

SEP 15 1972

KERR ADDISON MINES LIMITED

(FOR INTER-OFFICE USE ONLY)

826528

J.H.S.	✓
M.K.	✓
G.M.H.	
R.D.S.	
B.C.B.	
I.D.B.	
M.D.R.	
J.H.F.	
E.C.J.	

To Glen Hogg From W.M. Sirola

Subject SAM CRAIG PROPERTIES, Tofino Area, B.C. Date 12 September 1972

Herewith John Lund's report on the examination of four separate properties located near Flores Island on the west coast of Vancouver Island.

The properties were examined after Sam Craig brought a report and rock samples to this office from the various properties. In each case Craig mentioned the presence of areas of disseminated copper mineralization in intrusive rocks. We could not from his information, determine whether the mineralized zones were confined to contact area within the intrusive rocks, or whether there was the possibility of more widespread mineralization.

John Lund and Werner Gruenwald spent three days examining the Craig properties and concluded that the mineralization was usually confined to contact areas and was generally very low grade. No further effort is recommended. Mr. Craig has been so advised.

W.M. Sirola

W.M.Sirola

WMS/fs

*Agnew.
Gruenwald.*

REPORT ON AN EXAMINATION OF PROPERTY ON THE
WEST COAST OF VANCOUVER

Introduction

Sam Craig, prospector from Tofino, B.C., holds by location several claim groups on the west coast of Vancouver Island. After a discussion with Mr. Craig to determine his impression which properties had the greatest potential, four were selected for examination. These four are referred to as:

- (a) Flores Island - East Zone
- (b) Flores Island - West Zone
- (c) Stew property on Stewartson Inlet
- (d) Syd property on Sydney Inlet.

The Stew and Syd properties can be reached by boat or charter float plane from Tofino. The Flores Island properties can be reached either by float plane or helicopter - a helicopter pad has been built on each claim group.

An examination was made between July 17 and 20, 1972 by the writer and Werner Gruenwald, and accompanied by the owner, Mr. Sam Craig. Weather during this period was hot and sunny.

A. Flores Island - East Zone

Geology of the East Zone consists of biotite granodiorite, which is part of the coast range intrusive complex (Island intrusions), and which has been intruded by medium grained quartz monzonite and leucocratic quartz monzonite. These latter rocks may well be Tertiary in age. Finely disseminated chalcopryrite occurs within the leucocratic rock near the contact with granodiorite. It is confined to a zone with a maximum width of 40 feet and visual grade of less than 0.1% Cu. Away from the contact, mineralization decreases rapidly.

Mineralization is exposed in a north-easterly flowing stream situated on the east side of Flores Island. It consists of chalcopryrite and sparse pyrite as disseminated grains on fracture surfaces in the leucocratic quartz monzonite, and in shear zones at the contact between quartz monzonite and biotite granodiorite. At a point about 1 mile east, sparse chalcopryrite was noted in a northerly flowing stream where leucocratic quartz monzonite cuts granodiorite.

A. Flores Island - East Zone

Alteration of the rocks is generally confined to contacts or adjacent to shear zones. Kaolin and sericite were noted but were not abundant.

Outcrop is exposed for several hundred feet along the creek, giving a good cross section of geology. Only mineralization seen was confined to contact region and is not considered significant.

B. Flores Island - West Zone

Approximately $1\frac{1}{2}$ miles west of the East Zone, sparse chalcopyrite occurs sporadically in basalt adjacent to the contact with granodiorite. The basalt is black, fine grained, increasingly coarse grained to the north-west up slope from the granodiorite-basalt contact. At the top of the ridge, rocks are gabbroic. The areas examined lies on the north-east side of Mount Flores, between elevation 900 feet and 1800 feet.

None of the rocks or copper occurrences examined, were of sufficient interest to justify further work.

C. Stew Claims

The Stew claims are situated at the head of Stewartson Inlet, 24 miles north-west of Tofino. They cover mineralization exposed in a road cut adjacent to a logging company log dump, and along the beach. This occurrence is about 3 miles south of a former small copper producer, the Indian chief.

Underlying rocks are mainly medium grained, biotite quartz diorite or granodiorite in composition much like those on Flores Island. These are intruded by a fine grained, mafic-poor phaneritic rock, quartz diorite to quartz monzonite in composition.

Mineralization occurs in widely spaced north-northwesterly striking parallel fractures as masses, and disseminated grains of chalcopyrite and occasionally bornite. It is exposed over a distance of 200 feet in a road cut. Fracturing is pervasive, however, the amount of copper mineralization diminishes towards the north-eastern end of the exposure. Average number of fractures per foot, is 1 or less - not all the fractures are mineralized. Average grade would be less than 0.1% copper.

C. Stew Claims

Silicification occurs along some fractures and mineralization in places has been accompanied by black material, consisting for the most part of biotite and quartz. It would appear that both the silica and biotite are in part introduced.

A line of soil samples was taken about 200 feet north-west and over over the mineralized zonss, including a sample from soil directly over the mineralized rocks. All samples were low in both Cu and MoS₂. Samples are difficult to obtain because of roots, vegetation and² great thicknesses of organic debris.

D. Syd Claim Group

The Syd claims form a northerly-trending block on the west side of Sydney inlet, 24 miles north west from Tofino. The property can be reached by float plane from Tofino. Topography is moderately steep. The slopes have been logged and the slash in part burned, giving good rock exposure.

Several companies have examined or worked on the claims. CM & S in 1968 mapped part of the property and collected 20 silt samples. In 1970 Jorex Limited did additional mapping, collected soils on a grid, conducted an IP survey, and drilled 5 holes. Only short intersections of "ore grade" material was reported. Both of the above companies concentrated work on the northerly part of the claims where a remnant of metasedimentary and metavolcanic rocks are enclosed in biotite granodiorite. In 1971 the owner, Mr. Craig, drilled 5 X-ray diamond drill holes to test mineralization in fractured granite about 1 mile south of the previous work. Less than 0.15% Cu was reported.

Geology The property is underlain by Coast Range biotite and hornblende granodiorite which has intruded sedimentary and volcanic rocks of the Karmutsen group. The Karmutsen group rocks are represented by remnants or roof pendants enclosed in the granodiorite. All of the above rocks have been invaded by mafic-poor dykes and small intrusive masses of quartz monzonite and quartz diorite. Age of these leucocratic rocks is considered Tertiary (?). Mineralization is spacially and probably genetically related to these late intrusions.

The granodiorite is medium grained, fresh in appearance and containing 10% - 15% hornblende and biotite, and 15% quartz. Recstitution of biotite with chloritization of hornblende is evident adjacent to mineral bearing fractures.

Meta volcanic rocks are hornfelsed andesites and argillites. They are dark in colour and with some units carrying disseminated pyrrhotite with occasional associated chalcopyrite. The meta-rocks are banded, strike northwesterly and dip moderately to the north-east.

D. Syd Claims

Intruding all the above rock types, are small masses of a fine-grained leucocratic rock that is likely the finer grained equivalent of the leucocratic quartz monzonite found on Flores Island.

A pale green sparsely porphyritic dacite (?) dyke cuts the granodiorite near the East Granite showing. Mineralization is exposed in (a) the Meta volcanic zone, (b) the south Granite zone and (c) the north Granite zone.

(a) Meta volcanic zone. In this zone, pyrrhotite with associated chalcopyrite occurs in narrow oxidized zones within a dark meta argillite or meta andesite. These zones are less than 5 feet wide and are spacially related to a small leucocratic intrusion. Others who have examined this occurrence, have suggested a volcanic origin to this leucocratic rock. Its relation to other rocks and vague granitic texture, suggests an intrusive origin. Chalcopyrite is generally sparse but occasionally occurs as small massive pods.

This zone has been drilled by Jorex Limited. The distribution of drill holes leaves little area untested which could hold a sizeable deposit. I consider the zone as having been adequately tested.

(b) The North Granite Zone. Chalcopyrite occurs as fracture fillings and disseminated grains on a series of parallel fractures in granodiorite adjacent to a contact with a feldspar porphyry dyke. Mineralization is confined to a 10 foot wide zone with values diminishing rapidly away from the dyke. Mr. Craig put down an X-ray diamond drill hole 10 - 11 feet away and parallel to the contact. This hole was virtually barren.

The north Granite zone lies about one mile south of the meta volcanic zone on a branch of a logging road which leads to Refuge Cove.

(c) The South Granite Zone. Chalcopyrite and sparse MoS_2 occur in north-westerly striking ($320^\circ/80^\circ$) parallel fractures in granodiorite. The zone of fracturing is about 400 - 500 feet wide and can be traced north-westerly for 1,000 feet. Best mineralization is exposed in a trench 150 feet above the road. Here chalcopyrite with fine reconstituted biotite, quartz and malachite occur in closely spaced fractures near a small leucocratic intrusion. Two drill hole on the road, put down by Mr. Craig, to intersect the extension of mineralization in the trench, intersected only low values in copper (0.15% maximum reported). Values decrease outwardly from the leucocratic intrusion. An estimate of a possible grade based on fracture spacing, would be less than 0.1% copper. Outcrop is plentiful and structures can be easily traced.

This zone lies about 600 - 1,000 feet south of the north zone, and can be reached by logging road from Refuge Cove.

Near economic grade mineralization occurs in the Syd claims but is confined to small zones. Alteration fracturing and mineralization decreases rapidly outward from a higher-grade centre. The probability of developing an economic deposit in the areas examined, is remote.

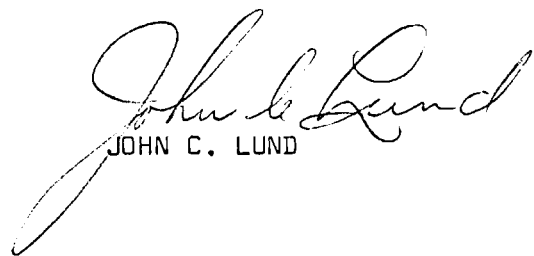
Summary and Conclusions

Sam Craig, prospector from Tofino, holds several properties along the west coast of Vancouver Island. An examination was made of four claim groups:

- (a) Flores Island East Zone (JR claims)
- (b) Flores Island West Zone (JR claims)
- (c) Stew claims
- (d) Syd claims

The Stew, the Flores Island East Zone and the Syd claims are underlain by granodiorite that has been intruded by leucocratic quartz monzonite and/or quartz diorite. Low grade copper mineralization occurs near the contacts of the leucocratic intrusions. Values are $< 0.1\%$ Cu and confined to small areas. These deposits are not considered either large enough or of sufficient grade to justify additional work. The Flores Island West Zone consisted of gabbro, basalt and granodiorite. Mineralization was virtually absent from all rocks examined.

There is insufficient mineralization on any of the properties to be of interest to Kerr Addison Mines. I have advised Mr. Craig verbally that we are not interested. However, he should be sent a formal notice of our decision.


JOHN C. LUND