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C.R.A. EXPLORATION PROPRIETARY LIMITED

Ref. No. General/Tasmania

Q37 No 14

70-615

SUBJECT: SCINTILLOMETER SEARCH FOR BAUXITE, NORTHWEST TASMANIA.

AUTHOR: Miss S. E. Close

DATE: February, 1970.

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Scintillometer Search for Bauxite N.W. Tas E.L. 36/70, C.R.A.

by Miss S.E. Close Feb 1970

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MICROFILMED

February, 1970.

Memorandum to: C. L. KNIGHT

Copies: H. J. Evans
G. W. Patterson

From: Miss S. E. Close

Scintillometer Search for Bauxite, Northwest Tasmania

Deep red soils over basalt were seen on the northwest coastal areas of Tasmania in February, 1968 and this, together with a bauxite location at Myalla reported by Owen in B.M.R. Bulletin 24, rendered the area interesting for bauxite in view of the known locality, the large possible area, and the proximity to an alumina refinery.

After a quick orientation survey on the ground and in the air, the area was flown with a scintillometer. This was also a test case for flying over basalts in a temperate climate.

SUMMARY

Readings have been plotted and contoured. Some anomalous areas exist. However, the readings are approximately $1\frac{1}{2}$ times background. At this stage it is not known if the anomalies have any significance at all, and follow up ground work will be essential in determining this. Also the other half of the original area should be flown, as this included the bauxite area at Myalla.

INSTRUMENTS

The readings were taken at 500 feet above ground level from a Cessna 185 flying at about 85 knots. Cessna 175's and 185's are the only aircraft available for hire in the area and are obtained from Devonport Air Charter Services based at both Devonport and Wynyard.

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The scintillometer used was hired from McPhar and had a separate probe with a 2 inch crystal. Readings were taken and written down every 5 seconds by Rudi Klaric.

DESCRIPTION

In order to determine where to traverse, the basalt areas on the 8 miles to one inch geological map of Tasmania were roughly transferred on to the Burnie and Launceston 1 : 250,000 map sheets.

Traverses were drawn up to cover these areas and were spaced at one mile intervals, as any area less than 1 square mile would be of no commercial interest.

It was found that further inland there were no deep red soils, but mainly outcropping basalt. For example, Borradaile Plains, an outcropping basalt area which was flown in order to give some comparison between outcropping basalt and the red soils.

The traverses yet to be flown are plotted on the 4 mile to one inch map and it is suggested that the Waratah region from south of Hampshire not be flown, as this does not have red soil. The cut-off point can be decided visually.

Due to commitment to another project, I cannot comment on the results fully as plotting was still in progress when I left Melbourne office. However, H. J. Evans and G. W. Patterson are familiar with the project.

SEC:jm

S. E. Close

KEYWORDS

Bauxite, basic lavas, radioactivity.

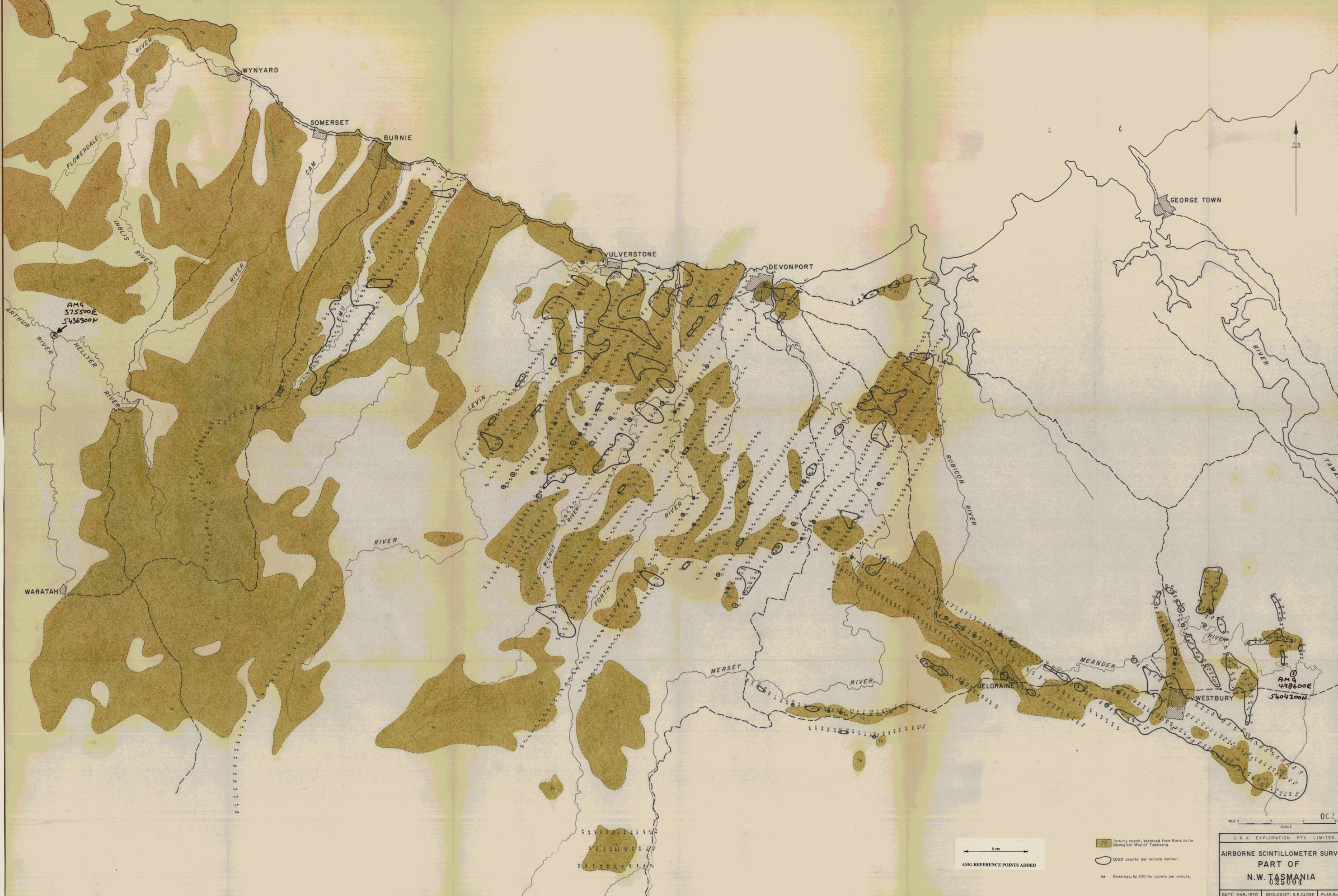
Locality: Burnie SK 55-3 1 : 250,000 map sheet.
Launceston SK 55-4 1 : 250,000 map sheet.

PLAN

Scale

T.769 Airborne Scintillometer Survey -
Part of N.W. Tasmania.

2 mls. to 1"



5 cm
 AMG REFERENCE POINTS ADDED

TB Tertiary basalt, sketched from 8mils. to 1in. Geological Map of Tasmania.
 1,000 counts per minute contour.
 * Readings, by 100 for counts per minute.

0 1 2 3 4 5
 MILES SCALE

C. R. A. EXPLORATION PTY. LIMITED.
AIRBORNE SCINTILLOMETER SURVEY
PART OF
N.W. TASMANIA
025004
 DATE: MAR., 1970 GEOLOGIST: S. E. CLOSE PLAN No. 769