PE-121-07

TERRITORY OF ALASKA
DEPARTMENT OF MINES
BOX 1391
JUNEAU, ALASKA

PROPERTY EXAMINATION REPORT

CAROL ANNE PROPERTY, DIXON ENTRANCE QUADRANGLE, RADIOACTIVES PE-121-9

James A. Williams
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The Carol Anne group of claims was staked on one of the later discoveries in the season of 1955 in the Kendrick Bay-Bokan Mountain radioactive area. After prospecting the claims for several weeks, the owner requested the TDM to examine the property and advise them on the most advantageous program to follow. Accordingly, the undersigned made an examination on September 16, 1955. The two best exposures were at the Carol Anne No. 1 and No. 2 discoveries, and these were well sampled. Other exposures were examined but not sampled. The discovery veins are narrow, and representative samples from them were assayed at 0.02% U (fluorimeter). The claims are on a favorable structure in a favorable area.

The property consists of three claims, Carol Anne No's. 1, 2, and 3. The owners are John Worthington, Kenneth McKern, and William Jucies, all of Ketchikan. Christian Melgard, Jr., of 10005 Vinton Court, Seattle 77, Washington, was a late joiner, but has withdrawn from the group since the time of the examination.

The area is on the southern portion of Prince of Wales Island and in the northeast corner of the Dixon Entrance quadrangle. The claims lie on the north side of the West Arm of Kendrick Bay, less than a mile

from the head, as shown on the attached vicinity map. The geographical coordinates are about 132°06' W longitude and 54°54' N latitude, and Ketchikan lies about 36 airline miles to the northeast.

Carol Anne claims No's. 1 and 2 extend from the beach westward 3000 feet to an elevation of something over 450 feet. A fairly well defined trail leads from tidewater past the No. 1 discovery and up through the timber to where the country becomes rather open but muskeg-covered at an elevation of 300 to 350 feet on the Carol Anne No. 2, trees only existing there in small bunches. This is a local condition, as the timber becomes thick again at higher elevations. Walking anywhere on the claims is not difficult, considering typical Southeast Alaska terrain. No samples were taken on Carol Anne No. 3, and its exact situation is not known except that it is along the beach next to No. 1.

The general area is one of diorite intrusion, a stock probably, of which Bokan Mountain seems to be the center. Numerous gradations of rock are present which include granodiorite and quartz diorite, and probably monzonite and syenite. Two uranium properties of definite promise lie at higher elevations on the mountain, one of them (the I & L) at about 1100 feet on the same east-west trending structure as the Carol Anne claims. The other property is the original Ross-Adams discovery. Between the I & L and the Carol Anne claims is the Blazek-Dotson group of claims which have much the same appearance geologically as the Carol Anne group. Considering the area as a whole, the radioactive zones seem to be largely controlled by fractures and joints, but there is no readily apparent correlation between these zones and particular rock types. Also, not all fracture zones or

joints are mineralized. The mineralized areas are generally iron-stained, the darker stains in any one zone usually being the most radioactive. Some low grade material is comparatively unstained.

On the Carol Anne claims the radioactive zones are not always coincident with fracture zones. At the discovery points, the best zones appear to be narrow stringers, some rather sharply defined and others not, of a finer grained rock type than the surrounding wall rock. Other exposures on the claims are small stringers which are definite fracture fillings, and a multitude of tiny parallel joint fillings. These latter are usually hard to fracture and not easy to sample. Some of the better samples taken from this property contained quartz and a coarser-grained feldspar, and a very definite association of the radioactivity and purple fluorite was noted. Another association is with pink manganese silicate.

Samples taken by the writer, and by the owner previously to the investigation, were assayed radiometrically at around 0.06 to 0.08% eU. However by the fluorimeter method, these samples in most cases dropped down to around 0.02% U, so the grade is low. Samples JW55-20 through 25 were taken during the examination. The assaying was by Arthur E. Glover, TDM Assayer at Ketchikan.

There is an encouraging note that should be sounded though, and that is to repeat the information from above concerning the general area and the particular structure the claims are on being favorable. Nearly all exposures, veins, stringers, joints, etc. on the property, trend about N70°W and this strike carries through the two other properties mentioned. This can be seen on the attached vicinity map. Further, on the south side

of the bay, some more prospectors have picked up further indications on the same strike. This is definitely a regional structure there that could be of importance. It could well be a pegmatite as two geologists state who were on the ground, but the writer is not completely convinced. It may be a large fault or shear zone and primary uranium minerals could lie below the surface. Uraninite or pitchblende has been tentatively identified from one of the nearby properties which was obtained at the surface.

The owners requested that a prospecting program be laid out for them. The writer complied with this request by writing a detailed letter on the subject dated November 9, 1955, copies of which were sent to each of the three owners. It is filed under Dixon Entrance in the TDM 800 file. In addition to the program detailed there, specific exposures such as the stringer located 15 feet south of the No. 1 Discovery could be traced and checked further. A 10-inch zone, indistinct, gives high readings 6 feet south of No. 2 Discovery. Thirty feet west of No. 2 Discovery there appears to be a joining of two or three small stringers which could be investigated further and some trenching and blasting done.

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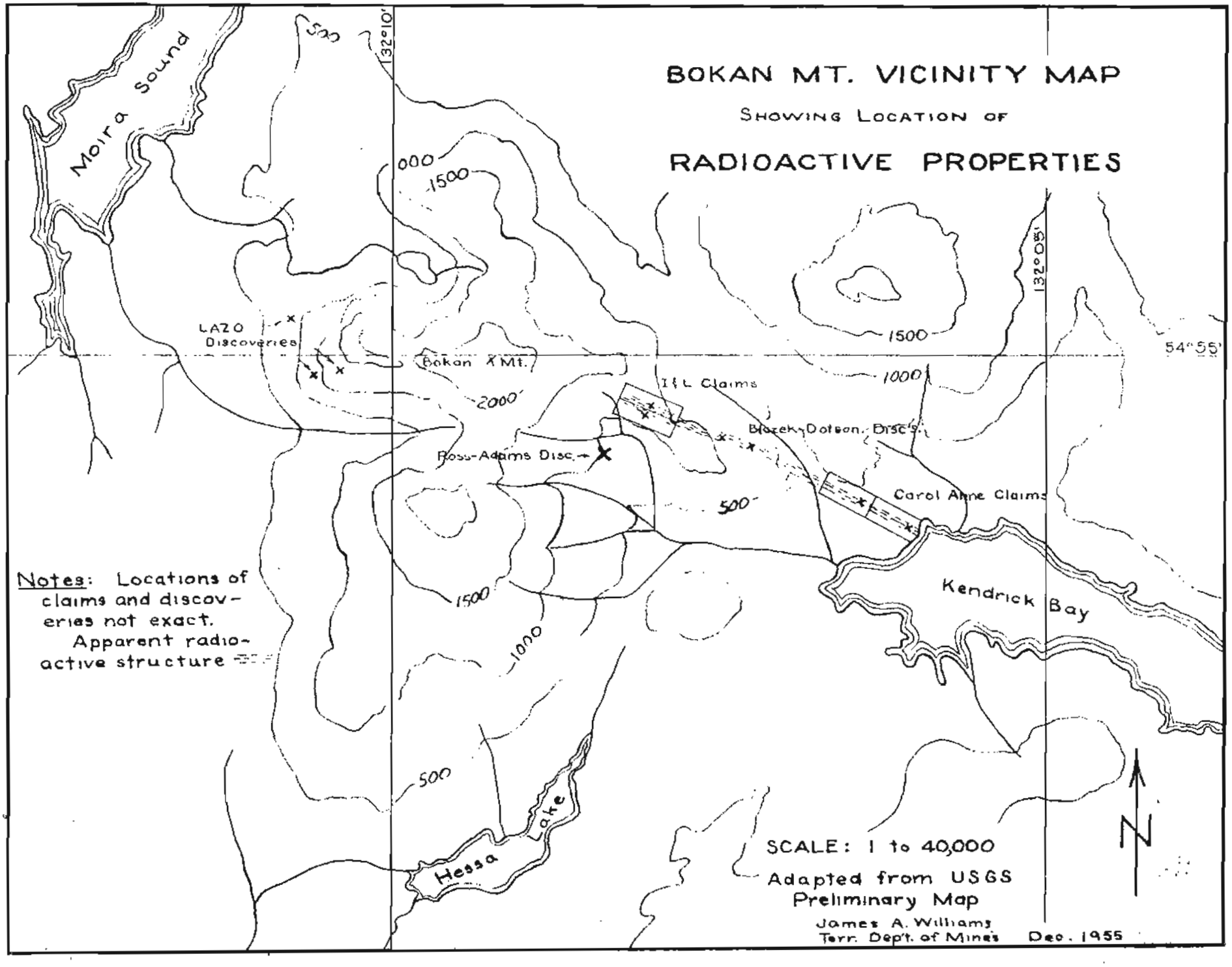
BOKAN MT. VICINITY MAP
SHOWING LOCATION OF
RADIOACTIVE PROPERTIES
Moira Sound
132°10'
132°05'
54°55'
LAZO Discoveries
Bokan Mt.
I & L Claims
Blazek-Dotson Disc's.
Ross-Adams Disc.
Carol Anne Claims
Kendrick Bay
Hessa Lake
500
1000
1500
2000
Notes: Locations of claims and discoveries not exact.
Apparent radioactive structure
SCALE: 1 to 40,000
Adapted from USGS Preliminary Map
James A. Williams
Terr. Dep't. of Mines Dec. 1955