(2,8,0)
60°27'0"
149°40' W

PE-095-17

TERRITORY OF ALASKA

DEPARTMENT OF MINES

JUNEAU, ALASKA

PE 95-17

January 5, 1953

MEMORANDUM REPORT

TO: Phil R. Holdsworth, Commissioner of Mines

FROM: James A. Williams, Associate Mining Engineer

SUBJECT: Examination of the K & T antimony prospect at Kenai Lake, Moose Pass-Hope District, Seward Recording Precinct, June 29, 1952. KX 95-24

The examination was made by the writer as a result of information on the prospect received from Nick Lean, mining engineer, and a request from the owners, accompanied by an assay report on a sample from the prospect. The report was from Laucks Testing Laboratories, Inc. and stated that the major constituents of the sample were stibnite and quartz.

No definite conclusions can be drawn from the results of the examination because the showings were largely covered by snow and slide at the time of the visit. Two samples were taken of the exposed portion of the vein, but the values were low. It is recommended that another examination be made of this property at a time when the vein or formation has been exposed for a considerable distance, and it appears that this can be accomplished.

The K & T property is owned by Mr. William C. Knaack and Mr. Dick Thomas, both of Seward. The claim is Victory No. 1, recorded in Seward. It is situated on the NE side of Kenai Lake about 2½ miles SE of the mouth of Quartz Creek at an elevation of about 1450 feet, which is approximately 1000 feet above the surface of the lake. The location is shown in the vicinity map in Figure 1. The geographical coordinates are 149° 40' W Long and 60° 27' N Lat. The prospect's situation on the hillside is shown in Figures 2 and 3.

Figure 2. Location of prospect on hillside above Kenai Lake.

Figure 3. Another view taken from lake level of hillside showing location of prospect.

From the end of the present road, one travels along the shore by foot or by boat for about 1½ miles to the lower end of a trail which leads more or less straight up the hillside to the prospect. A tractor trail or possibly a truck road from the end of the road up and across the hillside to the property could be roughed out by a D-8 bulldozer in about two days, it is estimated, but the grade would be very steep if the shortest distance between the two points were to be taken. The prospect is about 50 miles from the Seward docks over a road which will soon be mostly black-topped.

The topography in the vicinity of Kenai Lake, though steep and tending toward mountainous, is not what the writer would call rugged by Alaskan standards. The ground is firm underfoot, and not mossy. The hillsides are mostly covered with light brush and small trees and there is no large timber. It is reported that the rainfall is moderate to light and that the winters are relatively mild in this locality.

The country rock at the property is a poor grade of slate, striking N30°W and dipping approximately 60° to the NE. The beds, though tilted, are distorted very little. No local folding was noted. The mineralization is in the form of a silicious vein (possibly a sill (?)) which is impregnated rather evenly with fine-grained stibnite, pyrite, and minor amounts of pyrrhotite and sphalerite. A large amount of pyroxene is also present in the silicious material. The vein conforms to the bedding planes of the slate, as can be seen in Figures 4 and 5.

The only exposure available for sampling is shown in the photographs, where the vein was exposed for about twenty-two feet in depth and averaging about two feet in width. Channel samples were cut near the bottom and at about the center of the exposure, with the following results as reported by A. E. Glover, Department of Mines Assayer:

Sample	Width	Antimony	Gold	Silver	Copper
JW52-30	24"	4.38%	Nil	Trace	----
JW52-31	14"	1.70%	Trace	Trace	Nil

The latter sample was the one taken at the lower point.

The above values are low, but Mr. Knaack reported that the vein is higher grade below the snow slide that partly filled

Figure 4. Photograph of exposed part of stibnite vein.

Figure 5. Closeup view of stibnite vein exposure.

the gulch at the time. After some time spent in digging, it was seen that more time was needed than was available to expose a sufficient amount of vein for further sampling.

It will be noticed in the photographs that the vein pinches out at the upper extremity, but it had been traced in the next gulch to the left (see Figures 2 and 3). This exposure was now covered with slide and could not be immediately found. It was reported further that another stibnite showing was located in a gulch about 1200 feet to the NW which appears to be in a line with the strike of this vein. The relatively undisturbed slate should favor the formation of a rather consistant vein, since the vein is parallel to the bedding, and it is possible that there is a relationship between the two occurrences. Mr. Knaack reports the other prospect to be the one reported in USGS Bulletin 587, page 179. This reference is as follows:

> "An antimony prospect is reported about three-fourths of a mile north of Kenai Lake and about a mile east of Quartz Creek. The country rock is slate cut by a dike 6 to 8 feet wide. Specimens from this prospect show a fine-grained, sheared, acidic dike rock containing stringers and disseminated particles of stibnite (sulphide of antimony). One specimen showed a small quartz vein that included needles of stibnite. Assays of the antimony ore are reported to show neither gold nor silver."

Mr. Knaack was advised that if he wished to develop his prospect further, the best plan of action would probably be to attempt to follow the vein along the strike toward the other prospect by excavating crosscut trenches. Even with good values, a vein as narrow as this one would necessarily have to be followed for a considerable distance to develop a tonnage of stibnite ore that could be economically mined.

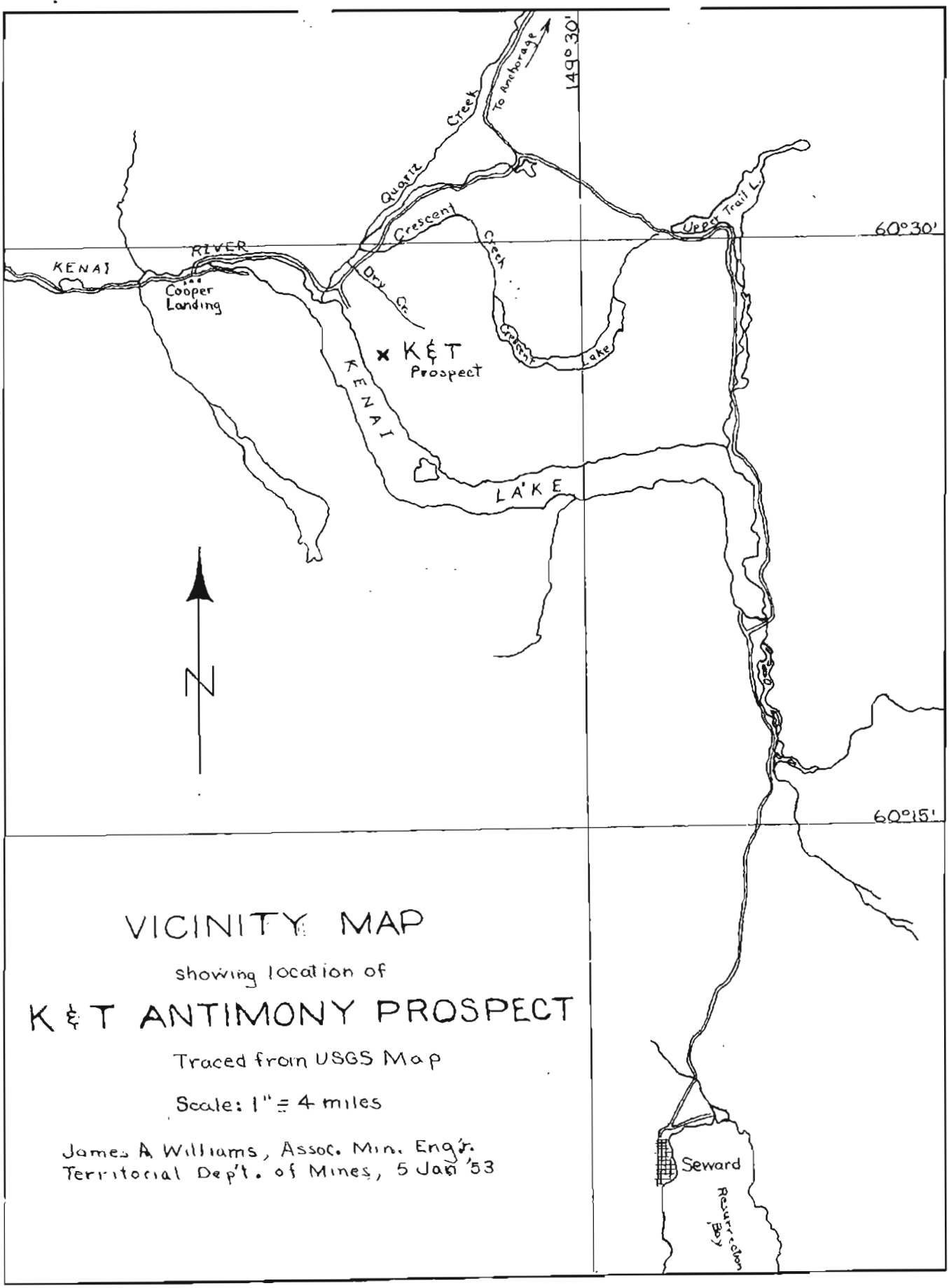
It is the writer's opinion that the vein is relatively consistant and can be followed, although the trenching may have to be deep. However, if better values are not obtained early in the exploration program, the venture should be abandoned. The writer also believes that if the owners expose the vein further, another examination by the Department is warranted.

The prospect was tested for radioactivity, but the results were negative.

Mr. Knaack gave permission for the Department to make this report available to the public.

James A. Williams

James A. Williams
Associate Mining Engineer



VICINITY MAP

showing location of

K & T ANTIMONY PROSPECT

Traced from USGS Map

Scale: 1" = 4 miles

James A. Williams, Assoc. Min. Eng'r.
Territorial Dep't. of Mines, 5 Jan '53

Figure 1.