

E.L. 1272

FINAL REPORT

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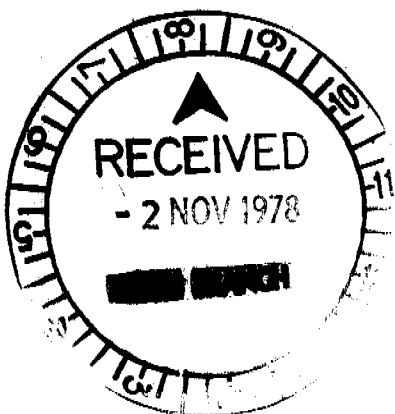
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GEOFF TURNER

OTTER EXPLORATION N.L.

OCTOBER, 1978.



CR 78/164A

FIGURE 1

LOCATION OF EXPLORATION LICENCES HELD BY OTTER EXPLORATION
IN THE GRANITES-TANAMI REGION.

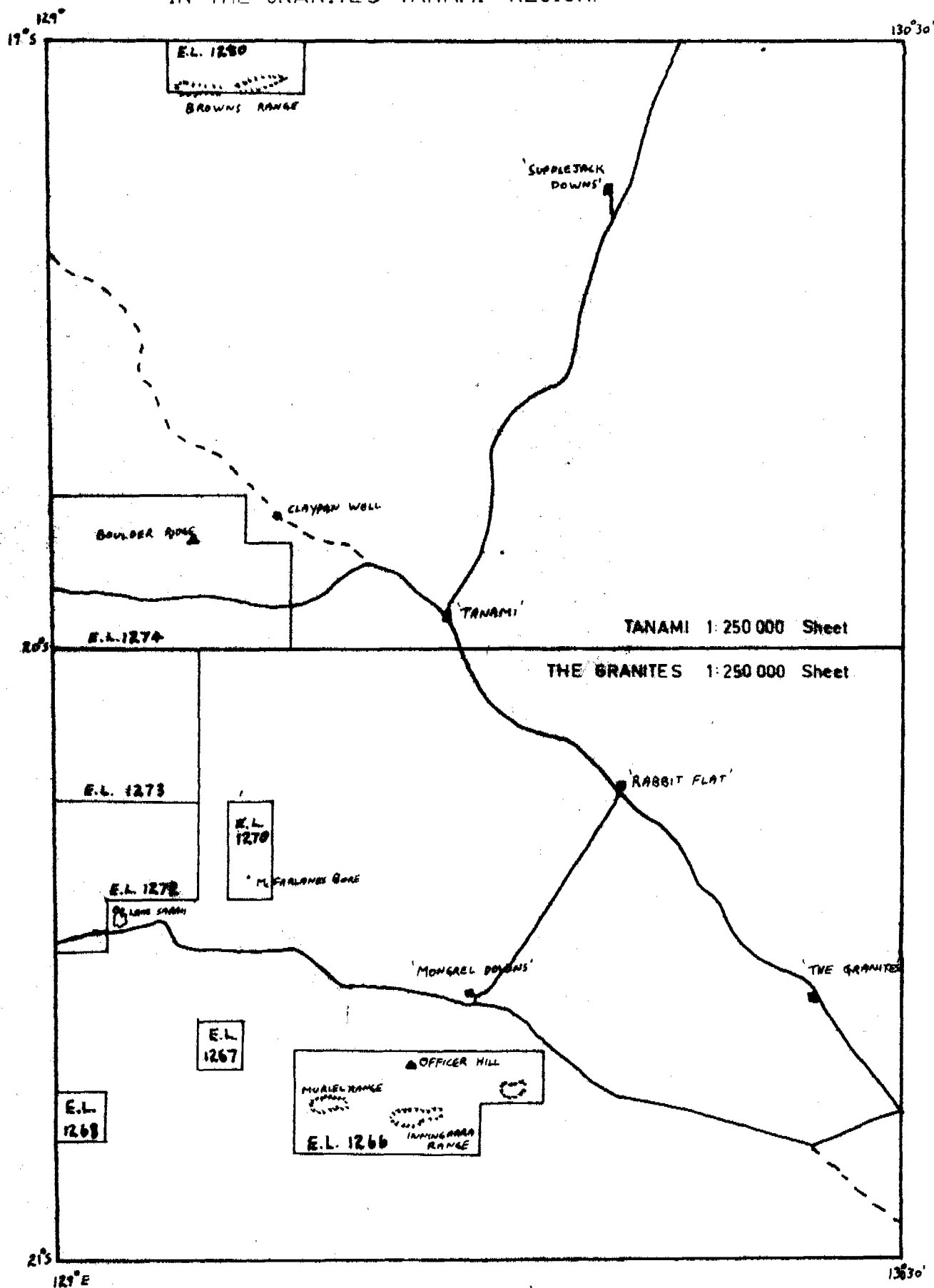
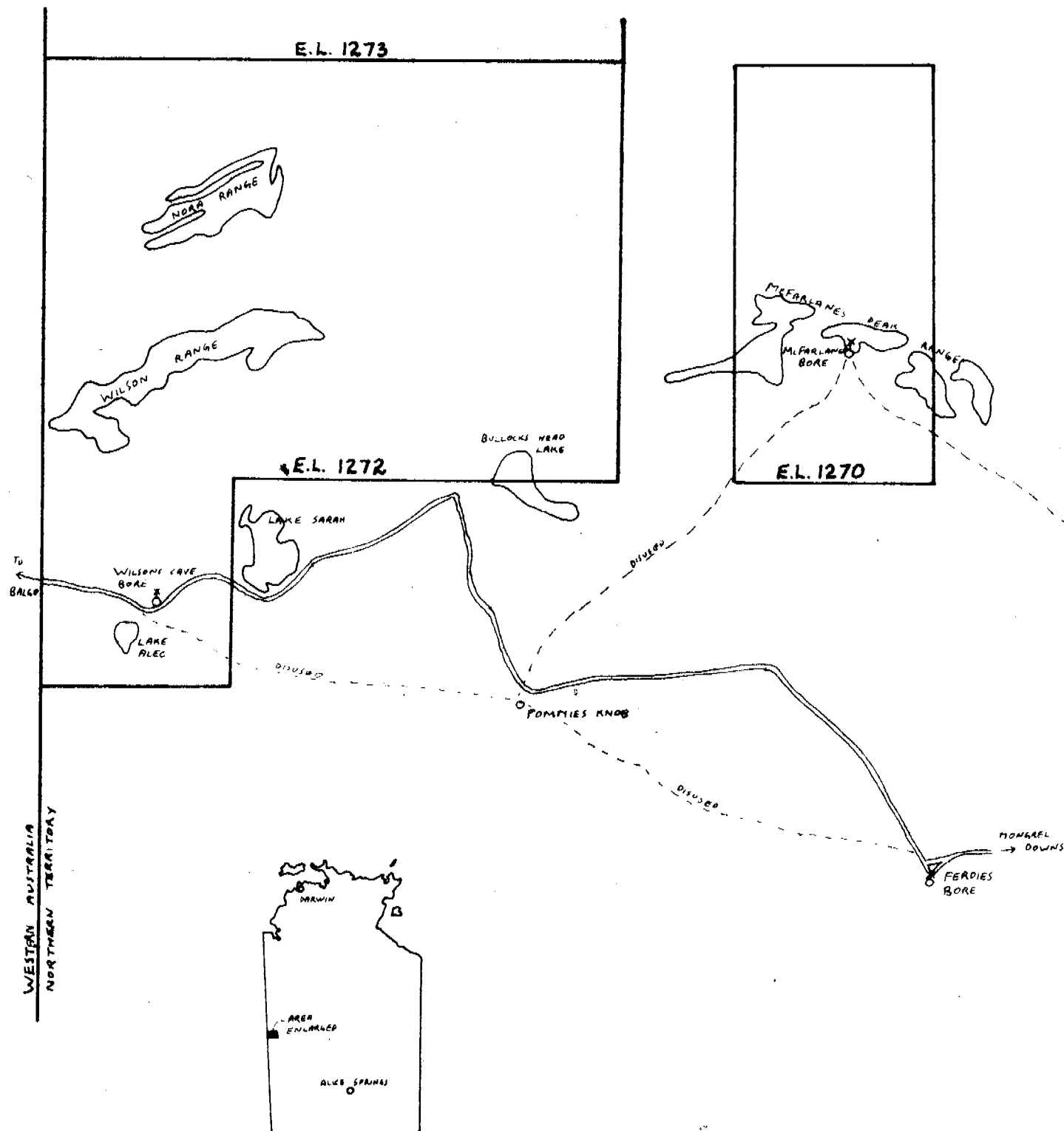


FIGURE 2
Location of Exploration Licences.



LOCATION OF LICENCE

(Ref.fig 1,2)

E.L. No.1272 was granted to Otter Exploration N.L. for the period 17th May, 1978 to 17th August, 1978. It covers an area of 217 sq. miles and is situated north of Wilson's Cave Bore on Mongrel Downs Station.

THE EXPLORATION PROGRAMME

Following the 1962 airborne radiometric and magnetic survey by the B.M.R. a Uranium occurrence was found in the Killi Killi Hills in Western Australia. This occurs in the basal units of the Lower Proterozoic Gardiner Sandstone, which is faulted against the Archaean Killi Killi Beds of the Tanami Complex.

A number of isolated radiometric anomalies were also observed in the Granites-Tanami area during this survey.

With these factors in mind, it was proposed to undertake an airborne spectrometer survey over the Lower Proterozoic Gardiner Sandstone and Pargee Sandstone, and the Archaean Killi Killi Beds and Mt. Charles Beds, to ascertain if further areas of uranium mineralisation occurred in this geological environment.

WORK COMPLETED

During May, 1978, an aerial spectrometer survey was carried out over the specific target areas. The apparatus used consisted of a Scintrex GAM-1 Spectrometer in conjunction with the GSA-61 gamma-ray sensor (1853 cm³ crystal). A continuous readout of the four channels (Total Count, Potassium, Uranium and Thorium) was obtained on a RCM-6 six channel recorder. Altitude was to be measured by a radar altimeter, and recorded on the 5th channel. (This instrument was subsequently found to be unserviceable and altitude was measured by the less accurate aneroid altimeter). The sixth recorder channel was redundant. A fiducial marking line was used to mark the beginning and end of each flight line as it was flown. The instrument package was installed in a Bell 206B helicopter.

Flight lines were flown 1 km apart (except in areas of particular interest where the spacing was reduced to 500 m), at an altitude of 100 feet, and speed of 60 knots. Navigation was by use of aerial photographs, and a continuous watch on the recorder enabled anomalies to be reported and noted as they occurred.

All anomalies of interest (T.C. and/or U Channel 1½ x background) were checked on the ground, using a Scintrex BGS-ISL scintillometer, and a Scintrex GAD-4 spectrometer with the GSP-3 sensor.

RESULTS

Flight lines flown are plotted on the map, fig.3.

There was a slight increase in background Total Count and Potassium Channels over lateritic areas.

Fifteen anomalies were found, and can be distributed according to the rock type on which they occur:

6 anomalies (mainly Total Count and Thorium) were found on the Paleozoic Lucas Formation, or lateritised units.

1 anomaly was found on lateritic Pargue Sandstone (32A)

7 anomalies were found in the Archaean Killi Killi Beds or lateritised sub-outcrops of these beds.

1 anomaly was found near the contact between the Muriel Range Sandstone and the Killi Killi Beds.

A large number of these anomalies appear to be due to Thorium concentrations.

One B.M.R. anomaly was detected (B.M.R. 9 or 43A) and appears to be due to a thorium concentration on lateritic Lucas Formation sediments. None of the anomalies detected were considered to be large enough to warrant further follow-up.

Accordingly, no further work will be undertaken in this area.

Expenditure for 3 months on EL No. 1272 -

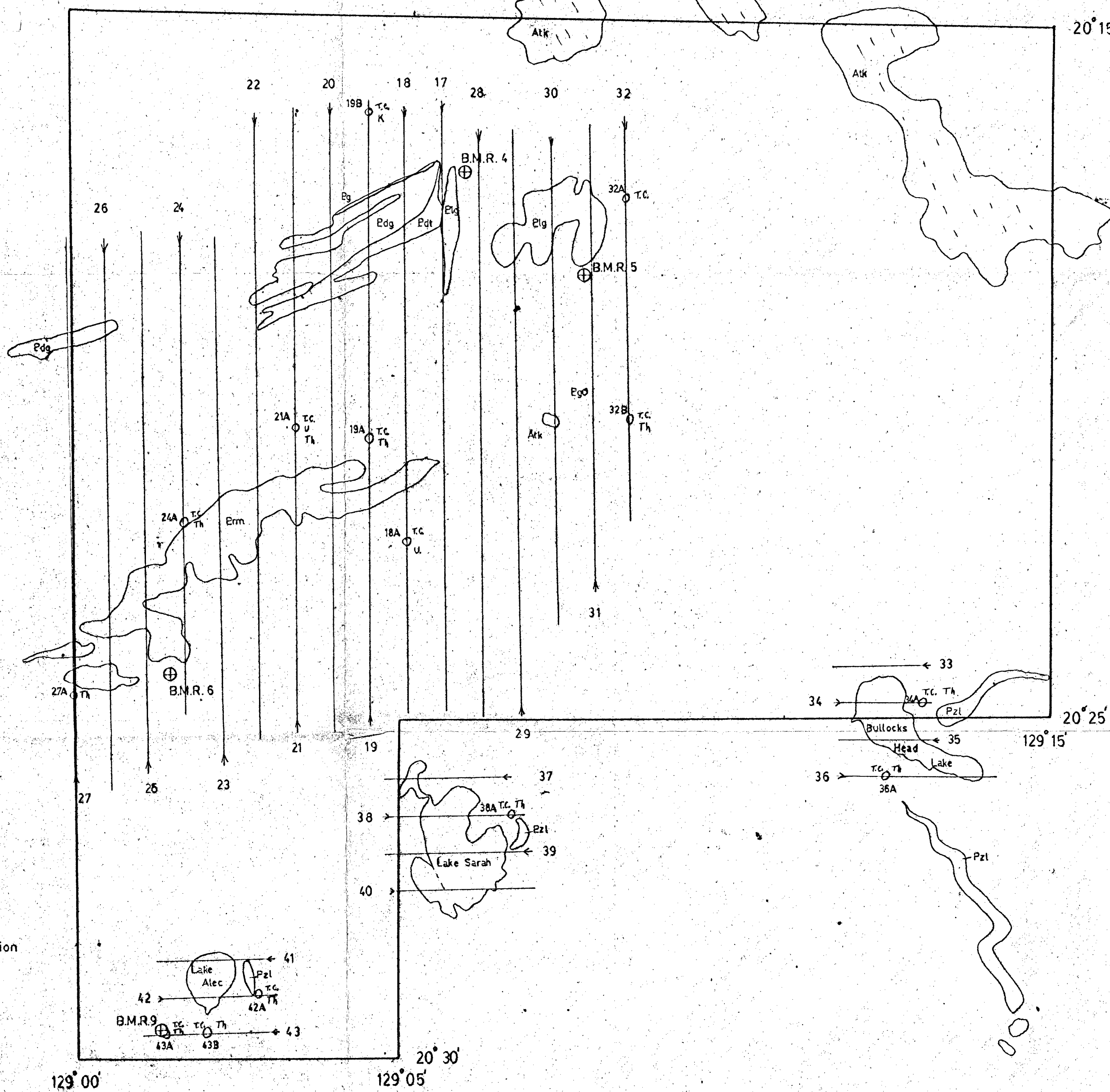
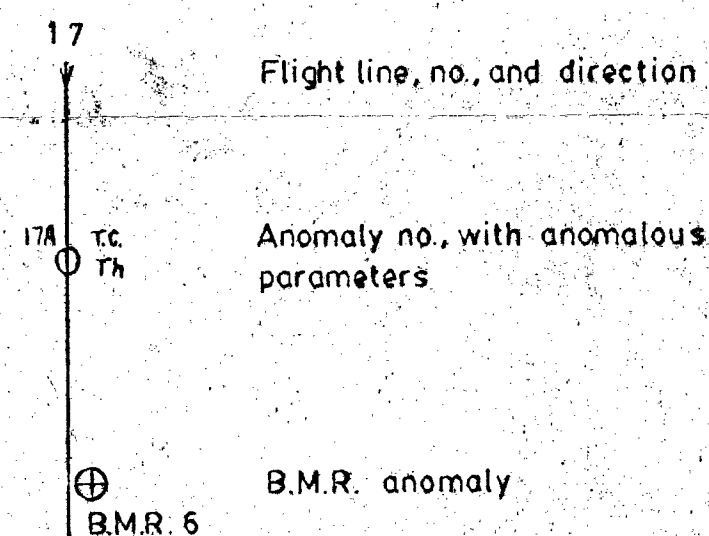
Tanami Area, Northern Territory.

Salaries & Wages	\$1,345
Field Travel	265
Air Travel	18
Meals & Accommodation	64
Field Supplies	460
Field Office	140
Maps & Drafting	20
Aerial Survey	2,775
Assays	65
Consultant	125
Equipment Hire	882
Vehicle Hire	15
	<hr/>
	\$6,174
Head Office Overheads (33%)	\$ 203.74
	<hr/>
TOTAL	\$6,377.74
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FIGURE 3

E.L. 1272 WILSON RANGE

FLIGHT LINE PLAN
Scale: 1.2cm = 1km



G. Turner
OTTER Exploration
26/10/78