

U-222

34/10-4

CCPTV
KSAV
anw/PAV

725.5

OILFIELD SERVICES

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BA 80-1233-1

4 SEP 1980

REGISTERED
QUALITY ASSURANCE

5/6/80

ANALYTICAL REPORT NO. ABN 238/80

Please find enclosed analysis as requested on your samples No.s 34/10 - 7 DST 1 and 34/10 - 4 DST 2. The light ends in crude analyses resulted as follows:-

COMPONENT	34/10 - ⁴ DST 2	34/10 - ⁷ DST 1
	AMOUNT % BY WEIGHT	AMOUNT % BY WEIGHT
C ₁	0.001	0.001
C ₂	0.043	0.032
C ₃	0.140	0.300
iC ₄	0.163	0.217
nC ₄	0.274	0.764
iC ₅	0.359	0.658
nC ₅	0.253	0.971
CC ₅	0.103	0.146

Where results were omitted, this was due to there being insufficient quantity of cut to perform the analysis properly. For example, the R.O.N. and M.O.N. tests require at least 1000 cc's of sample which would have required over 200 litres of crude to be distilled for this fraction to provide sufficient material for the test.

I hope you find the results self-explanatory, but if you have any problems, please do not hesitate to contact me.

For MOORE, BARRETT & REDWOOD,

Alexander W. Hay

Alexander W. Hay

FORTROLIG
i h.t. Beskyttelsesinstruksen,
jfr. offentlighetslovens
§ nr.

TABLE 1

T.B.P. DISTILLATION OF STATOIL SAMPLE 34/10-⁴/₂ DST 1

<u>Cut No.</u>	<u>% Weight</u>	<u>% Volume</u>	<u>Head Temp. °C AET</u>	<u>Molecular Weight</u>
IBP	0.0	0.0	---	---
1	0.8	1.1	20	---
2	1.9	2.45	70	80
3	5.2	6.3	99	93
4	8.5	10.1	126	107
5	11.2	13.2	145	118
6	12.2	14.3	151	125
7	15.9	18.35	175	134
8	19.0	21.7	196	146
9	22.4	25.3	217	160
10	26.0	29.1	236	174
11	27.6	30.8	245	183
12	29.6	32.7	254	190
13	33.0	36.1	271	199
14	36.4	39.6	287	212
15	39.6	42.7	303	229
16	41.1	44.2	310	240
17	42.6	45.6	317	248
18	45.4	48.4	331	258
19	48.0	51.0	344	270
20	50.4	53.3	357	284
21	53.9	56.6	375	305
22	61.4	-	422)
23	72.7	-	495) 450
24	76.3	-	520)
25	81.9	83.4	564)
Residue	17.6	15.8	564 +	Above range of method
Gas & Loss	0.5	0.8		
<hr/>	<hr/>	<hr/>		
Total	100.0	100.0		

375 + Residue

590

TABLE 2

PROPERTIES OF CRUDE OIL, NAPHTHAS AND KEROSENE

<i>34/10-4</i>	Crude Oil	20-70°C Naphtha	70-145°C Naphtha	145-175°C Naphtha	175-245°C Kerosene
Cut Numbers		2	3 - 5	6 - 7	8 - 11
% Wt. on Crude Oil		1.1	9.3	4.7	11.7
% Vol. on Crude Oil		1.35	10.75	5.15	12.45
Density @ 15°C	0.8774	0.6441			
Sulphur % Wt.	0.42	0.0015	0.0019	0.0039	0.040
Salt content mg/litre	7.4				
Smoke Point mm.				20	16
Flash Point (PMCC)°F					146
Cetane Index					36
Freeze Point °C					below -73
Paraffins % Wt.		81.7	23.3		
Naphthenes % Wt.		16.3	61.2		
Aromatics % Wt.		2.0	15.5		24.0
Conradson Carbon Res.	1.92				
Viscosity cS/20°C	15.19				1.96
Distillation °C					
IBP			76.5	142	181
5% Vol			89.5	146.5	190
10			93	148	191.5
20			96	149	195
30			102.5	151	197.5
40			106.5	153	201.5
50			110	155	205.5
60			114	157	208.5
70			119	159.5	213.5
80			125	163	219.5
90			133.5	167	227
95			138.5	170.5	232
FBP			151	178	237.5
Recovery %			98	98.5	98
Residue %			1	1.0	1
Loss %			1	0.5	1
Vanadium ppm.	2.0				
Nickel ppm.	1.3				
Sodium ppm.	0.83				

TABLE 3

PROPERTIES OF GAS OILS AND RESIDUES

Cut Temperature °C	245-310	310-375	375-564	375+	564+
Cut Numbers	12 - 16	17 - 21	21 - 25	22+	Residue
% Wt. on Crude Oil	13.5	12.8	28.0	45.6	17.6
% Vol. on Crude Oil	13.4	12.4	26.8	42.6	15.8
Density @ 15 °C			0.9205	0.9408	0.9832
Sulphur % Wt.	0.18	0.46	0.57	-	1.0
Aromatics % Wt.	29.5	26.5	Test no possible -		-
Cetane Index	40	48			
Cloud Point °C	below -30	- 14			
Pour Point °C	below -30	- 18	+9	+6	+45
C.F.P. Point °C	below -30	- 15			
Conradson Carbon Res.				5.12	
Viscosity cS/20°C	5.64				
Viscosity cS/50°C		6.42	65.0	298.6	No flow
Viscosity cS/100°C			10.1	28.8	4588
Distillation °C			Test not possible		
IBP	256	292			
5%	260.5	307			
10%	262.5	312			
20%	264.5	317			
30%	266	321			
40%	268.5	325			
50%	271	328			
60%	273.5	331			
70%	277	334.5			
80%	281	339			
90%	287	345			
95%	292	350			
FBP	296	353			
Recovery %	98.0	98			
Residue%	1.5	1			
Loss %	0.5	1			
Vanadium ppm.				4.9	
Nickel ppm.				3.1	
Sodium ppm.				1.7	
Penetration mm.					> 350. 128 @ 0°C with 50 gm. wt.

34/10-4

ASTM D86 DISTILLATION.

SAMPLE No. STATOIL I

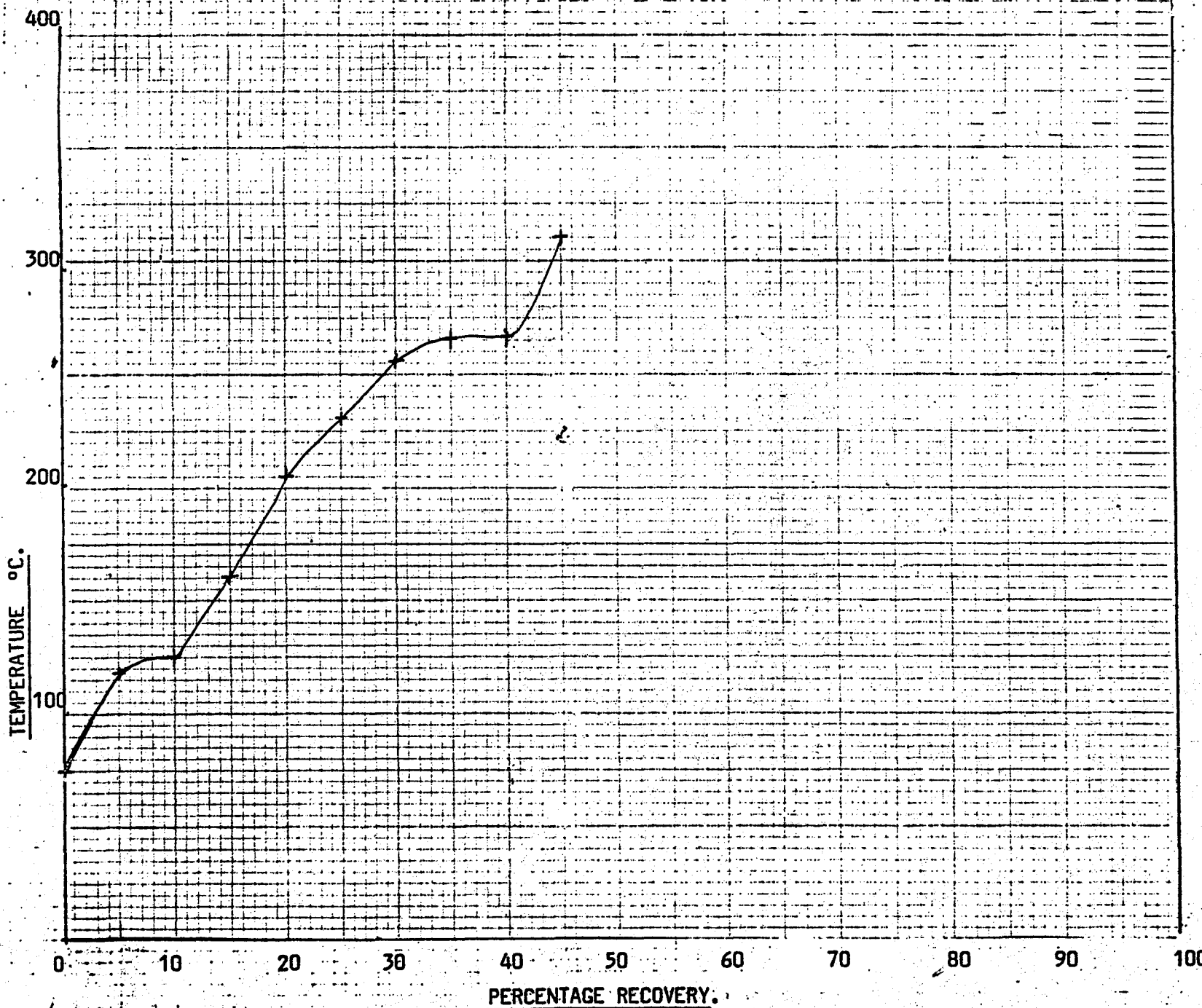
DATE 24 / 4 / 80

ANALYSED BY: _____

INITIAL BOILING POINT 74°C

95% RECOVERY AT: ---

END POINT: ---



<u>PERCENTAGE RECOVERED.</u>	<u>THERMOMETER READING</u>
5	117
10	125
15	161
20	201
25	231
30	255
35	268
40	267
45	310

DISTILLATION DISCONTINUED AT 320°C.

SIGNS OF CRACKING AT 270°C.