

ASSESSMENT REPORT
ON THE
CBL 1 TO 10 AND GM 1 TO 4
2-POST MINERAL CLAIMS

NANAIMO MINING DIVISION

NTS 92 L 7W

LAT. 50° 22' LONG. 125° 53'

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

25,237

OWNED AND OPERATED BY

JAMES W. LAIRD
PROSPECTOR

NOVEMBER 1, 1997

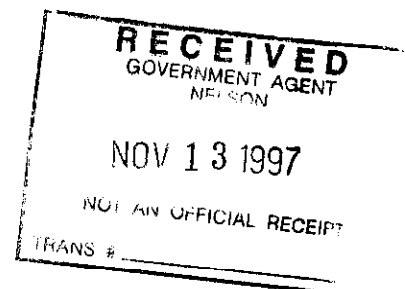
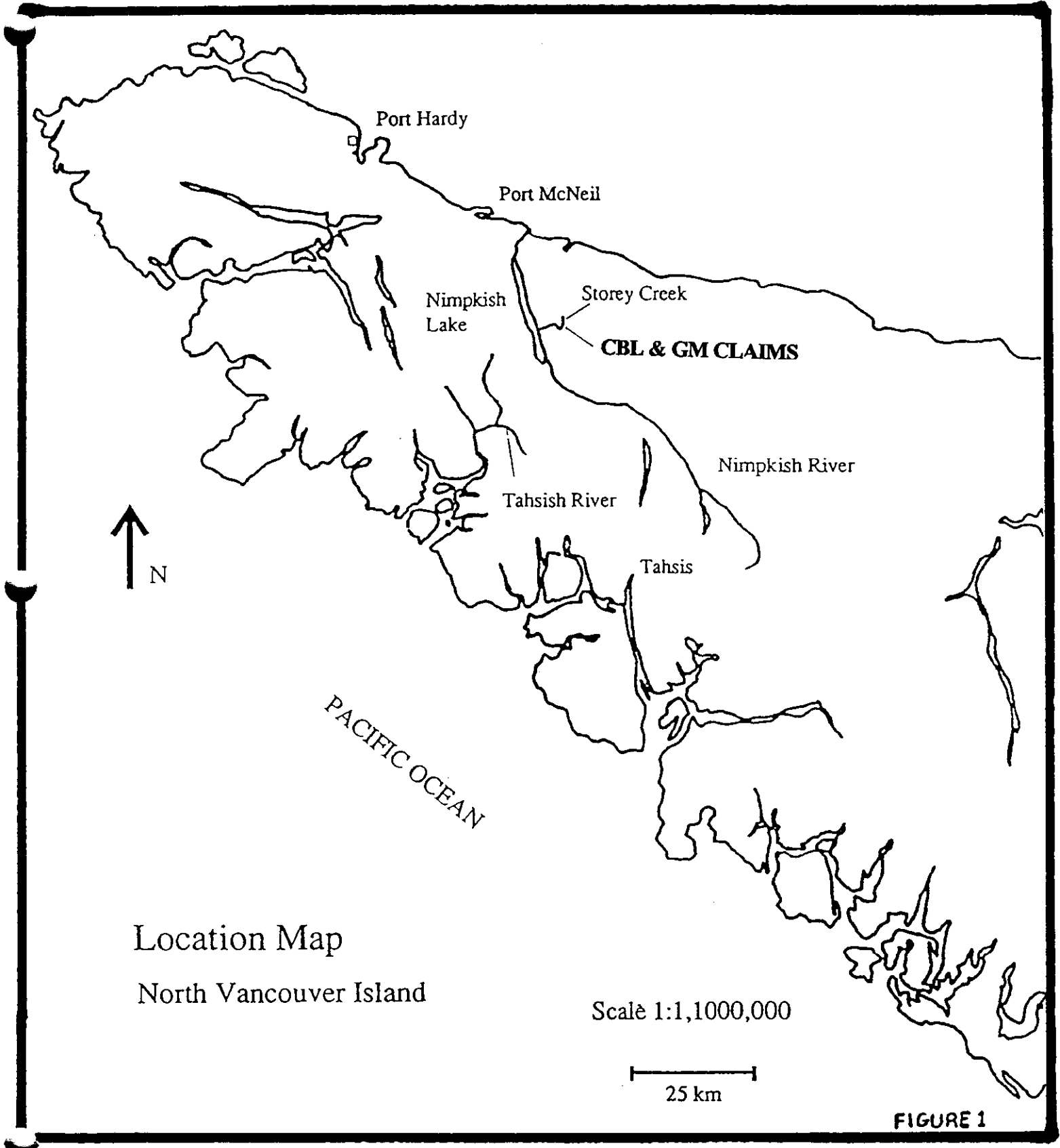


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INTRODUCTION AND SUMMARY

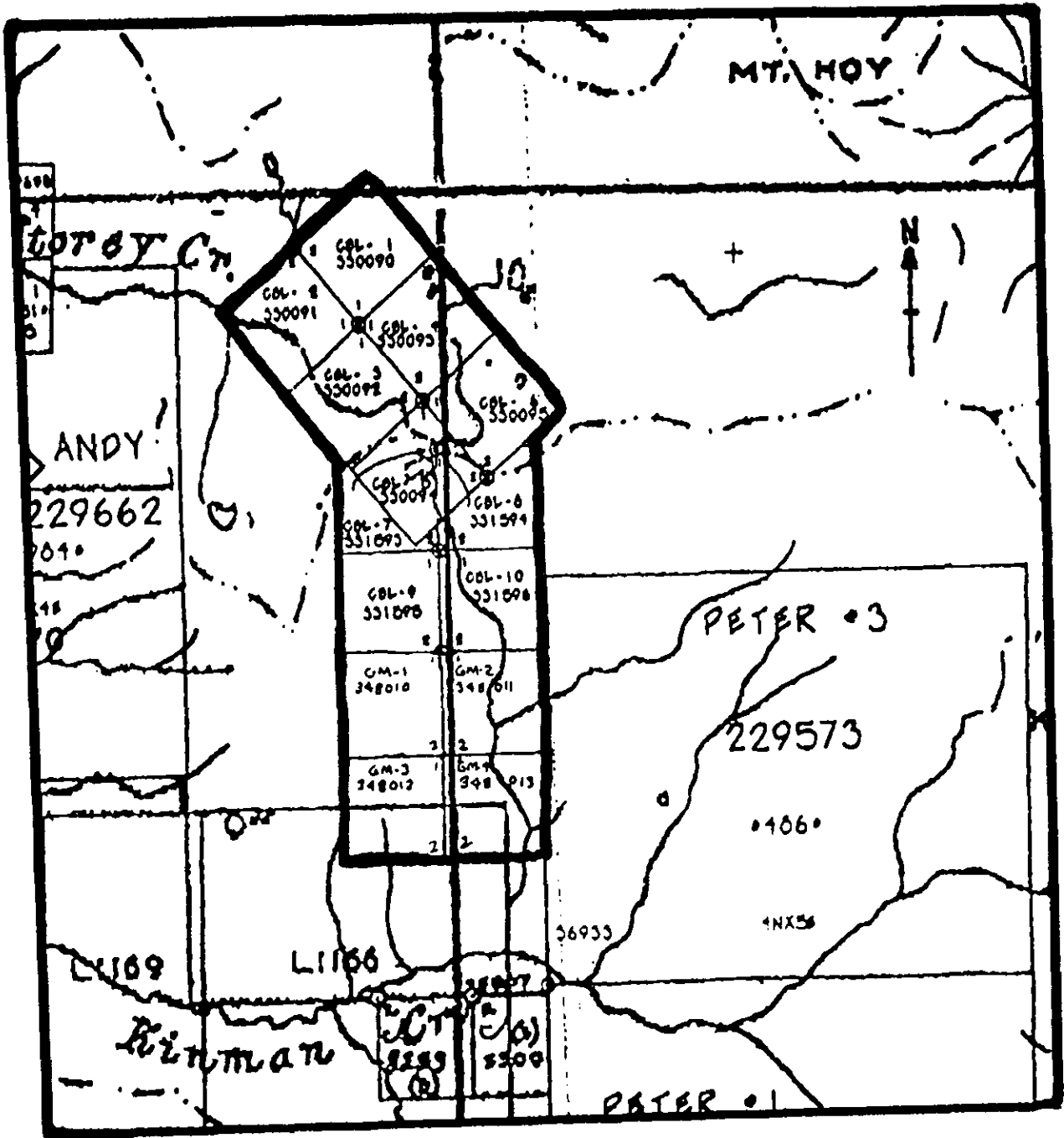
This report details the results of an exploration program consisting of geological mapping, prospecting, and rock sampling on the CBL 1 to 10 and GM 1 to 4 2-post mineral claims located near Nimpkish Lake on Northern Vancouver Island. The exploration program was carried out and funded by James W. Laird, owner of the claims, from July 1 to July 3, 1997. The CBL 1 - 10 claims and the GM 1 - 4 claims were staked to cover a series of known and recently discovered Zn, Cu, Fe, Au, Ag mineralized skarn zones and a large area of pure white marble and limestone of excellent industrial mineral potential.

The claims cover a Fe-Cu-Zn skarn zone known as the Wolf (B.C. Minfile 92L 121). The property is located near two other skarn/manto prospects; the Kinman Copper Property (Cu, Au, Zn, Ag) to the southeast, and the Smith Copper or Storey Creek Property (Zn, Pb, Cu, Au, Ag) to the west. Nimpkish Lake area has been explored for mineral deposits since the late 1700's, and the tributary Storey Creek area more recently has been the subject of three geological assessment reports (J. Laird 1990, 1995, 1996).

The present report is focused on the non-metallic mineral potential of the property, specifically, the marble and limestone resources of the CBL claims and the contiguous GM claims. The results of prospecting, mapping, and a series of whole-rock assays of the marble and limestone indicate that a significant industrial mineral deposit is present on the property. This report details further geological mapping and prospecting of the limestone and skarn mineralization, particularly in the vicinity of the GM claims. An exploration program to further delineate, expand and test this potential is recommended.

LOCATION AND ACCESS

The CBL and GM claims are located near Nimpkish Lake, B.C., about 45 minutes drive south of the town of Port McNeill on Northern Vancouver Island. The claims were staked in a newly logged area at the headwaters of Storey Creek, which flows into Nimpkish Lake to the



CBL / GM CLAIMS MAP
 NANAIMO MINING DIVISION
 NTS 92L 7W 1:31,680
 FIGURE 2

west. The claims are accessible to 2wd vehicles from the Island Highway via Canfor's Noomas Creek logging road and recent spurs cross all claims. Logging and road development are currently active. Easy access to roads, rail, water transport, and other infrastructure and a mild climate are strong positives for cost-effective mine development.

CLAIMS

The CBL/GM property is composed of fourteen 2-post mineral claims 100% owned and operated by James W. Laird, and recorded as:

CBL 1 to 4	August 15, 1994	Tenure # 330090 to 330093
CBL 5 and 6	August 16, 1994	Tenure # 330094 and 330095
CBL 7 to 10	September 29, 1994	Tenure # 331593 to 331596
GM 1 to 4	July 6, 1996	Tenure # 348010 to 348013

ENVIRONMENT AND TOPOGRAPHY

The climate of the Nimpkish area is mild and wet, with about 400 cm of precipitation falling annually, mostly as rain. Snowfall covers the higher areas from November to April, but seldom persists at lower elevations for more than a few weeks in mid-winter. First-growth conifer forest formerly covered all of the claims, but recent clear-cut logging has exposed more than half the ground covered by the claims. At an average of 900 metres elevation, the terrain is generally flat to moderately sloped with minor underbrush, with the exception of Storey Creek canyon, which has cut down through bedrock and formed a series of large waterfalls with steep cliffs surrounding. Karst topography and cave systems are commonly developed in the limestone near watercourses.

HISTORY

The Storey Creek area has principally been explored for skarn-hosted mineral deposits since the discovery of the adjoining Kinman Copper and Smith Copper properties in the late 1920's, initially for copper and gold, and later for magnetite in the 1950's and 1960's. The claims cover the Wolf magnetite showings (B.C. Minfile 92L 121) beside Storey Creek, which a small exploration program in the 1960's concluded were uneconomic to develop for magnetite content at the time. The regional geological mapping base dates mainly from the 1930's but is still remarkably accurate.

The Kinman and Smith properties have drill-inferred mineral resources containing copper, zinc, lead, silver and gold. On the Kinman property, several small (~5000 tonnes) ore-grade massive sulphide deposits have been found in limestone-hosted skarns and mantos near granitic intrusions. Minor production from the Hazel open-pit on the property amounts to about 3000 tonnes of high-grade copper-zinc ore with some gold and silver credits.

The Smith property hosts inferred reserves of approximately 100,000 tonnes of 12.5% zinc with copper, lead, silver and minor gold values, occurring as a stratiform skarn/replacement of a regional volcanic/limestone formational contact proximal to a large granodiorite intrusion. Along the Nimpkish River south of Nimpkish Lake, the Nimpkish Iron Mine magnetite skarn produced several million tonnes of magnetite concentrates in the 1950's and 1960's.

Recent exploration efforts in the district have been directed towards the limestone resources, with some production from the Bonanza Lake area to the east. The discovery on the CBL/GM property of several new well-mineralized Zn, Cu, Fe skarns and a large area of pure white marble during recent exploration programs shows that significant surface exploration potential still exists in the Nimpkish area.

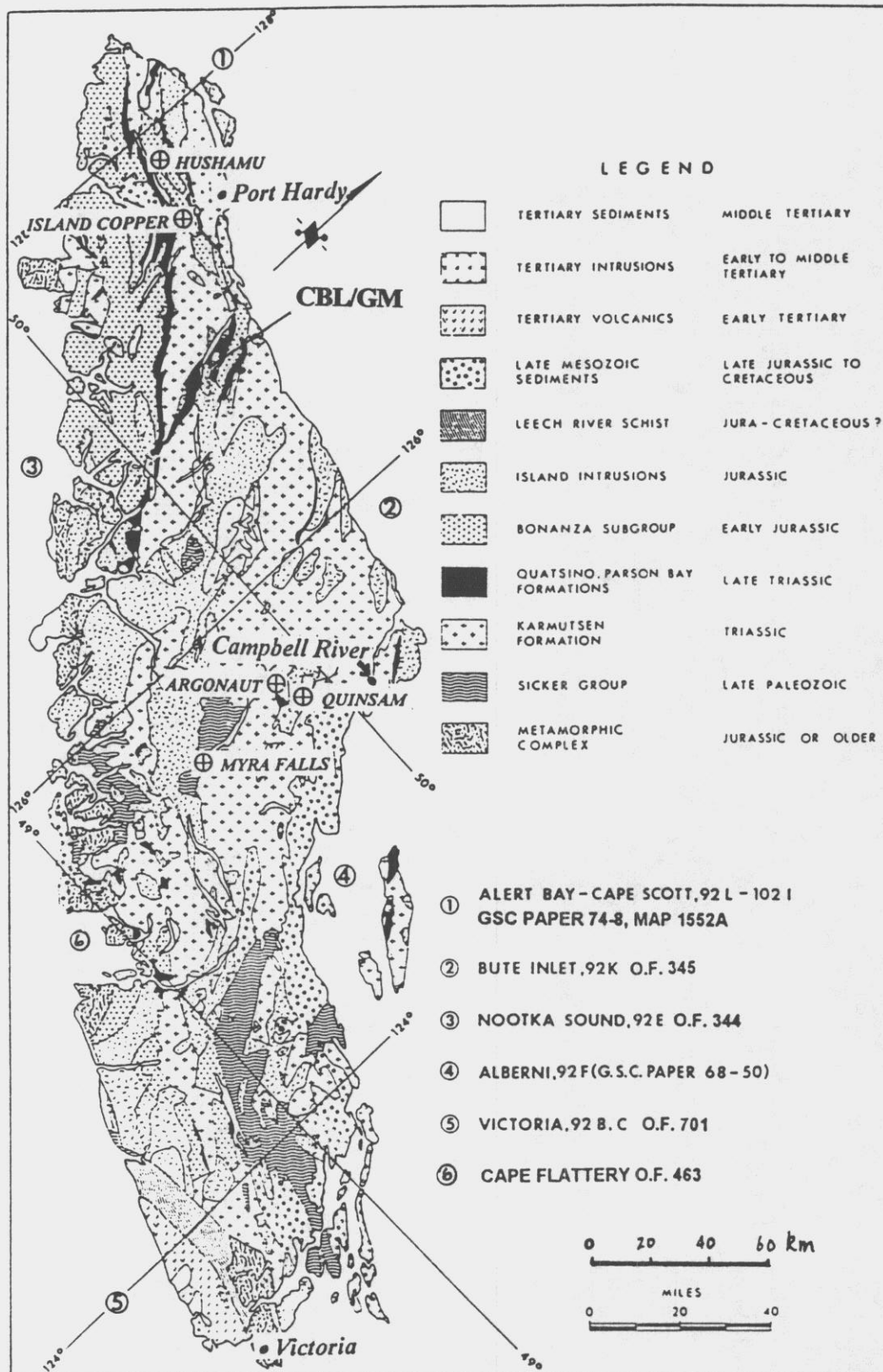


Figure 3 Geological map of Vancouver Island and index of Geological Survey of Canada mapping. After Muller, J.E., Northcote, K.E. and Carlisle, D. (1974): *Geology and Mineral Deposits of Alert - Cape Scott Map-area (92L - 102I) Vancouver Island, British Columbia; Geological Survey of Canada, Paper 74-8, 77 pages.*

FIGURE 3

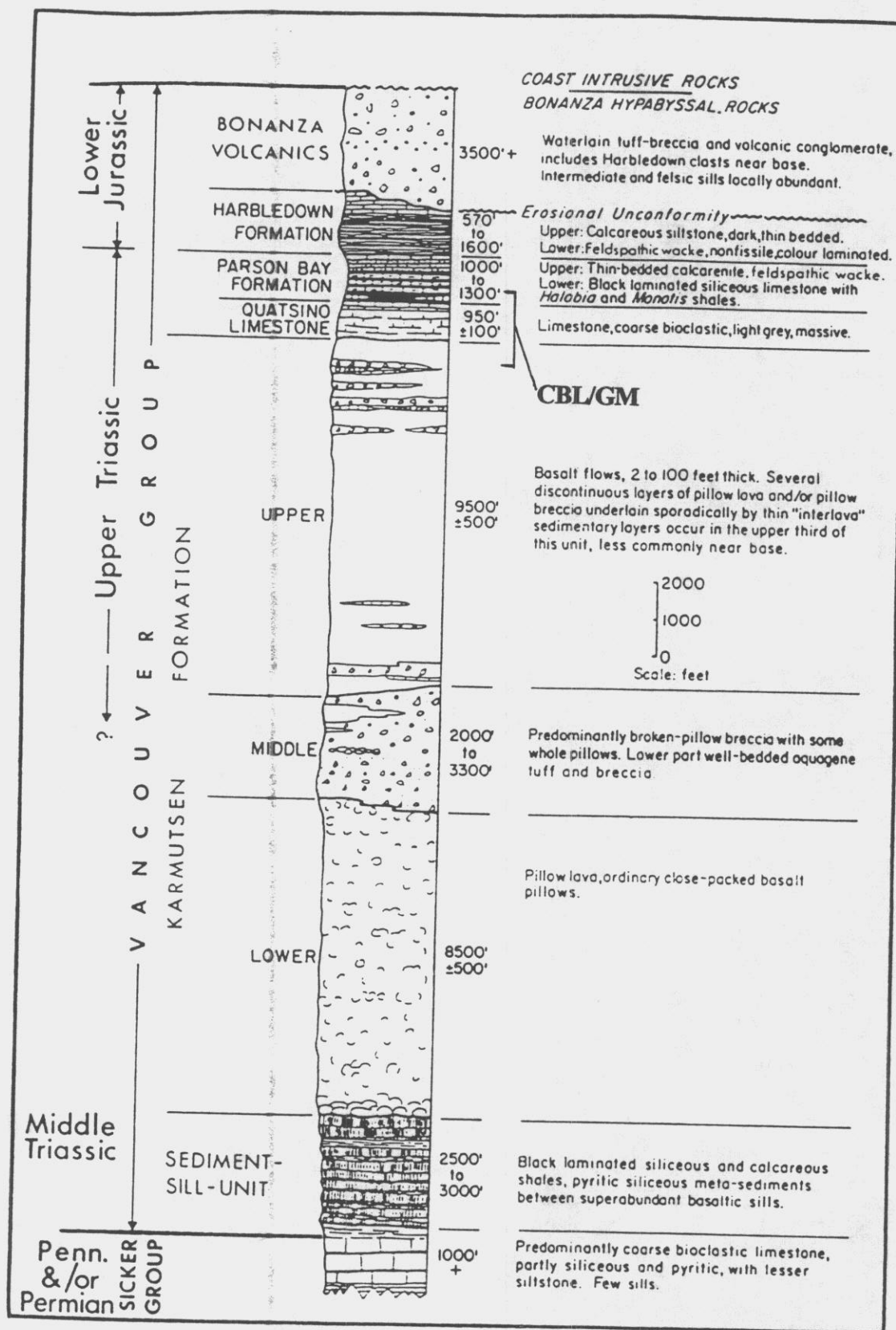


Figure 4 Major Paleozoic and Mesozoic stratigraphic units of northeastern Vancouver Island according to Donald Carlisle, in Muller *et al.* (1974).

FIGURE 4

GEOLOGY AND MINERALIZATION

The Nimpkish map area is underlain by a 5-7 km thick stratigraphic sequence of Upper Triassic to Lower Jurassic Vancouver Group rocks. The sequence is composed of Upper Triassic Karmutsen Formation marine mafic volcanics, overlain by Quatsino Formation limestone/marble, and Parson's Bay Formation calcareous sediments and tuffs, succeeded by the dominantly andesitic Lower Jurassic Bonanza Volcanics. All of these units have been intruded and metamorphosed by a large Jurassic Island Intrusions granodiorite pluton called the Nimpkish Batholith. Major uplift, folding and faulting preceded and accompanied emplacement of the multi-phase granitic rocks and related skarn mineralization. Marble development is common in the Quatsino limestone proximal to intrusions.

Karmutsen Formation mafic volcanics (**Unit 1**) are exposed in the bed of Storey Creek near the northwest corner of the claims and are locally comprised of dark green basalt flows and tuffs, with some feldspar porphyritic (syn-volcanic intrusive) and amygdaloidal members. Aquagene tuff-breccias and intra-formational limestone lenses were observed within this sequence near Nimpkish Lake. Regionally, amygdaloidal basalt flow tops and exhalative limey sediment layers often host syn-volcanic native copper and copper sulphide mineralization, which is the probable distal source of the copper content of the skarn zones. Enhanced precious metal values can accompany the syn-volcanic mineralization.

The overlying Quatsino Formation limestone (**Unit 2**) is well exposed throughout the claims and is strongly re-crystallized to white, cream, grey, black and rarely green or pink marble due to intrusive activity. The marble varies from fine-grained, homogeneous pure white marble (**2a**) to coarse crystalline grey calcite marble (**2b**), with a medium-grained dark grey to black member (**2c**) found in some areas. Ten large assay samples of the marble have been taken at different locations throughout the claims (Laird 1996). Magnesium oxide content varies up to about 4%, averaging less than 2%, indicating a slightly dolomitic limestone as a protolith. Silica content is generally under 1%, and all other oxides are well within industrial standards. A thick band of cream to white marble with minor dark grey areas crosses the GM claims

adjacent to the granitic contact, and continues onto the southern parts of the CBL claims. The band of white marble was geologically mapped in order to estimate the potential tonnage of high-grade marble, and to estimate the dilution factor due to contained dikes and related skarns.

The intrusive plutonic suite regionally known as the Island Intrusions (3) includes stocks, sills, and dikes (d) of granodiorite, with some diorite, quartz diorite, greenstone, hornblende-feldspar porphyry, felsite and quartz-feldspar porphyry. The contact-altered granitic rocks host occurrences of pyrite, chalcopyrite, and molybdenite in endoskarn zones, vein systems, shears, and disseminations.

Skarn mineralization (4) in the Nimpkish area is most often found along the contact of limestone and intrusive rocks (exoskarn); in limestone-hosted sulphide-rich mantos and replacements; and at the "triple point" contact between the Karmutsen and Quatsino formations and intrusives. Numerous dikes and small intrusive stocks are found in the limestone adjacent to the major contact zones, and commonly have a "rind" or contact metasomatic zone of skarn minerals and sulphides.

The common skarn minerals present include; green grossularite and red-brown andradite garnet, epidote, diopside, manganese alteration, calcite and quartz, with magnetite, chalcopyrite, sphalerite, pyrite, pyrrhotite, limonite and occasionally marcasite, hematite, bornite, covellite, tetrahedrite, galena, molybdenite, malachite, azurite, and greenockite. Other minerals noted in the altered zones include; secondary quartz-sericite-biotite-k-spar-chlorite-epidote in the intrusive rocks and occasionally red jasper, jade-green serpentine, blue to lavender dumortierite, lemon-yellow vesuvianite, and green to black tourmaline.

Several significant skarn deposits with values in zinc, copper, iron, silver and gold occur on the property (Laird, 1990, 1995). Historically, skarn deposits on Vancouver Island have been economically important producers of base and precious metals, and several past mines have been in the multi-million tonne class.

The present program was designed to geologically map the marble resources in some detail, in order to estimate the potential volume of light grey to pure white marble. On the GM claims, a strong band of the light coloured marble follows the main road, making bulk sample access and possible future production relatively straightforward. Although the ongoing mapping program has not yet fully determined the internal colour boundaries of the marble, a general outline of the area of specific interest would be 1 kilometre in length by 500 metres in width, or 500,000 square metres in area. Assuming an estimated 2.8 specific gravity, each metre of depth would give 1.4 million tonnes of marble resource.

The slope topography of the surface is conducive to efficient pit design, and could allow at least 50 metres of depth development at the back, giving a potential resource of 70 million tonnes. Allowing for dilution by dikes would decrease the potential resource by perhaps 5%, and maintaining existing road access would further decrease the mineable tonnage. **A potential resource estimate for the GM zone would be approximately 50 million tonnes of light grey to pure white marble to a depth of 50 metres.**

Many areas of the claims host potentially mineable zones of light coloured marble, but the shades observed to date are not as attractive as in the GM zone.

CONCLUSIONS AND RECOMMENDATIONS

The CBL/GM claims host several well-mineralized skarn zones with significant zinc, copper, iron, silver and minor gold values over promising widths, and a large area of light-coloured marble of superior industrial mineral potential. The marble has excellent possibilities as a decorative landscaping rock and for sculpture, particularly the fine-grained, homogeneous pure white variety and some of the black, green and pink coloured stone. Additional sample testing is currently being done with regards to brightness for industrial purposes. Although some minor dykes and skarn alteration are present, a large deposit of pure white marble suitable for a large quarrying operation with excellent accessibility has been partially delineated on the GM claims and the south end of the CBL claims. Further detailed geological mapping, bedrock

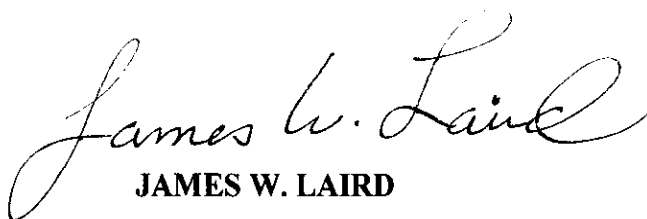
trenching and large-scale bulk sampling are necessary to develop and implement an efficient quarrying plan. Test marketing the bulk sample product in the Lower Mainland will also require an economical transportation plan. As most of the claims area has been recently logged and no private landowners are present, permitting and site reclamation should be relatively straightforward.

The good possibility also remains of finding a significant precious metals enriched skarn or manto suitable as direct shipping ore, or conceivably a very large tonnage stratiform copper-gold skarn similar to the nearby Coast Copper Mine in the Merry Widow mining camp.

STATEMENT OF QUALIFICATIONS

I, James William Laird, do state that:

1. I reside at #501 – 11671 Fraser Street, Maple Ridge, B.C. V2X 6C4
2. I am a mineral exploration contractor and prospector and have been for 20 years.
3. I am currently employed as Exploration Manager by Anglo Swiss Industries Inc. of 701 – 889 West Pender Street. Vancouver, B.C.
4. I have completed the B.C. Energy, Mines, and Petroleum Resources course “Advanced Mineral Exploration for Prospectors, 1980.”
5. I have extensively researched and explored British Columbia and am very familiar with the geology and mines thereof.



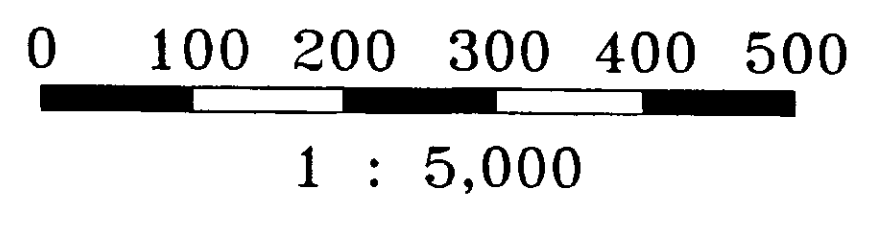
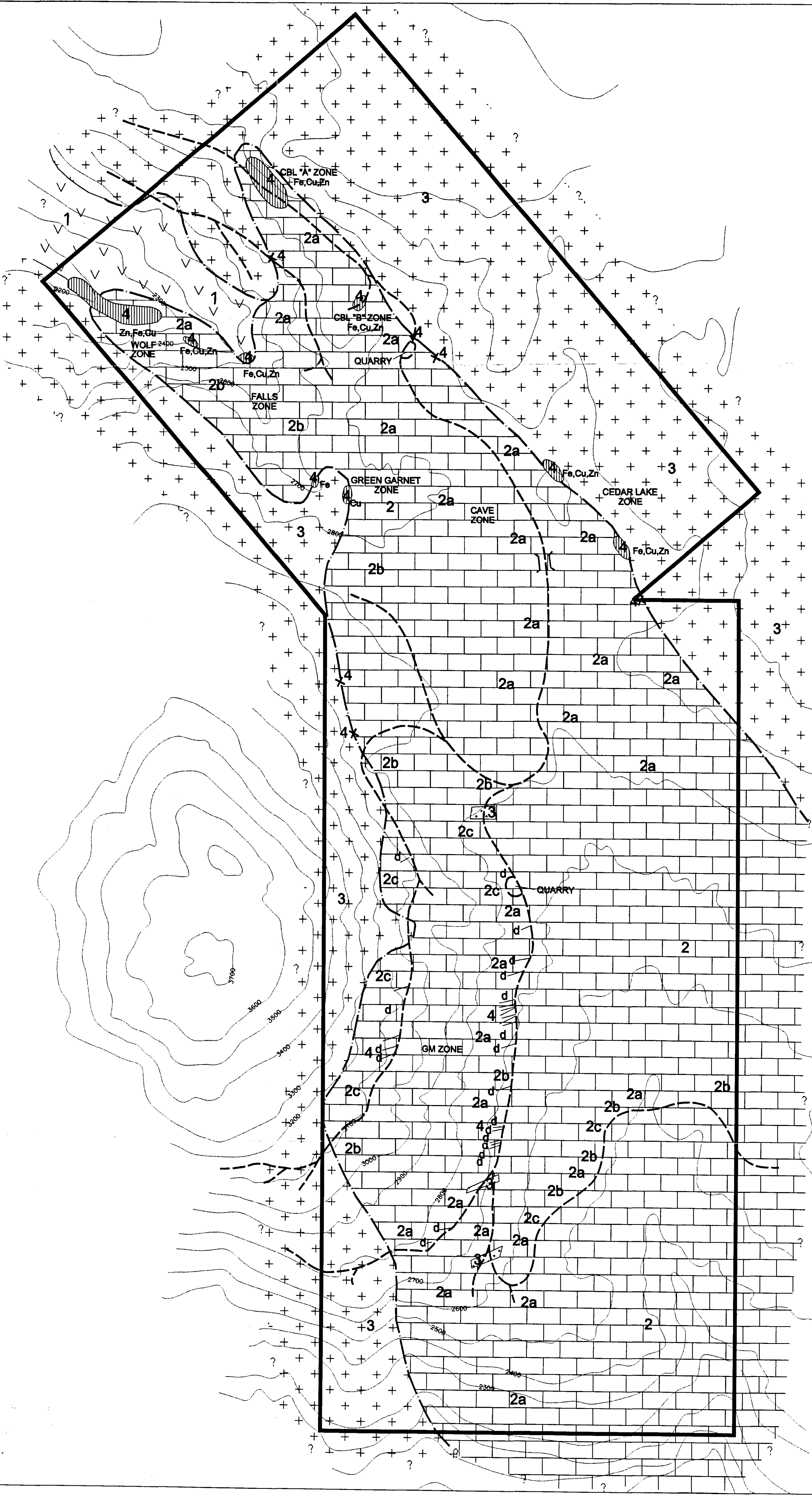
JAMES W. LAIRD

PROSPECTOR

NOVEMBER, 1997

STATEMENT OF EXPENSES

Wages - James Laird - July 1 to 3, 1997	
3 days @ \$250.00 per day	750.00
Room and Board	
3 days @ \$75.00 per day	225.00
Vehicle Rental	
3 days @ \$50.00 per day	150.00
Fuel and Mileage	
1500 Km @ 20 cents per km	300.00
B.C. Ferries	80.00
Field Supplies	50.00
Report and Map Preparation	400.00
TOTAL EXPENSES	<hr/> 1955.00



LEGEND

LOWER JURASSIC

skarn alteration and mineralization

skarn subcrop

ISLAND INTRUSIONS

granodiorite, quartz - feldspar porphyry, diorite, felsite, endo skarn

dike, skarn alteration

UPPER TRIASSIC

QUATSINO LIMESTONE

calcite marble

2a light grey to white

2b grey to light grey

2c grey to black

not shown - pink and green marble, red jasperoid, skarn

KARMUTSEN VOLCANICS

marine basalt
amygdaloidal basalt
feldspar porphyry, mafic tuff and volcanic breccia, limestone, skarn

geological contact

road

bridge

25,237

LAIRD EXPLORATION LTD.

**GEOLOGY AND MINERALIZATION
OF THE
CBL AND GM CLAIMS**

MAP 1

STOREY CREEK, NIMPKISH, VANCOUVER ISLAND

DATE: NOVEMBER 1, 1997	SCALE: 1 : 5,000
DRAWN: DD	NTS 92L7W
BY: JIM LAIRD	NANAIMO MINING DIVISION