



BAROID DIVISION  
NATIONAL LEAD COMPANY

DRILLING MUD RECORD

COMPANY Phillips Pet. Co.

STATE Norway

CASING PROGRAM: 30" @ 450'  
20" inch at 1500 ft.

WELL 7-11-1K

COUNTY 7-110

13 5/8 inch at 6512 ft.

DATE 1 July 1968

CONTRACTOR ODECO

LOCATION North Sea

9 5/8 inch at 10248 ft

STOCKPOINT SAvanger

BAROID ENGINEER Devlin & Stelzer

SEC \_\_\_\_\_ TWP \_\_\_\_\_ RNG \_\_\_\_\_

TOTAL DEPTH 13034 ft.

DATE	DEPTH feet	WEIGHT lb/gal	VISCOSITY Sec	FILTRATION		SAND %	SALT		pH	VISCOSITY			FILTRATE ANALYSIS				RETORT ANALYSIS			REMARKS AND TREATMENT			
				cc	Cake 32nd		NaCl ppm	Cl ppm		cp	Pv	Yp	In	10min	Cl ppm	Ca ppm	SO <sub>4</sub> ppm	Alk Pf	Oil %		Water %	Solids %	
26 Feb	461	8.6	150																			- Drilling 36" hole	
27 Feb	533	8.8	172																				- Drilling 26" hole.
28 Feb	1430	8.8	152																				- Drilling 26" hole. Spitting slugs.
29 Feb	1510	8.8	164																				- Spotted 1100 bbls. for casing.
5 Mar	1950	8.8	40	36.0	4	.75			7.2	6	20	8	12	21000	400			N.I	2	92	6	- Drilling	
14 Mar	4032	8.9	40	14.4	3	.25			7.0	12	9	6	12	21500	410			"	1	93	6	- W.O.W.; build volume	
20 Mar	4032	9.1	42	14.8	3	.50			7.0	10	15	8	15	22000	420			"	4	89	7	- Mud sourced. Wash & ream	
" "		9.6	52	21.0	4	.75			7.0	12	10	14	20	21000	450			"	2				1500-4000; 14 hours
" "	4800	10.0	43	17.0	3	.75			7.0	11	15	10	14	22000	450			"	3	85	12		- Drilling
21 Mar	5450	9.4	41	16.2	3	.75			7.3	15	15	7	8	21000	450			"	7	84	9		- Drilling; Work on pumps
" "	5450	9.5	75	12.0	3	.75			7.0	20	35	18	25	22000	440			"	4	85	11		- Trip for bumper sub.
22 Mar	5450	9.5	58	10.4	3	.75			7.0	13	17	7	8	21000	440			"	3	87	10		- Reaming tight hole
23 Mar	6400	9.6	100	4.6	2	.75			7.0	22	36	9	30	22000	320			"	4	85	11		- Drilling
24 Mar	6512	9.7	75	3.9	2	.75			7.0	20	26	7	20	22000	360			"	4	86	10		- Reaming tight hole
25 Mar	6512	9.7	62	4.6	2	1.0			7.0	16	22	9	16	22000	360			"	4	86	10		- Increasing density to log.
26 Mar	6512	11.2	65	9.6	2	1.0			7.0	14	20	12	21	22000	340			"	3	81	16		- Logging & varying density
28 Mar	6512	11.7	65	10.4	2	1.0			7.0	23	24	14	25	22000	320			"	3	80	17		- Increasing density, running csg.
7 April	6512	11.6	64	16.0	3	1.0			7.5	25	32	12	28	22000	640			"	2	81	17		- Drilling out of 13 3/8 casing
9 April	7400	11.6	65	16.4	3	.75			7.0	30	30	20	31	21000	660			"	2	81	17		- Drilling & weighting up difficult
10 April	7720	11.8	75	10.0	3	1.0			7.5	23	29	13	22	21000	560			"	1	83	16		- controlling viscosity
11 April	8200	12.5	107	11.6	3	1.0			7.5	35	40	20	27	21000	520			"	1	81	18		- Drilling
12 April	9300	12.5	96	7.6	2	1.0			7.5	28	37	24	31	21000	380			"	2	80	18		- Drilling
13 April	9500	12.8	55	8.4	2	1.0			7.5	20	17	15	27	21000	480			"	2	81	19		- Drilling
14 April	9600	13.0	55	9.7	2	1.0			7.5	25	30	20	27	21000	480			"	2	81	19		- Coring
15 April	9660	13.0	53	9.6	2	1.25			7.5	20	26	19	27	21000	400			"	2	78	20		- Coring
16 April	9688	13.0	52	9.0	2	1.25			7.5	23	27	18	26	21000	400			"	2	78	20		- Reaming
17 April	9700	13.0	57	10.2	3	1.25			7.0	25	27	22	29	22000	420			"	2	77	21		- Coring
18 April	9840	13.1	60	7.0	2	1.25			7.5	25	25	18	26	22000	420			"	2	77	21		- Drilling. M.E. blue & 25 pph.
19 April	10000	12.9	68	6.0	2	2.0			7.5	25	35	23	32	22000	400			"	2	77	21		- Bentonite
20 April	10170	13.0	69	6.0	2	2.0			7.5	25	25	25	35	22000	420			"	2	77	21		- Drilling
21 April	10230	13.1	66	6.0	2	2.0			7.3	25	35	14	25	22000	440			"	2	77	21		- Drilling
22 April	10300	13.0	61	6.1	2	2.0			7.2	24	31	15	22	22000	420			"	2	77	21		- Logging & running 9 5/8 casing



# BAROID DIVISION NATIONAL LEAD COMPANY

## DRILLING MUD RECORD

COMPANY \_\_\_\_\_ STATE \_\_\_\_\_ CASING PROGRAM: \_\_\_\_\_ inch at \_\_\_\_\_ ft.  
 WELL \_\_\_\_\_ COUNTY \_\_\_\_\_ inch at \_\_\_\_\_ ft.  
 DATE \_\_\_\_\_ CONTRACTOR \_\_\_\_\_ LOCATION \_\_\_\_\_ inch at \_\_\_\_\_ ft.  
 STOCKPOINT \_\_\_\_\_ BAROID ENGINEER \_\_\_\_\_ SEC \_\_\_\_\_ TWP \_\_\_\_\_ RNG \_\_\_\_\_ TOTAL DEPTH \_\_\_\_\_ ft.

DATE	DEPTH	WEIGHT	VISCOSITY	FILTRATION		SAND	SALT		pH	VISCOSITY			GELS				FILTRATE ANALYSIS				RETORT ANALYSIS			REMARKS AND TREATMENT
				cc	Cake 32nd		%	NaCl ppm		Cl ppm	cp	Pv	Yp	in	10min	Cl ppm	Ca ppm	SO <sub>4</sub> ppm	Alk Pf	Oil %	Water %	Solids %		
28 April	10248	12.0	40	11.2	3	1.25			7.5	18	9	3	9	22000	520		Nil	2	82	16	Drilling out of 9 5/8 casing			
29 April	10420	12.1	40	7.2	2	.75			7.5	21	5	3	8	22000	380		"	4	80	16	Drilling			
30 April	10578	12.1	39	6.4	2	.75			7.5	22	4	3	6	22000	420		"	4	80	16	Drilling			
1 May	10795	12.1	38	6.2	2	.75			7.0	20	5	3	9	22000	400		"	4	80	16	Drilling			
2 May	10910	12.0	45	9.0	2	.50			7.0	19	16	7	32	57000	380		"	3	81	16	Drilling + salting up.			
3 May	11057	12.2	44	11.8	3	.5			7.0	16	14	8	27	89000	380		"	2	83	15	Drilling + salting up.			
4 May	11193	12.1	43	6.8	2	.5			7.2	21	9	1	4	91000	400		"	2	84	14	Drilling + salting up.			
5 May	11290	12.0	46	7.4	2	.4			7.2	22	10	1	6	161000	410		"	7	80	13	Drilling + salting up.			
		12.1	47	11.2	3	.4			7.1	23	11	2	6	188000	380		"				Adding Dispac & CMC			
6 May	11400	12.1	40	6.2	2	.4			7.1	20	7	0	1	183000	390		"	7	81	12	Drilling			
7 May	11460	11.9	39	9.0	2	.5			7.0	19	6	0	1	178000	400		"	6	82	12	Drilling			
8 May	11566	12.0	45	10.0	2	.5			7.0	24	12	1	6	185000	380		"	6	81	13	Drilling			
9 May	11615	11.9	38	10.8	2	.35			7.1	18	5	0	1	174000	380		"	7	81	12	Drilling			
10 May	11724	12.1	41	7.9	2	.5			7.1	22	6	0	1	190000	380		"	7	81	12	Drilling			
11 May	11800	12.0	38	8.8	2	.5			7.0	18	4	0	0	181000	390		"	8	82	10	Drilling			
12 May	11900	12.1	39	7.8	2	.4			7.0	18	5	0	0	174000	390		"	8	81	11	Drilling			
13 May	11940	12.1	44	8.0	2	.5			7.0	19	6	0	1	184000	390		"	8	81	11	Drilling			
14 May	11980	12.1	40	9.4	2	.4			7.0	17	4	0	0	188000	380		"	8	82	10	Drilling			
15 May	12050	12.0	40	7.5	2	.5			7.0	18	5	0	0	189000	390		"	7	83	10	Drilling, lost 100 bbls.			
16 May	12190	12.1	41	10.4	2	.35			7.0	19	5	0	0	170000	410		"	6	83	11	Drilling, lost 100 bbls.			
17 May	12250	12.0	43	8.1	2	.5			7.2	20	5	0	0	175000	410		"	6	84	10	Drilling			
18 May	12500	12.1	43	6.3	2	.5			7.0	20	6	1	2	177000	560		"	7	79	14	Drilling + weighting up.			
19 May	12940	13.1	44	6.8	2	.5			7.0	26	10	3	5	191000	380		"	7	77	16	Logging at 13025'			
21 May	13034	13.0	46	5.8	2	.25			7.0	20	8	2	6	190000	380		"	6	78	16	Collaring.			
				Testing; mud viscer + flex joint leaking; losing mud while testing.																				



PERFORATING AND SQUEEZE RECORD

Lease \_\_\_\_\_ Cod \_\_\_\_\_

Well 7/11-1X  
 AFE NW-5503

Date	Size of Casting	Perforating		No. of Feet Perforated	No. of Holes	Size of Holes	Gun Diameter	Gun Type	Perforating Company
		To	From						
May 31, 68	9-5/8"	10175	10197	22	88	.47"	4"	Shape Charge Carrier Gun	Schlumberger
	Tested above perforation for production June 3, 68. Set Baker model "K" retainer 10,150'. Squeezed 50 sacks cement.								
June 4, 68	9-5/8"	9770	9800	30	120	.47"	4"	Shape Charge Carrier Gun	Schlumberger
	Production tested above perforation June 8, 68. Squeezed with 50 sacks Class B cement with .5% LWL.								
June 8, 68	9-5/8"	9661	9676	5	20	.47"	4"	Shape Charge Carrier Gun	Schlumberger
		9643.5	9652	8.5	34	.47"	4"	"	"
		9632.5	9640	7.5	30	.47"	4"	"	"
		9616.5	9624	7.5	30	.47"	4"	"	"
		9574	9589	5	20	.47"	4"	"	"
Production tested		9535	9559	24	96	.47"	4"	"	"
June 11, 68	Laid 49 sacks cement plug 9600' to 9450'. Set Baker Model K retainer at 9480'.								
June 11, 68	9-5/8"	9440	9455	5	20	.47"	4"	Shape Charge Carrier Gun	Schlumberger
	Production test June 13, 68. Laid 50 sacks cement plug across above perforations. Set Baker modek K retainer at 9289'.								

DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. 7/11 SHEET NO. 1

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
February 1968		
26	357	The "Ocean Viking" reached Well 7/11-1X location at 1500 hrs Feb. 25, 1968. Ran anchors, sank barge and tightening anchor chains while picking up drill collars. Spudded at 0500 Feb. 26, 1968. Drilled one hour.
27	461	Drilled to 461' and spotted 300 bbls gel mud. Made wiper trip and spotted 200 bbls gel mud. Came out of hole. Ran casing and latched on to permanent guide base on cellar deck. Made trip in hole with casing and guide base. Circulated 5' fill to T.D. Cemented with 750' sxs Class A cement plus 3% calcium chloride. Displaced with 23 bbls sea water. Average slurry weight 14.5 to 15 lbs/gal. 8½ hrs waited on cement. Released snap lock and pulled landing string. Went in hole and stabbed into 30". (30" casing 11' above seabed.) MW: 8.7, Vis: 152.
28	767	15½ hrs waiting on cement. Drilled cement from 446 to 461. Drilled from 461' to 767'. Made dive to check sea floor around 30" casing. Had a washout area around casing approximately 30' across and 3' deep. Fill around casing was sand and silt. MW: 8.5, Vis: 28.
29	1520	15 hrs drilling. Spotted 300 bbls mud in hole. Circulated with sea water. Spotted 900 bbls mud in hole. Pulled out of hole to casing shoe at 461'. Waiting at shoe. Ran in hole, no fill, hole in good shape. Spotted 300 bbls mud. Pulled out of hole to run 20" casing. MW: 85, Vis: 28.
March		
1	1520	Ran 28 joints of 20" 133 lb per ft J-55 ST&C casing complete with Vetco connectors. Set casing at 1498.48' RKB. 20" BOP stack was tested on cellar deck while 20" casing was being run. Circu-

## DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 2

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
		lated with sea water. Rigged up cementing head. Dropped 36" pipe wrench into 20" casing while working on cementing head. Cemented with 1700 sxs Dalen Portland cement plus 8% gel plus 3% calcium chloride mixed with fresh water to a slurry density of 13.1 to 13.4 ppg. Followed with 200 sxs Dalen Portland cement mixed with sea water to a slurry density of 15.8 to 16.1 ppg. Displaced plug with 500 bbls sea water. Released pressure and float held. A 6" x 6" x 34" wooden extension was run below top plug and no bottom plug used. Float shoe at 1498', Baffle collar at 1461', centralizers at 1492', 1450' and 1378' RKB. Ran Halliburton wire line and found plug at 1457' RKB. Rotated free from 20" wellhead and laid down 20" landing string. Stabbed 5" drill-pipe-BOP-guide-stinger into 20" wellhead using 2-arm guide unit.
2	1520	Rigged up to run stack and change laurent seals. Repaired 20" autolock connector. Made dive to replace No. 1 and No. 4 guide lines. Checked stack, bolts and connections and hydraulic lines. Lowered stack and installed kill and choke lines. 4½ hrs waiting on weather.
3	1520	Repaired UTV. Ran diving bell to observe stack. Ran stack and retrieved diving bell. Pulled out of hole and laid down autolock. Tested laurent seal and hydril to 1500 psi - OK. Casing would not hold pressure. Pulled out of hole and tested plug and stinger. Ran riser.
4	1520	"J" into slip joint and latched riser autolock onto stack. Hooked up weight buckets to marine riser. Suspended slip joint and filled weight buckets with water. Connected choke and kill line, flow line and fill-up line. Went in hole to 20" plug. (Found plug at 1445' RKB) Closed Hydril and attempted to test casing. Casing would not hold pressure. Came out of hole. Went in hole open ended to 1400' RKB. Spotted



DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 3

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
5	1950	<p>500 sxs Dalen Common Cement plus 8% gel plus 3% calcium chloride. Came out of hole to sea floor. Circulated. Closed Hydril and squeezed 400 sxs Dalen 8% gel - 3% calcium chloride cement slurry out of casing. Initial pumping pressure 400 psi at a pumping rate of 4 bpm. Final pumping pressure 775 psi at a pumping rate of 3½ bpm. Left 100 sxs (69' of fill) inside of casing. Held squeeze pressure 4 hrs. Released pressure and had an estimated flow-back of one gallon. Waited on cement 11 hrs.</p>
		<p>Waited on weather 7 hrs and picked up BHA. Tested casing to 500 psi. Test OK. Drilled plug at 1459, Baffle collar at 1461, shoe at 1498'. Was not able to detect 36" pipe wrench. Cement was medium firm mixed with hard cement from 1475 to 1524'. Open hole below shoe filled with cement. Drilled 2 hrs. Lost 450 bbls 8.8 ppg mud while drilling to 1650'. Continued drilling to 1708'. Circulated. Came out of hole measuring with steel line. Changed bottom hole assembly, picked up stabilizers, changed B-S and went in hole. Reamed from 1617' to 1708'. MW: 8.8, Vis: 40, Pv: 6, Yp: 2.</p>
6	4037	<p>Drilled 13 hrs. Circulated and ran TOTCO. Came out of hole. Secured for weather. NOTE: At 0130 hrs the connector on the bottom of the slip joint pulled out of the top marine riser connector. This left the riser supported by the choke and kill line clamps inside of the choke and kill line brackets that were attached to the slip joint. There was no way to get hold of the riser. At 0245 hrs the arms on the brackets broke and the riser fell over taking the choke and kill lines with it. When the riser parted the weight buckets pulled the slip joint into the rotary table and they dropped to the bottom of their tracks exposing them to</p>

## DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 4

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
		heavy seas. While pulling the weight buckets back to the cellar deck, the wire line clamp on one weight bucket slipped allowing the weight bucket to fall into the sea. MW: 9.1, Vis: 40, Pv: 10, Yp: 16.
7	4037	24 hrs - Waiting on weather. Worked on guide lines. No. 2 and No. 3 guide lines intact.
8	4037	Dive No. 1 replaced one TV guide cable and observed that riser was laying away from the rig between No. 1 and No. 4 guide posts. Riser still connected to flex joint. No damage to the stack or guide structure was observed. Dive No. 2 tied slings to riser at first choke and kill line brackets. Backed out from locking segments of riser lock connection on top of flex joint. Had trouble lowering bell to bottom due to autolock hydraulic lines crossing path of bell. On reaching bottom the cutting torch would not work, therefore choke and kill lines could not be cut. Dive No. 3 - cut choke and kill lines and also cut lock ring on flex joint riser lock connector.
9	4037	Dive No. 1 - Backed out 2 remaining locking segments on flex joint. Pulled riser. Backed barge 50' off location. Sling broke. Recovered sling and found it to be faulty. Dive No. 2 - Tied new slings to mud riser and finished releasing riser connection. Retrieved 2 damaged joints of riser. As riser was picked up off bottom the pin and box on 2nd joint separated dropping 2 - 45' joints of riser and 1 - 37' pup. Straightened Payne Hydraulic and Guide lines. Cleaned cellar deck and floor of recovered equipment.



## DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 5 \_\_\_\_\_

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
10	4037	Dive No. 1 - Replaced hose on flex joint autolock and tied sling on flex joint. Attempted to pull flex joint, however, 1 1/8" sling broke. Recovered 1/2" Hydraulic hose. Rigged up to pull stack. Dive No. 2 - Attempted to stab drill pipe stinger into flex joint. No results. Replaced No. 2 TV and No. 1 guide cable. Observed autolock had been moved up 8" to 10" on male hub. Observed stack with UTV. Dive No. 3 - Placed 1-3/8" sling on flex joint and sling on choke and kill stingers. Recovered choke and kill stingers to cellar deck. Observed on UTV that sling had slipped down on male hub of Hydril. Dive No. 4 attempted to place sling on flex joint. Rigged new sling. Divers out of time. Not able to dive until 1000 hrs, March 10.
11	4037	Made dive No. 1. Shackled 1 3/8" wire line sling to top of flex joint. Ran UTV and pulled on flex joint while changing position of barge. (This was necessary because the flex joint was not straight and riserlock on top of Hydril would not disconnect.) Flex joint came free and was recovered. Flex joint was completely "sprung-out-of shape", with only the autolock on bottom of the flex joint being salvageable. Waited on weather 9 hrs. During this time finished picking up choke and kill line and serviced autolock.
12	4037	24 hrs - Waiting on weather. During this period removed autolock from flex joint, dismantled, cleaned and reassembled same. Rigged to test 13 5/8" stack. Cleaned and dressed choke and kill line seals.
13	4037	Dive No. 1 - Cut wire line from No. 4 spear and attempted to replace using wire line replacement sleeve. Removed 3 shackles from No.1 TV guide line. Diver had trouble with leaking mask and had to discontinue dive. Installed

DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 6

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
		<p>autolock to flex joint and rigged up to run riser. Dive No. 2 - Connected wire line replacement sleeve onto extension and reestablished guide line No. 4. Ran UTV. Ran Blue Pod, choke and kill line, and 3 joints 24" riser. Came out of hole with UTV. Dive No. 3 - to stab choke and kill line stingers. Stingers would not latch in autolock. Repaired 13 5/8" autolock while waiting on divers.</p>
14	4037	<p>Finished dive No. 1 to stab choke and kill line, but was unsuccessful. Pulled choke and kill line. Ran 24" marine riser with choke and kill lines. Dive No. 2 - Divers did not leave bell. Observed that 2-arm guide unit that had been installed on flex joint had not entered guide base straight and had stripped out Nos. 2 and 4 guide lines. The seas were moving the 24" riser so much the divers were afraid to leave the bell. Rigged and ran drill pipe through the 24" mud riser and into the 20" BOP stack. A 17½" stabilizer was run in the drill pipe string and positional above the BOP stack.</p>
15	4037	<p>21 hrs - Waiting on weather. During this period finished repairing 13 5/8" BOP choke and kill line autolocks. Ran UTV and checked mud riser. Pulled choke and kill lines, drill pipe stinger and 24" marine riser. No. 3 guide line sheared. Dive No. 1 - Replaced Nos. 3 and 4 guide lines. Retrieved No. 2 guide line.</p>
16	4037	<p>9 hrs - Waiting on weather. Ran mud riser and choke and kill lines. Ran UTV to inspect mud riser. Hung mud riser on Kranco beam. Ran stabilizer and stinger into BOP stack. Dive No. 1 - to connect Marine Conductor hose (opening side) 30' below surface, hose had become disconnected at connection. Hung mud riser on slings to elevators and</p>

DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 7

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
		and removed slings from Kranco beams. Installed 1 guide bracket, landed mud riser on to BOP stack and connected weight buckets. Pulled UTV.
17	4037	Installed "J" tool. Dive No. 1 stabbed and locked choke and kill lines. Next 15 hrs spent waiting on weather.
18	4037	24 hrs waiting on weather. Maximum wind during this time ; 75 mph and maximum sea height 65'. One anchor slipped and drug 80' before reseating. Rig went off location approx. 40' but was repositioned immediately. The mud riser was pulled and laid down, however, the choke and kill lines remained in place.
19	4037	24 hrs waiting on weather. During this time made observation dive to investigate condition of Yellow Pod. Found Pod still connected to receptacle. Ran UTV and observed that Blue Pod was OK.
20	4037	Ran 24" marine riser and tested BOP's to 2000 psi. OK. While nipping up flow lines, one Norwegian roustabout had both hands severely lacerated when they caught in sheeve of counter weight lines. Went in hole to 1432'. Displaced water in riser. Went in hole to casing shoe. Mw: 9.1, Vis: 41, Pv: 10, Yp: 15.
21	5149	Circulated. Washed and reamed from casing shoe to 4037'. Drilled 14 hrs. Mw: 9.4, Vis: 42, Pv: 15, Yp: 15.
22	5450	Drilled and came out of hole to shoe. Repaired pump switches. Went in hole. Washed and reamed bottom 225' of hole. Drilled. Unplugged flow line. Repaired valve on mud pump manifold. Drilled, (started loosing pump pressure). Circulated while checking surface mud lines for leaks. Came out of hole. Repaired drilling line guide. Went in hole. Mw: 9.5, Vis: 75, Pv: 20, Yp: 35.

DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 8 \_\_\_\_\_

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
23	6348	Washed and reamed bottom 200'. Circulated while working on No. 1 pump. (Had broken rod and manifold valve leaking.) Extended flow line and finished trip in hole. Drilled 15½ hrs. Mw: 9.6, Vis: 102, Pv: 22, Yp: 36.
24	6501	Drilled to 6501' and circulated. Came out of hole to 6201'. Pulled singles using kelly from 6201' back to 5500', due to tight hole. Finished out of hole, changed bumper sub and cleaned stabilizers. Went in hole. Picked up kelly and washed one joint at 4800'. Went in hole to 5500'. Mw: 9.7, Vis: 62, Pv: 16, Yp: 22.
25	6501	Washed and reamed from 5500' to 6501'. Circulated. Came out of hole with steel line. Ran Schlumberger IES log to 5065' and hit bridge. Logged out from 5065'. Mw: 9.7, Vis: 62, Pv: 16, Yp: 25.
26	6501	Went in hole. Washed and reamed from 5500' to 6501'. Circulated and conditioned mud. Chained out five stands and one single. Last single required 100,000 lbs over weight of string. Picked up kelly and circulated pipe free. Washed and reamed to bottom. Circulated while increasing mud weight. Mw: 11.2, vis: 65, Pv: 14, Yp: 20.
27	6501	Came out of hole 6501' to 6150'. Hole Ok. Pumped out from 6150' to 5630' then hole was free. Went in hole - no tight hole and no fill. Circulated and conditioned mud and hole. SLM out of hole; no hole trouble. Ran Sonic G/R hole bridged at 5427'. Ran G/R 5427' to 250' and Sonic from 5420' to 1483'. Ran in hole with MLL. (MLL spudded through bridge at 5427'. Mw: 11.2
28	6501	Finished MLL log from 6512' to 1483'. Ran Sonic G/R from 6503' to 4800' and IES log from 6512' to 4850'. Ran DM from 6500' to 1483'. (Deviation on bottom 2°.) Made up casing landing tool

DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 9 \_\_\_\_\_

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
		and 13 3/8" nipple in wellhead. Went in hole. Drill string started taking weight at 5800' to T.D. Did not circulate or rotate. Bit went to bottom with only drill string weight. Circulated and conditioned hole while raising mud weight. Mw: 11.7, Vis: 65, Pv: 22, Yp: 24.
29	6501	TOTCO and came out of hole slowly. Mw: 11.7, Vis: 65, Pv: 22, Yp: 24.
30	6501	Set 154 joints 13 3/8" 68 lb J-55 ST&C casing at 6444' RKB. Ran Halliburton type "S" bottom plug at 619' and type "S" top plug at 330'. Made up 13 3/8" wellhead and landed into 20" wellhead using drill pipe as a landing string. Circulated. Cemented with 2100 sxs Dalen Portland cement plus 8% gel mixed with sea water to a density of 12.8 - 13.1 ppg. Followed with 900 sxs Dalen Portland cement mixed with sea water to a density of 14.8 - 15.6 ppg. (20 bbls sea water pumped ahead of cement.) Displaced cement. Released and laid down landing string. Pulled and laid down 24" riser. Went in hole with stinger and stabbed into wellhead. Picked up autolock. Pulled 20" BOP stack.
31	6501	Set back 20" stack on test stump. Changed cable on No. 1 TV guide line air hoist. Dive No. 1 repaired guide line No. 1 and 2 TV lines. Went in hole with stinger and stabbed. Retrieved guide arms. Dive No. 2 - replaced No. 2 guide line. Picked up 13 5/8" saver sub. Went in hole. Stabbed and locked. Pulled autolock. Prepared to run 13 3/8" stack. Checked Payne pods and found a malfunction in the Yellow Pod. Repaired Pod.
April 1	6501	Worked on Yellow Pod 14 hrs. Removed 13 5/8" autolock from 13 5/8" BOP stack. Checked all equipment. Ran stack, choke and kill lines.

## DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 10 \_\_\_\_\_

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
2	6501	Dive No. 1 - retrieved saver sub hoses and took pictures of wellhead. Came out of hole with drill pipe stinger. Ran 16" marine riser. Stabbed mud riser. Pulled slip joint and added ten foot riser sub.
3	6501	Waited on weather. Landed riser onto 13 5/8" stack. Sudden vessel heave pulled "J"-tool from drilling nipple. Connected choke and kill line valves. Laid down "J"-tool, bumper sub and single joint of drill pipe. Pulled and laid down marine riser. Waited on weather 14 hrs.
4	6501	Ran 16" marine riser. Ran stinger through riser into stack. Disconnected riser from Kranco beams. Landed and locked riser to stack. Hung weight cans. Suspended slip joint, installed flow line and choke and kill line valves. Laid down drill pipe stinger guide. Retrieved bore protector. Ran in hole with test plug to test. Rigged down cellar deck and pulled riser. Waited on weather.
5	6501	24 hrs - waiting on weather.
6	6501	10 hrs - waiting on weather. Rigged and ran UTV. Rigged up and ran 16" riser. Made up and ran drill pipe stinger guide through riser and into BOP stack. Picked up riser and slings and landed snap lock. Pulled stinger out of hole and made up test plug.
7	6501	Pulled out of hole with test plug and replaced "O" rings and returned in hole with test plug - test plug leaked. Pulled plug and returned in hole with 12 1/4" stab on bottom of drill pipe. Reciprocated stabilizer through wellhead, while circulating in order to clean wellhead. Ran test plug. Completed BOP test to 5000 lbs psi. Tested blind rams and casing to 1500 psi. Ran bore

## DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 11

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
		protector. Returned in hole with bit, junk basket, drill collars and bumper sub. Drilled on junk and hard cement from 6244' to shoe. Made up bottom hole assembly. Returned in hole installing casing protector rubbers on top 2000 of drill pipe.
8	6529	Returned in hole to 200' above shoe. Circulated while waiting on weather. 10 hrs - waited on weather and suspended drill pipe. Retrieved drill string, pulled 300,000 and rotated with tongs to work suspension plug through Hydril. Laid down retrieving string and returned in hole. Drilled hard cement from 200' to shoe. Started drilling formation, lost 2400 psi after making connection. Tested surface lines with 3000 psi. Pulled out of hole and found jet nozzle out of bit. Mw: 11.6, Vis: 64, Pv: 25, Yp: 32.
9	7425	Went in hole. Rotated from casing shoe to 6529'. No fill or tight hole detected. 16½ hrs - drilling. Mv: 11.6, Vis: 68, Pv: 30, Yp: 30.
10	7720	Drilled. Circulated. Pulled out of hole. Tight hole from 7601' to 6600'. Did not have to pump out but did have drag between 50,000 lbs to 100,000 lbs. Hole did not swab. Changed bit and BHA. Went in hole. Washed and reamed from 7268' to 7601'. Drilled while raising mud weight. Mw: 11.8 - 12.0, Vis: 95, Pv: 23, Yp: 29.
11	8824	Drilled. Circulated before trip. Hole condition stable. Made deviation survey. Came out of hole slowly from 7144' to 6824' where hole was a little tight. (70,000 lb drag over normal.) Mw: 12.5, Vis: 107, Pv: 35, Yp: 40.
12	9352	Changed bit, serviced stabilizers, float, and picked up Chicago Pneumatic Junk Basket. Closed and opened BOP's. Went in hole to casing shoe. Slipped and cut



## DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 12

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
		drilling line. Drilled and conditioned mud. MW: 12.6, Vis: 96, Pv: 28, Yp: 37.
13	9553	Drilled. Circulated and conditioned mud. Made survey. Came out of hole. Pulled slowly to shoe. Changed bit, recovered survey instrument, and cleaned junk basket. Went in hole. Drilled. MW: 12.8, Vis: 55, Pv: 20, Yp: 17.
14	9620	Drilled. Circulated up samples. Came out of hole slowly. Checked for fill-up, and SLM - OK. Picked up core barrel, jars and BHA. Went in hole. Circulated and dropped ball. Cored from 9589' to 9620'. Cored 31' at 7.7 min. per foot average. Had normal amount trip gas. MW: 13.0, Vis: 55, Pv: 25, Yp: 30.
15	9677	Core No. 1 - 9589' to 9522'. Chained out of hole. Retrieved 100% core and tested bumper sub. Went in hole. Circulated before coring. Core No. 2 from 9622' to 9677'. MW: 13.0, Vis: 53, Pv: 26, Yp: 26.
16	9688	Came out of hole with core barrel. Recovered 22' of core. Recovery 40%. Made up BHA. Went in hole. Reamed from 9589' to 9678'. Drilled 10'. Circulated samples. Cutting showed good percent of sand and good gas detector kick when cuttings were to surface indicating formation still gas and not water. Came out of hole. Hole took normal mud volume. MW: 13.0, Vis: 52, Pv: 23, Yp: 27.
17	9714	Pulled long bore protector, ran BOP's, test plug three times before getting a seat. Ran long bore protector three times before it seated and sheared properly. Went in hole with core barrel. Circulated. Had 17' of soft fill on bottom. Core No. 3 to 9734'. Pump pressure and penetration rate erratic. MW: 13.0, Vis: 57, Pv: 25, Yp: 27.

## DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 13

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
18	9841	Came out of hole. Removed core No. 3. Recovered 7½' tight sandstone with slight staining, bleeding gas and 5½' shale. Went in hole with bit. Reamed core hole. Drilled to 9841'. Circulated out drilling break. Mw: 13.1, Vis: 60, Pv: 25, Yp: 25.
19	10004	Drilled. Circulated up cuttings. Made survey. Made trip for new bit. Slip and cut drilling line. Reamed 80' of undergauged hole. Drilled. Mw: 12.9, Vis: 68, Pv: 25, Yp: 35.
20	10177	Circulated samples. Tripping for new bit. Drilled and circulated samples at 10110'. Drilled. Mw: 13.0, Vis: 69, Pv: 25, Yp: 25.
21	10232	Drilled to 10223'. Circulated. Chained out of hole and SLM. Corrected depth to 10232' from 10223'. Rigged up Schlumberger. Ran Sonic Gamma Log. Ran ML/MLL. Mw: 13.1, Vis: 63, Pv: 30, Yp: 35.
22	10316	Finished combination ML/MLL log. Ran FDC log. Rigged down Schlumberger. Went in hole. Drilled. Circulated at 10316'. Mw: 13.0, Vis: 61, Pv: 25, Yp: 31.
23	10316	Checked well - no flow. Pulled out of hole. Ran IES and Sidewall Porosity Neutron. Attempted to run LL-7 - tool failed. Ran dipmeter.
24	10316	Rigged down Schlumberger and returned in hole. Circulated. Pulled out of hole. Ran WLT No. 1 (10287'), No. 2 (10192'), No. 3 (9951'), No. 4 (9792'), and No. 5 (9618').
25	10316	Went in hole with bit. Circulated and conditioned mud. Came out of hole. Retrieved long bore protector.
26	10316	Ran 252 jts. 9 5/8" 43 lb N-80 Buttress

DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 14

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
		casing to a depth of 10248' RKB. Make-up torque for the casing was 7500 to 8500 ft-lbs. Nippled up casing hanger and landed casing. Pumped 20 bbls of BJ Mud Sweep followed by 50 bbls sea water followed by 1500 sxs Class "B" cement plus 16.1 lbs per sack sodium chloride mixed with fresh water to a slurry density of 16.1 ppg. Pumped down plug. Plug bumped at 1115 hrs. with 3050 psi pressure. Laid down landing string. Laid down subs. Picked up BHA and ran 9 5/8" pack-off. Ran bore protector. Ran in hole to 9407 and landed string in 9 5/8" head. Rigged down cellar deck and picked up mud riser. Pumped up barge and inspected whale truss and lower hull. (No damage.)
28	10316	Pumped down to drilling depth. Latched up riser. Nippled up flow line. Retrieved suspension plug. Tested BOP's 5000 psi - OK. Drilled plug, float collar (10200') and shoe (10238'). Cement was hard and firm. Washed to T.D. and circulated. Pulled out of hole. Mw: 12.0, Vis: 40, Pv: 18, Yp: 9.
29	10430	Drilled. Made trip for new bit. Drilled. Circulated drilling break at 10435' - no show. Continued drilling. Mw: 12.1, Vis: 40, Pv: 21, Yp: 5.
30	10578	Drilled. Made trip for new bit. Continued drilling. Mw: 12.1, Vis: 39, Pv: 22, Yp: 4.
May 1	10795	Came out of hole. Went in hole with new bit and installed 54 pipe rubbers. Drilled 15 hrs. Made trip for new bit. Mw: 12.1, Vis: 38, Pv: 20, Yp: 5.
2	10920	Ran in hole with new bit. Drilled. Came out of hole. Changed bits and went in hole. Mw: 12.0, Vis: 45, Pv: 19, Yp: 16.
3	11057	Drilled. Made survey. Made trip for new bit. Cut and slip drilling line.

DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 15

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
		Mw: 12.2, Vis: 44, Pv: 16, Yp: 14.
4	11193	Finished going in hole. Drilled. Came out of hole. Changed bit and bumper sub and went in hole. Continued drilling. Mw: 12.1, Vis: 43, Pv: 21, Yp: 9.
5	11290	Drilled. Made trip for bit change. Reamed 8' to bottom. Drilled. Circulated samples. Drilled. Mw: 12.1, Vis: 43, Pv: 21, Yp: 9.
6	11383	Drilled. Came out of hole. Changed rollers on reamer and went in hole. Reamed 5' to bottom and drilled ahead. Mw: 12.1, Vis: 40, Pv: 21, Yp: 7.
7	11468	Continued drilling. Surveyed. Made trip for new bit. Drilled. Made survey. Mw: 11.9, Vis: 39, Pv: 19, Yp: 6.
8	11566	Went in hole. Tested preventors - OK. Slipped and cut drill-line. Finished trip in hole. Drilled. Circulated samples. Mw: 12.0, Vis: 45, Pv: 25, Yp: 12.
9	11615	Made trip for new bit. Drilled. Made trip for new bit. Mw: 12.0, Vis: 42, Pv: 20, Yp: 6.
10	11717	Drilled. Made trip for new bit. Continued drilling. Mw: 12.0, Vis: 40, Pv: 18, Yp: 6.
11	11783	Drilled; made trip for new bit, and continued drilling. Mw: 12.0, Vis: 41, Pv: 22, Yp: 5.
12	11900	Drilled. Made trip for new bit. Continued drilling. Mw: 12.0, Vis: 41, Pv: 22, Yp: 5.

## DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 16

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
May		
13	11978	Drilled. Made trip for new bit and continued drilling. Mw: 12.1, Vis: 44, Pv: 20, Yp: 2.
14	12053	Drilled. Made trip for new bit. Cut and slip drilling line. Circulated and worked junk basket. Continued drilling. Mw: 12.0, Vis: 38, Pv: 17, Yp: 2.
15	12114	Drilled. Made trip for new bit. Tested BOP stack - OK. Went in hole with diamond bit. Circulated on bottom. Drilled. (Average rate 6' per hour.) Mw: 12.0, Vis: 40, Pv: 18, Yp: 5.
16	12119	Continued drilling. Made trip for new bit. Washed to T.D. Drilled. (12 ft/hr at start, later 6 ft/hr.) Mw: 12.1, Vis: 41, Pv: 19, Yp: 5.
17	12277	Continued drilling. Made trip for new bit and continued drilling. Came out of hole. Mw: 12.0, Vis: 42, Pv: 20, Yp: 5.
18	12511	Made trip for new bit. Circulated and worked junk basket on bottom. Drilled 11 hrs. Circulated samples at 12451'. Continued drilling. Mw: 12.1, Vis: 43, Pv: 20, Yp: 6.
19	12907	Drilled. Circulated samples. Made trip for new bit and slip drilling line. Washed 132' to bottom. No weight or torque required. Continued drilling. Mw: 13.0, Vis: 44, Pv: 26, Yp: 10.
20	13000	Drilled. Circulated. Made short trip. Circulated. Made survey. Measured out of hole. Ran FDC/GR Caliper. (Caliper failed.) Attempted to run ML/MLL but sondes failed. Started running Lateral log and Rucker line broke. Mw: 12.9, Vis: 46, Pv: 26, Yp: 10.

DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 17

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
May		
21	13000	Repaired Rucker line. Ran Lateral Log 7. Attempted to run BHC/Caliper. Tool failed. Attempted ML/MLL. Tool failed. Ran Sonic/Caliper/CBL.
22	13000	Ran Dipmeter. Picked up core barrel; tested BOP, went in hole. Washed from 12800' to 13000'. Core barrel plugged. Came out of hole into casing; unplugged core barrel. Went in hole to core.
23	13036	Cut core from 13000' to 13036'. Came out of hole. No recovery. (Ball and seat cut out.) Unsuccessful attempt to run velocity survey. Ran Gamma/Ray casing collar log. Took sidewall cores. Ran velocity survey.
24	13036	Ran velocity and temperature survey. Laid down 12 drill collars and went in hole with open ended drill pipe. Circulated. Laid cement plug from 10600' to 10300'. Laid down drill pipe. Came out of hole. Went in hole with bit to dress off top of cement to 10370'.
25	13036	No plug found; cement did not set up after 8 hours. Circulated out with fluid cement returns. Measured out of hole. Went in hole with open ended drill pipe. Circulated and conditioned mud. Laid cement plug from 10600' to 10270'. Came out of hole. Went in hole with bit. Waited on cement.
26	13036	No plug. Circulated and conditioned mud at 10500'. Made trip. Laid cement plug at 10500' to 10250'. Made trip for new bit. Cut drilling line. Finished going in hole.
27	13036	Drilled cement to 10370'. Went in hole with 3½" EUE 8rd N-80 tubing and set packer at 10214'.

INDIVIDUAL WELL COMPLETION RECORD

Lease \_\_\_\_\_ Cod \_\_\_\_\_ Well No. 7/11-1X AFE  NW 5503

LINE MEASUREMENTS OF WELL:

RKB to ocean floor - 346.80  
 RKB to 30" Head - 335.00  
 RKB to 20" Head - 333.00  
 RKB to 13-5/8 Head - 330.00

ELEVATIONS:

Ground \_\_\_\_\_ Ft.  
 Derrick Floor \_\_\_\_\_ Ft.  
 RKB \_\_\_\_\_ Ft.  
 Top Csg. Flg. \_\_\_\_\_ Ft.  
 Or Bench Mark \_\_\_\_\_ Ft.

COST DATA:

Est. Total Mud \_\_\_\_\_  
 TOTAL PAID DRILLING CONTRACTOR:  
 Footage \$ \_\_\_\_\_  
 Day Work \$ \_\_\_\_\_

Measurement Taken From RKB to water 90.00

CASING

CEMENT

Date	Size	Weight	Condition & Grade	Amount Run	Where Set	No. Sacks	Kind	Depth Of Plug	Top In Annulus	Amount Pulled	Date Pulled
Feb. 27, 68	30"	390 lb	J-55-1	103'	461'	750	Class A 3% calcium chloride		Surface	None	
March 1, 68	20"	133 lb	J-55-1	1163'	1498.48'	1700	Port-land 8% Gel 3% Calcium Chloride	1445'	Surface	None	
March 30, 68	13-3/8"	68 lb	J-55-1	6111'	6444'	2100	Port-land 8% Gel	6403'	Surface	None	
April 27, 68	9-5/8"	47 lb	N-80-1	9918'	10248'	1500	Class B	10207'			June 15, 1968 installed corrison cap

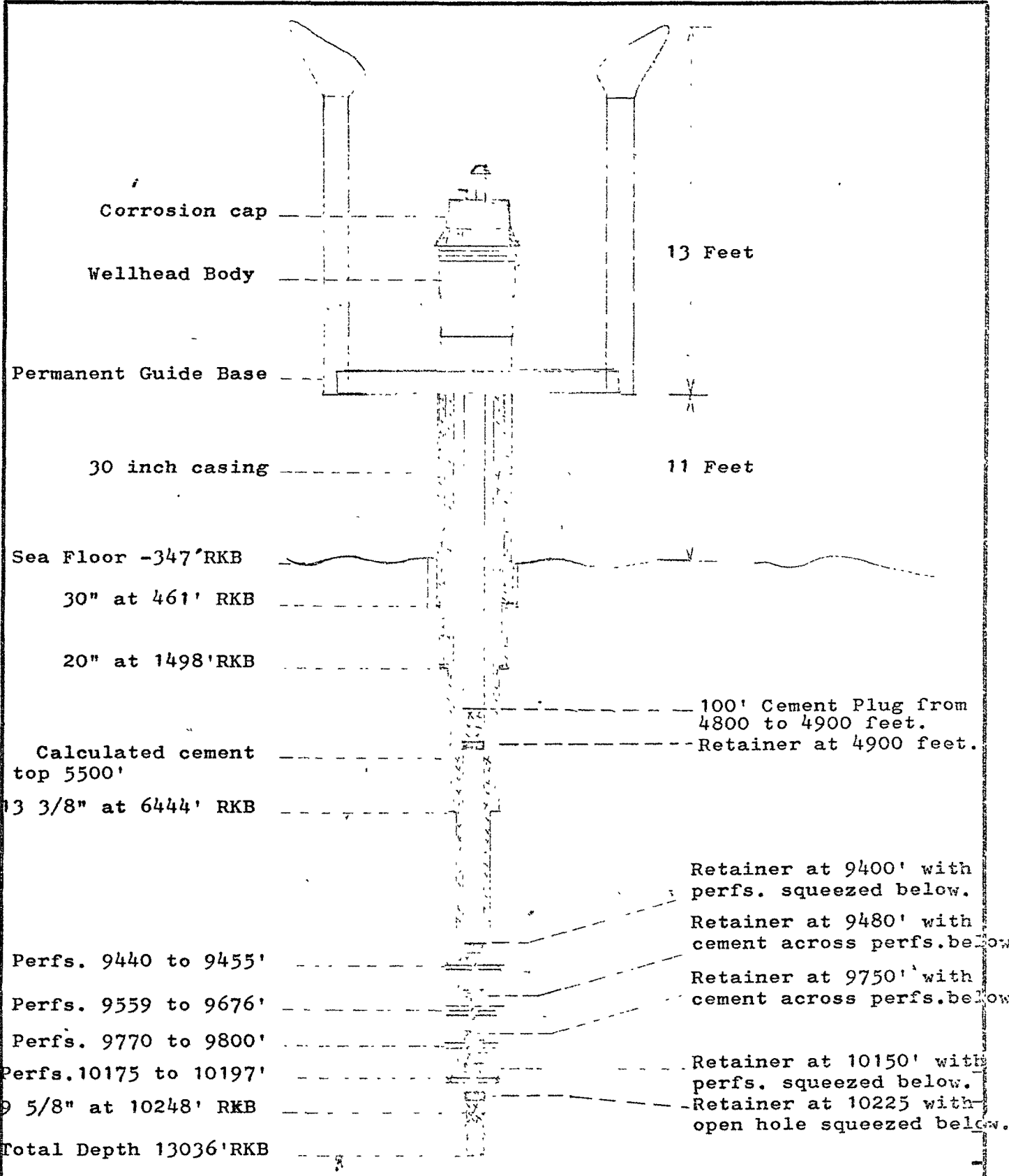


EXPLORATION RECORD

Lease Field 7, Block 11 - Norway Offshore

Well 7/11-1X

Formation Name	Top	Base	Remarks
Recent			
Pleistocene			
Upper Pliocene	1674 (-1584)	1824	
Plio. correl. horiz.	1824 (-1734)	2017	
Lower Pliocene	2017 (-1927)	2209	
Upper Miocene	2209 (-2119)	2396	
Middle Miocene	2396 (-2306)	5030	
Lower Miocene			
Burdigalian	5030 (-4940)	5594	
Aquitanian	5594 (-5504)	6460	
Oligocene	6460 (-6370)	8748	
?U.(?) - M. Eocene	8748 (-8658)	9215	
?L.Eoc. - ?Paleoc.	9215 (-9125)	9427	
Paleocene	9427 (+9337)	9466	
Up. Sand Member	9466 (-9376)	9528	
Shale Member	9528 (-9438)	9554	
Middle Sand Member	9554 (-9464)	9809	
Lower Sand Member B	9809 (-9719)	9976	
Lower Sand Member A	9976 (-9886)	10078	
Danian	10078 (-9968)	10388	
Upper Cretaceous	10388 (-10298)	?11480	
Lower Cretaceous	?11480 (-11390)	-	
Jurassic	-	-	
Triassic	-	-	
Permian	12280 (-12190)	-	
Total Depth	13036 (-12946)		



Corrosion cap

Wellhead Body

Permanent Guide Base

30 inch casing

Sea Floor -347' RKB

30" at 461' RKB

20" at 1498' RKB

Calculated cement top 5500'

3 3/8" at 6444' RKB

Perfs. 9440 to 9455'

Perfs. 9559 to 9676'

Perfs. 9770 to 9800'

Perfs. 10175 to 10197'

9 5/8" at 10248' RKB

Total Depth 13036' RKB

13 Feet

11 Feet

100' Cement Plug from 4800 to 4900 feet.

Retainer at 4900 feet.

Retainer at 9400' with perfs. squeezed below.


Retainer at 9480' with cement across perfs. below

Retainer at 9750' with cement across perfs. below

Retainer at 10150' with perfs. squeezed below.

Retainer at 10225' with open hole squeezed below.

 cement

<b>PHILLIPS PETROLEUM COMPANY</b> Well 7/11-1x <b>TEMPORARY SUSPENSION PROCEDURE</b>	Målestokk:	Tegn.	
		Trac.	
		Kfr.	
Erstatning for:			
		No scale	
Erstattet av:			

## DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 18

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
May 28	10370	Displaced tubing with diesel fuel and conducted DST No. 1. For details see attached DST No. 1 Report.
29	10370	Came out of hole with packer. Went in hole with Baker Model "K" retainer on Schlumberger wireline. Schlumberger setting tool failed and started out of hole with packer. At 1050' on trip out of hole packer set. Cut 1100' of Schlumberger wireline; stripped over. Retrieved setting tool.
30	10225	Drilled Model "K" retainer at 1058' and went in hole to 10370'. Came out of hole, set Baker Model "K" retainer at 10225' on Schlumberger wireline. Squeezed 50 sxs Class B cement plus .5% LWL plus 17.5% sodium chloride below retainer.
31	10225	Perforated 10175' to 10197' with four shots per foot using Schlumberger 4" shape charge casing gun. Went in hole with 3½" tubing and set packer at 10104'. Conducted DST No. 2. For details see attached DST No. 2 Report.
June 1	10225	Conducting DST No. 2.
2	10225	Concluded DST No. 2.
3	10150	Squeezed 50 sxs Class B cement plus .5% LWL plus 17.5% sodium chloride below retainer. Went in hole with perforating guns and hit obstruction at 9738'. Went in hole with bit and cleaned out thick cement from 9778' to 10.221'. Circulating and cleaned hole. Came out of hole. Perforated 9770' to 9800' with four shots per foot.
4	10150	Conducting DST No. 3. For details see attached DST No. 3 Report.
5	10150	Conducting DST No. 3.
6	10150	Conducting DST No. 3.

## DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 19

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
June 7	10150	Killing well. Opened rams. Pulled packer free. Had gas blow due to bubble of gas that had accumulated in annulus as a result of a tubing leak. Found 5" crack in body of tubing joint at 2920'. Went in hole with open ended drill pipe and laid 50 sx cement plug across perforations. After cement job hole started taking fluid and eventually took 150 bbls mud.
8	9750	Laid second 50 sx cement plug across perforations. Set Baker Model "K" cement retainer on wireline at 9750'.
9	9750	Perforated 9537' to 9559', 9574' to 9589', 9616.5' to 9624', 9632.5' to 9640', 9643.5' to 9672', 9661' to 9676' with four shots per foot using Schlumberger 4" shape charge casing gun. Went in hole with test string and conducted DST No. 4. For details see attached DST No. 4 Report.
10	9750	Conducting DST No. 4.
11	9480	Pulled packer free and reversed circulated well. Laid 49 sxs cement plug from 9600' to 9450'. Reversed circulated at 9490'. Set Baker Model "K" retainer at 9480' on Schlumberger wireline. Perforated 9440' to 9455' with four shots per foot.
12	9480	Went in hole with test string and conducted DST No. 5. For details see attached DST No. 5 report.
13	9480	Pulled packer and reversed circulated. Laid down tubing. Went in hole with open ended drill pipe and laid 50 sx cement plug across perforations from 9475' to 9325'. Started laying down drill pipe.

DAILY REPORT DETAILED

LEASE \_\_\_\_\_ WELL NO. \_\_\_\_\_ SHEET NO. 20

<u>DATE</u>	<u>TOTAL DEPTH</u>	<u>NATURE OF WORK PERFORMED</u>
June		
14		Set Baker cement retainers at 9289 and 4988' on Schlumberger wireline. Laid 70 sx cement plug from 4900' to 4700'. Laid down drill pipe. Laid cement plug from 650' to 500' RKB. Retrieved short bore protector. Laid down choke line, kill line and 16" riser.
15		Pulled 13 5/8" BOP stack and installed corosian cap with two transponders beacons attached to wellhead. Pulled anchors with rig under tow and released rig to elf norge at 1430 hrs. June 15.

AWC/CSS  
SO-162-68

Stavanger, May 20, 1968

Mr. T.J. Jobin  
OSLO OFFICE

NOR/D&P/Well 7/11-1K.

Attached is a tabulation showing Well 7/11-1K rig time lost due to weather. You will note that time is shown as waiting on weather or associated work resulting from weather conditions. A summary of the attached data is as follows:

W.O.W.	272.0 Hrs.
Associated Work	<u>197.5 "</u>
Total	<u>470.5 Hrs.</u>

Original Signed by  
A. T. CRUMP

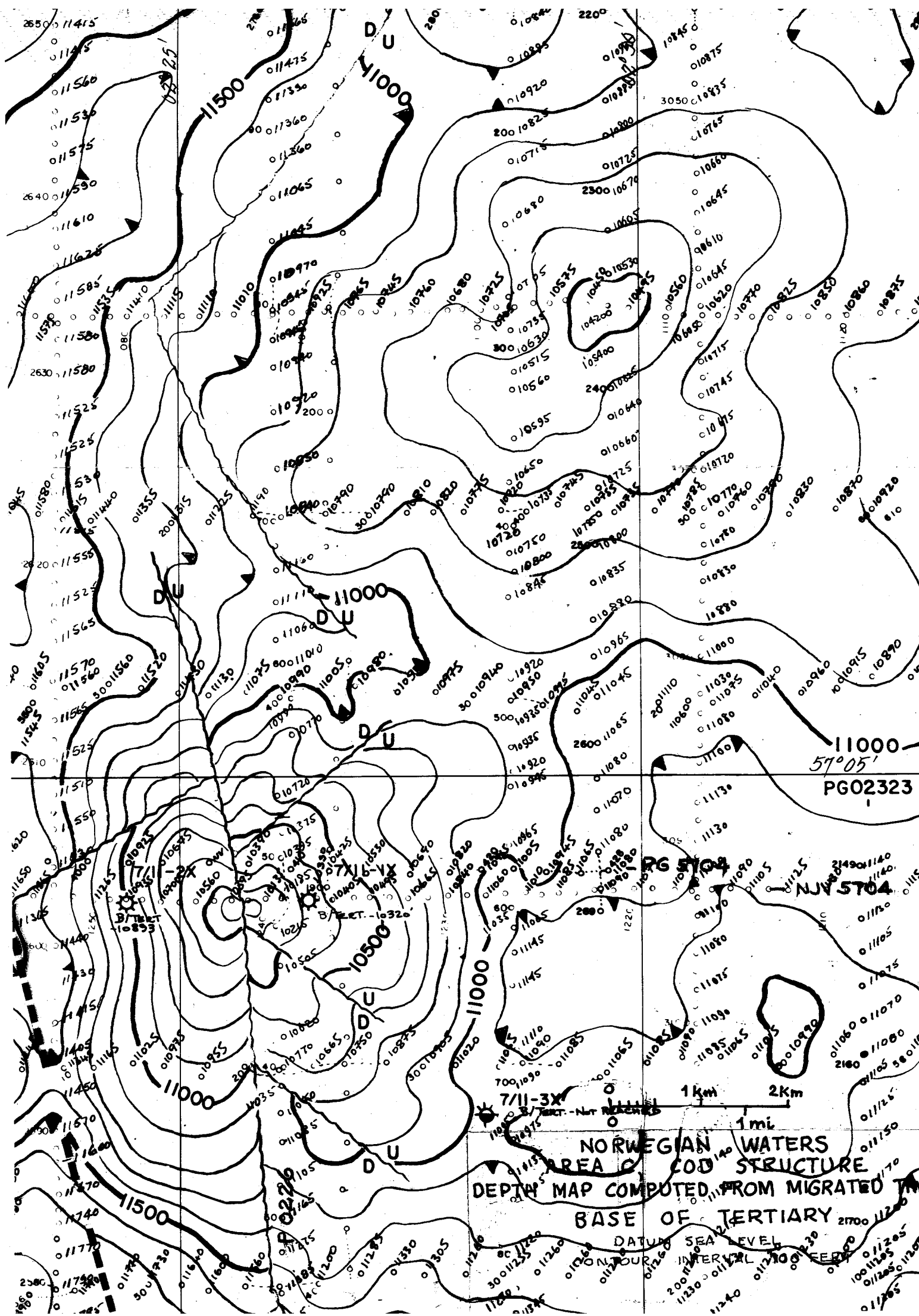
A. T. CRUMP

cc: E.M. Hoelscher.

<u>Date</u>	<u>Time</u>	<u>Remarks</u>
March		
1	2030 - 2130	Hang off choke and Kill line.
1	2130 - 2400	W.O.W.
2	0000 - 0800	W.O.W.
4	1000 - 1800	W.O.W.
5	2000 - 2300	Trip out to secure for weather.
5	2300 - 2400	Secure cellar deck.
6	0000 - 2400	W.O.W.
7	0000 - 0900	W.O.W.
7	0900 - 2400	Divers working to recover and repair parted riser.
8	0000 - 2400	Divers working to recover and repair parted riser.
9	0000 - 0900	W.O.W. (too rough for divers to work).
9	0900 - 2400	Divers working on damaged subsea equipment.
10	0000 - 2100	Divers working on damaged subsea equipment.
10	2100 - 2400	W.O.W. (too rough for divers to work).
11	0000 - 2400	W.O.W.
12	0000 - 0600	W.O.W.
12	0600 - 2400	Divers retrieving and repairing subsea equipment.
13	0000 - 0700	Divers retrieving and repairing subsea equipment.
13	0700 - 1200	W.O.W.
13	1200 - 2400	Divers repairing equipment and drill crews rerunning equipment.
14	0000 - 0600	Attempting to rerun riser.
14	0600 - 2400	W.O.W.
15	0000 - 1200	W.O.W.
15	1200 - 2400	Running mud riser.
16	0000 - 0400	Connecting lines on cellar deck.
16	0400 - 0900	W.O.W.
16	0900 - 2100	Observing weather and slowly pulling riser.
16	2100 - 2400	W.O.W.
17	0000 - 2400	W.O.W.
18	0000 - 2400	W.O.W.
19	0000 - 0900	W.O.W.
19	0900 - 2400	Rerunning riser and connecting flow lines.
20	0000 - 2400	Condition mud and ream back to bottom.

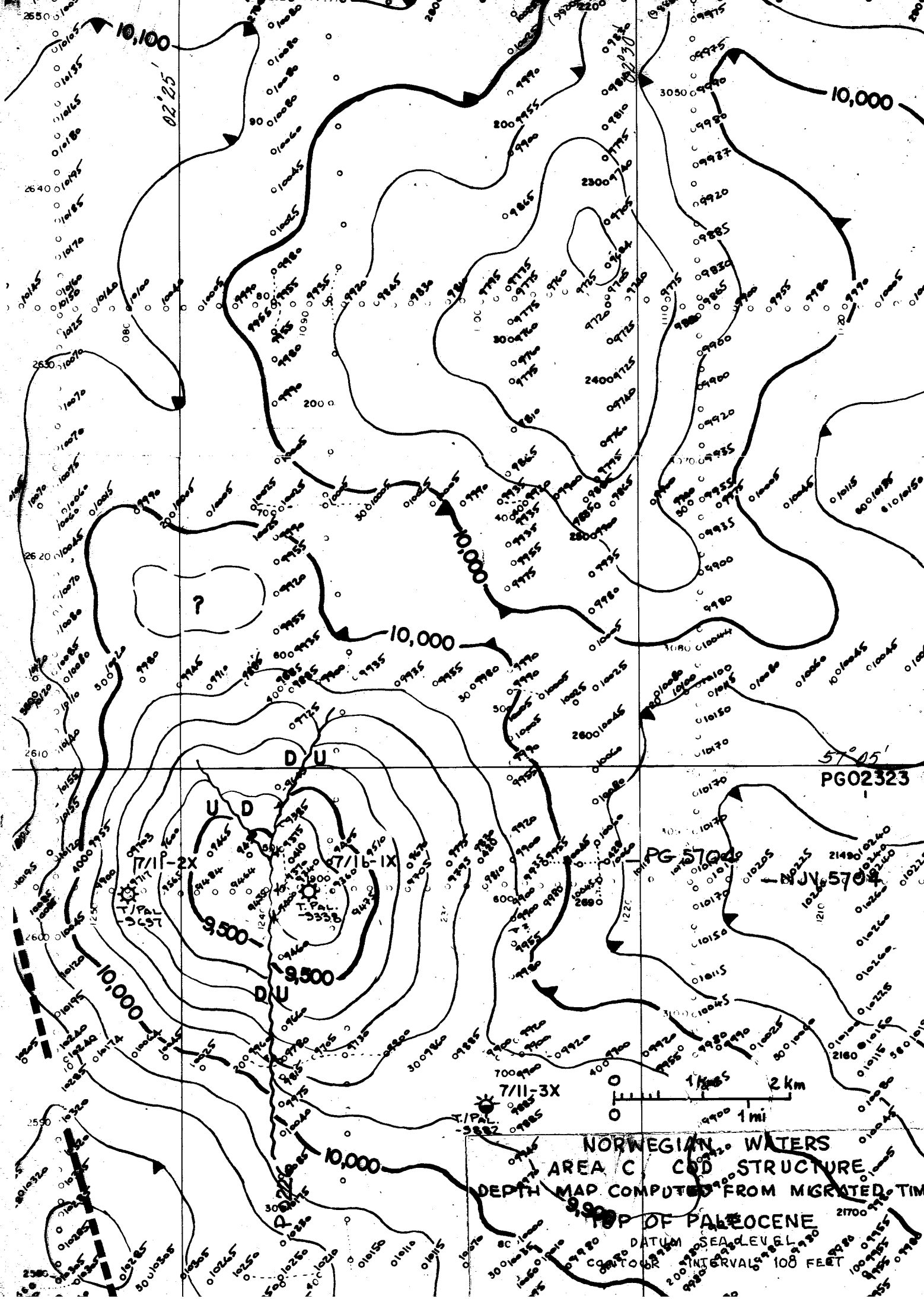


<u>Date</u>	<u>Time</u>	<u>Remarks</u>
April		
2	0530 - 0800	W.O.W.
2	0900 - 1500	Observing weather and pulling riser.
2	1500 - 2400	W.O.W.
3	0000 - 2400	W.O.W. (Attempted to run riser but weather too rough.)
4	0000 - 2400	W.O.W.
5	0000 - 1600	W.O.W.
7	0630 - 1100	Trying to drill but weather too rough.
7	1200 - 2100	W.O.W.
7	2100 - 2400	Retrieving drill string.



NORWEGIAN WATERS  
 AREA OF COD STRUCTURE  
 DEPTH MAP COMPUTED FROM MIGRATED  
 BASE OF TERTIARY

DATUM SEA LEVEL  
 INTERVAL 50 FEET



10,100  
02'25"

10,000

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57°05'  
PG02323

PG 57000

PG 57004

1 mi  
2 km

NORWEGIAN WATERS  
AREA C COD STRUCTURE  
DEPTH MAP COMPUTED FROM MIGRATED TIME  
TOP OF PALEOCENE  
DATUM SEA LEVEL  
CONTOUR INTERVALS 100 FEET

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