5629

Swiss Aluminium Mining Co. of Canada Ltd.

SAMCAN

R E P O R T   O N   G E O L O G I C A L   M A P P I N G

in the area of the

ALU CLAIMS

Tarr Inlet Area, B.C.

Atlin Mining Division

for

THE SWISS ALUMINIUM MINING CO. OF CANADA LTD.

By

Hanspeter Schielly, D.Sc., P. Eng.
Clifford Banninger, B.Sc.
Guy Della Valle, M.Sc.

ALU

Claims:	ALU 1 - 28	Rec. Nos: 19501 - 19528
Situate:	Atlin Mining Division, B.C. Some 4 kilometres from the confluence of Grand Pacific Glacier into Tarr Inlet, N.T.S. 114 P. Latitude: 59°08' N Longitude: 137°00' W	
Dates:	Field surveys: June - September, 1975 Report: September, 1975	

114P/3E

September, 1975 Vancouver, B.C.

I N D E X

./.

1. ABSTRACT

The ALU claims were staked in 1974 over a discovery of interesting copper-molybdenum-tungsten mineralization.

In 1975 a geological detail map (1 : 10 000) was prepared and a series of rock chip (channel-type) samples were collected over the showing area.

This report is needed to file assessment work on some ALU claims and cannot wait for assay results of the channel sampling. It therefore deals mostly with the geological field mapping.

Very poor weather conditions in 1975 made the difficult alpine terrain even more troublesome. However, with helicopter support the major part of the interesting area was mapped.

The result shows a very complex geological setting along and across a granitoid intrusive contact with mainly volcano-sedimentary rock units. High grade copper and molybdenum mineralization is erratically widespread over a considerable area, and tungsten is indicated present in places.

Further work is recommended.

2. INTRODUCTION

2.1. Titles

The staked ground is covered by the ALU claims, namely:

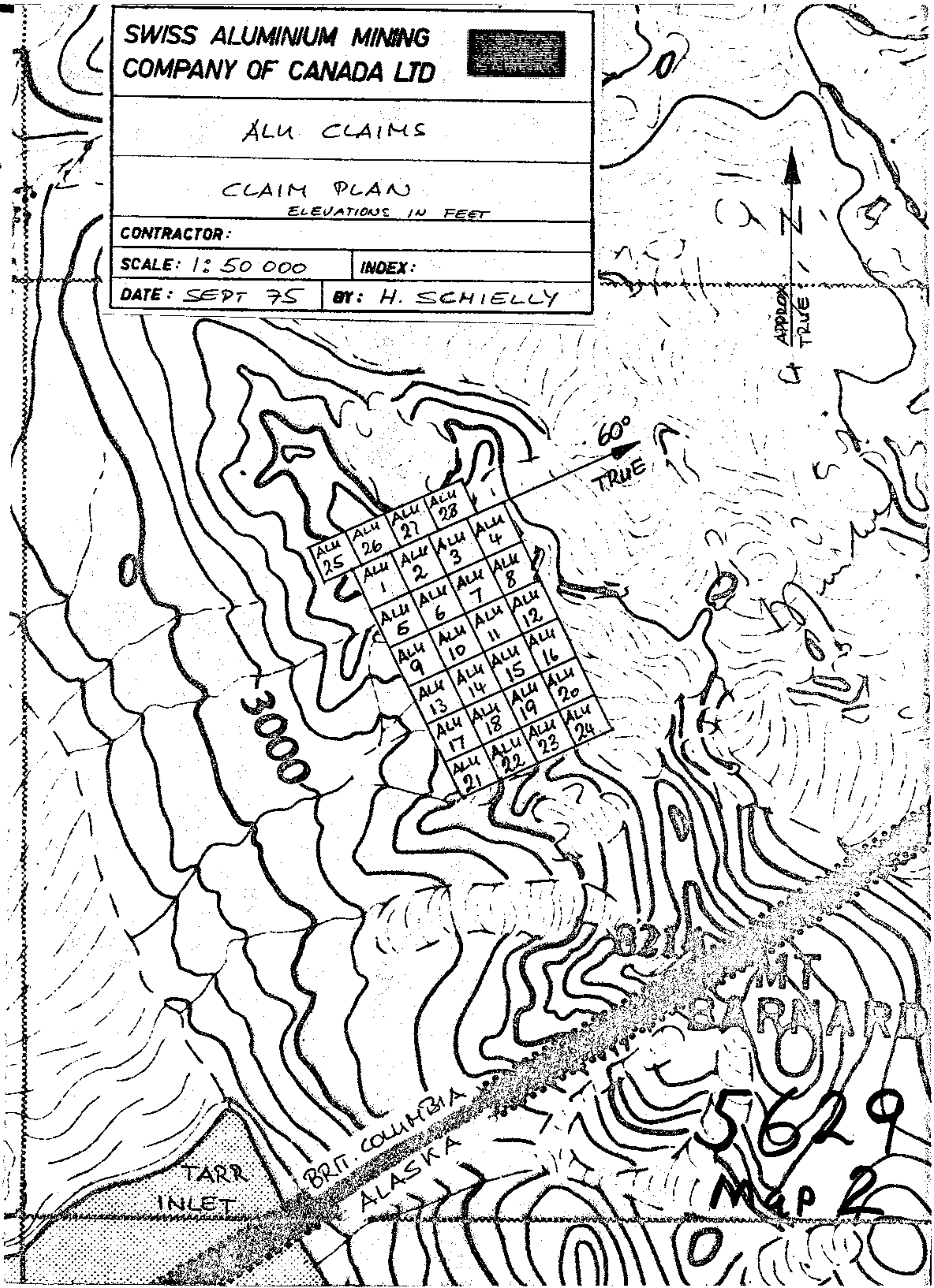
ALU 1 - 28 Rec. Nos: 19501 - 19528

All claims are owned by The Swiss Aluminium Mining Co. of Canada (SAMCAN).

2.2. Claim Area Map

Enclosed map sketches show location and arrangements of the claims.

./.



SWISS ALUMINIUM MINING COMPANY OF CANADA LTD
ALU CLAIMS
CLAIM PLAN
ELEVATIONS IN FEET
CONTRACTOR:
SCALE: 1: 50 000
INDEX:
DATE: SEPT 75
BY: H. SCHIELLY
N
APPROX TRUE
60° TRUE
ALU 25
ALU 26
ALU 27
ALU 28
ALU 1
ALU 2
ALU 3
ALU 4
ALU 5
ALU 6
ALU 7
ALU 8
ALU 9
ALU 10
ALU 11
ALU 12
ALU 13
ALU 14
ALU 15
ALU 16
ALU 17
ALU 18
ALU 19
ALU 20
ALU 21
ALU 22
ALU 23
ALU 24
3000
MT BARNARD
BRIT. COLUMBIA
ALASKA
TARR INLET
5629
Map 2

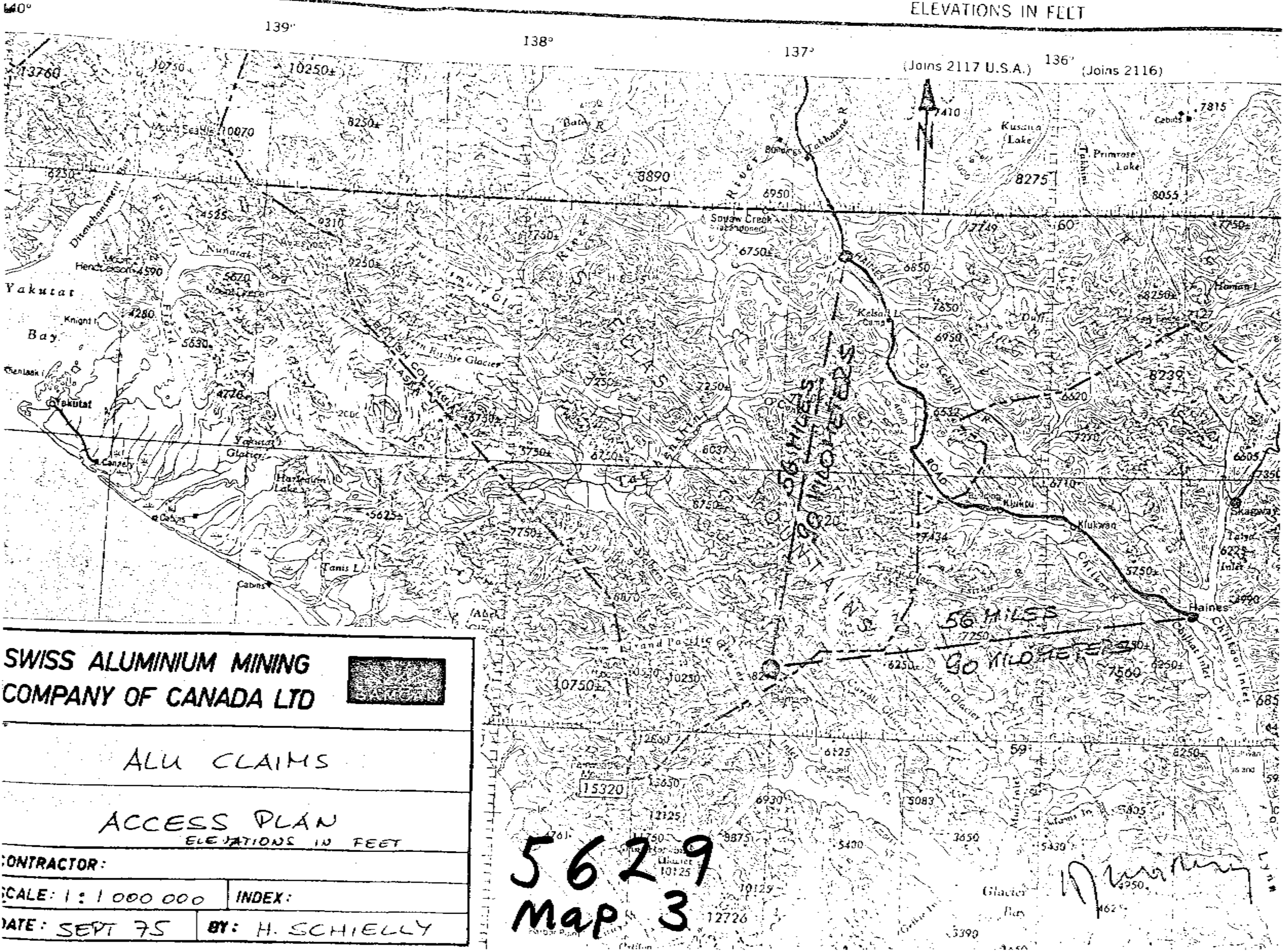
2.3. Location, Access

The location of the property lies in the utmost north-western triangle of British Columbia as shown on enclosed maps.
It roughly co-ordinates around 59°08' northern latitude and 137°00' western longitude, occupying a steep rock ridge as well as its two flanks along the left side of the Grand Pacific Glacier, only some 2.5 kilometres north of Mount Barnard at the U.S. - Canadian boundary, in the Atlin Mining Division of the Province of British Columbia.

Enclosed claim plan shows an enlarged reprint from the map sheet N.T.S. No.: 114 P.

From Canadian soil, direct access to the property is rather complicated and costly. The closest reasonable road access point is Bear Camp at Mile 89 of the Haines Road. This is some 250 km to Whitehorse, Yukon Territories, over the Haines Road (gravel, 100 km, Haines Junction) and the Alaska Highway (gravel, 140 km and paved, 10 km).
There is no direct road access to this extremely remote part of British Columbia from "mainland" B.C., beside the above mentioned connection via the Yukon Territories.
In fact, the entire infrastructure of this B.C. triangle, that little existent as it is, seems to be completely maintained by the Yukon, resp. the Federal Government.
From Bear Camp there are some 90 km as the crow flies to be negotiated, actually involving an effective distance some 20-60% longer than the straight line, depending on applied transportation means being helicopter, fixed wing, hoover craft, bombadier etc., and of course from weather conditions.
Access possibilities from road and/or sea points on U.S.A. territories (Alaska) are definitely of much greater attractiveness. The deep sea harbour of Haines, Alaska is only some 90 km to the east as the crow flies, but the closest sea access point would clearly be the head of Tarr Inlet, which is then only about 4 km away from the ALU prospect.
Large Alaska-Cruise passenger ferries are today entering Tarr Inlet on a regular schedule, approaching the front of the Grand Pacific Glacier to within about 800 m.
It seems therefore reasonable, but without prejudice, to assume that deep sea vessels could gain access to a point rather close to the ALU claims. No problems whatsoever could be foreseen for the construction of an access road from Tarr Inlet to the property.
Direct road access to the property from the existing highway net (Yukon, B.C., Alaska) seems, to the writer, a foreconcluded impossibility, except for the case that very

./.



SWISS ALUMINIUM MINING COMPANY OF CANADA LTD

ALU CLAIMS

ACCESS PLAN

ELEVATIONS IN FEET

CONTRACTOR:

SCALE: 1 : 1 000 000 | INDEX:

DATE: SEPT 75 | BY: H. SCHIELLY

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5629 MAP 1

unrealistically costly road tunnelling would be planned to underdrive the magnificent obstacle of the glaciated mountains between here and there.

A rather important question is whether the head of Tarr Inlet was on Canadian territory, or belonged to Alaska.
The 1961 edited N.T.S. sheet 114 P shows that Tarr Inlet resp. sea access reaching well across the Canada-U.S.A. boundary into Canada.
Even quite recently again there occurred public talks in newspapers that the Grand Pacific Glacier was receding, such giving Canada resp. British Columbia a brand new opening to deep sea access.
The writer believes however, that this does not meet the actual situation. The Grand Pacific Glacier is definitely in an advancing stage, and our preliminary investigation concluded that sea waters did not reach across the border and that the glacier front was well within Alaskan territories.
Boundary markers on both sides of Tarr Inlet are to be located and checked to verify either the other version of the story.

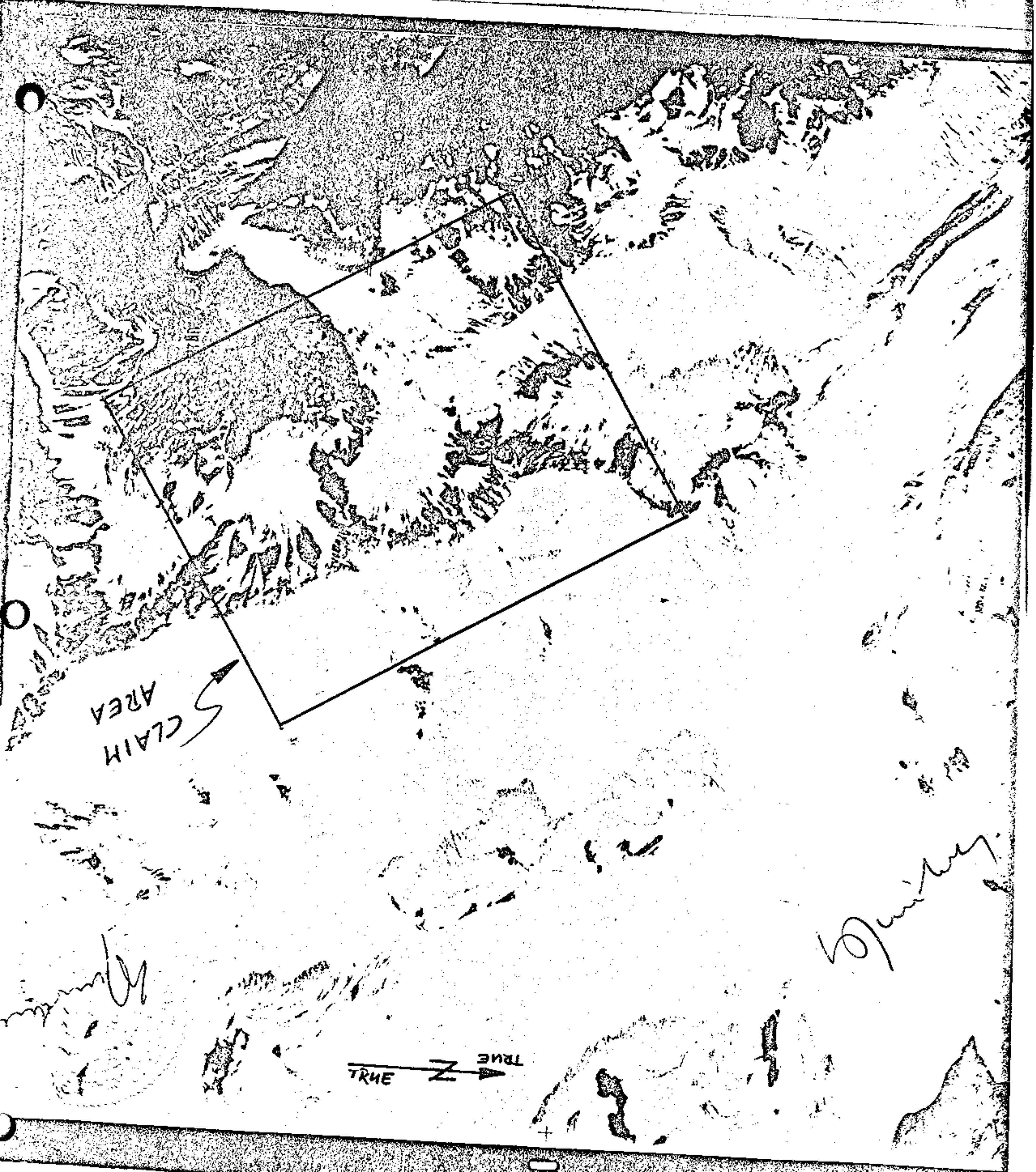
At all times every access to the property may become dangerous or even abortive due to the rather quickly and often unpredictably changing weather conditions.

2.4. Topography and Climate

The topography on and around the property is heavily glaciated and mountainously rugged country that requires some more than just basic outdoor skill for working parties.
The steep terrain and the extensive glaciation are the strongest competition to prospecting crews.

Elevations in the area range from sea level to over 3000 m and so does glaciation. The ALU claims lie at about 1200 - 2100 m elevation.

While the flora is typically high alpine with its multiple species in small numbers, the local fauna is very poor to non-existent in higher areas. There exists no timber whatsoever in the area at and around the ALU claims.
Scarce marmots mingle among colonies of ground squirrels as the only real settlers in the area, while moose, cariboo, northern deer, wolf, arctic fox, wolverine, lynx and grizzly bear are the larger and more common nomades


CLAIM AREA
TRUE N
TRUE

of the natural balance. Only the mountain goat seems to really enjoy and florish in this country of rocks and ice, negotiating even the larger glaciers without trouble, while all the other animals, as is the prospector in part, preferably restrain to the easier going, but quite often barren grounds of limited extent. No mountain sheep were observed, but one Alaskan brown bear gave us a doubtful welcome in the Alsek River further north.
It is a most beautiful northern mountain place, and every eventual future mine development will have to take care a lot not to spoil such a piece of our dwindling natural beauties.
The climate is to be compared with alpine country at over 2000 m elevation and higher, featuring brief, but lively and hot summers (June, July, August) and long, severe and lifeless winters with snowfall possibly exceeding 6 m.
Precipitation should be generally high. While in 1974 we enjoyed a real dry weather spell from early July till mid August, our 1975 work was hampered seriously by stubborn snow coverage and very treacherous fog-cloud conditions during the entire "summer".

2.5. Preface

The ALU claims were staked in 1974 to cover a showing of copper staining on a partly glaciated mountain ridge.

For 1975 we prepared from aerial photos a topographic base map 1 : 10 000, on which the claim area as well as its nearer surrounding was to be geologically mapped in some details.

The extension of the initial showing was to be followed up and sampled and the close by intrusive contact thoroughly studied.

The work was basically conducted under the guidance of a certified mountain guide from Switzerland, who also holds a geol. dipl. from the University of Lausanne (Della Valle), and a well reputed coast mountaineer from Whitehorse (Williams). We were able to scale and mostly negotiate even the more difficult terrains. The weather, however, quite contrary to the beautiful sun period in 1974, was hampering the work rather drastically. A helicopter was full time assigned to the mapping of the ALU area, but its use and application was very limited by heavy fog and cloud conditions treacherously moving almost constantly around on the area, such making almost every helicopter outing a considered and expensive gamble of to find or not to find a way through the milky barriers.

To limit this gamble we had to work from three different camps to provide at any time alternatives of returns for the mapping parties, which were even on the ground slowed down by, in 1974 also unaccounted for, heavy snow conditions especially above the 1000 m elevations.

The Tarr Inlet, on a bright sunny day doubtless one of the most ravishing nature spots on this earth, showed and proved to us in 1975 that this scenic mating place of glaciers and the sea within up to 4500 m high mountain peaks can also be a climatic hell of snow, fog and cold even throughout "summer".
It should such be able to preserve itself from man forever maybe.

3. GEOLOGICAL MAPPING

3.1. General Statement

The claim area, inclusively some nearer surrounding places, has about 20-50% outcrop in the higher elevations, where steep rock walls and cliffs predominate. The lower land is providing much easier going over moraines, talus and ice coverage, which, however does not expose many conclusive rock outcrops.

Geological information on the area has not been published so far, and our geological evaluation is therefore a "from scratch" compilation.

We postulate that we generally have a sedimentary unit with minor volcanics, which is later invaded, metamorphosed and altered by granitoid intrusions, probably satellitic to the huge Coast Range invasions, which later are cut by a swarm of diabase dikes.

In our 1974 report we had given these rock units conventional names like Cache Creek Formation e.g., but we now like to abandon this attempt of correlations until the area has been mapped especially for such purposes by the G.S.C.

3.2. Local Geology

Our geological map 1 : 10 000 is enclosed (pocket) to this report.

In revision of our 1974 raw prospecting we have now revised a workable geological legend as follows:

3.2.1. Undifferentiated Basic Rocks

Undifferentiated rocks of a basic and probably intrusive nature occur outside the claim area and have not yet been investigated in more details.

3.2.2. Volcano-Sedimentary Unit

This unit dominates over most of the claim area and is actually the carrier of the located mineralization (see below). The unit comprises a rather wide variety of rock types with a common N-S strike and vertical-steep dips of the bedding and/or the banding.

The most interesting formation is built up by greyish-yellow calcsilicates, with bands and lenses of grey and buff limestone and white marbles embedded. The rocks are predominantly siliceous and could represent a meta-facies of original limy sandstones. A fine, but probably uncontrolled network of fine quartz veins is typical and actually features most of the observed mineralization (below). Beside the dominant quartz and feldspar, some minor garnet and widespread epidote are typical for these meta-sediments.

Interfingered and interbedded in above is a formation, of probably identical age, of mostly dark coloured rocks. These dark-olivegreen-brown rocks are of a generally mafic nature and represent probably metamorphic facies-varieties of (maybe 10%) volcanics (andesites e.g.) and dirty siltstones, mudstones and shales. Epidote is again widespread evidence of low grade (regional?) metamorphism.

Above two formations grade vertically into a gradational contact formation towards the intrusive contact, containing an increasing amount of boulders or boudines of the intrusive rocks identical to the small stock nearby. Banding in a N-S direction is again well expressed and actually is totally parallel to the intrusive contact. It is thought that this "boulder formation" was a tectonically sheared picture of a such masked original intrusive contact.

There is a very sharp contact between above and the following rock units. This contact is considered originally intrusive, but has frequently been faulted at a later date of evolution.

3.2.3. Intrusive Diorite and "Microdiorite"

These intrusives, which are mostly diorites with gradations into granodiorites, are thought to represent satellites to the huge Coast Range Batholith. The main rock types are massive or slightly foliated diorites-granodiorites and minor granites with wider varieties in smaller occurrences. They seem to occur in slightly elongated (N-S) stocks which may tilt to one or the other side, such indicating late displacement.

The "microdiorite" is a field-named special facies of these intrusives, so called because of its very fine micro structures and -textures, and is probably just a marginal segregation of the main body.
Intrusive contacts are not commonly observed, because late shearing and stress seems to have displaced and altered most of the direct original contact evidence.

3.2.4. Intrusive "Gneissic" Granodiorite

We are still at a loss to postulate a relationship of this unit with 3.2.3. above. It seems that 3.2.4. was later than 3.2.3., mostly because 3.2.5. (see below) seemed closer age related to 3.2.4. than to 3.2.3., to which latter it is clearly later.

The gneissic appearance of this unit originates from a quite distinct mineral alineation and a certain banding. Both these phenomena are, however thought to be cooling characteristics rather than tectonic documentations. Such the name "gneiss" may seem improper. We still like to use the "gneissic" field name mostly because there is a good chance that the cooling bands may have been influenced by tectonic stress. In a strict sense this rock unit is not a metamorphic sequence at all, but may have undergone early "birth labours" now indicated by the "gneissic" attribute.

3.2.5. Rhyolite, Quartzporphyry

It almost appears as if rhyolite and quartzporphyries as mapped would be closely age-related to 3.2.4. above. They are, however clearly younger than the Coast Range satellites.

The rocks involved are massive to slightly foliated white rhyolites and quartzporphyries of intrusive character. It seems that the percentage of rhyolites etc. would increase with increasing distance from Coast Range satellites, but the meaning of this is rather obscure. Another not quite understood observation is the fact that the amount of rhyolite (quartzporphyry) present is directly related to the intensity of surface (gossan?) iron staining, which was observed also elsewhere in the wider area. Such these rather snowcoloured intrusive irregular sheets or sills seem to provoke surface decomposition of dark minerals (probably mostly mica). Almost no ironsulphides were observed as a possible source for these eye-catching red stainings.

3.2.6. Diabase Dikes

Minor swarms of diabase dikes of youngest rock age are observed in all above units, but are more common in intrusives than in sedimentary units, probably such hinting for the origin of the diabase fluid as a dying documentation of the once more powerful intrusion forces.

The rocks are fresh, greenish dark, mostly fine-grained diabase or basalt.

3.3. Surficial Soils, Glaciation

By far the majority of the mapped terrain is mantled under extensive glaciation or carries moraine and talus. Glaciation is not bound to certain niveaus or elevations, but seems to be controlled mostly by the sun factor. Flat and relatively easily negotiable ice-streams are typical for south (west) facing slopes, and completely inaccessible and non-negotiable hanging glaciers of most bizarre shapes are typical on the

./.

north (east) slopes.
Evidently the present glaciation represents only a poor relic of a very much more extensive and more voluminous ice coverage of previous times. That these previous times are historical and may not even be more than one hundred years ago, is suspected from the poor and very localized terrestrial fauna, from lack of residual soil developments everywhere, and from correspondingly poor flora, beside some hearsay reports of the 1800's of "them huge ice sheets up there".
There is plenty of clear evidence that in 1975 some 70% (1974 = 95%) of the glaciers were in a strongly advancing mood.

A residual soil profile is almost completely lacking, except for some restricted places or ecological niches, which possibly have never been ice-covered.

Talus slopes have developed at all the lower terrain gradients, but pure slope talus is very rare while most of the debris are mixed up with sacked moraine.

The most common surficial cover is moraine. Mostly side, middle, and end moraines are exposed, and only minor ground moraine has been released by previously receding ice. The moraines are typical boulder (+ 50%) dams and walls, having a poor representation of medium (sand) size components, but contain abundant clay and silt.
Moraines and talus represent an unlimited volume of construction material if need for this would arise.

Relics of ancient ice-flows, as well as newly formed ice-lenses, are commonly to be expected and actually have been observed within the moraine materials (Toteis).

Until about elevation 300 m permafrost has so far not been extensively verified. Between 300 m - 500 m elevations permafrost has to be expected, especially on north (east) facing or orienting topographic features. Above 500 m we have observed abundant evidence of permafrost of the ground with only the uppermost 50 cm of soil thawing (solifluction).

Contradicting the published 1 : 250 000 topographical map is the fact that the Grand Pacific Glacier seems to have crossed the international boundary for at least 800 m.

./.

3.4. Structures, Aerial Lineation

Aerial lineation indicates a widespread N-S trend of strikes which observations are confirmed on the ground representing regional bedding and/or banding.

We also find evidence of tectonic metamorphism and stress that affects all rocks except (maybe) the Diabase Dikes. It seems to have thoroughly sheared and banded the rocks into N-S striking units and features with steep-vertical dips mostly.

This general trend (N-S) angles slightly from the roughly NNW striking giant lineament of Tarr Inlet-Melbern Glacier and could be regarded as stress documentation of block movements along this major (Tarr) lineament.

At one point south of the claims it seemed as if "instant geology" would have recently faulted moraine material. However, the writer has seen faults like this being created by dwindling toteis under the moraines, and this fault may therefore not be regarded as evidence of recent (tectonic) uplifting of bedrock.

3.5. Alteration, Mineralization

Alteration and mineralization is best expressed in the Volcano-Sedimentary Unit. A regional low grade metamorphism in the epidote-chlorite facies has affected all rock units except the Diabase Dikes.

Iron-rust staining results from decomposition of biotite and hornblende mostly, since only very unimportant amounts of pyrite have been established as potential additional cause for this gossan-like staining.

The most affected and inflicted rock unit is the Volcano-Sedimentary Unit. The quite carbonate rich unit has been heavily silicified (quartz, feldspar) which could be the result of metamorphic silica remobilization of original silica minerals like quartz, feldspar etc. from originally carbonate rich sandstones and arkoses.
Later than this general silicification is a complex network and erratic patchwork of quartz-feldspar veins and -patches within this unit.
It is thought that this veining was a result of late-hydrothermal activities related to the nearby intrusives, but it is not known which one (3.2.3. or/and 3.2.4.) was to be considered

the initiator.

Mineralization of importance is restricted to a roughly N-S striking band, which is within the general strike of the regional banding, of heavily quartz-veined and -infested carbonate rocks. The mineralization is not continuous but occurs in a repeated patchwork of erratic high grade centres with small satellite bodies. The mineralized band may be about 100-400 m wide and is exposed for about one thousand metres before disappearing along strike under ice and moraine. Detail studies of collected data and samples are still underway, but assessment report filing regulations require this report to produce resp. not to wait for these results which may only be available at year end.

So far we have observed the following facts on the minerals occurring:

Malachite and minor azurite staining is widespread, and some areas are really "grassy" looking excitements. In concentrations, which can vary from a few millimetres to some metres in diameters, and which mostly correspond with increased quartz veining, we have seen chalcopyrite and bornite on quartz and with minor pyrite and feldspar. While this described copper mineralization is quite consistent over the mineralized band, we have so far found only sporadic but nevertheless high grade (massive) molybdenite mostly concentrated at larger quartz blebs. Molybdenite flakes of a centimetre square or so have been observed in occasional molybdenite "books".
Beside this we have found evidence of the presence of tungsten, be it in form of the molybdenite-like tungstenite or/and in form of scheelite, which latter was indicated to some ultraviolet lamp prospecting carried out this summer. There also exists suspicion for the presence of potential tin mineralization, which is, however, so far not proven.

Geochemical assays are now in preparation to evaluate the commercial potential of the find. A few erratic assays so far conducted have indicated the existence of commercial grades for Cu, MoS_2, WO_3.

4. CONCLUSIONS AND RECOMMENDATIONS

Although continuous sample evaluation is yet outstanding, it is

./.

here concluded that the ALU 1 - 28 claims favour a promising geological setting with complex intrusions into carbonatic country rock.
Mineralization as assayed in erratic grab samples to be of at least sporadic, economic grade for Cu, MoS_2, WO_3, and further testing is underway.

At this stage we could conclude that in our opinion this was a prospect of considerable merit.

Before conducting further work on the property, we must recommend the following studies to be thoroughly executed:

1. A complete and comprehensive access study based on topographic and climatic factors.

2. Evaluate above 1. in the light of the closeness of the international boundary.

3. Evaluate 1. and 2. with regard to environmental consideration, especially taking into account the magnificent piece of nature we deal with here and across the border the American Monument of Glacier Bay.

4. Evaluate the potential attitude of Provincial and Federal Canadian Governments, and of Alaskan and Federal American Governments towards such "mineral prospects".

Costs for these studies vary with depth of knowledge required and cannot be estimated here.

Further recommendations of any kind with regard to the ALU group will then very much depend on above recommended survey studies.

Respectfully submitted,

Vancouver, B.C.
September, 1975

Hanspeter Schielly, D.Sc., P.Eng.

Appendix I

(ALU)

CERTIFICATE

I, Hanspeter Schielly, of 1904 - 1616 Pendrell Street, Vancouver 5, British Columbia, DO HEREBY CERTIFY THAT:

1. I am a Registered Professional Engineer of the Province of British Columbia.

2. I am a graduate of the Swiss Federal Institute of Polytechnique (E.T.H.) of Zurich, Switzerland, Dipl. Ing. Geol. ETH in 1961, and Dr. Sc. Nat. in 1964.

3. I have practised my profession as an engineer and as a geologist in Europe, South America and North America for the past fourteen (14) years.

4. I have personally directed the geological mapping on the ALU claims area as described in this report.

5. I am the Managing Director of The Swiss Aluminium Mining Co. of Canada Ltd. (SAMCAN) and that I have no other interests in the property nor in securities of above company.

Vancouver, B.C.
September, 1975

Hanspeter Schielly, D.Sc., P.Eng.

Appendix II

(ALU)

PERSONNEL AND DATES

Name and Address	Position	Dates of Work		Days
H. Schielly, 1904- 1616 Pendrell Str., Vancouver 5, B.C.	Managing Geologist + Chief Consultant	June 15+16 July 22+23 Aug. 14		2 2 1
			Total	5
C. Banninger, 302- 1680 Balsam Str., Vancouver, B.C.	Geologist	June 16 July 22+23+30 Aug. 14+19+20 Sept. 3+6		1 3 3 2
			Total	9
G. Della Valle, 6-1039 Nicola Str. Vancouver, B.C.	Geologist + Certified Mountain Guide	Aug. 12-28 Sept. 3+6		17 2
			Total	19
R. Dickin, 86 Empire Str., Waterloo, Ont.	Geologist	Aug. 12-19		8
M. Spazier, 37-1434 Davie Str. Vancouver, B.C.	Geologist	Aug. 23-25		3
A. Carter, 870 Greenwood Rd., West Vancouver, B.C.	Geological Field Hand	Aug. 12-20		9
J. Wilfert, 13585 Cedar Way Maple Ridge, B.C.	Geological Field Hand	Aug. 26-28		3

./.

Name and Address	Position	Dates of Work		Days
B. Spencer, 392 East 49th Ave Vancouver, B.C.	Geological Field Hand	Aug. 20-22		3
M. Bussell, 4990 Water Lane West Vancouver, B.C.	Geological Field Hand	Aug. 20-25		6
R. Bennett, 6395 Edson Dr. Sardis, B.C.	Surveyor	Aug. 23-25		3
E. Delaney 3-1076 Nicola Str. Vancouver, B.C.	Geological Field Hand	Aug. 26-28 Sept. 3+6		3 2
			Total	5
M. Williams, 201 - 404 Lowe Str. Whitehorse, Y.T.	Mountain Guide	Aug. 12-19		8

COSTS OF GEOLOGICAL MAPPING

1. Professional and Technical Services

1.1. Managing Geologist - Chief Chief Consultant

Geological mapping	5d x 175.--	= $	875.--

1.2. Geologist Banninger

Geological mapping	9d x 125.--	= $	1,125.--

1.3. Geologist + Guide Della Valle

Geological mapping	19d x 100.--	= $	1,900.--

1.4. Geologists

Dickin:	Geol. mapping	8d x 90.--	= $	720.--
Spazier:	Geol. mapping	3d x 90.--	= $	270.--

1.5. Geological Field Hands

Carter:	Labour	9d x 50.--	= $	450.--
Wilfert:	Labour	3d x 50.--	= $	150.--
Spencer:	Labour	3d x 50.--	= $	150.--
Bussell:	Labour	6d x 50.--	= $	300.--
Bennett:	Surveyor	3d x 50.--	= $	150.--
Delaney:	Labour	5d x 50.--	= $	250.--

1.6. Mountaineering

Williams:	Guide	8d x 100.--	= $	800.--
		SUBTOTAL 1.	= $	7,140.--

2. Related Costs

2.1. Report		= $	300.--
2.2. Helicopter direct support on 1. above	10h x 300.--	= $	3,000.--

./.

2.3. Helicopter mobilization to property and fuel haul	8h x 300.--	= $	2,400.--
2.4. Camp support 81 men-days	x 10.--	= $	810.--

1. + 2. = TOTAL APPLICABLE COSTS = $ 13,650.--

The above costs are property related costs only and do not include preliminary compilation of previous data, administration costs, transportation to and from Vancouver and other costs not normally applicable for assessment credits.

AFFIDAVIT RE COST OF SURVEY

I, Hanspeter Schielly of 1904 - 1616 Pendrell Street, Vancouver 5, British Columbia, DO HEREBY SOLEMNLY DECLARE that the geological mapping done in the ALU claims area of Swiss Aluminium Mining Co. of Canada Ltd. was conducted during 1975 and is described in this report. The data were obtained by Swiss Aluminium Mining Co. of Canada Ltd. at a total property related cost of at least $13,600.-- as set out under "Cost of Survey" in this report.

AND I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act".

DECLARED before me at
the City of Vancouver,
in the Province of
British Columbia,
this ...1st... day of
October...., A.D. 1975.

Hanspeter Schielly, D.Sc., P.Eng.

SWISS ALUMINIUM MINING COMPANY OF CANADA LTD SAMCAN

ALU CLAIMS

Geological map

CONTRACTOR: SAMCAN	
SCALE: 1:10000	INDEX: Metric
DATE: September 75	BY: G. Della Valle

Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5629 MAP 4

GEOLOGICAL MAP 1 : 10 000
ALU Claims (20)

LEGEND:

- TERTIARY (?) -

6	Diabase Dikes. (very narrow)

- CRETACEOUS (?) -

5	Rhyolite and quartzporphyries, in places suspected to grade into 4 below.

- JURASSIC - CRETACEOUS -

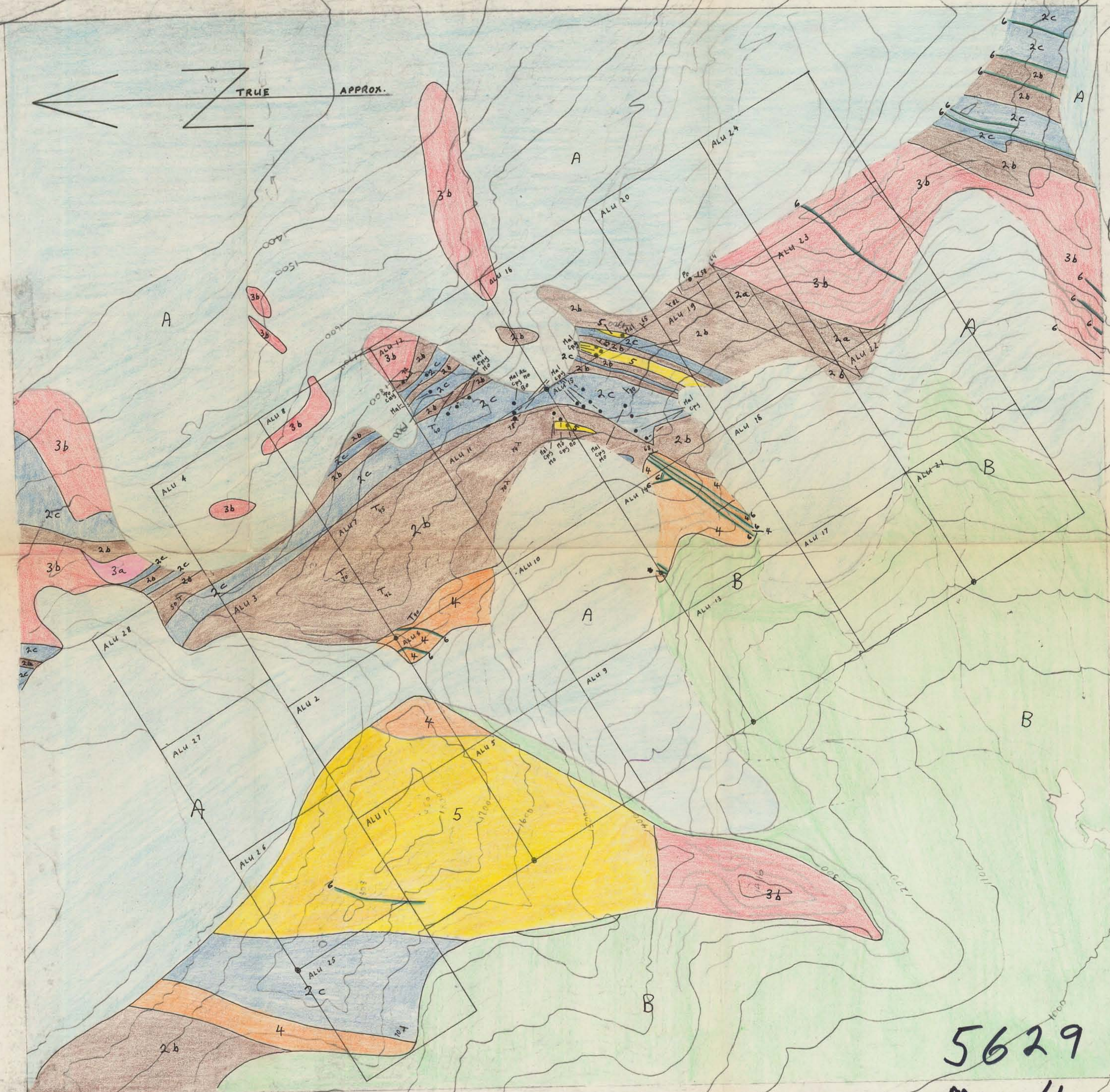
4	"Gneissic" granodiorite.
3b	Diorite with mildly expressed mineral foliation.
3a	"Microdiorite".

- PALEOZOIC (DEVONIAN?) -

2c	Calcsilicate, siliceous limestone, limestone.
2b	Aphanitic, mafic, banded metamorphic rocks, mostly metasediments.
2a	Above, but adding diorite inclusions.
1	Undifferentiated basic rocks.

SURFICIAL DEPOSITS:

B	Moraine Talus
A	Glacier, Ice Snow



5629
Map 4