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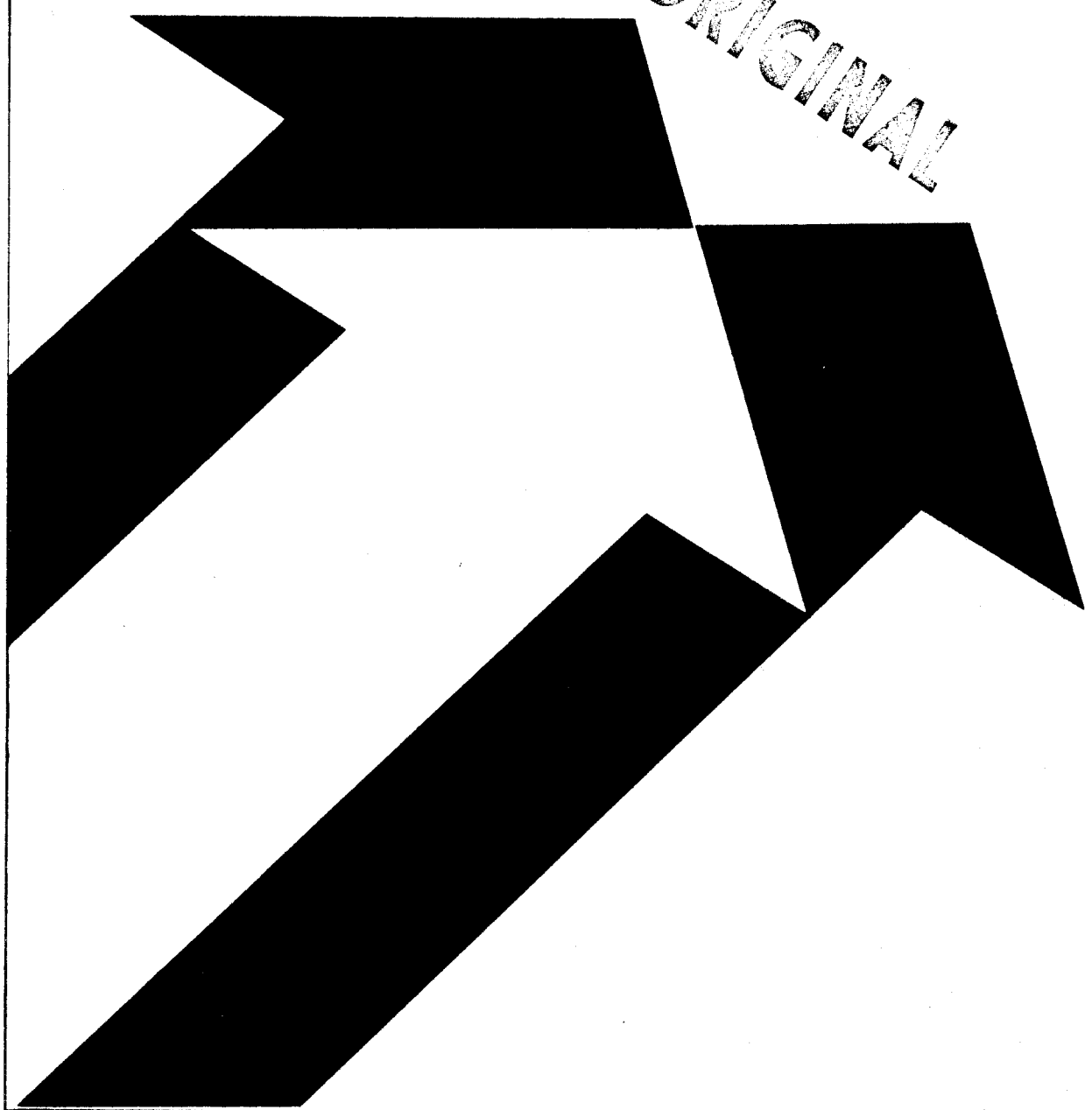


Milchem

DRILLING FLUIDS

WELL SUMMARY

ORIGINAL



COMPANY NORSK HYDRO WELL NO. 30/7-1A AREA Offshore COUNTRY Norway



DRILLING DATA

DRILLING FLUIDS

COMPANY NORSK HYDRO WELL NO. 30/7-1A PAGE 1 of 1

CONTRACTOR Rasmussen Global Mar. ADDRESS Bergen

RIG No Polyglomar WELL No. 30/7-1A FIELD 30/7

AREA North Sea COUNTRY Norway

TOTAL DEPTH 1371 FEET DATE SPUDDED 3-7-75

DATE FINISHED (*) DAYS DRILLING _____

DAYS COMPLETING _____ DAYS MOVING _____ WELL TOTAL _____

EQUIPMENT

PUMP No. 1 Liner 7 1/4 X 12 MAKE Cont Emsco MODEL F 1600

PUMP No. 2 Liner _____ X _____ MAKE _____ MODEL _____

PUMP No. 3 Liner _____ X _____ MAKE _____ MODEL _____

DEGASSER Welco HOURS RUN _____

DESILTER Demco No. CONES _____ HOURS RUN _____

CLAYJECTOR H and H No. CONES _____ HOURS RUN _____

DESANDER H and H No. CONES _____ HOURS RUN _____

SHALE SHAKER _____ TYPE _____

SHALE SHAKER _____ TYPE _____

CENTRIFUGE _____ HOURS RUN _____

COMMENTS:

Well plugged/abandoned at 1371' Skidded 150'(t) Start new location 30/7-2



DRILLING FLUIDS

DAILY ACTIVITY REPORT

COMPANY NORSK HYDRO WELL NO. 30/7-1A PAGE 1 OF 9

DATE 7/4 DEPTH 600' TIME 0600 ENGINEER Jones

Make up BHA - Drill to 197m - Flush hole with spud mud - Survey - POH

DATE 7/5 DEPTH 600' TIME 0400 ENGINEER Jones

GIH w/hole opener - Probs with Guide Base

DATE 7/6 DEPTH 600' TIME 0300 ENGINEER Jones

Move rig 22m - Land Base plate - Rig up - Spud - PooH - Reposition rig over well
RIH - Ream - Circ - Pump total mud volume to flush hole - POH - Run csg.

DATE 7/7 DEPTH 600' TIME _____ ENGINEER Jones

Cement 30" csg.



DRILLING FLUIDS

DAILY ACTIVITY REPORT

COMPANY NORSK HYDRO WELL NO. 30/7-1A PAGE 2 OF 9

DATE 8/7 DEPTH 197m TIME 1600 ENGINEER Butler

Rigging up riser and stack

DATE 9/7 DEPTH 197m TIME 1400 ENGINEER Butler

Broke guide base, pulled riser and stack - Running same

DATE 10/7 DEPTH 233m TIME 2400 ENGINEER Butler

Drill 17 1/2" hole - No problems

DATE 11/7 DEPTH 322m TIME 2400 ENGINEER Butler

Drill 17 1/2" hole - No problems except with in rotary table and have compensator



DRILLING FLUIDS

DAILY ACTIVITY REPORT

COMPANY NORSK HYDRO WELL NO. 30/7-1A PAGE 3 OF 9

DATE 12/7 DEPTH 324m TIME 0200 ENGINEER Butler

RIH w/26" under reamer - Reamed and drilled 68' extra hole - Built mud volume - No problems

DATE 13/7 DEPTH 345m TIME 1500 ENGINEER Butler

PooH with 26" underreamer, displaced riser with seawater, pulled riser and stack, RIH w/26" bit - No problem - PooH - Start running 20" csg.

DATE 14/7 DEPTH 340m TIME 1200 ENGINEER Butler

Rigging up rotary tools and BOP stack and riser

DATE 14/7 DEPTH 340 TIME 1200 ENGINEER Butler

Rigging up - BOP stack and riser



DRILLING FLUIDS

DAILY ACTIVITY REPORT

COMPANY NORSK HYDRO WELL NO. 30/7-1 PAGE 4 OF 9

DATE 15/7 DEPTH 340 TIME 0430 ENGINEER Butler

Run stack - Test stack

DATE 16/7 DEPTH 434 TIME 0500 ENGINEER Jones

PooH w/test plug - Pick up kelly - Test chokes - m/u BHA - RIH tag cmt at 316m - Repair rotary table - Drill cmt from 316m to 343m - Drill w/sea water to new hole - Displace w/mud - Drlg - Mixing mud

DATE 17/7 DEPTH 679 TIME 0430 ENGINEER Jones

Ream from 343 to 350m - Drill to 405 - Survey circ. and cond w/desander/de-silter - Survey - Drill to 556m - Circ - PooH - RIH - Drill - Continually building volume in active - Building 2 pits (600 bbl) 12 ppg mud in reserve

DATE 18/7 DEPTH 894 TIME 0230 ENGINEER Jones

Drill - Survey - Drill - Circ - PooH - Check bit m/u BHA - RIH Drill - Mix mud continuously extremely porous pormation - Rapid penetration rate continue to weight mud in reserve



DAILY ACTIVITY REPORT

DRILLING FLUIDS

COMPANY NORSK HYDRO WELL NO. 30/7-1 PAGE 5 OF 9

DATE 19/7 DEPTH 943 TIME 0100 ENGINEER Jones

Drill to 863m - Circ - Drill to 894ft. circ - Survey - Drill to 943m - PooH to shoe - Lost returns - Try to regain - No results - Found leak in riser w/T.V. - Divers unable to locate - Fill riser w/sea water - RIH to 937m - Mix Lcm - Pump - Regain circ - Circ and cond mud - Lost 500 bbl

DATE 20/7 DEPTH 943 TIME 0330 ENGINEER Jones

PooH - Pull riser - Repair leak - Run riser - Jump divers to untangle wires hoses - No go - Pull riser - Continue to mix mud in active system

DATE 21/7 DEPTH 718 TIME 2400 ENGINEER Butler

Reaming and drlg - Bridges through 17 1/2" hole - Having trouble keeping desander, desoater running

DATE 22/7 DEPTH 991 TIME 2400 ENGINEER Butler

Reaming and drlg. - Bridges through 17 1/2" hole - Drill 17 1/2 hole to 991m circ - PooH to run 13 3/8" csg. - Stuck drill pipe at 420m - WOO



DRILLING FLUIDS

DAILY ACTIVITY REPORT

COMPANY NORSK HYDRO WELL NO. 30/7-1 PAGE 6 OF 9

DATE 23/7 DEPTH 991 TIME 1400 ENGINEER Butler

Running back off on stuck pipe - Rigging up BHA for fishing string - Fishing -
Changing BHA for fishing string

DATE 24/7 DEPTH 991 TIME --- ENGINEER Butler

No luck freeing stuck pipe - Cannot circ. pumped active mud into reserve
pits for cleaning and working on active pit system

DATE 25/7 DEPTH 991 TIME ---- ENGINEER Butler

Waiting on washover pipe - Working on mud system

DATE 26/7 DEPTH 991 TIME 1900 ENGINEER Butler

Built 800 bbls chemical mud to use in washing over stuck pipe - Washing over
with chemical mud



DAILY ACTIVITY REPORT

DRILLING FLUIDS

COMPANY NORSK HYDRO WELL NO. 30/7-1 PAGE 7 OF 9

DATE 27/7 DEPTH 991 TIME 0400 ENGINEER Butler

Washing over stuck pipe - Washover pipe parted, one joint left in hole - RIH w/jars on stuck pipe - No luck - Broke jars - Fished jars out of hole

DATE 28/7 DEPTH 1371 TIME --- ENGINEER Rogers

Fishing for lost tools - Conditioning system - Build 65 bbl diesel oil - Pipe free - Reserve Pit. no. 4 for spotting around tools -

DATE 29/7 DEPTH 1371 TIME --- ENGINEER Rogers

Fishing - Lost bumper subs and Jars - Overshot ^{parted} ~~powid~~.300 bbls (53 U.S. 18.5 ppg) stand by gel slurry in reserve pit no. 3 for possible slug to clean hole. Break over active system (500+) bbls. to dispersed polymer (80/85 sec - 8.5 ppg)

DATE 30/7 DEPTH 1371 TIME --- ENGINEER Rogers

Fishing! - Going back into hole with shot to blow off D.C.(s) for possible fishing - Circ! and condition system - No additions - Backed of D.C.(s) w/charge - Go back into hole w/lager overshot for recovery



DRILLING FLUIDS

DAILY ACTIVITY REPORT

COMPANY NORSK HYDRO WELL NO. 30/7-1 PAGE 8 OF 9

DATE 31/7 DEPTH --- TIME --- ENGINEER Rogers

Decision made to plug and abandon hole - Skid 150(+) east

DATE 1/8 DEPTH --- TIME ---- ENGINEER Rogers

Cement hole - Rigging down

DATE 2/8 DEPTH --- TIME --- ENGINEER Rogers

Rigging down in prep. for skid

DATE 3/8 DEPTH --- TIME --- ENGINEER Rogers

Rigging down - Cut well head and fish for temporary base plate
Change location to 30/7-2 when rig is skidded.



DRILLING FLUIDS

TOTAL MUD MATERIALS USED FOR WELL

COMPANY NORSK HYDRO WELL NO. 30/7-1 (A) PAGE 1 of 1

Quantity	Material	Unit/Weight	Unit Cost	Total Cost	%
1707	Salt Water Gel	55 lb	14.13	24119.91	
1589	Milben	110 lb	7.52	11949.88	
118	Caustic Soda	55 lb	29.65	3320.80	
195	Flosal	50 lb	16.44	3205.80	
38	Drispac	50 lb	131.06	4193.98	
59	Lime	25 lb	3.00	177.00	
8	Bicarb	110 lb	13.22	105.76	
24	Ca. Chloride	110 lb	8.36	800.64	
30	Barite	100 lb	4.85	145.50	
80	Kwik Seal	40 lb	24.42	1953.60	
305	Mica	50 lb	12.99	3961.95	
5	LD-7	5 G.	96.10	480.50	
108	Unical	50 lb	14.37	1551.96	
57	CMC	50 lb	56.08	3196.56	
70	Milplug	50 lb	13.93	975.10	
20	Ligcon	50 lb	14.21	284.20	
2	Pipe Free	55 G.	569.73	1139.46	
* Difference in total cost reflects addition of daily eng. service charges in with					
materials on first part of the well. This practice was discontinued before					
the end of the well					

TOTAL COST FOR WELL \$ 60166.60

DEPTH ATT.D. 1371 FT. AVERAGE COST per FOOT for WELL \$ _____

Plugged and abandoned AVERAGE COST per DAY \$ _____



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Drilling Fluids Division

DAILY DRILLING MUD ADDITIONS

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

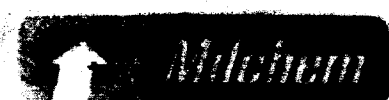
Contractor RASMUSSEN GLOBAL MAR OPERATOR NORSK HYDRO

LEGAL DESCRIPTION

Rig No. POLY GLOMAR Well Name And No. 30/7-1 Field FRIGG COUNTY NORTH SEA STATE NORWAY

Milchem Well No. _____ Milchem Warehouse BERGEN Spud Date 3 JULY 75 No. Drilling Days To T.D. _____ DATE T.D. REACHED _____ TOTAL DEPTH _____ TOTAL COST \$ _____

DATE (MM/YY)	DEPTH (ft)	SALT WATER		GEL		MIL-BEN		CALSTR		FLUSAL		DEISFAC		Lime		BICARB.		CA. CHLOR.		BRINK		KWIK SEAL		MICA		LD-7												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	Unit	Cost				
7-3		340	150	20	25																																6936.20	6936.20	
7-4																																					0	6936.20	
7-5		12																																			290.38	7226.58	
7-6		84	95	18	35																																3971.52	11,198.10	
7-7		66	100	13	30				12																												2609.43	13,807.53	
7-8																																					0	13,807.53	
7-9																																					0	13,807.53	
7-10			1																																	752	13,815.05		
7-11																																					72.95	13,888.00	
7-12																																					72.95	13,960.95	
7-13		19																																			268.47	14,229.42	
7-14																																					0	14,229.42	
7-15																																					0	14,229.42	
7-16																																					0	14,229.42	
7-17		71	180		54																																3244.50	17473.92	
7-18		38	68	20	8																																	6750.47	24224.39
7-19		210																																				6800.55	31123.94
7-20		104		10																																		3664.31	34788.25



Drilling Fluids Division

DRILLING DATA

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

Contractor RASPBUSSEN GLOBAL MAR. OPERATOR NURSK HYDEO

LEGAL DESCRIPTION

Milchem Well No.

Rig No. POLYGLIMAR

Well Name And No. 30/2-1

Field

COUNTY NORTH SEA STATE NORWAY

Spud Date

No. Drilling Days To T.D.

Date T.D. Reached

TOTAL DEPTH

Pump And Equipment Information

COAT. FANSCO F-1600

DATE (1975)	DEPTH (ft)	BIT NO.	BIT TYPE	JETS (In/32)	DEPTH BIT (ft)		BIT Footage (ft)	Rotating Hours	Cumulative Rotating Hours	Dull Condition			Rotary RPM	Weight on Bit (2,000 lb)	P-Rate Average (ppm)	Pump Pressure (psi)	Pump Rate (gpm)	GPM	Nozzle Velocity (ft/min)	Annular Velocity (ft/min)		MUD			REMARKS	
					IN	OUT				T	R	G								D.P.	D.C.	Weight (ppm)	P.V. (ppm)	Yield Point (lb/100ft ²)		
1 7/1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	CONNECT MUD LINE TO NORMAL FULL GUIDE BASE w/BARGE RIG UP PREPARE TO SPUD.
2 7/2	0																									MOVE GUIDE BASE OVER SLATS MAKE UP BHA - MIX FDD BBL SPUD MUD.
3 7/3	0																									RIG UP. LOWER GUIDE BASE MIX 200 BBL SPUD MUD.
4 7/4	60m	1	-	0	UT	0	601	601	6	6					30	800	200	1250		49	53	8.5				DRUG TO 197m. FLUSH HOLE w/MIX SURVEY.
5 7/5	175m	1	-	0	UT	0	533	533	2	INC					55	800	240	1250		25		8.5				MOVE BARGE 50' FROM OLD NAME LOWER BASE PLATE: STAB 36" H/O WTC PLATE
6 7/6																										
7 7/7																										
8 7/8																										
9 7/9																										
10 7/10	233	2														2000	75									DRUG 17 1/2" HOSE
11 7/11	322	2														800	75									Reaming 26" HOSE
12 7/12	324	2														800	75									Removed 26" HOSE
13 7/13	345																									Cement 20" CSG.
14 7/14	342																									RUN IN
15 7/15	340																									RUN STACK

DRILLING DATA

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

Contractor Rasmussen Global Marine OPERATOR Noeck Hydro

LEGAL DESCRIPTION _____

Milchem Well No. _____

Rig No. PL460MAR Well Name And No. 30/7-1

Field _____

COUNTY North Sea STATE Norway

Spud Date 3 July 75 No. Drilling Days To T.D. _____

Date T.D. Reached _____

TOTAL DEPTH _____

Pump And Equipment Information C-EMSCO F-1600

DATE (19)	DEPTH (ft)	BIT NO.	BIT TYPE	JETS (In/32)	DEPTH BIT (ft)		Bit Footage (ft)	Rotating Hours	Cumulative Rotating Hours	Dull Condition			Rotary RPM	Weight on Bit (1,000 lb)	P-Rate Average (lbm)	Pump Pressure (psi)	Pump Rate (bpm)	GPM	Nozzle Velocity (fpm)	Annular Velocity (fpm)		MUD			REMARKS
					IN	OUT				T	B	G								D.P.	D.C.	Weight (ppg)	P.V. (cp)	Yield Point (lb/100R)	
24 7/28	991	4	RR 18--													450	47		325		85	20	10	FISHING	
25 7/29	1371	4	RR 18--													450	47		"		"	25	15	FISHING	
26 7/30	1371	4	RR 18--													450	47		"		86	25	20	FISHING	
27 7/31	"	"	"																"					FISHING	
28 8/1	"	"	"																"					FISHING	
29 8/2	"	"	"																"					FISHING	
30 8/3	"	"	"																"					PEAD @ 1371'	

DRILLING MUD RECAP

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

Contractor Rasmussen Global Marine OPERATOR Norsk Hydro

LEGAL DESCRIPTION _____

Rig No. Polyglomar Driller Well Name And No. 30/7-1A Field Frigg COUNTY North Sea STATE Norway

Milchem Well No. _____ Milchem Warehouse Bergen

Spud Date 3/7/75 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)		
1116	20	1	26	SEAWATER-GEL		DEGASSER-WILCO		Pump Specifications <u>CONT. Emsco - F-1600 TRIPLEX</u>	
		2	17 1/2			DESANDER-DEMCO		D.P. and D.C. _____	
						DESILTER-DEMCO		Other _____	
						SHAKER-HUTCH-HAYS			

DATE (1975)	TIME	DEPTH (ft)	WT (ppg)	FUNNEL VISCOSITY (sec/qt)		PLASTIC VISCOSITY		YIELD POINT (lb/100ft ²)	GELS (lb/100ft ²)	pH	FILTRATE (ml/30 min)			Coke (32nd in)	Alkalinity		Chloride (ppm)	Calcium (ppm)	Sand (% by Vol.)	Solids (% by Vol.)	Oil (% by Vol.)	Water (% by Vol.)	Methy. Blue (ppb)	Circ. Volume (bbl)	REMARKS	
				API	OF	cp @	OF				API	HT-HP	OF		P _m	P _f /M _f										
13/7	1200	345	8.7	58						7.5	NC						12,000	280	TR	1	0	99		570	Cementing 20" CSS	
14/7	1200	340	8.7	60						7.5	NC						12,000	280	TR	1	0	99		570	RURRT	
15/7	0430	340	8.8	62						7.5	NC						12,000	280	TR	1	0	99		570	RUN STACK-TEST SAND	
16/7	0500	434	9.1	42						7.5	NC						12,500	260	6	8	0	92		1106	POOH- PICK UP KELLY-MARK UP BHA-RIH TAG CNT - DRILL CONT'D W/ S. WATER TO NEW HELL- SWITCH TO MUD	
17/7	0430	679	9.1	23						9.0	NC						15,000	480	3.5	8	0	92		1104	POOH FR 343-750M - DRILL W/ MUD TO 405 SURVEY- CIRC 1 AND WIDE- SUNDRY DE W/CK - DRILL TO 555-0100 - 3000 PSI - DRILL TO ROTARY - 4000 PSI	
17/7	0430	884	9.0	50						10.0	NC						13,000	480	6	7	0	92	24		10-000	TO NEW HELL- SWITCH TO MUD TO NEW HELL- SWITCH TO MUD TO NEW HELL- SWITCH TO MUD
17/7	0430	943	8.9	44						10.0	NC						13,000	4	4.5	11	0	89	22		10-000	TO NEW HELL- SWITCH TO MUD TO NEW HELL- SWITCH TO MUD TO NEW HELL- SWITCH TO MUD

DRILLING MUD RECAP

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

Contractor RASMUSSEN GLOBAL MARINE OPERATOR NORSIK HYDRO LEGAL DESCRIPTION _____

Rig No. POLY 510 AR Well Name And No. 3017-1 Field FRIEGG COUNTY OFFSHORE STATE NORWAY

Milchem Well No. _____ Warehouse Bergen Spud Date 3 July 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 _____ D.P. and D.C. _____ Other _____									

DATE (1975)	TIME	DEPTH (ft)	WT (ppg)	FUNNEL VISCOSITY (sec/qt)		PLASTIC VISCOSITY		YIELD POINT (lb/100ft ²)	GELS (lb/100ft ²)	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	°F	cp @	°F				API	HT-HP	°F										
20-7	0330	947	8.9	38	-	-	-	10	32	-	2	.8	.4	11500	460	4	9	0	91	-	-	R14 TO 937-MIX LCM - RESUME CIRC + COND - PUMP - LOST 500 BBL DOWN - PULL RISER - REPAIR LEAK RUN RISER - JUMP DIVERS TO 0 TRAPLINE WIRELINE HERE - NO GO-POW RISER - MIX MUD - MIX 300 BBL 10 PPM LCM - MIX IN ACTIVE	
21-7	2400	949 (718)	9.4	65				8.5	38		3			17,000	460	1.5	3	0	97		1409	Reaming + dredg. Bridges	
22-7	1500	991	9.0	55				8.0	42		3			18,500	440	.75	1	0	99		1487	Reaming - stuck pipe	
23-7	1400	991	9.0	43				7.5	54		3			16,500	380	.5	1	0	99		1487	Fishing	
24-7																						Cleaning & Repairing	
25-7																						" "	
26-7	1900	991	8.3	45	18	12	1-2	10.5	5.8		1			19,000	180	1.2	2	6	92		700	Wash over stuck pipe	
27-7	0900	991	8.6	36	15	9	1-1	10.5	6.0		1			19,000	210	.25	2	4	94		750	Wash over stuck pipe	
28-7	2100	1411	8.6	52	35	10	3/8	10.0	6.2		1			12,000	180	1.0	4	4	91		650	Fishing for tools	
29-7	0500	1371	8.5	54	20	17	3/12	10.0	6.0		1			15,000	180	.50	3	4	92.50		750	FISHING	
30-7																						FISHING	
31-7																						" "	
12-8-75																						" "	
3-8-75																						P&A @ 1371	