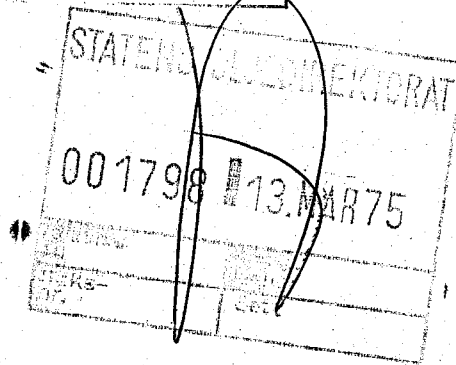


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MOBIL EXPLORATION NORWAY INC.

FINAL GEOLOGIC SUMMARY

33/9-2 & 33/9-3  
725.3

March, 1975  
Stavanger, Norway

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NORWAY OFFSHORE

STATFJORD FIELD

APPRAISAL WELL 33/9-2

WELL DATA

Well name:	33/9-2		
Location:	61° 17' 55.126" N	TH	2 Rm se west side
	01° 53' 53.75" N		
	47.41" E	TH	
	39.936" E		
Classification:	Appraisal		
Drilling Period:			
Spudded:	27 August, 1974		
Junked/Rig released:	14 September, 1974		
KB Elevation:	82 Feet		
Water Depth:	478 Feet		
Rig:	Norskald		
Status:	Junked and Abandoned		
Total Depth:			
Planned:	10,200 Feet		
Actual:	3,085 Feet		
Objective:	Middle Jurassic Brent Formation		
Cost: \$			
Planned:	4,000,000		
Actual:	1,350,000		

NORWAY OFFSHORE  
STATFJORD FIELD  
APPRAISAL WELL 33/9-3  
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WELL DATA

Well name:	33/9-3
Location:	61° 17' 55.126" N 01° 53' 39.936" E
Classification:	Appraisal
Drilling Period:	
Spudded:	15 September, 1974
Completed/ Rig released:	14 November, 1974
KB Elevation:	82 Feet
Water Depth:	478 Feet
Rig:	Norskald
Status:	Successful Appraisal Plugged and Abandoned
Total Depth:	
Planned:	10,200 Feet
Actual:	9,815 Feet
Objective:	Middle Jurassic Brent Formation
Cost: \$	
Planned:	4,000,000
Actual:	3,700,000

INTRODUCTION  
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The Statfjord appraisal well 33/9-2 was spudded on 27 August, 1974. The well was junked and abandoned on 14 September, 1974 at 3085 (KB) feet due to irreparable damage to the subsea equipment. Subsequently 33/9-3 was spudded 100 feet north northwest of 33/9-2. This well reached total depth at 9815 feet (KB) in Triassic sediments. After running six formation tests within the Brent Formation reservoir, the well was plugged and abandoned. The 33/9-3 well was a successful appraisal of the northern extension of the Statfjord Field.

The well was drilled as a northern step out appraisal well on the Statfjord structure. The Brent Sandstone section was prognosed to be relatively complete and in a structural position similar to that of 33/9-1. The well was needed to provide additional seismic velocity control for detailed field mapping and to provide additional reservoir data for calculation of reserves, platform locations and other developmental studies.

RESULTS  
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The Brent Formation reservoir was encountered at 7910 feet (7828 subsea). Coring began at 7940 feet after penetrating 30 feet of the reservoir. A total of 674 feet of core were cut and 513 feet or 76.1% recovered. The base of the reservoir was encountered above the oil water contact. Average core measured porosity is 29 percent and average horizontal permeability is 1400 millidarcies. The highest measured permeability was

7700 millidarcies. The reservoir contains 493 feet of net sand pay out of a gross section of 617 feet. Schlumberger's CPI log gives an average porosity of 25 percent, and a water saturation average of 10 percent.

Six formation interval tests were made in the Brent Formation. All six were successful in retrieving formation fluid. The test data are summarized on the composite log and in table 3. In addition to the 6 formation interval tests, a drill stem test using a Lynes packer was run. This test was not successful. Results of this test are covered in an engineering report on the Lynes Test entitled Lynes Drill Stem Test - Technical Service Report (Jan. 1975).

The appraisal well 33/9-3 was successful in meeting virtually all objectives. It established the extension of the Brent Formation to the northeast and the continuity of its excellent reservoir character. The velocity data have facilitated seismic mapping of the Statfjord structure.

#### Stratigraphy

The stratigraphy penetrated in 33/9-3 was as predicted. However, certain seismic horizons showed minor variances to the pre-drilling prognosis. A comparison of observed stratigraphy to the prognosis is shown in figure 1.

Sampling and logging procedures were carried out as outlined in the final reports of the previous wells. Paleontological and logging summaries are given in tables 1 and 2 respectively.

TABLE 1

## PALEONTOLOGICAL SUMMARY 33/9-3

Interval	Thickness	Stage/Substage	System/Subsystem
1650' - 1700'	± 50'	-	Tertiary - Pliocene
1720' - 3020'	+ 1300'	-	" - Miocene
3060' - 4400'	± 1340'	-	" - Oligocene
4420' - 4780'	± 360'	-	" - Eocene
4800' - 5320'	± 520'	-	" - L.Eocene - Paleocene
5360' - 6040'	± 680'	-	" - Paleocene
6100' - 6440'	± 340'	Maastrichtian	
6480' - 6880'	± 400'	L.Maas.-U.Campanian	U. Cretaceous
6920' - 7830'	± 910'	L.Campanian	
7850' - 7870'	± 20'	Barremian	Lower Cretaceous
7890' -	-	-	Middle Jurassic ?
7910' - 8580'	± 670'	-	Middle Jurassic
8600' - 8840'	± 240'	Toarcian	
8860' - 9100'	± 140'	Domerian	
9120' - 9340'	± 220'	Carixian - U.Sinemurian	Lower Jurassic
9360' - 9600'	± 440'	? ? ?	

N.B. This summary is based on telex report.

Final Paleontological Report will be distributed when completed by Robertson Research.

TABLE 2

## WIRELINE LOGGING SUMMARY 33/9-3

Run 1 28 September 1974		
IES/SP	✓1507 - 3088	
BHCS/GR	✓1508 - 3084	
CBL	✓1500 - 3008	
Run 2 4-5 October 1974		
IES/SP	✓3039 - 7067	
BHCS/GR	✓3039 - 7067	
FDC-CNL/GR	✓3038 - 7047	
✓ HDT	✓3038 - 7043	
Run 3 3-8 November 1974		
IES/SP	✓7044 - 9807	
BHCS/GR/Caliper/CBL	✓7044 - 9805	
FDC-CNL/GR/Caliper	✓7044 - 9807	
MSFL/SP/GR	7650 - 8764	
HDT	✓7044 - 9807	
Velocity Survey	1500 - 9740	12 shots
CST	7902 - 8441	51 attempts 49 recovered
FIT	7936 - 8515	6 attempts 6 successful
FIT No. 1 - 8515    FIT No. 3 - 7948    FIT No. 5 - 8054		
" " 2 - 8313    " " 4 - 7945    " " 6 - 7936		



TABLE 3

WELL 33/9-3

SUMMARY OF FIT RESULTS  
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FIT NO.	Depth-ft.	Pressure		Data (psig)			Recovery Data
		IFP	FFP	FBP	FP	HP	
1	8515	176	55	135	N.O.	6256	Recovered water, mud and trace oil
2	8313	5538	5538	5595	5599	6130	Recovered 4000 cc mud and filtrate and 3000 cc oil
3	7948	5428	5428	5476	5482	5850	Recovered 7000 cc oil, trace sand
4	7945	5429	5429	5477	5482	5489	Recovered 2500 cc mud and filtrate, and 4500 cc oil
5	8054	5386	5386	5512	5519	5492(at 7450')	Recovered 1000 cc mud and filtrate, and 5500 cc oil
6	7936	5376	5358	5470	5473	5833	Recovered 3000 cc mud and filtrate and 3000 cc oil

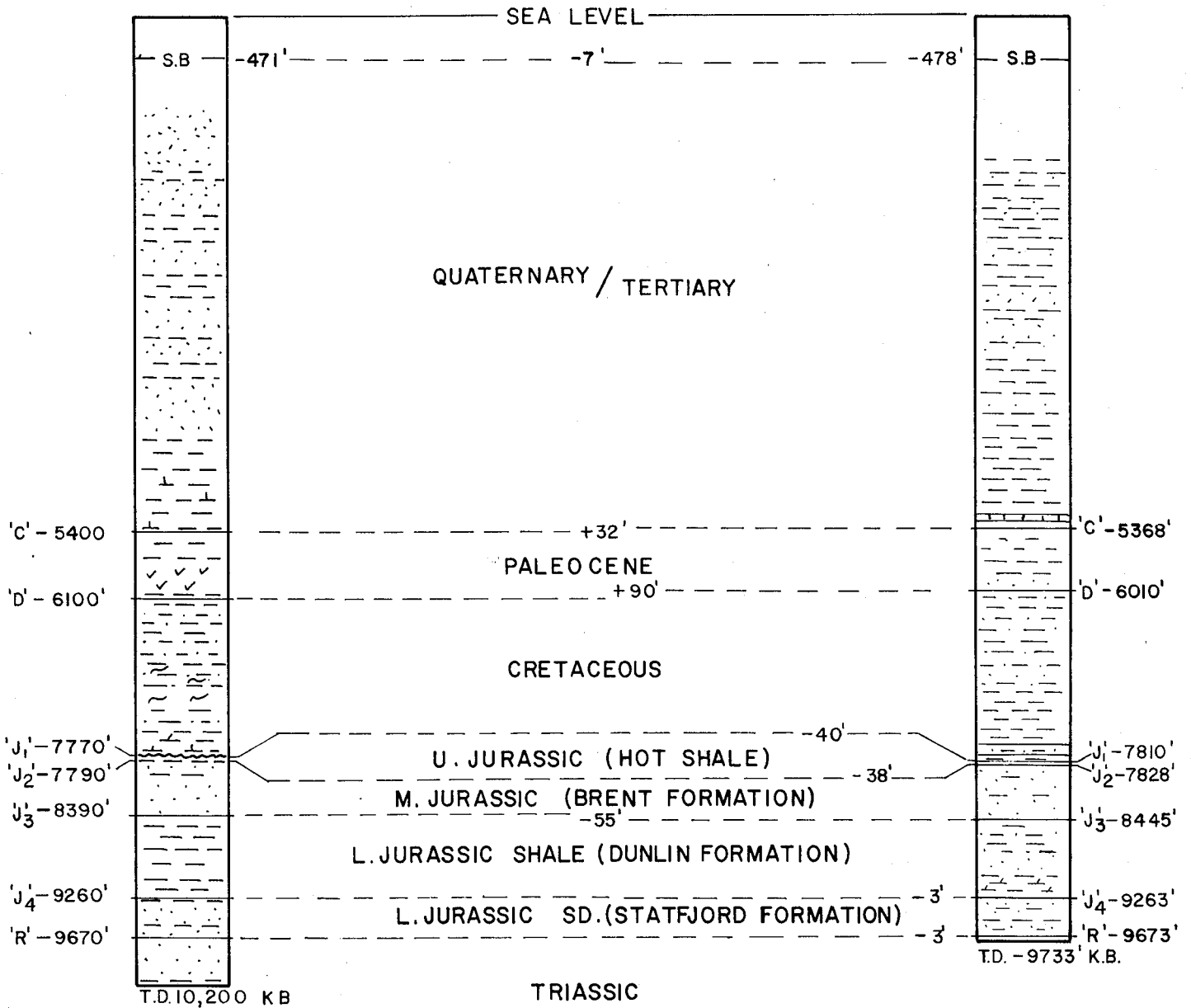
N.B. 1 This summary is based on Flopetrol report

2 Results of analysis of samples recovered from above tests were not available at the time of writing this summary

3. Results of D.S.T. No. 1 are covered in Engineering Report entitled Lynes Drill Stem Test - Technical Service Report

PROGNOSED

ACTUAL



ALL DEPTHS ARE SUBSEA FEET.  
VERTICAL SCALE 1 / 20,000