

Location:	COLORADO	Slot:	SLOT#08 TEDFORD 28N-28HZ (284'FSL & 1372'FWL, SEC.28)
Field:	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Well:	TEDFORD 28N-28HZ
Facility:	SEC.28-T2N-R66W	Wellbore:	TEDFORD 28N-28HZ PWB

Plot reference wellpath is TEDFORD 28N-28HZ (PERMIT REV-3) PWP

True vertical depths are referenced to PERMIT (17'KB) (RKB)

Measured depths are referenced to PERMIT (17'KB) (RKB)

PERMIT (17'KB) (PKB) to Mean Sea Level: 4980 feet

Mass Gap Level to Mud line (At Slot: SLOT#00.TEDCORP.00N.00L17.0041E01. 0.40701E+01. SEC.00): 0.4m

Mean Sea Level to Mud line (At Stn. 350)

Grid System: NAD83 / UTM Zone 13 North, US feet

North Reference: True north

Scale: Grid distance

Depth, in feet

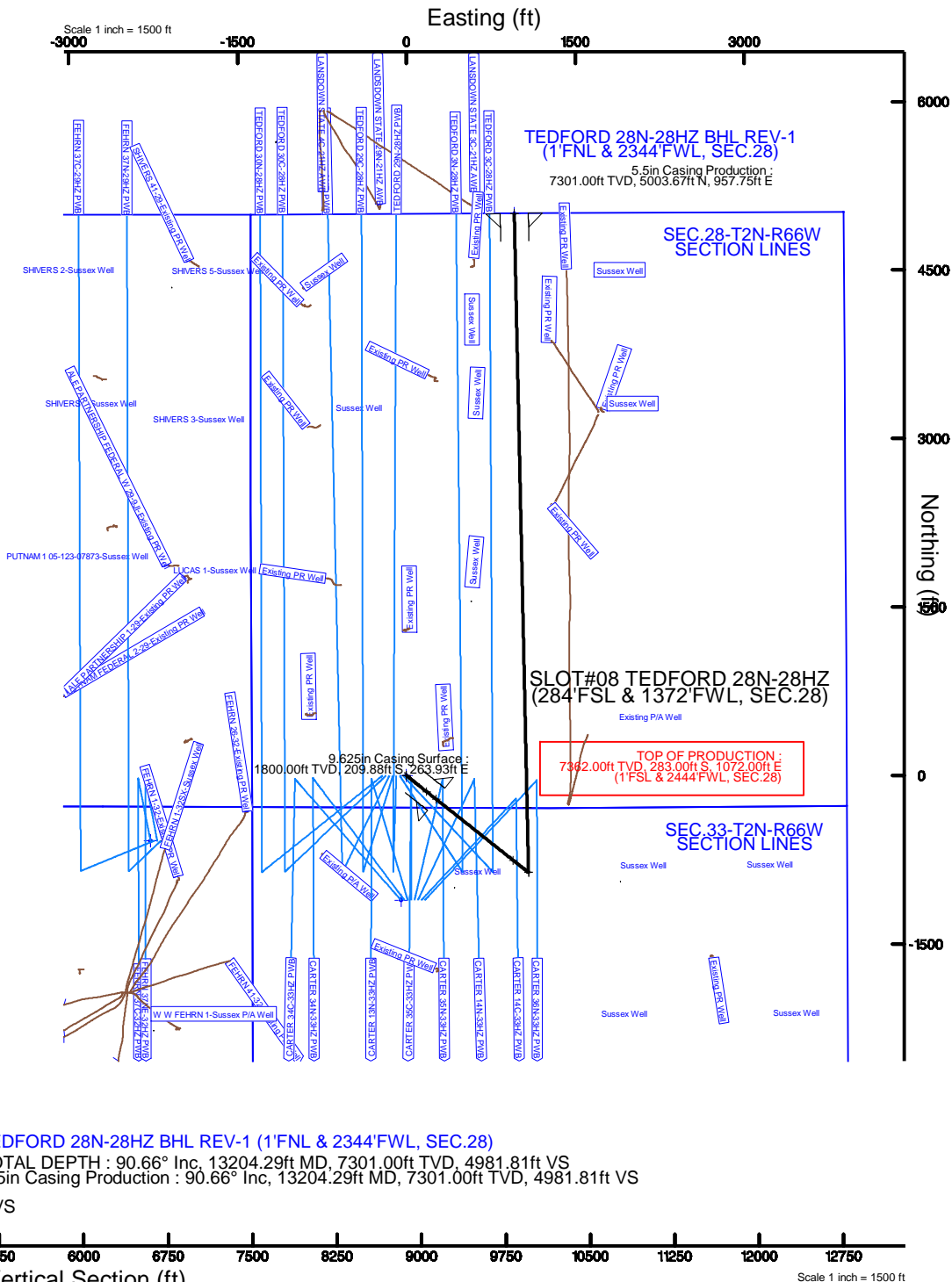
Depths are in feet

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.28-T2N-R66W			1700626.562	1456807.0730	40°06'54.245"N	104°47'04.711"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#08 TEDFORD 28N-28H (284FSL & 1372FWL, SEC.28)	-4630.04	-586.03	1700051.501	14564176.290	40°06'09.461"N	104°47'12.256"W
PERMIT (17KB) (RKB) to Mud line (At Slot: SLOT#08 TEDFORD 28N-28H (284FSL & 1372FWL, SEC.28))					4980ft	
Mean Sea Level to Mud line (At Slot: SLOT#08 TEDFORD 28N-28H (284FSL & 1372FWL, SEC.28))					0ft	
PERMIT (17KB) (RKB) to Mean Sea Level					4980ft	

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	13204.29	ISCWSA MWD, Rev. 2. axial magnetic correction	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)		TEDFORD 28N-28HZ PWB

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.33-T2N-R66W SECTION LINES	41.00	-1108.80	-47.88	170006.28	14563067.38	40°05'58.499"N	104°47'12.872"W	
SEC.29-T2N-R66W SECTION LINES	41.00	-581.09	-2273.03	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	
SEC.32-T2N-R66W SECTION LINES	41.00	-581.09	-2273.03	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	
SEC.28-T2N-R66W SECTION LINES	7301.03	0.03	0.03	1700051.47	14564176.32	40°06'09.461"N	104°47'12.256"W	
TEDFOR 28N-28Q2 B4L REV.1 (T1N, & 234W, SEC. 28)	13204.29	7301.03	5003.67	953.75	1700997.25	45°06'58.927"N	104°46'59.923"W	

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE-ON	17.00	0.000	128.492	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	200.00	0.000	128.492	200.00	0.00	0.00	0.00	0.00
END NUDGE	1533.33	20.000	128.492	1506.42	-143.38	180.30	1.50	-147.24
BEGIN DROP	4405.99	20.000	128.492	4205.84	-754.90	949.30	0.00	-775.23
END DROP	5405.99	0.000	358.762	5185.65	-862.43	1084.52	2.00	-885.66
KOP BUILD @ 10°/100'	7009.42	0.000	358.762	6789.08	-862.43	1084.52	0.00	-885.66
LANDING POINT	7916.03	90.661	358.762	7362.00	-283.00	1072.00	10.00	-306.10
TOTAL DEPTH	13204.29	90.661	358.762	7301.00	5003.67	957.75	0.00	4981.81





Planned Wellpath Report

TEDFORD 28N-28HZ (PERMIT REV-3) PWP

Page 1 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 TEDFORD 28N-28HZ (284'FSL & 1372'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 28N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 28N-28HZ PWB
Facility	SEC.28-T2N-R66W		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 4.1.1
North Reference	True	User	Amarcar
Scale	0.999604	Report Generated	04/May/2015 at 11:10
Convergence at slot	0.14° East	Database/Source file	MAP CHECK./TEDFORD_28N-28HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4530.04	-586.03	1700051.50	14564176.29	40°06'09.461"N	104°47'12.256"W
Facility Reference Pt			1700626.56	14568707.73	40°06'54.245"N	104°47'04.711"W
Field Reference Pt			1700626.56	14568707.73	40°06'54.245"N	104°47'04.711"W

WELLPATH DATUM

Calculation method	Minimum curvature	PERMIT (17'KB) (RKB) to 2N-66W-28 Offsets vertical datum	4980.00ft
Horizontal Reference Pt	Slot	PERMIT (17'KB) (RKB) to Mean Sea Level	4980.00ft
Vertical Reference Pt	PERMIT (17'KB) (RKB)	PERMIT (17'KB) (RKB) to Mud Line at Slot (SLOT#08 TEDFORD 28N-28HZ (284'FSL & 1372'FWL, SEC.28))	4980.00ft
MD Reference Pt	PERMIT (17'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	358.76°



Planned Wellpath Report

TEDFORD 28N-28HZ (PERMIT REV-3) PWP

Page 2 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 TEDFORD 28N-28HZ (284'FSL & 1372'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 28N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 28N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (149 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	128.492	0.00	0.00	0.00	0.00	40°06'09.461"N	104°47'12.256"W	0.00	
17.00	0.000	128.492	17.00	0.00	0.00	0.00	40°06'09.461"N	104°47'12.256"W	0.00	TIE-ON
117.00†	0.000	128.492	117.00	0.00	0.00	0.00	40°06'09.461"N	104°47'12.256"W	0.00	
200.00	0.000	128.492	200.00	0.00	0.00	0.00	40°06'09.461"N	104°47'12.256"W	0.00	BEGIN NUDGE
217.00†	0.255	128.492	217.00	-0.02	-0.02	0.03	40°06'09.460"N	104°47'12.255"W	1.50	
317.00†	1.755	128.492	316.98	-1.15	-1.12	1.40	40°06'09.450"N	104°47'12.238"W	1.50	
417.00†	3.255	128.492	416.88	-3.94	-3.84	4.82	40°06'09.423"N	104°47'12.194"W	1.50	
517.00†	4.755	128.492	516.64	-8.40	-8.18	10.29	40°06'09.380"N	104°47'12.123"W	1.50	
617.00†	6.255	128.492	616.17	-14.53	-14.15	17.80	40°06'09.321"N	104°47'12.026"W	1.50	
717.00†	7.755	128.492	715.42	-22.33	-21.74	27.34	40°06'09.246"N	104°47'11.904"W	1.50	
817.00†	9.255	128.492	814.32	-31.78	-30.95	38.92	40°06'09.155"N	104°47'11.755"W	1.50	
917.00†	10.755	128.492	912.80	-42.89	-41.76	52.52	40°06'09.048"N	104°47'11.580"W	1.50	
1017.00†	12.255	128.492	1010.78	-55.63	-54.18	68.13	40°06'08.925"N	104°47'11.379"W	1.50	
1050.00†	12.750	128.492	1043.00	-60.20	-58.62	73.72	40°06'08.881"N	104°47'11.307"W	1.50	FOX HILLS
1117.00†	13.755	128.492	1108.22	-70.02	-68.18	85.74	40°06'08.787"N	104°47'11.152"W	1.50	
1217.00†	15.255	128.492	1205.03	-86.03	-83.77	105.34	40°06'08.633"N	104°47'10.899"W	1.50	
1317.00†	16.755	128.492	1301.15	-103.65	-100.93	126.92	40°06'08.463"N	104°47'10.622"W	1.50	
1417.00†	18.255	128.492	1396.51	-122.87	-119.65	150.46	40°06'08.278"N	104°47'10.319"W	1.50	
1517.00†	19.755	128.492	1491.06	-143.69	-139.92	175.95	40°06'08.077"N	104°47'09.990"W	1.50	
1533.33	20.000	128.492	1506.42	-147.24	-143.38	180.30	40°06'08.043"N	104°47'09.934"W	1.50	END NUDGE
1617.00†	20.000	128.492	1585.04	-165.53	-161.19	202.70	40°06'07.867"N	104°47'09.646"W	0.00	
1717.00†	20.000	128.492	1679.01	-187.39	-182.48	229.47	40°06'07.657"N	104°47'09.301"W	0.00	
1817.00†	20.000	128.492	1772.98	-209.25	-203.76	256.24	40°06'07.446"N	104°47'08.957"W	0.00	
1917.00†	20.000	128.492	1866.95	-231.11	-225.05	283.00	40°06'07.236"N	104°47'08.612"W	0.00	
2017.00†	20.000	128.492	1960.92	-252.97	-246.34	309.77	40°06'07.025"N	104°47'08.268"W	0.00	
2117.00†	20.000	128.492	2054.89	-274.83	-267.63	336.54	40°06'06.815"N	104°47'07.923"W	0.00	
2217.00†	20.000	128.492	2148.86	-296.70	-288.91	363.31	40°06'06.604"N	104°47'07.578"W	0.00	
2317.00†	20.000	128.492	2242.83	-318.56	-310.20	390.08	40°06'06.394"N	104°47'07.234"W	0.00	
2417.00†	20.000	128.492	2336.80	-340.42	-331.49	416.85	40°06'06.184"N	104°47'06.889"W	0.00	
2517.00†	20.000	128.492	2430.77	-362.28	-352.78	443.62	40°06'05.973"N	104°47'06.544"W	0.00	
2617.00†	20.000	128.492	2524.73	-384.14	-374.06	470.39	40°06'05.763"N	104°47'06.200"W	0.00	
2717.00†	20.000	128.492	2618.70	-406.00	-395.35	497.16	40°06'05.552"N	104°47'05.855"W	0.00	
2817.00†	20.000	128.492	2712.67	-427.86	-416.64	523.93	40°06'05.342"N	104°47'05.511"W	0.00	
2917.00†	20.000	128.492	2806.64	-449.72	-437.93	550.70	40°06'05.131"N	104°47'05.166"W	0.00	
3017.00†	20.000	128.492	2900.61	-471.58	-459.22	577.47	40°06'04.921"N	104°47'04.821"W	0.00	
3117.00†	20.000	128.492	2994.58	-493.45	-480.50	604.24	40°06'04.710"N	104°47'04.477"W	0.00	
3217.00†	20.000	128.492	3088.55	-515.31	-501.79	631.01	40°06'04.500"N	104°47'04.132"W	0.00	
3317.00†	20.000	128.492	3182.52	-537.17	-523.08	657.78	40°06'04.289"N	104°47'03.788"W	0.00	
3417.00†	20.000	128.492	3276.49	-559.03	-544.37	684.55	40°06'04.079"N	104°47'03.443"W	0.00	
3517.00†	20.000	128.492	3370.46	-580.89	-565.65	711.32	40°06'03.869"N	104°47'03.098"W	0.00	
3617.00†	20.000	128.492	3464.43	-602.75	-586.94	738.09	40°06'03.658"N	104°47'02.754"W	0.00	
3717.00†	20.000	128.492	3558.40	-624.61	-608.23	764.86	40°06'03.448"N	104°47'02.409"W	0.00	
3817.00†	20.000	128.492	3652.37	-646.47	-629.52	791.63	40°06'03.237"N	104°47'02.064"W	0.00	
3917.00†	20.000	128.492	3746.33	-668.33	-650.80	818.40	40°06'03.027"N	104°47'01.720"W	0.00	
4017.00†	20.000	128.492	3840.30	-690.20	-672.09	845.17	40°06'02.816"N	104°47'01.375"W	0.00	



Planned Wellpath Report

TEDFORD 28N-28HZ (PERMIT REV-3) PWP

Page 3 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 TEDFORD 28N-28HZ (284'FSL & 1372'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 28N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 28N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (149 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	20.000	128.492	3934.27	-712.06	-693.38	871.94	40°06'02.606"N	104°47'01.031"W	0.00	
4210.36†	20.000	128.492	4022.00	-732.47	-713.25	896.93	40°06'02.409"N	104°47'00.709"W	0.00	PARKMAN
4217.00†	20.000	128.492	4028.24	-733.92	-714.67	898.71	40°06'02.395"N	104°47'00.686"W	0.00	
4317.00†	20.000	128.492	4122.21	-755.78	-735.96	925.48	40°06'02.185"N	104°47'00.341"W	0.00	
4405.99	20.000	128.492	4205.84	-775.23	-754.90	949.30	40°06'01.998"N	104°47'00.035"W	0.00	BEGIN DROP
4417.00†	19.780	128.492	4216.19	-777.63	-757.23	952.23	40°06'01.974"N	104°47'00.000"W	2.00	
4517.00†	17.780	128.492	4310.86	-798.20	-777.27	977.43	40°06'01.776"N	104°46'59.673"W	2.00	
4617.00†	15.780	128.492	4406.60	-816.65	-795.23	1000.02	40°06'01.599"N	104°46'59.382"W	2.00	
4717.00†	13.780	128.492	4503.28	-832.96	-811.11	1019.99	40°06'01.442"N	104°46'59.125"W	2.00	
4747.56†	13.169	128.492	4533.00	-837.51	-815.54	1025.56	40°06'01.398"N	104°46'59.053"W	2.00	SUSSEX
4817.00†	11.780	128.492	4600.80	-847.10	-824.88	1037.30	40°06'01.306"N	104°46'58.902"W	2.00	
4917.00†	9.780	128.492	4699.03	-859.05	-836.52	1051.94	40°06'01.191"N	104°46'58.713"W	2.00	
5017.00†	7.780	128.492	4797.85	-868.81	-846.02	1063.88	40°06'01.097"N	104°46'58.560"W	2.00	
5117.00†	5.780	128.492	4897.15	-876.35	-853.37	1073.12	40°06'01.024"N	104°46'58.441"W	2.00	
5217.00†	3.780	128.492	4996.80	-881.68	-858.55	1079.64	40°06'00.973"N	104°46'58.357"W	2.00	
5317.00†	1.780	128.492	5096.67	-884.78	-861.57	1083.44	40°06'00.943"N	104°46'58.308"W	2.00	
5405.99	0.000	358.762	5185.65	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	2.00	END DROP
5417.00†	0.000	358.762	5196.66	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	0.00	
5517.00†	0.000	358.762	5296.66	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	0.00	
5617.00†	0.000	358.762	5396.66	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	0.00	
5717.00†	0.000	358.762	5496.66	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	0.00	
5817.00†	0.000	358.762	5596.66	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	0.00	
5917.00†	0.000	358.762	5696.66	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	0.00	
6017.00†	0.000	358.762	5796.66	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	0.00	
6117.00†	0.000	358.762	5896.66	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	0.00	
6217.00†	0.000	358.762	5996.66	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	0.00	
6317.00†	0.000	358.762	6096.66	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	0.00	
6417.00†	0.000	358.762	6196.66	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	0.00	
6517.00†	0.000	358.762	6296.66	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	0.00	
6617.00†	0.000	358.762	6396.66	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	0.00	
6717.00†	0.000	358.762	6496.66	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	0.00	
6817.00†	0.000	358.762	6596.66	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	0.00	
6917.00†	0.000	358.762	6696.66	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	0.00	
7009.42	0.000	358.762	6789.08	-885.66	-862.43	1084.52	40°06'00.934"N	104°46'58.294"W	0.00	KOP BUILD @ 10°/100'
7017.00†	0.758	358.762	6796.66	-885.61	-862.38	1084.52	40°06'00.935"N	104°46'58.294"W	10.00	
7117.00†	10.758	358.762	6896.03	-875.59	-852.36	1084.30	40°06'01.034"N	104°46'58.297"W	10.00	
7217.00†	20.758	358.762	6992.15	-848.47	-825.25	1083.72	40°06'01.302"N	104°46'58.304"W	10.00	
7317.00†	30.758	358.762	7082.10	-805.07	-781.86	1082.78	40°06'01.731"N	104°46'58.316"W	10.00	
7408.94†	39.952	358.762	7157.00	-751.93	-728.73	1081.63	40°06'02.256"N	104°46'58.331"W	10.00	SHARON SPRINGS
7417.00†	40.758	358.762	7163.14	-746.70	-723.51	1081.52	40°06'02.308"N	104°46'58.333"W	10.00	
7480.72†	47.130	358.762	7209.00	-702.51	-679.32	1080.56	40°06'02.745"N	104°46'58.345"W	10.00	NIOBRARA A
7517.00†	50.758	358.762	7232.83	-675.16	-651.97	1079.97	40°06'03.015"N	104°46'58.352"W	10.00	
7574.67†	56.525	358.762	7267.00	-628.73	-605.56	1078.97	40°06'03.474"N	104°46'58.365"W	10.00	NIOBRARA B
7617.00†	60.758	358.762	7289.02	-592.59	-569.43	1078.19	40°06'03.831"N	104°46'58.375"W	10.00	
7717.00†	70.758	358.762	7330.03	-501.53	-478.39	1076.22	40°06'04.731"N	104°46'58.401"W	10.00	



Planned Wellpath Report

TEDFORD 28N-28HZ (PERMIT REV-3) PWP

Page 4 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 TEDFORD 28N-28HZ (284'FSL & 1372'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 28N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 28N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (149 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7802.01†	79.259	358.762	7352.00	-419.48	-396.36	1074.45	40°06'05.542"N	104°46'58.423"W	10.00	NIOBRARA C
7817.00†	80.758	358.762	7354.60	-404.72	-381.61	1074.13	40°06'05.688"N	104°46'58.427"W	10.00	
7916.03	90.661	358.762	7362.00	-306.10	-283.00	1072.00	40°06'06.663"N	104°46'58.455"W	10.00	LANDING POINT
7916.03†	90.661	358.762	7362.00	-306.09	-283.00	1072.00	40°06'06.663"N	104°46'58.455"W	0.00	PRODUCTION TOP
7917.00†	90.661	358.762	7361.99	-305.12	-282.03	1071.98	40°06'06.672"N	104°46'58.455"W	0.00	
8017.00†	90.661	358.762	7360.84	-205.13	-182.06	1069.82	40°06'07.661"N	104°46'58.483"W	0.00	
8117.00†	90.661	358.762	7359.68	-105.14	-82.09	1067.66	40°06'08.649"N	104°46'58.511"W	0.00	
8217.00†	90.661	358.762	7358.53	-5.14	17.88	1065.50	40°06'09.637"N	104°46'58.538"W	0.00	
8317.00†	90.661	358.762	7357.37	94.85	117.85	1063.34	40°06'10.626"N	104°46'58.566"W	0.00	
8417.00†	90.661	358.762	7356.22	194.84	217.82	1061.18	40°06'11.614"N	104°46'58.594"W	0.00	
8517.00†	90.661	358.762	7355.07	294.84	317.79	1059.02	40°06'12.602"N	104°46'58.622"W	0.00	
8617.00†	90.661	358.762	7353.91	394.83	417.76	1056.86	40°06'13.590"N	104°46'58.649"W	0.00	
8717.00†	90.661	358.762	7352.76	494.82	517.73	1054.70	40°06'14.579"N	104°46'58.677"W	0.00	
8782.96†	90.661	358.762	7352.00	560.78	583.67	1053.27	40°06'15.231"N	104°46'58.695"W	0.00	NIOBRARA C
8817.00†	90.661	358.762	7351.61	594.82	617.70	1052.54	40°06'15.567"N	104°46'58.705"W	0.00	
8917.00†	90.661	358.762	7350.45	694.81	717.67	1050.38	40°06'16.555"N	104°46'58.733"W	0.00	
9017.00†	90.661	358.762	7349.30	794.80	817.64	1048.22	40°06'17.544"N	104°46'58.760"W	0.00	
9117.00†	90.661	358.762	7348.15	894.80	917.61	1046.05	40°06'18.532"N	104°46'58.788"W	0.00	
9217.00†	90.661	358.762	7346.99	994.79	1017.58	1043.89	40°06'19.520"N	104°46'58.816"W	0.00	
9317.00†	90.661	358.762	7345.84	1094.78	1117.55	1041.73	40°06'20.509"N	104°46'58.844"W	0.00	
9417.00†	90.661	358.762	7344.69	1194.78	1217.52	1039.57	40°06'21.497"N	104°46'58.871"W	0.00	
9517.00†	90.661	358.762	7343.53	1294.77	1317.49	1037.41	40°06'22.485"N	104°46'58.899"W	0.00	
9617.00†	90.661	358.762	7342.38	1394.76	1417.46	1035.25	40°06'23.474"N	104°46'58.927"W	0.00	
9717.00†	90.661	358.762	7341.23	1494.76	1517.43	1033.09	40°06'24.462"N	104°46'58.955"W	0.00	
9817.00†	90.661	358.762	7340.07	1594.75	1617.40	1030.93	40°06'25.450"N	104°46'58.982"W	0.00	
9917.00†	90.661	358.762	7338.92	1694.74	1717.37	1028.77	40°06'26.439"N	104°46'59.010"W	0.00	
10017.00†	90.661	358.762	7337.77	1794.74	1817.34	1026.61	40°06'27.427"N	104°46'59.038"W	0.00	
10117.00†	90.661	358.762	7336.61	1894.73	1917.31	1024.45	40°06'28.415"N	104°46'59.066"W	0.00	
10217.00†	90.661	358.762	7335.46	1994.72	2017.28	1022.29	40°06'29.403"N	104°46'59.094"W	0.00	
10317.00†	90.661	358.762	7334.30	2094.72	2117.25	1020.13	40°06'30.392"N	104°46'59.121"W	0.00	
10417.00†	90.661	358.762	7333.15	2194.71	2217.22	1017.97	40°06'31.380"N	104°46'59.149"W	0.00	
10517.00†	90.661	358.762	7332.00	2294.70	2317.19	1015.81	40°06'32.368"N	104°46'59.177"W	0.00	
10617.00†	90.661	358.762	7330.84	2394.70	2417.16	1013.65	40°06'33.357"N	104°46'59.205"W	0.00	
10717.00†	90.661	358.762	7329.69	2494.69	2517.13	1011.49	40°06'34.345"N	104°46'59.232"W	0.00	
10817.00†	90.661	358.762	7328.54	2594.68	2617.10	1009.33	40°06'35.333"N	104°46'59.260"W	0.00	
10917.00†	90.661	358.762	7327.38	2694.68	2717.07	1007.17	40°06'36.322"N	104°46'59.288"W	0.00	
11017.00†	90.661	358.762	7326.23	2794.67	2817.04	1005.01	40°06'37.310"N	104°46'59.316"W	0.00	
11117.00†	90.661	358.762	7325.08	2894.66	2917.01	1002.85	40°06'38.298"N	104°46'59.343"W	0.00	
11217.00†	90.661	358.762	7323.92	2994.66	3016.98	1000.69	40°06'39.287"N	104°46'59.371"W	0.00	
11317.00†	90.661	358.762	7322.77	3094.65	3116.95	998.53	40°06'40.275"N	104°46'59.399"W	0.00	
11417.00†	90.661	358.762	7321.62	3194.64	3216.92	996.37	40°06'41.263"N	104°46'59.427"W	0.00	
11517.00†	90.661	358.762	7320.46	3294.64	3316.89	994.21	40°06'42.251"N	104°46'59.454"W	0.00	
11617.00†	90.661	358.762	7319.31	3394.63	3416.86	992.05	40°06'43.240"N	104°46'59.482"W	0.00	
11717.00†	90.661	358.762	7318.16	3494.62	3516.83	989.89	40°06'44.228"N	104°46'59.510"W	0.00	
11817.00†	90.661	358.762	7317.00	3594.62	3616.80	987.72	40°06'45.216"N	104°46'59.538"W	0.00	



Planned Wellpath Report

TEDFORD 28N-28HZ (PERMIT REV-3) PWP

Page 5 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 TEDFORD 28N-28HZ (284'FSL & 1372'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 28N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 28N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (149 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11917.00†	90.661	358.762	7315.85	3694.61	3716.77	985.56	40°06'46.205"N	104°46'59.566"W	0.00	
12017.00†	90.661	358.762	7314.70	3794.60	3816.74	983.40	40°06'47.193"N	104°46'59.593"W	0.00	
12117.00†	90.661	358.762	7313.54	3894.60	3916.71	981.24	40°06'48.181"N	104°46'59.621"W	0.00	
12217.00†	90.661	358.762	7312.39	3994.59	4016.68	979.08	40°06'49.170"N	104°46'59.649"W	0.00	
12317.00†	90.661	358.762	7311.23	4094.58	4116.65	976.92	40°06'50.158"N	104°46'59.677"W	0.00	
12417.00†	90.661	358.762	7310.08	4194.58	4216.62	974.76	40°06'51.146"N	104°46'59.704"W	0.00	
12517.00†	90.661	358.762	7308.93	4294.57	4316.59	972.60	40°06'52.135"N	104°46'59.732"W	0.00	
12617.00†	90.661	358.762	7307.77	4394.56	4416.56	970.44	40°06'53.123"N	104°46'59.760"W	0.00	
12717.00†	90.661	358.762	7306.62	4494.56	4516.53	968.28	40°06'54.111"N	104°46'59.788"W	0.00	
12817.00†	90.661	358.762	7305.47	4594.55	4616.50	966.12	40°06'55.099"N	104°46'59.815"W	0.00	
12917.00†	90.661	358.762	7304.31	4694.54	4716.47	963.96	40°06'56.088"N	104°46'59.843"W	0.00	
13017.00†	90.661	358.762	7303.16	4794.54	4816.44	961.80	40°06'57.076"N	104°46'59.871"W	0.00	
13117.00†	90.661	358.762	7302.01	4894.53	4916.41	959.64	40°06'58.064"N	104°46'59.899"W	0.00	
13204.29	90.661	358.762	7301.00†	4981.81	5003.67	957.75	40°06'58.927"N	104°46'59.923"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS

- Ref Wellbore: TEDFORD 28N-28HZ PWB Ref Wellpath: TEDFORD 28N-28HZ (PERMIT REV-3) 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	1845.75	1828.75	17.00	1800.00	0.00	0.00	-209.88	263.93
9.625in Casing Surface	17.00	1845.75	1828.75	17.00	1800.00	0.00	0.00	-209.88	263.93
7.875in Open Hole	1845.75	13204.29	11358.54	1800.00	7301.00	-209.88	263.93	5003.67	957.75
5.5in Casing Production	17.00	13204.28	13187.28	17.00	7301.00	0.00	0.00	5003.67	957.75

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.33-T2N-R66W SECTION LINES		4.00	-1108.80	-47.88	1700006.28	14563067.38	40°05'58.499"N	104°47'12.872"W	polygon
SEC.29-T2N-R66W SECTION LINES		41.00	-581.09	-2273.03	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	polygon
SEC.32-T2N-R66W SECTION LINES		41.00	-581.09	-2273.03	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	polygon
SEC.28-T2N-R66W SECTION LINES		7301.00	0.03	-0.03	1700051.47	14564176.32	40°06'09.461"N	104°47'12.256"W	polygon
1) TEDFORD 28N-28HZ BHL REV-1 (1'FNL & 2344'FWL, SEC.28)	13204.29	7301.00	5003.67	957.75	1700997.25	14569182.23	40°06'58.927"N	104°46'59.923"W	point

SURVEY PROGRAM -

Ref Wellbore: TEDFORD 28N-28HZ PWB Ref Wellpath: TEDFORD 28N-28HZ (PERMIT REV-3) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	13204.29	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)		TEDFORD 28N-28HZ PWB



Planned Wellpath Report

TEDFORD 28N-28HZ (PERMIT REV-3) PWP

Page 6 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 TEDFORD 28N-28HZ (284'FSL & 1372'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 28N-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 28N-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1050.00	12.750	128.492	1043.00	FOX HILLS
4210.36	20.000	128.492	4022.00	PARKMAN
4747.56	13.169	128.492	4533.00	SUSSEX
7408.94	39.952	358.762	7157.00	SHARON SPRINGS
7480.72	47.130	358.762	7209.00	NIOBRARA A
7574.67	56.525	358.762	7267.00	NIOBRARA B
7802.01	79.259	358.762	7352.00	NIOBRARA C
7916.03	90.661	358.762	7362.00	PRODUCTION TOP
8782.96	90.661	358.762	7352.00	NIOBRARA C

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	128.492	17.00	TIE-ON
200.00	0.000	128.492	200.00	BEGIN NUDGE
1533.33	20.000	128.492	1506.42	END NUDGE
4405.99	20.000	128.492	4205.84	BEGIN DROP
5405.99	0.000	358.762	5185.65	END DROP
7009.42	0.000	358.762	6789.08	KOP BUILD @ 10°/100'
7916.03	90.661	358.762	7362.00	LANDING POINT
13204.29	90.661	358.762	7301.00	TOTAL DEPTH