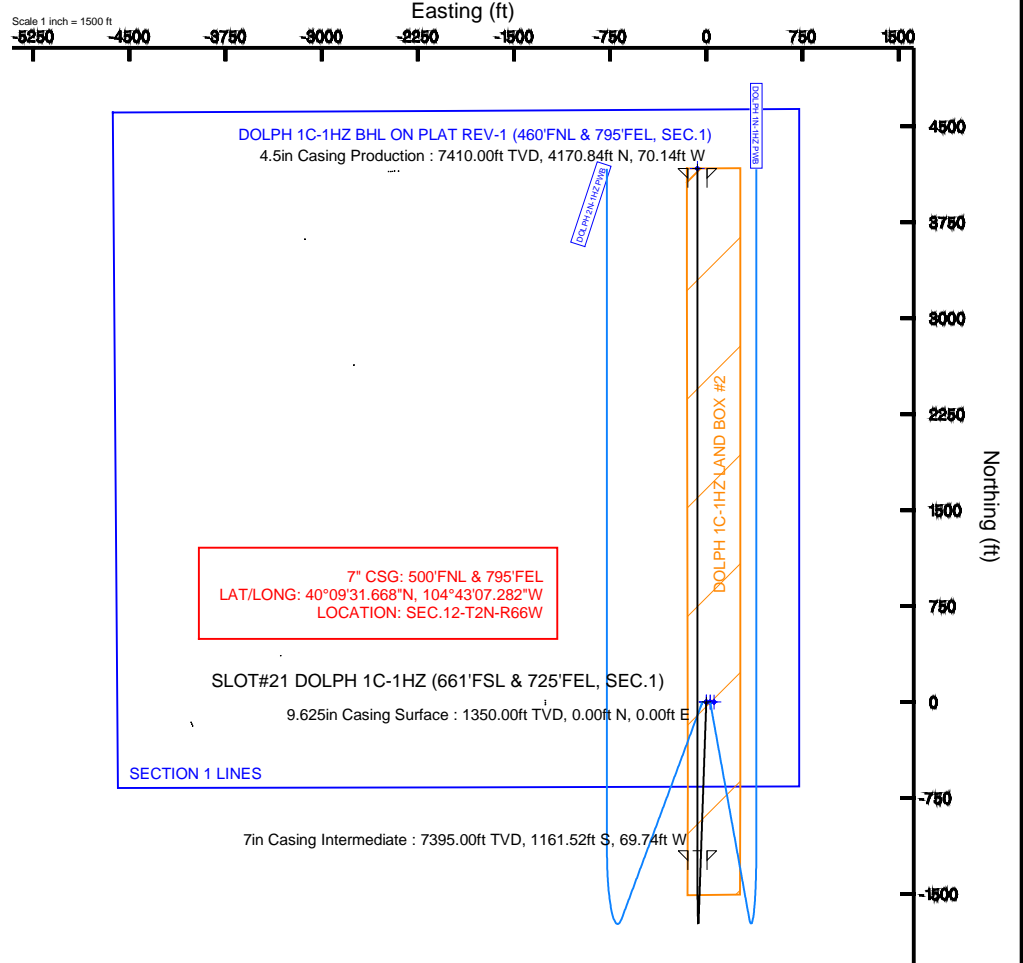
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE-ON	17.00	0.000	182.003	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1668.00	0.000	182.003	1668.00	0.00	0.00	0.00	0.00
END NUDGE	2718.00	21.000	182.003	2694.65	-190.16	-6.65	2.00	-190.16
KOP, BUILD @ 10°/100'	6919.31	21.000	182.003	6616.91	-1694.86	-59.27	0.00	-1694.85
LANDING POINT	8027.56	89.839	359.996	7395.00	-1161.52	-69.74	10.00	-1161.51
TOTAL DEPTH	13359.94	89.839	359.996	7410.00	4170.84	-70.14	0.00	4170.85

## 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	30.20	3218464.13	1302817.57	40°09'43.150"N	104°43'05.995"W
DOLPH 1C-1HZ BHL ON PLAT REV-1 (460'FNL & 795'FEL, SEC.1)	13359.94	7410.00	4170.84	-70.14	3218327.04	1306986.77	40°10'24.362"N	104°43'07.288"W
DOLPH 1C-1HZ LAND BOX		7450.00	0.00	0.00	3218433.93	1302816.90	40°09'43.146"N	104°43'06.384"W
DOLPH 1C-1HZ LAND BOX #2		7450.00	0.00	0.00	3218433.93	1302816.90	40°09'43.146"N	104°43'06.384"W



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



4.5in Casing Production : 89.84° Inc, 13359.94ft MD, 7410.00ft TVD, 4170.85ft VS  
 TOTAL DEPTH : 89.84° Inc, 13359.94ft MD, 7410.00ft TVD, 4170.85ft VS  
 DOLPH 1C-1HZ BHL ON PLAT REV-1 (460'FNL & 795'FEL, SEC.1)

Scale 1 inch = 1000 ft



# Planned Wellpath Report

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

Page 1 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 1C-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 1C-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 14:49:28
Convergence at slot	n/a	Database/Source file	WellArchitectDB/DOLPH_1C-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	-362.25	3320.47	3218433.93	1302816.90	40°09'43.146"N	104°43'06.384"W
Facility Reference Pt			3215110.60	1303150.30	40°09'46.728"N	104°43'49.152"W
Field Reference Pt			<b>3197771.84</b>	<b>1268891.29</b>	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1) (RKB) to Facility Vertical Datum	5005.00ft
Horizontal Reference Pt	Slot	Rig on SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1) (RKB) to Mean Sea Level	5005.00ft
Vertical Reference Pt	Rig on SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1) (RKB)	Rig on SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1) (RKB) to Mud Line at Slot (SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1))	5005.00ft
MD Reference Pt	Rig on SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'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 1C-1HZ (PERMIT REV-2) PWP

Page 2 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 1C-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 1C-1HZ PWB
Facility	SEC.01-T2N-R66W		

WELLPATH DATA (150 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	182.003	0.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	
17.00	0.000	182.003	17.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	TIE-ON
117.00†	0.000	182.003	117.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	
217.00†	0.000	182.003	217.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	
317.00†	0.000	182.003	317.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	
417.00†	0.000	182.003	417.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	
517.00†	0.000	182.003	517.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	
617.00†	0.000	182.003	617.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	
717.00†	0.000	182.003	717.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	
817.00†	0.000	182.003	817.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	
917.00†	0.000	182.003	917.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	
1017.00†	0.000	182.003	1017.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	
1117.00†	0.000	182.003	1117.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	
1217.00†	0.000	182.003	1217.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	
1300.00†	0.000	182.003	1300.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	FOX HILLS MARKER
1317.00†	0.000	182.003	1317.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	
1417.00†	0.000	182.003	1417.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	
1517.00†	0.000	182.003	1517.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	
1617.00†	0.000	182.003	1617.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	
1668.00	0.000	182.003	1668.00	0.00	0.00	0.00	40°09'43.146"N	104°43'06.384"W	0.00	BEGIN NUDGE
1717.00†	0.980	182.003	1717.00	-0.42	-0.42	-0.01	40°09'43.142"N	104°43'06.384"W	2.00	
1817.00†	2.980	182.003	1816.93	-3.87	-3.87	-0.14	40°09'43.108"N	104°43'06.386"W	2.00	
1917.00†	4.980	182.003	1916.69	-10.81	-10.81	-0.38	40°09'43.039"N	104°43'06.389"W	2.00	
2017.00†	6.980	182.003	2016.14	-21.22	-21.22	-0.74	40°09'42.936"N	104°43'06.394"W	2.00	
2117.00†	8.980	182.003	2115.16	-35.09	-35.09	-1.23	40°09'42.799"N	104°43'06.400"W	2.00	
2217.00†	10.980	182.003	2213.65	-52.41	-52.41	-1.83	40°09'42.628"N	104°43'06.408"W	2.00	
2317.00†	12.980	182.003	2311.46	-73.15	-73.15	-2.56	40°09'42.423"N	104°43'06.417"W	2.00	
2417.00†	14.980	182.003	2408.50	-97.30	-97.30	-3.40	40°09'42.185"N	104°43'06.428"W	2.00	
2517.00†	16.980	182.003	2504.63	-124.81	-124.81	-4.36	40°09'41.913"N	104°43'06.440"W	2.00	
2617.00†	18.980	182.003	2599.74	-155.66	-155.66	-5.44	40°09'41.608"N	104°43'06.454"W	2.00	
2717.00†	20.980	182.003	2693.71	-189.80	-189.80	-6.64	40°09'41.270"N	104°43'06.469"W	2.00	
2718.00	21.000	182.003	2694.65	-190.16	-190.16	-6.65	40°09'41.267"N	104°43'06.470"W	2.00	END NUDGE
2817.00†	21.000	182.003	2787.07	-225.62	-225.62	-7.89	40°09'40.916"N	104°43'06.486"W	0.00	
2917.00†	21.000	182.003	2880.43	-261.43	-261.43	-9.14	40°09'40.563"N	104°43'06.502"W	0.00	
3017.00†	21.000	182.003	2973.79	-297.25	-297.25	-10.40	40°09'40.209"N	104°43'06.518"W	0.00	
3117.00†	21.000	182.003	3067.15	-333.06	-333.06	-11.65	40°09'39.855"N	104°43'06.534"W	0.00	
3217.00†	21.000	182.003	3160.51	-368.88	-368.88	-12.90	40°09'39.501"N	104°43'06.550"W	0.00	
3317.00†	21.000	182.003	3253.86	-404.69	-404.69	-14.15	40°09'39.147"N	104°43'06.566"W	0.00	
3417.00†	21.000	182.003	3347.22	-440.51	-440.51	-15.41	40°09'38.793"N	104°43'06.582"W	0.00	
3517.00†	21.000	182.003	3440.58	-476.32	-476.32	-16.66	40°09'38.439"N	104°43'06.599"W	0.00	
3617.00†	21.000	182.003	3533.94	-512.14	-512.14	-17.91	40°09'38.085"N	104°43'06.615"W	0.00	
3717.00†	21.000	182.003	3627.30	-547.95	-547.95	-19.16	40°09'37.731"N	104°43'06.631"W	0.00	
3817.00†	21.000	182.003	3720.65	-583.77	-583.77	-20.42	40°09'37.377"N	104°43'06.647"W	0.00	
3917.00†	21.000	182.003	3814.01	-619.58	-619.58	-21.67	40°09'37.023"N	104°43'06.663"W	0.00	
4017.00†	21.000	182.003	3907.37	-655.40	-655.40	-22.92	40°09'36.669"N	104°43'06.679"W	0.00	



# Planned Wellpath Report

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

Page 3 of 7



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 1C-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 1C-1HZ PWB
Facility	SEC.01-T2N-R66W		

## WELLPATH DATA (150 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	21.000	182.003	4000.73	-691.21	-691.21	-24.17	40°09'36.315"N	104°43'06.695"W	0.00	
4138.71†	21.000	182.003	4021.00	-698.99	-698.99	-24.45	40°09'36.239"N	104°43'06.699"W	0.00	PARKMAN
4217.00†	21.000	182.003	4094.09	-727.03	-727.03	-25.43	40°09'35.961"N	104°43'06.711"W	0.00	
4317.00†	21.000	182.003	4187.44	-762.84	-762.84	-26.68	40°09'35.608"N	104°43'06.728"W	0.00	
4417.00†	21.000	182.003	4280.80	-798.65	-798.66	-27.93	40°09'35.254"N	104°43'06.744"W	0.00	
4517.00†	21.000	182.003	4374.16	-834.47	-834.47	-29.18	40°09'34.900"N	104°43'06.760"W	0.00	
4561.82†	21.000	182.003	4416.00	-850.52	-850.52	-29.75	40°09'34.741"N	104°43'06.767"W	0.00	SUSSEX
4617.00†	21.000	182.003	4467.52	-870.28	-870.29	-30.44	40°09'34.546"N	104°43'06.776"W	0.00	
4717.00†	21.000	182.003	4560.88	-906.10	-906.10	-31.69	40°09'34.192"N	104°43'06.792"W	0.00	
4817.00†	21.000	182.003	4654.23	-941.91	-941.92	-32.94	40°09'33.838"N	104°43'06.808"W	0.00	
4917.00†	21.000	182.003	4747.59	-977.73	-977.73	-34.19	40°09'33.484"N	104°43'06.824"W	0.00	
5017.00†	21.000	182.003	4840.95	-1013.54	-1013.55	-35.45	40°09'33.130"N	104°43'06.841"W	0.00	
5117.00†	21.000	182.003	4934.31	-1049.36	-1049.36	-36.70	40°09'32.776"N	104°43'06.857"W	0.00	
5217.00†	21.000	182.003	5027.67	-1085.17	-1085.18	-37.95	40°09'32.422"N	104°43'06.873"W	0.00	
5317.00†	21.000	182.003	5121.02	-1120.99	-1120.99	-39.20	40°09'32.068"N	104°43'06.889"W	0.00	
5417.00†	21.000	182.003	5214.38	-1156.80	-1156.81	-40.46	40°09'31.714"N	104°43'06.905"W	0.00	
5517.00†	21.000	182.003	5307.74	-1192.62	-1192.62	-41.71	40°09'31.360"N	104°43'06.921"W	0.00	
5617.00†	21.000	182.003	5401.10	-1228.43	-1228.44	-42.96	40°09'31.007"N	104°43'06.937"W	0.00	
5717.00†	21.000	182.003	5494.46	-1264.25	-1264.25	-44.21	40°09'30.653"N	104°43'06.953"W	0.00	
5817.00†	21.000	182.003	5587.81	-1300.06	-1300.07	-45.47	40°09'30.299"N	104°43'06.970"W	0.00	
5917.00†	21.000	182.003	5681.17	-1335.88	-1335.88	-46.72	40°09'29.945"N	104°43'06.986"W	0.00	
6017.00†	21.000	182.003	5774.53	-1371.69	-1371.70	-47.97	40°09'29.591"N	104°43'07.002"W	0.00	
6117.00†	21.000	182.003	5867.89	-1407.51	-1407.51	-49.23	40°09'29.237"N	104°43'07.018"W	0.00	
6217.00†	21.000	182.003	5961.25	-1443.32	-1443.33	-50.48	40°09'28.883"N	104°43'07.034"W	0.00	
6317.00†	21.000	182.003	6054.60	-1479.14	-1479.14	-51.73	40°09'28.529"N	104°43'07.050"W	0.00	
6417.00†	21.000	182.003	6147.96	-1514.95	-1514.95	-52.98	40°09'28.175"N	104°43'07.066"W	0.00	
6517.00†	21.000	182.003	6241.32	-1550.77	-1550.77	-54.24	40°09'27.821"N	104°43'07.083"W	0.00	
6617.00†	21.000	182.003	6334.68	-1586.58	-1586.58	-55.49	40°09'27.467"N	104°43'07.099"W	0.00	
6717.00†	21.000	182.003	6428.04	-1622.40	-1622.40	-56.74	40°09'27.113"N	104°43'07.115"W	0.00	
6817.00†	21.000	182.003	6521.39	-1658.21	-1658.21	-57.99	40°09'26.759"N	104°43'07.131"W	0.00	
6819.31†	21.000	182.003	6523.55	-1659.04	-1659.04	-58.02	40°09'26.751"N	104°43'07.131"W	0.00	4 1/2" LINER TOP
6917.00†	21.000	182.003	6614.75	-1694.03	-1694.03	-59.25	40°09'26.406"N	104°43'07.147"W	0.00	
6919.31	21.000	182.003	6616.91	-1694.85	-1694.86	-59.27	40°09'26.397"N	104°43'07.147"W	0.00	KOP, BUILD @ 10°/100'
7017.00†	11.244	183.872	6710.64	-1721.91	-1721.92	-60.53	40°09'26.130"N	104°43'07.164"W	10.00	
7117.00†	1.440	212.285	6809.92	-1732.73	-1732.74	-61.87	40°09'26.023"N	104°43'07.181"W	10.00	
7217.00†	8.816	355.030	6909.57	-1726.14	-1726.15	-63.20	40°09'26.088"N	104°43'07.198"W	10.00	
7317.00†	18.798	357.736	7006.56	-1702.35	-1702.35	-64.51	40°09'26.323"N	104°43'07.215"W	10.00	
7338.74†	20.970	357.990	7027.00	-1694.96	-1694.96	-64.78	40°09'26.396"N	104°43'07.218"W	10.00	SHARON SPRINGS
7417.00†	28.792	358.597	7097.94	-1662.07	-1662.08	-65.74	40°09'26.721"N	104°43'07.231"W	10.00	
7420.50†	29.141	358.618	7101.00	-1660.38	-1660.39	-65.78	40°09'26.738"N	104°43'07.231"W	10.00	NIOBRARA A
7468.62†	33.952	358.855	7142.00	-1635.22	-1635.22	-66.33	40°09'26.987"N	104°43'07.238"W	10.00	NIOBRARA B
7517.00†	38.789	359.040	7180.94	-1606.54	-1606.54	-66.85	40°09'27.270"N	104°43'07.245"W	10.00	
7578.89†	44.977	359.228	7227.00	-1565.25	-1565.25	-67.47	40°09'27.678"N	104°43'07.253"W	10.00	NIOBRARA C
7617.00†	48.787	359.324	7253.04	-1537.44	-1537.44	-67.82	40°09'27.953"N	104°43'07.258"W	10.00	
7717.00†	58.786	359.532	7312.05	-1456.86	-1456.87	-68.62	40°09'28.749"N	104°43'07.268"W	10.00	



# Planned Wellpath Report

## DOLPH 1C-1HZ (PERMIT REV-2) PWP

Page 4 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 1C-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 1C-1HZ PWB
Facility	SEC.01-T2N-R66W		

WELLPATH DATA (150 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7817.00†	68.784	359.699	7356.17	-1367.26	-1367.27	-69.22	40°09'29.635"N	104°43'07.275"W	10.00	
7855.89†	72.673	359.758	7369.00	-1330.55	-1330.56	-69.39	40°09'29.997"N	104°43'07.278"W	10.00	FORT HAYS
7917.00†	78.783	359.845	7384.06	-1271.36	-1271.37	-69.59	40°09'30.582"N	104°43'07.280"W	10.00	
7953.41†	82.424	359.896	7390.00	-1235.45	-1235.45	-69.67	40°09'30.937"N	104°43'07.281"W	10.00	CODELL
8017.00†	88.783	359.982	7394.87	-1172.08	-1172.08	-69.74	40°09'31.563"N	104°43'07.282"W	10.00	
8027.56	89.839	359.996	7395.00	-1161.51	-1161.52	-69.74	40°09'31.668"N	104°43'07.282"W	10.00	LANDING POINT
8117.00†	89.839	359.996	7395.25	-1072.08	-1072.08	-69.75	40°09'32.552"N	104°43'07.282"W	0.00	
8217.00†	89.839	359.996	7395.53	-972.08	-972.08	-69.76	40°09'33.540"N	104°43'07.282"W	0.00	
8317.00†	89.839	359.996	7395.81	-872.08	-872.08	-69.77	40°09'34.528"N	104°43'07.283"W	0.00	
8417.00†	89.839	359.996	7396.09	-772.08	-772.08	-69.77	40°09'35.516"N	104°43'07.283"W	0.00	
8517.00†	89.839	359.996	7396.38	-672.08	-672.08	-69.78	40°09'36.504"N	104°43'07.283"W	0.00	
8617.00†	89.839	359.996	7396.66	-572.08	-572.09	-69.79	40°09'37.493"N	104°43'07.283"W	0.00	
8717.00†	89.839	359.996	7396.94	-472.08	-472.09	-69.80	40°09'38.481"N	104°43'07.283"W	0.00	
8817.00†	89.839	359.996	7397.22	-372.08	-372.09	-69.80	40°09'39.469"N	104°43'07.283"W	0.00	
8917.00†	89.839	359.996	7397.50	-272.08	-272.09	-69.81	40°09'40.457"N	104°43'07.283"W	0.00	
9017.00†	89.839	359.996	7397.78	-172.08	-172.09	-69.82	40°09'41.445"N	104°43'07.283"W	0.00	
9117.00†	89.839	359.996	7398.06	-72.08	-72.09	-69.83	40°09'42.434"N	104°43'07.283"W	0.00	
9217.00†	89.839	359.996	7398.35	27.92	27.91	-69.83	40°09'43.422"N	104°43'07.283"W	0.00	
9317.00†	89.839	359.996	7398.63	127.92	127.91	-69.84	40°09'44.410"N	104°43'07.284"W	0.00	
9417.00†	89.839	359.996	7398.91	227.92	227.91	-69.85	40°09'45.398"N	104°43'07.284"W	0.00	
9517.00†	89.839	359.996	7399.19	327.92	327.91	-69.86	40°09'46.386"N	104°43'07.284"W	0.00	
9617.00†	89.839	359.996	7399.47	427.92	427.91	-69.86	40°09'47.375"N	104°43'07.284"W	0.00	
9717.00†	89.839	359.996	7399.75	527.92	527.91	-69.87	40°09'48.363"N	104°43'07.284"W	0.00	
9817.00†	89.839	359.996	7400.03	627.91	627.91	-69.88	40°09'49.351"N	104°43'07.284"W	0.00	
9917.00†	89.839	359.996	7400.31	727.91	727.91	-69.89	40°09'50.339"N	104°43'07.284"W	0.00	
10017.00†	89.839	359.996	7400.60	827.91	827.91	-69.89	40°09'51.327"N	104°43'07.284"W	0.00	
10117.00†	89.839	359.996	7400.88	927.91	927.91	-69.90	40°09'52.316"N	104°43'07.284"W	0.00	
10217.00†	89.839	359.996	7401.16	1027.91	1027.91	-69.91	40°09'53.304"N	104°43'07.284"W	0.00	
10317.00†	89.839	359.996	7401.44	1127.91	1127.91	-69.92	40°09'54.292"N	104°43'07.285"W	0.00	
10417.00†	89.839	359.996	7401.72	1227.91	1227.91	-69.92	40°09'55.280"N	104°43'07.285"W	0.00	
10517.00†	89.839	359.996	7402.00	1327.91	1327.91	-69.93	40°09'56.268"N	104°43'07.285"W	0.00	
10617.00†	89.839	359.996	7402.28	1427.91	1427.91	-69.94	40°09'57.257"N	104°43'07.285"W	0.00	
10717.00†	89.839	359.996	7402.57	1527.91	1527.91	-69.95	40°09'58.245"N	104°43'07.285"W	0.00	
10817.00†	89.839	359.996	7402.85	1627.91	1627.91	-69.95	40°09'59.233"N	104°43'07.285"W	0.00	
10917.00†	89.839	359.996	7403.13	1727.91	1727.91	-69.96	40°10'00.221"N	104°43'07.285"W	0.00	
11017.00†	89.839	359.996	7403.41	1827.91	1827.91	-69.97	40°10'01.209"N	104°43'07.285"W	0.00	
11117.00†	89.839	359.996	7403.69	1927.91	1927.90	-69.98	40°10'02.198"N	104°43'07.285"W	0.00	
11217.00†	89.839	359.996	7403.97	2027.91	2027.90	-69.98	40°10'03.186"N	104°43'07.285"W	0.00	
11317.00†	89.839	359.996	7404.25	2127.91	2127.90	-69.99	40°10'04.174"N	104°43'07.286"W	0.00	
11417.00†	89.839	359.996	7404.53	2227.91	2227.90	-70.00	40°10'05.162"N	104°43'07.286"W	0.00	
11517.00†	89.839	359.996	7404.82	2327.91	2327.90	-70.01	40°10'06.150"N	104°43'07.286"W	0.00	
11617.00†	89.839	359.996	7405.10	2427.91	2427.90	-70.01	40°10'07.139"N	104°43'07.286"W	0.00	
11717.00†	89.839	359.996	7405.38	2527.91	2527.90	-70.02	40°10'08.127"N	104°43'07.286"W	0.00	
11817.00†	89.839	359.996	7405.66	2627.91	2627.90	-70.03	40°10'09.115"N	104°43'07.286"W	0.00	
11917.00†	89.839	359.996	7405.94	2727.91	2727.90	-70.04	40°10'10.103"N	104°43'07.286"W	0.00	



# Planned Wellpath Report

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

Page 5 of 7



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 1C-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 1C-1HZ PWB
Facility	SEC.01-T2N-R66W		

## WELLPATH DATA (150 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12017.00†	89.839	359.996	7406.22	2827.91	2827.90	-70.04	40°10'11.091"N	104°43'07.286"W	0.00	
12117.00†	89.839	359.996	7406.50	2927.91	2927.90	-70.05	40°10'12.080"N	104°43'07.286"W	0.00	
12217.00†	89.839	359.996	7406.78	3027.91	3027.90	-70.06	40°10'13.068"N	104°43'07.286"W	0.00	
12317.00†	89.839	359.996	7407.07	3127.90	3127.90	-70.06	40°10'14.056"N	104°43'07.287"W	0.00	
12417.00†	89.839	359.996	7407.35	3227.90	3227.90	-70.07	40°10'15.044"N	104°43'07.287"W	0.00	
12517.00†	89.839	359.996	7407.63	3327.90	3327.90	-70.08	40°10'16.032"N	104°43'07.287"W	0.00	
12617.00†	89.839	359.996	7407.91	3427.90	3427.90	-70.09	40°10'17.021"N	104°43'07.287"W	0.00	
12717.00†	89.839	359.996	7408.19	3527.90	3527.90	-70.09	40°10'18.009"N	104°43'07.287"W	0.00	
12817.00†	89.839	359.996	7408.47	3627.90	3627.90	-70.10	40°10'18.997"N	104°43'07.287"W	0.00	
12917.00†	89.839	359.996	7408.75	3727.90	3727.90	-70.11	40°10'19.985"N	104°43'07.287"W	0.00	
13017.00†	89.839	359.996	7409.04	3827.90	3827.90	-70.12	40°10'20.973"N	104°43'07.287"W	0.00	
13117.00†	89.839	359.996	7409.32	3927.90	3927.90	-70.12	40°10'21.962"N	104°43'07.287"W	0.00	
13217.00†	89.839	359.996	7409.60	4027.90	4027.90	-70.13	40°10'22.950"N	104°43'07.287"W	0.00	
13317.00†	89.839	359.996	7409.88	4127.90	4127.90	-70.14	40°10'23.938"N	104°43'07.288"W	0.00	
13359.94	89.839	359.996	7410.00 <sup>1</sup>	4170.85	4170.84	-70.14	40°10'24.362"N	104°43'07.288"W	0.00	TOTAL DEPTH

## HOLE & CASING SECTIONS - Ref Wellbore: DOLPH 1C-1HZ PWB Ref Wellpath: DOLPH 1C-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	8027.56	6677.56	1350.00	7395.00	0.00	0.00	-1161.52	-69.74
7in Casing Intermediate	17.00	8027.56	8010.56	17.00	7395.00	0.00	0.00	-1161.52	-69.74
6.125in Open Hole	8027.56	13359.94	5332.38	7395.00	7410.00	-1161.52	-69.74	4170.84	-70.14
4.5in Casing Production	17.00	13359.94	13342.94	17.00	7410.00	0.00	0.00	4170.84	-70.14



# Planned Wellpath Report

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

Page 6 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 1C-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 1C-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	30.20	3218464.13	1302817.57	40°09'43.150"N	104°43'05.995"W	polygon
1) DOLPH 1C-1HZ BHL ON PLAT REV-1 (460'FNL & 795'FEL, SEC.1)	13359.94	7410.00	4170.84	-70.14	3218327.04	1306986.77	40°10'24.362"N	104°43'07.288"W	point
DOLPH 1C-1HZ LAND BOX		7450.00	0.00	0.00	3218433.93	1302816.90	40°09'43.146"N	104°43'06.384"W	polygon
DOLPH 1C-1HZ LAND BOX #2		7450.00	0.00	0.00	3218433.93	1302816.90	40°09'43.146"N	104°43'06.384"W	polygon

SURVEY PROGRAM - Ref Wellbore: DOLPH 1C-1HZ PWB Ref Wellpath: DOLPH 1C-1HZ (PERMIT REV-2) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	8027.56	NaviTrak (MAGCORR,IFR)		DOLPH 1C-1HZ PWB
8027.56	13359.94	NaviTrak (MAGCORR,IFR)		DOLPH 1C-1HZ PWB



# Planned Wellpath Report

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

Page 7 of 7



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#21 DOLPH 1C-1HZ (661'FSL & 725'FEL, SEC.1)
Area	COLORADO	Well	DOLPH 1C-1HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOLPH 1C-1HZ PWB
Facility	SEC.01-T2N-R66W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1300.00	0.000	182.003	1300.00	FOX HILLS MARKER
4138.71	21.000	182.003	4021.00	PARKMAN
4561.82	21.000	182.003	4416.00	SUSSEX
6819.31	21.000	182.003	6523.55	4 1/2" LINER TOP
7338.74	20.970	357.990	7027.00	SHARON SPRINGS
7420.50	29.141	358.618	7101.00	NIOBRARA A
7468.62	33.952	358.855	7142.00	NIOBRARA B
7578.89	44.977	359.228	7227.00	NIOBRARA C
7855.89	72.673	359.758	7369.00	FORT HAYS
7953.41	82.424	359.896	7390.00	CODELL