

MI-122-02

DEPARTMENT OF MINES  
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OCT 25 1954 OCT 16 1954  
PHIL R. HOLDSWORTH  
Commissioner of Mines  
ALASKA

TO: Phil Holdsworth, Commissioner of Mines

FROM: Art Glover, Engr.-Assayer

SUBJECT: Examination of Magnetite-Bearing Rocks on Kelp Island; and an Incidental Airborne Radiometric Traverse Across Duke and Kelp Islands, Ketchikan Recording Precinct. ( Prince Rupert Quadrangle).

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On August 5th, 1954 Mr. Jas. Pitcher of Ketchikan chartered a Webber Air Service Cessna 180 for the purpose of showing a magnetite occurrence on Kelp Island to Mr. N. M. Gibson, an engineer acting in the interest of Bethlehem Steel Company. The writer was invited to accompany them and particularly requested to conduct an airborne radiometric traverse across Kelp and Duke Islands.

Complying with this request, the writer employed a Detectron Nucleometer, Model 290, and made continuous observations throughout the trip. The areas covered, on Duke Island and Kelp Island, consisted almost entirely of ultra-basic and gabbroic rock types and, as expected, no radiometric anomalies were detected. The traverse did not include the western portion of Duke Island, which portion contains considerable gneissic and stratified rocks, nor did it include the small area of albite granite at the northeastern tip of Duke Island (See General Geologic Map of Duke Island, U. S. G. S., 1934(?)).

The magnetite-bearing rocks which were shown to Mr. Gibson by Mr. Pitcher, lie on the north shore of Kelp Island, immediately east of the small hook-like projection of the shore line. These beach outcrops of magnetite-bearing pyroxenite are similar to those known to exist elsewhere throughout the ultra-basic areas of Duke, Kelp, and East Islands. This showing, in particular, did not appear to be either high grade enough, nor large enough, to warrant exploiting. The magnetite content is estimated to be in the neighborhood of ten to fifteen percent. One assay yielded 10.47% Fe and 0.45% TiO<sub>2</sub>.

*Art Glover*  
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