

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#11 GRISWOLD 4-11HZ (560'FSL & 1938'FWL, SEC.11)  
Field: WELD COUNTY (KERR MCGEE) Well: GRISWOLD 4-11HZ  
Facility: SEC.11-T1N-R66W Wellbore: GRISWOLD 4-11HZ PWB

Plot reference wellpath is GRISWOLD 4-11HZ (PERMIT REV-2) PWB

True vertical depths are referenced to PERMIT (17KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to PERMIT (17KB) (RKB)	North Reference: True north
PERMIT (17KB) (RKB) to Mean Sea Level: 5159 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#11 GRISWOLD 4-11HZ (560'FSL & 1938'FWL, SEC.11)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: amarcar on 11/14/2014

## Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.11-T1N-R66W			3209320.605	1269845.229	40°04'18.091"N	104°45'07.348"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#11 GRISWOLD 4-11HZ (560'FSL & 1938'FWL, SEC.11)	-4227.56	1447.80	3210803.950	1265630.204	40°03'36.313"N	104°44'48.728"W
PERMIT (17KB) (RKB) to Mud line (At Slot: SLOT#11 GRISWOLD 4-11HZ (560'FSL & 1938'FWL, SEC.11))					5159ft	
Mean Sea Level to Mud line (At Slot: SLOT#11 GRISWOLD 4-11HZ (560'FSL & 1938'FWL, SEC.11))					0ft	
PERMIT (17KB) (RKB) to Mean Sea Level					5159ft	

## Survey Program

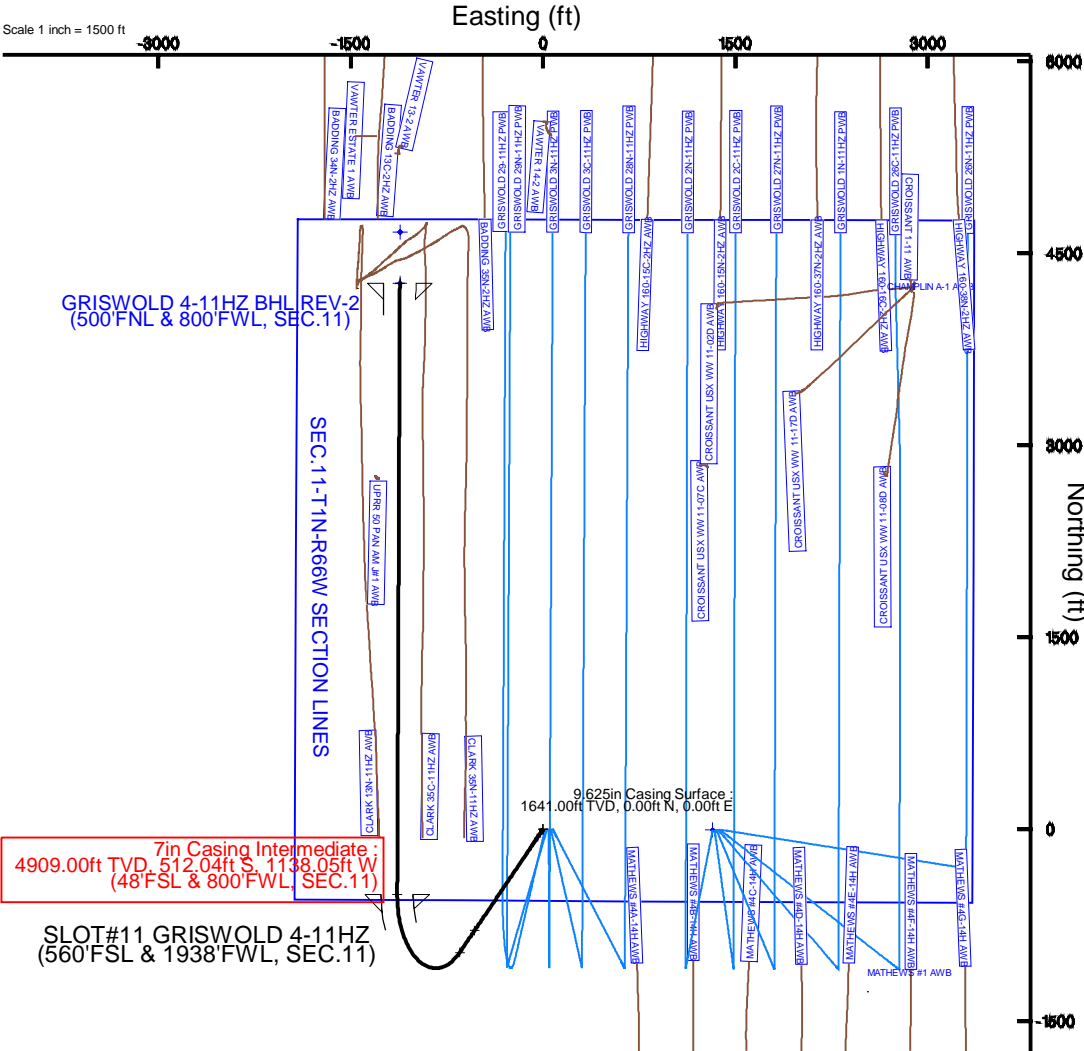
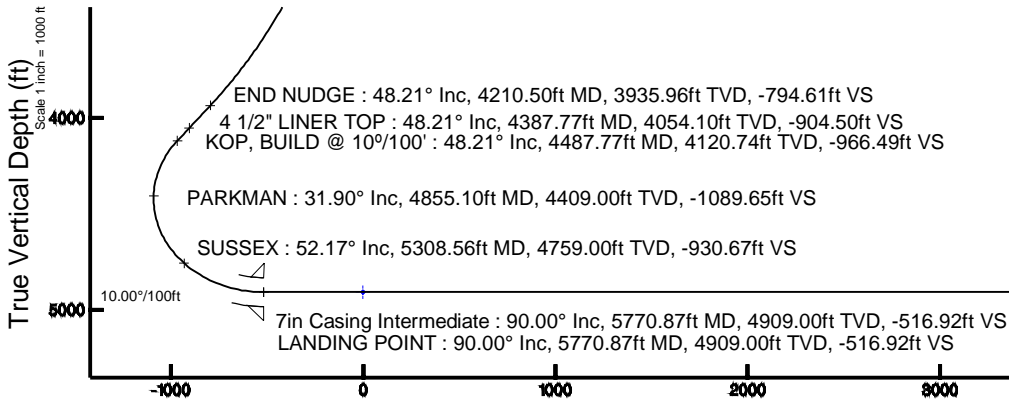
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	10549.57	NaviTrak	NaviTrak (MAGCORR, IFR)		GRISWOLD 4-11HZ PWB

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
GRISWOLD 4-11HZ BHL ON PLAT REV-1 (100'FNL & 800'FWL, SEC.11)		4909.00	4667.00	-1115.57	3209648.83	1270287.37	40°04'22.433"N	104°45'03.078"W
GRISWOLD 4-11HZ BHL REV-2 (500'FNL & 800'FWL, SEC.11)	10549.57	4909.00	4266.62	-1117.55	3209650.25	1269887.01	40°04'18.478"N	104°45'03.103"W
SEC.11-T1N-R66W SECTION LINES		4909.00	-6.54	1322.30	3212126.21	1265634.89	40°03'36.248"N	104°44'31.722"W

## 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	213.998	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1800.00	0.000	213.998	1800.00	0.00	0.00	0.00	0.00
END NUDGE	4210.50	48.210	213.998	3935.96	-792.32	-534.39	2.00	-794.61
KOP, BUILD @ 10°/100'	4487.77	48.210	213.998	4120.74	-963.71	-649.98	0.00	-966.49
LANDING POINT	5770.87	90.000	0.246	4909.00	-512.04	-1138.05	10.00	-516.92
TOTAL DEPTH	10549.57	90.000	0.246	4909.00	4266.62	-1117.55	0.00	4261.78



Vertical Section (ft)

Azimuth 0.25° with reference 0.00 N, 0.00 E

Scale 1 inch = 1000 ft

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 GRISWOLD 4-11HZ (560'FSL & 1938'FWL, SEC.11)
Area	COLORADO	Well	GRISWOLD 4-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRISWOLD 4-11HZ PWB
Facility	SEC.11-T1N-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	Amarcar
Scale	0.999962	Report Generated	11/14/2014 at 1:47:51 PM
Convergence at slot	n/a	Database/Source file	WellArchitectDB/GRISWOLD_4-11HZ_PWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4227.56	1447.80	3210803.95	1265630.20	40°03'36.313"N	104°44'48.728"W
Facility Reference Pt			3209320.61	1269845.23	40°04'18.091"N	104°45'07.348"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

## WELLPATH DATUM

Calculation method	Minimum curvature	PERMIT (17'KB) (RKB) to Facility Vertical Datum	5159.00ft
Horizontal Reference Pt	Slot	PERMIT (17'KB) (RKB) to Mean Sea Level	5159.00ft
Vertical Reference Pt	PERMIT (17'KB) (RKB)	PERMIT (17'KB) (RKB) to Mud Line at Slot (SLOT#11 GRISWOLD 4-11HZ (560'FSL & 1938'FWL, SEC.11))	5159.00ft
MD Reference Pt	PERMIT (17'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.25°

### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 GRISWOLD 4-11HZ (560'FSL & 1938'FWL, SEC.11)
Area	COLORADO	Well	GRISWOLD 4-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRISWOLD 4-11HZ PWB
Facility	SEC.11-T1N-R66W		

### WELLPATH DATA (117 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	213.998	0.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
17.00	0.000	213.998	17.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	TIE-ON
117.00†	0.000	213.998	117.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
217.00†	0.000	213.998	217.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
317.00†	0.000	213.998	317.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
417.00†	0.000	213.998	417.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
517.00†	0.000	213.998	517.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
617.00†	0.000	213.998	617.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
717.00†	0.000	213.998	717.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
817.00†	0.000	213.998	817.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
907.00†	0.000	213.998	907.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	FOX HILLS
917.00†	0.000	213.998	917.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
1017.00†	0.000	213.998	1017.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
1117.00†	0.000	213.998	1117.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
1217.00†	0.000	213.998	1217.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
1317.00†	0.000	213.998	1317.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
1417.00†	0.000	213.998	1417.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
1517.00†	0.000	213.998	1517.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
1617.00†	0.000	213.998	1617.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
1641.00†	0.000	213.998	1641.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	SURFACE CSG SETTING DEPTH
1717.00†	0.000	213.998	1717.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	
1800.00	0.000	213.998	1800.00	0.00	0.00	0.00	40°03'36.313"N	104°44'48.728"W	0.00	BEGIN NUDGE
1817.00†	0.340	213.998	1817.00	-0.04	-0.04	-0.03	40°03'36.313"N	104°44'48.728"W	2.00	
1917.00†	2.340	213.998	1916.97	-1.99	-1.98	-1.34	40°03'36.293"N	104°44'48.745"W	2.00	
2017.00†	4.340	213.998	2016.79	-6.83	-6.81	-4.59	40°03'36.246"N	104°44'48.787"W	2.00	
2117.00†	6.340	213.998	2116.35	-14.57	-14.53	-9.80	40°03'36.169"N	104°44'48.854"W	2.00	
2217.00†	8.340	213.998	2215.53	-25.19	-25.12	-16.94	40°03'36.065"N	104°44'48.946"W	2.00	
2317.00†	10.340	213.998	2314.20	-38.68	-38.57	-26.01	40°03'35.932"N	104°44'49.063"W	2.00	
2417.00†	12.340	213.998	2412.24	-55.03	-54.87	-37.01	40°03'35.771"N	104°44'49.204"W	2.00	
2517.00†	14.340	213.998	2509.54	-74.21	-74.00	-49.91	40°03'35.582"N	104°44'49.370"W	2.00	
2617.00†	16.340	213.998	2605.97	-96.21	-95.93	-64.70	40°03'35.365"N	104°44'49.560"W	2.00	
2717.00†	18.340	213.998	2701.42	-120.99	-120.64	-81.37	40°03'35.121"N	104°44'49.774"W	2.00	
2817.00†	20.340	213.998	2795.77	-148.52	-148.09	-99.88	40°03'34.849"N	104°44'50.013"W	2.00	
2917.00†	22.340	213.998	2888.91	-178.78	-178.26	-120.23	40°03'34.551"N	104°44'50.274"W	2.00	
3017.00†	24.340	213.998	2980.72	-211.72	-211.11	-142.38	40°03'34.227"N	104°44'50.559"W	2.00	
3117.00†	26.340	213.998	3071.10	-247.30	-246.59	-166.31	40°03'33.876"N	104°44'50.867"W	2.00	
3217.00†	28.340	213.998	3159.92	-285.48	-284.66	-191.99	40°03'33.500"N	104°44'51.197"W	2.00	
3317.00†	30.340	213.998	3247.09	-326.22	-325.28	-219.39	40°03'33.098"N	104°44'51.550"W	2.00	
3417.00†	32.340	213.998	3332.50	-369.46	-368.40	-248.47	40°03'32.672"N	104°44'51.924"W	2.00	
3517.00†	34.340	213.998	3416.04	-415.16	-413.96	-279.20	40°03'32.222"N	104°44'52.319"W	2.00	
3617.00†	36.340	213.998	3497.60	-463.25	-461.92	-311.54	40°03'31.748"N	104°44'52.735"W	2.00	
3717.00†	38.340	213.998	3577.11	-513.68	-512.20	-345.46	40°03'31.251"N	104°44'53.171"W	2.00	
3817.00†	40.340	213.998	3654.44	-566.38	-564.75	-380.90	40°03'30.732"N	104°44'53.627"W	2.00	
3917.00†	42.340	213.998	3729.52	-621.30	-619.51	-417.83	40°03'30.191"N	104°44'54.102"W	2.00	
4017.00†	44.340	213.998	3802.24	-678.36	-676.41	-456.21	40°03'29.629"N	104°44'54.595"W	2.00	

### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 GRISWOLD 4-11HZ (560'FSL & 1938'FWL, SEC.11)
Area	COLORADO	Well	GRISWOLD 4-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRISWOLD 4-11HZ PWB
Facility	SEC.11-T1N-R66W		

### WELLPATH DATA (117 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	46.340	213.998	3872.53	-737.50	-735.38	-495.98	40°03'29.046"N	104°44'55.107"W	2.00	
4210.50	48.210	213.998	3935.96	-794.61	-792.32	-534.39	40°03'28.483"N	104°44'55.600"W	2.00	END NUDGE
4217.00†	48.210	213.998	3940.30	-798.64	-796.34	-537.10	40°03'28.443"N	104°44'55.635"W	0.00	
4317.00†	48.210	213.998	4006.94	-860.63	-858.15	-578.79	40°03'27.832"N	104°44'56.171"W	0.00	
4387.77†	48.210	213.998	4054.10	-904.50	-901.90	-608.29	40°03'27.400"N	104°44'56.551"W	0.00	4 1/2" LINER TOP
4417.00†	48.210	213.998	4073.58	-922.62	-919.96	-620.48	40°03'27.222"N	104°44'56.708"W	0.00	
4487.77	48.210	213.998	4120.74	-966.49	-963.71	-649.98	40°03'26.789"N	104°44'57.087"W	0.00	KOP, BUILD @ 10°/100'
4517.00†	46.181	216.866	4140.60	-984.02	-981.18	-662.40	40°03'26.617"N	104°44'57.247"W	10.00	
4617.00†	39.891	228.293	4213.77	-1034.54	-1031.51	-708.10	40°03'26.119"N	104°44'57.834"W	10.00	
4717.00†	35.031	242.713	4293.28	-1069.33	-1066.09	-757.68	40°03'25.778"N	104°44'58.472"W	10.00	
4817.00†	32.271	260.118	4376.71	-1087.34	-1083.87	-809.62	40°03'25.602"N	104°44'59.140"W	10.00	
4855.10†	31.901	267.260	4409.00	-1089.65	-1086.10	-829.70	40°03'25.580"N	104°44'59.398"W	10.00	PARKMAN
4917.00†	32.164	278.934	4461.53	-1088.02	-1084.32	-862.34	40°03'25.597"N	104°44'59.818"W	10.00	
5017.00†	34.734	296.528	4545.16	-1071.34	-1067.42	-914.26	40°03'25.764"N	104°45'00.486"W	10.00	
5117.00†	39.455	311.194	4625.05	-1037.82	-1033.69	-963.78	40°03'26.098"N	104°45'01.123"W	10.00	
5217.00†	45.656	322.832	4698.80	-988.46	-984.14	-1009.41	40°03'26.587"N	104°45'01.709"W	10.00	
5308.56†	52.172	331.385	4759.00	-930.67	-926.18	-1046.59	40°03'27.160"N	104°45'02.188"W	10.00	SUSSEX
5317.00†	52.801	332.093	4764.14	-924.79	-920.29	-1049.76	40°03'27.218"N	104°45'02.228"W	10.00	
5417.00†	60.540	339.689	4819.10	-848.72	-844.07	-1083.59	40°03'27.971"N	104°45'02.664"W	10.00	
5517.00†	68.647	346.180	4862.00	-762.56	-757.80	-1109.90	40°03'28.824"N	104°45'03.002"W	10.00	
5617.00†	76.977	351.979	4891.55	-668.95	-664.11	-1127.86	40°03'29.750"N	104°45'03.233"W	10.00	
5717.00†	85.427	357.395	4906.85	-570.71	-565.83	-1136.95	40°03'30.721"N	104°45'03.350"W	10.00	
5770.87	90.000	0.246	4909.00	-516.92	-512.04	-1138.05	40°03'31.253"N	104°45'03.364"W	10.00	LANDING POINT
5817.00†	90.000	0.246	4909.00	-470.79	-465.91	-1137.86	40°03'31.709"N	104°45'03.362"W	0.00	
5917.00†	90.000	0.246	4909.00	-370.79	-365.91	-1137.43	40°03'32.697"N	104°45'03.356"W	0.00	
6017.00†	90.000	0.246	4909.00	-270.79	-265.91	-1137.00	40°03'33.685"N	104°45'03.351"W	0.00	
6117.00†	90.000	0.246	4909.00	-170.79	-165.91	-1136.57	40°03'34.673"N	104°45'03.345"W	0.00	
6217.00†	90.000	0.246	4909.00	-70.79	-65.91	-1136.14	40°03'35.661"N	104°45'03.340"W	0.00	
6317.00†	90.000	0.246	4909.00	29.21	34.09	-1135.71	40°03'36.650"N	104°45'03.334"W	0.00	
6417.00†	90.000	0.246	4909.00	129.21	134.09	-1135.29	40°03'37.638"N	104°45'03.329"W	0.00	
6517.00†	90.000	0.246	4909.00	229.21	234.09	-1134.86	40°03'38.626"N	104°45'03.323"W	0.00	
6617.00†	90.000	0.246	4909.00	329.21	334.09	-1134.43	40°03'39.614"N	104°45'03.318"W	0.00	
6717.00†	90.000	0.246	4909.00	429.21	434.08	-1134.00	40°03'40.602"N	104°45'03.313"W	0.00	
6817.00†	90.000	0.246	4909.00	529.21	534.08	-1133.57	40°03'41.591"N	104°45'03.307"W	0.00	
6917.00†	90.000	0.246	4909.00	629.21	634.08	-1133.14	40°03'42.579"N	104°45'03.302"W	0.00	
7017.00†	90.000	0.246	4909.00	729.21	734.08	-1132.71	40°03'43.567"N	104°45'03.296"W	0.00	
7117.00†	90.000	0.246	4909.00	829.21	834.08	-1132.28	40°03'44.555"N	104°45'03.291"W	0.00	
7217.00†	90.000	0.246	4909.00	929.21	934.08	-1131.86	40°03'45.544"N	104°45'03.285"W	0.00	
7317.00†	90.000	0.246	4909.00	1029.21	1034.08	-1131.43	40°03'46.532"N	104°45'03.280"W	0.00	
7417.00†	90.000	0.246	4909.00	1129.21	1134.08	-1131.00	40°03'47.520"N	104°45'03.274"W	0.00	
7517.00†	90.000	0.246	4909.00	1229.21	1234.08	-1130.57	40°03'48.508"N	104°45'03.269"W	0.00	
7617.00†	90.000	0.246	4909.00	1329.21	1334.08	-1130.14	40°03'49.496"N	104°45'03.263"W	0.00	
7717.00†	90.000	0.246	4909.00	1429.21	1434.08	-1129.71	40°03'50.485"N	104°45'03.258"W	0.00	
7817.00†	90.000	0.246	4909.00	1529.21	1534.07	-1129.28	40°03'51.473"N	104°45'03.253"W	0.00	
7917.00†	90.000	0.246	4909.00	1629.21	1634.07	-1128.85	40°03'52.461"N	104°45'03.247"W	0.00	

### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 GRISWOLD 4-11HZ (560'FSL & 1938'FWL, SEC.11)
Area	COLORADO	Well	GRISWOLD 4-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRISWOLD 4-11HZ PWB
Facility	SEC.11-T1N-R66W		

### WELLPATH DATA (117 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8017.00†	90.000	0.246	4909.00	1729.21	1734.07	-1128.42	40°03'53.449"N	104°45'03.242"W	0.00	
8117.00†	90.000	0.246	4909.00	1829.21	1834.07	-1128.00	40°03'54.437"N	104°45'03.236"W	0.00	
8217.00†	90.000	0.246	4909.00	1929.21	1934.07	-1127.57	40°03'55.426"N	104°45'03.231"W	0.00	
8317.00†	90.000	0.246	4909.00	2029.21	2034.07	-1127.14	40°03'56.414"N	104°45'03.225"W	0.00	
8417.00†	90.000	0.246	4909.00	2129.21	2134.07	-1126.71	40°03'57.402"N	104°45'03.220"W	0.00	
8517.00†	90.000	0.246	4909.00	2229.21	2234.07	-1126.28	40°03'58.390"N	104°45'03.214"W	0.00	
8617.00†	90.000	0.246	4909.00	2329.21	2334.07	-1125.85	40°03'59.378"N	104°45'03.209"W	0.00	
8717.00†	90.000	0.246	4909.00	2429.21	2434.07	-1125.42	40°04'00.367"N	104°45'03.203"W	0.00	
8817.00†	90.000	0.246	4909.00	2529.21	2534.07	-1124.99	40°04'01.355"N	104°45'03.198"W	0.00	
8917.00†	90.000	0.246	4909.00	2629.21	2634.06	-1124.56	40°04'02.343"N	104°45'03.192"W	0.00	
9017.00†	90.000	0.246	4909.00	2729.21	2734.06	-1124.13	40°04'03.331"N	104°45'03.187"W	0.00	
9117.00†	90.000	0.246	4909.00	2829.21	2834.06	-1123.70	40°04'04.320"N	104°45'03.182"W	0.00	
9217.00†	90.000	0.246	4909.00	2929.21	2934.06	-1123.27	40°04'05.308"N	104°45'03.176"W	0.00	
9317.00†	90.000	0.246	4909.00	3029.21	3034.06	-1122.84	40°04'06.296"N	104°45'03.171"W	0.00	
9417.00†	90.000	0.246	4909.00	3129.21	3134.06	-1122.42	40°04'07.284"N	104°45'03.165"W	0.00	
9517.00†	90.000	0.246	4909.00	3229.21	3234.06	-1121.99	40°04'08.272"N	104°45'03.160"W	0.00	
9617.00†	90.000	0.246	4909.00	3329.21	3334.06	-1121.56	40°04'09.261"N	104°45'03.154"W	0.00	
9717.00†	90.000	0.246	4909.00	3429.21	3434.06	-1121.13	40°04'10.249"N	104°45'03.149"W	0.00	
9817.00†	90.000	0.246	4909.00	3529.21	3534.06	-1120.70	40°04'11.237"N	104°45'03.143"W	0.00	
9917.00†	90.000	0.246	4909.00	3629.21	3634.05	-1120.27	40°04'12.225"N	104°45'03.138"W	0.00	
10017.00†	90.000	0.246	4909.00	3729.21	3734.05	-1119.84	40°04'13.213"N	104°45'03.132"W	0.00	
10117.00†	90.000	0.246	4909.00	3829.21	3834.05	-1119.41	40°04'14.202"N	104°45'03.127"W	0.00	
10217.00†	90.000	0.246	4909.00	3929.21	3934.05	-1118.98	40°04'15.190"N	104°45'03.121"W	0.00	
10317.00†	90.000	0.246	4909.00	4029.21	4034.05	-1118.55	40°04'16.178"N	104°45'03.116"W	0.00	
10417.00†	90.000	0.246	4909.00	4129.21	4134.05	-1118.12	40°04'17.166"N	104°45'03.110"W	0.00	
10517.00†	90.000	0.246	4909.00	4229.21	4234.05	-1117.69	40°04'18.155"N	104°45'03.105"W	0.00	
10549.57	90.000	0.246	4909.00 <sup>1</sup>	4261.78	4266.62	-1117.55	40°04'18.476"N	104°45'03.103"W	0.00	TOTAL DEPTH

### HOLE & CASING SECTIONS - Ref Wellbore: GRISWOLD 4-11HZ PWB Ref Wellpath: GRISWOLD 4-11HZ (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	1641.00	1624.00	17.00	1641.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1641.00	1624.00	17.00	1641.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1641.00	5770.87	4129.87	1641.00	4909.00	0.00	0.00	-512.04	-1138.05
7in Casing Intermediate	17.00	5770.87	5753.87	17.00	4909.00	0.00	0.00	-512.04	-1138.05
6.125in Open Hole	5770.87	10549.57	4778.70	4909.00	4909.00	-512.04	-1138.05	4266.62	-1117.55
4.5in Casing Production	17.00	10549.57	10532.57	17.00	4909.00	0.00	0.00	4266.62	-1117.55

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 GRISWOLD 4-11HZ (560'FSL & 1938'FWL, SEC.11)
Area	COLORADO	Well	GRISWOLD 4-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRISWOLD 4-11HZ PWB
Facility	SEC.11-T1N-R66W		

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
GRISWOLD 4-11HZ BHL ON PLAT REV-1 (100'FNL & 800'FWL, SEC.11)		4909.00	4667.00	-1115.57	3209648.83	1270287.37	40°04'22.433"N	104°45'03.078"W	point
1) GRISWOLD 4-11HZ BHL REV- 2 (500'FNL & 800'FWL, SEC.11)	10549.57	4909.00	4266.62	-1117.55	3209650.25	1269887.01	40°04'18.476"N	104°45'03.103"W	point
SEC.11-T1N-R66W SECTION LINES		4909.00	-6.54	1322.30	3212126.21	1265634.89	40°03'36.248"N	104°44'31.722"W	polygon

## SURVEY PROGRAM - Ref Wellbore: GRISWOLD 4-11HZ PWB Ref Wellpath: GRISWOLD 4-11HZ (PERMIT REV-2) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	10549.57	NaviTrak (MAGCORR,IFR)		GRISWOLD 4-11HZ PWB



### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 GRISWOLD 4-11HZ (560'FSL & 1938'FWL, SEC.11)
Area	COLORADO	Well	GRISWOLD 4-11HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRISWOLD 4-11HZ PWB
Facility	SEC.11-T1N-R66W		

### WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
907.00	0.000	213.998	907.00	FOX HILLS
1641.00	0.000	213.998	1641.00	SURFACE CSG SETTING DEPTH
4387.77	48.210	213.998	4054.10	4 1/2" LINER TOP
4855.10	31.901	267.260	4409.00	PARKMAN
5308.56	52.172	331.385	4759.00	SUSSEX

### DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	213.998	17.00	TIE-ON
1800.00	0.000	213.998	1800.00	BEGIN NUDGE
4210.50	48.210	213.998	3935.96	END NUDGE
4487.77	48.210	213.998	4120.74	KOP, BUILD @ 10°/100'
5770.87	90.000	0.246	4909.00	LANDING POINT
10549.57	90.000	0.246	4909.00	TOTAL DEPTH