

TABLE I

TORFELT 2/4 WELL NO. 7X, NORWEGIAN SECTOR, NORTH SEA

POROSITY, PERMEABILITY AND GRAIN DENSITY MEASUREMENTS

Sample Number	Phillips Res. Engr. Lab Depth, Feet From-To	Core Labs Nearest Depth, Feet From	Phillips Res. Engr. Lab Grain Density, g/ml		Core Labs Grain Density, g/ml	Phillips Res. Engr. Lab Porosity, Per Cent		Core Labs Porosity, Per Cent	Phillips Res. Engr. Lab Permeability, Millidarcy		Core Labs Permeability, Millidarcy	
			3/4" Dia.	1 1/4" Dia.		3/4" Dia.	1 1/4" Dia.		3/4" Dia.	1 1/4" Dia.	Ka	Ki
1	10,405.0-05.5	10,406	2.71	2.71	2.67	24.5	24.1	21.7	0.15	2.1*	0.17	0.10
2	10,430.3-30.8	10,430	2.71	2.70	2.70	13.7	13.1	10.1	.02	0.02	.01	+
3	10,455.3-55.9	10,455	2.71	2.71	2.71	22.9	23.3	21.3	.14	.14	.13	.08
4	10,477.5-78.0	10,477	2.70	2.70	2.73	21.9	22.7	18.4	.09	.44*	.08	.04
5	10,490.4-90.9	10,491	2.71	2.71	2.72	21.6	21.9	23.5	.11	.12	.04	.02
6	10,504.5-04.8	10,505	2.70	2.70	2.70	13.1	14.2	14.2	.03	.02	.01	+
7	10,533.3-33.9	10,534	2.71	2.71	2.67	22.0	22.0	19.8	.10	.09	.06	.03
8	10,575.1-75.8	10,576	2.71	2.71	2.72	16.9	16.4	15.2	.04	.03	.02	.02
9	10,584.3-84.8	10,584	2.71	2.71	2.69	11.1	11.3	16.8	.03	.83*	.07	.04
10	10,593.3-93.7	10,594	2.71	2.71	2.67	14.3	14.8	14.4	.02	.02	.04	.02
11	10,632.5-33.0	10,633	2.70	2.70	2.63	9.9	9.1	11.1	.02	.03	+	+
12	10,655.3-55.8	10,655	2.71	2.71	2.71	18.4	18.7	19.4	.07	.07	.03	.02
13	10,680.3-80.9	10,681	2.72	2.72	2.71	16.1	16.4	16.5	.04	.05	.07	.04
14	10,715.1-15.8	10,714	2.71	2.71	2.63	13.5	12.6	13.4	.02	.01	.01	+
15	10,733.3-33.9	10,734	2.71	2.71	2.63	13.8	13.5	7.3	.04	.02	+	+
16	10,779.8-80.3	10,779	2.71	2.71	2.69	13.9	14.8	14.4	.03	.09*	.01	+
17	10,798.3-98.8	10,799	2.66	2.67	2.69	6.3	7.7	2.0	<.01	<.01	.01	+
18	10,823.5-23.9	10,824	2.71	2.71	2.71	5.0	4.7	13.4	.02	.01	.12	.07
19	10,876.5-77.1	10,877	2.71	2.71	2.69	21.7	21.4	23.0	.49	.53	1.8	1.5
20	10,910.3-10.9	10,910	2.71	2.71	2.71	18.0	19.5	9.0	.22	.30	.02	.01
21	10,917.9-18.3	10,918	2.71	2.71	2.71	12.7	12.1	11.3	.36	.19	.06	.04
22	10,938.4-38.9	10,938	2.71	2.71	2.71	22.3	22.4	18.7	.78	9.54*	4.0	2.9

* Fractures

+ Indicates a permeability value of less than 0.01 millidarcies.

LOG DEPTH	VERTICAL DEPTH	CUMULATED DISPLAC N(+).S(-)	CUMULATED DISPLAC E(+).W(-)	DEVIATION ANGLE	AZIMUTH
10325.0	10325.0			3.3	294
10334.0	10334.0			3.3	358
10343.0	10343.0			3.3	360
10352.0	10352.0			3.3	359
10361.0	10360.9			3.4	4
10370.0	10369.9			3.6	0
10379.0	10378.9			3.6	358
10388.0	10387.9			3.7	356
10397.0	10396.9			3.9	355
10406.0	10405.8			4.0	353
10415.0	10414.8			4.2	353
10424.0	10423.8			4.3	351
10433.0	10432.8			4.3	353
10442.0	10441.7			4.4	353
10451.0	10450.7			4.5	354
10460.0	10459.7			4.5	356
10469.0	10468.7			4.5	352
10478.0	10477.6			4.6	353
10487.0	10486.6			4.6	352
10496.0	10495.6			4.7	354
10505.0	10504.5			4.8	354
10514.0	10513.5			4.7	358
10523.0	10522.5			4.6	354
10532.0	10531.4			4.6	352
10541.0	10540.4			4.6	352
10550.0	10549.4			4.6	352
10559.0	10558.4			4.6	352
10568.0	10567.3			4.7	350
10577.0	10576.3			4.7	350
10586.0	10585.3			4.8	349
10595.0	10594.2			4.7	351
10604.0	10603.2			4.7	351
10613.0	10612.2			4.7	351
10622.0	10621.1			4.8	353
10640.0	10639.1			4.8	0
10649.0	10648.1			4.8	356
10658.0	10657.0			4.7	352
10667.0	10666.0			4.7	353
10676.0	10675.0			4.8	355
10685.0	10683.9			4.8	3
10694.0	10692.9			4.8	2
10703.0	10701.9			4.8	360
10712.0	10710.8			4.7	0
10721.0	10719.8			4.8	353
10730.0	10728.8			4.8	352
10739.0	10737.7			4.8	351
10748.0	10746.7			4.8	351
10757.0	10755.7			4.8	353
10766.0	10764.6			4.8	351
10775.0	10773.6			4.7	354



DEVIATION ANGLE BROUGHT TOWARDS THE TOP

HORIZONTAL LOG	VERTICAL	CUMULATED DISPLAC	CUMULATED DISPLAC	DEVIATION	
AZIMUTH	DEPTH	N(+).S(-)	E(+).W(-)	ANGLE	AZIMUTH
10784.0	10782.6	35.6	-3.4	4.7	358
10793.0	10791.6	36.3	-3.5	4.7	351
10802.0	10800.5	37.0	-3.6	4.7	352
10811.0	10809.5	37.8	-3.8	4.7	351
10820.0	10818.5	38.5	-3.8	4.7	354
10829.0	10827.4	39.2	-3.9	4.7	359
10838.0	10836.4	40.0	-3.8	4.7	7
10847.0	10845.4	40.7	-3.7	4.7	8
10856.0	10854.3	41.4	-3.6	4.7	3
10865.0	10863.3	42.2	-3.6	4.7	2
10874.0	10872.3	42.9	-3.6	4.7	3
10883.0	10881.3	43.6	-3.5	4.7	7
10892.0	10890.2	44.4	-3.4	4.7	8
10901.0	10899.2	45.1	-3.3	4.7	7
10910.0	10908.2	45.8	-3.2	4.7	6
10919.0	10917.1	46.6	-3.1	4.7	6
10928.0	10926.1	47.3	-3.0	4.7	6
10937.0	10935.1	48.0	-3.0	4.7	6
10946.0	10944.0	48.8	-2.9	4.7	5
10955.0	10953.0	49.5	-2.9	4.7	3
10964.0	10962.0	50.3	-2.8	4.8	2
10973.0	10970.9	51.0	-2.8	4.7	4
10982.0	10979.9	51.7	-2.7	4.8	5
10991.0	10988.9	52.5	-2.7	4.7	5
11000.0	10997.9	53.2	-2.6	4.7	4
11009.0	11006.8	53.9	-2.6	4.7	2
11018.0	11015.8	54.7	-2.6	4.8	2
11027.0	11024.8	55.5	-2.5	4.9	3
11036.0	11033.7	56.2	-2.5	4.9	4
11045.0	11042.7	57.0	-2.4	5.0	5
11054.0	11051.7	57.8	-2.3	5.1	3
11063.0	11060.6	58.6	-2.3	5.2	1
11072.0	11069.6	59.5	-2.3	5.3	1
11081.0	11078.5	60.3	-2.2	5.5	6
11090.0	11087.5	61.2	-2.1	5.6	7
11099.0	11096.5	62.1	-2.0	5.7	8
11108.0	11105.4	63.0	-1.9	5.9	8
11117.0	11114.4	63.9	-1.8	6.1	6
11126.0	11123.3	64.9	-1.6	6.4	7
11135.0	11132.2	66.0	-1.5	6.6	8
11144.0	11141.2	67.0	-1.4	6.8	8
11153.0	11150.1	68.1	-1.2	7.1	8
11162.0	11159.0	69.3	-1.0	7.3	8
11171.0	11168.0	70.4	-.9	7.5	7
11180.0	11176.9	71.6	-.7	7.8	8
11189.0	11185.8	72.9	-.6	8.0	7
11198.0	11194.7	74.1	-.5	8.1	5
11207.0	11203.6	75.4	-.4	8.3	3
11216.0	11212.5	76.7	-.4	8.4	1
11225.0	11221.4	78.1	-.3	8.6	2

DEVIATION ANGLE BROUGHT TOWARDS THE TOP

LOG DEPTH	VERTICAL DEPTH	CUMULATED DISPLAC N(+).S(-)	CUMULATED DISPLAC E(+).W(-)	DEVIATION	
				ANGLE	AZIMUTH
11234.0	11230.3	79.5	-.2	8.9	5
11243.0	11239.2	80.9	-.1	9.1	6
11252.0	11248.1	82.3	.1	9.1	6
11261.0	11257.0	83.7	.2	9.1	6
11279.0	11274.7	86.6	.5	9.2	6
11288.0	11283.6	88.0	.8	9.1	9
11297.0	11292.5	89.4	1.0	9.1	10
11306.0	11301.4	90.8	1.2	9.1	7
11315.0	11310.3	92.2	1.4	9.0	7
11324.0	11319.2	93.6	1.5	9.0	7
11333.0	11328.1	95.0	1.7	8.9	5
11342.0	11336.9	96.4	1.7	8.9	4
11351.0	11345.8	97.8	1.9	8.9	8
11360.0	11354.7	99.1	2.1	8.8	8
11369.0	11363.6	100.5	2.3	8.8	6
11378.0	11372.5	101.9	2.5	8.8	8
11387.0	11381.4	103.2	2.6	8.7	5
11396.0	11390.3	104.6	2.8	8.7	7
11405.0	11399.2	105.9	2.9	8.7	7
11414.0	11408.1	107.3	3.0	8.7	4
11423.0	11417.0	108.6	3.1	8.6	3
11432.0	11425.9	110.0	3.2	8.6	5
<u>11441.0</u>	<u>11434.8</u>	111.3	3.2	8.6	360

DEVIATION ANGLE BROUGHT TOWARDS THE TOP

HORIZONTAL DISPLACEMENT BETWEEN 10325.0 AND 11441.0 = 111.3

AZIMUTH OF DISPLACEMENT (FROM GEOGRAPHIC NORTH) 2

