## COMMONWEALTH OF AUSTRALIA

## DEPARTMENT OF NATIONAL DEVELOPMENT

## BUREAU OF MINERAL RESOURCES, GEOLOGY AND GEOPHYSICS

RECORD No. 1965/30

060359

MAPS SHOWING THE
RESULTS OF AN AIRBORNE MAGNETIC
AND RADIOMETRIC SURVEY OF THE
SOUTHERN CROSS 1: 250,000 AREA,

W A 1957

Map Nos.

G 247- 8

**G** 247- 9

G 247-10

G 247-11

Scale 1:126,720 -



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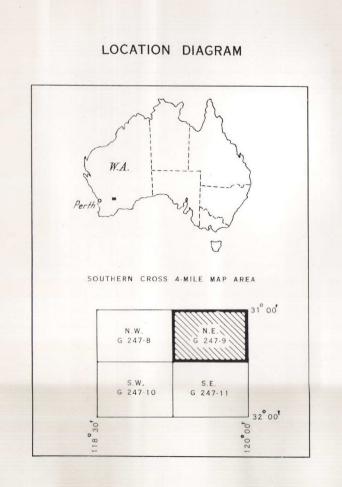
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MAP SHOWING



## PROJECTION: Transverse Mercatar Australian Series. TOTAL MAGNETIC INTENSITY After Western Australian Department of Lands and Surveys photo scale compilations. RELIABILITY: Planimetric detail: Reliable. Flight lines: Accuracy is generally within 100 yards. RELIABILITY: Planimetric detail: Reliable. Flight lines: Accuracy is generally within 100 yards. RADIOMETRIC ANOMALIES DETECTED BY AIRBORNE SCINTILLOGRAPH SCALE MILES 2 2 4 4 9 9 10 KILOMETRES MAGNETIC CONTOUR INTERVAL 50 GAMMAS

MAP DATA

# TOPOGRAPHICAL DATA River or Creek Highway Road or Track Railway Fence Telegraph line Named place Mine Aerodrome Rock outcrop MAGNETIC DATA Magnetic Contours Magnetic Low" Contour/Flight-line intersections SCINTILLOGRAPH DATA Anomaly

This map was compiled from an airborne survey of the Southern Cross 4-mile area conducted by Bureau of Mineral Resources during September and October 1956. The objects of the survey were (A) to delineate magnetic anomalies which might be associated with mineral deposits or reveal structural trends in the geology of the area and (B) to indicate areas in which uranium minerals might occur.

The survey was made at an altitude of 500' above ground level along lines spaced one mile apart. The height of the aircraft was controlled through a radio altimeter. Photomosaic assemblies were used as a visual aid to navigation and the actual course of the aircraft was plotted from vertical photography taken with a 35-mm camera during field.

EXPLANATORY NOTES

The total magnetic intensity was continuously recorded by an airborne magnetometer installed in a DC3 aircraft. The data remain uncorrected for a regional gradient in total magnetic field of 7.5 gammas per mile in a direction S.5° E.

The gamma radiation from the ground was recorded continuously along flight lines by an airborne scintillograph. Anomalies marked on the map indicate where the radioactive intensity was substantially greater than the average intensity of the surrounding area.

No claim is made that the anomalies correspond to uranium deposits. A low-level scintillograph survey by an Auster aircraft was carried out to determine which anomalies warrant investigation on the ground. It is recommended that ground follow-up for uranium minerals should not be undertaken until the results of the Auster survey are inspected.

## SOUTHERN CROSS 4-MILE MAP AREA N.E. G 247-9

DETECTED BY AIRBORNE SCINTILLOGRAPH SCALE MAGNETIC CONTOUR INTERVAL 50 GAMMAS

Aerodrome

MAGNETIC DATA = 500 = Magnetic contours \_\_\_\_\_ Magnetic Low" #### \_\_\_\_\_ Contour/Flight-line intersections

SCINTILLOGRAPH DATA

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SCALE

MAGNETIC CONTOUR INTERVAL 50 GAMMAS

KILOMETRES

SOUTHERN CROSS 4-MILE MAP AREA

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Rock outcrop

\_\_\_\_\_ Magnetic Low"

• 5 ---- Anomaly

MAGNETIC DATA

##### \_\_\_\_\_ Contour/Flight-line intersections

SCINTILLOGRAPH DATA