



**PROPERTY EXAMINATIONS
VANCOUVER ISLAND AND LOWER MAINLAND**

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During the 1975 field season several prospectors under the *Prospectors Assistance Act* were visited and a number of showings, prospects, and mining properties were examined. The most significant of these prospects and properties are briefly described below.

I, STAN, PORT HB CLAIMS (92L/8E, 9E)

The I, STAN, PORT, and HB claim groups (latitude $50^{\circ} 30'$, longitude $126^{\circ} 06'$) total 35 claims and fractions which are located on the mainland on Nelson Ridge opposite Port Neville, 14 kilometres northwesterly across Johnstone Strait from Kelsey Bay.

The claims are underlain by Karmutsen massive and amygdaloidal basalt flows which are cut by numerous basic feeder dykes. The basalts in the northern part of the claim block are intruded by bodies of quartz diorite.

Mineralization occurs in the Karmutsen flows and consists of disseminated chalcopyrite and bornite in unaltered basalt matrix, in amygdules in flow tops, and in small fractures. Better grades of mineralization are commonly accompanied by some increase in epidotization, a feature typical of mineralization in Karmutsen rocks. Slight iron staining on outcrop surfaces is the only indication of mineralization. The rock, when broken, may show malachite (rarely azurite) on former hairline fractures.

In places, copper grade is significant but to date lateral and vertical extents appear to be limited. The best assay reported to present is from an iron-stained bluff between the upper and lower adits where chip samples across 6.3 metres assayed 1.69 per cent copper.

Workings consist of two water-filled shafts, a trench, several small pits, and upper and lower adits of 21 metres and 33 metres respectively. Approximately 180 metres of diamond drilling has been done in 17 drill holes since 1970. The property has not been active since 1974.

NARVAEZ CLAIM (92F/9W)

The Narvaez claim (latitude $49^{\circ} 38.2'$, longitude $124^{\circ} 18.5'$) consists of four claim units which cover part of the former Bob and Tex groups. The claim is located 2.5 kilometres north of Mount Grant on Texada Island.

The claim is underlain by massive and amygdaloidal Karmutsen basaltic flows cut by a quartz diorite-granodiorite intrusion. Related quartz veins are concentrated in the contact zone. Although contact effects are visible in the volcanic rocks the intrusive and volcanic rocks are otherwise unaltered and unbrecciated.

Mineralization is fracture dependent with molybdenite occurring as films and small lenses in quartz veins and as films in fractures in intrusive and metavolcanic rocks. Pyrite and chalcopyrite occur in fractures and in quartz veins in metavolcanic rocks near the volcanic-intrusive contact.

OK PROPERTY (92K/2E; 92F/15E)

A brief examination of the OK property (latitude 49° 59' to 50° 04.5', longitude 124° 35' to 43') was made in company of Mr. Tom Young, an associate of the owners of the property Mr. R. Mickle and Mrs. M. V. Boylan.

A paper by W. Meyer, R. E. Gale, and A. W. Randall, for inclusion in the Charles S. Ney CIM Special Volume, gives an excellent account of the OK property. Much of the information for the following description of the property is from their paper.

The OK property consists of approximately 344 claims which are located on Bunster Hills approximately 19 kilometres by road northwest of Powell River. The property is bounded on the north by Theodosia Inlet and on the west by Okeover and Lancelot Inlets.

Mr. Mickle discovered the property in 1965 using a combination of prospecting and soil geochemistry. Since 1966, six companies have done considerable work including geological, geophysical, and geochemical surveys and approximately 14 000 metres of diamond drilling.

The area of the claims is underlain by diorite and gabbro of the Coast Plutonic Complex, cut by a composite stock 6 kilometres by 3 kilometres, which contains a dyke-like core of highly siliceous leucogranodiorite porphyry. Quartz-rich zones and quartz stockworks are associated with the younger central unit. A breccia zone was noted which consists of angular to rounded intrusive fragments in an iron-stained lithic matrix. The composite intrusive units are cut by late post-mineralization porphyritic hornblende diorite and dacite dykes ranging from a few centimetres to to several metres wide.

Strong quartz-sericite alteration in the central leucocratic porphyritic core grades outward into chlorite-epidote alteration in the granodiorite (Meyer, *et al.*).

Mineralization consists of pyrite, chalcopyrite, molybdenite, and minor magnetite in altered granodiorite peripheral to the barren leucogranodiorite porphyry (Meyer, *et al.*).

Chalcopyrite and molybdenite occur in a stockwork of quartz veins and as films in fractures. Chalcopyrite also occurs as disseminations in the rock matrix in association with mafic minerals. Reserve figures reported by Meyer, *et al.*, at a 0.20-per-cent cut-off are as follows: drill indicated 48 978 000 tonnes of 0.30 per cent copper and 0.016 per cent molybdenite; drill indicated 19 047 000 tonnes of 0.26 per cent copper and 0.02 per cent molybdenite.

REFERENCE

Meyer, W., Gale, R. E., Randall, A. W., O.K. Property, *C.I.M.*, Charles S. Ney Special Volume, in preparation.

CREAM LAKE PROPERTY, STRATHCONA PARK (92F/5E)

The Cream Lake property (latitude 49° 29.25', longitude 125° 32.25') is located 8 kilometres south of Buttle Lake, Vancouver Island, at the headwaters of Price and Drinkwater Creeks. The main showings are on the west side of Cream Lake. Access to the property is by helicopter from Campbell River or 5 kilometres by trail from the end of a gravel road which terminates 3.2 kilometres south of Buttle Lake.

The Cream Lake property consists of approximately 180 claims of the CREAM, CROSS, PRICE, STAN, BEAR, ELK, D, E, F, H, and X groups. There are at least seven vein-shear systems known on the claims.

Massive Sulphide Zone – Upper Price Area

Numerous blocks and fragments of massive sulphide float occur on a talus slope below a cliff on Mount Septimus near the headwaters of Price Creek. The mineralization consists of massive or thin-layered extremely fine-grained pyrite and pyrrhotite (?) with some slightly coarser grained chalcopyrite. Sphalerite is also reported in similar float in the same area.

The massive sulphides occur in coarse basic fragmental volcanic rock interbedded with thin-bedded acidic tuff and cherty layers which appear to overlie Buttle Lake limestone.

Several probable sources of massive sulphides were checked by helicopter while hovering at the cliff face. One fairly local area was thought to be the most probable source.

The massive sulphide zone is not considered at this time to be as significant as the silver-gold-bearing vein-shear systems.

Vein-Shear Systems

Vein-shear systems occur west and northwest of Cream Lake in Sicker Group rocks of volcanic origin. These rocks have been cut by Karmutsen dykes and intruded by offshoots of Island Intrusions which lie at the west side of the property.

The mineralized veins or broken mineralized vein material commonly occur in *en echelon* arrangement in large shear zones or in smaller shear structures which extend for tens of metres and possibly up to 1 200 metres. It is important to note that continuity of a shear structure does not necessarily mean continuity of the vein system. Continuity of veins in this case can only be proven by assays at closely spaced intervals.

Quartz-carbonate veins were emplaced in fracture-shear systems which were loci for later shearing. Although shearing may have preceded and accompanied vein deposition, the most obvious shearing occurred after emplacement of the veins. The intensity of post-ore shearing is varied along the vein shear systems, being fairly uniform in some places and tending to pinch and swell in others. The amount of vein material and mineralization visible along the structures is also varied; commonly appearing as relatively unbroken lenses or 'horses' preserved in or adjacent to gouge. Post-vein shearing causes dilution of vein material with surrounding country rock and masks the continuity of veins except where lenses and 'horses' of vein material are visible.

The mineralogy of the veins appears to consist of pyrite, sphalerite, galena, tetrahedrite, arsenopyrite, ovyheeite, and chalcopyrite in a gangue of locally intricate open space quartz vein filling associated with calcite and iron-rich carbonate.

Both gouge and vein material carry silver and gold values ranging from trace amounts to 5 100 grams per tonne silver and 18.7 grams per tonne gold for selected samples. Most of the assays listed by Cream Silver Mines Ltd. in assessment reports show significant silver and gold values. Both vein material and gouge are considered to constitute potential ore and the vein-shear systems range in thickness from a few centimetres up to 1.5 metres but are commonly between 35 to 61 centimetres wide. Assays from samples collected in September 1975 are given in the accompanying table.

ASSAYS – CREAM SILVER PROSPECT

Sample No.	Gold ppm	Silver ppm	Copper per cent	Lead per cent	Zinc per cent	Remarks
15955M	4.76	102	----	----	----	Cream vein Gouge and solid vein Across 1.2 metres
15956M	7.14	1706.8	0.08	1.15	1.65	Cream vein Solid vein Grab sample
15957M	7.14	7401.8	0.305	4.25	3.96	Cream vein Solid vein Grab sample
15958M	8.84	802.4	0.032	0.35	0.083	Cream vein Solid vein Grab sample
15959M	0.34	10.2	----	----	----	Cream vein Gouge and solid vein Across 30 metres
15960M	4.76	139.4	----	----	----	Cream vein Gouge and solid vein Across 1.2 metres
15961M	5.1	510	0.016	0.44	4.33	Cream vein Solid vein and gouge Across 40 centimetres
15962M	2.04	176.8	0.021	0.148	0.26	Cream vein Gouge and solid vein Across 1.2 metres
15963M	8.16	411.4	0.030	0.73	0.36	Sugar Lake vein Solid vein Grab sample
15964M	8.16	17.0	----	----	----	Hughes Elliott vein Solid vein Grab sample

KELLY CLAIM, CAYCUSE CREEK (92C/15E)

The Kelly claim (latitude 48° 48.12', longitude 124° 31.25') consists of four units staked during the 1975 field season by J. M. McNulty. The claim is located on Caycuse Creek, 13 kilometres from Nitinat Lake.

The claim is underlain by a contact zone between Island Intrusions and Karmutsen volcanic rocks and limestone. The country rocks are weakly metamorphosed and

abundantly fractured and sheared with the result that bedding is obscured and the limestone appears as lenticular bodies within the volcanic rocks.

There has been massive replacement of limestone and to a lesser extent volcanic rocks by skarn which contains disseminated sulphides and randomly distributed irregular bodies of massive sulphides. The skarns are, for the most part, exposed on the north side of Cayuse River and form at least eight bodies which trend in a northeasterly direction in *en echelon* arrangement and have steep northerly dips. The bodies of skarn are commonly bounded by slip surfaces resulting in lenticular forms ranging in dimension from about a metre long and several centimetres wide to over 15 metres long and 3 metres wide.

Massive sulphide mineralization within skarn consists of pyrite, pyrrhotite (?), chalcopyrite, and minor magnetite in a gangue of garnet, epidote, ilvaite, amphibole (?), and remnant marble. A small amount of galena was seen in association with quartz and epidote in metavolcanic rocks. Assay results provided by Mr. McNulty for mineralized skarn are as follows:

No. 1 – copper,	1.38 per cent;	silver,	6.8 ppm	over 1.5+ metres
No. 2 – copper,	4.75 per cent;	silver,	6.8 ppm	over 1.2+ metres
No. 3 – copper,	4.66 per cent;	silver,	20.4 ppm	over 1.8+ metres
No. 4 – copper,	2.77 per cent;	silver,	13.6 ppm	over 1.2+ metres
No. 5 – copper,	8.61 per cent;	silver,	37.4 ppm	over 0.9+ metre
No. 6 – copper,	1.28 per cent;	silver,	6.8 ppm	over 1.5 metres
No. 7 – copper,	7.33 per cent;	silver,	30.6 ppm	over 1 metre

Additional samples have been submitted for assay.