Department of Mines, South Australia

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HIGHS AND ANOMALIES IN AIRBORNE SCINTILLOMETER SURVEY - HOUGHTON AREA

Plans (MISSING)

Two plans accompany these comments:-

(1) A print showing flights 4 to 56 with radio-active readings and areas requiring ground follow-up work.

(ii) A plan comprising portions of the Adelaide and Gawler military sheets blown up to 1" = ½ mile, and showing flights 1 to 56, high radio-active readings, areas requiring ground follow-up work (in red rectangles) and finally, the areas where ground scintillometer work has been done (in green).

Results

I. No new area of radio-activity was located, though Dr. Gross considers that insufficient ground follow-up work has been done. Areas No. 2 and 3 and part of area No. 4 are in rock types so far found to be quite unfavourable as host rocks for uranium at Houghton.

Ground follow-up work was done outside areas Nos. 1 and 4 because the high spots were either on the very edge of or outside the areas outlined for ground work. Nevertheless the results were still too low to be encouraging.

II. No high spots were recorded by the airborne scintillometer over the known uranium occurrences around Houghton village. There is the possibility that the instrument may have been faulty, although it was recording low readings over water.

Future Work

Further ground follow-up work is planned in the summer in the four areas recommended.

We have in mind that the airborne "kicks" may have come from a combination of topography and the eroded edges of lateritic cover. The lateritic cover which clings to the 1,200 ft. contour elevation gives a low background count. Dr. Gross does not agree here.

Dr. Gross considers it well worthwhile reflying run 57 and doing 58 and 59, but thinks that the rest of the area is a job for ground work only. This would answer the question of a faulty instrument when Houghton was flown.

Mr. Kerr Grant would like to see the No. 6 borehole area reflown. This is the area where the richest material (over 1% U_3O_8) has been found surfacing.

I intend to experiment in this area with a post-hole digger and scintillometer, with probe, to actually tie down the occurrence.

Dr. Gross is not in favour of using a surveyed grid for a radiometric survey. He recommends covering the area with an audible attachment (No. 942) on the scintillometer.

Should any of the area be reflown Mr. Webb suggests commencing photographing when the known radio-active spots are being approached. This would help tie down the area to be covered by ground work later, chopping it down from about 1,000 yards square to an area of about 500 x 500 feet.

M. L. Wade
GEOLOGIST

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