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GOLD PROSPECTS - VANCOUVER ISLAND

Prepared for
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SUMMARY

Several Vancouver Island gold properties have been reviewed as situations for possible participation.

The Lucky and Kennedy River properties include gold-bearing quartz veins which are typical of the west coast of Vancouver Island. As noted on Table 1, these veins contain relatively good gold grades over narrow widths and apparently restricted lateral and vertical ranges although most of the mineralized shoots are open in at least one direction.

Similar narrow veins have been successfully mined in the past, both on Vancouver Island and elsewhere. Stope widths at Privateer (Zeballos) were in the order of 2.5 ft. (0.8 metre) and mining over similar widths is currently being carried out at Lac's Golden Patricia mine in northern Ontario.

Tonnages and grades cited in Table 1 for the vein deposits are conservative estimates and refer only to sampled parts of the veins and make no allowance for dilution. Some gold values are present in wallrocks at both the Lucky and Kennedy River properties but values are generally less than 0.10 oz/ten. Consequently, it is prudent to assume a zero value for dilution which would be in the order of 60% in the event of underground mining. This conservative estimate would have the effect of reducing cited gold grades by 60% but increasing tonnages by a similar amount. Some of the vein

material at the various properties could also be extracted by surface cuts.

Possible participation in the Lucky and Kennedy River properties would most probably be by way of standard option agreements with modest property payments and small royalty payments on any production. All of these properties are on roads in active logging areas and are close to port facilities.

The Villalta property is an entirely different situation. Gold values are contained within a flat-lying hematite-rich oxidized zone which could be mined easily by a small open pit. A heap leaching operation has been proposed and participation could be by way of a joint venture with the incoming party undertaking the mining operations.

TABLE 1

PROPERTY	ZONE	LENGTH(m)	DEPTH(m)	WIDTH(m)	TONNES	Au(oz/ton)	Ag(oz/ton)
Lucky	Lucky Vein	50	50	0.50	3,500	1.00	0.15
Kennedy River	Elite Vein	75	15-45	0.50	1500-4500	1.17	1.70
	Bear Vein	27	45	1.0	3,500	0.311	tr
	Black Vein	23	36	0.70	1500-2000	0.402	tr
	Shack Vein	70	20-50	0.45	1500-4500	0.600	1.60

Villalta

Surface Area	Thickness	TONNES	Au(oz/ton)
1200-1500 sq. m	7	22000-27,000	0.126

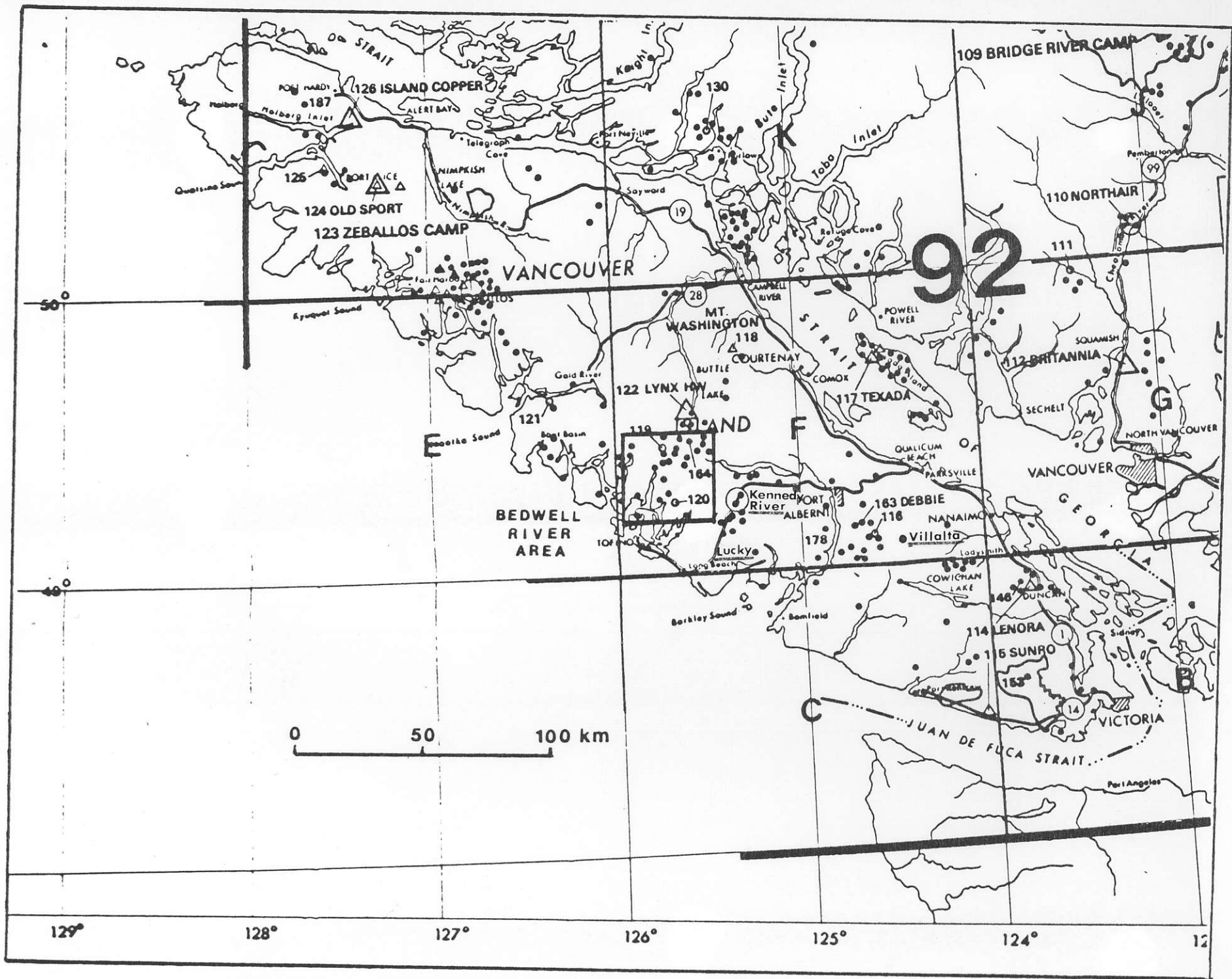


FIGURE 1 — VANCOUVER ISLAND GOLD DEPOSITS (BCMEMP R OF 1989-22)

INTRODUCTION

Several Vancouver Island gold prospects with indicated reserves are described in this report. These have been selected with the objective of developing small tonnages of high grade gold which could be exploited by open pit and/or shallow underground workings. The selected prospects are close to tidewater and material mined could be shipped to Westmin's Premier mill near Stewart.

The writer has previously examined, sampled and reported on the prospects described herein over the past several years. The prospects are on mineral claims held by other parties who conceivably would be interested in some sort of participation.

VANCOUVER ISLAND GOLD DEPOSITS - BACKGROUND

Several hundred deposits and occurrences with gold as the primary or by-product commodity are known on Vancouver Island.

The vast majority of these are vein deposits which are concentrated along the west coast of the Island (Figure 1). Four clusters or camps are evident including, from north to south, Zeballos, Bedwell River, Kennedy River and Alberni Inlet. Known vein deposits are developed in a variety of host rocks but are believed to be genetically related to Tertiary

granitic intrusions. Veins commonly occupy steeply dipping west-northwest and east-northeast fault and fissure zones.

Gold-bearing veins are narrow with widths ranging from a few cm to 2 metres and an overall average of 0.3 metre (12"). Defined strike lengths average less than 50 metres although strike lengths of a few hundred metres are known in the Zeballos and Bedwell River camps.

Gangue minerals are quartz and lesser carbonate and gold occurs in the free state and as intergrowths with sulphide minerals including pyrite, galena, sphalerite and chalcopyrite. The presence of galena is usually an indicator of better gold values.

Vein walls are sharply defined with thin selvages of altered and sheared wallrocks. Gold values are generally restricted to the veins with values in wallrocks related to silicification and quartz stringers emanating from the main vein.

Although the typical Vancouver Island vein gold deposit is relatively small, significant production has been achieved from the Zeballos camp where more than 300,000 ounces of gold and some silver have been recovered from 16 deposits since 1934. 60% of this production was from the Privateer mine which had an average recovered gold grade per ton milled of more than an ounce. While the principal vein at Privateer was

persistent over a strike length of 300 metres and a vertical range of 250 metres, average vein width was 0.3 metre (12") or less.

Production from 14 vein deposits in the Bedwelli River area totalled 10,000 oz. gold and 7,300 oz. silver with average recovered grades per ton mined of 0.55 and 0.40 oz/ton respectively. 75% of this production was from the Musketeer and Buccaneer and six other deposits in the southern part of Strathcona Provincial Park.

Vein gold deposits in the Kennedy River - Alberni Inlet areas have also yielded some production.

Gold has also been recovered as a by-product from several skarn and porphyry deposits on Vancouver Island. It is noteworthy that Island Copper was the largest gold producer in the Province until the late 1980's.

Primary gold mineralization is also associated with oxidized zones at the Echo (Cowichan Lake) and Villalta (Nanaimo Lakes) properties on southern Vancouver Island.

RECOMMENDED GOLD PROSPECTS

Several gold prospects are recommended for further consideration. These have been selected on the basis of access, the presence of at least some indicated tonnages of relatively good grade and on the writer's knowledge of the

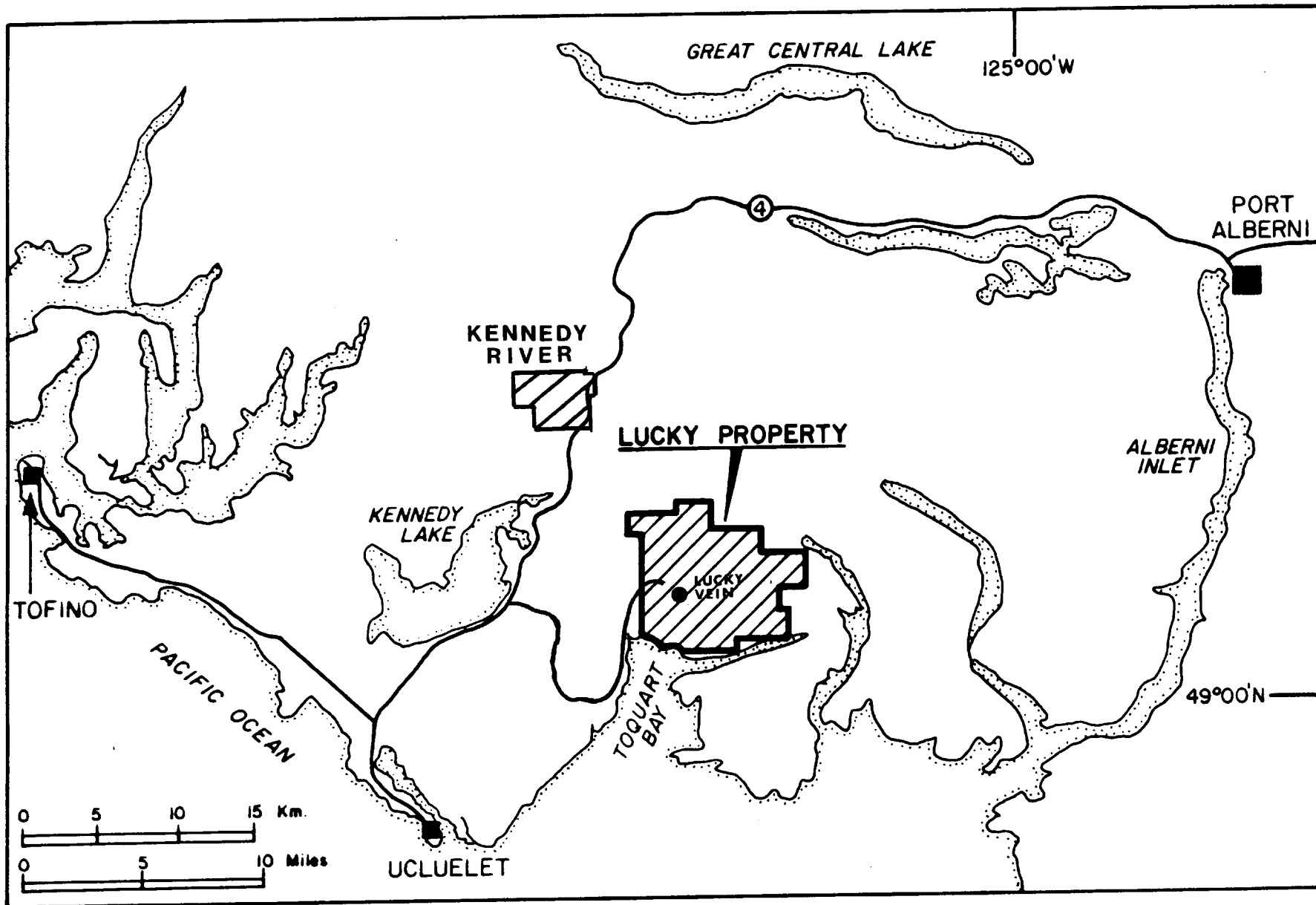


FIGURE 2-

respective properties.

Two properties, the Lucky and Kennedy River, include vein gold deposits which have been partially defined by underground workings and more recent diamond drilling. Gold values at the Villalta property are associated with an oxidized, hematite-rich zone.

Lucky Property

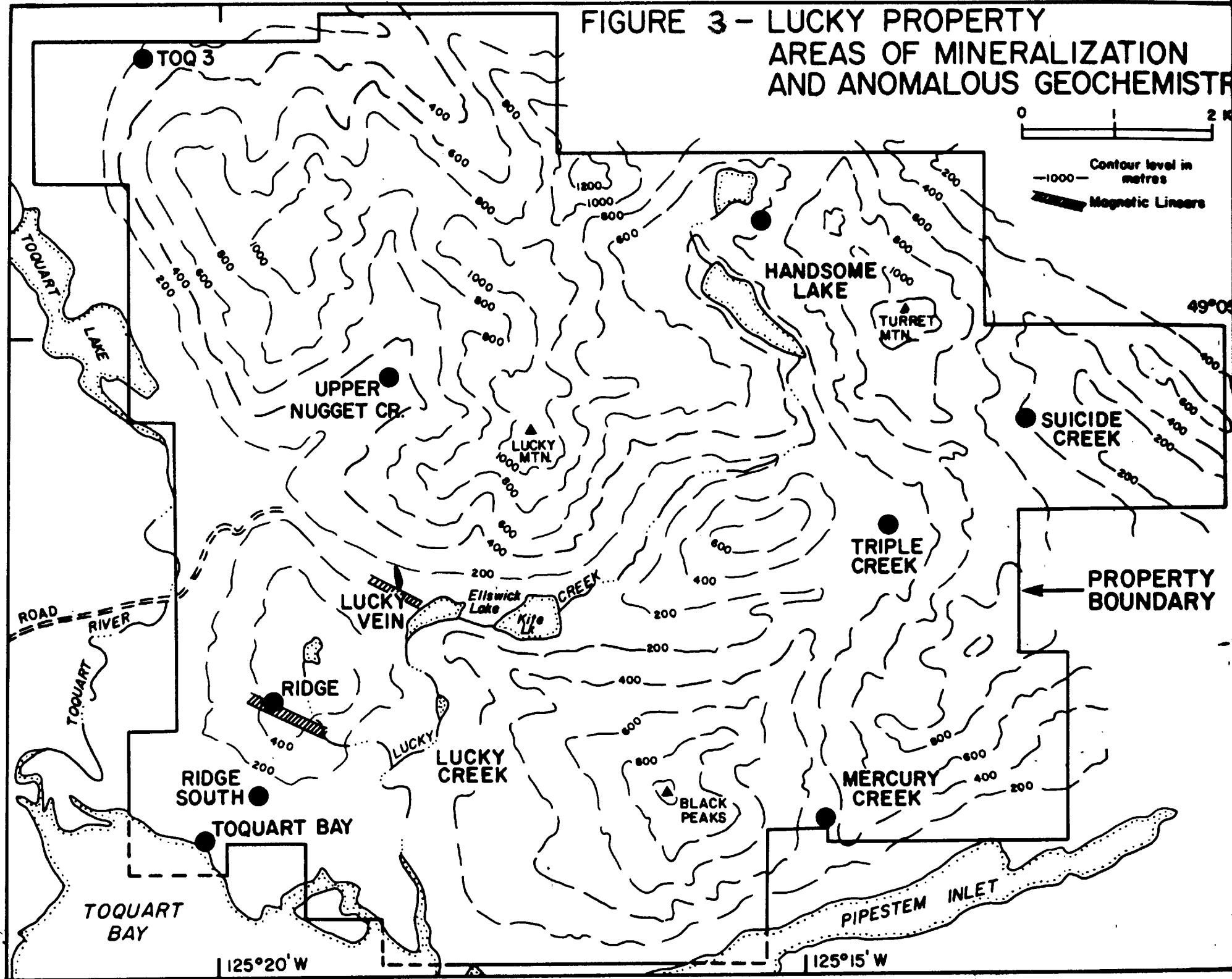
Location and Access - 5 km north of Toquart Bay and 20 km northeast of Ucluelet on the west coast of Vancouver Island (Figure 2). Access is by logging roads off highway 4 linking Port Alberni and Ucluelet - Tofino.

Mineral Property and Ownership - 4 2-post claims, 2 fractional claims and a number of Modified Grid claims owned by Electrum Resource Corporation, a private company in which John Barakso is the principal shareholder. Canora Mining Corporation (Ben Ouellette, principal), currently seeking a VSE listing, holds an option to acquire a 30% interest but are currently in default.

Previous Work - 2 adits (100 m - 1930's), geochemical surveys, airborne and surface geophysics, geological mapping, 2400 metres of diamond drilling (27 holes) between 1983 and 1989.

Geological Setting - The property is underlain by Karmutsen

**FIGURE 3 - LUCKY PROPERTY
AREAS OF MINERALIZATION
AND ANOMALOUS GEOCHEMISTRY**



Formation volcanic flows which are overlain in the eastern property area by Quatsino limestones and Bonanza pyroclastic rocks. Island intrusions granitic rocks are widespread and quartz feldspar porphyry dykes nearby many of the mineral showings are believed to be of Tertiary age. West-northwest regional faults are reflected by drainage patterns and magnetic lows.

Several mineralized zones and zones with anomalous geochemical values are known within the property area (Figure 3) of which the most attractive is the Lucky Vein.

Lucky Vein - This quartz-carbonate vein occupies a northerly striking, steeply east dipping shear zone and is exposed in surface trenches and two adits. Exposed vein widths range from a few cm to 0.40 metre (16"). Six vein samples over a 28 metre strike length in the upper adit yielded a weighted average grade of 1.936 oz/ton gold over an average width of 0.23 metre. Hangingwall and footwall samples, across widths of 0.30 - 1 metre, assayed between 0.011 and 0.08 oz/ton.

Subsequent diamond drilling tested the vein over a strike length of 140 metres and to a depth of 60 metres below the upper adit level. As might be expected, gold values show a wide variation within the area drilled (Figure 4). Better values appear to be contained in a steeply north plunging shoot or shoots with a weighted average grade of 0.940 oz/ton

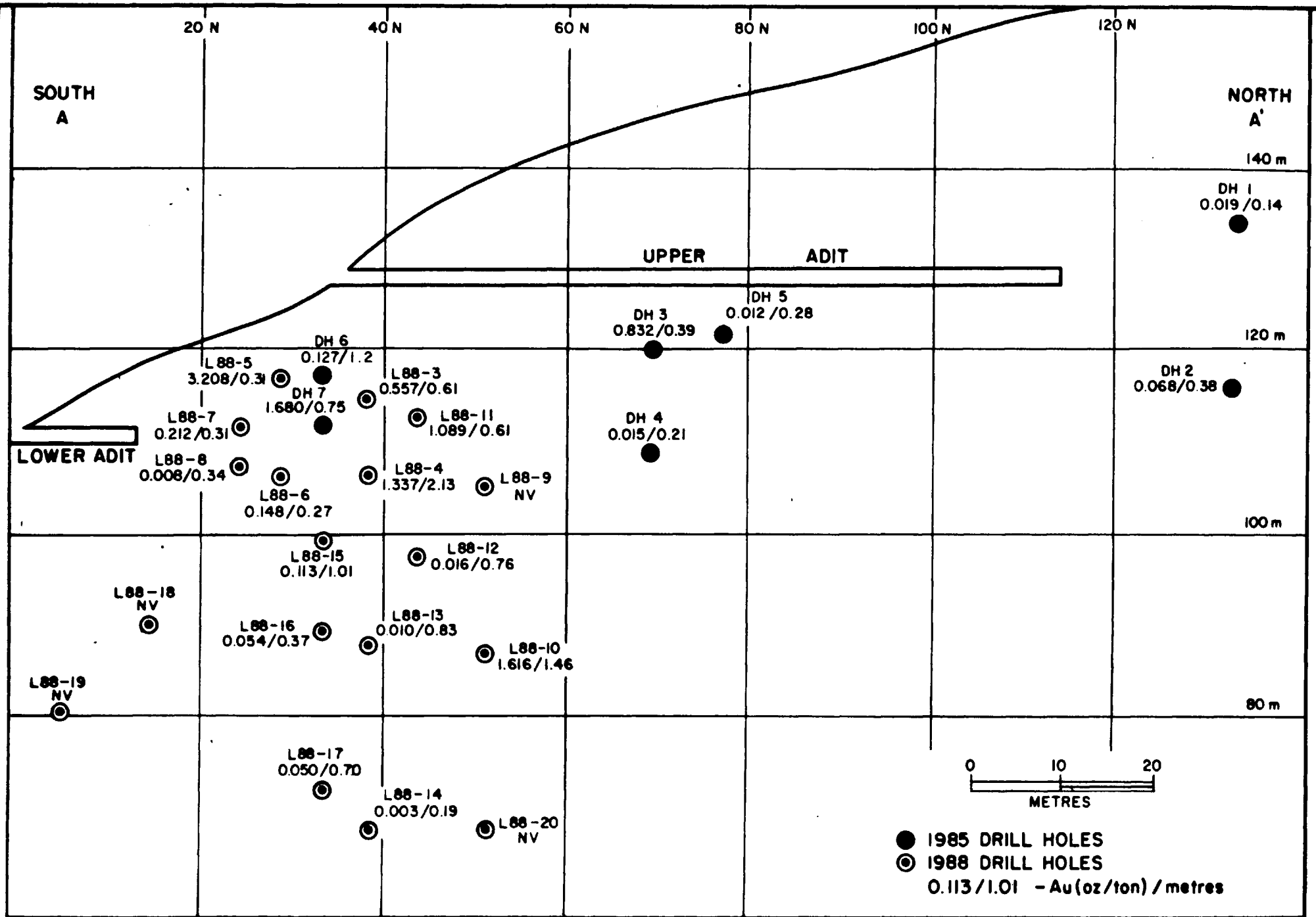


FIGURE 4 - LUCKY VEIN - LONGITUDINAL PROJECTION (LOOKING WEST)

gold over an average hole length of 0.86 metre (true width approximately 0.50 metre). In some case, diamond drilling intersected two closely spaced parallel veins and/or silicified wallrocks with appreciable gold values, both contributing to a greater overall width.

Potential - As indicated on Figure 4, better gold grades occur over an apparent strike length of 50 metres and a similar vertical range below the upper adit. The indicated tonnage of material that might grade about 1 oz/ton is $50 \times 50 \times 0.5 \times 2.8(\text{S.G.}) = 3500$ tonnes. Silver values are generally less than 0.15 oz/ton.

A west-northwest fault immediately south of the adits may have offset the vein structure to the west. Anomalous gold values in stream sediments and soils 200 metres to the west may be reflecting this offset or a parallel vein structure.

Recommendations - Work to date on the Lucky Vein has indicated a small tonnage of good grade material that could be exploited by a ramp from the area of the lower adit and an open cut between the two adits. Several additional drill holes could expand the indicated tonnage and perhaps locate a faulted extension.

The Lucky Vein adits are close to an existing logging road which provides access to Toquart Bay which currently has

a log loading facility and which was previously used to ship iron concentrates from the Brynnor mine.

The Lucky Vein is covered by two 2-post claims and two fractions and any potential deal should include these claims only. Electrum Resource Corporation appears to be more interested in other parts of the large property and may be inclined to negotiate a deal for the vein only. A possible sticking point is the 30% Canora interest.

Kennedy River

Location and Access - 35 km northeast of Ucluelet on the west coast of Vancouver Island and accessible by highway 4 and logging roads west of Kennedy River (Figure 2).

Mineral Property and Ownership - 4 reverted Crown grants and 6 Modified Grid claims with varying ownership including International Coast Minerals, Golden Spinnaker Minerals, Nationwide Gold Mines (all related companies), 327532 B.C. Ltd. and Ted Walker, a local hotel owner in Ucluelet. Precise ownership of the various claims is not known; previous option agreements may have terminated. Records show many of the claims expiring in the near future.

Previous Work - Several adits (1920's - 1930's); geological mapping, geophysics, geochemistry, trenching and diamond drilling (+40 holes - 3000 metres) between 1985 and 1989.

Geological Setting - the geological setting is similar to the nearby Lucky property with Karmutsen volcanics overlain by Quatsino limestones and Bonanza volcanics and intruded by Island granitic rocks. All rocks are transected by two regional west-northwest faults and principal gold-bearing quartz veins are developed both within the major fault zones and in splays off them (Figure 5).

Six vein systems have been investigated by detailed surface sampling and diamond drilling over the past several years. The veins have sharp to sheared contacts with wallrocks and 1 metre wide alteration envelopes with abundant sulphide minerals and gold contents of less than 0.10 oz/ton are developed marginal to the veins. Details of the various vein structures are as follows:

Elite Veins - Two quartz veins are developed within and adjacent to the west-northwest Canoe Creek fault on the Blaster mineral claim now owned by 327532 B.C. Ltd. The Elite Vein occupies an east-northeast splay fault and is intermittently exposed over a 75 metre strike length. The vein contains 10-25% sulphides - mainly pyrite and pyrrhotite with some chalcopyrite and sphalerite. The vein dips steeply north and has sharp contacts with bleached wallrocks. Surface sampling at 1 metre intervals in two exposed sections of the vein (10 and 27 metre strike lengths respectively) yielded a

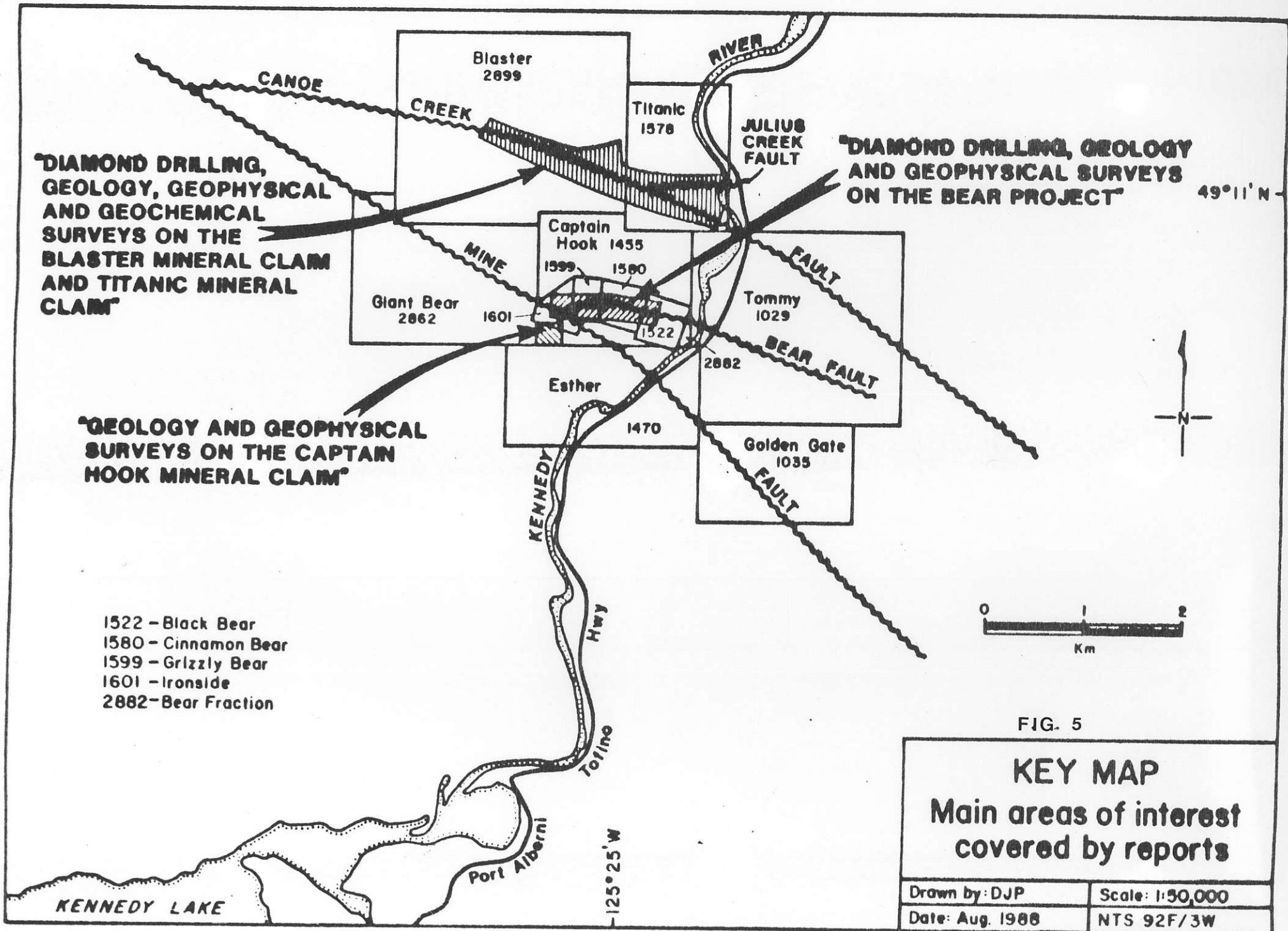


FIG. 5

KEY MAP
Main areas of interest covered by reports

Drawn by: DJP

Scale: 1:50,000

Date: Aug. 1988

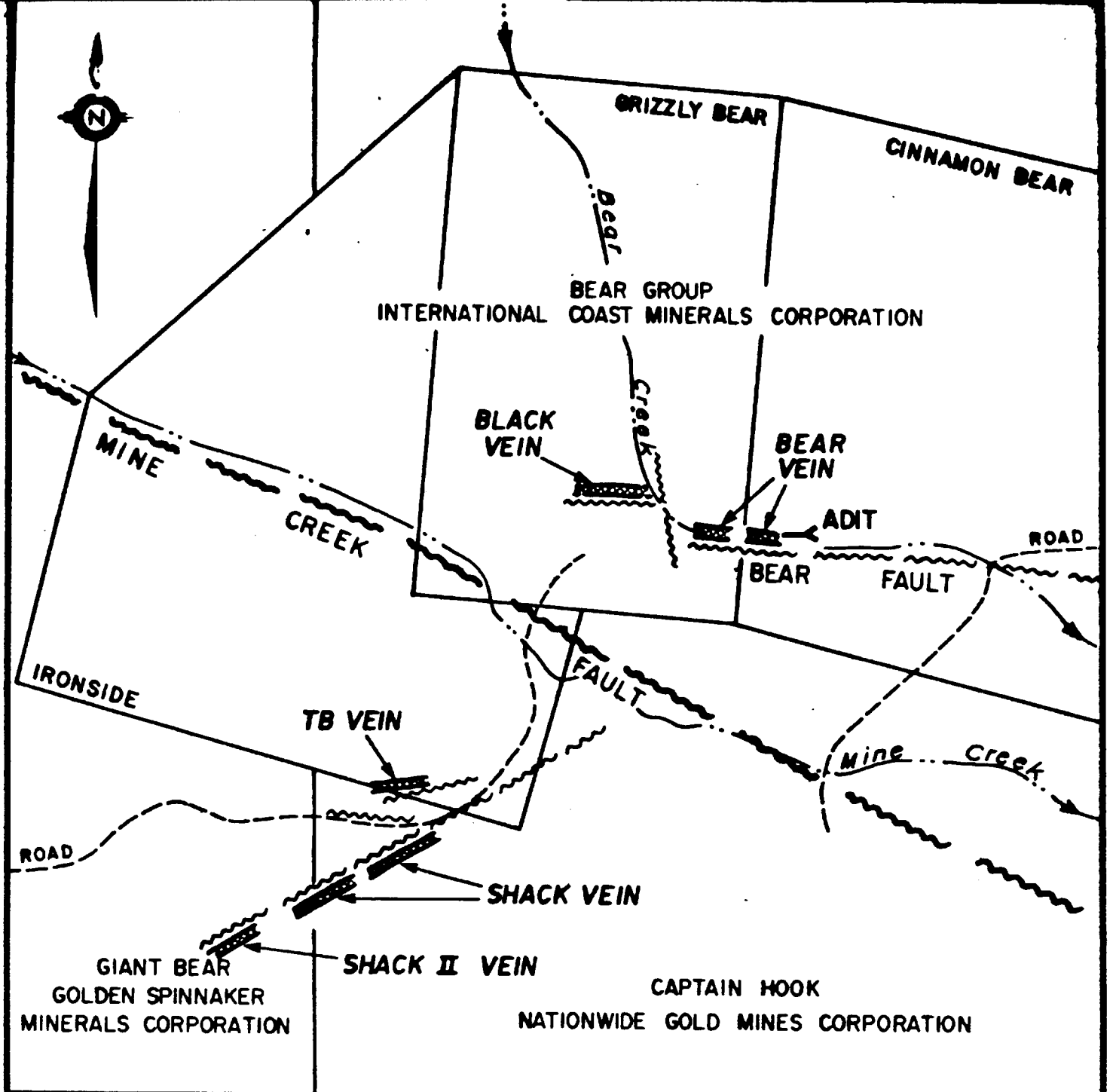
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weighted average grade 1.17 oz/ton gold and 1 oz/ton silver over an average width of 0.50 metre. Twelve drill holes intersected the vein at vertical depths of 15 - 45 metres and gold values ranged from 0.072 - 0.326 oz/ton over 0.30 metre widths. There is a possible 1500 - 4500 tonnes within the tested area of the vein which is open to the northeast and to depth.

The Elite II Vein, 400 metres west of the Elite Vein, consists of irregular quartz lenses and pods intermittently exposed over a strike length of 200 metres. Limited surface sampling indicated gold values of between 0.064 and 0.508 oz/ton over 0.30 to 1 metre widths with minor values in wallrocks.

Bear and Black Veins - These easterly trending veins, situated on reverted Crown grants held by International Coast Minerals, are developed in a splay off the west-northwest Mine Creek fault (Figure 6). The Bear Vein dips steeply north and is exposed over a 135 metre strike length and has been drilled to a depth of 45 metres. A 27 metre long zone in an adit has an average grade of 0.311 oz/ton gold across a 1 metre width. Similar values were obtained from diamond drill holes. The adit zone contains approximately 3500 tonnes and the zone is open to the east and to depth.

The Black Vein is a faulted extension of the Bear Vein



SYMBOLS




-  Major regional fault
-  Splay fault
-  Gold-bearing vein



FIG. 6

KENNEDY RIVER
GOLD CAMP

VEIN LOCATIONS

Drawn by: D.J. Pawluk

Scale: 1 : 5,000

Date: Feb, 1989

(Figure 6) and detailed surface sampling of a 23 metre long section yielded 0.402 oz/ton gold over an average width of 0.70 metre. The zone has been tested to a vertical depth of 36 metres and the best drill hole intersection was 0.936 oz/ton gold over 2.17 metres. A 5 ton bulk sample, shipped to Cominco, assayed 0.28 oz/ton. Potential tonnage is 1500 - 2000 tonnes and the zone is open to depth.

Shack Vein - The Shack and Shack II Veins, part of the same system, occur within an east-northeast shear zone at the mutual boundary between claims held by Golden Spinnaker Minerals and Nationwide Gold Mines (Figure 6). The veins are exposed in trenches over a 160 metre strike length of which 90 metres (Shack II vein) is on the Golden Spinnaker ground. Detailed surface sampling over an exposed 18 metres of strike length yielded weighted average grades of 0.633 oz/ton gold and 1.15 oz/ton silver over an average width of 0.46 metre. Eight diamond drill holes over an 80 metre strike length tested the Shack II vein to depths of between 16 and 52 metres - better values were obtained from 2 holes near the eastern claim boundary. These assayed 0.659 oz/ton gold and 4.80 oz/ton silver over 1.9 metres and 1.214 oz/ton gold and 2.99 oz/ton silver over 0.88 metre. Assuming that these two holes are below the area of surface sampling, potential tonnage could be in the order of 500 - 2000 tonnes.

The Shack Vein on the Nationwide Gold Mines ground has been sampled in detail over an exposed strike length of 52 metres. Weighted average grades are 0.552 oz/ton gold and 1.92 oz/ton silver over a 0.37 metre average width. Better values, both on surface and in drill holes, which tested the vein to vertical depths of 20 - 30 metres, are within that portion of the vein near the boundary of the Golden Spinnaker claim. Potential tonnage is 1000 - 1500 tonnes and it appears that better values within the Shack and Shack II veins are part of the same zone which may include 1500 - 3500 tonnes grading 0.60 oz/ton gold and 1.60 oz/ton silver. The zone or shoot is open to depth and possibly along strike.

Recommendations - The six veins subjected to detailed surface sampling and tested by shallow drill holes contain small tonnages of good gold grades. All of the zones within the veins are open in at least one strike direction and to depth.

In view of the varied ownership of the claims in which these veins are situated, it would be best to consider the Elite (Blaster claim) or the Black - Bear veins (reverted Crown grants) which are each owned by one party. The Elite vein has the apparent best grade (1.170 oz/ton gold). The Shack vein is also of interest but the divided ownership may present a problem.

Villalta Property

Location and Access - Near the headwaters of the Nanaimo River 50 km by road west of Nanaimo (Figure 7). The main area of interest has been clear cut.

Mineral Property and Ownership - 16 mineral claims are owned by Chester F. Millar (Glamis Gold) who acquired them from New Canamin Resources in early 1991.

Previous Work - Canamin Resources (Efrem Specogna) carried out limited diamond drilling and some metallurgical testing in the mid-1980's. Falconbridge held an option on the property in 1985 and conducted some drilling and metallurgical testing.

Geological Setting - Paleozoic Sicker Group limestones and cherts underlie a 10 metres thick blanket-like, hematite-rich zone in the southern property area. This regolith, thought to be a product of oxidation of sulphide rich horizons within the underlying Sicker Group rocks, was probably preserved by Late Cretaceous Nanaimo Group sediments which cap the zone on the north (Figure 8).

Main Zone - Sulphide minerals and free gold occur within the hematite zone (35% Fe) which is exposed on a logging road and log loading area as shown on Figure 8. Nine Winkie holes were drilled to test the the exposed portion of the zone in 1986;



Nanaimo, 1852
 About 1849, an Indian produced evidence of coal in vicinity of Nanaimo. Active development was started by Hudson's Bay Company in 1852 and a bastion was erected. Large coal shipments were made to California.

FIGURE 7

results are shown on Figure 8. The writer supervised the drilling and sampling of holes 86-V-8 and -9.

Larger diameter core drilling indicates that the hematite-rich zone continues north and east of the area shown on Figure 8. Grades of less than 0.10 oz/ton gold over thicknesses of 3 - 10 metres are capped by 30 - 60 metres of Nanaimo Group sediments.

Drilling of the exposed part of the hematite-rich zone indicated a weighted average grade of 0.126 oz/ton gold over an average thickness of 7 metres. The drilling was conducted within a 50 x 25 metre area and indicated tonnages range from 22000 - 27000 tonnes.

Metallurgical testing included bottle roll and column leach tests which showed the material to be amenable to cyanide leaching. Gold recoveries of 78% and 65% were obtained on -1/2 and -1 inch sized material respectively. Refractory sulphides within part of the zone resulted in lower recovery rates. Conventional gravity concentration test work yielded poor results. Best recovery rates (+80%) were obtained by conventional milling/cyanidation bench tests. *Recommendations* - This is a unique type of occurrence which could be significant. Overall average gold grade is low but some better values (up to 0.290 oz/ton) are present in the southwest part of the exposed zone.

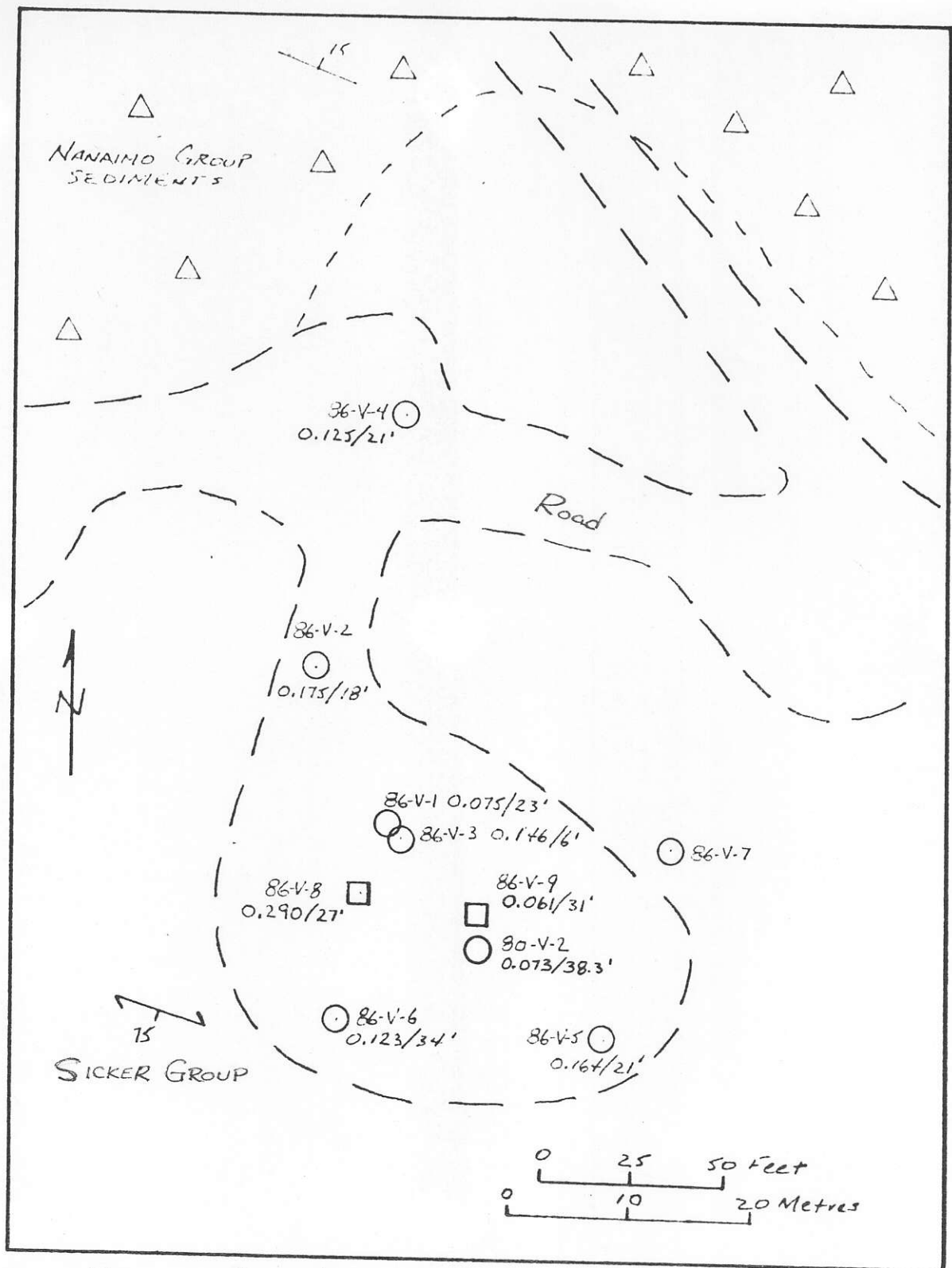


FIGURE 8 - VILLALTA PROPERTY
CANAMIN RESOURCES

Chester Millar submitted a brief prospectus to the Mine Development Assessment Branch in mid-1991 proposing a 10,000 tons per year open pit crush and heap leach operation. Inasmuch as cyanide would be involved, location of the leach pads could present a problem, particularly near the mine site which is at the headwaters of the Nanaimo River. It is anticipated that Fe-rich tailings could be sold as cement plant feedstock.

There may be an opportunity here for some sort of participation, specifically by providing equipment for open pit mining, crushing and construction of leach pads.