ENTREPRISE DE RECHERCHES ET D'ACTIVITES PETROLIERES

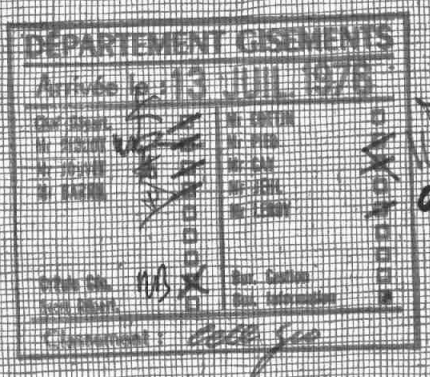
FFG-G-101-9-FRF006

elf NORGE

FRIGG FIELD
PRODUCTION FACILITIES

MONTHLY REPORT

JUNE 1976



DIRECTION FRIGG

Date: JUNE 1976

D.E.P.
4061 N° 6/1011

Paris June 30, 1976

FRIGG FIELD

PRODUCTION FACILITIES

MONTHLY REPORT

JUNE 1976

Distribution :

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The treatment platform TP1 was installed on the FRIGG site during the month of June. This platform, build in ARDYNE POINT (SCOTLAND), fabrication of which was continued in LOCH FYNE, was positioned on June 5, after towing which lasted eleven days. At the end of the month, grouting and ballasting operations were completed.

The favorable weather conditions allowed to complete the installation of the gantry crane on CDP1, the pull-in of the two 26" spools in CDP1 and the placing of the 8" line in TP1.

The installation of the QP and DP2 platforms continued with the insertion of the insert piles on QP and the driving of four main piles on DP2.

Work on the construction yards progressed normally. The first TP1 production pancakes were loaded on barge and left for STAVANGER. The main TP1 modules will be loaded on barges in July. All the CDP1 modules are loaded on barges, ready to be transported to the site. The QP modules are also complete and loaded on barges.

On TCP2, the progress of caisson slipforming is 65%. An agreement was reached between C.M.P. and AKER for the construction of the support frame. However, it is too early to affirm whether this new organization will allow the completion of the support frame within schedule.

I. OFFSHORE OPERATIONS

1.1. QP installation

During the first 10 days of the month the self-contained modules were hooked up and became operational. The drilling materials and equipment were loaded onto the jacket and preparations were started to start the drilling. The drilling of the first insert pile commenced on June 10 and was completed to depth by June 16. Preparations were made for grouting B 1-2 and drilling of A 1-2. The average drilling rate was estimated at 3 ft/hours. Insertion of the pile has now commenced and two welds have already been completed. Three more insert piles are expected to be completed next month, as well as drilling of insert piles on the other side of the jacket.

1.2. DP2 Jacket installation

The driving of the center piles was completed on May 30 and the levelling operations begun, these were completed on June 6.

The removal of the flotation tanks was completed on June 13.

The false rotary table was set on June 11 and primary pile A 4-4 inserted. The pile followers were made up and the first corner pile driven on June 14. Some difficulties had to be overcome during the piling operations, these required repairs to the false rotary table and additional reinforcement to the bell mouth guides. Two corner piles have now been driven to depth and cut off. Some difficulties are being encountered with the third pile which is refusing at a depth of 55 feet. Next month, the corner piles are expected to be completed and temporary work deck set after which the driving of the twelve remaining primary piles can be started.

1.3. Line installation

On June 1, the spool R5 was pulled into CDP1. The operation was successfully completed within 4 days. The bolts were tightened on the 8" flange at the base of CDP1. The second 26" spool R6 was pulled into CDP1 on June 16. At the present time, preparations were made to pull

CDP1

8 MAY 1976


CDP1
JUNE 2, 1976

in the 8" pipe to TP1. Some difficulties were encountered with the O-rings, fortunately,some substitutes which we will be able to replace at a later date could be used. Consequently, we should be able to complete the 8" line from CDP1 to TP1, the 32" and the 24" lines next month.

1.4 CDP1 Structure

The following work was achieved during the month of June :

. Connection of the 8" kill line spool on seal caisson flange.
. Pull-in of R6 and R5 26" spools in tunnels A and F.
. Demobilization of RB 150 winch.
. Main steel structure of gantry crane.
. Winches installation plus electrical connections to the generators.
. Final relocation of EUMECH quarters plus hook-up.
. Slab drilling : Four holes (total : 11 holes), three of which correspond to the holes through tunnel D.
. Survey of CDP1 base : no scouring.

The following work is in progress :

. Work in tunnels and shaft :

- Tie-in connections in tunnels A and F.
- Five man hoist (overall progress) : 70%

. Work on deck :

- Gantry crane (overall progress) : 90%
- Mast dismantling (overall progress) : 50%
- Slab drilling (last hole for west cluster).
- Skid-beams for modules (overall progress) : 75%
- Winches installation for cargo-barges mooring.
- Pumps, installation for temporary fire ring system.

. Work at level + 107

- Utility risers installation (overall progress) : 90%
- Repair of 8" SYMINEX pipes (1/3)

1.5. Treatment platform nr. 1 - TP1

The TP1 structure arrived within 15 miles of the Frigg Field at 08.00 on June 3. The structure was moved to 3 miles of the field on June 4 and the tugs repositioned for the approach. On June 5, TP1 was moved to the field, positioned, set at 15.30 and ballasting begun. The tugs were soon thereafter released. Ballasting continued until June 10 when it was stopped for the grouting operations to be completed. Grouting operations are presently in progress. However, it has not yet been possible to correct the list of TP1, which is estimated at 7 in 100. It may therefore be necessary to shim the modules to compensate for this list. Preparations for the pull-in of the 8" line have been completed.

Temporary modules 21 and 23 were lifted and set by the LB MEADERS on June 8. These two modules were followed by module 24 and the Manowac crane on June 11. These temporary modules were connected and commissioned, thus providing the necessary facilities for preparation of the line pull-in and permanent module lifting operations.

The semi-submersible West Venture was mobilized on June 1 for use as an accomodation facility to allow increasing the labor force on the field to expedite the tie-in work.

1.5 Miscellaneous

The instrument cabin was lifted and set on the DP1 platform by the LB MEADERS on June 19. Weather conditions during the month of June on the Frigg Field were very good. The waiting on weather time was less than average for this time of the year.

On June 13, the following personnel were on board of the various structures :

. WEST VENTURE : 88
. CDP1 :181
. TP1 : 51
. DP2 : 0 (supported by DB 22)
. QP : 76

II. PRODUCTION FACILITIES - PHASE I

2.1. CDP1 production facilities

2.11 Production modules

2.111 Rework PM2 - PM3 - PM4

- Engineering : 98%
- Procurement : 97%
- Fabrication : 97%

2.112 New modules (production and utilities)

Engineering :	Structural	: 99%
	Piping	: 99%
	Fire and safety	: 99%
	Electrical	: 99%
	Instrumentation	: 99%
Procurement :	Structural	: 100%
	Piping	: 97%
	Equipment	: 98%
	Electrical	: 98%
	Instrumentation	: 92%
Fabrication :	REG BOOTH (SD1)	: 100%
	PENN & BAUDIN (PH)	: 100%
	DE GROOT (WH1A-1B)	: 87%
	WILSON WALTON (BR1-2)	: 90%
	Flare booms	: 94%

Modules PM2, PM3, PM4 are on the barge DINO 2 which is sailing to STAVANGER.

Pumphouse PH is complete, and loaded onto the barge KARMOY 1, leaving for STAVANGER on June 30.

BR1, BR2 and flare booms are in STAVANGER.

WH1A - 1B (wellhead modules) are loaded on the barge KARMOY 1 leaving for STAVANGER.

SD1 is at the present time stored in STAVANGER.

2.2. Treatment platform nr. 1 - TP1

2.21 Temporary decks

(BROWN & ROOT / C.M.P. / MONBERG & THORSEN)

Fabrication work of the project is completed. Sheave block 24 and the Manitowoc crane were loaded on the barge MORLAND 4, which immediately left for STAVANGER.

The RB 90 winch was not completed on time to be delivered to DUNKIRK, was transported directly to STAVANGER aboard the supply vessel TENDER TRUMPET which left LOWESTOFT on May 31.

2.22 Engineering of treatment modules

McDERMOTT-HUDSON)

McDERMOTT-HUDSON finalized various details, mainly relative to the drawings for loading of the barges MORLAND 3 and MORLAND 6 and erection aids for the various modules. A study is in progress to lighten module 01 with its gravity center remaining in a central location.

2.23 Construction of treatment modules and deck units

(MERCANTILE MARINE under McDERMOTT Management)

Deck units 07 - 11 were loaded on June 8-9 on the cargo barge DINO 1, which left ANTWERP on June 24.

The fabrication of the main modules and deck units is continuing according to programme. At last, it has been decided to use the roll-on loading method.

The cargo barges MORLAND 3 and MORLAND 6 arrived at MERCANTILE on May 31 and June 9, respectively.

2.231 Erection of framing and painting

The fabrication of the new pad-eyes for modules 01, 03 and 04 is completed. Erection in three shifts is continuing without encountering any particular technical problems.

The various spreader frames are nearing completion.

2.232 Prefabrication of piping

The situation on June 24 is as follows :

. Total spools : Yard (2128), Offshore (818)
. Missing material : Yard (36), Offshore (102)
. Given for fabrication : Yard (2092), Offshore (716)

Fabrication being slightly delayed, the offshore spools will not be transported on the barges according to the initial programme. Additional transportation may be organized.

2.233 Module outfitting

The status at the end of June is as follows :

Modules	01	02	03	04	05
Erection of equipment	100	100	100	100	100
Erection of piping	95	90	85	90	65
Electricity	95	100	90	100	100
Instruments	80	90	55	85	10
Cladding	60	70	-	100	100

.../...

2.234 Deck unit outfitting

The status at the end of June is as follows (percentages) :

Deck units	06	07 - 11
Erection of equipment	100	100
Erection of piping	-	100
Electricity	-	100
Instruments	10	100

2.3. Living quarters platform QP

2.31 Engineering of living quarters building

(McDermott-Hudson)

The engineering only concerns the finalization of some details.

2.32 Construction of living quarters

(CDLG under McDERMOTT-HUDSON management)

On June 2, the helideck was loaded onto the barge BRHM 2, whereas module B was loaded on the barge MORLAND 5 on June 22. The completion programme is following a normal course with mainly a general modification of the air conditioning distribution system in the upper level of module B.

The barges BRHM2 and MORLAND 5 will respectively leave BORDEAUX at the end of July and beginning of August.

2.33 Supervisory control and field communications

(COMSIP under McDERMOTT-HUDSON management)

2.331 QP modules

The work which was to be performed in BORDEAUX is complete except for the functional test phase II. These tests will be realised at a later date in STAVANGER. This decision was taken to allow CDLG to complete the air conditioning modifications in BORDEAUX.

Reception tests occured on June 24 and 25.

2.332 TP1 interface rooms

. Interface room n° 1

Work is complete.Functional tests started on June 28.

. Interface room n° 2

Work should start at the beginning of July.

2.34 Storage of QP modules

The study relative to measures that need to be taken in view of storage of modules in STAVANGER is continuing at McDERMOTT-HUDSON's. The essential part should be completed at the end of July.

2.4. Lines and connections

The pipes for the 8" 5/8 Kill line, 4" 1/2 condensate line and two 2" 3/8 air and pilot lines are expected to arrive mid-july in ANTWERP. The pipes will have to immediately coated, before laying except the Kill line, for which laying operations are in progress. (pipes for Phase II).

Further to last minute recommendations by BROWN & ROOT, three areas of the lines which penetrate the tunnels 32", 24" and 2 x 26" will have to be coated with INCOMEL 625.

The supports on which the pipes must be resting are to be changed. TUFNOL supports (laminated phenolic resin) will replace the metallic supports which are installed at the present time. It is moreover recommended to add sacrificial anodes in the tunnels.

Several measures were taken to estimate the number of needed anodes, supports etc.....minimum needed and to draw up an installation procedure which will not delay the date of installation of the various spools which are scheduled to be installed in the middle of July.

From the results obtained of the hyperbaric welding tests, a thread and an electrode for filler passes as well as an electrode for root passes have been chosen.

2.5. Telecommunications

2.51 Telecommunications with U.K.

The shipping of the tropo antenna from BORDEAUX to STAVANGER is being co-ordinated with T.O.M.. The study of offshore installation is still in progress.

2.52 Telecommunication with NORWAY

It is anticipated to start-up the system and perform tests during the storage period in STAVANGER. The study relative to such testing is in progress with vendor C-ITOH.

LAUNCHING OF DP2 JACKET ON THE FRIGG FIELD

III. PRODUCTION FACILITIES - PHASE II

3.1. Drilling platform nr. 2 - DP2

3.11 Support frame

The fabrication of the support frame is progressing normally.

Additional work has been requested from U.I.E. :

. Small walkways for access to the lifting pad-eyes.
. Temporary risers for the installation phase of the insert piles.
. Preparation of the barge REFANUT for loading of the temporary work deck when it will be removed from the jacket.

In spite of these additional operations, the support frame is still scheduled to be loaded out on July 15, 1976.

3.12 Piling

The fabrication of the insert piles is progressing, however, several modifications have been requested, mainly relative to the lifting rings and pad-eyes. Therefore, the schedule will have to be modified, U.I.E. is preparing a new schedule.

The fabrication schedule of the insert piles is not on the critical path.

3.13 Production modules

. Engineering :

The total engineering progress is 98%. The detailed engineering progress is as follows :

. General arrangement : 99%
. Model construction : 98%
. Piping arrangement : 99%
. Isoing : 99%

. Procurement :

Procurement progress is 99%. The material delivered on site is reaching 89%, including steel.

We are still encountering some difficulties with the delivery of the MAPEGAZ valves.

. Fabrication :

The total progress is 77%.

a) Framing construction

Module 01 : 100%	Module 02 : 100%
Module 03 : 100%	Module 04 : 100%

The welding of the lifting lugs is in progress on module 04.

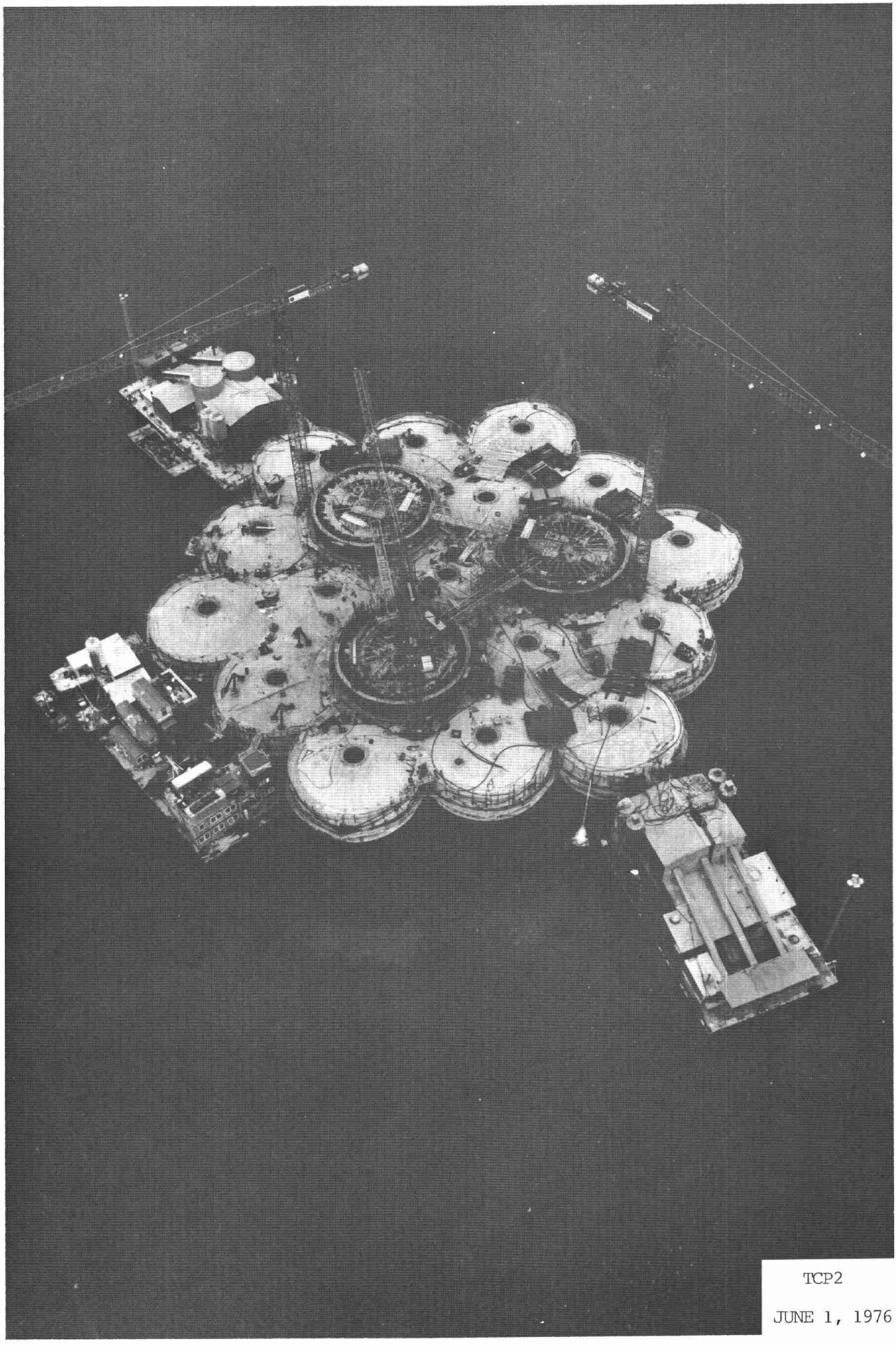
b) Equipment installation

The total progress is 64% (prefabrication of piping included).

Module 01 : 47%	Module 02 : 79%
Module 02 : 83%	Module 04 : 35%

Pumphouse : 70% Miscellaneous : 50%

The completion of these operations, tests not included, is still anticipated for the end of October 1976.



TCP2

JUNE 1, 1976

3.2. TCP2 Platform

3.21 Structure

3.211 Management

Two meetings were held with NORCON to discuss pending contractual problems, mainly relative to :

. Change orders.
. Claim from NORCON relative to financial consequences of the BROWN & ROOT activities on the NORCON operations.
. Claim from NORCON to delay the contractual delivery date of the platform due to unexpected operations relative to shaft deck connection.

The following change orders were settled :

. Change order 19 : For work relative to riser installation on upper domes and shaft.
. Change order 29 : For holes in shaft for the inlet and outlet of sea-water pumps (a claim of two days for the erection of the slipform due to the above mentioned work is still pending).

The difference between NORCON and ELF relative to change order n° 14 for the connection between shafts and steel deck has not yet been settled on a financial and schedule point of view.

The schedule relative to the period between the end of slipforming of shafts and erection of deck is being updated to take into account the possible construction of a watertight floor in the shafts and consequent stand-by of CHRISTIANI NIELSEN in columns 3 and 5 during shaft slipforming for safety reasons.

3.212 Engineering

The main activities have been :

. Finalization of damage stability calculations. These calculations lead to the conclusion that in case of damage to one of the columns during towing, the structure will sink unless special arrangements are made to prevent the penetration of water through the break.
. Design watertight floors in shafts at level 73 meters.
. Design mooring system for the supply vessels.

3.213 Construction

a) the main activities have been :

. Finalization of erection of slipform in shafts 1, 3 and 5.
. Shaft slipforming.
. Repair of cracks.

b) The status of progress is as follows :

. Completion of erection of shaft slipform	: 100%
. Shaft slipforming	: 90%
. Repair of cracks inside cells	: 100%
. Repair of cracks in star cells	: 100%

3.214 Support frame

After agreement by AKER and C.M.P. to form a joint venture for the fabrication of the TCP2 support frame within the best possible delays, the situation as explained in the May 1976 monthly report can be summarized as follows : A total of 2500 tons would be fabricated in France .

. 1850 tons (red T part) : Fabricated by C.M.P.(all shops united).

.../...

. 220 tons (element of red part) : Fabricated by ACB and SOCOMET.

. 420 tons (green part of northern part : Fabricated by JULLIN.

. 660 tons (white part or southern part : Fabricated by AKER STORD.

The entire central part (red T part + beams of rows 2 and 4)would be assembled by C.M.P. on the yard in DUNKIRK. The beams for rows 2 and 4 fabricated by AKER would be sent to C.M.P. in September 1976.

AKER does not agree to subcontract elements representing approximately 300 tons, but we do not know whether AKER will be able to fabricate these according to the schedule they submitted at the monthly meeting held on June 17.

The final assembly of the three elements (central, northern and southern) would be realised in the AKER STORD dry dock. AKER assured that it would be kept available for this purpose from December 1976 untill March 1977.

The delivery of the support frame will be confirmed at the beginning of July. The new situation may lead to a complete modification of the AKER/C.M.P. schedules.

C.M.P. YARD

The fabrication is progressing but C.M.P. was late with the first job (old contractual planning). The new planning will include elements fabricated by C.M.P. and subcontractors.

AKER STORD YARD

A new schedule was presented by AKER on June 17, 1976. But we cannot help but wonder whether or not it can be trusted.

Plates and elements fabricated in STORD (completed or nearing completion) were sent to C.M.P. (Dunkirk) in the week ending June 26.

ENGINEERING

The progress of KVAERNER ENGINEERING is following a normal course. Additional studies and verifications were requested by DNV, TNO and ELF.

The shop drawings issued by the subcontractors working for C.M.P. will also be controlled by T.N.O.

3.215 TCP2 riser installation

a) Contract E. 30 between CHRISTIANI & NIELSEN and ELF was signed on June 25.

b) BROWN & ROOT and CHRISTIANI & NIELSEN's main activities were as follows :

. Installation of umbrella in shafts 3 and 5.
. Prefabrication of external risers.
. Installation of riser support on upper domes.

c) The progress of BROWN & ROOT and CHRISTIANI & NIELSEN's activities was as follows :

. Yard prefabrication :

- External riser R1, R2, R3 and R4 : 80%
- External riser R5 : 60%
- External riser R6 : 75%

. Installation :

- Riser support on upper domes : 30%

After starting the slipforming operations of the shafts CHRISTIANI & NIELSEN was forced to stop working for safety reasons (material falling down from slipform bridges).

3.216 TCP2 temporary equipment

. The organization chart and manpower projection for the management and design by BROWN & ROOT has been prepared.

. The bid package was completed by BROWN & ROOT and sent out to fourteen possible bidders.

. The preliminary definition of design and specifications has been forwarded to NPD for approval.

. An inquiry is being prepared for various equipment. The inquiry relative to accomodation unit and plate girders has been sent out.

. The bid package relative to construction of temporary equipment has been received on June 26.

3.22 TCP2 Treatment modules

3.221 Structural design

. Pipe supports : McDERMOTT-HUDSON made an effort to accelerate the issue of the detail drawings. The work is at the present time centered on the study of access platforms to instruments.

. The supports of various electrical and instrument equipment have been re-examined and approved by McDERMOTT-HUDSON (Structure Department).

. Work on the final study of support frames for the sales gas metering system was started.

. The main steel frame drawings of the pancakes above columns 1, 3 and 5 were issued this month.

. Modifications of the drawings of modules 2 and 3 to include the lifting straps and the modified lifting pad-eyes were fabricated during the month.

. The analysis of the stresses in the modules due to the interaction of the support frames and more particularly to the deflection of the support frames is in progress.

3.222 Process design

1. Process engineering

A meeting was held between NPD, DNV and ELF, to obtain NPD's and DNV's approval of all actions undertaken to follow the regulations implemented by NPD and DNV and to discuss fire fighting on the platform.

A study is in progress relative to sprinkler systems required by NPD.

The final information relative to the new control valves (shutdown) required by NPD were forwarded to the McDERMOTT Instrument Department.

The glycol regeneration units are nearing completion, half have already been inspected in BETHUNE before delivery.

The flow sheets and procedures for the hydrotests were sent to DNV for approval. DNV informed McDERMOTT-HUDSON that the proposals were in general accepted.

2. Mechanical engineering

A meeting was held between ELF, BROWN & ROOT and McDERMOTT to try to set the final delivery dates for the equipment specified by T.O.M. and to confirm DNV's inspection.

3. Electrical (generator package)

McDERMOTT-HUDSON has at the present time one person working full time to clear the back log of the PARSONS PEEBLES drawings.

The MCC 380 volts has been inspected and should leave the shop shortly. Some modifications will have to be realised on site. The supplier PEYROLLE BELMOS indicated that the main modifications could not be made before October/November. McDERMOTT-HUDSON intervened and brought this date back to September.

The three gas turbines and the three generators arrived in ORKANGER. The control desk and mimic panel were tested.

4. Instrument engineering

The P & I d's of the sales gas metering system were approved for construction. All the instruments affected by the changes are being revised or purchased. The inspection of the equipment supplied by FOXBORO FRANCE will start on June 18, 1976.

The estimated percentage of completion is as follows :

. Structural design and engineering : 70%
. Process design and engineering : 81%
. Project management : 40%

3.223 Construction of TCP2 treatment modules

1. Fabrication at ORKANGER

The percentage of progress for the week ending June 20, 1976, is as follows :

	Work completed	work anticipated on SBV schedule.
Structure	35,8%	45,9%
Piping	42,8%	41,8%
Equipment	33%	43%
Electrical/instrument	2,5%	7%
Total	33,1%	36,3%

2. Fabrication at EGERSUND

The main deck of pancake 08 was sent to ORKANGER on June 5, 1976.

The anticipated date for delivery of the large section of the main deck of module 4 is set for July 2, 1976.

3.23 TCP2 Compression

1. Management

. The change orders relative to the delay, modification of the process diagram and the electrical interconnection were supplied by KVAERNER and are being discussed.

. A meeting was held with KVAERNER TECHNIP to specify the terms and conditions for cost control follow-up.

2. Engineering

The process and instruments diagrams are being developped.

Meetings were held with the vendors of the turbo generators, these allowed to solve the problems relative to electric generation.

A revision of the weight estimates is in progress.

A meeting was held to specify the instrument concept of compression.

3. Drafting

The drawings of the classification area are being developped by KVAERNER TECHNIP in OSLO.

.../...

4. Procurement

. The tenders relative to turbines and compressors were sent out. The answers are expected to come in in July.

. A meeting was held between KVAERNER TECHNIP, ELF NORGE and ELF AQUITAINE's Department Approvisionement to together define a line of conduct with suppliers.

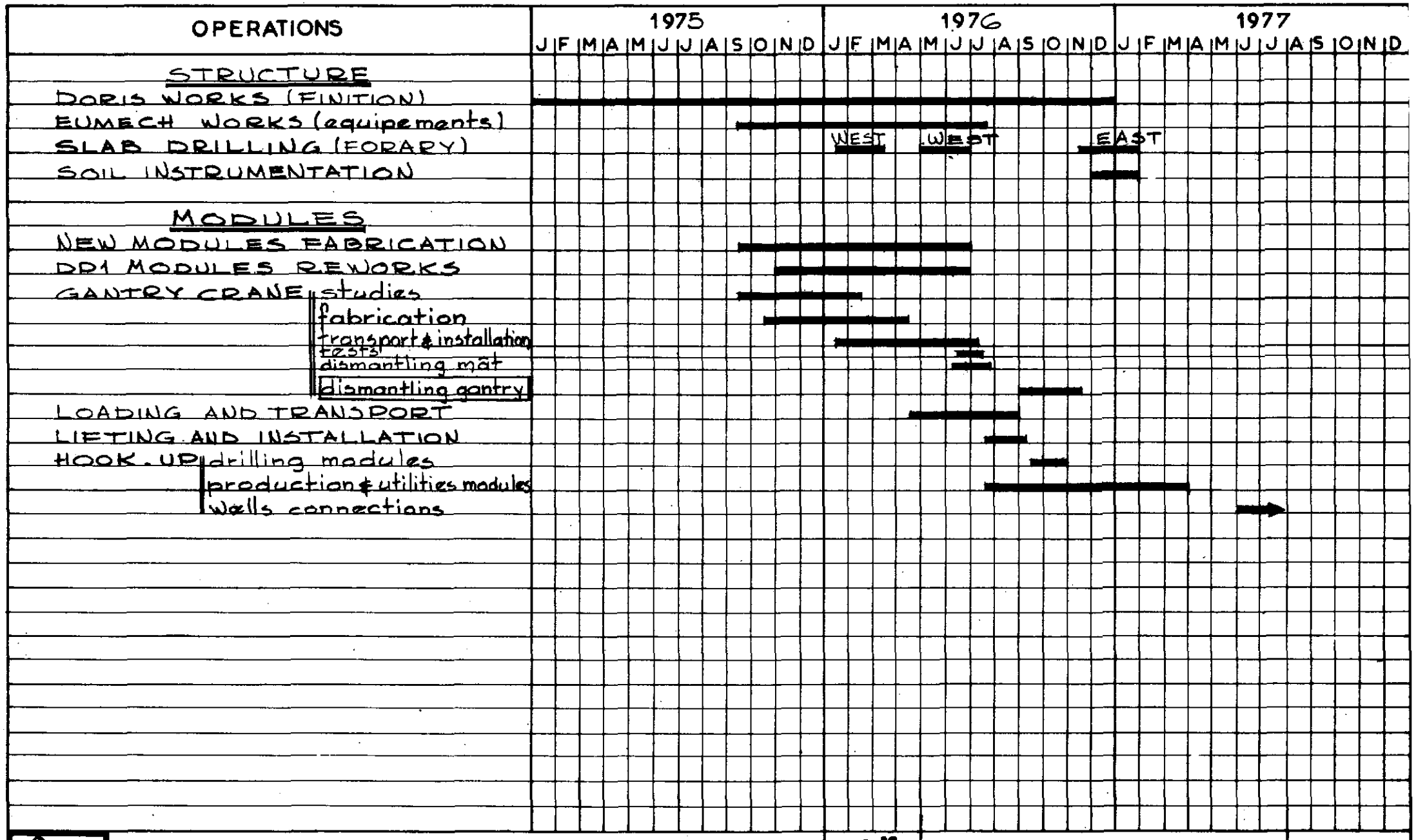
3.24 Lines and connections

The last pipe for the 24" is expected to arrive June 30 in ANTWERP.

The coating of the pipes will be started.

26.6.76

CDP.1



CDP.1

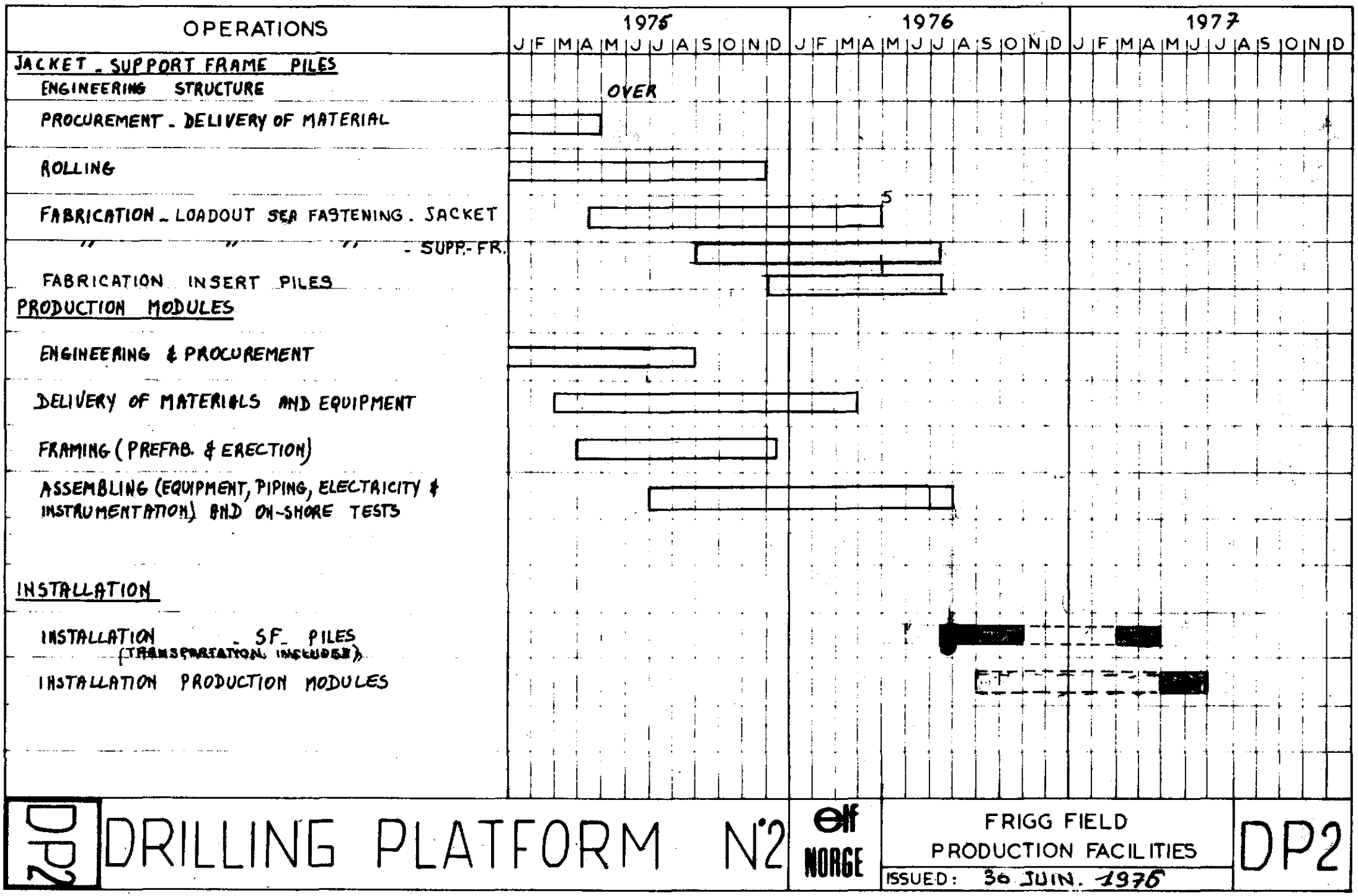
CONCRETE DRILLING PLATFORM N° 1

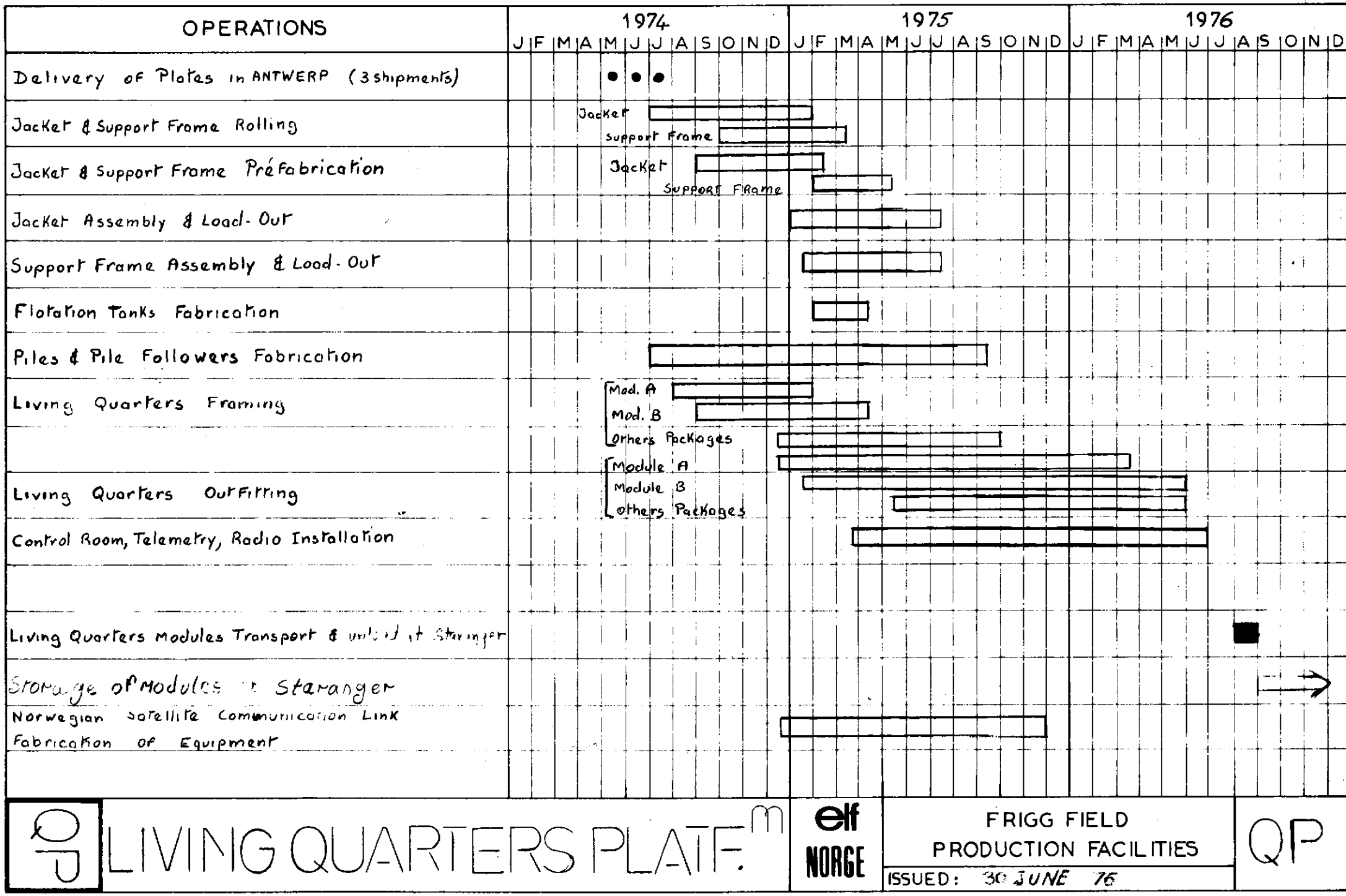
elf NORGE

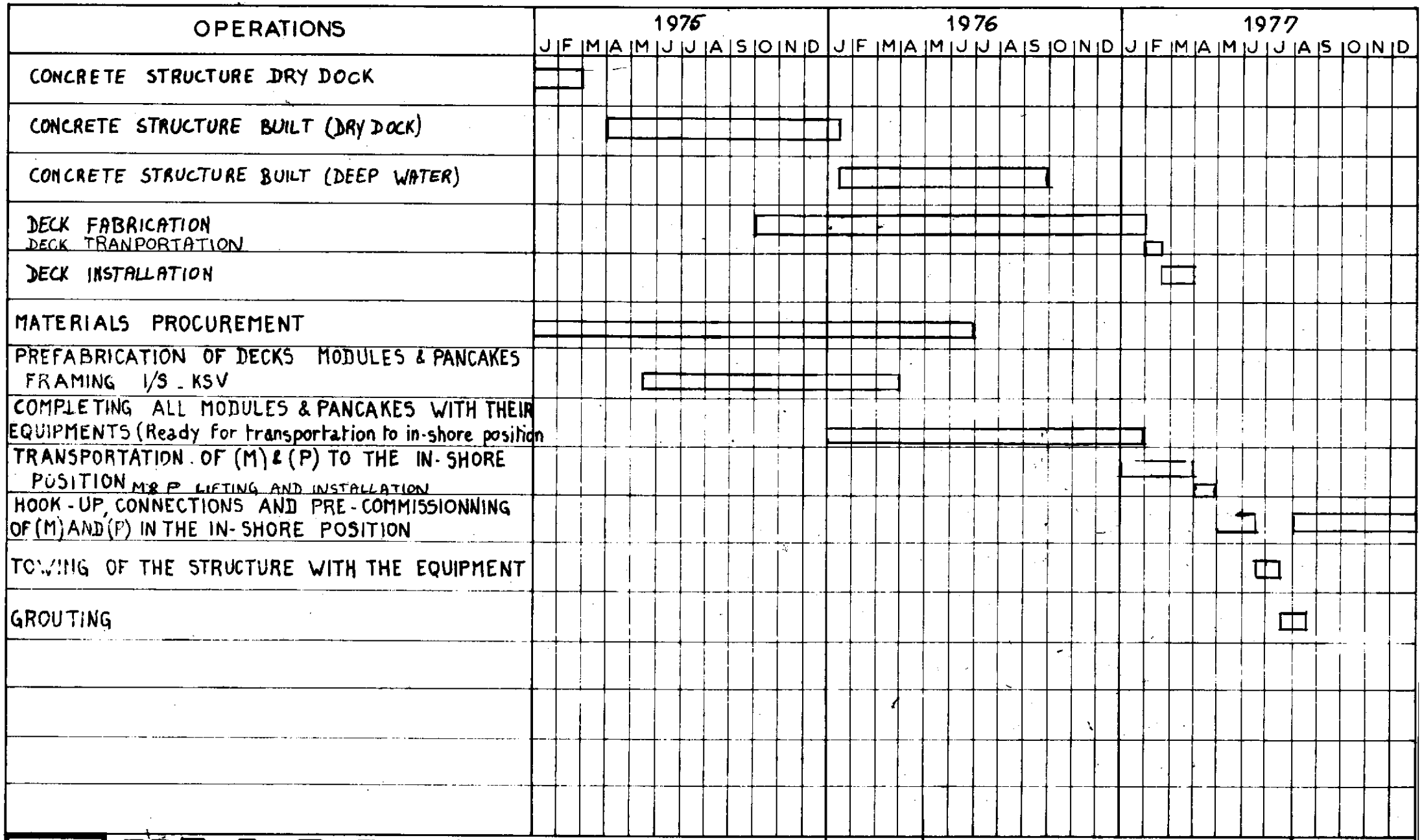
FRIGG FIELD
PRODUCTION FACILITIES

ISSUED: JUNE 30th 1976

CDP.1


OPERATIONS
1975
1976
1977
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
JACKET - SUPPORT FRAME PILES
ENGINEERING STRUCTURE
OVER
PROCUREMENT - DELIVERY OF MATERIAL
ROLLING
FABRICATION - LOADOUT SEA FASTENING . JACKET
" " " - SUPP.-FR.
FABRICATION INSERT PILES
PRODUCTION MODULES
ENGINEERING & PROCUREMENT
DELIVERY OF MATERIALS AND EQUIPMENT
FRAMING (PREFAB. & ERECTION)
ASSEMBLING (EQUIPMENT, PIPING, ELECTRICITY & INSTRUMENTATION) AND ON-SHORE TESTS
INSTALLATION
INSTALLATION - SF - PILES
(TRANSPORTATION INCLUDED)
INSTALLATION PRODUCTION MODULES
DRILLING PLATFORM N°2
elf NORGE
FRIGG FIELD
PRODUCTION FACILITIES
ISSUED: 30 JUIN. 1976
DP2


OPERATIONS
1974
1975
1976
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
Delivery of Plates in ANTWERP (3 shipments)
Jacket & Support Frame Rolling
Jacket
Support Frame
Jacket & Support Frame Préfabrication
Jacket
Support Frame
Jacket Assembly & Load-Out
Support Frame Assembly & Load-Out
Flotation Tanks Fabrication
Piles & Pile Followers Fabrication
Living Quarters Framing
Mod. A
Mod. B
Others Packages
Living Quarters Outfitting
Module A
Module B
Others Packages
Control Room, Telemetry, Radio Installation
Living Quarters Modules Transport & unload at Stavanger
Storage of Modules at Stavanger
Norwegian Satellite Communication Link
Fabrication of Equipment
LIVING QUARTERS PLATFORM
elf NORGE
FRIGG FIELD
PRODUCTION FACILITIES
ISSUED: 30 JUNE 76
QP



TCP 2

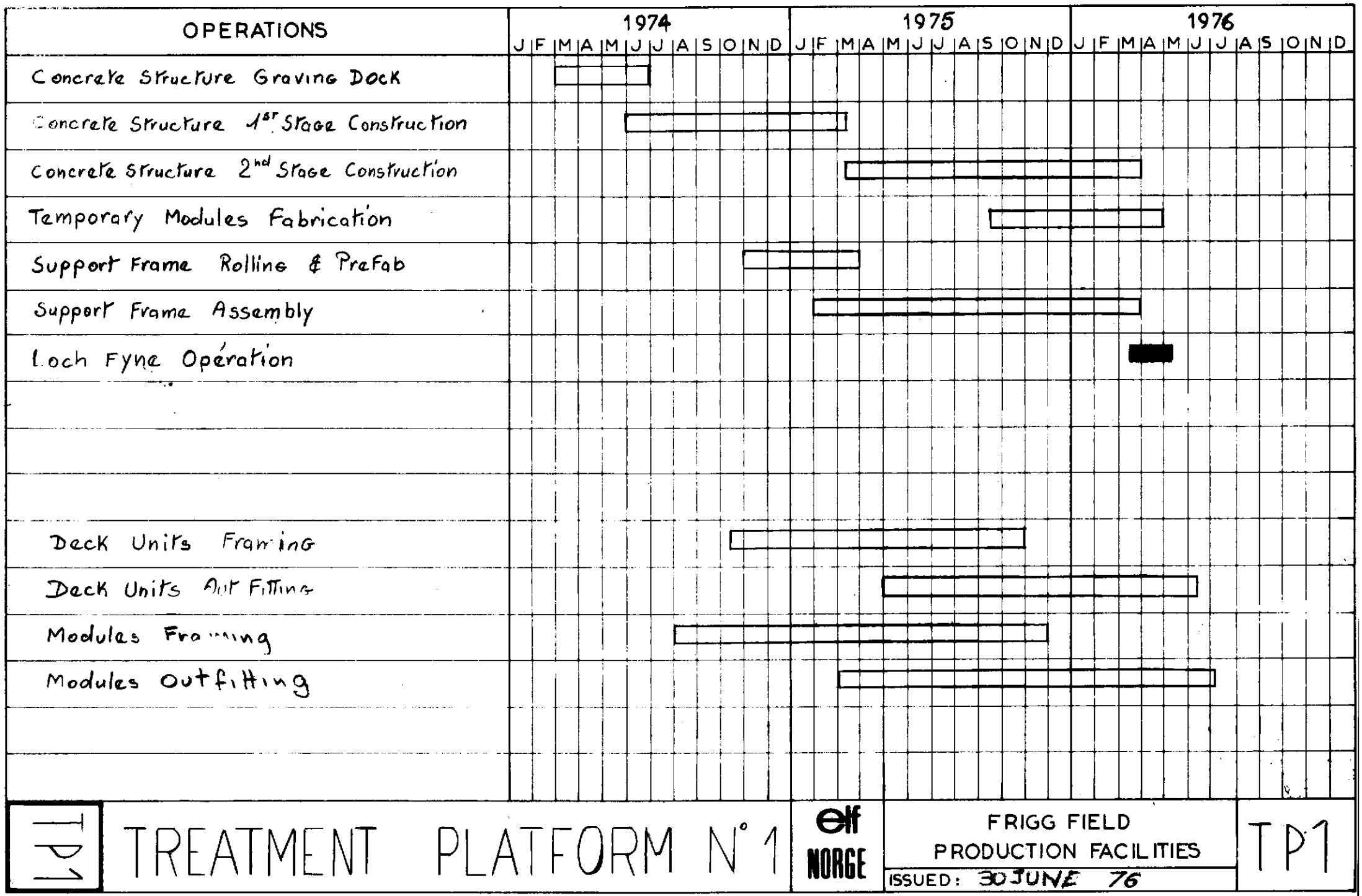
TREATMENT AND COMPRESSION PLATFORM N°2

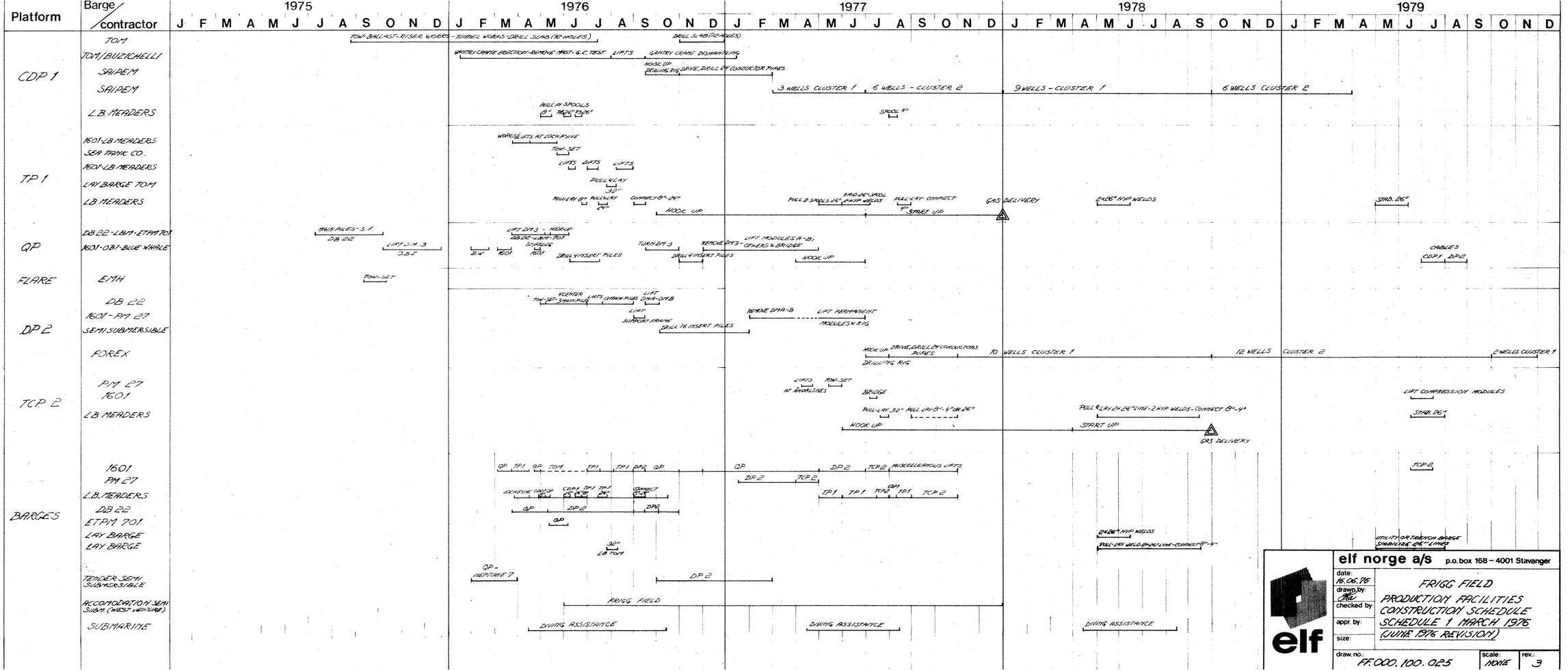
elf NORGE

FRIGG FIELD
PRODUCTION FACILITIES

ISSUED: 30 JUNE 1976

TCP 2


OPERATIONS
1974
J F M A M J J A S O N D
1975
J F M A M J J A S O N D
1976
J F M A M J J A S O N D
Concrete Structure Graving Dock
Concrete Structure 1st Stage Construction
Concrete Structure 2nd Stage Construction
Temporary Modules Fabrication
Support Frame Rolling & PreFab
Support Frame Assembly
Loch Fyne Opération
Deck Units Framing
Deck Units Out Fitting
Modules Framing
Modules outfitting
TREATMENT PLATFORM N° 1
elf NORGE
FRIGG FIELD
PRODUCTION FACILITIES
ISSUED: 30 JUNE 76
TP1


Platform
Barge / contractor
1975
1976
1977
1978
1979
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
CDP 1
TOM
TOM/BUZICHELLI
SAIPEM
SAIPEM
L.B. MEADERS
TOW-BALLAST-RISER WORKS - TUNNEL WORKS - DRILL SUBS (TO HOLES)
DRILL SUBS (TO HOLES)
GANTRY CRANE ERECTION - REMOVE MAST - G.C. TEST
LIFTS
GANTRY CRANE DISMANTLING
HOOK UP
DRILLING RIG
DRIVE, DRILL 24" CONDUCTOR PIPES
3 WELLS CLUSTER 1
6 WELLS - CLUSTER 2
9 WELLS - CLUSTER 1
6 WELLS CLUSTER 2
PULL in SPOOLS
SPOOL 4"
TP 1
1601-L.B. MEADERS
SEA TRANC CO.
1601-L.B. MEADERS
LAY BARGE TOM
L.B. MEADERS
WORKS & LIFTS AT LOCH FYNE
TOW-SET
LIFTS
PULL & LAY
PULL-LAY 32"
CONNECT 8"-24"
HOOK UP
PULL 2 SPOOLS 26" RISER HOSES
1 MID 26" SPOOL
PULL-LAY- CONNECT 8"
START UP
GAS DELIVERY
8 x 26" RISER WELLS
STAB 26"
QP
DB 22 - L.B.17 - ETPM 701
1601 - DB1 - BLUE WHALE
MAIN PILES - S.F.
DB 22
LIFT D.M. 3
D.B.F.
LIFT D.M. 3 - HOOK UP
DB 22 - L.B.17 - 701
STORAGE
1601
DRILL & INSERT PILES
TURN D.M. 3
REMOVE D.M. 3 - LIFT MODULES A-B, OTHERS & BRIDGE
CABLES
CDP 1 DP 2
FLARE
EMH
TOW-SET
DP 2
DB 22
1601 - PM 27
SEMI SUBMERSIBLE
RECENTER
TOW-SET - MAIN PILES
LIFTS - MAIN PILES
LIFT DM A-DM B
LIFT SUPPORT FRAME
DRILL 16 INSERT PILES
REMOVE DM A-B
LIFT PERMANENT MODULES & RIG
FOREX
MOOR UP
DRIVE, DRILL 24" CONDUCTORS
DRILLING RIG
10 WELLS CLUSTER 1
12 WELLS CLUSTER 2
2 WELLS CLUSTER 1
TCP 2
PM 27
1601
L.B. MEADERS
LIFTS AT ANGLESTAKES
TOW-SET
BRIDGE
PULL-LAY 32"
PULL LAY 8"-4" OR 26"
PULL & LAY 2 x 26" LINE-2 RISER WELDS - CONNECT 8"-4"
HOOK UP
START UP
GAS DELIVERY
LIFT COMPRESSION MODULES
STAB 26"
BARGES
1601
PM 27
L.B. MEADERS
DB 22
ETPM 701
LAY BARGE
LAY BARGE
QP
TP1
TOM
DP2
TCP2
MISCELLANEOUS LIFTS
LOCH FYNE CRANE
CDP1
CDP2
CONNECT
32"
L.B. TOM
24" RISER WELLS
PULL-LAY WELD BRACE LINE - CONNECT 8"-4"
UTILITY OR TRAWSH BARGE
TENDER SEMI SUBMERSIBLE
QP - NEPTUNE 7
ACCOMODATION SEMI SUBM. (WEST WATERS)
SUBMARINE
FRIGG FIELD
DIVING ASSISTANCE
DIVING ASSISTANCE
DIVING ASSISTANCE
elf norge a/s p.o. box 168 – 4001 Stavanger
date: 16.06.76
drawn by:
checked by:
appr. by:
size:
FRIGG FIELD
PRODUCTION FACILITIES
CONSTRUCTION SCHEDULE
SCHEDULE 1 MARCH 1976
(JUNE 1976 REVISION)
draw. no.: FF.000.100.025
scale: NONE
rev.: 3
elf