

Well Prognosis

25/2-2

WELLFILL



Elf Norge a/s

74/13
CB/rb

Stavanger, 24th. May, 1974

Elf RE
DE. DIV 2
7 Rue Nelaton
75739 Cedex 15

Norsk Hydro A/S
Bygdøy Allé 2
Oslo 2

Total
39/43 Quai André Citroën
75739 Paris Cedex 15

Statoil
P.O. Box 300
4001 Stavanger

Dear Sirs,

Enclosed, please find the following data on proposed location for well 25/2-2.

- General and geological information.
- Drilling, coring, testing and logging program.
- Miscellaneous.
- Location map.
- Prognosis: 1/5.000 scale log and 1/100.000 isochron map.
- Tight hole procedure.

Yours truly,
ELF NORGE A/S

C. BASTIEN

I Location to be drilled.

Area: Block 25/2 (Licence 026)

Prospect: South of Frigg-East Field.

Well: 25/2-2.

Classification: Exploratory well.

Drilling authorization from Oljedirektorat, 20th.May, 1974, NR 110.

Drilling platform: Deep Sea Driller.

Approximate coordinates: x = 02° 20' 19" E

Y = 59° 53' 38" N

S.P. 415, seismic line 73-59-53-20.

Water depth: 105 m.

RKB-sea bottom: 131 m.

Projected T.D.: 2050 m.

Bottom survey has been carried out.

II Geological justification.

In pursuance of new commitments on the 25/2 block, the location of this well has been chosen in order to define additional reserves in the Frigg area, not in communication with the main gas field.

The structure which axis trends E-W is nearly located to the south of the Frigg-East structure. The closed area is around 6 km² with an estimated vertical closure of 50 m at the top of Frigg sand horizon. The seismic sections are showing a "bright spot" in the western part of the closure.

The anticipated formation tops are as follows:

- Gumbo clay - 1050 m / MSL
- "Frigg sand" reservoir - 1900 m / MSL

T.D. is planned 50 m below the water contact.

In occurrence of significant differences of lithology, depths, thicknesses or fluids with 25/2-1 well, the hole could be deeped down to 2600 m and reach the Danian Sand.

III DRILLING PROGRAM.

1. Drill 36" hole to approximately 167 m.
Spot pill of viscous mud.
2. Run 30" sub conductor and permanent base.
Top of 30" housing approximately 2 m above mud-line.
3. Cement with 50T class B and displace to within 4 m of sub-conductor shoe.
4. Drill 17½" hole to 450 m with sea water (returns at mud line). Spot viscous mud. Down to 400 m continues mud injection in slow flow.
5. Run 13 3/8 casing with the 13 5/8 housing SGI (to land in 30" housing).
6. Cement with: 20T Cement class B, d = 1,60/1,65 mixed with drillwater and 4% bentonite.

20T Cement class B, d = 1,70/1,75 mixed with sea water.
7. Install 13 5/8 BOP Stack and 16" integral riser.
Prior to run, BOP Stack test at 5000 psi.
Lower H4 seal test at 5000 psi after connection on the well head hub.
8. Drill 12 1/4 hole to 1920 m. (approx)
Mud sea water FCL density 1,15 to 1,30.
9. Run 9 5/8 casing.
Hanger 13 5/8 - 9 5/8 without lock-ring.
10. Cement 9 5/8 casing up to 600 m annulus with class B cement.
11. Drill 8½ hole to TD (approx. 2600 m if any).
Coring and intermediate logs if necessary.
12. Dependent on results, 7" liner may be set at 2050 m.
13. Well abandonment.

All casings have to be cut and well head pulled out before leaving location.

IV CORING AND TESTING PROGRAM.

If any H.C. interest, a Frigg-sand coring will be carried out, down to the water table, in order to study graining and other reservoir characteristics.

- If the well is deeped, the same way will be carried on.
- Sidewall cores should be taken throughout the section.
- A testing program will be duly specified and dispatched if warranted by log analysis.

V LOGGING PROGRAM.

Basic runs (minimum program)

- Resistivity log (IES)
- Sonic log (SL)
- Radioactivity log (GR)
- Caliper (Cal)
- Dipmeter (HDT)

Velocity survey at T.D.

In addition, for reservoir rocks if any interest:

- Dual laterolog (DLL)
- Neutron (CNL)
- Formation density (FDC)
- Microlog and Microlaterolog (ML-MLL)

VI Geological report and Miscellaneous.

A daily geological report will be given to the Stavanger office every morning at 8:00 a.m. and dispatched as soon as possible to all the partners and associates.

Holidays or night line numbers are: Berthon 26107
Bastien 28238.

All radio reported depths, formation tops and sample description below 1900 m should be given in the code which will be provided.

Detailed well site instructions will be issued separately to those concerned.

TIGHT HOLE PROCEDURE

For various reasons, it is necessary that certain information concerning the well be withheld from competitors and others.

It will be the responsibility of the Supervisor on duty at the rig to see that only necessary and authorized individuals be allowed aboard. An unknown individual wishing to board should carry written permission.

No information is to be given to any individual, not an employee of ELF, regardless of his credentials. This includes partners, government agents and all others.

All information released concerning the well will be released only from the office.

In this respect, reasonable caution is to be practiced during conversation with associates, friends, etc.

Below the 13 3/8" casing point, all radio R/T conversations are to be in code when reference is made to:

Drill Stem Tests,

Shows,

Depths,

Formation Top,

Lithology.

Mud Weights

(below surface casing point).



POSITION MAP

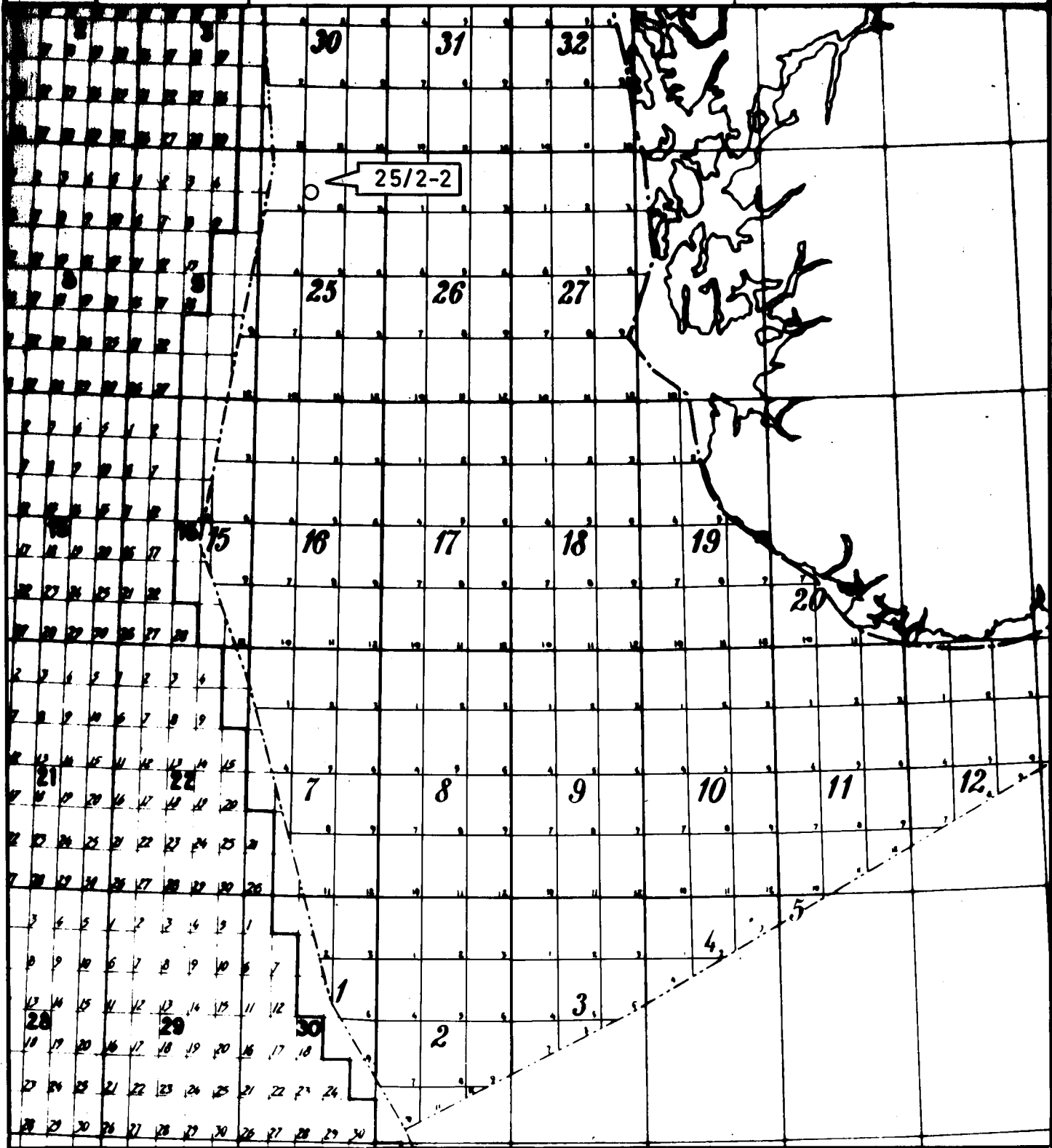
elf NORGE A/S

Echelle : 1/25000000

Date
Auteur
N° classé

25 / 2-2

elf NORGE





elf

POSITION MAP

elf NORGE A/S

Echelle : 1/25000000

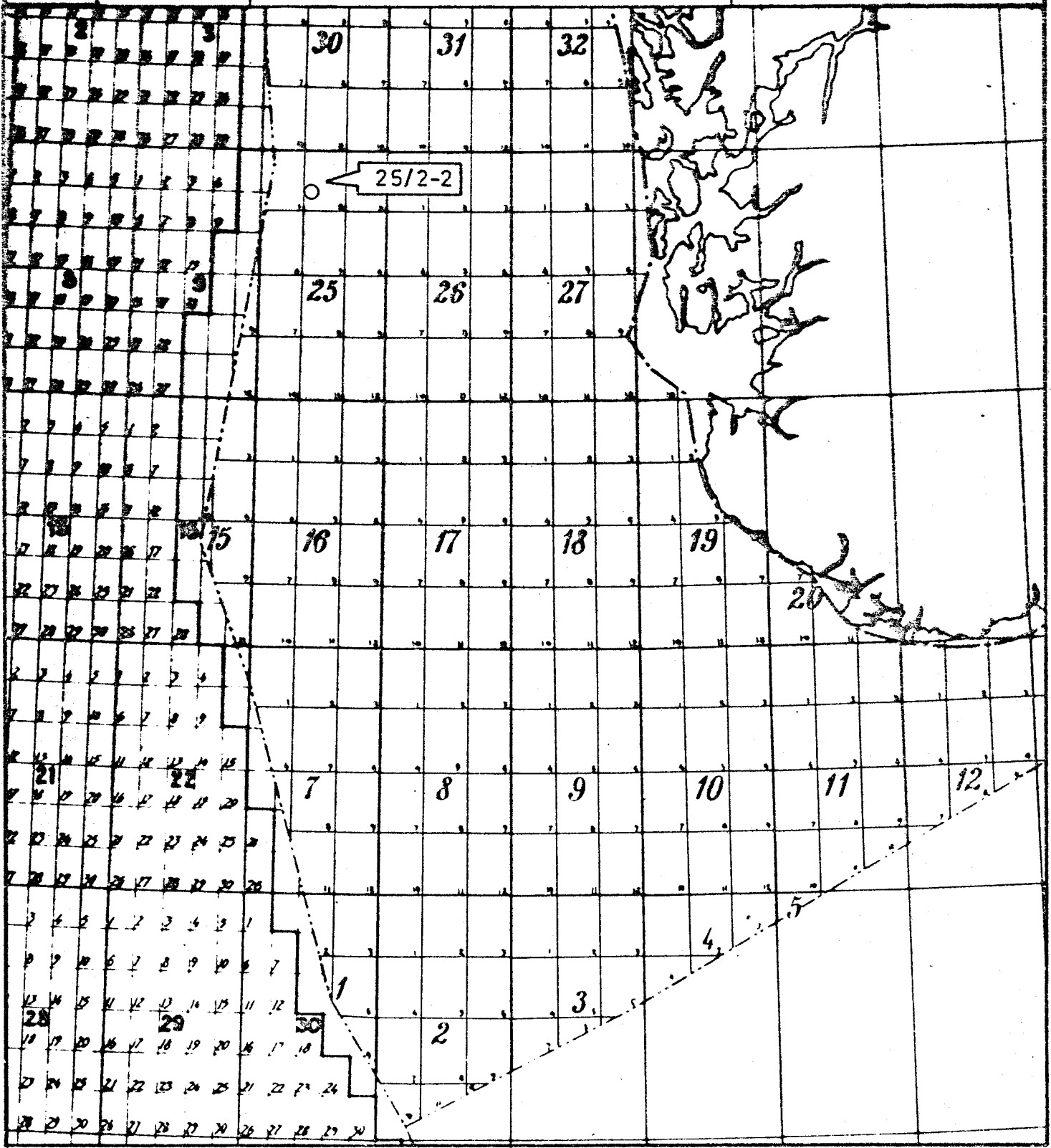
Date

Auteur

N°classé

25 / 2-2

OW NORGE



PROGNOSIS

Coord X: 02° 20' 19" Z ground . 105 y: 59° 53' 38" Z RKB. 26 s.line 73595320, SP.415 Operator: R.K.B. Rig: DEEP SEA DRILLER. Stopped in:		Spudded: Started drilling: At TD: Completed: TD Driller: TD Logger:		Well: 25/2-2 Country: NORWAY OFF SHORE
OPERATOR: ELF NORGE A/S		LICENCE: 026		OWNED BY: PETRONORD
TARGETS: Lower tertiary sand. (Frigg member) (T.D. 50m below the water table.)		RESULTS:		
CASINGS/RKB	CORES	ISOCHRON MAP Horizon C1. T.W.T. Scale: 1/100,000 		
30" ≈ 160m 13 5/8" 450m 9 5/8" 1915m				
SHOES				
TESTS	LOGS	INTERPRETATION		

Checked:

