

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#02 TEDFORD 30C-28HZ (286°FSL & 1192°FWL, SEC.28)
Field: WELD COUNTY (UTM (ZONE 13)/NAD83/TN) Well: TEDFORD 30C-28HZ
Facility: SEC.28-T2N-R66W Wellbore: TEDFORD 30C-28HZ PWB

Plot reference wellpath is TEDFORD 30C-28HZ (PERMIT REV-3) PWP

True vertical depths are referenced to PERMIT (17KB) (RKB)	Grid System: NAD83 / UTM Zone 13 North, US feet
Measured depths are referenced to PERMIT (17KB) (RKB)	North Reference: True north
PERMIT (17KB) (RKB) to Mean Sea Level: 4980 feet	Scale: Grid distance
Mean Sea Level to Mud line (At Slot: SLOT#02 TEDFORD 30C-28HZ (286°FSL & 1192°FWL, SEC.28)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: amarcar on 01/May/2015

Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.28-T2N-R66W	1700626.562	14568707.730	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)
SLOT#02 TEDFORD 30C-28HZ (286°FSL & 1192°FWL, SEC.28)	-4528.33	-765.96	1699871.570	14564177.563
PERMIT (17KB) (RKB) to Mud line (At Slot: SLOT#02 TEDFORD 30C-28HZ (286°FSL & 1192°FWL, SEC.28))			4980ft	
Mean Sea Level to Mud line (At Slot: SLOT#02 TEDFORD 30C-28HZ (286°FSL & 1192°FWL, SEC.28))			0ft	
PERMIT (17KB) (RKB) to Mean Sea Level			4980ft	

Survey Program

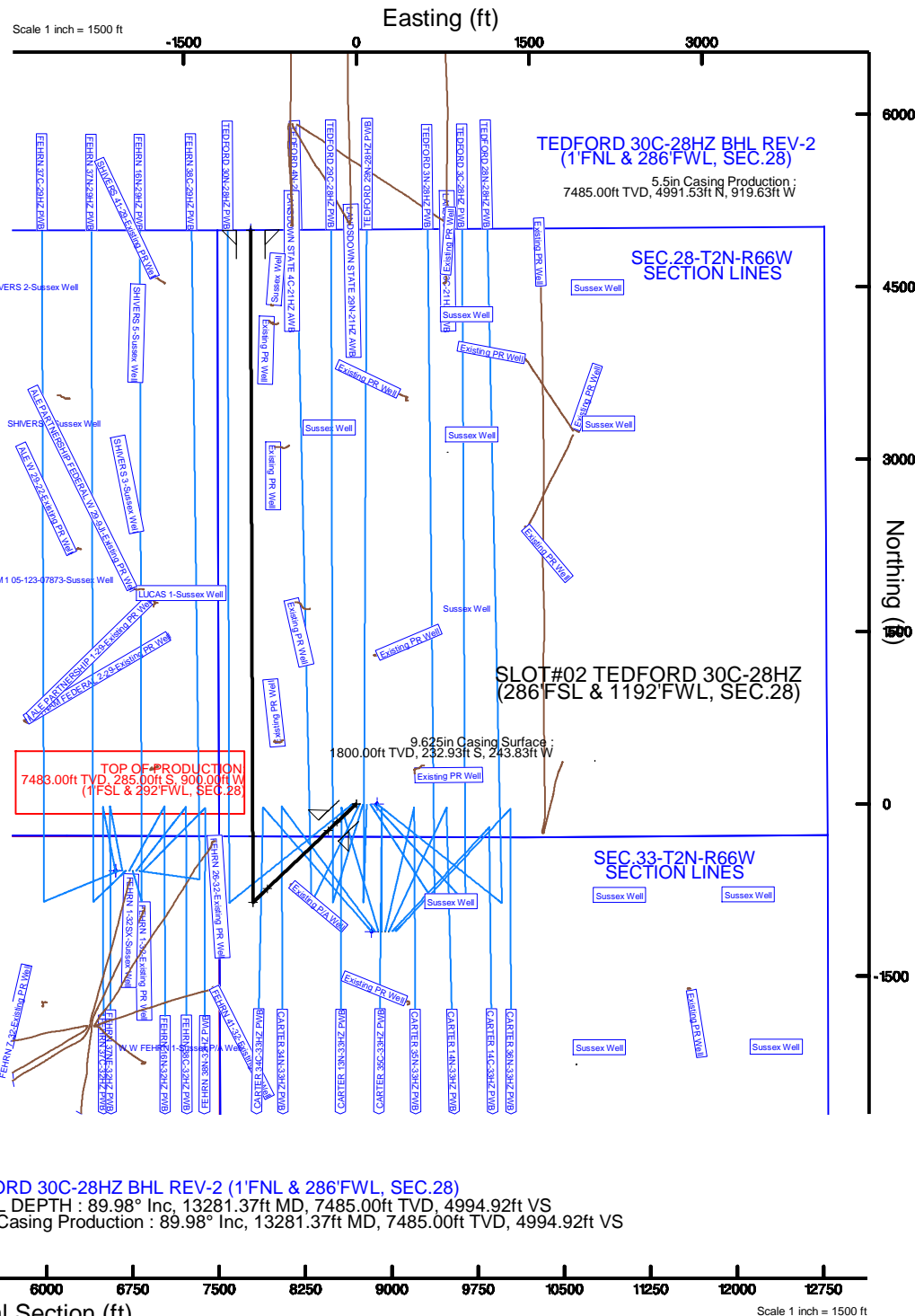
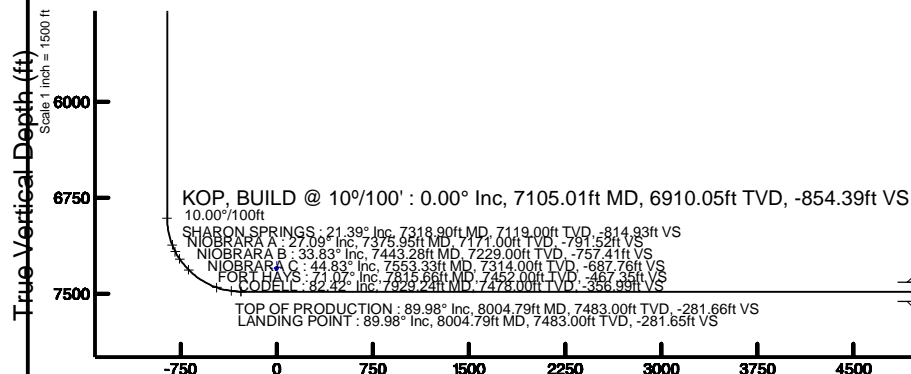
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	13281.37	ISCWSA MWD, Rev. 2, axial magnetic correction	Custom APC, ISCWSA REV 2 MWD+IFR1+SC (approximation)		TEDFORD 30C-28HZ PWB

Targets

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	4.00	-1110.51	132.05	1700006.28	14563067.38	40°05'58.499"N	104°47'12.872"W	
SEC.29-T2N-R66W SECTION LINES	41.00	-582.81	-2093.10	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	
SEC.32-T2N-R66W SECTION LINES	41.00	-582.81	-2093.10	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	
SEC.28-T2N-R66W SECTION LINES	7301.00	-1.67	179.90	1700051.47	14564176.32	40°06'09.461"N	104°47'12.256"W	
TEDFORD 30C-28HZ BHL REV-2 (1°FNL & 286°FNL, SEC.28)	13281.37	7485.00	4991.54	-919.63	1698940.01	40°06'58.824"N	104°47'26.414"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	226.310	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	200.00	0.000	226.310	200.00	0.00	0.00	0.00	0.00
END NUDGE	1533.33	20.000	226.310	1506.42	-159.12	-166.57	1.50	-158.50
BEGIN DROP	3985.24	20.000	226.310	3810.46	-738.40	-772.94	0.00	-735.52
END DROP	4985.24	0.000	359.787	4790.27	-857.74	-897.87	2.00	-854.39
KOP, BUILD @ 10°/100'	7105.01	0.000	359.787	6910.05	-857.74	-897.87	0.00	-854.39
LANDING POINT	8004.79	89.978	359.787	7483.00	-285.00	-900.00	10.00	-281.65
TOTAL DEPTH	13281.37	89.978	359.787	7485.00	4991.54	-919.63	0.00	4994.92





Planned Wellpath Report

TEDFORD 30C-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 TEDFORD 30C-28HZ (286'FSL & 1192'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 30C-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 30C-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	01/May/2015 at 14:53
Convergence at slot	0.14° East	Database/Source file	MAP CHECK./TEDFORD_30C-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	-4528.33	-765.96	1699871.57	14564177.56	40°06'09.478"N	104°47'14.572"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#02 TEDFORD 30C-28HZ (286'FSL & 1192'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	359.79°



Planned Wellpath Report

TEDFORD 30C-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 TEDFORD 30C-28HZ (286'FSL & 1192'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 30C-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 30C-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (151 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	226.310	0.00	0.00	0.00	0.00	40°06'09.478"N	104°47'14.572"W	0.00	
17.00	0.000	226.310	17.00	0.00	0.00	0.00	40°06'09.478"N	104°47'14.572"W	0.00	TIE-ON
117.00†	0.000	226.310	117.00	0.00	0.00	0.00	40°06'09.478"N	104°47'14.572"W	0.00	
200.00	0.000	226.310	200.00	0.00	0.00	0.00	40°06'09.478"N	104°47'14.572"W	0.00	BEGIN NUDGE
217.00†	0.255	226.310	217.00	-0.03	-0.03	-0.03	40°06'09.477"N	104°47'14.572"W	1.50	
317.00†	1.755	226.310	316.98	-1.23	-1.24	-1.30	40°06'09.465"N	104°47'14.589"W	1.50	
417.00†	3.255	226.310	416.88	-4.24	-4.26	-4.46	40°06'09.435"N	104°47'14.629"W	1.50	
517.00†	4.755	226.310	516.64	-9.05	-9.08	-9.51	40°06'09.388"N	104°47'14.694"W	1.50	
617.00†	6.255	226.310	616.17	-15.65	-15.71	-16.44	40°06'09.322"N	104°47'14.784"W	1.50	
717.00†	7.755	226.310	715.42	-24.04	-24.13	-25.26	40°06'09.239"N	104°47'14.897"W	1.50	
817.00†	9.255	226.310	814.32	-34.21	-34.35	-35.95	40°06'09.138"N	104°47'15.035"W	1.50	
917.00†	10.755	226.310	912.80	-46.17	-46.35	-48.52	40°06'09.019"N	104°47'15.197"W	1.50	
1017.00†	12.255	226.310	1010.78	-59.89	-60.12	-62.94	40°06'08.883"N	104°47'15.382"W	1.50	
1050.00†	12.750	226.310	1043.00	-64.81	-65.06	-68.10	40°06'08.834"N	104°47'15.449"W	1.50	FOX HILLS BASE
1117.00†	13.755	226.310	1108.22	-75.37	-75.67	-79.21	40°06'08.729"N	104°47'15.592"W	1.50	
1217.00†	15.255	226.310	1205.03	-92.61	-92.97	-97.32	40°06'08.558"N	104°47'15.825"W	1.50	
1317.00†	16.755	226.310	1301.15	-111.58	-112.02	-117.26	40°06'08.370"N	104°47'16.082"W	1.50	
1417.00†	18.255	226.310	1396.51	-132.27	-132.79	-139.00	40°06'08.165"N	104°47'16.362"W	1.50	
1517.00†	19.755	226.310	1491.06	-154.68	-155.29	-162.55	40°06'07.942"N	104°47'16.665"W	1.50	
1533.33	20.000	226.310	1506.42	-158.50	-159.12	-166.57	40°06'07.904"N	104°47'16.716"W	1.50	END NUDGE
1617.00†	20.000	226.310	1585.04	-178.19	-178.89	-187.26	40°06'07.709"N	104°47'16.983"W	0.00	
1717.00†	20.000	226.310	1679.01	-201.72	-202.51	-211.99	40°06'07.475"N	104°47'17.301"W	0.00	
1817.00†	20.000	226.310	1772.98	-225.26	-226.14	-236.72	40°06'07.242"N	104°47'17.620"W	0.00	
1917.00†	20.000	226.310	1866.95	-248.79	-249.77	-261.45	40°06'07.008"N	104°47'17.938"W	0.00	
2017.00†	20.000	226.310	1960.92	-272.32	-273.39	-286.18	40°06'06.775"N	104°47'18.256"W	0.00	
2117.00†	20.000	226.310	2054.89	-295.86	-297.02	-310.91	40°06'06.541"N	104°47'18.575"W	0.00	
2217.00†	20.000	226.310	2148.86	-319.39	-320.64	-335.64	40°06'06.308"N	104°47'18.893"W	0.00	
2317.00†	20.000	226.310	2242.83	-342.92	-344.27	-360.37	40°06'06.074"N	104°47'19.211"W	0.00	
2417.00†	20.000	226.310	2336.80	-366.46	-367.89	-385.11	40°06'05.841"N	104°47'19.530"W	0.00	
2517.00†	20.000	226.310	2430.77	-389.99	-391.52	-409.84	40°06'05.607"N	104°47'19.848"W	0.00	
2617.00†	20.000	226.310	2524.73	-413.52	-415.14	-434.57	40°06'05.373"N	104°47'20.167"W	0.00	
2717.00†	20.000	226.310	2618.70	-437.06	-438.77	-459.30	40°06'05.140"N	104°47'20.485"W	0.00	
2817.00†	20.000	226.310	2712.67	-460.59	-462.39	-484.03	40°06'04.906"N	104°47'20.803"W	0.00	
2917.00†	20.000	226.310	2806.64	-484.12	-486.02	-508.76	40°06'04.673"N	104°47'21.122"W	0.00	
3017.00†	20.000	226.310	2900.61	-507.66	-509.65	-533.49	40°06'04.439"N	104°47'21.440"W	0.00	
3117.00†	20.000	226.310	2994.58	-531.19	-533.27	-558.22	40°06'04.206"N	104°47'21.758"W	0.00	
3217.00†	20.000	226.310	3088.55	-554.73	-556.90	-582.95	40°06'03.972"N	104°47'22.077"W	0.00	
3317.00†	20.000	226.310	3182.52	-578.26	-580.52	-607.68	40°06'03.738"N	104°47'22.395"W	0.00	
3417.00†	20.000	226.310	3276.49	-601.79	-604.15	-632.41	40°06'03.505"N	104°47'22.714"W	0.00	
3517.00†	20.000	226.310	3370.46	-625.33	-627.77	-657.15	40°06'03.271"N	104°47'23.032"W	0.00	
3617.00†	20.000	226.310	3464.43	-648.86	-651.40	-681.88	40°06'03.038"N	104°47'23.350"W	0.00	
3717.00†	20.000	226.310	3558.40	-672.39	-675.02	-706.61	40°06'02.804"N	104°47'23.669"W	0.00	
3817.00†	20.000	226.310	3652.37	-695.93	-698.65	-731.34	40°06'02.571"N	104°47'23.987"W	0.00	
3917.00†	20.000	226.310	3746.33	-719.46	-722.27	-756.07	40°06'02.337"N	104°47'24.305"W	0.00	
3985.24	20.000	226.310	3810.46	-735.52	-738.40	-772.94	40°06'02.178"N	104°47'24.523"W	0.00	BEGIN DROP



Planned Wellpath Report

TEDFORD 30C-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 TEDFORD 30C-28HZ (286'FSL & 1192'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 30C-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 30C-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (151 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4017.00†	19.365	226.310	3840.36	-742.88	-745.79	-780.68	40°06'02.105"N	104°47'24.622"W	2.00	
4117.00†	17.365	226.310	3935.27	-764.56	-767.55	-803.46	40°06'01.889"N	104°47'24.915"W	2.00	
4167.92†	16.346	226.310	3984.00	-774.71	-777.75	-814.14	40°06'01.789"N	104°47'25.053"W	2.00	PARKMAN
4217.00†	15.365	226.310	4031.21	-783.94	-787.01	-823.83	40°06'01.697"N	104°47'25.178"W	2.00	
4317.00†	13.365	226.310	4128.08	-801.01	-804.15	-841.77	40°06'01.528"N	104°47'25.409"W	2.00	
4417.00†	11.365	226.310	4225.75	-815.74	-818.94	-857.25	40°06'01.381"N	104°47'25.608"W	2.00	
4517.00†	9.365	226.310	4324.12	-828.12	-831.36	-870.26	40°06'01.258"N	104°47'25.775"W	2.00	
4617.00†	7.365	226.310	4423.05	-838.13	-841.41	-880.78	40°06'01.159"N	104°47'25.911"W	2.00	
4689.44†	5.916	226.310	4495.00	-843.90	-847.20	-886.84	40°06'01.102"N	104°47'25.989"W	2.00	SUSSEX
4717.00†	5.365	226.310	4522.43	-845.76	-849.07	-888.80	40°06'01.083"N	104°47'26.014"W	2.00	
4817.00†	3.365	226.310	4622.13	-851.00	-854.33	-894.30	40°06'01.031"N	104°47'26.085"W	2.00	
4917.00†	1.365	226.310	4722.04	-853.83	-857.18	-897.28	40°06'01.003"N	104°47'26.123"W	2.00	
4985.24	0.000	359.787	4790.27	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	2.00	END DROP
5017.00†	0.000	359.787	4822.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
5117.00†	0.000	359.787	4922.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
5217.00†	0.000	359.787	5022.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
5317.00†	0.000	359.787	5122.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
5417.00†	0.000	359.787	5222.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
5517.00†	0.000	359.787	5322.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
5617.00†	0.000	359.787	5422.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
5717.00†	0.000	359.787	5522.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
5817.00†	0.000	359.787	5622.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
5917.00†	0.000	359.787	5722.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
6017.00†	0.000	359.787	5822.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
6117.00†	0.000	359.787	5922.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
6217.00†	0.000	359.787	6022.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
6317.00†	0.000	359.787	6122.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
6417.00†	0.000	359.787	6222.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
6517.00†	0.000	359.787	6322.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
6617.00†	0.000	359.787	6422.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
6717.00†	0.000	359.787	6522.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
6817.00†	0.000	359.787	6622.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
6917.00†	0.000	359.787	6722.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
7017.00†	0.000	359.787	6822.04	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	
7105.01	0.000	359.787	6910.05	-854.39	-857.74	-897.87	40°06'00.998"N	104°47'26.131"W	0.00	KOP, BUILD @ 10°/100'
7117.00†	1.199	359.787	6922.03	-854.27	-857.61	-897.87	40°06'00.999"N	104°47'26.131"W	10.00	
7217.00†	11.199	359.787	7021.32	-843.48	-846.83	-897.91	40°06'01.106"N	104°47'26.131"W	10.00	
7317.00†	21.199	359.787	7117.23	-815.62	-818.97	-898.01	40°06'01.381"N	104°47'26.133"W	10.00	
7318.90†	21.389	359.787	7119.00	-814.93	-818.28	-898.02	40°06'01.388"N	104°47'26.133"W	10.00	SHARON SPRINGS
7375.95†	27.094	359.787	7171.00	-791.52	-794.86	-898.10	40°06'01.619"N	104°47'26.134"W	10.00	NIOBRARA A
7417.00†	31.199	359.787	7206.84	-771.53	-774.87	-898.18	40°06'01.817"N	104°47'26.135"W	10.00	
7443.28†	33.827	359.787	7229.00	-757.41	-760.75	-898.23	40°06'01.957"N	104°47'26.135"W	10.00	NIOBRARA B
7517.00†	41.199	359.787	7287.44	-712.54	-715.89	-898.40	40°06'02.400"N	104°47'26.138"W	10.00	
7553.33†	44.832	359.787	7314.00	-687.76	-691.11	-898.49	40°06'02.645"N	104°47'26.139"W	10.00	NIOBRARA C
7617.00†	51.199	359.787	7356.57	-640.46	-643.81	-898.67	40°06'03.113"N	104°47'26.141"W	10.00	



Planned Wellpath Report

TEDFORD 30C-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 TEDFORD 30C-28HZ (286'FSL & 1192'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 30C-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 30C-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (151 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7717.00†	61.199	359.787	7412.13	-557.47	-560.81	-898.97	40°06'03.933"N	104°47'26.145"W	10.00	
7815.66†	71.065	359.787	7452.00	-467.35	-470.70	-899.31	40°06'04.824"N	104°47'26.150"W	10.00	FORT HAYS
7817.00†	71.199	359.787	7452.43	-466.09	-469.44	-899.31	40°06'04.837"N	104°47'26.150"W	10.00	
7917.00†	81.199	359.787	7476.26	-369.10	-372.45	-899.67	40°06'05.795"N	104°47'26.154"W	10.00	
7929.24†	82.423	359.787	7478.00	-356.99	-360.33	-899.72	40°06'05.915"N	104°47'26.155"W	10.00	CODELL
8004.79†	89.978	359.787	7483.00	-281.66	-285.00	-900.00	40°06'06.660"N	104°47'26.158"W	10.00	TOP OF PRODUCTION
8004.79	89.978	359.787	7483.00	-281.65	-285.00	-900.00	40°06'06.660"N	104°47'26.158"W	10.00	LANDING POINT
8017.00†	89.978	359.787	7483.01	-269.45	-272.79	-900.05	40°06'06.781"N	104°47'26.159"W	0.00	
8117.00†	89.978	359.787	7483.05	-169.45	-172.79	-900.42	40°06'07.769"N	104°47'26.164"W	0.00	
8217.00†	89.978	359.787	7483.08	-69.45	-72.79	-900.79	40°06'08.758"N	104°47'26.169"W	0.00	
8317.00†	89.978	359.787	7483.12	30.55	27.20	-901.16	40°06'09.746"N	104°47'26.174"W	0.00	
8417.00†	89.978	359.787	7483.16	130.55	127.20	-901.53	40°06'10.735"N	104°47'26.178"W	0.00	
8517.00†	89.978	359.787	7483.20	230.55	227.20	-901.91	40°06'11.724"N	104°47'26.183"W	0.00	
8617.00†	89.978	359.787	7483.23	330.55	327.20	-902.28	40°06'12.712"N	104°47'26.188"W	0.00	
8717.00†	89.978	359.787	7483.27	430.55	427.20	-902.65	40°06'13.701"N	104°47'26.193"W	0.00	
8817.00†	89.978	359.787	7483.31	530.55	527.20	-903.02	40°06'14.689"N	104°47'26.198"W	0.00	
8917.00†	89.978	359.787	7483.35	630.55	627.20	-903.39	40°06'15.678"N	104°47'26.203"W	0.00	
9017.00†	89.978	359.787	7483.39	730.55	727.20	-903.77	40°06'16.667"N	104°47'26.207"W	0.00	
9117.00†	89.978	359.787	7483.42	830.55	827.20	-904.14	40°06'17.655"N	104°47'26.212"W	0.00	
9217.00†	89.978	359.787	7483.46	930.55	927.20	-904.51	40°06'18.644"N	104°47'26.217"W	0.00	
9317.00†	89.978	359.787	7483.50	1030.55	1027.20	-904.88	40°06'19.632"N	104°47'26.222"W	0.00	
9417.00†	89.978	359.787	7483.54	1130.55	1127.20	-905.25	40°06'20.621"N	104°47'26.227"W	0.00	
9517.00†	89.978	359.787	7483.58	1230.55	1227.20	-905.63	40°06'21.610"N	104°47'26.232"W	0.00	
9617.00†	89.978	359.787	7483.61	1330.55	1327.20	-906.00	40°06'22.598"N	104°47'26.236"W	0.00	
9717.00†	89.978	359.787	7483.65	1430.55	1427.19	-906.37	40°06'23.587"N	104°47'26.241"W	0.00	
9817.00†	89.978	359.787	7483.69	1530.55	1527.19	-906.74	40°06'24.575"N	104°47'26.246"W	0.00	
9917.00†	89.978	359.787	7483.73	1630.55	1627.19	-907.11	40°06'25.564"N	104°47'26.251"W	0.00	
10017.00†	89.978	359.787	7483.76	1730.55	1727.19	-907.49	40°06'26.553"N	104°47'26.256"W	0.00	
10117.00†	89.978	359.787	7483.80	1830.55	1827.19	-907.86	40°06'27.541"N	104°47'26.261"W	0.00	
10217.00†	89.978	359.787	7483.84	1930.55	1927.19	-908.23	40°06'28.530"N	104°47'26.265"W	0.00	
10317.00†	89.978	359.787	7483.88	2030.55	2027.19	-908.60	40°06'29.518"N	104°47'26.270"W	0.00	
10417.00†	89.978	359.787	7483.92	2130.55	2127.19	-908.97	40°06'30.507"N	104°47'26.275"W	0.00	
10517.00†	89.978	359.787	7483.95	2230.55	2227.19	-909.35	40°06'31.496"N	104°47'26.280"W	0.00	
10617.00†	89.978	359.787	7483.99	2330.55	2327.19	-909.72	40°06'32.484"N	104°47'26.285"W	0.00	
10717.00†	89.978	359.787	7484.03	2430.55	2427.19	-910.09	40°06'33.473"N	104°47'26.290"W	0.00	
10817.00†	89.978	359.787	7484.07	2530.55	2527.19	-910.46	40°06'34.461"N	104°47'26.294"W	0.00	
10917.00†	89.978	359.787	7484.11	2630.55	2627.19	-910.83	40°06'35.450"N	104°47'26.299"W	0.00	
11017.00†	89.978	359.787	7484.14	2730.55	2727.19	-911.21	40°06'36.438"N	104°47'26.304"W	0.00	
11117.00†	89.978	359.787	7484.18	2830.55	2827.19	-911.58	40°06'37.427"N	104°47'26.309"W	0.00	
11217.00†	89.978	359.787	7484.22	2930.55	2927.18	-911.95	40°06'38.416"N	104°47'26.314"W	0.00	
11317.00†	89.978	359.787	7484.26	3030.55	3027.18	-912.32	40°06'39.404"N	104°47'26.319"W	0.00	
11417.00†	89.978	359.787	7484.29	3130.55	3127.18	-912.69	40°06'40.393"N	104°47'26.324"W	0.00	
11517.00†	89.978	359.787	7484.33	3230.55	3227.18	-913.07	40°06'41.381"N	104°47'26.328"W	0.00	
11617.00†	89.978	359.787	7484.37	3330.55	3327.18	-913.44	40°06'42.370"N	104°47'26.333"W	0.00	
11717.00†	89.978	359.787	7484.41	3430.55	3427.18	-913.81	40°06'43.359"N	104°47'26.338"W	0.00	



Planned Wellpath Report

TEDFORD 30C-28HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 TEDFORD 30C-28HZ (286'FSL & 1192'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 30C-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 30C-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH DATA (151 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11817.00†	89.978	359.787	7484.45	3530.55	3527.18	-914.18	40°06'44.347"N	104°47'26.343"W	0.00	
11917.00†	89.978	359.787	7484.48	3630.55	3627.18	-914.55	40°06'45.336"N	104°47'26.348"W	0.00	
12017.00†	89.978	359.787	7484.52	3730.55	3727.18	-914.93	40°06'46.324"N	104°47'26.353"W	0.00	
12117.00†	89.978	359.787	7484.56	3830.55	3827.18	-915.30	40°06'47.313"N	104°47'26.357"W	0.00	
12217.00†	89.978	359.787	7484.60	3930.55	3927.18	-915.67	40°06'48.302"N	104°47'26.362"W	0.00	
12317.00†	89.978	359.787	7484.63	4030.55	4027.18	-916.04	40°06'49.290"N	104°47'26.367"W	0.00	
12417.00†	89.978	359.787	7484.67	4130.55	4127.18	-916.41	40°06'50.279"N	104°47'26.372"W	0.00	
12517.00†	89.978	359.787	7484.71	4230.55	4227.18	-916.79	40°06'51.267"N	104°47'26.377"W	0.00	
12617.00†	89.978	359.787	7484.75	4330.55	4327.17	-917.16	40°06'52.256"N	104°47'26.382"W	0.00	
12717.00†	89.978	359.787	7484.79	4430.55	4427.17	-917.53	40°06'53.245"N	104°47'26.386"W	0.00	
12817.00†	89.978	359.787	7484.82	4530.55	4527.17	-917.90	40°06'54.233"N	104°47'26.391"W	0.00	
12917.00†	89.978	359.787	7484.86	4630.55	4627.17	-918.27	40°06'55.222"N	104°47'26.396"W	0.00	
13017.00†	89.978	359.787	7484.90	4730.55	4727.17	-918.65	40°06'56.210"N	104°47'26.401"W	0.00	
13117.00†	89.978	359.787	7484.94	4830.55	4827.17	-919.02	40°06'57.199"N	104°47'26.406"W	0.00	
13217.00†	89.978	359.787	7484.98	4930.55	4927.17	-919.39	40°06'58.188"N	104°47'26.411"W	0.00	
13281.37	89.978	359.787	7485.00†	4994.92	4991.54	-919.63	40°06'58.824"N	104°47'26.414"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS									
- Ref Wellbore: TEDFORD 30C-28HZ PWB					Ref Wellpath: TEDFORD 30C-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	-232.93	-243.83
9.625in Casing Surface	17.00	1845.75	1828.75	17.00	1800.00	0.00	0.00	-232.93	-243.83
7.875in Open Hole	1845.75	13281.37	11435.62	1800.00	7485.00	-232.93	-243.83	4991.54	-919.63
5.5in Casing Production	17.00	13281.36	13264.36	17.00	7485.00	0.00	0.00	4991.53	-919.63

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	-1110.51	132.05	1700006.28	14563067.38	40°05'58.499"N	104°47'12.872"W	polygon
SEC.29-T2N-R66W SECTION LINES		41.00	-582.81	-2093.10	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	polygon
SEC.32-T2N-R66W SECTION LINES		41.00	-582.81	-2093.10	1697779.87	14563589.76	40°06'03.715"N	104°47'41.518"W	polygon
SEC.28-T2N-R66W SECTION LINES		7301.00	-1.67	179.90	1700051.47	14564176.32	40°06'09.461"N	104°47'12.256"W	polygon
1) TEDFORD 30C-28HZ BHL REV-2 (1'FNL & 286'FWL, SEC.28)	13281.37	7485.00	4991.54	-919.63	1698940.01	14569166.88	40°06'58.824"N	104°47'26.414"W	point



Planned Wellpath Report

TEDFORD 30C-28HZ (PERMIT REV-3) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 TEDFORD 30C-28HZ (286'FSL & 1192'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 30C-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 30C-28HZ PWB
Facility	SEC.28-T2N-R66W		

SURVEY PROGRAM -				
Ref Wellbore: TEDFORD 30C-28HZ PWB		Ref Wellpath: TEDFORD 30C-28HZ (PERMIT REV-3) PWP		
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	13281.37	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)		TEDFORD 30C-28HZ PWB



Planned Wellpath Report

TEDFORD 30C-28HZ (PERMIT REV-3) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 TEDFORD 30C-28HZ (286'FSL & 1192'FWL, SEC.28)
Area	Compass Import	Well	TEDFORD 30C-28HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	TEDFORD 30C-28HZ PWB
Facility	SEC.28-T2N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1050.00	12.750	226.310	1043.00	FOX HILLS BASE
4167.92	16.346	226.310	3984.00	PARKMAN
4689.44	5.916	226.310	4495.00	SUSSEX
7318.90	21.389	359.787	7119.00	SHARON SPRINGS
7375.95	27.094	359.787	7171.00	NIOBRARA A
7443.28	33.827	359.787	7229.00	NIOBRARA B
7553.33	44.832	359.787	7314.00	NIOBRARA C
7815.66	71.065	359.787	7452.00	FORT HAYS
7929.24	82.423	359.787	7478.00	CODELL
8004.79	89.978	359.787	7483.00	TOP OF PRODUCTION

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	226.310	17.00	TIE-ON
200.00	0.000	226.310	200.00	BEGIN NUDGE
1533.33	20.000	226.310	1506.42	END NUDGE
3985.24	20.000	226.310	3810.46	BEGIN DROP
4985.24	0.000	359.787	4790.27	END DROP
7105.01	0.000	359.787	6910.05	KOP, BUILD @ 10°/100'
8004.79	89.978	359.787	7483.00	LANDING POINT
13281.37	89.978	359.787	7485.00	TOTAL DEPTH