

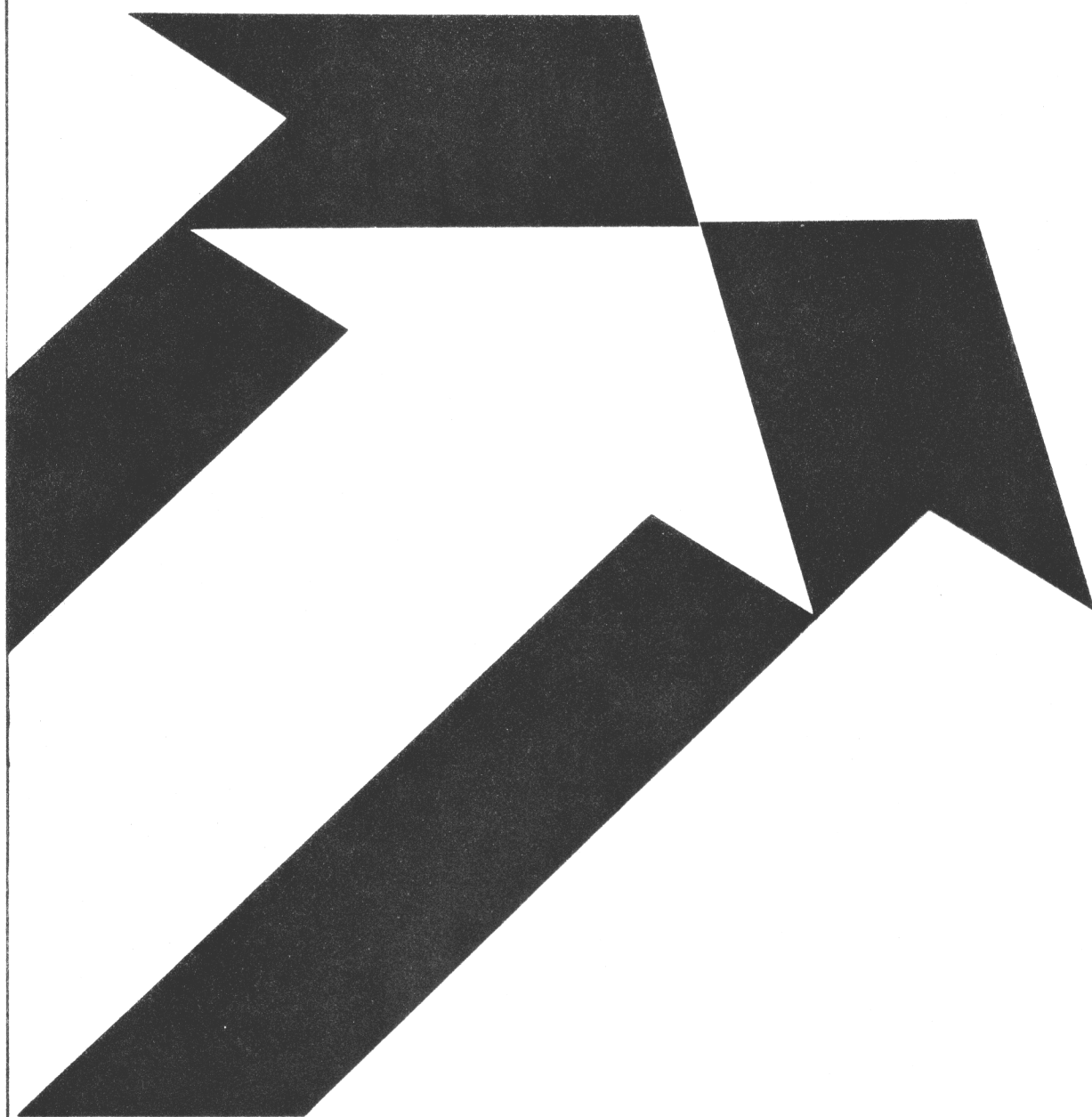
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# WELL SUMMARY



COMPANY Norsk Hydro

WELL NO. 30/7-2A

AREA North Sea

COUNTRY Norway





# CASING INTERVAL

COMPANY Norsk Hydro Well No. 30/7-2A Page 1 of 5

Casing Size 30 " from -0- to 653 (199m) (Bit Size) 36 " hole from -0- to 682 (208m) Footage

Material Consumption for Interval:

Product	Units	Size	Cost/Unit	Total Cost
Milben	1233	50 kg	7.52	9272.16
Salt Water Gel	659	100 lb	14.13	9311.67
Caustic Soda	22	25 kg	14.93	326.26
Drispac	10	50 lb	131.06	1310.60
Sodium Bicarbonate	5	50 kg	13.22	66.10
Flosal	47	50 lb	16.44	772.68

Material Cost for Interval \$ 21075.91 Average Cost per Foot \$ 32.26

Number of Days 6 Average Cost per Day \$ 3512.65

Comments:

This casing interval carries the cost of spud mud from previous well (30/7-2).



# CASING INTERVAL

COMPANY Norsk Hydro Well No. 30/7-2A Page 2 of 5

Casing Size 20 " from -0- ' to 1581 ' (482m) (Bit Size) 26 " hole from 683 ' to 1591 ' (485m)

Material Consumption for Interval:

Product	Units	Size	Cost/Unit	Total Cost
Milben	1062	50 kg	7.52	7986.24
Salt Water Gel	706	100 lb	14.13	9975.78
Caustic Soda	26	25 kg	14.83	385.58
Drispac	23	50 lb	131.06	3014.38
Flosal	57	50 lb	16.44	937.08
CMC hv	21	25 kg	56.08	1177.68
Bulk Gel (Milben)	1	(short ton)	160.07	160.07
Unical	30	50 lb	14.37	431.10

Material Cost for Interval \$ 24067.91 Average Cost per Foot \$ 26.51  
(per metre \$ 86.98)

Number of Days 9 Average Cost per Day \$ 2674.21

Comments:



# CASING INTERVAL

COMPANY Norsk Hydro Well No. 30/7-2A Page 3 of 5

Casing Size 13 3/8 " from -0- ' to 3200 ' (975m) (Bit Size) 17 1/2 " hole from 1591 ' to 3251 ' (485m) (991m)

Material Consumption for Interval:

Product	Units	Size	Cost/Unit	Total Cost
Milben	495	50 kg	7.52	3722.40
Salt Water Gel	920	100 lb	14.31	12996.60
Caustic Soda	34	25 kg	14.83	504.22
Drispac	54	50 lb	131.06	7077.24
CMC hv	29	25 kg	56.08	1626.32
Unical	25	50 lb	14.37	359.25

Material Cost for Interval \$ 26286.03 Average Cost per Foot \$ 15.84  
(per metre \$ 51.96)

Number of Days 7 Average Cost per Day \$ 3755.18

Comments:



DRILLING FLUIDS

# CASING INTERVAL

COMPANY Norsk Hydro Well No. 30/7-2A Page 4 of 5

Casing Size	Footage	(Bit Size)	Footage
<u>9 5/8</u> " from <u>-0-</u> ' to <u>5541</u> ' hole from <u>3251</u> ' to <u>5578</u> '	<u>(1689m)</u>	<u>12 1/4</u> "	<u>(991m)</u> <u>(1700m)</u>

Material Consumption for Interval:

Product	Units	Size	Cost/Unit	Total Cost
Milben	285	50 kg	7.52	2143.20
Caustic Soda	101	25 kg	14.83	1497.83
Drispac	29	50 lb	131.06	3800.74
CMC hv	23	25 kg	56.08	1289.84
CMC lv	66	25 kg	53.94	3560.04
Unical	362	50 lb	14.37	5201.94
Milbar	3140	50 kg	5.21	16359.40
Defoam	2	5 gal	96.10	192.20

Material Cost for Interval \$ 34045.19 Average Cost per Foot \$ 14.63  
(per metre \$ 48.00)

Number of Days 28 Average Cost per Day \$ 1215.90

Comments:



# CASING INTERVAL

COMPANY Norsk Hydro Well No. 30/7-2A Page 5 of 5

Casing Size \_\_\_\_\_ Footage \_\_\_\_\_ (Bit Size) \_\_\_\_\_ Footage \_\_\_\_\_  
 " from \_\_\_\_\_ ' to \_\_\_\_\_ ' 8 1/2 " hole from 5578 ' to 8501 '  
 (1700m) (2591m)

Material Consumption for Interval:

Product	Units	Size	Cost/Unit	Total Cost
Milben	209	50 kg	7.52	1571.68
Caustic Soda	83	25 kg	14.83	1230.83
Drispac	14	50 lb	131.06	1834.84
CMC lv	90	25 kg	53.94	4854.60
Unical	331	50 lb	14.37	4755.47
Milbar	2887	50 kg	5.21	15041.27
Bulk Milben	27	(Short ton)	160.07	4321.89
Sodium Bicarbonate	24	50 kg	13.22	317.28

Material Cost for Interval \$ 33927.86 Average Cost per Foot \$ 11.61  
 (per metre \$ 38.08)

Number of Days 24 Average Cost per Day \$ 1413.66

Comments:



**DRILLING FLUIDS**

# DAILY ACTIVITY REPORT

COMPANY Norsk Hydro WELL NO. 30/7-2A PAGE 1 OF 16

DATE 8 Aug 1975 DEPTH 170 m. TIME 2300 ENGINEER Butler

Skid rig. Start drilling new hole. Water getting into active system through suction lines. Mud also being diluted by water from centrifugal pumps.

DATE 9 Aug. 1975 DEPTH 208 m. TIME 1300 ENGINEER Butler

Drilled 26" pilot hole to 208 meters. Displaced hole with spud mud.

DATE 10 Aug. 1975 DEPTH 199 m. TIME 2300 ENGINEER Butler

Ran 30" Casing to 199 Meters. Rigging up riser and stack. Mixing mud to drill out of 30" casing. Water getting into active system through suction lines and diluting mud.

DATE 11 Aug. '75 DEPTH 199 m. TIME \_\_\_\_\_ ENGINEER Rogers

Tagged cement. Drilled out with sae water.





**DRILLING FLUIDS**

# DAILY ACTIVITY REPORT

COMPANY Norsk Hydro WELL NO. 30/7-2A PAGE 2 OF 16

DATE 12 Aug. '75 DEPTH 199 m. TIME \_\_\_\_\_ ENGINEER Rogers

Working on rig. Building new guide base for 30" Conductor.  
Maintaining sea water-gel mud.

DATE 13 Aug. '75 DEPTH 217 m. TIME 2400 ENGINEER Rogers

Drilled out of 17½" hole from 208 meters to 217 meters with Gel-Seawater mud.

DATE 14 Aug. '75 DEPTH 319 m. TIME 2400 ENGINEER Rogers

Drilled from 217 meters to 319 meters. Loosing mud over shakers (300 bbls.).  
Building volume continously for 24 hours to maintain viscosity.

DATE 15 Aug. '75 DEPTH 480 m. TIME 2400 ENGINEER Rogers

Drilled from 318 meters to 480 meters with sea water and prehydrated gel. Loosing mud over 40 mesh bottom shaker screens. Continuing to maintain volume, made up 250-300 bbls mud.



**DRILLING FLUIDS**

# DAILY ACTIVITY REPORT

COMPANY Norsk Hydro WELL NO. 30/7-2A PAGE 3 OF 16

DATE 16 Aug. '75 DEPTH 485 m. TIME 2400 ENGINEER Rogers

Run in hole with 26" hole opener. Open hole from 282 meters to 485 meters. Circulate and condition hole.

DATE 17 Aug. '75 DEPTH 485 m. TIME 2400 ENGINEER Rogers

Retrieve tools and 26" hole opener. Pull riser and sub-sea equipment. Go back in hole with 26" bit and tag bottom, no fill.

DATE 18 Aug. '75 DEPTH 485 m. TIME \_\_\_\_\_ ENGINEER Butler

Running 20" casing. Pumped all mud from active system into casing. Lost 800 bbls to the sea.

DATE 19 Aug. '75 DEPTH 485 m. TIME \_\_\_\_\_ ENGINEER Butler

Ran 20" casing to 481.75 meters. Running Stack and Riser. Testing same. Working on mud pump lines and mud system.



**DRILLING FLUIDS**

# DAILY ACTIVITY REPORT

COMPANY Norsk Hydro WELL NO. 30/7-2A PAGE 4 OF 16

DATE 20 Aug. '75 DEPTH 481 m. TIME \_\_\_\_\_ ENGINEER Butler

Working on mud pump suction lines. Mixed 640 bbls. high viscosity mud to drill out of 20" casing with 17½" bit.

DATE 21 Aug. '75 DEPTH 485 m. TIME \_\_\_\_\_ ENGINEER Butler

Working on mud pump lines. Mixing mud in active pits. Pressure testing BOPs.

DATE 22 Aug. '75 DEPTH 600 m. TIME 2400 ENGINEER Butler

Drilled 20" casing shoe. Started drilling 17½" hole. Drilling slow. Building mud to keep up with hole size and losses through desilter, desander and shakers. Lost about 300 bbls. Mixing Drispac due to high filtrate water loss. Still getting excess water into mud system.

DATE 23 Aug. '75 DEPTH 707 m. TIME 2400 ENGINEER Butler

Building mud to keep up volume due to losses over shakers. Lost about 400 bbls. Tripping for N.B. No.8.



**DRILLING FLUIDS**

# DAILY ACTIVITY REPORT

COMPANY Norsk Hydro WELL NO. 30/7-2A PAGE 5 OF 16

DATE 24 Aug. '75 DEPTH 991 m. TIME 2400 ENGINEER Butler

Drilling. Building new mud due to losses over shakers. Lost about 300 bbls.

DATE 25 Aug. '75 DEPTH 991 m. TIME 2400 ENGINEER Gambill

Circulating to condition hole for running logs. Logged without any problems. Circulate and condition hole to run 13 3/8" casing.

DATE 26 Aug. '75 DEPTH 991 m. TIME 2400 ENGINEER Gambill

Ran casing. Cemented. W.O.C..

DATE 27 Aug. '75 DEPTH 991 m. TIME 2400 ENGINEER Gambill

W.O.C.. Ran C.B.L.. Tested BOPs., would not hole pressure.



**DRILLING FLUIDS**

# DAILY ACTIVITY REPORT

COMPANY Norsk Hydro WELL NO. 30/7-2A PAGE 6 OF 16

DATE 28 Aug. '75 DEPTH 1001 m. TIME 2400 ENGINEER Gambill

Pulled Stack. Working on pipe rams and waiting on ram parts.

DATE 29 Aug. '75 DEPTH 1001 m. TIME 2400 ENGINEER Gambill

Waiting on ram parts.

DATE 30 Aug. '75 DEPTH 1001 m. TIME 2400 ENGINEER Gambill

Waiting on ram parts.

DATE 31 Aug. '75 DEPTH 1001 m. TIME 2400 ENGINEER Gambill

Waiting on ram parts.



**DRILLING FLUIDS**

# DAILY ACTIVITY REPORT

COMPANY Norsk Hydro WELL NO. 30/7-2A PAGE 7 OF 16

DATE 1 Sept.'75 DEPTH 1001 TIME 0100 ENGINEER Butler

Working on stack.

DATE 2 Sept.'75 DEPTH 1001 m. TIME 2400 ENGINEER Butler

Working on stack.

DATE 3 Sept.'75 DEPTH 1001 m. TIME 2400 ENGINEER Butler

Running Stack.

DATE 4 Sept.'75 DEPTH 1001 m. TIME 2400 ENGINEER Butler

Running Stack. Testing BOPs. Running mill and junk basket to check for junk.



**DRILLING FLUIDS**

# DAILY ACTIVITY REPORT

COMPANY Norsk Hydro WELL NO. 30/7-2A PAGE 8 OF 16

DATE 5 Sept. '75 DEPTH 1001 m. TIME 2400 ENGINEER Butler

Getting mud ready to drill. Lowering watter loss and raising viscosity.  
Pull out of hole with junk basket. Recovered a ten pound sledge hammer.  
Operations Suspended.

DATE 6 Sept. '75 DEPTH 1001 m. TIME 2400 ENGINEER Butler

Operations Suspended.

DATE 7 Sept. '75 DEPTH 1001 m. TIME 2400 ENGINEER Butler

Operations Suspended.

DATE 8/Sept/75 DEPTH 1001 m. TIME 2400 ENGINEER Gambill

Operations suspended.



**DRILLING FLUIDS**

# DAILY ACTIVITY REPORT

COMPANY Norsk Hydro WELL NO. 30/7-2A PAGE 9 OF 16

DATE 9/Sept/75 DEPTH 1001 m. TIME 2400 ENGINEER Gambill

Operations suspended.

DATE 10/Sept/75 DEPTH 1001 m. TIME 2400 ENGINEER Gambill

Operations suspended.

DATE 11/Sept/75 DEPTH 1111 m. TIME 2400 ENGINEER Gambill

Drilling Cement at 2000 Hours. Operations resumed at 1700 Hours.

DATE 12/Sept/75 DEPTH 1111 m. TIME 2400 ENGINEER Gambill

Drilling 12 1/4" hole. Raising mud weight to 9.3 lbs/gal. Tripped for bit No.8. No problems with gumbo.





**DRILLING FLUIDS**

# DAILY ACTIVITY REPORT

COMPANY Norsk Hydro WELL NO. 30/7-2A PAGE 11 OF 16

DATE 13/Sept/75 DEPTH 1300 m. TIME 2400 ENGINEER Gambill

Drilling 12 1/4" hole. Raised mud weight to 9.5 lbs/gal.  
Drilling controlled at 30 meters per hour. No gumbo problems.

DATE 14/Sept/75 DEPTH 1465 m. TIME 2400 ENGINEER Gambill

Drilling. Tripped for new bit No.9. Could not get to bottom  
because of weather. Rig is 19 feet off location. W.O.W. 1100 Hours.

DATE 15/Sept/75 DEPTH 1570 m. TIME 2400 ENGINEER Butler

Ran in hole and drilling.

DATE 16/Sept/75 DEPTH 1700 m. TIME 2200 ENGINEER Butler

Drilled 12 1/4" hole to casing point. Pulled out of hole to  
run Logs.



**DRILLING FLUIDS**

# DAILY ACTIVITY REPORT

COMPANY Norsk Hydro WELL NO. 30/7-2A PAGE 11 OF 16

DATE 17/Sept DEPTH 1700 m. TIME 2400 ENGINEER Butler

Logs hit bridge at 1336 meters. R.I.H. Circulating and raising mud weight to 9.9 lbs/gal.

DATE 18/Sept/75 DEPTH 1700 TIME 2200 ENGINEER Butler

Tried logging again. Logs stopped at 1418 meters because of sloughing shale. Raising mud weight to 10.9 lbs/gal.

DATE 19/Sept/75 DEPTH 1700 TIME 2400 ENGINEER Butler

Circulate and condition hole for shale problem. Made up and spotted a high viscosity pill in open hole.

DATE 20/Sept/75 DEPTH 1700 TIME 2100 ENGINEER Butler

Pulled out of hole to log. Logs went O.K.. Hole washed out 16" to 18".



**DRILLING FLUIDS**

# DAILY ACTIVITY REPORT

COMPANY Norsk Hydro WELL NO. 30/7-2A PAGE 12 OF 16

DATE 21/Sept/75 DEPTH 1700 m. TIME 2130 ENGINEER Butler

Logging. Trip in hole. Circulate and condition hole for 9 5/8" casing.  
Pull out of hole.

DATE 22/Sept/75 DEPTH 1700 m. TIME 2300 ENGINEER Gambill

Ran 9 5/8" casing. Landed casing at 1689 meters (5541 feet).  
Cemented same. Waiting on cement.

DATE 23/Sept/75 DEPTH 1700 TIME 2400 ENGINEER Gambill

Repairing rig.

DATE 24/Sept/75 DEPTH 1700 m. TIME 2400 ENGINEER Gambill

Repairing Rig.



**DRILLING FLUIDS**

# DAILY ACTIVITY REPORT

COMPANY Norsk Hydro WELL NO. 30/7-2A PAGE 13 OF 16

DATE 25/sept/75 DEPTH 1700 TIME 2400 ENGINEER Gambill

Drilling cement.

DATE 26/Sept/75 DEPTH 1744 m. TIME 1900 ENGINEER Gambill

Pull out of hole for core No.1 1748 meters to 1757 meters.  
Somehow getting water into mud. Gaining volume. Maintaing properties.

DATE 27/Sept/75 DEPTH 1780 m. TIME 2400 ENGINEER Gambill

Core No.2 1757 meters to -.

DATE 28/Sept/75 DEPTH 2000 TIME 2400 ENGINEER Gambill

Pull out of hole with core No.2 1757 meters to 1780 meters.  
Run in hole for core No.3 1780 meters to -.



**DRILLING FLUIDS**

# DAILY ACTIVITY REPORT

COMPANY Norsk Hydro WELL NO. 30/7-2A PAGE 14 OF 16

DATE 29/Sept/75 DEPTH 1801 m. TIME 2230 ENGINEER Butler

Core No.4 from 1793 meters to 1801 meters. Gaining volume in active system by water from centrifugal pump packing (cooling water).

DATE 30/Sept/75 DEPTH 1818 m. TIME 1915 ENGINEER Butler

Core No.5 from 1802 meters to 1818 meters. Gaining volume. Water getting into mud.

DATE 1/Oct/75 DEPTH 1822 m. TIME 1830 ENGINEER Butler

Core No.6 from 1818 meters to 1822 meters. Run in hole with bit No.11.

DATE 2/Oct/75 DEPTH 1900 m. TIME 1700 ENGINEER Butler

Drilled to 1900 meters. Pull out of hole to run logs.



**DRILLING FLUIDS**

# DAILY ACTIVITY REPORT

COMPANY Norsk Hydro WELL NO. 30/7-2A PAGE 15 OF 16

DATE 3/Oct/75 DEPTH 1970 m. TIME 2300 ENGINEER Butler

Ran logs O.K.. Run in hole with bit No.12 , drilled to 1970 meters and pulled out of hole for core No.7. Gaining mud volume, water getting into system.

DATE 4/Oct/75 DEPTH 1980 m. TIME 1500 ENGINEER Butler

Run in hole for core no.8. 1970 meters to 1980 meters. Pull out of hole and test BOP stack.

DATE 4/Oct/75 DEPTH 2000 m. TIME 1330 ENGINEER Butler

Core No. 9 from 1980 meters to 2000 meters.

DATE 5 /Oct/75 DEPTH 2027 m. TIME 2030 ENGINEER Gambill

Drilling with bit No.13.



**DRILLING FLUIDS**

# DAILY ACTIVITY REPORT

COMPANY Norsk Hydro WELL NO. 30/7-2A PAGE 16 OF 16

DATE 7/Oct/75 DEPTH 2092 TIME 2400 ENGINEER Gambill

Pull out of hole to work on heave compensator.

DATE 8/Oct/75 DEPTH 2137 m. TIME 2100 ENGINEER Gambill

Ran in hole and drilled. Circulating and conditioning hole for logs.

DATE 9/Oct/75 DEPTH 2137 TIME 2400 ENGINEER Gambill

Drilling. Gaining volume. Water into mud through centrifugal pumps.  
Logging. Logs stopped about 50 meters off bottom.

LAST REPORT

DATE 10/Oct/75 DEPTH 2260 m. TIME 2400 ENGINEER Gambill

Drilled to 2260 meters.

L A S T R E P O R T

MILCHEM INCORPORATED / P. O. BOX 22111 / HOUSTON, TEXAS 77027

Contractor GLOBAL MARINE OPERATOR NORSK HYARO LEGAL DESCRIPTION 30/7

Rig No. POLYGLMAR Well Name And No. 30/7-2A Field SEIS COUNTY NORTH SEA STATE NORWAY

Milchem Well No. \_\_\_\_\_ Milchem Warehouse Bergen Spud Date 8-8-75 No. Drilling Days To T.D. \_\_\_\_\_ DATE T.D. REACHED \_\_\_\_\_ TOTAL DEPTH \_\_\_\_\_ TOTAL COST \$ \_\_\_\_\_

CASING PROGRAM		BITS		TYPE MUD SYSTEM		SOLIDS CONTROL EQUIPMENT		ADDITIONAL INFORMATION	
Depth (ft)	Size (in)	No.	Size (in)	Type	Depth Interval (ft)	Type	Depth Interval (ft)	Pump Specifications	
199	30	1	26"	Seawater Gel		Degasser - Weico		Cont. Enisco F-1600 Triplex	
457	20					Desander - Deico		D.P. and D.C. 5" NC DP - 8" DC	
1001	13 3/4					Desilter - Deico		Other	
						Shaker - N.S.H.			

DATE (1975)	TIME	DEPTH (ft)	WT (ppg)	FUNNEL VISCOSITY (sec/qt)		PLASTIC VISCOSITY		YIELD POINT (lb/100ft <sup>2</sup> )	GELS (lb/100ft <sup>2</sup> )	pH	FILTRATE (ml/30 min)			Alkalinity			Chloride (ppm)	Calcium (ppm)	Sand (% by Vol.)	Solids (% by Vol.)	Oil (% by Vol.)	Water (% by Vol.)	Methy. Blue (me/ml mud)	Circ. Volume (bbl)	REMARKS	
				API	OF	CP	OF				API	HT-HP	OF	32nd in	P <sub>m</sub>	P <sub>f</sub> /M <sub>f</sub>										
8-8	2300	170	8.6	63						10.0	NC						22,000	320	0	2	0	98		710	Spud	
9-8	15:00	208	8.6	73						10.0	NC						21,500	340	0	2	0	98		710	Daily, 26" hole, 30' to 40'	
10-8	23:00	199	8.6	63						9.5	NC						21,500	320	0	1	0	99		700	Run 30" CSG.	
11-8	12:00	199	8.6	63						9.5	NC						21,500	320	0	1	0	99		700	SIST - Daily Cont. 1/500	
12-8	01:00	199	8.6	75						8.5	NC						14,500	200	0.5	3	0	90.5		700	"	
13-8	02:00	199	8.6	55						"	NC						-	-	-	-	-	-		-	RIG MAINTENANCE	
14-8	04:00	218	8.7	55	10	18	3 1/2	9.0	15.0								14,500	300	.25	4	0	95.5			Daily 17 1/2" hole	
15-8	05:00	386	8.8	75	24	20	5 1/5	9.0	15.0								12,800	280	11	3	1	85			"	
16-8	06:00	485	8.6	95	48	48	10/30	9.0	10.0								10,500	290	8	3	0	89			" 26" HO to 4055'	
17-8	03:00	485	8.8	75	28	21	5 1/5	8.5	15.6								10,500	250	.25	4	0	95.75			"	
18-8	06:00	485	8.8	80					15.6								10,500	250	.25	4	0	95.75			TRC Drilam 26" P. II.	
19-8	18:00	485	8.6	78					15.6								11,000	280	.1	2	0	98		200	Run 26" CSG.	
20-8																										Rig work
21-8	24:00	481	8.6	140						9.5	14.3						18,500	320		3	0	97	40		0	Rig work
22-8	24:00	481	8.7	88	22	35	3-20	9.5	13.1								18,000	360	0	3	0	97	45		710	Rig work
23-8	05:00	600	8.8	60	24	36	7-52	8.5	28.2								24,000	420	1/4	3	0	97	39		1320	Daily 17 1/2" hole
24-8	2:00	707	8.9	71	25	41	12-56	8.5	19.8								24,500	420	1/4	3	0	97	33		1315	" " "
25-8	04:00	991	8.9	64	16	27	16-37	8.5	18.1								18,500	340	1/4	3	0	97	42		1615	" " "
26-8	08:40	1001	8.9	54	15	25	11-30	8.0	17.9								19,000	340	1/2	3	0	97	40		1615	Circ. For Loss
27-8	04:00	1001	9.0	46	15	19	8-19	9.0	13.2								19,000	340	TR	3	0	97	38			Run 13 3/4" CSG



# DRILLING MUD RECAP

MILCHEM INCORPORATED / P. O. BOX 22111 / HOUSTON, TEXAS 77027

Contractor Global Marine OPERATOR Norsk Hydro LEGAL DESCRIPTION 30/7-2  
 Rig No. Polyglomar Well Name And No. 30/7-2A Field Friss COUNTY North Sea STATE Norway

Milchem Well No. \_\_\_\_\_ Milchem Warehouse Bergen Spud Date 8-8-75 No. Drilling Days To T.D. \_\_\_\_\_ DATE T.D. REACHED \_\_\_\_\_ TOTAL DEPTH \_\_\_\_\_ TOTAL COST \$ \_\_\_\_\_

CASING PROGRAM		BITS		TYPE MUD SYSTEM		SOLIDS CONTROL EQUIPMENT		ADDITIONAL INFORMATION			
Depth (ft)	Size (in)	No.	Size (in)	Type	Depth Interval (ft)	Type	Depth Interval (ft)	Pump Specifications <u>CONT EmSCO FA 1600 Triplex</u>			
<u>1503</u>	<u>20"</u>					<u>H-M Pamba Shaker</u>		D.P. and D.C. <u>5" NC 2" NC.</u>			
<u>3183</u>	<u>13 3/4"</u>					<u>Denco D. Sand - Gravel</u>		Other _____			
						<u>1" 1/2 s/r. Recor.</u>					

DATE (1975)	TIME	DEPTH (meters)	WT (ppg)	FUNNEL VISCOSITY (sec/qt)		PLASTIC VISCOSITY		YIELD POINT (lb/100ft <sup>2</sup> )	GELS (lb/100ft <sup>2</sup> )	pH	FILTRATE (ml/30 min)			Alkalinity	Chloride (ppm)	Calcium (ppm)	Sand (% by Vol.)	Solids (% by Vol.)	Oil (% by Vol.)	Water (% by Vol.)	Methy. Blue (me/ml mud)	Circ. Volume (bbt)	REMARKS
				API	°F	cp @	°F				API	HT-HP	°F										
28-8	0015	1001	9.0	48	15	16	8-24	9.0	13.4		2			14500	340	TR	3	0	97	32		Work on BOP	
29-8	0000	1001	9.0	49	15	15	10-23	9.0	13.6		2			15000	300	TR	3	0	97	39		"	
30-8	0000	1001	9.0	45	15	15	8-24	9.0	13.6		2			15000	310	TR	3	0	97	38		"	
31-8	0000	1001	8.9	44	15	14	10-31	9.0	13.9		2			15000	320	TR	3	0	97	37		"	
1-9	0100	1001	8.9	44	15	14	9-30	9.0	12.2		2			17000	320	TR	3	0	97	36		"	
2-9	2100	1001	8.9	42	17	13	8-28	9.0	13.2		2			17,500	320	TR	3	0	97	36		"	
3-9	2100	1001	8.9	40	17	13	8-29	9.0	14.5		2			17,500	320	TR	3	0	97	36		Run BOP	
4-9	2400	1001	8.6	36	11	6	1-11	9.0	68.0		1			17,000	480	0	2	0	98	20	1220	Check for Leak	
5-9	2400	1001	8.6	34	12	9	1-13	9.0	54.0		1			18,000	520	0	2	0	98	20	1220	operation suspended	
6-9	2400	1001	8.6	37	12	4	1-2	9.0	14.9		1			18,000	480	0	2	0	98	-	1220	" "	
7-9	2400	1001	8.6	35	10	3	1-2	9.0	15.2		1			18,000	480	0	2	0	98	-	1220	" "	
8-9	2400	1001	8.7	36	10	4	0-2	9.0	15.4		1			17000	480	0	2	0	92	-	1200		
9-9	2400	1001	8.8	38	10	5	0-3	8.0	15.0		1			17000	460	0	3	0	92	-	1200		
10-9	2400	1001	8.8	37	11	4	0-2	8.0	15.2		1			17000	460	0	3	0	92	-	1200		
11-9	2400	1001	8.8	40	10	11	4-19	9.0	11.4		1			17000	420	0	3	0	92	-	1270	DR. Count	
12-9	2400	1097	9.0	41	10	10	2-8	9.5	8.4		1			18000	480	TR	5	0	95	24	1320	Del's	
13-9	2000	1300	9.5	57	14	18	4-18	9.0	6.6		1			18500	490	Y4	7	0	93	22	1430	Del's	
14-9																							Wow
15-9	2200	1570	9.6	47	23	25	5-28	10.5	5.6		2	1.2-		11,000	320	1.25	7	0	93	24	1557	Del's	
16-9	1700	1700	9.6	49	20	25	4-15	10.5	4.8		2	1.2-		11,500	320	1.0	7	0	93	24	1632	Poon to Log.	



# DRILLING MUD RECAP

MILCHEM INCORPORATED / P. O. BOX 22111 / HOUSTON, TEXAS 77027

Contractor Global Marine OPERATOR Norsk Hydro LEGAL DESCRIPTION 30/7-2A

Rig No. Polyglon Well Name And No. 30/7-2A Field 30/7 COUNTY NORTH SEA STATE Norway

Milchem Well No. \_\_\_\_\_ Milchem Warehouse Bergen Spud Date 8-8-75 No. Drilling Days To T.D. \_\_\_\_\_ DATE T.D. REACHED \_\_\_\_\_ TOTAL DEPTH \_\_\_\_\_ TOTAL COST \$ \_\_\_\_\_

CASING PROGRAM		BITS		TYPE MUD SYSTEM		SOLIDS CONTROL EQUIPMENT		ADDITIONAL INFORMATION			
Depth (ft)	Size (in)	No.	Size (in)	Type	Depth Interval (ft)	Type	Depth Interval (ft)				
1508	20					H-H Rubber Shaker		Pump Specifications <u>EMULO F-1600 Triplex 7/8 X 12</u>			
3283	13 3/8					Demco Desander 6 cone		D.P. and D.C. <u>5" NC 8"</u>			
						" Desilter 18 cone		Other _____			

DATE (1975)	TIME	DEPTH (ft)	WT (ppg)	FUNNEL VISCOSITY (sec/qt)		PLASTIC VISCOSITY		YIELD POINT (lb/100ft <sup>2</sup> )	GELS (lb/100ft <sup>2</sup> ) 0/10	pH	FILTRATE (ml/30 min)			Cake (32nd in)	Alkalinity			Chloride (ppm)	Calcium (ppm)	Sand (% by Vol.)	Solids (% by Vol.)	Oil (% by Vol.)	Water (% by Vol.)	Methy. Blue (me/ml mud)	Circ. Volume (bbl)	REMARKS
				API@	°F	cp @	°F				API	HT-HP	°F		P <sub>m</sub>	P <sub>f</sub> / M <sub>f</sub>										
17-9	2400	1700	9.8	52		24		23	2-12	10.5	4.8	1		1.2	12,000	320	1.0	11	0	89	24	1632	CIRC. Shaker			
18-9	1100	1700	10.5	34		20		25	1-9	10.5	4.2	1		.8	11,000	480	1.25	14	0	86	24	1600	CIRC. "			
19-9	2400	1700	10.9	55		26		21	2-15	9.0	3.6	1		.8	12,000	460	1.5	15.5	2.5	82	24	1600	CIRC. "			
20-9	2400	1700	10.9	53		24		20	2-12	9.0	4.1	1		.6	11,500	480	1.25	17.5	2	80.5	22	1600	"			
21-9	2130	1700	10.9	44		22		16	1-6	8.5	4.0	1		.5	11,500	520	1.2	16.5	2	81.5	20	1600	" to			
22-9	2330	1700	10.8	44		22		14	1-5	9.0	4.8	1		.4	12,000	560	1.5	17	2	81	12	1020	Run 9 5/8" casing			
23-9	2000	1700	10.6	53		24		19	2-12	8.5	3.8	1		.3	11,500	540	1.0	16	2	82	20	962	1000 can Bergen Co's			
24-9	2100	1700	10.6	60		24		20	2-18	8.5	3.4	2		.3	12,000	540	1	16	2	82	14	1012	Rig Repair			
25-9	2200	1700	10.8	58		25		20	8-20	8.5	3.6	2		.4	12,000	560	1	16.5	2	81.5	18	1190	Delco Pouch Core #1 1792			
26-9	1900	1744	10.5	45		24		18	3-12	10.0	4.8	1		.6	12,000	500	1/2	16	1	83	19	1190	Core #2 1758-1780			
27-9	1200	1750	10.5	45		23		11	2-8	10.0	4.2	1		1.0	12,200	580	1/2	16	1	83	15	1228	"			
28-9	2000	1780	10.6	44		23		16	2-7	10.0	4.1	1		.6	11,000	560	1/2	16	1	83	16	1230	Core #3 1780-			
29-9	1130	1801	10.5	42		19		17	1-6	9.0	3.6	1		.7	7000	440	1.0	16	1	83	15	1152	Core #4			
30-9	1915	1818	10.5	44		18		16	1-3	9.0	3.2	1		.5	7000	400	1.0	17	1	82	19	1155	Core #5			
1-10	1830	1822	10.5	41		23		18	1-3	9.0	3.2	1		.4	7000	120	1.0	17	1	82	20	1155	Core #6			
2-10	1700	1900	10.5	40	✓	20		15	1-3	9.0	3.2	1		.5	7000	120	1.0	17.5	1	81.5	22	1180	Core #7			
3-10	2130	1970	10.6	49		23		25	3-11	9.0	3.8	1		.5	7000	100	1.75	18	1	81	26	1185	Core #8			
4-10	15:00	1980	10.6	47		26		26	2-9	9.0	3.0	1		.5	7000	160	1.5	18	1	81	24	1185	Core #9			
5-10	13:30	2000	10.6	48		23		23	1-7	9.5	3.2	1		.5	7000	160	1.5	16	1	81	24	1185	Core #8			
6-10	1200	2012	10.3	43		23		18	2-7	9.5	3.2	1		.6	7500	180	1/2	17	1	82	23	1206	Delco			

# DAILY DRILLING MUD ADDITIONS

MILCHEM INCORPORATED / P. O. BOX 22111 / HOUSTON, TEXAS 77027

Contractor GLOBAL MARINE OPERATOR NORSK HYDRO LEGAL DESCRIPTION 30/7

Rig No. POLYGLONAR DRILLER Well Name And No. 30/7-2A Field \_\_\_\_\_ COUNTY NORTH SEA STATE NORWAY

Milchem Well No. \_\_\_\_\_ Milchem Warehouse BERGEN Spud Date \_\_\_\_\_ No. Drilling Days To T.D. \_\_\_\_\_ DATE T.D. REACHED \_\_\_\_\_ TOTAL DEPTH \_\_\_\_\_ TOTAL COST \$ \_\_\_\_\_

DATE (19 75)	DEPTH (m)	MILBAR		UNICAL		MILBEN		CAUSTIC SODA		QMC		HV QMC		LV		SARGEL		LIME		DRISPAK		MICA FIC		FLOSAL		MILPUG FIC		LIGCON		BULK GEL		ST.		DAILY COST	CUMULATIVE COST		
		Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost				
8-8	170																																		\$ 772.68	\$ 772.68	
9-8	208													120				1																30	1559.06	2331.74	
10-8	208					4							120					2																	2017.04	4348.78	
11-8	<del>208</del>																																			←	4348.78
12-8	208																																			←	4348.78
13-8	208												15						1																280.75	4629.57	
A-8	218				41		2		2				178						6																3395.80	8025.37	
15-8	<del>208</del>				19						19		76						4																2438.09	10463.41	
16-8	485				217								209						10																5895.61	16359.02	
17-8	485	30			<del>38</del>		20						108																						2699.57	19058.59	
18-8	485				95																														714.40	20272.99	
19-8	485																																		0	20272.99	
20-8	481																																		0	20272.99	
21-8	481				60		5						190						2																3472.17	23745.16	
22-8	481				180		5						180						7																4888.57	28633.73	
23-8	600				5		113		2				180						9																4919.84	33553.57	
24-8	707				10		30						30						21																4106.26	37659.83	
25-8	991				10		90		13		10		7						20																5827.24	46487.07	
26-8	991						22						40						16																2827.70	49314.77	
27-8	1001				10		38		1																										447.05	49761.82	
28-8	1001																																		0	49761.82	
29-8	1001																																		0	49761.82	
30-8	1001																																		0	49761.82	



# DAILY DRILLING MUD ADDITIONS

Contractor Global Marine OPERATOR Norsk Hydro LEGAL DESCRIPTION 30/7

Rig No. Polystomax Driller Well Name And No. 30/7-2A Field \_\_\_\_\_ COUNTY North Sea STATE Norway

Milchem Well No. \_\_\_\_\_ Milchem Warehouse Bergen Spud Date 2-3-75 No. Drilling Days To T.D. \_\_\_\_\_ DATE T.D. REACHED \_\_\_\_\_ TOTAL DEPTH \_\_\_\_\_ TOTAL COST \$ \_\_\_\_\_

DATE (19 25)	DEPTH Meters ft	Mud Additions																												DAILY COST	CUMULATIVE COST					
		Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost	Unit	Cost							
31-8	1001																													0	49761.82					
1-9	1006																													0	49761.82					
2-9	"																													0	49761.82					
3-9	"																													0	49761.82					
4-9	"																													0	49761.82					
5-9	"																													655.30	50417.12					
6-9	"																													0	50417.12					
7-9	"																													0	50417.12					
8-9	"																													0	50417.12					
9-9	"																													0	50417.12					
10-9	1001																													0	50417.12					
11-9	1001																													0	50417.12					
12-9	1097																													3594	956.87	51373.99				
13-9	1300	350	54		20	6																								4265	4429.44	55803.43				
14-9	1300	620	50	30	21	12																									4265	5539.85	61343.28			
15-4	1634	170	48		14		14																								5367	2538.72	64850.17			
16-9	1700	200	47		24		24																									5577	3350.34	68200.51		
17-9	1700	100	3		3																													599.63	68800.14	
18-9	1700	515	40		4																													3864.66	72664.80	
19-9	1700	210			3																													1497.27	74162.07	
20-9	1700	825	80	100	1		10																											7433.81	81595.88	
21-9	1700	150	30		4	5																												1790.54	83386.42	
22-9	1700			30																															229.70	83616.12

