U-104

STATENS OLJEDIREKTORAT

006247 *29.A0675

BA 75-0011-1

18/11-1 WELL
(NORWAY)

ORGANIC MATTER REFLECTANCE

ELF - R.E.
D. EXPLOR.
Dt. G. C.
LABORATOIRES
-
2035 n°5/1188 R
/eg

BA 75-0011-1

18/11-1 WELL
(NORWAY)

ORGANIC MATTER REFLECTANCE

P. ROBERT

Boussens - Juillet 1975

LISTE DE DIFFUSION

DESTINATAIRES :

DIRECTION EXPLORATION	1
S.I.D.	2
DIVISION 2 - NORVEGE	14

The well has been studied on 20 cutting samples between 500 and 2060 m i.e. from the top Cretaceous to the lower Jurassic.

The Cretaceous is very poor in organic particles and from 1000 to 1520 m gives only some widely scattered histograms of Reflectance, mainly in relation to reworked,material.

The Jurassic, well provided in organic matter, mainly coaly, gives a somewhat continuous diagram of reflectance with, nevertheless, 2 populations (0.3 and 0.6 %) in the upper part (during drilling before installation of casing). The lower part which is more regular, possibly due to the casing protection, consists only of coal whose vitrinite reflectance remains at about 0.4 %.

Therefore, the diagenetic evolution of the Jurassic series remains low and somewhat weak or at the lowest limit of oil generation.

This is to be compared with the diagenesis of the neighbouring wells, the data of which at the same depth 7000' were as follows :

	17/11-1	17/12-2	17/12-1	18/11-1
P.R.%	0.30	0.50	0.60	0.40

This result is in concordance with a well-defined regional pattern with a maximum paleoheating, in the middle of the graben of the Fisher Basin, i.e. in Bream : 0.60 % P.R., compared with a normal cold evolution in the more cratonic areas (17/11-1 ; 18/11-1).

Nevertheless, this result, in the Jurassic section, is not in agreement with the T.A.I. observation in transmitted light (J.F. RAYNAUD : 3-3,5 in the bottom of the hole). This latter result indicates final stages of maturation for oil, about 1 % P.R. The reason for such a discrepanny cannot be explained.

0 1 2 3 %

PALEOCENE

500

METERS

600

700

13"3/8
805

800

900

1000

1100

1200

CRETACEOUS

1280

1360

1440

1520

1530

1600

1680

1760

1805

1820

JURASSIC

1880

1940

2000

2060

2060

Basement
TD 2086

2 4 6

TAI

2

to

JURASSIC

SHALES
and
SAND

3 - 3,5

☐ Coals

▨ Bitumeus

elf

Secteur MER DU NORD
Opérateur ELF NORGE
Permis ou Concession Zone Norvegienne

PETRONORD

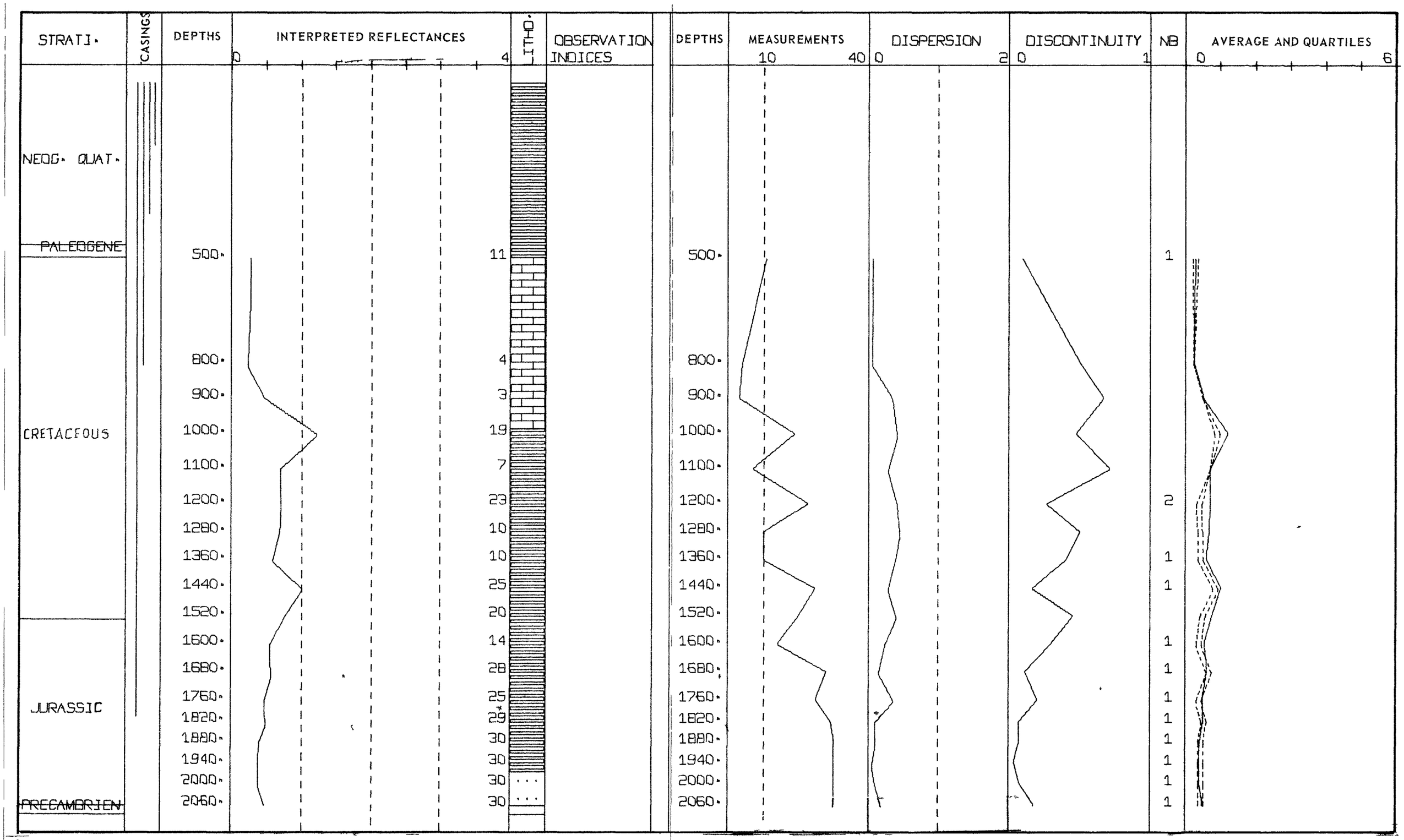
BRAGE 18/11-1 WELL

ORGANIC MATTER REFLECTANCE

elf ENTREPRISE DE RECHERCHES ET D'ACTIVITES PETROLIERES
DIRECTION EXPLORATION
LABORATOIRE

PL. 1

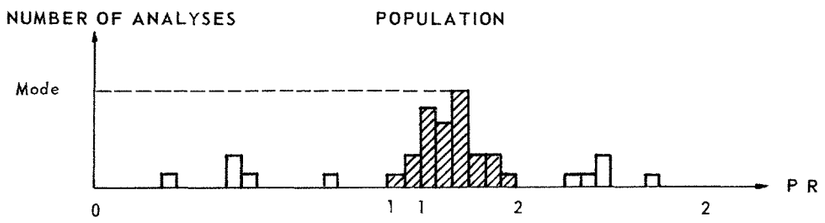
Date JUILLET 75
P ROBERT
N° classt C 101



+ Bitumen
∘ Vitrinite allochtonous
✱ Bitumen allochtonous
− Derived cuttings

+ Bitumen
∘ Oil
✱ Gas

STATISTICAL PARAMETERS OF THE REFLECTANCE HISTOGRAMS



Total number of measurements = 33
Number of measurements taken into account for calculation of the average = 23
$x1$ and $x2$ = Limit-values of replectance of the population
Number of groups of measurements = 6

For the histogram as a cohole

Dispersion = of disparate type replectance
Discontinuity = number of groups of measurements number of measurements in main group

Number of *populations* = 1
Quartiles 25 and 75

For the chief population

Average = average replectance

elf

Secteur	MER DU NORD
Opérateur	ELF NORGE
Permis ou Concession	Zone Norvegienne

PETRONORD

BRAGE 18/11-1 WELL

STATISTICAL REPRESENTATION OF THE RESULTS OF ANALYSIS

Echelle 1/10000

elf ENTREPRISE DE RECHERCHES ET D'ACTIVITES PETROLIERES
DIRECTION EXPLORATION
LABORATOIRE

PL.2

Date JUILLET 75
Auteur Y DAGENS
N°classt B 68