

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#11 TROUDT 36N-33HZ (304'FSL & 1650'FWL, SEC.33)  
Field: WELD COUNTY (KERR MCGEE) Well: TROUDT 36N-33HZ  
Facility: SEC.33-T2N-R67W Wellbore: TROUDT 36N-33HZ PWB

Plot reference wellpath is TROUDT 36N-33HZ (PERMIT REV-1) PWP

True vertical depths are referenced to PERMIT (17 KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to PERMIT (17 KB) (RKB)	North Reference: True north
PERMIT (17 KB) (RKB) to Mean Sea Level: 5054 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#11 TROUDT 36N-33HZ (304'FSL & 1650'FWL, SEC.33)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robiate01 on 18/Sep/2013

## Location Information

Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.33-T2N-R67W				3170116.037	1275626.243	40°05'18.183"N	104°53'31.139"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SLOT#11 TROUDT 36N-33HZ (304'FSL & 1650'FWL, SEC.33)	5.15	-2083.67	3168032.467	1275617.103	40°05'18.233"N	104°53'57.948"W	
PERMIT (17 KB) (RKB) to Mud line (At Slot: SLOT#11 TROUDT 36N-33HZ (304'FSL & 1650'FWL, SEC.33))						5054ft	
Mean Sea Level to Mud line (At Slot: SLOT#11 TROUDT 36N-33HZ (304'FSL & 1650'FWL, SEC.33))						0ft	
PERMIT (17 KB) (RKB) to Mean Sea Level						5054ft	

## Survey Program

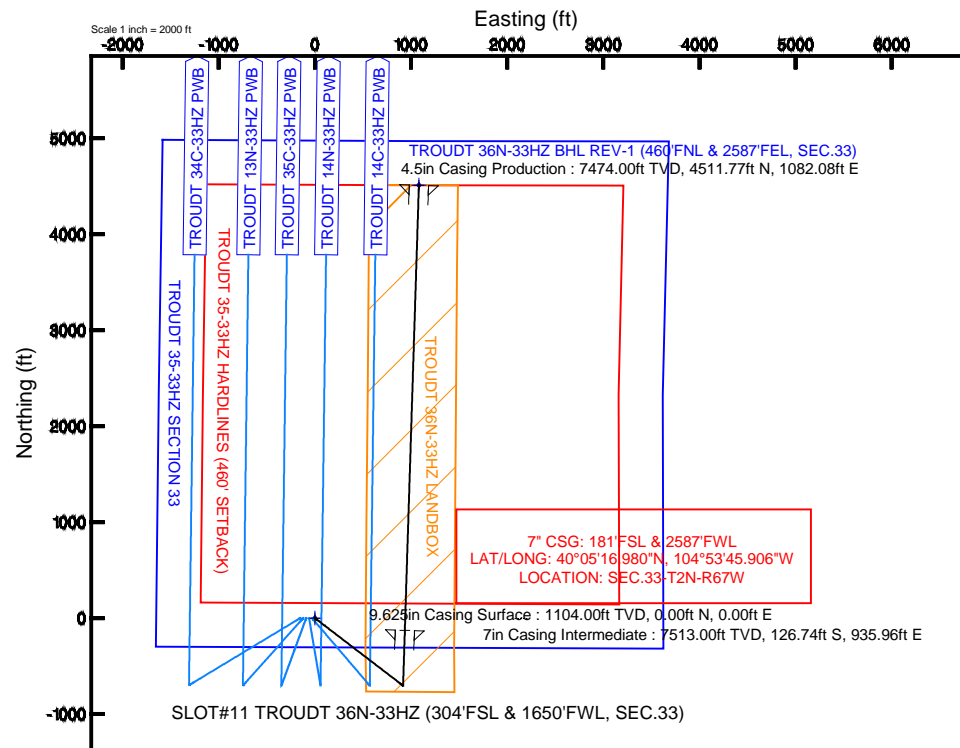
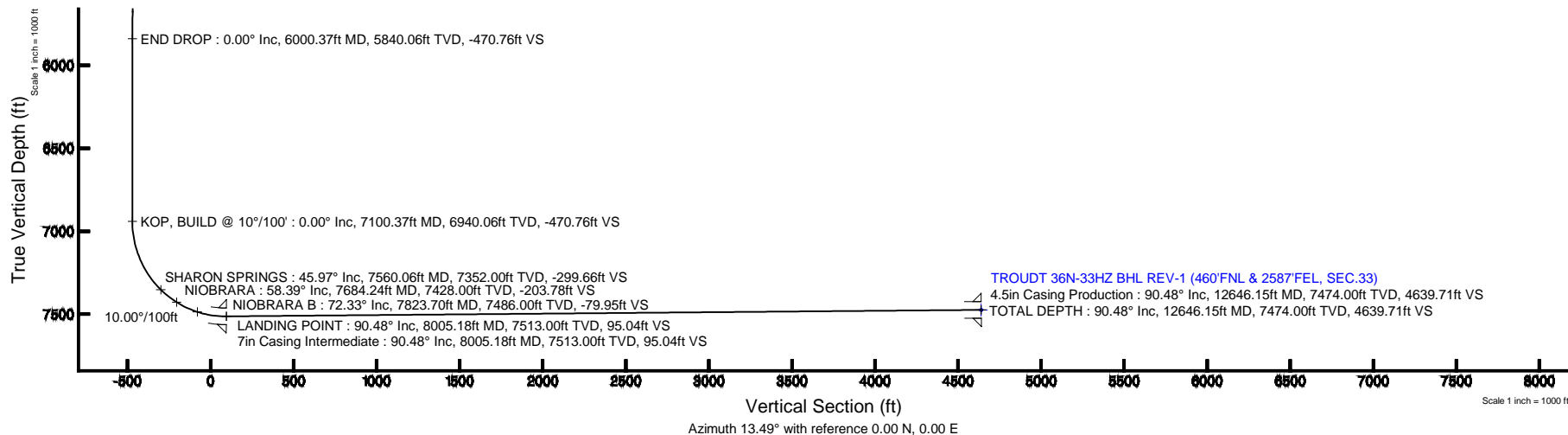
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	8005.18	NaviTrak	NaviTrak (Standard)		TROUDT 36N-33HZ PWB
8005.18	12646.15	OnTrak	OnTrak (Standard)		TROUDT 36N-33HZ PWB

## 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	127.500	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1200.00	0.000	127.500	1200.00	0.00	0.00	0.00	0.00
END NUDGE	2050.00	17.000	127.500	2037.58	-76.20	99.31	2.00	-50.94
BEGIN DROP	5150.37	17.000	127.500	5002.48	-628.02	818.45	0.00	-419.82
END DROP	6000.37	0.000	1.804	5840.06	-704.22	917.76	2.00	-470.76
KOP, BUILD @ 10°/100'	7100.37	0.000	1.804	6940.06	-704.22	917.76	0.00	-470.76
LANDING POINT	8005.18	90.481	1.804	7513.00	-126.74	935.96	10.00	95.04
TOTAL DEPTH	12646.15	90.481	1.804	7474.00	4511.77	1082.08	0.00	4639.71

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
TROUDT 36N-33HZ BHL REV-1 (460'FNL & 2587'FEL, SEC.33)	12646.15	7474.00	4511.77	1082.08	3169083.92	1280135.91	40°06'02.819"N	104°53'44.023"W
TROUDT 36N-33HZ LANDBOX		7474.00	0.00	0.00	3168032.47	1275617.10	40°05'18.233"N	104°53'57.948"W
TROUDT 35-33HZ HARDLINES (460' SETBACK)		7684.00	-4.97	2083.67	3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"W
TROUDT 35-33HZ SECTION 33		7684.00	-4.97	2083.67	3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"W





# Planned Wellpath Report

TROUDT 36N-33HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 TROUDT 36N-33HZ (304'FSL & 1650'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 36N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 36N-33HZ PWB
Facility	SEC.33-T2N-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	Robiale01
Scale	0.999961	Report Generated	18/Sep/2013 at 13:01
Convergence at slot	n/a	Database/Source file	WellArchitectDB/TROUDT_36N-33HZ_PWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	5.15	-2083.67	3168032.47	1275617.10	40°05'18.233"N	104°53'57.948"W
Facility Reference Pt			3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"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	5054.00ft
Horizontal Reference Pt	Slot	PERMIT (17' KB) (RKB) to Mean Sea Level	5054.00ft
Vertical Reference Pt	PERMIT (17' KB) (RKB)	PERMIT (17' KB) (RKB) to Mud Line at Slot (SLOT#11 TROUDT 36N-33HZ (304'FSL & 1650'FWL, SEC.33))	5054.00ft
MD Reference Pt	PERMIT (17' KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	13.49°



# Planned Wellpath Report

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 TROUDT 36N-33HZ (304'FSL & 1650'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 36N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 36N-33HZ PWB
Facility	SEC.33-T2N-R67W		

## WELLPATH DATA (142 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	127.500	0.00	0.00	0.00	0.00	40°05'18.233"N	104°53'57.948"W	0.00	
17.00	0.000	127.500	17.00	0.00	0.00	0.00	40°05'18.233"N	104°53'57.948"W	0.00	TIE ON
117.00†	0.000	127.500	117.00	0.00	0.00	0.00	40°05'18.233"N	104°53'57.948"W	0.00	
217.00†	0.000	127.500	217.00	0.00	0.00	0.00	40°05'18.233"N	104°53'57.948"W	0.00	
317.00†	0.000	127.500	317.00	0.00	0.00	0.00	40°05'18.233"N	104°53'57.948"W	0.00	
417.00†	0.000	127.500	417.00	0.00	0.00	0.00	40°05'18.233"N	104°53'57.948"W	0.00	
517.00†	0.000	127.500	517.00	0.00	0.00	0.00	40°05'18.233"N	104°53'57.948"W	0.00	
617.00†	0.000	127.500	617.00	0.00	0.00	0.00	40°05'18.233"N	104°53'57.948"W	0.00	
717.00†	0.000	127.500	717.00	0.00	0.00	0.00	40°05'18.233"N	104°53'57.948"W	0.00	
817.00†	0.000	127.500	817.00	0.00	0.00	0.00	40°05'18.233"N	104°53'57.948"W	0.00	
917.00†	0.000	127.500	917.00	0.00	0.00	0.00	40°05'18.233"N	104°53'57.948"W	0.00	
1017.00†	0.000	127.500	1017.00	0.00	0.00	0.00	40°05'18.233"N	104°53'57.948"W	0.00	
1054.00†	0.000	127.500	1054.00	0.00	0.00	0.00	40°05'18.233"N	104°53'57.948"W	0.00	FOX HILLS BASE
1117.00†	0.000	127.500	1117.00	0.00	0.00	0.00	40°05'18.233"N	104°53'57.948"W	0.00	
1200.00	0.000	127.500	1200.00	0.00	0.00	0.00	40°05'18.233"N	104°53'57.948"W	0.00	BEGIN NUDGE
1217.00†	0.340	127.500	1217.00	-0.02	-0.03	0.04	40°05'18.233"N	104°53'57.947"W	2.00	
1317.00†	2.340	127.500	1316.97	-0.97	-1.45	1.90	40°05'18.219"N	104°53'57.924"W	2.00	
1417.00†	4.340	127.500	1416.79	-3.34	-5.00	6.52	40°05'18.184"N	104°53'57.864"W	2.00	
1517.00†	6.340	127.500	1516.35	-7.13	-10.67	13.90	40°05'18.128"N	104°53'57.769"W	2.00	
1617.00†	8.340	127.500	1615.53	-12.33	-18.44	24.04	40°05'18.051"N	104°53'57.639"W	2.00	
1717.00†	10.340	127.500	1714.20	-18.93	-28.32	36.91	40°05'17.953"N	104°53'57.473"W	2.00	
1817.00†	12.340	127.500	1812.24	-26.93	-40.29	52.51	40°05'17.835"N	104°53'57.272"W	2.00	
1917.00†	14.340	127.500	1909.54	-36.32	-54.34	70.81	40°05'17.696"N	104°53'57.037"W	2.00	
2017.00†	16.340	127.500	2005.97	-47.09	-70.44	91.80	40°05'17.537"N	104°53'56.767"W	2.00	
2050.00	17.000	127.500	2037.58	-50.94	-76.20	99.31	40°05'17.480"N	104°53'56.670"W	2.00	END NUDGE
2117.00†	17.000	127.500	2101.66	-58.91	-88.13	114.85	40°05'17.362"N	104°53'56.470"W	0.00	
2217.00†	17.000	127.500	2197.29	-70.81	-105.93	138.05	40°05'17.186"N	104°53'56.172"W	0.00	
2317.00†	17.000	127.500	2292.92	-82.71	-123.73	161.24	40°05'17.010"N	104°53'55.873"W	0.00	
2417.00†	17.000	127.500	2388.55	-94.61	-141.52	184.44	40°05'16.834"N	104°53'55.575"W	0.00	
2517.00†	17.000	127.500	2484.18	-106.50	-159.32	207.63	40°05'16.659"N	104°53'55.277"W	0.00	
2617.00†	17.000	127.500	2579.81	-118.40	-177.12	230.83	40°05'16.483"N	104°53'54.978"W	0.00	
2717.00†	17.000	127.500	2675.44	-130.30	-194.92	254.02	40°05'16.307"N	104°53'54.680"W	0.00	
2817.00†	17.000	127.500	2771.07	-142.20	-212.72	277.22	40°05'16.131"N	104°53'54.381"W	0.00	
2917.00†	17.000	127.500	2866.70	-154.10	-230.52	300.41	40°05'15.955"N	104°53'54.083"W	0.00	
3017.00†	17.000	127.500	2962.33	-165.99	-248.31	323.61	40°05'15.779"N	104°53'53.784"W	0.00	
3117.00†	17.000	127.500	3057.96	-177.89	-266.11	346.81	40°05'15.603"N	104°53'53.486"W	0.00	
3217.00†	17.000	127.500	3153.59	-189.79	-283.91	370.00	40°05'15.427"N	104°53'53.188"W	0.00	
3317.00†	17.000	127.500	3249.22	-201.69	-301.71	393.20	40°05'15.251"N	104°53'52.889"W	0.00	
3417.00†	17.000	127.500	3344.85	-213.59	-319.51	416.39	40°05'15.076"N	104°53'52.591"W	0.00	
3517.00†	17.000	127.500	3440.48	-225.48	-337.31	439.59	40°05'14.900"N	104°53'52.292"W	0.00	
3617.00†	17.000	127.500	3536.11	-237.38	-355.11	462.78	40°05'14.724"N	104°53'51.994"W	0.00	
3717.00†	17.000	127.500	3631.74	-249.28	-372.90	485.98	40°05'14.548"N	104°53'51.695"W	0.00	
3817.00†	17.000	127.500	3727.37	-261.18	-390.70	509.17	40°05'14.372"N	104°53'51.397"W	0.00	
3917.00†	17.000	127.500	3823.00	-273.08	-408.50	532.37	40°05'14.196"N	104°53'51.099"W	0.00	
4017.00†	17.000	127.500	3918.63	-284.97	-426.30	555.56	40°05'14.020"N	104°53'50.800"W	0.00	



# Planned Wellpath Report

TROUDT 36N-33HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 TROUDT 36N-33HZ (304'FSL & 1650'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 36N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 36N-33HZ PWB
Facility	SEC.33-T2N-R67W		

## WELLPATH DATA (142 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	17.000	127.500	4014.27	-296.87	-444.10	578.76	40°05'13.844"N	104°53'50.502"W	0.00	
4217.00†	17.000	127.500	4109.90	-308.77	-461.90	601.95	40°05'13.668"N	104°53'50.203"W	0.00	
4317.00†	17.000	127.500	4205.53	-320.67	-479.69	625.15	40°05'13.492"N	104°53'49.905"W	0.00	
4417.00†	17.000	127.500	4301.16	-332.57	-497.49	648.35	40°05'13.317"N	104°53'49.606"W	0.00	
4517.00†	17.000	127.500	4396.79	-344.46	-515.29	671.54	40°05'13.141"N	104°53'49.308"W	0.00	
4617.00†	17.000	127.500	4492.42	-356.36	-533.09	694.74	40°05'12.965"N	104°53'49.010"W	0.00	
4717.00†	17.000	127.500	4588.05	-368.26	-550.89	717.93	40°05'12.789"N	104°53'48.711"W	0.00	
4817.00†	17.000	127.500	4683.68	-380.16	-568.69	741.13	40°05'12.613"N	104°53'48.413"W	0.00	
4834.07†	17.000	127.500	4700.00	-382.19	-571.72	745.09	40°05'12.583"N	104°53'48.362"W	0.00	SUSSEX
4917.00†	17.000	127.500	4779.31	-392.06	-586.49	764.32	40°05'12.437"N	104°53'48.114"W	0.00	
5017.00†	17.000	127.500	4874.94	-403.95	-604.28	787.52	40°05'12.261"N	104°53'47.816"W	0.00	
5117.00†	17.000	127.500	4970.57	-415.85	-622.08	810.71	40°05'12.085"N	104°53'47.517"W	0.00	
5150.37	17.000	127.500	5002.48	-419.82	-628.02	818.45	40°05'12.027"N	104°53'47.418"W	0.00	BEGIN DROP
5217.00†	15.667	127.500	5066.42	-427.45	-639.43	833.32	40°05'11.914"N	104°53'47.227"W	2.00	
5271.47†	14.578	127.500	5119.00	-433.23	-648.08	844.59	40°05'11.828"N	104°53'47.082"W	2.00	SHANNON
5317.00†	13.667	127.500	5163.16	-437.75	-654.84	853.41	40°05'11.762"N	104°53'46.968"W	2.00	
5417.00†	11.667	127.500	5260.72	-446.68	-668.19	870.80	40°05'11.630"N	104°53'46.744"W	2.00	
5517.00†	9.667	127.500	5358.99	-454.21	-679.46	885.49	40°05'11.518"N	104°53'46.555"W	2.00	
5617.00†	7.667	127.500	5457.84	-460.34	-688.63	897.44	40°05'11.428"N	104°53'46.402"W	2.00	
5717.00†	5.667	127.500	5557.16	-465.06	-695.70	906.65	40°05'11.358"N	104°53'46.283"W	2.00	
5817.00†	3.667	127.500	5656.82	-468.38	-700.65	913.11	40°05'11.309"N	104°53'46.200"W	2.00	
5917.00†	1.667	127.500	5756.71	-470.27	-703.49	916.80	40°05'11.281"N	104°53'46.153"W	2.00	
6000.37	0.000	1.804	5840.06	-470.76	-704.22	917.76	40°05'11.274"N	104°53'46.140"W	2.00	END DROP
6017.00†	0.000	1.804	5856.70	-470.76	-704.22	917.76	40°05'11.274"N	104°53'46.140"W	0.00	
6117.00†	0.000	1.804	5956.70	-470.76	-704.22	917.76	40°05'11.274"N	104°53'46.140"W	0.00	
6217.00†	0.000	1.804	6056.70	-470.76	-704.22	917.76	40°05'11.274"N	104°53'46.140"W	0.00	
6317.00†	0.000	1.804	6156.70	-470.76	-704.22	917.76	40°05'11.274"N	104°53'46.140"W	0.00	
6417.00†	0.000	1.804	6256.70	-470.76	-704.22	917.76	40°05'11.274"N	104°53'46.140"W	0.00	
6517.00†	0.000	1.804	6356.70	-470.76	-704.22	917.76	40°05'11.274"N	104°53'46.140"W	0.00	
6617.00†	0.000	1.804	6456.70	-470.76	-704.22	917.76	40°05'11.274"N	104°53'46.140"W	0.00	
6717.00†	0.000	1.804	6556.70	-470.76	-704.22	917.76	40°05'11.274"N	104°53'46.140"W	0.00	
6817.00†	0.000	1.804	6656.70	-470.76	-704.22	917.76	40°05'11.274"N	104°53'46.140"W	0.00	
6917.00†	0.000	1.804	6756.70	-470.76	-704.22	917.76	40°05'11.274"N	104°53'46.140"W	0.00	
7017.00†	0.000	1.804	6856.70	-470.76	-704.22	917.76	40°05'11.274"N	104°53'46.140"W	0.00	
7100.37	0.000	1.804	6940.06	-470.76	-704.22	917.76	40°05'11.274"N	104°53'46.140"W	0.00	KOP, BUILD @ 10°/100'
7117.00†	1.663	1.804	6956.69	-470.53	-703.98	917.77	40°05'11.276"N	104°53'46.140"W	10.00	
7217.00†	11.663	1.804	7055.89	-459.18	-692.40	918.14	40°05'11.390"N	104°53'46.135"W	10.00	
7317.00†	21.663	1.804	7151.57	-431.13	-663.78	919.04	40°05'11.673"N	104°53'46.124"W	10.00	
7417.00†	31.663	1.804	7240.82	-387.24	-618.98	920.45	40°05'12.116"N	104°53'46.106"W	10.00	
7517.00†	41.663	1.804	7320.94	-328.84	-559.38	922.33	40°05'12.705"N	104°53'46.081"W	10.00	
7560.06†	45.969	1.804	7352.00	-299.66	-529.59	923.26	40°05'12.999"N	104°53'46.069"W	10.00	SHARON SPRINGS
7617.00†	51.663	1.804	7389.48	-257.71	-486.77	924.61	40°05'13.422"N	104°53'46.052"W	10.00	
7684.24†	58.387	1.804	7428.00	-203.78	-431.73	926.35	40°05'13.966"N	104°53'46.030"W	10.00	NIOBRARA
7717.00†	61.663	1.804	7444.36	-176.00	-403.37	927.24	40°05'14.247"N	104°53'46.018"W	10.00	
7817.00†	71.663	1.804	7483.93	-86.19	-311.72	930.13	40°05'15.152"N	104°53'45.981"W	10.00	



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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 TROUDT 36N-33HZ (304'FSL & 1650'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 36N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 36N-33HZ PWB
Facility	SEC.33-T2N-R67W		

## WELLPATH DATA (142 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7823.70†	72.334	1.804	7486.00	-79.95	-305.34	930.33	40°05'15.215"N	104°53'45.978"W	10.00	NIOBRARA B
7917.00†	81.663	1.804	7506.97	8.97	-214.58	933.19	40°05'16.112"N	104°53'45.941"W	10.00	
8005.18	90.481	1.804	7513.00	95.04	-126.74	935.96	40°05'16.980"N	104°53'45.906"W	10.00	LANDING POINT
8017.00†	90.481	1.804	7512.90	106.61	-114.93	936.33	40°05'17.097"N	104°53'45.901"W	0.00	
8117.00†	90.481	1.804	7512.06	204.54	-14.98	939.48	40°05'18.085"N	104°53'45.860"W	0.00	
8217.00†	90.481	1.804	7511.22	302.46	84.97	942.62	40°05'19.072"N	104°53'45.820"W	0.00	
8317.00†	90.481	1.804	7510.38	400.39	184.91	945.77	40°05'20.060"N	104°53'45.779"W	0.00	
8417.00†	90.481	1.804	7509.54	498.31	284.86	948.92	40°05'21.048"N	104°53'45.739"W	0.00	
8517.00†	90.481	1.804	7508.70	596.24	384.81	952.07	40°05'22.036"N	104°53'45.698"W	0.00	
8617.00†	90.481	1.804	7507.86	694.16	484.75	955.22	40°05'23.023"N	104°53'45.658"W	0.00	
8717.00†	90.481	1.804	7507.02	792.09	584.70	958.37	40°05'24.011"N	104°53'45.617"W	0.00	
8817.00†	90.481	1.804	7506.18	890.01	684.65	961.52	40°05'24.999"N	104°53'45.577"W	0.00	
8917.00†	90.481	1.804	7505.34	987.94	784.59	964.66	40°05'25.986"N	104°53'45.536"W	0.00	
9017.00†	90.481	1.804	7504.50	1085.86	884.54	967.81	40°05'26.974"N	104°53'45.495"W	0.00	
9117.00†	90.481	1.804	7503.66	1183.79	984.49	970.96	40°05'27.962"N	104°53'45.455"W	0.00	
9217.00†	90.481	1.804	7502.82	1281.71	1084.44	974.11	40°05'28.949"N	104°53'45.414"W	0.00	
9317.00†	90.481	1.804	7501.98	1379.64	1184.38	977.26	40°05'29.937"N	104°53'45.374"W	0.00	
9417.00†	90.481	1.804	7501.14	1477.56	1284.33	980.41	40°05'30.925"N	104°53'45.333"W	0.00	
9517.00†	90.481	1.804	7500.30	1575.49	1384.28	983.56	40°05'31.912"N	104°53'45.293"W	0.00	
9617.00†	90.481	1.804	7499.46	1673.41	1484.22	986.70	40°05'32.900"N	104°53'45.252"W	0.00	
9717.00†	90.481	1.804	7498.62	1771.34	1584.17	989.85	40°05'33.888"N	104°53'45.212"W	0.00	
9817.00†	90.481	1.804	7497.78	1869.26	1684.12	993.00	40°05'34.876"N	104°53'45.171"W	0.00	
9917.00†	90.481	1.804	7496.93	1967.19	1784.06	996.15	40°05'35.863"N	104°53'45.130"W	0.00	
10017.00†	90.481	1.804	7496.09	2065.11	1884.01	999.30	40°05'36.851"N	104°53'45.090"W	0.00	
10117.00†	90.481	1.804	7495.25	2163.04	1983.96	1002.45	40°05'37.839"N	104°53'45.049"W	0.00	
10217.00†	90.481	1.804	7494.41	2260.96	2083.90	1005.59	40°05'38.826"N	104°53'45.009"W	0.00	
10317.00†	90.481	1.804	7493.57	2358.89	2183.85	1008.74	40°05'39.814"N	104°53'44.968"W	0.00	
10417.00†	90.481	1.804	7492.73	2456.81	2283.80	1011.89	40°05'40.802"N	104°53'44.928"W	0.00	
10517.00†	90.481	1.804	7491.89	2554.74	2383.74	1015.04	40°05'41.789"N	104°53'44.887"W	0.00	
10617.00†	90.481	1.804	7491.05	2652.66	2483.69	1018.19	40°05'42.777"N	104°53'44.846"W	0.00	
10717.00†	90.481	1.804	7490.21	2750.59	2583.64	1021.34	40°05'43.765"N	104°53'44.806"W	0.00	
10817.00†	90.481	1.804	7489.37	2848.51	2683.59	1024.49	40°05'44.752"N	104°53'44.765"W	0.00	
10917.00†	90.481	1.804	7488.53	2946.44	2783.53	1027.63	40°05'45.740"N	104°53'44.725"W	0.00	
11017.00†	90.481	1.804	7487.69	3044.36	2883.48	1030.78	40°05'46.728"N	104°53'44.684"W	0.00	
11117.00†	90.481	1.804	7486.85	3142.29	2983.43	1033.93	40°05'47.715"N	104°53'44.644"W	0.00	
11217.00†	90.481	1.804	7486.01	3240.21	3083.37	1037.08	40°05'48.703"N	104°53'44.603"W	0.00	
11218.19†	90.481	1.804	7486.00	3241.38	3084.56	1037.12	40°05'48.715"N	104°53'44.603"W	0.00	NIOBRARA B
11317.00†	90.481	1.804	7485.17	3338.14	3183.32	1040.23	40°05'49.691"N	104°53'44.562"W	0.00	
11417.00†	90.481	1.804	7484.33	3436.06	3283.27	1043.38	40°05'50.679"N	104°53'44.522"W	0.00	
11517.00†	90.481	1.804	7483.49	3533.99	3383.21	1046.53	40°05'51.666"N	104°53'44.481"W	0.00	
11617.00†	90.481	1.804	7482.65	3631.91	3483.16	1049.67	40°05'52.654"N	104°53'44.441"W	0.00	
11717.00†	90.481	1.804	7481.81	3729.84	3583.11	1052.82	40°05'53.642"N	104°53'44.400"W	0.00	
11817.00†	90.481	1.804	7480.97	3827.76	3683.05	1055.97	40°05'54.629"N	104°53'44.360"W	0.00	
11917.00†	90.481	1.804	7480.13	3925.69	3783.00	1059.12	40°05'55.617"N	104°53'44.319"W	0.00	
12017.00†	90.481	1.804	7479.29	4023.61	3882.95	1062.27	40°05'56.605"N	104°53'44.278"W	0.00	



# Planned Wellpath Report

TROUDT 36N-33HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 TROUDT 36N-33HZ (304'FSL & 1650'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 36N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 36N-33HZ PWB
Facility	SEC.33-T2N-R67W		

## WELLPATH DATA (142 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12117.00†	90.481	1.804	7478.45	4121.54	3982.89	1065.42	40°05'57.592"N	104°53'44.238"W	0.00	
12217.00†	90.481	1.804	7477.61	4219.46	4082.84	1068.57	40°05'58.580"N	104°53'44.197"W	0.00	
12317.00†	90.481	1.804	7476.77	4317.39	4182.79	1071.71	40°05'59.568"N	104°53'44.157"W	0.00	
12417.00†	90.481	1.804	7475.93	4415.31	4282.74	1074.86	40°06'00.555"N	104°53'44.116"W	0.00	
12517.00†	90.481	1.804	7475.09	4513.24	4382.68	1078.01	40°06'01.543"N	104°53'44.076"W	0.00	
12617.00†	90.481	1.804	7474.25	4611.16	4482.63	1081.16	40°06'02.531"N	104°53'44.035"W	0.00	
12646.15	90.481	1.804	7474.00 <sup>1</sup>	4639.71	4511.77	1082.08	40°06'02.819"N	104°53'44.023"W	0.00	TOTAL DEPTH

## HOLE & CASING SECTIONS - Ref Wellbore: TROUDT 36N-33HZ PWB Ref Wellpath: TROUDT 36N-33HZ (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	1104.00	1087.00	17.00	1104.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1104.00	1087.00	17.00	1104.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1104.00	8005.18	6901.18	1104.00	7513.00	0.00	0.00	-126.74	935.96
7in Casing Intermediate	17.00	8005.18	7988.18	17.00	7513.00	0.00	0.00	-126.74	935.96
6.125in Open Hole	8005.18	12646.15	4640.97	7513.00	7474.00	-126.74	935.96	4511.77	1082.08
4.5in Casing Production	17.00	12646.15	12629.15	17.00	7474.00	0.00	0.00	4511.77	1082.08

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) TROUDT 36N-33HZ BHL REV-1 (460'FNL & 2587'FEL, SEC.33)	12646.15	7474.00	4511.77	1082.08	3169083.92	1280135.91	40°06'02.819"N	104°53'44.023"W	point
TROUDT 36N-33HZ LANDBOX		7474.00	0.00	0.00	3168032.47	1275617.10	40°05'18.233"N	104°53'57.948"W	polygon
TROUDT 35-33HZ HARDLINES (460' SETBACK)		7684.00	-4.97	2083.67	3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"W	polygon
TROUDT 35-33HZ SECTION 33		7684.00	-4.97	2083.67	3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"W	polygon

## SURVEY PROGRAM - Ref Wellbore: TROUDT 36N-33HZ PWB Ref Wellpath: TROUDT 36N-33HZ (PERMIT REV-1) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	8005.18	NaviTrak (Standard)		TROUDT 36N-33HZ PWB
8005.18	12646.15	OnTrak (Standard)		TROUDT 36N-33HZ PWB



# Planned Wellpath Report

TROUDT 36N-33HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#11 TROUDT 36N-33HZ (304'FSL & 1650'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 36N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 36N-33HZ PWB
Facility	SEC.33-T2N-R67W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1054.00	0.000	127.500	1054.00	FOX HILLS BASE
4834.07	17.000	127.500	4700.00	SUSSEX
5271.47	14.578	127.500	5119.00	SHANNON
7560.06	45.969	1.804	7352.00	SHARON SPRINGS
7684.24	58.387	1.804	7428.00	NIOBRARA
7823.70	72.334	1.804	7486.00	NIOBRARA B
11218.19	90.481	1.804	7486.00	NIOBRARA B

## DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	127.500	17.00	TIE ON
1200.00	0.000	127.500	1200.00	BEGIN NUDGE
2050.00	17.000	127.500	2037.58	END NUDGE
5150.37	17.000	127.500	5002.48	BEGIN DROP
6000.37	0.000	1.804	5840.06	END DROP
7100.37	0.000	1.804	6940.06	KOP, BUILD @ 10°/100'
8005.18	90.481	1.804	7513.00	LANDING POINT
12646.15	90.481	1.804	7474.00	TOTAL DEPTH