July 27, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: Closing Review of Docket No. DMEA-3049 - Mica
Property: Morris Mica No. 2, etc.
Sitklan Island, Alaska
Applicant P. J. Ater (Co-owner)
9019 - 9th Ave., S. W.
Seattle 6, Washington
and Frank Blasher (Co-owner)
217 - 8th Ave., South, Apt. 325
Seattle 4, Washington
Amount requested: $10,100.00
No contract: Application denied
Examination Report of Field Team, dated June 23, 1953, by C. L. Sainsbury, Geologist, and Robert L. Thorne, Mining Engineer.

Docket Summary:

5/29/53	Received application Form MF-103
5/29/53	Received letter from Alaska Field Team, Region I, transmitting four copies of application, and advising that sample was sent to Mr. Geo. Purcell of GSA for evaluation, and was determined to be strategic.
6/23/53	Report of Examination by Field Team, Region I, recommends application be denied.
6/1/53	Memo from USGS recommends mica non-strategic, however, refer to field team.
7/9/53	Memo from USGS - follow field team's recommendation - denial.
7/10/53	Memo USBM concur in field team's recommendation to deny.
7/16/53	Letter to applicant denying application.

Comments and recommendation:

The poor quality of the mica from this isolated property does not justify expenditure of Government funds for exploration.

The Nonmetallic Minerals Division concurs with the Field Team that this application be denied.

LGHouk:gad 7/27/53

Copy to: Admr. R. File
Docket File
Mr. Houk

JUL 1 6 1953 500

Mr. Paul J. Ater
9019 - 9th Ave., S. W.
Seattle 6, Washington

Re: Docket No. [illegible]3049 - Mica
Morris Mica No. 2, etc.
Sitkalan Island, Alaska

Dear Mr. Ater:

Your application for aid for an exploration project and other reports available to us in Washington concerning your application have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information, although noting a small amount of mica on your property, indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

We wish to thank you for your interest in the Defense Minerals Program and for bringing your property to our attention.

Sincerely yours,

C. O. Mittendorf

Administrator

LGHouk:gad 7/3/53
Copy to: Admr. R. File
Docket File
Operating Committee
Field Team, Region I
Mr. Dietrich, 3526
Mr. Larrabee, 0-232 GSA Bldg.
Mr. Houk

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
RECEIVED
JUL 13 1953

July 10, 1953

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-3049, Mica, P. J. Ater and F. Blasher
Sitklan Island, Alaska

I concur in the field team's recommendation to deny subject application on the basis that sufficient strategic mica is not present.

Signed

W. F. Dietrich

IN REPLY REFER TO:
G-MD-CNM

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

Memorandum July 9, 1953

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMSA-3049 (mica)

To: L. G. Houk, Defense Minerals Exploration Administration
From: D. M. Larrabee, U. S. Geological Survey
Applicant: P. J. Ater, 9019 9th Ave., S.W., Seattle 6, Washington and Frank Blasher, 217 8th Ave., South, Apt. 325, Seattle 4, Washington.
Name of property:

Morris Mica #2	Last Chance
Morris Mica #1	Mica Mill Site claim
Hyder Mica #1	Naket Feldspar
Hyder Mica #2	Naket Mica #2
Hyder Mica #9	Naket Mica #3
Hyder Mica #10	Garnett Lode Claim

Location of property:
On Sitklan Island, Alaska, and across Sitklan Passage on the Alaskan mainland. The island is about 60 miles southeast of Ketchikan, Alaska in the Portland Canal.
Date of field team report: June 29, 1953.
Authorship of field team report: S. H. Lorain and C. L. Sainsbury.
Field team's recommendation:
DENIAL.

Comments:

1. Only one small area of the various claims contains substantial quantities of strategic mica.
2. The mica is green in some claims, and stained A, of 5½ and 6 sizes.
3. Considerable black and red mineral stains are in some mica.
4. Sample of ruby mica is "badly tangled, cross-grained, cracked, and wavy." (See letter to Holdsworth from Purcell, 3/18/53).
5. The samples submitted (usually the best) are too poor to warrant an exploration project under the present working conditions.
6. The exposed mica is fractured to such an extent that it would be usable for scrap only; unexposed mica probably would be of poor quality also, because of regional structural movements.
7. Although usable sheet mica possibly could be found at shallow depths, the small amount of work required for testing this possibility would not justify processing an application.

8. These claims are so poorly located and surveyed that major location revisions would be nesessary before a contract could be approved. Also, the rugged topography of Sitklan Island would make prospecting very difficult.

ACTION SUGGESTED:
Follow field team's recommendation, -- denial.

D. M. Larrabee

Larrabee:jeh
G-7/9/53
cc: Director's reading 4212
Branch reading 4212
DMEA 3
files G-232

IN REPLY REFER TO:
G-MD-CNE

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

June 1, 1953

Memorandum

To: L. G. Houk, Defense Minerals Exploration Administration
From: D. M. Larrabee, U. S. Geological Survey

REVIEW OF APPLICATION DMEA-3049 (mica)

Co-owners: Paul J. Ater, 9019 9th Ave., S. W., Seattle 6, Washington
Frank Blasher, 217 8th Ave., South, Apt. 325, Seattle 4, Washington.

Claims as follows:

Morris Mica #2
Morris Mica #1
Hyder Mica #1
Hyder Mica #2
Hyder Mica #9
Hyder Mica #10
Last Chance
Mica Mill Site claim
Naket Feldspar
Naket Mica #2
Naket Mica #3
Garnett Lode Claim

Location of property:

On Sitklan Island, Alaska, and across Sitklan Passage on the Alaskan mainland. The island is about 60 miles southeast of Ketchikan, Alaska, in the Portland Canal.

Summary of applicant's proposal:

"To explore further the possibilities of the muscovite at lower depths and check possible amount of beryllium."
(no plan of attack is presented).

Sources of information on applicant's property: None.

Comments:

Reports on this mica indicate that

1. From some claims, is green, and Stained A, of 5½ and 6 sizes.
2. Considerable black and red mineral stains are in some mica.
3. Sample of ruby mica is "badly tangled, cross-grained, cracked, and wavy."
4. Although some deposits of good ruby mica might be present, the samples submitted (usually the best) are so poor as to discourage such an exploration project under the apparent working conditions.
5. Costs proposed are quite high, considering the possible value of the project, but some may well be in line under the working conditions.

RECOMMENDATION:

Denial, on the grounds that samples submitted are non-strategic, and that the chance of making a significant contribution to the production of strategic mica are very slim. However, this should be referred to the nearest Field Team in Alaska for their consideration.

D. M. Larrabee

Larrabee:jeh
G-6/1/53
cc:
Director's read. 4212
Branch "
DMEA(3)
Larrabee G-230

DMA Form 1 Hold for F.T.R.

DEFENSE MINERALS ADMINISTRATION
Control Slip

CONTROLLED DOCUMENT

DMA Docket No. 3049

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UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

July 27, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: Closing Review of Docket No. DMEA-3049 - Mica
Property: Morris Mica No. 2, etc.
Sitklan Island, Alaska
Applicant P. J. Ater (Co-owner)
9019 - 9th Ave., S. W.
Seattle 6, Washington
and Frank Blasher (Co-owner)
217 - 8th Ave., South, Apt. 325
Seattle 4, Washington
Amount requested: $10,100.00
No contract: Application denied
Examination Report of Field Team, dated June 23, 1953, by C. L. Sainsbury, Geologist, and Robert L. Thorne, Mining Engineer.

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7/9/53	Memo from USGS - follow field team's recommendation - denial.
7/10/53	Memo USBM concur in field team's recommendation to deny.
7/16/53	Letter to applicant denying application.

Comments and recommendation:

The poor quality of the mica from this isolated property does not justify expenditure of Government funds for exploration.

The Nonmetallic Minerals Division concurs with the Field Team that this application be denied.

FILE COPY
SURNAME:

Houk

UNITED STATES
DEPARTMENT OF THE INTERIOR
600
DEFENSE MINERALS ADMINISTRATION
WASHINGTON, July 27, 1953

Memorandum

To: Administrator

From: Nonmetallic Minerals Division

Subject: Closing Review of Docket No. DMEA-3049 - Mica
Property: Morris Mica No. 2, etc.
Sitklan Island, Alaska
Applicant P. J. Ater (Co-owner)
9019 - 9th Ave., S. W.
Seattle 6, Washington
and Frank Blasher (Co-owner)
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Comments and recommendation:

The poor quality of the mica from this isolated property does not justify expenditure of Government funds for exploration.

The Nonmetallic Minerals Division concurs with the Field Team that this application be denied.

LGHouk:gad 7/27/53

Copy to: Admr. R. File
Docket File
Mr. Houk

R.C.G. 7-29-53

FILE COPY
SURNAME:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C. 600

Hugh
Kimbrel
Hedges
Schindler
Fleming

JUL 1 6 1953

Mr. Paul J. Ater
9019 - 9th Ave., S. W.
Seattle 6, Washington

Re: Docket No. DMSA3049 - Mica
Morris Mine No. 2, etc.
Sitkalan Island, Alaska

Dear Mr. Ater:

Your application for aid for an exploration project and other reports available to us in Washington concerning your application have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information, although noting a small amount of mica on your property, indicates to us that the probability of disclosing minable ore reserves by your proposed program is not sufficiently promising to justify Government participation. We regret to advise you, under these circumstances, that your application for exploration assistance is denied.

We wish to thank you for your interest in the Defense Minerals Program and for bringing your property to our attention.

Sincerely yours,

C. O. Mittendorf (for)

Administrator

MDS
7-16-53

LCHouk:gad 7/3/53
Copy to: Admr. R. File
Docket File
Operating Committee
Field Team, Region I
Mr. Dietrich, 3526
Mr. Larrabee, 0-232 GSA Bldg.
Mr. Houk

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

DEPARTMENT OF THE INTERIOR
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July 10, 1953

Memorandum

To: Nonmetallic Minerals Division
Defense Minerals Exploration Administration

From: Chief, Ceramic and Fertilizer Materials Branch

Subject: DMEA-3049, Mica, P. J. Ater and F. Blasher
Sitklan Island, Alaska

I concur in the field team's recommendation to deny subject application on the basis that sufficient strategic mica is not present.

W. F. Dietrich

W. F. Dietrich

IN REPLY REFER TO:
G-MD-CNM

DEPARTMENT OF THE INTERIOR
Defense Minerals Administration
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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

Memorandum

July 9, 1953

REVIEW OF FIELD TEAM REPORT ON APPLICATION DMEA-3049 (mica)

To: L. G. Houk, Defense Minerals Exploration Administration
From: D. M. Larrabee, U. S. Geological Survey
Applicant: P. J. Ater, 9019 9th Ave., S.W., Seattle 6, Washington and Frank Blasher, 217 8th Ave., South, Apt. 325, Seattle 4, Washington.
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Hyder Mica #10	Garnett Lode Claim

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Authorship of field team report: S. H. Lorain and C. L. Sainsbury.
Field team's recommendation:
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Comments:
1. Only one small area of the various claims contains substantial quantities of strategic mica.
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5. The samples submitted (usually the best) are too poor to warrant an exploration project under the present working conditions.
6. The exposed mica is fractured to such an extent that it would be usable for scrap only; unexposed mica probably would be of poor quality also, because of regional structural movements.
7. Although usable sheet mica possibly could be found at shallow depths, the small amount of work required for testing this possibility would not justify processing an application.

Bureau Land Management
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JUL 10 1953

8. These claims are so poorly located and surveyed that major location revisions would be necessary before a contract could be approved. Also, the rugged topography of Sitklan Island would make prospecting very difficult.

ACTION SUGGESTED:
Follow field team's recommendation, -- denial.

D. M. Larrabee

Geologic Report

DMEA Docket No. 3049, Mica
P. J. Ater and Frank Blasher
9019 9th Ave. Seattle, Washington
Property at Sitklan Island, Ketchikan District, Alaska

Introduction

The property was visited during the period May 28 - 31 by a joint Bureau-Survey team. Upon arrival at the applicant's camp on the mainland opposite Sitklan Island, it was found that no motor for the heavy work boat was available, and considerable time that should have been used for geologic investigations was wasted in rowing the heavy work boat, often against strong winds and tides. However, the writer feels enough geologic data were gathered to evaluate the possibilities for economic deposits of strategic-grade mica in the pegmatites of Sitklan Island and the associated mainland deposits.

The first day was spent in a preliminary examination of the major pegmatite exposures on Sitklan Island, and in a general geologic traverse eastward on the mainland. The second day was spent in examining the exposures on the claims of the applicant on the mainland opposite Sitklan Island, and in attempting to find an unlocated pegmatite in that area from which large book mica had been obtained by an engineer of the Territorial Department of Mines. The third day was spent in a reconnaissance of the west side of Sitklan Island and the east side of Kanagunut Island, and in a traverse of the easternmost pegmatite belt exposed on the mainland east of camp.

The fourth day was spent in making a fairly detailed tape-brunton traverse of the area near the most promising exposures on the Hyder Mica No. 1 claim.

Mr. Frank Blasher, Mr. J. H. O'Leary, Mr. Louis Pearson, and Mr. Robert O'Connor - all connected with the claims, were in camp during the time the field examination was made.

GEOLOGY

Bedded Rocks

The bedded rocks of Sitklan Island, Kanagunut Island, and the adjacent mainland to the north comprise high-rank metamorphic rocks, provisionally assigned to the Paleozoic or older, derived from a sequence of dominantly clastic beds probably of marine (?) origin. A marine (?) origin is favored because of the thin, continuous units, the lack of conglomeratic beds, and the few thin but persistent limestone beds in the sequence.

The beds have been tilted steeply eastward, and dynamo-thermally metamorphosed to garnet-biotite-hornblende-quartz- plagioclase granulites. On the west portion of Kanagunut Island, and striking northwesterly along Port Tongass, is a wide belt of garnetiferous schists and granulites in which red garnet up to one inch in size is very conspicuous (see Figure 1). The garnets often are euhedral, but seem to have been subsequently deformed, so that they are internally fractured, and "strung out." A dark red—to-black garnet of smaller size is associated with the red garnet. These garnet beds locally contain up to an estimated 30-40 percent of garnet, and possibly could have

economic significance for producing garnet sandpaper. Garnet Point on Kanagunut Island derives its name from this belt of garnet granulites, and the garnet beach sands along the west coast of Kanagunut Island are beach placers derived from the garnet granulites. Thin, persistent beds of coarsely crystallized, but very pure, limestone or marble occur in the garnet granulites on Kanagunut Island, and a few beds of quartzite are found opposite Tongass Island.

To the east, and overlying the garnet granulites, is a belt of hornblende-biotite-garnet granulites in which green hornblende is much more conspicuous, and garnet much smaller and less conspicuous, than in the underlying rocks. These rocks appear, generally, to be less schistose than the underlying rocks.

The hornblende-biotite-garnet granulites grade eastward, with an indistinct contact zone, into a belt of rocks that were mapped as a "zone of feldspathization", that appears to be a strongly feldspathic phase of granulites and paragneisses containing rocks that originally were similar to the underlying hornblende-biotite-garnet granulites. The feldspathization probably is in part caused by higher rank metamorphism that locally produced a gneissic texture, and in part caused by extraneous introduction of soda feldspar. The true pegmatitic bodies without exception are confined to this belt of feldspathized rocks, and the various claims staked on Sitklan Island, on the mainland north of Sitklan Island, and on Nakat Bay, are situated in this zone of pegmatite-bearing, feldspathized rock. This is considered to be a significant fact in considering the genesis

of the pegmatitic bodies. The feldspathized rocks locally contain recrystallized limestone beds up to 20 feet thick.

Folding of the Bedded Rocks: No major folds were seen in the metamorphic rocks, although the beds range in strike from N. 5° W. to N. 60° W. An abrupt change in strike from N. 30° W. to N. 5° W. near the east-trending fault on the east side of Sitklan Island is probably caused by faulting.

Dragfolds, notnearly so abundant or well-developed as seen by the writer along the batholith front near Juneau and Wrangell, commonly plunge steeply down the dip of the beds. They are most abundant in the limestones.

Intrusive Rocks

Pegmatites: Intrusive pegmatitic bodies up to several tens of feet thick, and of variable length, occur in two distinct belts in the zone of feldspathization on Sitklan Island, and on the mainland immediately north (Plate 1 & Figures 2 & 3). Aerial reconnaissance showed that pegmatitic bodies west of Nakat Harbor were a continuation of one or more of these belts. Exposures on the mountains north of Sitklan Passage show two distinct zones of pegmatitic rocks in the proper position to be continuations of those exposed on Sitklan Passage. The writer is confident that this relation holds true without major modification throughout the zone of feldspathization.

The pegmatitic bodies are composed essentially of a pearly-white feldspar very finely polysynthetically twinned, optically near pure albite, and of quartz that is massive and vitreous, sugary-white,

Figure 2. Massive pegmatite exposed on north shore of Sitklan Passage. Note sill-like attitude, rude foliation, and gradational contacts.

Figure 3. Crosscutting pegmatite exposed on north shore of Sitklan Passage. Note gneissic structure of rock below contact.

or sugary-vitreous. Locally, muscovite mica, or lepidolite, is developed in books up to 6"-8" in diameter. By far the major portion of the pegmatitic bodies contain little or no mica, even in coarse-grained portions, and muscovite books at only two known localities are large enough to furnish mica trimmed to 3" x 4". A Territorial Department of Mines engineer is known to have collected a powder box partly full of good-grade mica from a pegmatite whose exact location is unknown, but the writer, and prospectors in the area, were not able to duplicate this collection.

The mica is of the variety called, in G.S.A. grade classifications, "green mica," and in thick books has a dark, muddy-green color. Intense ignition under the reducing flame of the blowpipe produces no magnetic attraction toward a magnet, and the mica is bleached to a bone white color. Optically, the mica has very low birefringence in basal section, a 2 V of about 45° in basal section, parallel extinction in sections cut perpendicularly to the basal section, and an index of refraction (under a perfect BXa figure) of 1.575. Several specimens examined under the microscope had very few mineral inclusions. Specimens from the general area submitted by various people to G.S.A. and mica buyers have been described as ranging from strategic grade lepidolite to mica suitable only for scrap, which seems to be characteristic of most mica areas.

The pegmatitic bodies commonly occur as sills in the enclosing granulites and paragneisses. Locally, however, the pegmatites crosscut slightly in both strike and dip (see Figure 3), but the direction

of elongation invariably is in the strike of the bedding. Coarse-grained facies containing albite crystals up to about two inches are common, and at several places, the mica books were found to curve around blastocrystic albite, and to be oriented in such a manner that a rude foliation, parallel to that in the enclosing metamorphic rocks, is formed. This relation also is so general that it appears significant in a discussion of the origin of the pegmatites.

No minerals other than quartz, mica, or albite were seen by the writer in any exposure of pegmatite. Special attention was being given to finding some of the rarer minerals often associated with pegmatites, and the probable small content of these associated minerals seems quite well established. The pegmatites have no radioactivity detectable by the geiger counter.

Basalt Dikes: Basaltic dikes intrude the metamorphic rocks and the pegmatitic bodies. They are injected generally along the strongest joint system, which is about N. 30° - 50° E. The basalt dikes have chill borders, and have baked the enclosing rocks. One exposure was seen where basalt dikelets filled fractures in a large pegmatite body. Flow lineation and displaced pegmatite xenoliths in one dike indicated that flowage had been from west to east. Some of the basalt dikes have phenocrysts of plagioclase feldspar up to 1 cm. in length, and one dike contains smaller phenocrysts of basaltic hornblende. Pyrite, magnetite, and pyrrhotite are common, and the dikes are not noticeably amygdular. The dikes are not

metamorphosed or fractured. They are of interest because they show some intrusive activity after regional deformation, and because they help establish the age of the pegmatitic bodies.

FAULTS

Dotted lines in Plate 1 indicate faults as inferred from aerial photographs. Only one major fault was seen in the field, but several zones in which are inferred faults were eroded below the general land level, and were covered by loose blocks of material. The writer believes the faults plotted from the air photos actually cut the rocks. Samller faults occur near the major mica exposures, and the enclosing rocks are hydrothermally altered, and pyrite and pyrrhotite were introduced. At least one fault contact between pegmatite and massive hornblende granulite (?) was observed, showing that some faulting post-dates the pegmatites. It is not known if the basalt dikes are faulted.

INDIVIDUAL PROSPECTS

The term "Prospect" as used here applies only to mica-bearing pegmatites that have been trenched or drilled, and that show mica in some quantity. Other pegmatitic bodies that have been staked are not considered.

Last Chance Prospect: The Last Chance prospect is on the mainland approximately 1,500 feet from the beach camp in a north-northwesterly direction (see Figure 1). It consists of a small trench about four feet long opened up on a pegmatitic body about 2½-3' wide (See Figure 2). The pegmatite contains some silvery mica in thin

books up to 1½" in diameter that are bent around anhedral albite crystals. A rude foliation is shown by the mica books, and the resemblance to many such exposures seen elsewhere leads the writer to infer that the mica will not be of strategic grade, or large enough to secure any but the smallest of punch mica. In addition, the estimated mica content of the pegmatite is less than 10%, and the pegmatite is so thin that it could not be economically mined under any circumstance. The enclosing country rock is a quartz-biotite paragneiss.

Morris Mica No. 1 Prospect: This prospect is on the northeast corner of Sitklan Island about 300 feet from the beach at an altitude of 140 feet. Open cuts about 30-40 feet long are opened up on two massive, sill-like pegmatite bodies that intrude massive hornblende rock (See Figures 4 & 6). In each trench is a small area of mica-bearing pegmatite in which mica plates up to 8"-10" long are developed (See Figure 5). The broken and bent books of mica preponderate several times over those from which sheets could be cut, although Mr. Blasher has cut perfect sheets measuring 3" x 4½" from some of the better books. Most of the deformed books have a closely-spaced cleavage perpendicular to the sheets of mica. In many places an intersecting cleavage forms "A" mica minus the cross bar. The mica is dark-green in thick books, but some of it has been reported by various agencies and companies to be of strategic grade.

Throughout the area near the pits, massive pegmatites crop sporadically. Many outcrops were examined by the writer, and a few smaller mica books were found, but in general the mica content is very low to none. At places a rude foliation caused by mica is noticeable.

Figure 4. Pegmatite exposed in pit 1 on Hyder Mica No. 1 claim, Sitklan Island.

Figure 6. Pegmatite exposed in pit 2 on Hyder Mica No. 1 claim, Sitklan Island. Note sill-like attitude of lower contact with massive hornblende rock.

Figure 5. Mica books as exposed in Pit 2 on Morris Mica No. 1 claim, Sitklan Island.

Figure 7. Frank Blasher, old-time prospector, and locator of numerous claims on pegmatite bodies on Sitklan Island and the mainland to the north.

The pegmatites are similar to those exposed on the beach and consist of albite and quartz. No accessory minerals were seen, except near contacts where the pegmatites contained hornblende xenoliths. These contacts were observed in detail because of a previous report by J. Roehm of the Territorial Department of Mines which ascribed the localization of mica to amphibolite-pegmatite contacts where amphibolite had been ingested - mica was supposed to be the results of such ingestion. No such genesis is credited by the writer because of several reasons: (1) mica was not observed near any of the contacts examined, nor was it seen to be especially abundant near any of the hornblende xenoliths. (2) a chemical reaction between iron-bearing hornblendes and pegmatites to produce iron-free muscovite mica, without evidence of associated alteration minerals, appears remote. (3) mica occurs sporadically in many of the pegmatites with no relation to hornblende rock-pegmatite contacts. Consequently, it seems most likely to the writer that the mica represents merely a local segregation such as is common in all mica-bearing pegmatites.

Two faults were mapped near the open pits, both of which strike northeasterly, and both of which are hydrothermally altered. Pyrite was introduced into the wall rocks near the faults, and some of the massive hornblende rock was altered to a mass of biotite. Hydrothermal solutions from one of these faults probably caused the biotite alteration in the massive hornblende rock on the footwall of the pegmatite body exposed near the northwesterly open cut. One probable fault

contact between pegmatite and hornblende rock was observed near the fault intersection (See Plate 2).

The massive hornblende rock is considered by the writer to be a phase of the normal hornblende granulite recrystallized under the influence of heat from the pegmatites, and not as an altered intrusive, for the following reasons: (1) the contacts of the pegmatites and the hornblende rock normally strike and dip parallel or approximately parallel to the regional bedding, thus maintaining the sill-like attitude of the pegmatites, (2) gradations from the massive rock showing decussate structure into a foliated hornblende-garnet granulite were observed. (3) a similar massive hornblende rock was seen at one other locality to be a contact phase between hornblende-garnet granulite and pegmatite. No such evidence was seen to support an intrusive origin for the hornblende rock.

GENESIS OF PEGMATITES

A discussion of the genesis of the pegmatites seems pertinent to a consideration of the overall economic evaluation of the mica-producing potentiality of Sitklan Island and the general mainland adjacent. Pertinent observations bearing on the genesis are summarized below:

(1) the pegmatites seen by the writer normally were sill-like bodies lying in the bedding of the metamorphic granulites along a zone of feldspathization in the granulites. No pegmatites were seen to occur outside this general zone. The pegmatites sometimes have

crosscutting contacts, sometimes have gradational contacts, but always have their long axis parallel to the regional strike of the rocks.

(2) the pegmatites definitely were seen to have created a hornfels zone in some of the contacting rocks.

(3) the pegmatites do not carry observable amounts of any minerals other than quartz, feldspar and mica allied to muscovite in composition.

(4) at many places the muscovite flakes create a definite foliation approximately parallel to the foliation of the enclosing rocks, with the mica "bent around" augen-like albite crystals.

(5) the quartz of the pegmatites is broken and fractured to such an extent that any onelarge area of quartz breaks down upon weathering, or under the pick, to a mass of fine, granular quartz.

(6) the pegmatite is intruded by basalt dikes injected in a northeasterly direction along a strong joint system.

(7) most of the larger mica observed by the writer was crossed by a well-developed cleavage perpendicular to the basal section. Some fairly large unruled sheets can be obtained, however, although these sheets make up a very small total of the mica observed at any of the pits.

A consideration of the above relations suggests to the writer that the pegmatites were intruded as heated bodies into the enclosing rocks during the late stages of the Coast Range orogeny. The pegmatites probably were derived, in part at least, from "syngenetic fluids" created

from the rocks in the zone of feldspathization under the influence of the heat of regional metamorphism at depths below the present position of the pegmatites. No genetic relation to cropping intrusive rocks of granitoid composition is demonstrable.

The pegmatites were injected prior to the formation of the strong northeast-trending joints along which the basalt dikes were intruded, when the bedding or foliation of the granulites represented the easiest direction of entrance. Widespread feldspathization probably is partially contemporaneous with the pegmatites so that some gradational contacts are developed.

The foliation of the pegmatites and the granulation of the quartz indicated the pegmatitic bodies were subjected to some dynamic metamorphism after their formation. The detrimental effects of this deformation are observable, but the possible effects of deformation, if any, accompanying the injection of the basalt dikes and the later faulting are not observable.

CONCLUSION

It is concluded that although the pegmatite bodies of Sitklan Island and the adjacent mainland contain some mica of strategic grade, the potentialities of the known bodies are such that they do not warrant expensive exploration. Additional prospecting may unearth more favorable areas, but the writer believes that no large bodies capable of contributing substantial amounts of strategic-grade mica will be found in the pegmatite-bearing zone of Sitklan Island and the mainland to the north.

The deposits appear to be poor in the minerals that often accompany pegmatites elsewhere, so that mica probably constitutes the only mineral of present economic value. Owing to the surface cover of vegetation, surface stripping and prospecting will be difficult and expensive, especially on Sitklan Island where the topography is rugged.

The writer would like to point out that this preliminary examination indicates very large tonnages of albite are available at tidewater in the pegmatites cropping on the north shore of Sitklan Passage. Should a titanium-steel industry in Alaska develop a market for albite flux, these deposits may be of economic significance.

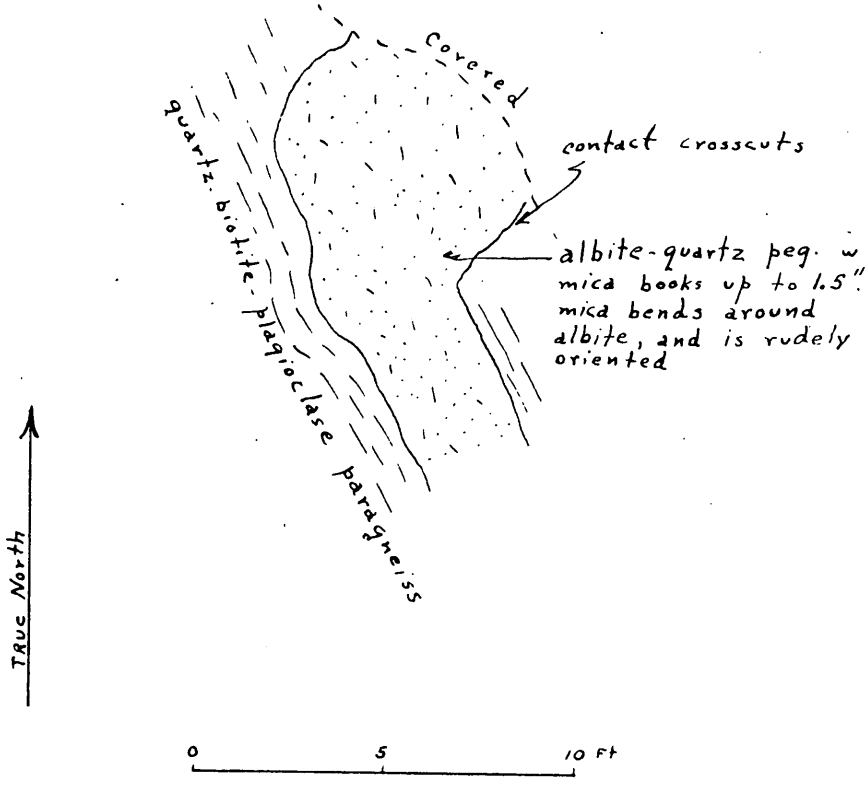
C. L. Sainsbury

C. L. Sainsbury
Geologist
U. S. Geological Survey

U.S.G.S. for D.M.E.A.

FIGURE 1

SKETCH MAP OF LAST CHANCE PROSPECT ON MAINLAND NORTH OF SITKLAN ISLAND



Geology by C.L.S., 1953

OFFICE OF THE ADMINISTRATOR

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

~~WASHINGTON 25, D. C.~~
P. O. Box 560
Juneau, Alaska
June 23, 1953

MEMORANDUM

To: Operating Committee
Defense Minerals Exploration Administration
Washington 25, D. C.

From: S. H. Lorain Reg. I

Subject: Report on proposed mica exploration project Sitklan Island, Southeastern Alaska.

Docket No. DMEA - 3049 (mica)
P. J. Ater and Frank Blasher

Enclosed herewith is an original and three copies each of a geologist's report and an engineer's report on an examination of the subject property. The conclusions reached by the geologist and by the engineer are, essentially, in agreement.

The reports point out:

1. That substantial quantities of mica have been exposed only in one small area of the various claims included in the application.

2. That the mica in the principal exposures is fractured by post mineral movement to such an extent that it would be usable for scrap only; furthermore that evidences of regional movements are so strong there is little liklihood of finding significant quantities of usable sheet mica in the immediate vicinity of the known deposits.

3. That, although it is possible that small amounts of usable sheet mica might be found at shallow depths in the known deposits, the amount of work required to test this possibility would be so small that it would not justify the cost of processing and administering an application.

Reviewed by
DMEA OPERATING COMMITTEE

_____
(date)

4. That the claims are so poorly located and surveyed that major location revisions would be necessary before a contract could be approved.

The two examination reports are not in complete agreement as to the possibility of finding economic mica deposits in the general area but both agree that extensive additional prospecting would be required before the existence of economic deposits could be assumed.

In view of the observations summarized above the Field Team recommends that the application be denied.

Yours sincerely,

ALASKA FIELD TEAM, REGION I

S. H. Lorain, Executive Officer
Bureau of Mines, Member

C. L. Sainsbury
Geological Survey, Member

Enclosures

cc: C. L. Sainsbury

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

REGION I

OFFICE OF
REGIONAL DIRECTOR

560
P. O. BOX ~~2990~~
JUNEAU, ALASKA

June 22, 1953

GS 7/15/53

To: S. H. Lorain, Executive Officer
DMEA Field Team, Region I
P. O. Box 560
Juneau, Alaska

From: Robert L. Thorne, Mining Engineer
Bureau of Mines
Region I

Subject: Examination of Sitklan Island
Mica Deposit, Southeastern Alaska

DMEA Docket No. 3049
Mica

Applicant:

Frank W. Blasher, 217 Eighth Ave. South, Seattle 4, Wn.
Paul J. Ater, 9019-9th Ave. SW, Seattle 6, Wn.
also
Louis Pearson, 3704 S.E. 16th Ave., Portland (2), Ore.

Conclusions and Recommendations:

It is recommended that the application be denied for the following reasons: The mica is of a greenish shade and could not be classified as ruby mica. The two better exposures are located on a hogback, some 80' apart, between two major fault planes and the resulting stress is reflected in the ribbon character of the mica books. The minor amount of work required to test the character of the small deposits of mica below the zone of weathering does not justify the purchase of equipment or the processing of an application. Irregularities in the application would delay processing of the present application beyond the planned term of present operations.

Introduction:

The DMEA examination team arrived on the property May 28, 1953 at 9:40 am and left the property May 31, 1953 at 4:00 pm. The Geological Survey was represented by C. L. Sainsbury and the Bureau of Mines by Robert L. Thorne.

Present at the property were: Frank W. Blasher, part owner, Louis Pearson, part owner, Jas. H. O'Leary, partner of Pearson, and Bob O'Connor.

Location and Access:

The mica exposures which are the dominant justification for this application are located on the Hyder Mica No. 1 lode claim on Point Mansfield, Sitklan Island. The property is located on the mail boat route between Ketchikan, Alaska and Hyder, Alaska at 54°45' N latitude and 130°40' west longtitude. The property is approximately 60 miles southeast of Ketchikan, Alaska. The claims are in the Ketchikan Recording District.

The property is accessible by water transportation throughout the year.

Competence of Applicants:

Frank W. Blasher--Prospector from days of "98," now derives income from old age pension, is 77 but very active for that age. He is very good at hand drilling.

Paul J. Ater, profession, cabinet maker, hobby, mineralogy. No personal contact but produced a reasonably good application.

Louis Pearson, 67, very active and competent both physically and mentally, logging operator and quarry operator. Will not be an active participant in supervision of the work.

Applicant's property rights:

The following is the correct recording of the claims listed in the application with the owner at the time of recording in Ketchikan, Alaska.

Claim	Volume	Page	Owner
Morris Mica No. 2	14	42	Morris Weiss
Morris Mica No. 1	14	42	Morris Weiss
Hyder Mica No. 1	14	43	Morris Weiss
Hyder Mica No. 2	14	43	Frank Blasher
Hyder Mica No. 9	14	43	Morris Weiss
Hyder Mica No. 10	14	44	Morris Weiss
Last Chance	14	45	Morris Weiss
Mica Mill Site	14	80	Blasher & Ater
Naket Feldspar	14	80	Blasher & Ater
Naket Mica No. 2	14	44	Morris Weiss
Naket Mica No. 3	14	44	Frank Blasher
Garnet Lode	14	80	F. W. Blasher & P. J. Ater

Morris Weiss locations were made by Frank W. Blasher working on a grubstake. Presumably this would make Frank W. Blasher and Morris Weiss co-owners in all claims located during that period.

On 8/26/51, Morris Weiss deeded his interest in these claims to Paul J. Ater as is recorded in Ketchikan in Book Y, page 1 of Deeds. Quit-claim deed No. 14942 from Morris Weiss to Paul J. Ater of 9 mining claims near Hyder, Alaska, as follows.

Hyder Mica No. 1
Hyder Mica No. 2
Hyder Mica No. 9
Hyder Mica No. 10
Naket Mica No. 3
Naket Mica No. 4
Morris Mica No. 1
Morris Mica No. 11 (possibly meant to be Roman numeral 2)
Last Chance

Proof of labor to July 1, 1953 was recorded in vol. 14, page 100 at Ketchikan by Paul J. Ater and Frank W. Blasher for the following claims:

Hyder Mica No. 1
Hyder Mica No. 2
Morris Mica No. 1
Morris Mica No. 2
Hyder Mica No. 9
Hyder Mica No. 10
Last Chance

Jas. H. O'Leary acquired a 1/3 interest in the claims listed in the application in 1952. The informal paper which had been drawn up, signed and properly witnessed was shown to the field team representatives. Jas. H. O'Leary stated that he had acquired the property for Louis Pearson and that they carried on a verbal partnership in such matters. He assured the field team representatives that the legal transfer of the 1/3 interest would be made to Louis Pearson and that consent to lien would be made by Pearson.

The Hyder Mica No. 1, Hyder Mica No. 2, Morris Mica No. 1 and Morris Mica No. 2 claims are located some distance from the site shown on the claim map submitted with the application. The location of the discovery post of Hyder Mica No. 1 lode is S40° E, 50' from Coast and Geodetic survey marker, Nut No. 1, which is located on Point Mansfield, Sitklan Island at 54°45' 55.437" N. latitude and 130°40' 28.420" W. longtitude. The northeast and northwest witness end posts were tied in by Brunton and tape survey. The claim is described, as are the others in this group, as running southeast and northwest. The other three claims in the group were placed on the map accompanying this report from the recorded descriptions. The major mica showings were tied in by Brunton tape survey and found to be located on the Hyder Mica No. 1 claim.

The present campsite is located in the area designated on the map

as the Hyder Mica No. 10 claim. The Last Chance discovery location was not surveyed and its position is shown from estimated distance and topographic position as observed in field reconnaissance.

Facilities and Prospect Workings:

The shelters, on the mainland claim Hyder Mica No. 10, are two tents without floors. There are no shelters or structures of any kind on the Sitklan Island claims.

The best showings of mica are on the Hyder Mica No. 1 claim. Opencuts approximately 10' long and 2' and 4' deep respectively, in the solid rock are the only workings. The opencuts are approximately 80' apart on opposite walls of the pegmatite.

Laborers, materials, supplies and equipment would have to be shipped in from Ketchikan or Seattle for the work proposed in the application. Two boxes of dynamite, hand steel and some other supplies are now on hand for the small opencutting operation in progress.

Discussion of Applicant's Proposal:

The application proposes general stripping in search of mica which would be prospecting. A tunnel or shaft on Hyder Mica No. 9 is proposed. The pegmatite described in the application was examined and no mica showing justifying a tunnel or shaft was observed.

A shot was placed in the mica showing on the footwall side of the pegmatite on the Hyder Mica No. 1 claim. The mica recovered was cut into ribbons, apparently from shearing resulting from post mineral movement. If the mica continues 15' along the strike at this point a continuation of the present hand work will expose it at a depth of 12' to 15' below the surface. In this recently glaciated area this depth should expose fresh unaltered mica. If the ribbon structure is found in the mica at this depth, no further work in this immediate area is warranted.

Conclusions:

The pegmatites extend over a large area and prospecting may discover good deposits of unsheared mica. However present exposures do not justify a DMEA loan. The ownership of the property should be clarified and properly recorded and the location of the claims should be correctly shown before a new application is considered under any circumstances.

Robert L. Thorne

C O P Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS ADMINISTRATION
P. O. Box 560
Juneau, Alaska
June 23, 1953

Received
JUN 29 1953

MEMORANDUM

To: Operating Committee
Defense Minerals Exploration Administration
Washington 25, D. C.

From: S. H. Lorain

Subject: Report on proposed mica exploration project Sitklan Island, Southeastern Alaska.

Docket No. DMEA - 3049 (mica)
P. J. Ater and Frank Blasher

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Reviewed by
DMEA OPERATING COMMITTEE
7-8-53
(date)

4. That the claims are so poorly located and surveyed that major location revisions would be necessary before a contract could be approved.

The two examination reports are not in complete agreement as to the possibility of finding economic mica deposits in the general area but both agree that extensive additional prospecting would be required before the existence of economic deposits could be assumed.

In view of the observations summarized above the Field Team recommends that the application be denied.

Yours sincerely,

ALASKA FIELD TEAM, REGION I

/s/ S. H. LORAIN
S. H. Lorain, Executive Officer
Bureau of Mines, Member

/s/ C. L. SAINSBURY
C. L. Sainsbury
Geological Survey, Member

Enclosures

cc: C. L. Sainsbury

Geologic Report

DMEA Docket No. 3049, Mica
P. J. Ater and Frank Blasher
9019 9th Ave. Seattle, Washington
Property at Sitklan Island, Ketchikan District, Alaska

Introduction

The property was visited during the period May 28 - 31 by a joint Bureau-Survey team. Upon arrival at the applicant's camp on the mainland opposite Sitklan Island, it was found that no motor for the heavy work boat was available, and considerable time that should have been used for geologic investigations was wasted in rowing the heavy work boat, often against strong winds and tides. However, the writer feels enough geologic data were gathered to evaluate the possibilities for economic deposits of strategic-grade mica in the pegmatites of Sitklan Island and the associated mainland deposits.

The first day was spent in a preliminary examination of the major pegmatite exposures on Sitklan Island, and in a general geologic traverse eastward on the mainland. The second day was spent in examining the exposures on the claims of the applicant on the mainland opposite Sitklan Island, and in attempting to find an unlocated pegmatite in that area from which large book mica had been obtained by an engineer of the Territorial Department of Mines. The third day was spent in a reconnaissance of the west side of Sitklan Island and the east side of Kanagunut Island, and in a traverse of the easternmost pegmatite belt exposed on the mainland east of camp.

Reviewed by
DMEA OPERATING COMMITTEE
7-8-53
(date)

The fourth day was spent in making a fairly detailed tape-brunton traverse of the area near the most promising exposures on the Hyder Mica No. 1 claim.

Mr. Frank Blasher, Mr. J. H. O'Leary, Mr. Louis Pearson, and Mr. Robert O'Connor - all connected with the claims, were in camp during the time the field examination was made.

GEOLOGY

Bedded Rocks

The bedded rocks of Sitkian Island, Kanaguant Island, and the adjacent mainland to the north comprise high-rank metamorphic rocks, provisionally assigned to the Paleozoic or older, derived from a sequence of dominantly clastic beds probably of marine (?) origin. A marine (?) origin is favored because of the thin, continuous units, the lack of conglomeratic beds, and the few thin but persistent limestone beds in the sequence.

The beds have been tilted steeply eastward, and dynamo-thermally metamorphosed to garnet-biotite-hornblende-quartz- plagioclase granulites. On the west portion of Kanaguant Island, and striking northwesterly along Port Tongass, is a wide belt of garnetiferous schists and granulites in which red garnet up to one inch in size is very conspicuous (see Figure 1). The garnets often are euhedral, but seem to have been subsequently deformed, so that they are internally fractured, and "strung out." A dark red-to-black garnet of smaller size is associated with the red garnet. These garnet beds locally contain up to an estimated 30-40 percent of garnet, and possibly could have

economic significance for producing garnet sandpaper. Garnet Point on Kanagunut Island derives its name from this belt of garnet granulites, and the garnet beach sands along the west coast of Kanagunut Island are beach placers derived from the garnet granulites. Thin, persistent beds of coarsely crystallized, but very pure, limestone or marble occur in the garnet granulites on Kanagunut Island, and a few beds of quartzite are found opposite Tongass Island.

To the east, and overlying the garnet granulites, is a belt of hornblende-biotite-garnet granulites in which green hornblende is much more conspicuous, and garnet much smaller and less conspicuous, than in the underlying rocks. These rocks appear, generally, to be less schistose than the underlying rocks.

The hornblende-biotite-garnet granulites grade eastward, with an indistinct contact zone, into a belt of rocks that were mapped as a "zone of feldspathization", that appears to be a strongly feldspathic phase of granulites and paragneisses containing rocks that originally were similar to the underlying hornblende-biotite-garnet granulites. The feldspathization probably is in part caused by higher rank metamorphism that locally produced a gneissic texture, and in part caused by extraneous introduction of soda feldspar. The true pegmatitic bodies without exception are confined to this belt of feldspathized rocks, and the various claims staked on Sitklan Island, on the mainland north of Sitklan Island, and on Makat Bay, are situated in this zone of pegmatite-bearing, feldspathized rock. This is considered to be a significant fact in considering the genesis

of the pegmatitic bodies. The feldspathized rocks locally contain recrystallized limestone beds up to 20 feet thick.

Folding of the Bedded Rocks: No major folds were seen in the metamorphic rocks, although the beds range in strike from N. 5° W. to N. 60° W. An abrupt change in strike from N. 30° W. to N. 5° W. near the east-trending fault on the east side of Sitklan Island is probably caused by faulting.

Dragfolds, not nearly so abundant or well-developed as seen by the writer along the batholith front near Juneau and Wrangell, commonly plunge steeply down the dip of the beds. They are most abundant in the limestones.

Intrusive Rocks

Pegmatites: Intrusive pegmatitic bodies up to several tens of feet thick, and of variable length, occur in two distinct belts in the zone of feldspathization on Sitklan Island, and on the mainland immediately north (Plate 1 & Figures 2 & 3). Aerial reconnaissance showed that pegmatitic bodies west of Nakat Harbor were a continuation of one or more of these belts. Exposures on the mountains north of Sitklan Passage show two distinct zones of pegmatitic rocks in the proper position to be continuations of those exposed on Sitklan Passage. The writer is confident that this relation holds true without major modification throughout the zone of feldspathization.

The pegmatitic bodies are composed essentially of a pearly-white feldspar very finely polysynthetically twinned, optically near pure albite, and of quartz that is massive and vitreous, sugary-white,

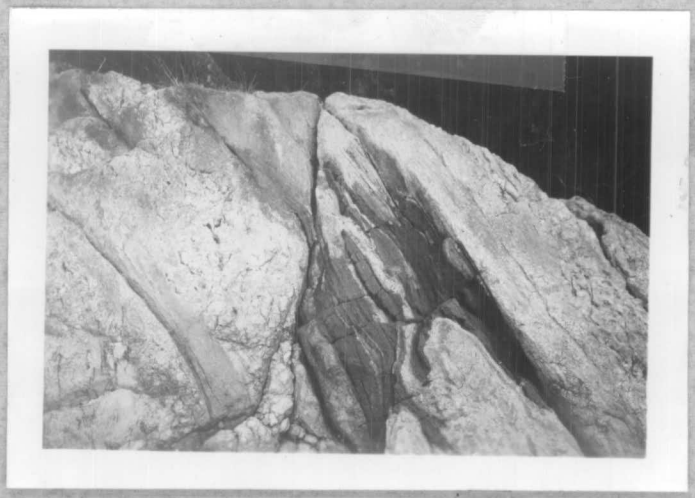

Figure 2. Massive pegmatite exposed on north shore of Sitklan Passage. Note sill-like attitude, rude foliation, and gradational contacts.

Figure 3. Crosscutting pegmatite exposed on north shore of Sitklan Passage. Note gneissic structure of rock below contact.

or sugary-vitreous. Locally, muscovite mica, or lepidolite, is developed in books up to 6"-8" in diameter. By far the major portion of the pegmatitic bodies contain little or no mica, even in coarse-grained portions, and muscovite books at only two known localities are large enough to furnish mica trimmed to 3" x 4". A Territorial Department of Mines engineer is known to have collected a powder box partly full of good-grade mica from a pegmatite whose exact location is unknown, but the writer, and prospectors in the area, were not able to duplicate this collection.

The mica is of the variety called, in G.S.A. grade classifications, "green mica," and in thick books has a dark, muddy-green color. Intense ignition under the reducing flame of the blowpipe produces no magnetic attraction toward a magnet, and the mica is bleached to a bone white color. Optically, the mica has very low birefringence in basal section, a 2 V of about 45° in basal section, parallel extinction in sections cut perpendicularly to the basal section, and an index of refraction (under a perfect BXa figure) of 1.575. Several specimens examined under the microscope had very few mineral inclusions. Specimens from the general area submitted by various people to G.S.A. and mica buyers have been described as ranging from strategic grade lepidolite to mica suitable only for scrap, which seems to be characteristic of most mica areas.

The pegmatitic bodies can only occur as sills in the enclosing granulites and paragneisses. Locally, however, the pegmatites crosscut slightly in both strike and dip (see Figure 3), but the direction

of elongation invariably is in the strike of the bedding. Coarse-grained facies containing albite crystals up to about two inches are common, and at several places, the mica books were found to curve around blastocrystic albite, and to be oriented in such a manner that a crude foliation, parallel to that in the enclosing metamorphic rocks, is formed. This relation also is so general that it appears significant in a discussion of the origin of the pegmatites.

No minerals other than quartz, mica, or albite were seen by the writer in any exposure of pegmatite. Special attention was being given to finding some of the rarer minerals often associated with pegmatites, and the probable small content of these associated minerals seems quite well established. The pegmatites have no radioactivity detectable by the geiger counter.

Basalt Dikes: Basaltic dikes intrude the metamorphic rocks and the pegmatitic bodies. They are injected generally along the strongest joint system, which is about N. 30° - 50° E. The basalt dikes have chill borders, and have baked the enclosing rocks. One exposure was seen where basalt dikelets filled fractures in a large pegmatite body. Flow lineation and displaced pegmatite xenoliths in one dike indicated that flowage had been from west to east. Some of the basalt dikes have phenocrysts of plagioclase feldspar up to 1 cm. in length, and one dike contains smaller phenocrysts of basaltic hornblende. Pyrite, magnetite, and pyrrhotite are common, and the dikes are not noticeably amygdular. The dikes are not

metamorphosed or fractured. They are of interest because they show area intrusive activity after regional deformation, and because they help establish the age of the pegmatitic bodies.

FAULTS

Dotted lines in Plate 1 indicate faults as inferred from aerial photographs. Only one major fault was seen in the field, but several zones in which are inferred faults were eroded below the general land level, and were covered by loose blocks of material. The writer believes the faults plotted from the air photos actually cut the rocks. Smaller faults occur near the major mica exposures, and the enclosing rocks are hydrothermally altered, and pyrite and pyrrhotite were introduced. At least one fault contact between pegmatite and massive hornblende granulite (?) was observed, showing that some faulting post-dates the pegmatites. It is not known if the basalt dikes are faulted.

INDIVIDUAL PROSPECTS

The term "Prospect" as used here applies only to mica-bearing pegmatites that have been trenched or drilled, and that show mica in some quantity. Other pegmatitic bodies that have been staked are not considered.

Last Chance Prospect: The Last Chance prospect is on the mainland approximately 1,500 feet from the beach camp in a north-northwesterly direction (see Figure 1). It consists of a small trench about four feet long opened up on a pegmatitic body about 2'-3' wide (See Figure 2). The pegmatite contains some silvery mica in thin

books up to 1½" in diameter that are bent around anhedral albite crystals. A rude foliation is shown by the mica books, and the resemblance to many such exposures seen elsewhere leads the writer to infer that the mica will not be of strategic grade, or large enough to secure any but the smallest of punch mica. In addition, the estimated mica content of the pegmatite is less than 10%, and the pegmatite is so thin that it could not be economically mined under any circumstance. The enclosing country rock is a quartz-biotite paragneiss.

Morris Mica No. 1 Prospect: This prospect is on the northeast corner of Sitklan Island about 700 feet from the beach at an altitude of 140 feet. Open cuts about 30-40 feet long are opened up on two massive, sill-like pegmatite bodies that intrude massive hornblende rock (See Figures 4 & 6). In each trench is a small area of mica-bearing pegmatite in which mica plates up to 8"-10" long are developed (See Figure 5). The broken and bent books of mica preponderate several times over those from which sheets could be cut, although Mr. Blasher has cut perfect sheets measuring 3" x 4½" from some of the better books. Most of the deformed books have a closely-spaced cleavage perpendicular to the sheets of mica. In many places an intersecting cleavage forms "4" mica minus the cross bar. The mica is dark-green in thick books, but some of it has been reported by various agencies and companies to be of strategic grade.

Throughout the area near the pits, massive pegmatites crop sporadically. Many outcrops were examined by the writer, and a few smaller mica books were found, but in general the mica content is very low to none. At places a rude foliation caused by mica is noticeable.

Figure 4. Pegmatite exposed in pit 1 on Hyder Mica No. 1 claim, Sitklan Island.

Figure 6. Pegmatite exposed in pit 2 on Hyder Mica No. 1 claim, Sitklan Island. Note sill-like attitude of lower contact with massive hornblende rock.

Figure 5. Mica books as exposed in Pit 2 on Morris Mica No. 1 claim, Sitklan Island.

Figure 7. Frank Blasher, old-time prospector, and locator of numerous claims on pegmatite bodies on Sitklan Island and the mainland to the north.

The pegmatites are similar to those exposed on the beach and consist of albite and quartz. No accessory minerals were seen, except near contacts where the pegmatites contained hornblende xenoliths. These contacts were observed in detail because of a previous report by J. Roehm of the Territorial Department of Mines which ascribed the localization of mica to amphibolite-pegmatite contacts where amphibolite had been ingested - mica was supposed to be the results of such ingestion. No such genesis is credited by the writer because of several reasons: (1) mica was not observed near any of the contacts examined, nor was it seen to be especially abundant near any of the hornblende xenoliths. (2) a chemical reaction between iron-bearing hornblendes and pegmatites to produce iron-free muscovite mica, without evidence of associated alteration minerals, appears remote. (3) mica occurs sporadically in many of the pegmatites with no relation to hornblende rock-pegmatite contacts. Consequently, it seems most likely to the writer that the mica represents merely a local segregation such as is common in all mica-bearing pegmatites.

Two faults were mapped near the open pits, both of which strike northeasterly, and both of which are hydrothermally altered. Pyrite was introduced into the wall rocks near the faults, and some of the massive hornblende rock was altered to a mass of biotite. Hydrothermal solutions from one of these faults probably caused the biotite alteration in the massive hornblende rock on the footwall of the pegmatite body exposed near the northeasterly open cut. One probable fault

contact between pegmatite and hornblende rock was observed near the fault intersection (See Plate 2).

The massive hornblende rock is considered by the writer to be a phase of the normal hornblende granulite recrystallized under the influence of heat from the pegmatites, and not as an altered intrusive, for the following reasons: (1) the contacts of the pegmatites and the hornblende rock normally strike and dip parallel or approximately parallel to the regional bedding, thus maintaining the sill-like attitude of the pegmatites, (2) gradations from the massive rock showing decussate structure into a foliated hornblende-garnet granulite were observed, (3) a similar massive hornblende rock was seen at one other locality to be a contact phase between hornblende-garnet granulite and pegmatite. No such evidence was seen to support an intrusive origin for the hornblende rock.

GENESIS OF PEGMATITES

A discussion of the genesis of the pegmatites seems pertinent to a consideration of the overall economic evaluation of the mica-producing potentiality of Sitklan Island and the general mainland adjacent. Pertinent observations bearing on the genesis are summarized below:

(1) the pegmatites seen by the writer normally were sill-like bodies lying in the bedding of the metamorphic granulites along a zone of feldspathization in the granulites. No pegmatites were seen to occur outside this general zone. The pegmatites sometimes have

crosscutting contacts, sometimes have gradational contacts, but always have their long axis parallel to the regional strike of the rocks.

(2) the pegmatites definitely were seen to have created a hornfels zone in some of the contacting rocks.

(3) the pegmatites do not carry observable amounts of any minerals other t an quartz, feldspar and mica allied to muscovite in composition.

(4) at many places the muscovite flakes create a definite foliation approximately parallel to the foliation of the enclosing rocks, with the mica "bent around" augen-like albite crystals.

(5) the quartz of the pegmatites is broken and fractured to such an extent that any one large area of quartz breaks down upon weathering, or under the pick, to a mass of fine, granular quartz.

(6) the pegmatite is intruded by basalt dikes injected in a northeasterly direction along a strong joint system.

(7) most of the larger mica observed by the writer was crossed by a well-developed cleavage perpendicular to the basal section. Some fairly large unruled sheets can be obtained, however, although these sheets make up a very small total of the mica observed at any of the pits.

A consideration of the above relations suggests to the writer that the pegmatites were intruded as heated bodies into the enclosing rocks during the late stages of the Coast Range orogeny. The pegmatites probably were derived, in part at least, from "syngenetic fluids" created

from the rocks in the zone of feldspathization under the influence of the heat of regional metamorphism at depths below the present position of the pegmatites. No genetic relation to cropping intrusive rocks of granitoid composition is demonstrable.

The pegmatites were injected prior to the formation of the strong northeast-trending joints along which the basalt dikes were intruded, when the bedding or foliation of the granulites represented the easiest direction of entrance. Widespread feldspathization probably is partially contemporaneous with the pegmatites so that some gradational contacts are developed.

The foliation of the pegmatites and the granulation of the quartz indicated the pegmatitic bodies were subjected to some dynamic metamorphism after their formation. The detrimental effects of this deformation are observable, but the possible effects of deformation, if any, accompanying the injection of the basalt dikes and the later faulting are not observable.

CONCLUSION

It is concluded that although the pegmatite bodies of Sitklan Island and the adjacent mainland contain some mica of strategic grade, the potentialities of the known bodies are such that they do not warrant expensive exploration. Additional prospecting may unearth more favorable areas, but the writer believes that no large bodies capable of contributing substantial amounts of strategic-grade mica will be found in the pegmatite-bearing zone of Sitklan Island and the mainland to the north.

The deposits appear to be poor in the minerals that often accompany pegmatites elsewhere, so that mica probably constitutes the only mineral of present economic value. Owing to the surface cover of vegetation, surface stripping and prospecting will be difficult and expensive, especially on Sitkian Island where the topography is rugged.

The writer would like to point out that this preliminary examination indicates very large tonnages of albite are available at tidewater in the pegmatites cropping on the north shore of Sitkian Passage. Should a titanium-steel industry in Alaska develop a market for albite flux, these deposits may be of economic significance.

C. L. Gainsbury
Geologist
U. S. Geological Survey

June 22, 1953

To: S. H. Lorain, Executive Officer
DMEA Field Team, Region I
P. O. Box 560
Juneau, Alaska

From: Robert L. Thorne, Mining Engineer
Bureau of Mines
Region I

Subject: Examination of Sitkinak Island
Mica Deposit, Southeastern Alaska

DMEA Docket No. 3049
Mica

Applicant:

Frank W. Blasher, 217 Eighth Ave. South, Seattle 4, Wn.
Paul J. Ater, 9019-9th Ave. SW, Seattle 6, Wn.
also
Louis Pearson, 3704 S.E. 16th Ave., Portland (2), Ore.

Conclusions and Recommendations:

It is recommended that the application be denied for the following reasons: The mica is of a greenish shade and could not be classified as ruby mica. The two better exposures are located on a hogback, some 80' apart, between two major fault planes and the resulting stress is reflected in the ribbon character of the mica books. The minor amount of work required to test the character of the small deposits of mica below the zone of weathering does not justify the purchase of equipment or the processing of an application. Irregularities in the application would delay processing of the present application beyond the planned term of present operations.

Introduction:

The DMEA examination team arrived on the property May 28, 1953 at 9:40 am and left the property May 31, 1953 at 4:00 pm. The Geological Survey was represented by G. L. Sainsbury and the Bureau of Mines by Robert L. Thorne.

Present at the property were: Frank W. Blasher, part owner, Louis Pearson, part owner, Jas. H. O'Leary, partner of Pearson, and Bob O'Connor.

Reviewed by
DMEA OPERATING COMMITTEE

7-8-53
(date)

Location and Access:

The mica exposures which are the dominant justification for this application are located on the Hyder Mica No. 1 lode claim on Point Mansfield, Sitkian Island. The property is located on the mail boat route between Ketchikan, Alaska and Hyder, Alaska at 54°45' N latitude and 130°40' west longitude. The property is approximately 60 miles southeast of Ketchikan, Alaska. The claims are in the Ketchikan Recording District.

The property is accessible by water transportation throughout the year.

Competence of Applicants:

Frank W. Blasher--Prospector from days of "98," now derives income from old age pension, is 77 but very active for that age. He is very good at hand drilling.

Paul J. Ater, profession, cabinet maker, hobby, mineralogy. No personal contact but produced a reasonably good application.

Louis Pearson, 67, very active and competent both physically and mentally, logging operator and quarry operator. Will not be an active participant in supervision of the work.

Applicant's property rights:

The following is the correct recording of the claims listed in the application with the owner at the time of recording in Ketchikan, Alaska.

Claim	Volume	Page	Owner
Morris Mica No. 2	14	42	Morris Weiss
Morris Mica No. 1	14	42	Morris Weiss
Hyder Mica No. 1	14	43	Morris Weiss
Hyder Mica No. 2	14	43	Frank Blasher
Hyder Mica No. 9	14	43	Morris Weiss
Hyder Mica No. 10	14	44	Morris Weiss
Last Chance	14	45	Morris Weiss
Mica Mill Site	14	80	Blasher & Ater
Naket Feldspar	14	80	Blasher & Ater
Naket Mica No. 2	14	44	Morris Weiss
Naket Mica No. 3	14	44	Frank Blasher
Garnet Lode	14	80	F. W. Blasher & P. J. Ater

Morris Weiss locations were made by Frank W. Blasher working on a grubstake. Presumably this would make Frank W. Blasher and Morris Weiss co-owners in all claims located during that period.

On 8/26/51, Morris Weiss deeded his interest in these claims to Paul J. Ater as is recorded in Ketchikan in Book Y, page 1 of Deeds. Quit-claim deed No. 14942 from Morris Weiss to Paul J. Ater of 9 mining claims near Hyder, Alaska, as follows.

Hyder Mica No. 1
Hyder Mica No. 2
Hyder Mica No. 9
Hyder Mica No. 10
Naket Mica No. 3
Naket Mica No. 4
Morris Mica No. 1
Morris Mica No. 11 (possibly meant to be Roman numeral 2)
Last Chance

Proof of labor to July 1, 1953 was recorded in vol. 14, page 100 at Ketchikan by Paul J. Ater and Frank W. Blasher for the following claims:

Hyder Mica No. 1
Hyder Mica No. 2
Morris Mica No. 1
Morris Mica No. 2
Hyder Mica No. 9
Hyder Mica No. 10
Last Chance

Jas. H. O'Leary acquired a 1/3 interest in the claims listed in the application in 1952. The informal paper which had been drawn up, signed and properly witnessed was shown to the field team representatives. Jas. H. O'Leary stated that he had acquired the property for Louis Pearson and that they carried on a verbal partnership in such matters. He assured the field team representatives that the legal transfer of the 1/3 interest would be made to Louis Pearson and that consent to lien would be made by Pearson.

The Hyder Mica No. 1, Hyder Mica No. 2, Morris Mica No. 1 and Morris Mica No. 2 claims are located some distance from the site shown on the claim map submitted with the application. The location of the discovery post of Hyder Mica No. 1 lode is 340° E 50' from Coast and Geodetic survey marker, Hut No. 1, which is located on Point Mansfield, Sitklan Island at 54°45' 55.437" N. latitude and 130°40' 28.420" W. longtitude. The northeast and northwest witness end posts were tied in by Brunton and tape survey. The claim is described, as are the others in this group, as running southeast and northwest. The other three claims in the group were placed on the map accompanying this report from the recorded descriptions. The major mica showings were tied in by Brunton tape survey and found to be located on the Hyder Mica No. 1 claim.

The present campsite is located in the area designated on the map

as the Hyder Mica No. 10 claim. The Last Chance discovery location was not surveyed and its position is shown from estimated distance and topographic position as observed in field reconnaissance.

Facilities and Prospect Workings:

The shelters, on the mainland claim Hyder Mica No. 10, are two tents without floors. There are no shelters or structures of any kind on the Sitklan Island claims.

The best showings of mica are on the Hyder Mica No. 1 claim. Open-cuts approximately 10' long and 2' and 4' deep respectively, in the solid rock are the only workings. The opencuts are approximately 80' apart on opposite walls of the pegmatite.

Laborers, materials, supplies and equipment would have to be shipped in from Ketchikan or Seattle for the work proposed in the application. Two boxes of dynamite, hand steel and some other supplies are now on hand for the small opencutting operation in progress.

Discussion of Applicant's Proposal:

The application proposes general stripping in search of mica which would be prospecting. A tunnel or shaft on Hyder Mica No. 9 is proposed. The pegmatite described in the application was examined and no mica showing justifying a tunnel or shaft was observed.

A shot was placed in the mica showing on the footwall side of the pegmatite on the Hyder Mica No. 1 claim. The mica recovered was cut into ribbons, apparently from shearing resulting from past mineral movement. If the mica continues 15' along the strike at this point a continuation of the present hand work will expose it at a depth of 12' to 15' below the surface. In this recently glaciated area this depth should expose fresh unaltered mica. If the ribbon structure is found in the mica at this depth, no further work in this immediate area is warranted.

Conclusions:

The pegmatites extend over a large area and prospecting may discover good deposits of unsheared mica. However present exposures do not justify a DMEA loan. The ownership of the property should be clarified and properly recorded and the location of the claims should be correctly shown before a new application is considered under any circumstances.

R. L. T.

IN REPLY REFER TO:
G-MD-CNM

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

June 1, 1953

Memorandum

To: L. G. Houk, Defense Minerals Exploration Administration
From: D. M. Larrabee, U. S. Geological Survey

REVIEW OF APPLICATION DMEA-3049 (mica)

Co-owners: Paul J. Ater, 9019 9th Ave., S. W., Seattle 6, Washington
Frank Blasher, 217 8th Ave., South, Apt. 325, Seattle 4, Washington.

Claims as follows:

Morris Mica #2
Morris Mica #1
Hyder Mica #1
Hyder Mica #2
Hyder Mica #9
Hyder Mica #10
Last Chance
Mica Mill Site claim
Naket Feldspar
Naket Mica #2
Naket Mica #3
Garnett Lode Claim

Location of property:

On Sitklan Island, Alaska, and across Sitklan Passage on the Alaskan mainland. The island is about 60 miles southeast of Ketchikan, Alaska, in the Portland Canal.

Summary of applicant's proposal:

"To explore further the possibilities of the muscovite at lower depths and check possible amount of beryllium."
(no plan of attack is presented).

Sources of information on applicant's property: None.

Comments:

Reports on this mica indicate that

1. From some claims, is green, and Stained A, of $5\frac{1}{2}$ and 6 sizes.
2. Considerable black and red mineral stains are in some mica.
3. Sample of ruby mica is "badly tangled, cross-grained, cracked, and wavy."
4. Although some deposits of good ruby mica might be present, the samples submitted (usually the best) are so poor as to discourage such an exploration project under the apparent working conditions.
5. Costs proposed are quite high, considering the possible value of the project, but some may well be in line under the working conditions.

RECOMMENDATION:

Denial, on the grounds that samples submitted are non-strategic, and that the chance of making a significant contribution to the production of strategic mica are very slim. However, this should be referred to the nearest Field Team in Alaska for their consideration.

D. M. Larrabee

May 29, 1953

Mr. Paul J. Ater
9019 9th Avenue, S. W.
Seattle 6, Washington

Subject: DMEA-3049
Re: Exploration Assistance
Morris Mica No. 2, etc.

My dear Mr. Ater:

The receipt of your application dated May 18, 1953 for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-3049 and referred to the Nonmetallic Minerals Division.

Kindly refer to DMEA-3049 in any future correspondence relating to your application.

Sincerely yours,

ROBERT E. ADAMS
Robert E. Adams
Chief, Operations Control
and Statistics Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Memorandum

To: Executive Officer, DMEA Field Team, Region I

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region I.

DMEA - 3049, Ater, Paul J., and Blasher, Frank

ROBERT E. ADAMS
Robert E. Adams,
Chief, Operation's Control
and Statistics Division

38226

OFFICE OF THE ADMINISTRATOR

UNITED STATES
DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS ADMINISTRATION

XWASHINGTON 25, D.C.X

P. O. Box 560
Juneau, Alaska

May 25, 1953

Mr. George C. Selfridge, Chairman
Operating Committee
Defense Minerals Exploration Administration
Washington 25, D. C.

Dear Mr. Selfridge:

Enclosed are four copies of an application for exploration assistance on mica deposits. We are forwarding the application now, and are taking the liberty of authorizing a field examination immediately in hopes that we may be able to process this application before June 30.

The mica deposits on Sitklan Island and the adjacent portions of the mainland have not been studied by any Federal agency. The information we have on file comes largely from the Territorial Department of Mines, or from chemical companies who have corresponded with prospectors or claim-holders. As you can see by the copies of letters attached, it seems that some mica of strategic grade may occur in this area, but that no work has been done below the shallow zone of weathering. Also, some evidence points to the fact that many of the deposits may be metamorphosed, but that some unmetamorphosed deposits may occur.

It is known that mica is widespread in the Sitklan Island - Portland Canal area, and one exploration program may stimulate interest in other adjacent deposits.

This spring, in anticipation of this application, I sent one selected sample to Mr. Purcell of G.S.A. who advised that the mica had been metamorphosed, and was not of strategic grade. Mr. Holdsworth, Territorial Commissioner of Mines, subsequently forwarded another specimen from this same locality, and this specimen was determined to be the correct type to be of strategic grade.

No work whatsoever has been done to determine the content of associated pegmatitic minerals such as beryl, columbite - tantalite, etc., in any of these pegmatites.

The applicant does not submit maps of the proposed exploration in relation to geology, but we expect to furnish such maps with our Field Team report.

We have retained one copy of the application.

Very truly yours,

ALASKA FIELD TEAM, REGION I.

C. L. Sainsbury

C. L. Sainsbury, Acting
Executive Officer
Geological Survey Member

J. A. Herdlick

J. A. Herdlick, Acting
Bureau of Mines Member

cc: Lorain

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. DMEA-3049
Metal or Mineral
Date Received 5/29/53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Paul J. Ater, 9019 - 9th Ave., S.W., Seattle 6, Washington & Frank Blasher, 217 - 8th Ave., South, Apt. 325, Seattle 4, Washington Co-owners of claims hereinafter stated

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract The land, which we wish to explore is situated on Sitklan Island, Alaska and also across Sitklan Passage on the mainland in Alaska. Sitklan Island is further identified as being about 60 miles southeast of Ketchikan, Alaska in Portland Canal. (See attached sheet)

(*b*) State any mine name by which the property is known. (See attached sheet)

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Our claim to the land consists only in our recorded mining claims. (See attached sheet)

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it Does not apply

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. See attached sheet.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes. See attached sheet.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you. See geological report by Rowe, attached.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. See attached sheet.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

See attached sheet.

16—66551-1

5. *The exploration project.*—(*a*) State the mineral or minerals for which you will explore We wish to explore for iron, and possibly uranium and beryllium.

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc. See attached sheet and maps.

(*c*) The work will start within 30 days and be completed within 12 months from the date of an exploration project contract. See attached sheet.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations. See attached sheet.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

See attached sheet for all of 3. to here.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? We could pay our share of the loan from our wages.

(*b*) How do you propose to furnish your share of the costs?

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated May 16, 1953

Paul J. Ater

Paul J. Ater (Applicant)

By

Frank Blasher

Frank Blasher

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

Paul J. Ater, 2019 - 9th Ave., S.W., Seattle 6, Washington
Frank Blesher, 217 - 8th Ave., S., Apt. [illegible], Seattle 4, Wash.

3. APPLICANT'S PROPERTY RIGHTS.-

(a) Portland Canal constitutes a portion of the boundary line between British Columbia, Canada and Alaska. A large body of muscovite mica strikes across the island and onto the mainland. Extent of the deposit is unknown. The applicants are co-owners of twelve (12) lode claims, which are recorded in Ketchikan. So far as I know, the territory is unsurveyed.

(b) The following claims are recorded in the mining records at Ketchikan, Alaska:

Morris Mica No. 2	recorded in	Volume 14,	page	42
Morris Mica No. 1	"	"	"	44
Hyder Mica No. 1	"	"	"	43
Hyder Mica No. 2	"	"	"	43
Hyder Mica No. 9	"	"	"	43
Hyder Mica No. 10	"	"	"	44
Last Chance	"	"	"	44
Mica Mill Site Claim	"	"	"	
Naket Feldspar	"	"	"	
Naket Mica No. 2	"	"	"	42
Naket Mica No. 3	"	"	"	44
Garnett Lode Claim	"	"	"	80

(c) This land is owned by the Federal Government of the United States of America or by the Territory of Alaska. It is wild, uninhabited territory.

4. PHYSICAL DESCRIPTION.-

(a) Last Chance claim on the mainland has one prospect hole three feet deep in pegmatite. It shows good mica. (Lepidolite) The surface on this claim is nearly level, covered over with grass and scattered, scrubby trees. The soil averages one to four feet deep, i.e. to bedrock.

The claims marked "O" on the enclosed map have been located and recorded by other parties. We have no interest in them. This applies to both the mainland and Sitklan Island.

Our claims, Hyder Mica No. 9 and Hyder Mica No. 10 on the mainland show good muscovite, in the bare rock walls bordering Sitklan Passage.

The Mill Site claim on the mainland was located for a future camp or other purpose. The ground is level, timbered and in a sheltered cove. Book mica (muscovite) shows on the sheer pegmatite banks on all claims, which border the north side of Sitklan Passage as indicated on the map, except the Mill Site claim.

On Hyder Mica No. 1, Sitklan Island, we have done considerable work, by blasting rock out of the sheer pegmatite walls of the canyon, which passes through this claim. Here the muscovite books are plentiful and some are quite large. One stick of stump powder exploded in drilling here, two feet deep, furnished us with about a bushel of book muscovite from 3 to 6 inches in diameter. This, we gathered up, leaving probably four times that amount on the ground as scrap.

4. (a) continued

On Morris Mica No. 1, Sitklan Island, there is another canyon with sheer walls and in some places overhanging. This was surface prospected by drilling holes eighteen (18) inches deep in mica bearing pegmatite rock in an area about fifty (50) feet long. This muscovite that was exposed, was of as good quality as that on Hyder Mica No. 1. There is probably a ton of mica scattered down the canyon.

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(c) See the enclosed geological report of Rowe.

(d) The only practical way to reach the project is by water. It is about sixty (60) miles from Ketchikan, Alaska and forty (40) miles from Prince Rupert, British Columbia, Canada. At Hidden Inlet, thirty (30) miles up Portland Canal, there is a fish cannery and a small settlement, with the nearest grocery store.

(e) Manpower must be brought in, possibly from Seattle, Washington, Alaska or British Columbia, Canada.

5. THE EXPLORATION PROJECT.-

(b) Map enclosed. On the Last Chance claim on the mainland, we propose to remove the overburden from the mica-bearing rock below. We find that this overburden is from one to four feet thick.

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So far, provisions and equipment have been landed by rowboat from the mail-boat, which passes through Sitklan Passage enroute from Ketchikan to Hyder and Stewart at the north end of Portland Canal.

(c) Work will start within thirty (30) days after date of exploration project contract, weather permitting. Much rain falls during the winter in the region of our project. Our location is about 650 miles northwest of Seattle, Washington. We believe that our exploration would be finished within twelve (12) months.

(d) Frank Blasher, partner, old time prospector in Alaska, locator of these mining claims, has had thirty-five years experience prospecting and mining. He is well known and respected for his ability and is considered a good authority on minerals in Alaska.

Paul J. Ater, partner, is now operating a cabinet shop in Seattle. He is experienced in carpentry, building and real estate in general. For avocation, his spare time has been devoted to the study of geology, mineralogy, prospecting and mining for the last six years. We expect to do our own supervising.

6. ESTIMATE OF COSTS.-

(a) Independent contracts	none
(b) Labor, Supervision, Consultants.-	
3 miners wages @ $125.00 per wk. for 4 weeks	$ 1,500.00
2 partners(ourselves) wages @ $125.00 "	1,000.00
(c) Operating Materials, Supplies.-	
200 gallons gasoline	50.00
Powder, caps, fuses etc.	500.00
Food for 5 persons 30 days @ $3.00 per day	450.00
(d) Operating Equipment.-	
Gasoline powered rock drill	850.00
Rent of motor boat	250.00
(e) Rehabilitation and Repairs.-	none
(f) New Buildings, Improvements, Installations.-	
2 tent houses or cabins	1,500.00
Log float for landing	1,500.00
(g) Miscellaneous.-	
Hand tools, stoves, bedding, etc.	1,500.00
(h) Contingencies.-	
Transportation via boat from Seattle & return to Ketchikan & Sitklan Island (5 persons)	1,000.00
Total Estimate of Costs	$ 10,100.00

COPY

GENERAL SERVICES ADMINISTRATION

Federal Supply Service
34 Exchange Place
Jersey City, N. Y.

March 18, 1953

Mr. Phil R. Holdsworth
Commissioner of Mines
Juneau, Alaska

Dear Mr. Holdsworth:

Receipt is acknowledged of your letter dated March 14, 1953, together with the samples of mica referred to therein.

The samples consisted of the following:

1-pc. rectangularly cut 3 x 5" x .007" thick, containing considerable black and red stains, probably Mineral inclusions.

1 pc. Mine-run untrimmed measuring about 12 square inches in area but badly cracked and warped and somewhat cross-grained. It is doubtful if any but the smallest Commercial size (Grade 6 - 1 to 2½ square in.) could be processed from this specimen.

1-pc. Mine-run untrimmed too small for any Commercial use except as scrap for grinding.

These specimens are of the Non-Ruby Muscovite type not considered desirable by most consumers and at the present time are not acceptable for stockpile purchase even if free of staining, etc. Furthermore the mica is black and red spotted which aside from the basic color renders it unsuitable for "prime" (strategic) uses such as for electronic tubes and capacitors.

Good conductivity would not be a factor in this type of mica. We have no facilities at this office for testing the dielectric strength, however the "Q" factor is poor, being in the 50 to 350 range (E-3) which would raise some doubts as to its dielectric-strength properties.

Mica of the quality of the sample would be in the low quality category and in the low price class. It would only be suitable for use in household electrical appliances and kindred uses involving low voltages.

It is hoped this report will be of some service to you in spite of its negative nature.

Very truly yours,

(Sgd.) G. A. Furnell

G. A. Furnell
Mica Consultant

GAFrng

COPY

ASSOCIATED LABORATORIES
CHEMISTS, METALLURGISTS, ASSAYERS

JUNE 19th 1952

P.O. BOX 2261
EAST PORTLAND STN.
PORTLAND 14, ORE.

JUNE 19, 1952

MINERAL SPECIMEN

OUR REF. #524601

SAMPLE	MICA
VARIETY	MUSCOVITE
COLOR	LIGHT GRAY GREEN
LOSS ON HEATING	0.17 %
VISUAL CLASSIFICATION	STAINED, A QUALITY
A.S.T.M. SIZE GRADE	5 AND 6

THE SAMPLE IS A FAIRLY GOOD QUALITY MUSCOVITE MICA WITH A SLIGHTLY GRAY GREEN CAST (NOT RUBY MICA).

IN THE FEW SPECIMENS SUBMITTED GOOD CLEAVAGES WERE SECURED AND GRADED AS INDICATED ABOVE.
THE DENSE MINERAL ASSOCIATED WITH THE MICA WAS IDENTIFIED AS QUARTZ.
THE STAINING ON THE MICA SPECIMENS WERE VEGETABLE STAINS AND THE MICA WAS RELATIVELY FREE FROM FOREIGN MINERAL INCLUSIONS.

ASSOCIATED LABORATORIES

BY NEL. PLAYFAIR

Copy
This report refers to samples of muscovite mica from our Sithian Island claims, which I gathered.
/s/ B. J. Aber

COPY

C
O
P
Y

VAR-LAC-OID CHEMICAL COMPANY

116 Broad Street
New York 4

Mr. Frank Blasher
217 - 8th Ave., South
Seattle 4, Washington

December 3, 1952

Dear Sir:

Through the kindness of Mr. Art Glover, assayer at the Department of Mines Office at Ketchikan, Alaska, we have been informed that you own a Mica deposit in Southeastern Alaska.

If you are disposed to mine and process the Mica we will be pleased to negotiate with you with a view towards the purchase and marketing of your Mica.

In order to receive the highest prices for your Mica, it must be properly rifted, trimmed and graded as to quality and size. The Mica must be so trimmed and split as to eliminate cuts, warps, scale, cracks. The Mica must be absolutely flat. The larger sizes bring the higher prices.

We would be willing to send you grading charts and instructions for trimming and splitting provided you feel that you will go into production.

Upon receipt of your further advices we will write you further.

Thanking you, we are

Yours very truly,

VARLACOID CHEMICAL CO.

/sgd/ Irvin E. Behrman

IEB:AF

Irvin E. Behrman

This letter refers to our Sitklan Island mica.
P.J. Alter

C
O
P
Y

VANLACOID CHEMICAL COMPANY

116 Broad St.,
New York 4, N. Y.

Terr. Dept. of Mines
Box 1408
Ketchikan, Alaska

Att: Mr. Art Glover
Assayer-in-charge

Nov. 17, 1952
ORIGINAL BY AIR MAIL

Gentlemen:

We thank you very much for your kind letter of November 12th. In reply we beg to advise that upon examination of the mica samples which you were kind enough to send, we find that these are evidently surface samples.

The mine which produced these samples would undoubtedly produce a very good grade of Sheet Mica. We should like very much to be placed in contact with the owner of the deposit with a view towards negotiating with him for the purpose of getting the mine into production.

We are prepared to send him concrete instructions regarding the handling of this mica and will give him the necessary details concerning same.

We await receipt of your further advices, and beg to remain

Yours very truly,

VANLACOID CHEMICAL CO.

signed: Irvin E. Behrman

This letter refers to our Sitklan Island mica.
We furnished the samples, which Mr. Glover sent.

C
O
P
Y

GENERAL SERVICES ADMINISTRATION

March 2, 1953

Mr. C. L. Sainsbury
Field Team, Region I
Defense Minerals Administration
P. O. Box 560
Juneau, Alaska

Dear Mr. Sainsbury:

Receipt is acknowledged of your letter dated February 19, 1953, together with a sample of Mica submitted in accordance with D.M.E.A. Memorandum 6.

The sample consists of a single book of Mine-run Ruby Muscovite Mica of about 15 square inches in area.

The Mica is badly tangled cross-grained and cracked and somewhat wavy. It is doubtful if any of the Mica in this particular book is such as to permit trimming to even the smallest Commercial size of Grade 6, free of defects.

However while this book is of little value except as scrap for grinding, it is possible that better books of Mica could be obtained from the same source. It is not unusual to find books similar to the sample coming from mines producing good qualities of Mica as well.

You state that the sample is representative of the Mica found on Sitkian Island rather than from a particular deposit. While it is hazardous to generalize on the basis of one small sample it is reasonable to suppose that acceptable Mica could be obtained in that area. The Mica is of the "Ruby" variety, which is desirable, and does not appear to have much, if any, Mineral inclusion.

In the opinion of the writer more exploratory work would be necessary before a definite conclusion could be reached.

Very truly yours,

(Sgd.) G. A. Purcell
G. A. Purcell
Mica Consultant

GAP:ng

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. DMEA-3049
Metal or Mineral
Date Received 5/29/53
Estimated Cost
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: Paul J. Ater, 9019 - 9th Ave., S.W., Seattle 6, Washington & Frank Blasher, 217 - 8th Ave., South, Apt. 325, Seattle 4, Washington Co-owners of claims hereinafter stated

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized.

(*c*) If a corporation, add to above statement, titles, names and addresses of officers.

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract The land, which we wish to explore is situated on Sitklan Island, Alaska and also across Sitklan Passage on the mainland in Alaska. Sitklan Island is further identified as being about 60 miles southeast of Ketchikan, Alaska in Portland Canal. (See attached sheet)

(*b*) State any mine name by which the property is known. (See attached sheet)

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise Our claim to the land consists only in our recorded mining claims. (See attached sheet)

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property.

(*e*) If you own the land, describe any liens or encumbrances on it Does not apply

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. See attached sheet.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes. See attached sheet.

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades.

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you. See geological report by Rowe, attached.

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. See attached sheet.

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power.

See attached sheet.

5. *The exploration project.*—(a) State the mineral or minerals for which you wish to explore We wish to explore for mica, and possibly uranium and beryllium.

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc. See attached sheet and maps.

(*c*) The work will start within 30 days and be completed within 12 months from the date of an exploration project contract. See attached sheet.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations. See attached sheet.

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs. See attached sheet for all of 6. to here.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? We could pay our share of the loan from our wages.

(*b*) How do you propose to furnish your share of the costs?

☐ Money ☐ Use of equipment owned by you ☐ Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated May 7, 1953

Paul J. Ater

Frank Ater (Applicant)

By Paul J. Ater

Frank Blasher

Frank Blasher

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

Paul J. Ater, 9019 - 9th Ave., S.W., Seattle 6, Washington
Frank Blashe, 217 - 8th Ave., S., Apt. 25, Seattle 4, Wash.

3. APPLICANT'S PROPERTY RIGHTS.-

(a) Portland Canal constitutes a portion of the boundary line between British Columbia, Canada and Alaska. A large body of muscovite mica strikes across the island and onto the mainland. Extent of the deposit is unknown. The applicants are co-owners of twelve (12) lode claims, which are recorded in Ketchikan. So far as I know, the territory is unsurveyed.

(b) The following claims are recorded in the mining records at Ketchikan, Alaska:

Morris Mica No. 2	recorded in	Volume 14,	page	42
Morris Mica No. 1	"	"	"	44
Hyder Mica No. 1	"	"	"	43
Hyder Mica No. 2	"	"	"	43
Hyder Mica No. 9	"	"	"	43
Hyder Mica No. 10	"	"	"	44
Last Chance	"	"	"	44
Mica Mill Site Claim	"	"	"	
Naket Feldspar	"	"	"	
Naket Mica No. 2	"	"	"	42
Naket Mica No. 3	"	"	"	44
Garnett Lode Claim	"	"	"	80

(c) This land is owned by the Federal Government of the United States of America or by the Territory of Alaska. It is wild, uninhabited territory.

4. PHYSICAL DESCRIPTION.-

(a) Last Chance claim on the mainland has one prospect hole three feet deep in pegmatite. It shows good mica. (Lepidolite) The surface on this claim is nearly level, covered over with grass and scattered, scrubby trees. The soil averages one to four feet deep, i.e. to bedrock.

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C O P Y

ASSOCIATED LABORATORIES
CHEMISTS, METALLURGISTS, ASSAYERS

JUNE 19th 1952

P.O. BOX 2261
EAST PORTLAND STN.
PORTLAND 14, ORE.

JUNE 19, 1952

MINERAL SPECIMEN

OUR REF. #524601

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ASSOCIATED LABORATORIES

BY MEL. PLAYFAIR

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C O P Y

C
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P
Y

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The samples consisted of the following:

1-pc. rectangularly cut 3 x 5" x .007" thick, containing considerable black and red stains, probably Mineral inclusions.

1 pc. Mine-run untrimmed measuring about 12 square inches in area but badly cracked and warped and somewhat cross-grained. It is doubtful if any but the smallest Commercial size (Grade 6 - 1 to 2¼ square in.) could be processed from this specimen.

1-pc. Mine-run untrimmed too small for any Commercial use except as scrap for grinding.

These specimens are of the Non-Ruby Muscovite type not considered desirable by most consumers and at the present time are not acceptable for stockpile purchase even if free of staining, etc. Furthermore the mica is black and red spotted which aside from the basic color renders it unsuitable for "prime" (strategic) uses such as for electronic tubes andcapacitors.

Head conductivity would not be a factor in this type of mica. We have no facilities at this office for testing the dielectric strength, however the "Q" factor is poor, being in the 50 to 350 range (E-3) which would raise some doubts as to its dielectric-strength properties.

Mica of the quality of the sample would be in the low quality category and in the low price class. It would only be suitable for use in household electrical appliances and kindred uses involving low voltages.

It is hoped this report will be of some service to you in spite of its negative nature.

Very truly yours,

(Sgd.) G. A. Purcell

G. A. Purcell
Mica Consultant

GAP:ng

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VAR-LAC-OID CHEMICAL COMPANY

116 Broad Street
New York 4

Mr. Frank Blasher
217 - 8th Ave., South
Seattle 4, Washington

December 3, 1952

Dear Sir:

Through the kindness of Mr. Art Glover, assayer at the Department of Mines Office at Ketchikan, Alaska, we have been informed that you own a Mica deposit in Southeastern Alaska.

If you are disposed to mine and process the Mica we will be pleased to negotiate with you with a view towards the purchase and marketing of your Mica.

In order to receive the highest prices for your Mica, it must be properly rifted, trimmed and graded as to quality and size. The Mica must be so trimmed and split as to eliminate cuts, warps, scale, cracks. The Mica must be absolutely flat. The larger sizes bring the higher prices.

We would be willing to send you grading charts and instructions for trimming and splitting provided you feel that you will go into production.

Upon receipt of your further advices we will write you further.

Thanking you, we are

Yours very truly,

VARLACOID CHEMICAL CO.

/sgd/ Irvin E. Behrman

IEB:AF

Irvin E. Behrman

This letter refers to our Sitklan Island mica.
P.J. Alter

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GENERAL SERVICES ADMINISTRATION

March 2, 1953

Mr. C. L. Sainsbury
Field Team, Region I
Defense Minerals Administration
P. O. Box 560
Juneau, Alaska

Dear Mr. Sainsbury:

Receipt is acknowledged of your letter dated February 19, 1953, together with a sample of Mica submitted in accordance with D.M.E.A. Memorandum 6.

The sample consists of a single book of Mine-run Ruby Muscovite Mica of about 15 square inches in area.

The Mica is badly tangled cross-grained and cracked and somewhat wavy. It is doubtful if any of the Mica in this particular book is such as to permit trimming to even the smallest Commercial size of Grade 6, free of defects.

However while this book is of little value except as scrap for grinding, it is possible that better books of Mica could be obtained from the same source. It is not unusual to find books similar to the sample coming from mines producing good qualities of Mica as well.

You state that the sample is representative of the Mica found on Sitklan Island rather than from a particular deposit. While it is hazardous to generalize on the basis of one small sample it is reasonable to suppose that acceptable Mica could be obtained in that area. The Mica is of the "Ruby" variety, which is desirable, and does not appear to have much, if any, Mineral inclusion.

In the opinion of the writer more exploratory work would be necessary before a definite conclusion could be reached.

Very truly yours,

(Sgd.) G. A. Purcell
G. A. Purcell
Mica Consultant

GAP:ng

C
O
P
Y

VARLACOID CHEMICAL COMPANY

116 Broad St.,
New York 4, N. Y.

Terr. Dept. of Mines
Box 1408
Ketchikan, Alaska

Att: Mr. Art Glover
Assayer-in-charge

Nov. 17, 1952
ORIGINAL BY AIR MAIL

Gentlemen:

We thank you very much for your kind letter of November 12th. In reply we beg to advise that upon examination of the mica samples which you were kind enough to send, we find that these are evidently surface samples.

The mine which produced these samples would undoubtedly produce a very good grade of Sheet Mica. We should like very much to be placed in contact with the owner of the deposit with a view towards negotiating with him for the purpose of getting the mine into production.

We are prepared to send him concrete instructions regarding the handling of this mica and will give him the necessary details concerning same.

We await receipt of your further advices, and beg to remain

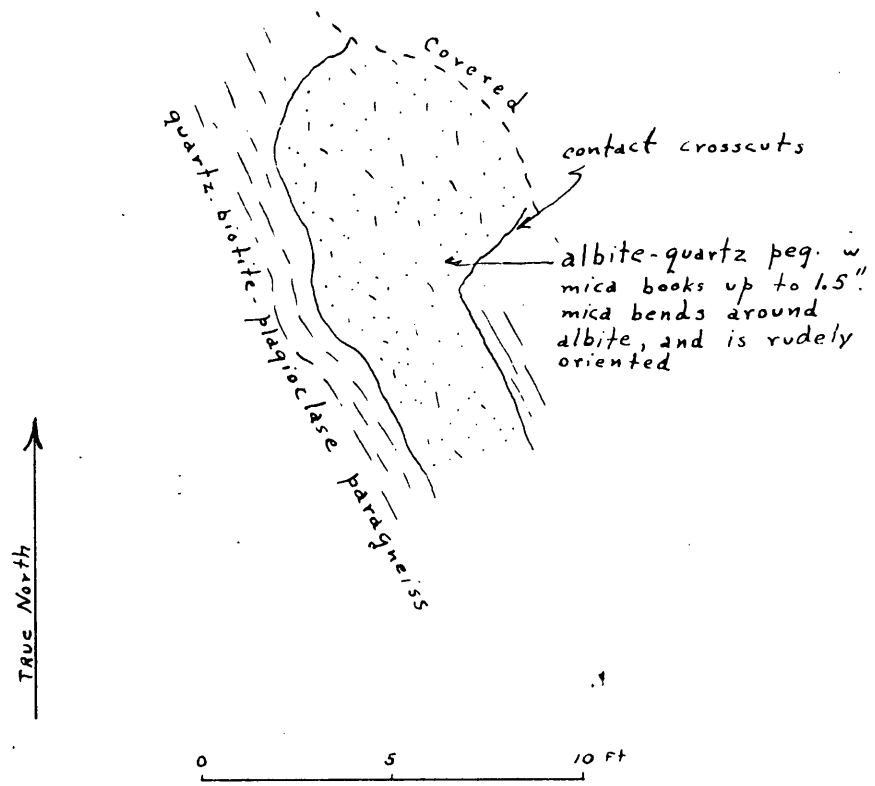
Yours very truly,

VARLACOID CHEMICAL CO.

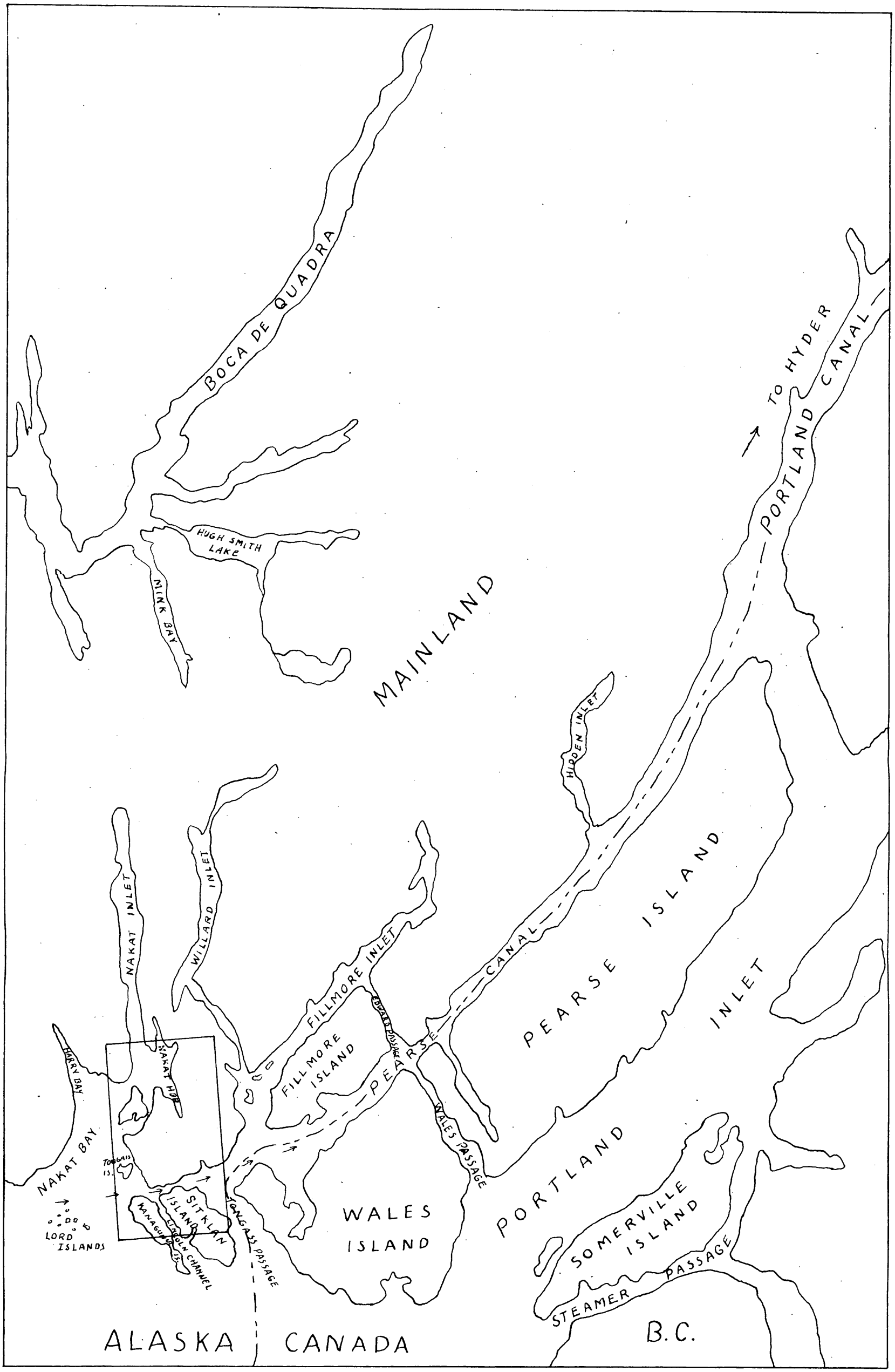
signed: Irvin E. Behrman

This letter refers to our Sitklan Island mica.
We furnished the samples, which Mr. Glover sent.

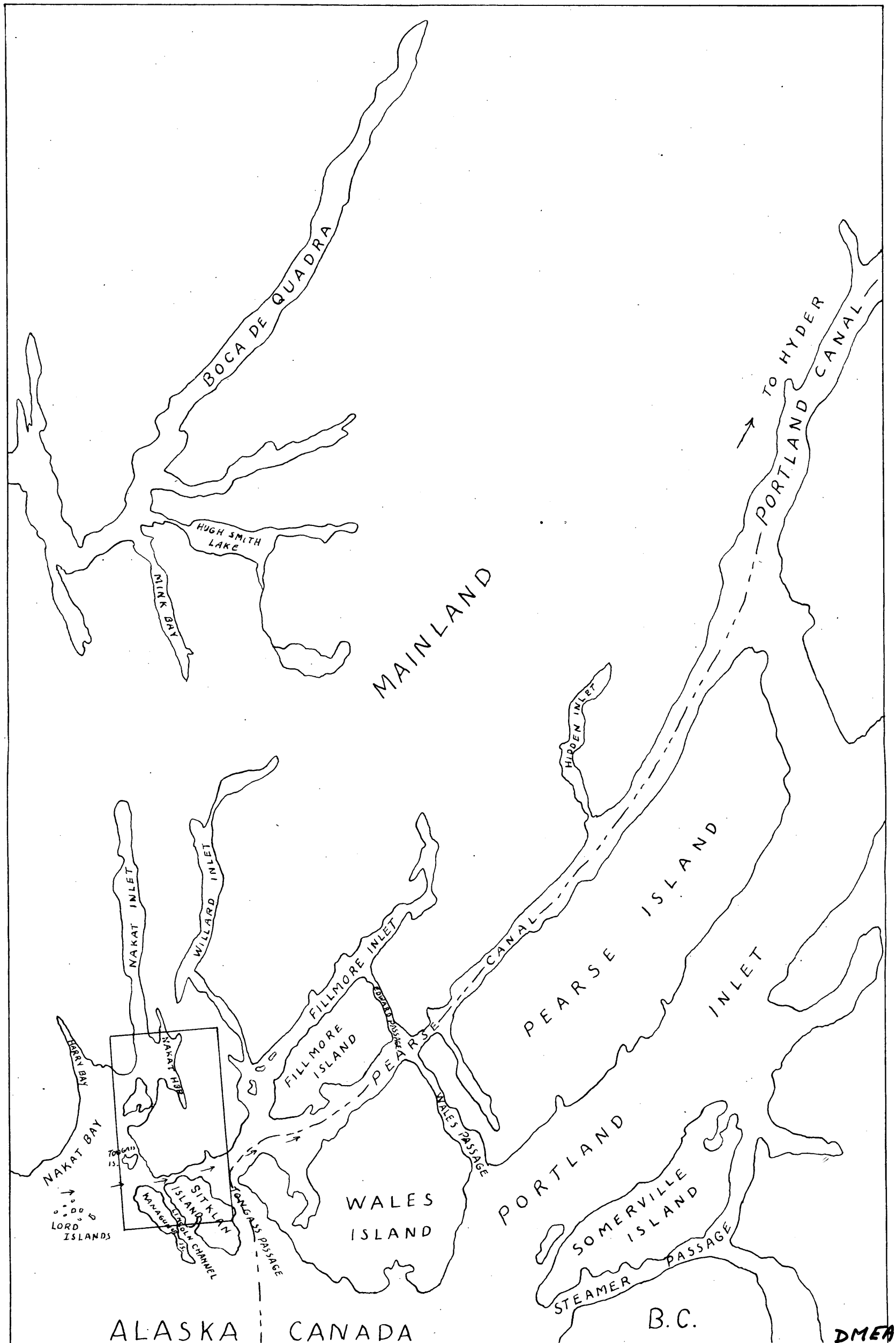
SKETCH MAP OF LAST CHANCE PROSPECT ON MAINLAND NORTH OF SITKLAN ISLAND



Geology by C.L.S., 1953


BOCA DE QUADRA
HUGH SMITH LAKE
MINK BAY
MAINLAND
TO HYDER
PORTLAND CANAL
HIDDEN INLET
PEARSE ISLAND
CANAL
INLET
NAKAT INLET
WILLARD INLET
FILLMORE INLET
EDWARD PASSAGE
FILLMORE ISLAND
PEARSE
WALES PASSAGE
HARRY BAY
NAKAT HBR
NAKAT BAY
TONGASS IS.
LORD ISLANDS
SITKLAN ISLAND
MANAGUPI IS.
LINCOLN CHANNEL
TONGASS PASSAGE
WALES ISLAND
PORTLAND
SOMERVILLE ISLAND
STEAMER PASSAGE
ALASKA
CANADA
B.C.

DMEA-3049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HUGH SMITH LAKE
MINK BAY
MAINLAND
TO HYDER
PORTLAND CANAL
HIDEN INLET
NAKAT INLET
WILLARD INLET
FILLMORE INLET
FILLMORE ISLAND
EDWARD PASSAGE
PEARSE CANAL
PEARSE ISLAND
INLET
HARRY BAY
NAKAT HBR
NAKAT BAY
TONGASS IS.
LORD ISLANDS
SITKLAN ISLAND
MANAGUSKI IS.
LINCOLN CHANNEL
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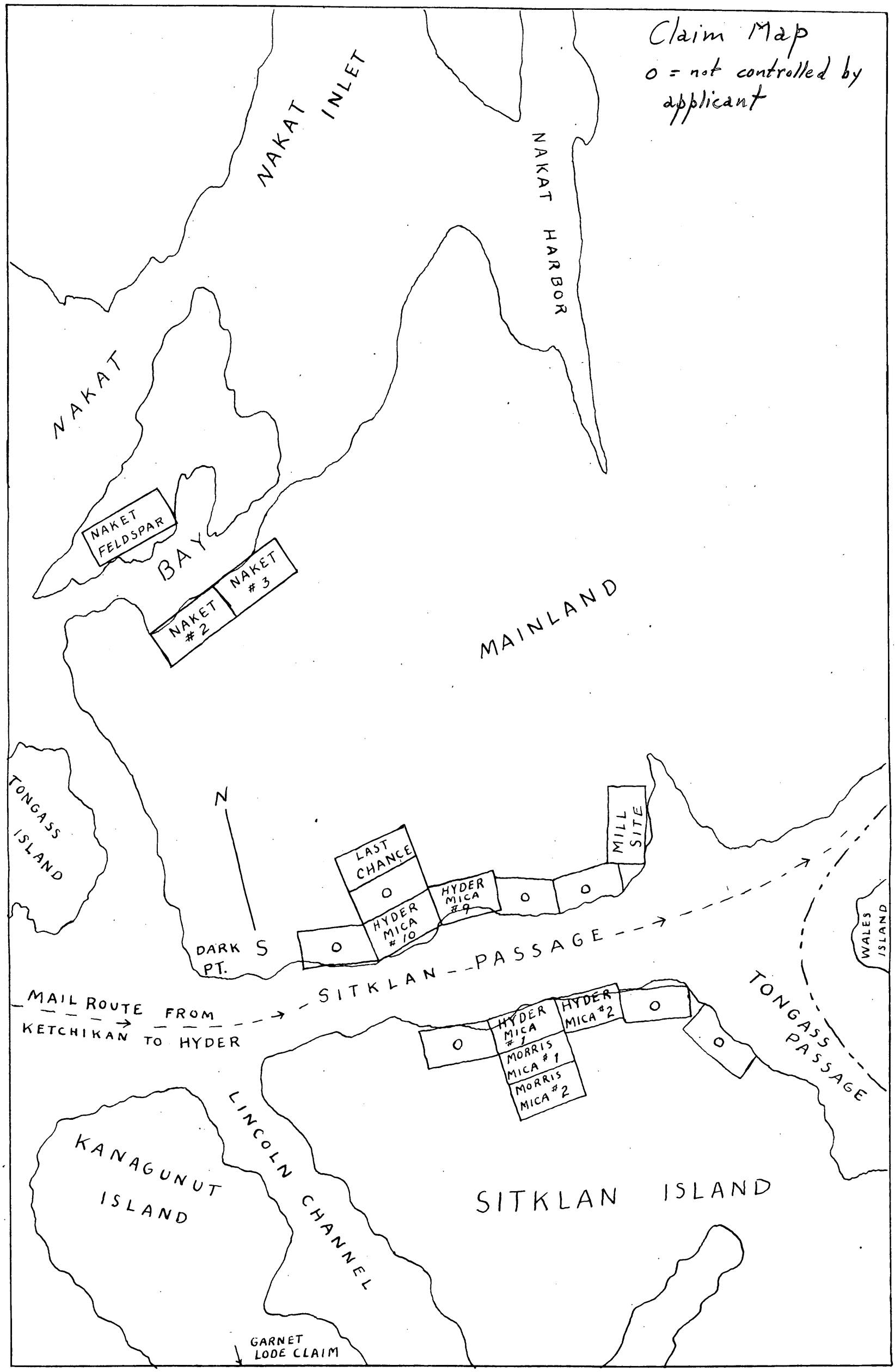
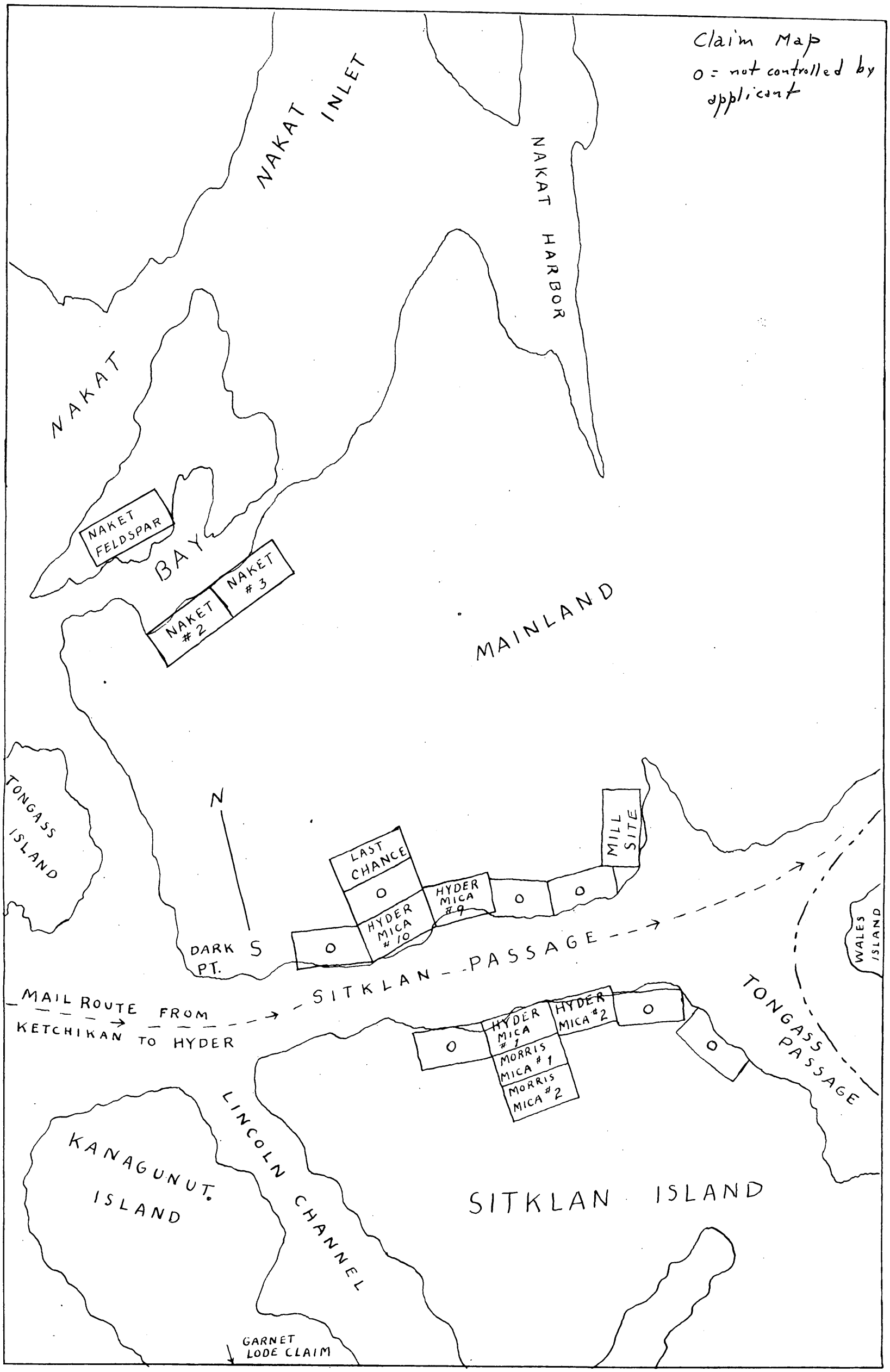
PORTLAND
SOMERVILLE ISLAND
STEAMER PASSAGE
ALASKA
CANADA
B.C.

DMEA-3049


Claim Map
o = not controlled by applicant
NAKAT INLET
NAKAT HARBOR
NAKAT
BAY
NAKET FELDSPAR
NAKET # 2
NAKET # 3
MAINLAND
TONGASS ISLAND
N
S
DARK PT.
LAST CHANCE
HYDER MICA # 10
HYDER MICA # 9
MILL SITE
SITKLAN PASSAGE
MAIL ROUTE FROM KETCHIKAN TO HYDER
HYDER MICA # 1
HYDER MICA # 2
MORRIS MICA # 1
MORRIS MICA # 2
TONGASS PASSAGE
WALES ISLAND
KANAGUNUT ISLAND
LINCOLN CHANNEL
SITKLAN ISLAND
GARNET LODE CLAIM

DMEA-3049


Claim Map
o = not controlled by applicant
NAKAT INLET
NAKAT HARBOR
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NAKET #3
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N
S
LAST CHANCE
o
HYDER MICA #10
HYDER MICA #9
o
o
MILL SITE
DARK PT.
o
SITKLAN PASSAGE
WALES ISLAND
MAIL ROUTE FROM KETCHIKAN TO HYDER
HYDER MICA #1
HYDER MICA #2
o
o
o
MORRIS MICA #1
MORRIS MICA #2
TONGASS PASSAGE
KANAGUNUT ISLAND
LINCOLN CHANNEL
SITKLAN ISLAND
GARNET LODE CLAIM

DMEA-3049

Geological Survey
P. O. Box 2659
Juneau, Alaska

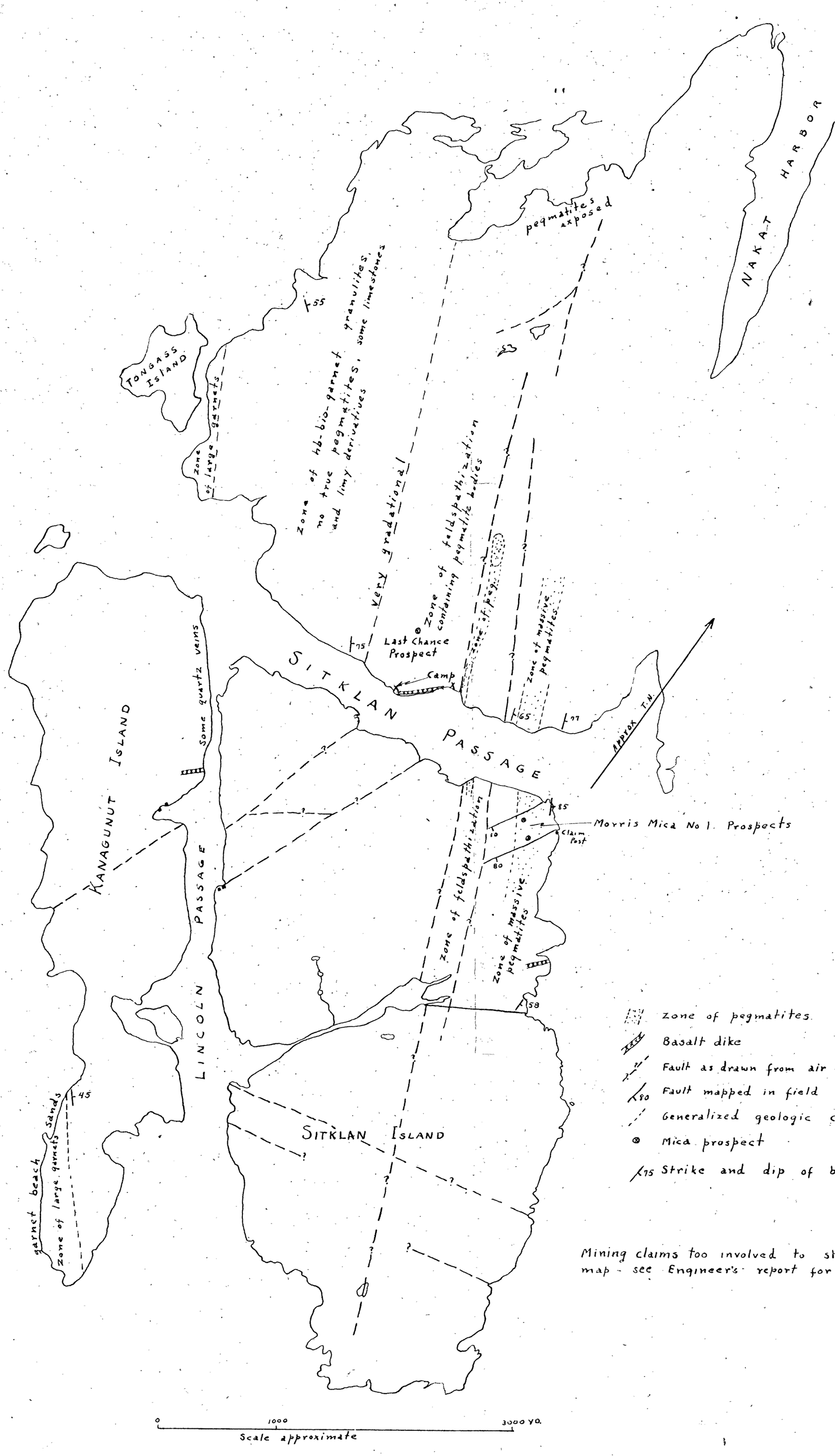
JUNEAU, MAY 25 10 PM 1953 ALASKA

AIR MAIL

AIR MAIL

Mr. George C. Selfridge, Chairman
Operating Committee
Defense Minerals Exploration Adm.
Washington 25, D. C.

GENERALIZED GEOLOGIC MAP SHOWING APPROXIMATE AREAL DISTRIBUTION OF MAJOR METAMORPHIC UNITS NEAR SITKLAN ISLAND, ALASKA



Map by C.L.S. from air photos

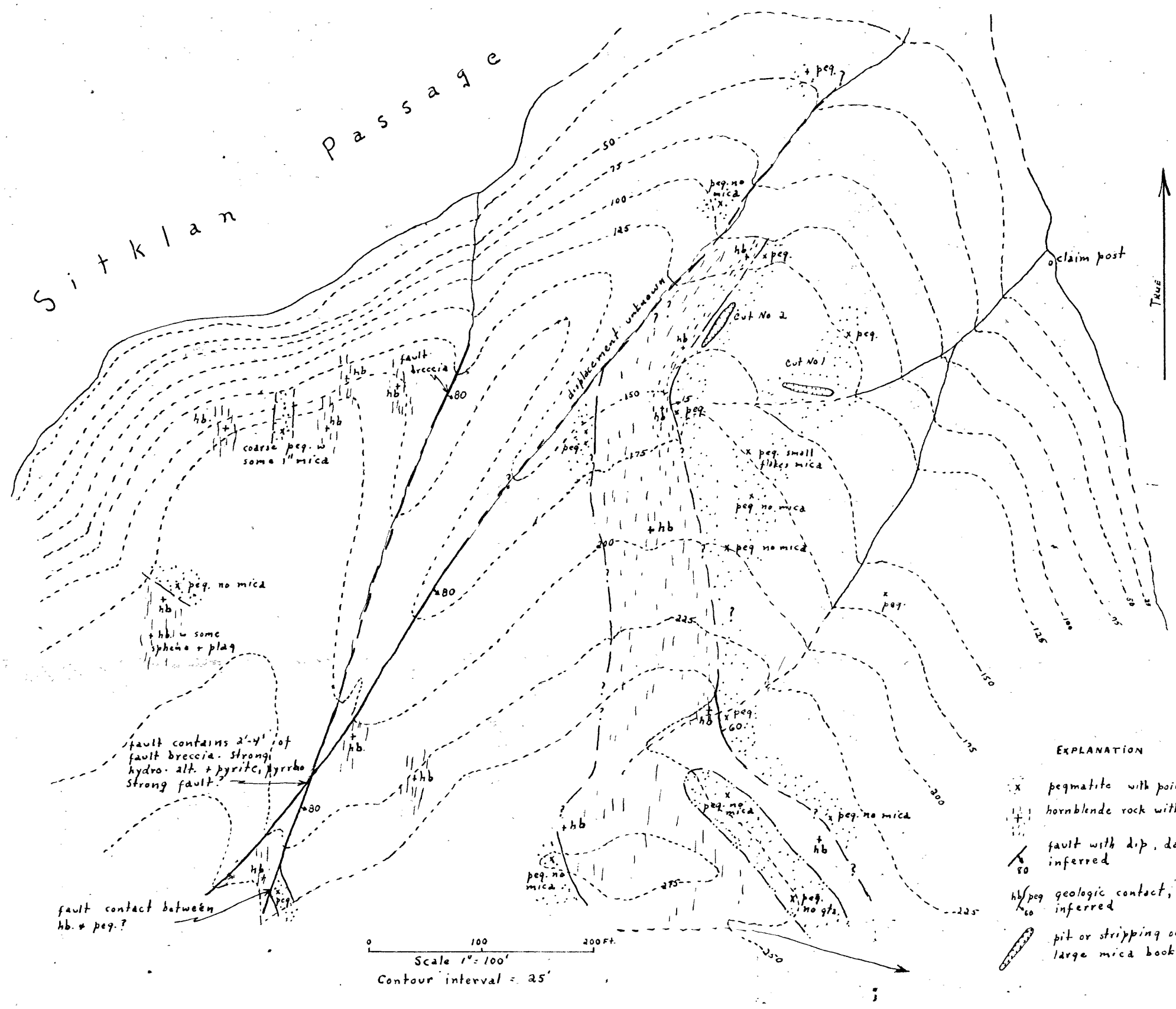
Geology by C.L. SAINSBURY, 1953

U.S. Geological Survey for D.M.E.A

JUNE 1953

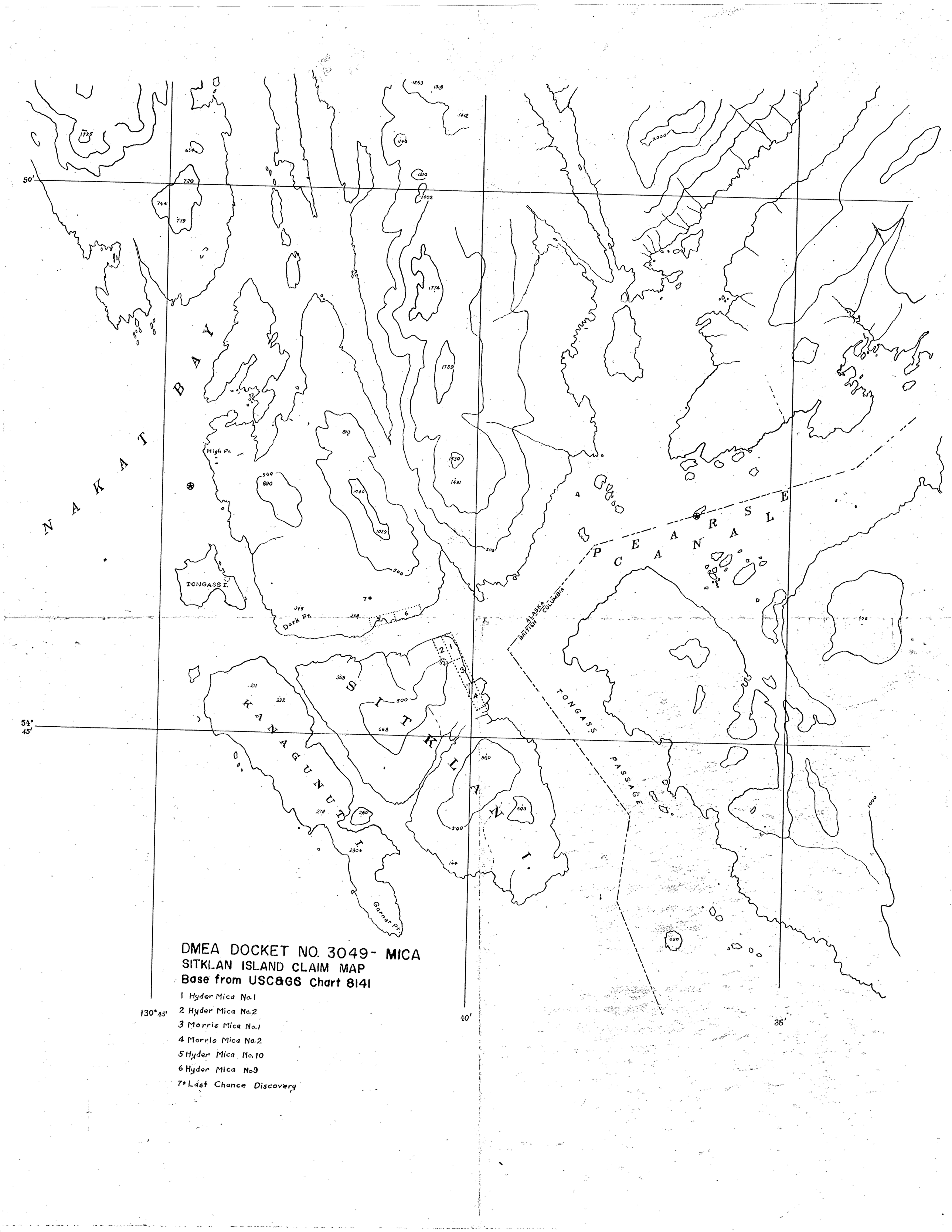
PLATE II

GEOLOGIC SKETCH MAP OF MICA DEPOSITS
SITKLAN ISLAND, ALASKA



Control by tape-compass traverse

Geology and Topography by C. L. SAINSBURY


NAKAT
BAY
High Pt.
TONGASS I.
Dark Pt.
KANAGUNUT I.
Garnet Pt.
SITKLAN I.
TONGASS PASSAGE
ALASKA
BRITISH COLUMBIA
PEARAL CANAL
50'
54° 45'
130° 45'
40'
35'
DMEA DOCKET NO. 3049- MICA
SITKLAN ISLAND CLAIM MAP
Base from USC&GS Chart 8141
1 Hyder Mica No.1
2 Hyder Mica No.2
3 Morris Mica No.1
4 Morris Mica No.2
5 Hyder Mica No.10
6 Hyder Mica No.9
7* Last Chance Discovery