

# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#09 TROUDT 14N-33HZ (305°FSL & 1590°FWL, SEC.33)  
Field: WELD COUNTY (KERR MCGEE) Well: TROUDT 14N-33HZ  
Facility: SEC.33-T2N-R67W Wellbore: TROUDT 14N-33HZ PWB

Plot reference wellpath is TROUDT 14N-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#09 TROUDT 14N-33HZ (305°FSL & 1590°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#09 TROUDT 14N-33HZ (305°FSL & 1590°FWL, SEC.33)	5.46	-2143.52	3167972.622	1275617.002	40°05'18.236"N	104°53'58.718"W
PERMIT (17 KB) (RKB) to Mud line (At Slot: SLOT#09 TROUDT 14N-33HZ (305°FSL & 1590°FWL, SEC.33))					5054ft	
Mean Sea Level to Mud line (At Slot: SLOT#09 TROUDT 14N-33HZ (305°FSL & 1590°FWL, SEC.33))					0ft	
PERMIT (17 KB) (RKB) to Mean Sea Level					5054ft	

## Survey Program

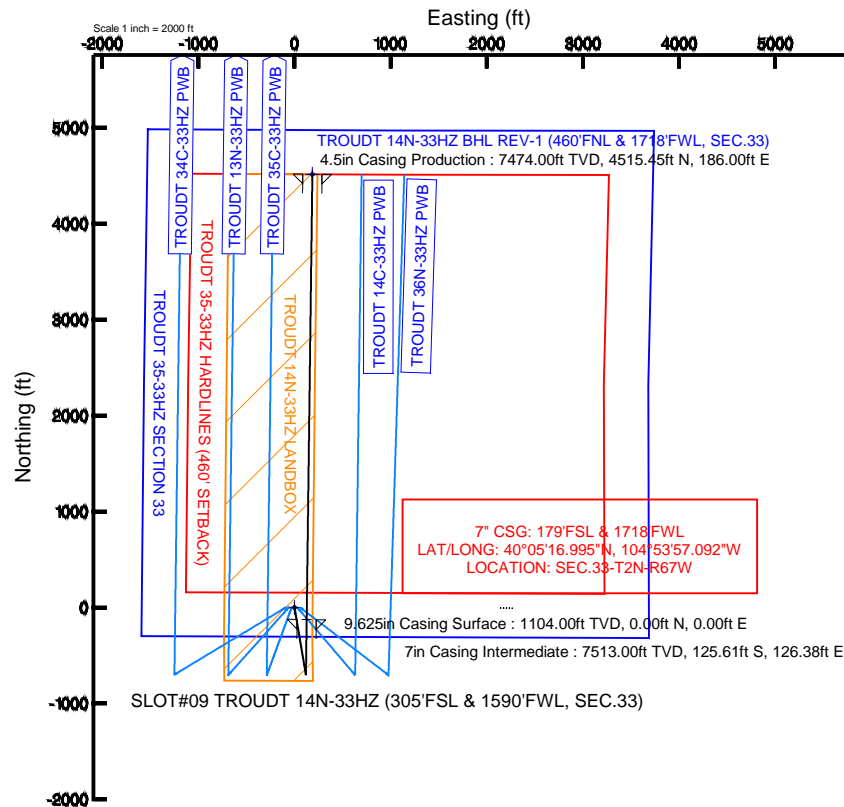
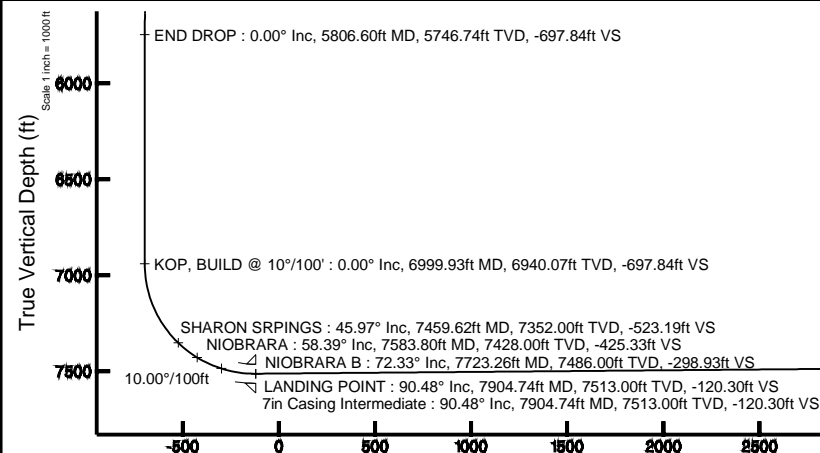
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	7904.74	NaviTrak	NaviTrak (Standard)		TROUDT 14N-33HZ PWB
7904.74	12546.35	OnTrak	OnTrak (Standard)		TROUDT 14N-33HZ PWB

## 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	170.400	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1200.00	0.000	170.400	1200.00	0.00	0.00	0.00	0.00
END NUDGE	1700.00	10.000	170.400	1697.47	-42.91	7.26	2.00	-42.58
BEGIN DROP	5306.60	10.000	170.400	5249.27	-660.42	111.70	0.00	-655.26
END DROP	5806.60	0.000	0.736	5746.74	-703.33	118.96	2.00	-697.84
KOP, BUILD @ 10°/100'	6999.93	0.000	0.736	6940.07	-703.33	118.96	0.00	-697.84
LANDING POINT	7904.74	90.481	0.736	7513.00	-125.61	126.38	10.00	-120.30
TOTAL DEPTH	12546.35	90.481	0.736	7474.00	4515.45	186.00	0.00	4519.28

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
TROUDT 14N-33HZ BHL REV-1 (460°FNL & 1718°FWL, SEC.33)	12546.35	7474.00	4515.45	186.00	3168128.04	1280133.42	40°06'02.858"N	104°53'58.324"W
TROUDT 14N-33HZ LANDBOX		7474.00	0.00	0.00	3167972.62	1275617.00	40°05'18.236"N	104°53'58.718"W
TROUDT 35-33HZ HARDLINES (460° SETBACK)		7684.00	-5.27	2143.52	3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"W
TROUDT 35-33HZ SECTION 33		7684.00	-5.27	2143.52	3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"W



TROUDT 14N-33HZ BHL REV-1 (460°FNL & 1718°FWL, SEC.33)

4.5in Casing Production : 90.48° Inc, 12546.35ft MD, 7474.00ft TVD, 4519.28ft VS

TOTAL DEPTH : 90.48° Inc, 12546.35ft MD, 7474.00ft TVD, 4519.28ft VS

Vertical Section (ft)

Azimuth 2.36° with reference 0.00 N, 0.00 E

Scale 1 inch = 1000 ft



# Planned Wellpath Report

TROUDT 14N-33HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 TROUDT 14N-33HZ (305'FSL & 1590'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 14N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 14N-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 14:43
Convergence at slot	n/a	Database/Source file	WellArchitectDB/TROUDT_14N-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	5.46	-2143.52	3167972.62	1275617.00	40°05'18.236"N	104°53'58.718"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#09 TROUDT 14N-33HZ (305'FSL & 1590'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	2.36°



# Planned Wellpath Report

TROUDT 14N-33HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 TROUDT 14N-33HZ (305'FSL & 1590'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 14N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 14N-33HZ PWB
Facility	SEC.33-T2N-R67W		

## WELLPATH DATA (140 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	170.400	0.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.718"W	0.00	
17.00	0.000	170.400	17.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.718"W	0.00	TIE ON
117.00†	0.000	170.400	117.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.718"W	0.00	
217.00†	0.000	170.400	217.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.718"W	0.00	
317.00†	0.000	170.400	317.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.718"W	0.00	
417.00†	0.000	170.400	417.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.718"W	0.00	
517.00†	0.000	170.400	517.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.718"W	0.00	
617.00†	0.000	170.400	617.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.718"W	0.00	
717.00†	0.000	170.400	717.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.718"W	0.00	
817.00†	0.000	170.400	817.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.718"W	0.00	
917.00†	0.000	170.400	917.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.718"W	0.00	
1017.00†	0.000	170.400	1017.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.718"W	0.00	
1054.00†	0.000	170.400	1054.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.718"W	0.00	FOX HILLS BASE
1117.00†	0.000	170.400	1117.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.718"W	0.00	
1200.00	0.000	170.400	1200.00	0.00	0.00	0.00	40°05'18.236"N	104°53'58.718"W	0.00	BEGIN NUDGE
1217.00†	0.340	170.400	1217.00	-0.05	-0.05	0.01	40°05'18.236"N	104°53'58.718"W	2.00	
1317.00†	2.340	170.400	1316.97	-2.34	-2.36	0.40	40°05'18.213"N	104°53'58.713"W	2.00	
1417.00†	4.340	170.400	1416.79	-8.04	-8.10	1.37	40°05'18.156"N	104°53'58.700"W	2.00	
1517.00†	6.340	170.400	1516.35	-17.14	-17.28	2.92	40°05'18.065"N	104°53'58.680"W	2.00	
1617.00†	8.340	170.400	1615.53	-29.64	-29.87	5.05	40°05'17.941"N	104°53'58.653"W	2.00	
1700.00	10.000	170.400	1697.47	-42.58	-42.91	7.26	40°05'17.812"N	104°53'58.625"W	2.00	END NUDGE
1717.00†	10.000	170.400	1714.21	-45.47	-45.82	7.75	40°05'17.783"N	104°53'58.618"W	0.00	
1817.00†	10.000	170.400	1812.69	-62.45	-62.95	10.65	40°05'17.614"N	104°53'58.581"W	0.00	
1917.00†	10.000	170.400	1911.17	-79.44	-80.07	13.54	40°05'17.445"N	104°53'58.544"W	0.00	
2017.00†	10.000	170.400	2009.65	-96.43	-97.19	16.44	40°05'17.276"N	104°53'58.507"W	0.00	
2117.00†	10.000	170.400	2108.13	-113.42	-114.31	19.33	40°05'17.106"N	104°53'58.469"W	0.00	
2217.00†	10.000	170.400	2206.61	-130.41	-131.43	22.23	40°05'16.937"N	104°53'58.432"W	0.00	
2317.00†	10.000	170.400	2305.09	-147.39	-148.55	25.13	40°05'16.768"N	104°53'58.395"W	0.00	
2417.00†	10.000	170.400	2403.57	-164.38	-165.68	28.02	40°05'16.599"N	104°53'58.357"W	0.00	
2517.00†	10.000	170.400	2502.05	-181.37	-182.80	30.92	40°05'16.430"N	104°53'58.320"W	0.00	
2617.00†	10.000	170.400	2600.53	-198.36	-199.92	33.81	40°05'16.260"N	104°53'58.283"W	0.00	
2717.00†	10.000	170.400	2699.01	-215.35	-217.04	36.71	40°05'16.091"N	104°53'58.246"W	0.00	
2817.00†	10.000	170.400	2797.50	-232.33	-234.16	39.61	40°05'15.922"N	104°53'58.208"W	0.00	
2917.00†	10.000	170.400	2895.98	-249.32	-251.28	42.50	40°05'15.753"N	104°53'58.171"W	0.00	
3017.00†	10.000	170.400	2994.46	-266.31	-268.41	45.40	40°05'15.584"N	104°53'58.134"W	0.00	
3117.00†	10.000	170.400	3092.94	-283.30	-285.53	48.29	40°05'15.414"N	104°53'58.097"W	0.00	
3217.00†	10.000	170.400	3191.42	-300.29	-302.65	51.19	40°05'15.245"N	104°53'58.059"W	0.00	
3317.00†	10.000	170.400	3289.90	-317.27	-319.77	54.09	40°05'15.076"N	104°53'58.022"W	0.00	
3417.00†	10.000	170.400	3388.38	-334.26	-336.89	56.98	40°05'14.907"N	104°53'57.985"W	0.00	
3517.00†	10.000	170.400	3486.86	-351.25	-354.01	59.88	40°05'14.738"N	104°53'57.948"W	0.00	
3617.00†	10.000	170.400	3585.34	-368.24	-371.13	62.77	40°05'14.568"N	104°53'57.910"W	0.00	
3717.00†	10.000	170.400	3683.82	-385.22	-388.26	65.67	40°05'14.399"N	104°53'57.873"W	0.00	
3817.00†	10.000	170.400	3782.30	-402.21	-405.38	68.56	40°05'14.230"N	104°53'57.836"W	0.00	
3917.00†	10.000	170.400	3880.78	-419.20	-422.50	71.46	40°05'14.061"N	104°53'57.799"W	0.00	
4017.00†	10.000	170.400	3979.26	-436.19	-439.62	74.36	40°05'13.892"N	104°53'57.761"W	0.00	



# Planned Wellpath Report

TROUDT 14N-33HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 TROUDT 14N-33HZ (305'FSL & 1590'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 14N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 14N-33HZ PWB
Facility	SEC.33-T2N-R67W		

## WELLPATH DATA (140 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	10.000	170.400	4077.75	-453.18	-456.74	77.25	40°05'13.722"N	104°53'57.724"W	0.00	
4217.00†	10.000	170.400	4176.23	-470.16	-473.86	80.15	40°05'13.553"N	104°53'57.687"W	0.00	
4317.00†	10.000	170.400	4274.71	-487.15	-490.99	83.04	40°05'13.384"N	104°53'57.650"W	0.00	
4417.00†	10.000	170.400	4373.19	-504.14	-508.11	85.94	40°05'13.215"N	104°53'57.612"W	0.00	
4517.00†	10.000	170.400	4471.67	-521.13	-525.23	88.84	40°05'13.046"N	104°53'57.575"W	0.00	
4617.00†	10.000	170.400	4570.15	-538.12	-542.35	91.73	40°05'12.876"N	104°53'57.538"W	0.00	
4717.00†	10.000	170.400	4668.63	-555.10	-559.47	94.63	40°05'12.707"N	104°53'57.501"W	0.00	
4748.85†	10.000	170.400	4700.00	-560.52	-564.93	95.55	40°05'12.653"N	104°53'57.489"W	0.00	SUSSEX
4817.00†	10.000	170.400	4767.11	-572.09	-576.59	97.52	40°05'12.538"N	104°53'57.463"W	0.00	
4917.00†	10.000	170.400	4865.59	-589.08	-593.72	100.42	40°05'12.369"N	104°53'57.426"W	0.00	
5017.00†	10.000	170.400	4964.07	-606.07	-610.84	103.32	40°05'12.200"N	104°53'57.389"W	0.00	
5117.00†	10.000	170.400	5062.55	-623.06	-627.96	106.21	40°05'12.030"N	104°53'57.351"W	0.00	
5174.32†	10.000	170.400	5119.00	-632.79	-637.77	107.87	40°05'11.933"N	104°53'57.330"W	0.00	SHANNON
5217.00†	10.000	170.400	5161.03	-640.04	-645.08	109.11	40°05'11.861"N	104°53'57.314"W	0.00	
5306.60	10.000	170.400	5249.27	-655.26	-660.42	111.70	40°05'11.710"N	104°53'57.281"W	0.00	BEGIN DROP
5317.00†	9.792	170.400	5259.52	-657.01	-662.18	112.00	40°05'11.692"N	104°53'57.277"W	2.00	
5417.00†	7.792	170.400	5358.34	-671.97	-677.25	114.55	40°05'11.543"N	104°53'57.244"W	2.00	
5517.00†	5.792	170.400	5457.63	-683.54	-688.91	116.52	40°05'11.428"N	104°53'57.219"W	2.00	
5617.00†	3.792	170.400	5557.28	-691.71	-697.15	117.91	40°05'11.347"N	104°53'57.201"W	2.00	
5717.00†	1.792	170.400	5657.15	-696.47	-701.95	118.73	40°05'11.299"N	104°53'57.190"W	2.00	
5806.60	0.000	0.736	5746.74	-697.84	-703.33	118.96	40°05'11.286"N	104°53'57.187"W	2.00	END DROP
5817.00†	0.000	0.736	5757.14	-697.84	-703.33	118.96	40°05'11.286"N	104°53'57.187"W	0.00	
5917.00†	0.000	0.736	5857.14	-697.84	-703.33	118.96	40°05'11.286"N	104°53'57.187"W	0.00	
6017.00†	0.000	0.736	5957.14	-697.84	-703.33	118.96	40°05'11.286"N	104°53'57.187"W	0.00	
6117.00†	0.000	0.736	6057.14	-697.84	-703.33	118.96	40°05'11.286"N	104°53'57.187"W	0.00	
6217.00†	0.000	0.736	6157.14	-697.84	-703.33	118.96	40°05'11.286"N	104°53'57.187"W	0.00	
6317.00†	0.000	0.736	6257.14	-697.84	-703.33	118.96	40°05'11.286"N	104°53'57.187"W	0.00	
6417.00†	0.000	0.736	6357.14	-697.84	-703.33	118.96	40°05'11.286"N	104°53'57.187"W	0.00	
6517.00†	0.000	0.736	6457.14	-697.84	-703.33	118.96	40°05'11.286"N	104°53'57.187"W	0.00	
6617.00†	0.000	0.736	6557.14	-697.84	-703.33	118.96	40°05'11.286"N	104°53'57.187"W	0.00	
6717.00†	0.000	0.736	6657.14	-697.84	-703.33	118.96	40°05'11.286"N	104°53'57.187"W	0.00	
6817.00†	0.000	0.736	6757.14	-697.84	-703.33	118.96	40°05'11.286"N	104°53'57.187"W	0.00	
6917.00†	0.000	0.736	6857.14	-697.84	-703.33	118.96	40°05'11.286"N	104°53'57.187"W	0.00	
6999.93	0.000	0.736	6940.07	-697.84	-703.33	118.96	40°05'11.286"N	104°53'57.187"W	0.00	KOP, BUILD @ 10°/100'
7017.00†	1.707	0.736	6957.14	-697.59	-703.08	118.96	40°05'11.288"N	104°53'57.187"W	10.00	
7117.00†	11.707	0.736	7056.33	-685.93	-691.42	119.11	40°05'11.403"N	104°53'57.186"W	10.00	
7217.00†	21.707	0.736	7151.98	-657.23	-662.71	119.48	40°05'11.687"N	104°53'57.181"W	10.00	
7317.00†	31.707	0.736	7241.20	-612.36	-617.82	120.06	40°05'12.131"N	104°53'57.173"W	10.00	
7417.00†	41.707	0.736	7321.27	-552.69	-558.13	120.83	40°05'12.720"N	104°53'57.163"W	10.00	
7459.62†	45.969	0.736	7352.00	-523.19	-528.63	121.20	40°05'13.012"N	104°53'57.159"W	10.00	SHARON SRPINGS
7517.00†	51.707	0.736	7389.75	-480.02	-485.44	121.76	40°05'13.439"N	104°53'57.151"W	10.00	
7583.80†	58.387	0.736	7428.00	-425.33	-430.73	122.46	40°05'13.979"N	104°53'57.142"W	10.00	NIOBRARA
7617.00†	61.707	0.736	7444.58	-396.57	-401.97	122.83	40°05'14.264"N	104°53'57.138"W	10.00	
7717.00†	71.707	0.736	7484.07	-304.88	-310.24	124.01	40°05'15.170"N	104°53'57.122"W	10.00	
7723.26†	72.333	0.736	7486.00	-298.93	-304.29	124.09	40°05'15.229"N	104°53'57.121"W	10.00	NIOBRARA B



# Planned Wellpath Report

TROUDT 14N-33HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 TROUDT 14N-33HZ (305'FSL & 1590'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 14N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 14N-33HZ PWB
Facility	SEC.33-T2N-R67W		

## WELLPATH DATA (140 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7817.00†	81.707	0.736	7507.03	-207.72	-213.06	125.26	40°05'16.131"N	104°53'57.106"W	10.00	
7904.74	90.481	0.736	7513.00	-120.30	-125.61	126.38	40°05'16.995"N	104°53'57.092"W	10.00	LANDING POINT
7917.00†	90.481	0.736	7512.90	-108.05	-113.35	126.54	40°05'17.116"N	104°53'57.090"W	0.00	
8017.00†	90.481	0.736	7512.06	-8.09	-13.36	127.82	40°05'18.104"N	104°53'57.073"W	0.00	
8117.00†	90.481	0.736	7511.22	91.86	86.62	129.11	40°05'19.092"N	104°53'57.057"W	0.00	
8217.00†	90.481	0.736	7510.38	191.82	186.61	130.39	40°05'20.080"N	104°53'57.040"W	0.00	
8317.00†	90.481	0.736	7509.54	291.78	286.60	131.68	40°05'21.068"N	104°53'57.024"W	0.00	
8417.00†	90.481	0.736	7508.70	391.73	386.59	132.96	40°05'22.056"N	104°53'57.007"W	0.00	
8517.00†	90.481	0.736	7507.86	491.69	486.58	134.25	40°05'23.044"N	104°53'56.991"W	0.00	
8617.00†	90.481	0.736	7507.02	591.65	586.56	135.53	40°05'24.033"N	104°53'56.974"W	0.00	
8717.00†	90.481	0.736	7506.18	691.60	686.55	136.82	40°05'25.021"N	104°53'56.958"W	0.00	
8817.00†	90.481	0.736	7505.34	791.56	786.54	138.10	40°05'26.009"N	104°53'56.941"W	0.00	
8917.00†	90.481	0.736	7504.50	891.51	886.53	139.38	40°05'26.997"N	104°53'56.925"W	0.00	
9017.00†	90.481	0.736	7503.66	991.47	986.52	140.67	40°05'27.985"N	104°53'56.908"W	0.00	
9117.00†	90.481	0.736	7502.82	1091.43	1086.51	141.95	40°05'28.973"N	104°53'56.892"W	0.00	
9217.00†	90.481	0.736	7501.98	1191.38	1186.49	143.24	40°05'29.961"N	104°53'56.875"W	0.00	
9317.00†	90.481	0.736	7501.14	1291.34	1286.48	144.52	40°05'30.949"N	104°53'56.858"W	0.00	
9417.00†	90.481	0.736	7500.30	1391.30	1386.47	145.81	40°05'31.937"N	104°53'56.842"W	0.00	
9517.00†	90.481	0.736	7499.46	1491.25	1486.46	147.09	40°05'32.925"N	104°53'56.825"W	0.00	
9617.00†	90.481	0.736	7498.62	1591.21	1586.45	148.38	40°05'33.914"N	104°53'56.809"W	0.00	
9717.00†	90.481	0.736	7497.77	1691.17	1686.43	149.66	40°05'34.902"N	104°53'56.792"W	0.00	
9817.00†	90.481	0.736	7496.93	1791.12	1786.42	150.94	40°05'35.890"N	104°53'56.776"W	0.00	
9917.00†	90.481	0.736	7496.09	1891.08	1886.41	152.23	40°05'36.878"N	104°53'56.759"W	0.00	
10017.00†	90.481	0.736	7495.25	1991.03	1986.40	153.51	40°05'37.866"N	104°53'56.743"W	0.00	
10117.00†	90.481	0.736	7494.41	2090.99	2086.39	154.80	40°05'38.854"N	104°53'56.726"W	0.00	
10217.00†	90.481	0.736	7493.57	2190.95	2186.38	156.08	40°05'39.842"N	104°53'56.710"W	0.00	
10317.00†	90.481	0.736	7492.73	2290.90	2286.36	157.37	40°05'40.830"N	104°53'56.693"W	0.00	
10417.00†	90.481	0.736	7491.89	2390.86	2386.35	158.65	40°05'41.818"N	104°53'56.677"W	0.00	
10517.00†	90.481	0.736	7491.05	2490.82	2486.34	159.94	40°05'42.806"N	104°53'56.660"W	0.00	
10617.00†	90.481	0.736	7490.21	2590.77	2586.33	161.22	40°05'43.795"N	104°53'56.643"W	0.00	
10717.00†	90.481	0.736	7489.37	2690.73	2686.32	162.51	40°05'44.783"N	104°53'56.627"W	0.00	
10817.00†	90.481	0.736	7488.53	2790.69	2786.31	163.79	40°05'45.771"N	104°53'56.610"W	0.00	
10917.00†	90.481	0.736	7487.69	2890.64	2886.29	165.07	40°05'46.759"N	104°53'56.594"W	0.00	
11017.00†	90.481	0.736	7486.85	2990.60	2986.28	166.36	40°05'47.747"N	104°53'56.577"W	0.00	
11117.00†	90.481	0.736	7486.01	3090.55	3086.27	167.64	40°05'48.735"N	104°53'56.561"W	0.00	
11217.00†	90.481	0.736	7485.17	3190.51	3186.26	168.93	40°05'49.723"N	104°53'56.544"W	0.00	
11317.00†	90.481	0.736	7484.33	3290.47	3286.25	170.21	40°05'50.711"N	104°53'56.528"W	0.00	
11417.00†	90.481	0.736	7483.49	3390.42	3386.23	171.50	40°05'51.699"N	104°53'56.511"W	0.00	
11517.00†	90.481	0.736	7482.65	3490.38	3486.22	172.78	40°05'52.687"N	104°53'56.495"W	0.00	
11617.00†	90.481	0.736	7481.81	3590.34	3586.21	174.07	40°05'53.676"N	104°53'56.478"W	0.00	
11717.00†	90.481	0.736	7480.97	3690.29	3686.20	175.35	40°05'54.664"N	104°53'56.462"W	0.00	
11817.00†	90.481	0.736	7480.13	3790.25	3786.19	176.63	40°05'55.652"N	104°53'56.445"W	0.00	
11917.00†	90.481	0.736	7479.29	3890.21	3886.18	177.92	40°05'56.640"N	104°53'56.428"W	0.00	
12017.00†	90.481	0.736	7478.45	3990.16	3986.16	179.20	40°05'57.628"N	104°53'56.412"W	0.00	
12117.00†	90.481	0.736	7477.61	4090.12	4086.15	180.49	40°05'58.616"N	104°53'56.395"W	0.00	





# Planned Wellpath Report

TROUDT 14N-33HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 TROUDT 14N-33HZ (305'FSL & 1590'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 14N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 14N-33HZ PWB
Facility	SEC.33-T2N-R67W		

## WELLPATH DATA (140 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12217.00†	90.481	0.736	7476.77	4190.07	4186.14	181.77	40°05'59.604"N	104°53'56.379"W	0.00	
12317.00†	90.481	0.736	7475.93	4290.03	4286.13	183.06	40°06'00.592"N	104°53'56.362"W	0.00	
12417.00†	90.481	0.736	7475.09	4389.99	4386.12	184.34	40°06'01.580"N	104°53'56.346"W	0.00	
12517.00†	90.481	0.736	7474.25	4489.94	4486.10	185.63	40°06'02.568"N	104°53'56.329"W	0.00	
12546.35	90.481	0.736	7474.00 <sup>1</sup>	4519.28	4515.45	186.00	40°06'02.858"N	104°53'56.324"W	0.00	TOTAL DEPTH

## HOLE & CASING SECTIONS - Ref Wellbore: TROUDT 14N-33HZ PWB Ref Wellpath: TROUDT 14N-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	7904.74	6800.74	1104.00	7513.00	0.00	0.00	-125.61	126.38
7in Casing Intermediate	17.00	7904.74	7887.74	17.00	7513.00	0.00	0.00	-125.61	126.38
6.125in Open Hole	7904.74	12546.35	4641.61	7513.00	7474.00	-125.61	126.38	4515.45	186.00
4.5in Casing Production	17.00	12546.35	12529.35	17.00	7474.00	0.00	0.00	4515.45	186.00

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) TROUDT 14N-33HZ BHL REV-1 (460'FNL & 1718'FWL, SEC.33)	12546.35	7474.00	4515.45	186.00	3168128.04	1280133.42	40°06'02.858"N	104°53'56.324"W	point
TROUDT 14N-33HZ LANDBOX		7474.00	0.00	0.00	3167972.62	1275617.00	40°05'18.236"N	104°53'58.718"W	polygon
TROUDT 35-33HZ HARDLINES (460' SETBACK)		7684.00	-5.27	2143.52	3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"W	polygon
TROUDT 35-33HZ SECTION 33		7684.00	-5.27	2143.52	3170116.04	1275626.24	40°05'18.183"N	104°53'31.139"W	polygon

## SURVEY PROGRAM - Ref Wellbore: TROUDT 14N-33HZ PWB Ref Wellpath: TROUDT 14N-33HZ (PERMIT REV-1) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	7904.74	NaviTrak (Standard)		TROUDT 14N-33HZ PWB
7904.74	12546.35	OnTrak (Standard)		TROUDT 14N-33HZ PWB



# Planned Wellpath Report

TROUDT 14N-33HZ (PERMIT REV-1) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 TROUDT 14N-33HZ (305'FSL & 1590'FWL, SEC.33)
Area	COLORADO	Well	TROUDT 14N-33HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	TROUDT 14N-33HZ PWB
Facility	SEC.33-T2N-R67W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1054.00	0.000	170.400	1054.00	FOX HILLS BASE
4748.85	10.000	170.400	4700.00	SUSSEX
5174.32	10.000	170.400	5119.00	SHANNON
7459.62	45.969	0.736	7352.00	SHARON SRPINGS
7583.80	58.387	0.736	7428.00	NIOBRARA
7723.26	72.333	0.736	7486.00	NIOBRARA B

## DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	170.400	17.00	TIE ON
1200.00	0.000	170.400	1200.00	BEGIN NUDGE
1700.00	10.000	170.400	1697.47	END NUDGE
5306.60	10.000	170.400	5249.27	BEGIN DROP
5806.60	0.000	0.736	5746.74	END DROP
6999.93	0.000	0.736	6940.07	KOP, BUILD @ 10°/100'
7904.74	90.481	0.736	7513.00	LANDING POINT
12546.35	90.481	0.736	7474.00	TOTAL DEPTH