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U of M	A.O.	C.C.	E.D.
Received	- 6 MAY 1982		E & L
Answered			
DEPT. OF MINES			
REF. No.			

PETROLEUM EXPLORATION PERMIT T 13P

ANNUAL REPORT FOR PERMIT YEAR 3

4TH APRIL 1981 TO 3RD APRIL 1982

~~T13P~~  
T13P Part 10

Otter Exploration N.L.  
169 Miller Street,  
North Sydney N.S.W. 2060

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PETROLEUM EXPLORATION PERMIT T 13PANNUAL REPORT FOR PERMIT YEAR 3INTRODUCTION

No field operations were carried out within the subject area during the year. Interpretation of the Flinders 1980 Seismic Survey, the first data acquired in the permit since 1973, was completed. Al Sabitay Consultants' report on the 1980 Seismic Survey and integration of previous data should already have been received by the Mines Department and the B.M.R.

SEISMIC REPROCESSING

During the permit year 80 km of seismic data from the Flinders Seismic Survey comprising Lines 1 and 8 were reprocessed. These lines were selected as they exhibited a variety of processing problems, largely related to sea bottom irregularities. Both Digicon in Singapore and GSI in Sydney were utilised to provide further data enhancement of the 1980 survey. The reprocessing was completed in January, 1982, however final films of Lines 1 and 8 have not yet been received from Digicon. A sepia of these Lines will be forwarded to you when they are to hand.

Reprocessing parameters included Zemult; Demult; wave equation migration, finite difference method; 2-D coherency filtering; Transcomp and migration.

Overall the reprocessed lines show a substantial improvement over the earlier 1980 processing in that better definition, amplitude and character are provided. The knowledge gained from this reprocessing will be useful for delineating processing parameters to be used in future surveys in the area.

A more detailed reprocessing report will be forwarded when it has been completed.

SEISMIC SURVEY

Preliminary interpretation of the Flinders data and integration with previous work was not completed in time to allow detailed seismic work during the 1980-81 field season.

The T82A survey comprising 250 km was designed to define four structures (indicated from the previous surveys), Furneaux, Flinders, Muttonbird and South Muttonbird. It would appear that Furneaux and Flinders are the most significant structures, as both prospects are optimally located updip from the Latrobe Coal Measures and with detailed seismic they may in fact prove to be one large area of closure.

The T82A survey was originally scheduled for April/May, 1982, utilising GSI's "Lady Vilma". However, this survey has since been postponed pending discussions with partners and other parties and is now expected to be completed during the first quarter of the permit year.

FUTURE PROGRAM

From the Flinders Survey a number of recommendations for future work can be made.

FUTURE PROGRAM (CONT'D)

Further seismic is needed to delineate possible drilling targets, including both structural and stratigraphic traps. Possible structural traps within T 13P are highs at the Top Latrobe Coal Measures which are sealed by Lakes Entrance Formation shales or the Gippsland Limestone. Stratigraphic plays include possible wedge outs of the Latrobe Group against basement highs and stratigraphic pinchouts. Combination stratigraphic-structural traps controlled by permeability barriers are also a possibility within T 13P.

In December, 1981 Cultus Pacific N.L. entered into a seismic and drilling option, whereby they could earn a 50% interest in approximately six blocks in the northern part of the permit by carrying out one seismic survey and drilling one well at the sole cost of Cultus and its co-venturers.

DATA SUMMARY

The following data have been submitted to the Tasmanian Department of Mines :

- Preliminary Report - Southeast Gippsland Basin Area by Al Sabitay Consultants.
- Velocity analysis for the Flinders 1980 Seismic Survey.
- Processing Report by GSI for the Flinders 1980 Seismic Survey.
- Final Interpretive Report, Flinders 1980 Seismic Survey by Al Sabitay Consultants.
- Reprocessed Lines (sepias) 80F1 and 80F8 by GSI (2 copies) and 80F1 by Digicon (2 copies).

EXPENDITURE

Expenditure for 12 months ended 3rd April, 1982 -

	\$
Technical Studies and Supervision	77,500
Seismic Reprocessing	19,500
Data Acquisition	17,900
Drafting & Plan Copying	14,300
Administration	6,500
	<u>6,500</u>
	<u>\$135,700</u>

T/13P  
 QUARTERLY REPORT FOR THE PERIOD

4th APRIL to 3rd JULY 1981

D of M	A.O.	C.G.	E.O.	D.S.M.E
Received Answered				Registrar
22 JUL 1981				E & IL
DEPT. OF MINES				
REF. No. 0152/81				

1. No field operations were carried out within the subject area during the quarter.
2. The report by Al Sabitay Consultants on the geophysical interpretation of the Flinders 1980 Seismic Survey was completed and delivered to you in May, 1981 by H.D. Kennedy and J.M. Blumer.
3. 80 kilometres of Flinders 1980 Seismic Survey, comprising lines 80F 1 and 80F 8 have been selected for reprocessing, as they exhibit a variety of processing problems, largely related to sea bottom irregularities. Four processing centres have so far been approached, and reprocessing has commenced with G.S.I. in Sydney. Either Digicon or Western Geophysical in Singapore will also be used to provide further data enhancement of the 1980 Survey.
4. Preliminary planning for a seismic survey of up to 500 kilometres, to be shot in the 1981 - 1982 summer before the end of the third Permit Year is also currently in progress.
5. Interpretive work by Al Sabitay is continuing with view to drawing time and depth maps to basement. These will be forwarded on to you as soon as they are to hand.

T/13 P Part 6.

OTTER EXPLORATION NL  
T13/P

Quarterly Report for the Period  
4th July - 3rd October 1981

of M	A.O.	C.G.	E.O.	D.S.M.E
				Registrar
Received	15 OCT 1981			E & IL
Answered				
DEPT. OF MINES				
REF. No. 8930/81				

1. No field operations were carried out within the subject area during the Quarter.
2. Reprocessing of Lines 80F-1 and 80F-8 is continuing with both G.S.I. in Sydney and Digicon in Singapore. Both programmes have been aimed at removing sea bottom and intrabed irregularities.

Final migrated stacks of the two lines are expected by the end of October.

3. Planning is continuing for the new seismic survey of approximately 500km. Bids have been received from companies and recommendations are being circulated amongst partners for approval.
4. Interpretation of seismic lines in the northern part of the permit has been completed. Maps are in the process of being contoured and copies will be forwarded to you as soon as they are to hand.

T/130 Part 7

OTTER EXPLORATION N.L.T13/PQUARTERLY REPORT FOR THE PERIOD4TH OCTOBER, 1981 - 3RD JANUARY, 1982

1. No field operations were carried out within the subject area during the Quarter.
2. G.S.I. have completed reprocessing of lines 80F-1 and 80F-8. Though only a marginal improvement has been noticed, information obtained from this reprocessing will be used in the forthcoming survey. No films of the reprocessed lines have been received to date, however transparencies will be forwarded to you as soon as they are to hand.
3. Planning for the new seismic survey, T82PA, has reached an advanced stage. G.S.I. will be conducting the survey, which is currently scheduled for early March, 1982.
4. Final reports on the interpretation of seismic lines in the northern part of the permit are currently being prepared. Map contouring has recently been completed and copies will be sent to you within the next Quarter.

R/N. 473/82 .  
11-1-82 .

S. Laing

T113P Part 8