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GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORTS

DATE RECEIVED
JUL 26 1996

CRYSTAL 1 MINERAL CLAIM
(New Westminster Mining Division)

NTS 92H/12W
(92H/061)
Longitude: 121 59' 18"
Latitude: 49 39' 04"

1995 GEOLOGICAL MAPPING REPORT

(September, 1995)

**GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT**

24,488

by:

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V7N-4M4

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June 2, 1996

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INTRODUCTION

Included in this report is a summary of geological work carried out on the "Doctors Point" Crystal-1 claims during September 1995. The field work involved detailed geological mapping of areas with similar geology to that found at Doctors Point itself.

Gold-silver-bismuth mineralization was first discovered by G.Nagy in the late 1970's and later the property was purchased by Rhyolite Resources Inc. of Vancouver. Over the span of the next seven years the company isolated 12 different vein structures and drilled three of the more interesting prospects within the present day claim boundary. Some of the better drill intercepts assayed 3.2m of 7.1g/t Au and 3.9m of 4.2g/t Au. One prospect known as the "Main Zone" has a defined tonnage of 113,600 tonnes, 2.16g/t Au, 6.2g/t Ag. Two other zones (North Zone and South Swamp) are similar in occurrence but to date these have received very limited drill testing. Assays from this area range up to 3.6g/t Au over 1.83m. In 1994 the property lapsed and subsequently staked by the author on March 29th of the same year.

ACCESS

The "Doctors Point" prospect and the Crystal - 1 claim can be easily accessed by a network of well maintained logging roads located approximately 52 kilometres north from Harrison River and along the west shore of Harrison Lake. Currently there are new roads being built by a local forest company (Canfor) that will open sections to the south and west of the Crystal 1 claim block. New roads have been planned to eventually cross cut the current claims.

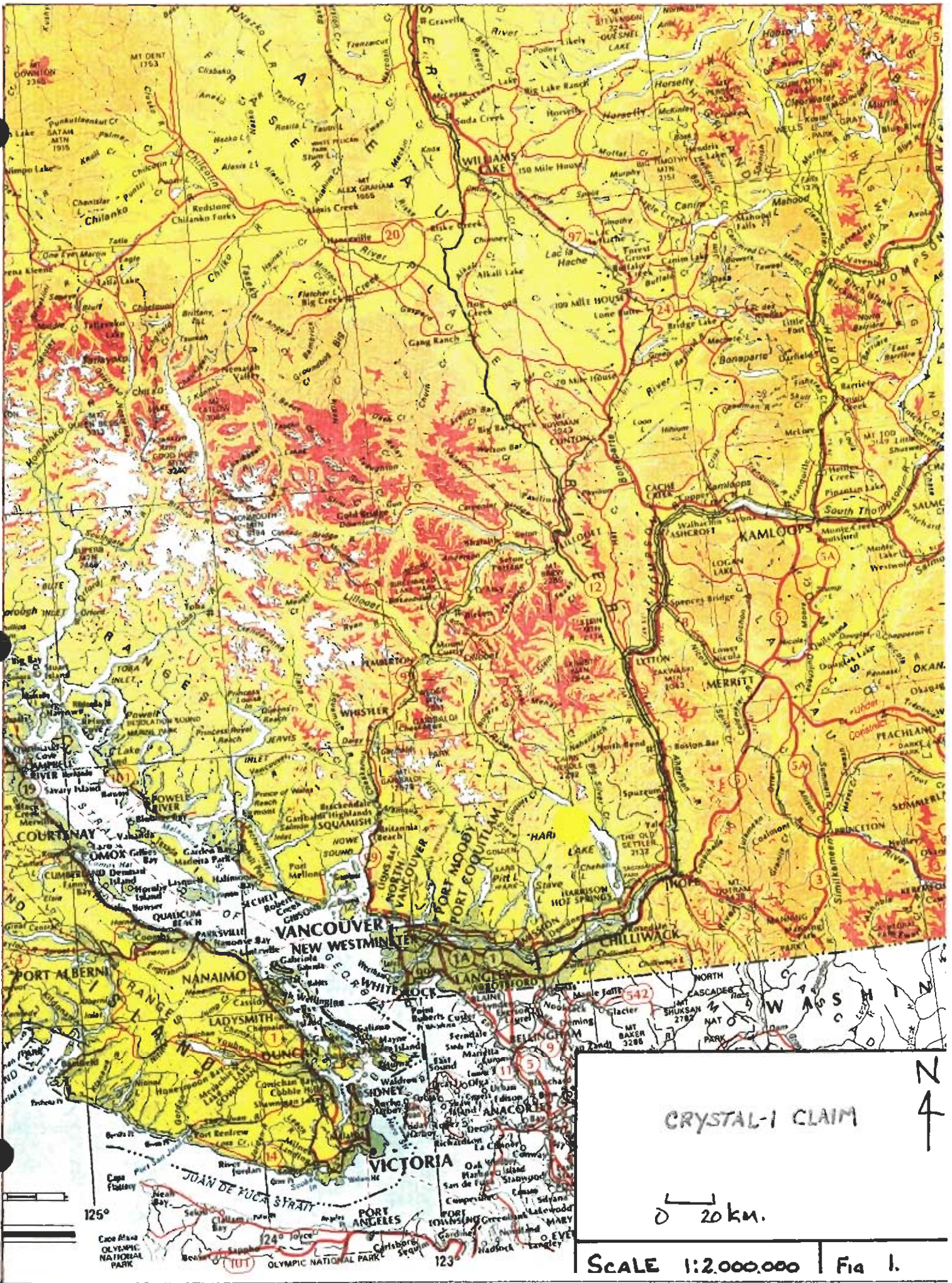
CLAIM STATUS

<u>Claim</u>	<u>Size</u>	<u>Record #</u>	<u>Staked</u>	<u>Anniversary</u>	<u>Mining Division</u>	<u>ClaimMap</u>
Crystal 1	5N x 4W	#324315	Mar 29/94	Mar 29/97**	New Westminster	92H/061

(** with work documented in this report)

REGIONAL GEOLOGY (*modified after Ray and Coombes, 1985*)

The "Harrison Lake" fracture system forms a major, southeasterly trending dislocation over 100 kms in length, which in parts passes along and parallel to, Harrison Lake. The system separates highly contrasting geological regimes. To the northeast, the rocks include well deformed supracrustals of the Pennsylvanian to

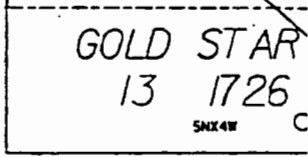
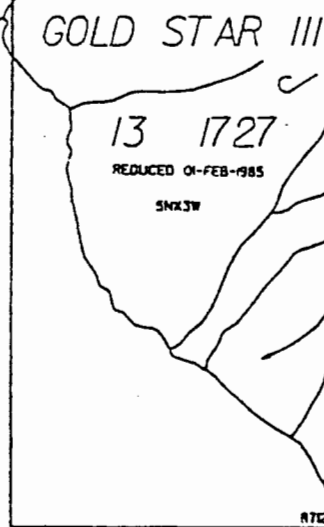
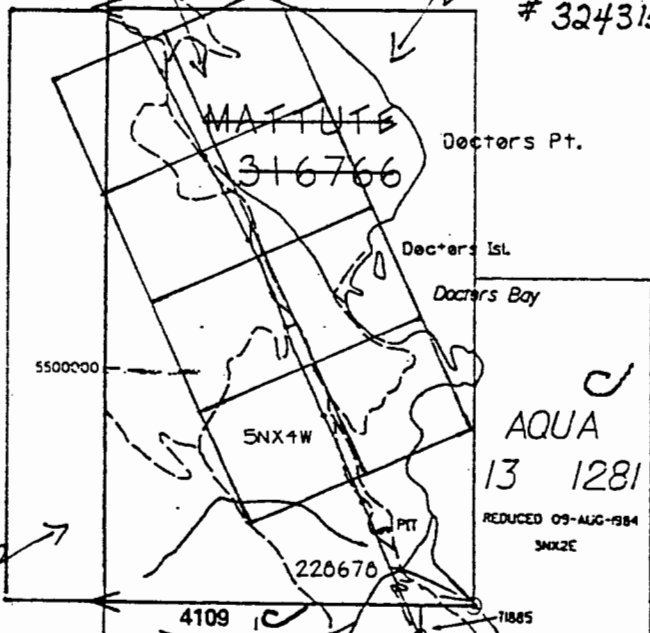
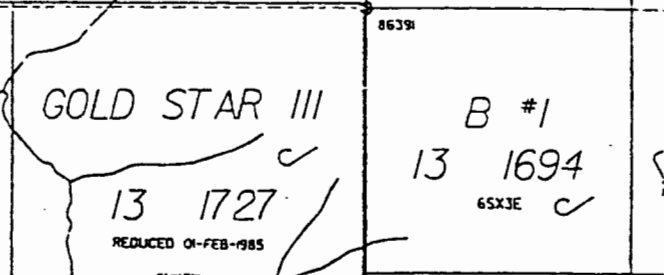
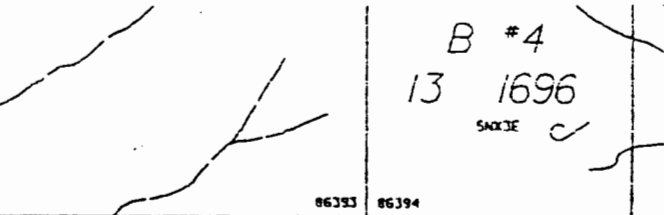
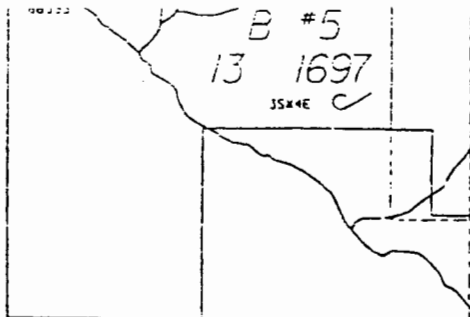


CRYSTAL-1 CLAIM

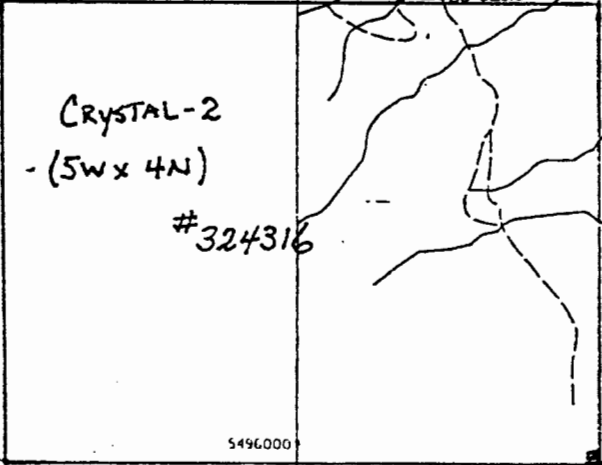
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HARRISON



N
4

CRYSTAL-1 CLAIM

CLAIM MAP

1:31,680

0 316.8m.

NTS: 2/24/06

Permian Chilliwack Group, as well as highly foliated gneissic rocks and some younger granites. By contrast, the rocks on the southwestern side of the fracture are generally younger, are less deformed and have suffered lower metamorphic grade; they include a variety of volcanic, volcanoclastic and sedimentary rocks, as well as intrusive granitic rocks and migmatites. These supracrustals are separable into a number of different groups of Jurassic/Cretaceous age. To the northwest, the Upper Jurassic to Lower Cretaceous Fire Lake Group comprises a 4500m thick sequence of largely sedimentary rocks with lesser amounts of volcanic greenstone. The group contains one jasper bearing horizon at the interface between volcanic greenstones and an overlying sequence of aquagene breccias and tuffs; this horizon is interpreted as submarine exhalative in origin. The area southwest of Harrison Lake is largely underlain by the Middle Jurassic Harrison Lake Group, a predominantly volcanic sequence of andesitic to dacitic composition, with lesser amounts of volcanoclastic and sedimentary rocks. The western shore of Harrison Lake south of Doctors Point is underlain by a variety of supracrustal rocks whose age and relationship to one another is poorly understood. However, locally derived float bearing a Middle Albian ammonite fossil was recently discovered in the Doctors Point area. This suggests that the volcano-sedimentary sequence at Doctors Point is early Cretaceous in age and may represent a lateral equivalent to the Gambier Group. The sequence at Doctors Point is intruded by several diorite-quartz diorite plutons which are surrounded by a wide thermal metamorphic aureole. The regional geology at the southern end of Harrison Lake is poorly known. The area is underlain by pelitic metasedimentary rocks belonging either to the Pennsylvanian to Permian Chilliwack Group, or the Middle Jurassic Mysterious Creek Formation. These too are intruded and cut by younger diorite plutons similar to Doctors Point.'

Fire Lake Group (Lower Cretaceous) modified after Lynch, 1990 and Arthur, 1986.

Brokenback Hill Formation (Lower Cretaceous)

The Brokenback Hill Formation within the Fire Lake Group is subdivided into four members; these are mostly volcanic and distinct from the sedimentary succession of the Peninsula Formation. The lowest member consists of interbedded feldspar crystal tuff, with slate or phyllite. It is generally massive and thin to thick bedded, but locally displays graded bedding, flame structures and local rip-up clasts. Above the feldspar crystal tuff are andesite and intermediate volcanic rocks, rhyolite is rare. These volcanics vary widely in occurrence and texture. Massive flows of andesite with plagioclase and amphibole phenocrysts occur locally, but more commonly the unit occurs as a heterolithic volcanic breccia or conglomerate. Secondary chlorite, muscovite, biotite, epidote, albite, calcite and actinolite are widespread. The third member is mostly a coarse grained volcanoclastic sandstone. Quartz is a minor component. The clasts are rounded, but primary structures are rare and the member is poorly bedded. The upper member of the Brokenback Hill Formation is dominated by a complex array of pyroclastic volcanic rocks. Clasts are commonly welded and flattened in the bedding plane, forming a competent rock. The tuffs are well bedded."

Peninsula Formation (Lower Cretaceous)

The Peninsula Formation unconformably overlies the Billhook Formation west of Long Island and on the west shore of Cascade Peninsula where the unconformity is well exposed. Two members are distinguished. The lower is conglomerate; the upper consists of interbedded arkose and pyritic slate. The conglomerate is about 1200 meters thick. Clasts include andesite, rhyolite and feldspar porphyry, as well as chert, jasper, or quartzite, siltstone, detrital quartz and feldspar crystals and granitic clasts. In Chehalis valley, granitic clasts up to 50 cms across were noted. The size decreases to 20 - 30 cms in Mystery Creek valley and along the lakeshore the clasts are small and mixed with beach sands and well rounded chert pebbles. This indicates a western source from the granitic bodies within the present Coast Mountains, which must have been exposed in the latest Jurassic or earliest Cretaceous in order to supply the granite clasts to the conglomerate. The upper member is a dark sandstone and commonly tuffaceous. The increase in tuffaceous material marks the beginning of the second major volcanic episode in the area (Brokenback Hill Formation).

Sedimentary interlude (Middle - Upper Jurassic)

Kent Formation (Early Cretaceous)

Conglomerate, sandstone and argillite beds form the Kent Formation, which is found in the southern part of the map area on Mt Agassiz. It rests on the Mysterious Creek Formation and a section measured by Crickmay (1925) from the Mysterious Creek - Kent contact to the top of Mt Agassiz gave a thickness of 933 meters. The conglomerate of the Kent is composed of sedimentary clasts (argillite, tuff, sandstone) and some volcanic clasts (probably derived from the Harrison Lake volcanics) that are up to 15cms across. The Kent represents a period of uplift and perhaps minor orogenic deformation which Crickmay (1931) named the Agassiz Orogeny.

Billhook Creek Formation (Upper Jurassic)

The Billhook Formation conformably overlies the Mysterious Creek. The contact is gradational with the green sandstone in the upper section of the Mysterious Creek being found in Billhook Formation interbedded with a very characteristic green volcanoclastic rock. A sample from a granodiorite pluton 7 kilometers northwest of Weaver Lake collected by J.Monger in 1985 was dated at 160 +/-2Ma. This is approximately coeval with the volcanoclastic rocks of the Billhook Formation.

Mysterious Creek Formation (Middle Jurassic)

The sediments of the Mysterious Creek Formation are mainly grey to black shale and argillite with interbedded medium grained green sandstone beds near the top of the section. The formation underlies the upper reaches of the Mystery Creek valley and strikes west to the Chehalis valley, but exposure is poor. The section in Mystery creek was computed by Crickmay (1925) to be 700 - 880 meters thick.

Harrison Lake Group Volcanics (Lower - Middle Jurassic)

(after Arthur, 1986)

Echo Island Member (Middle Jurassic)

Northeast of Mt McRae a thick section of finely banded tuffs and argillites outcrop which were called Echo Island Formation by Crickmay (1925). Similar rocks are also found on the northeast corner of Echo Island, where they are in conformable contact with Harrison Lake volcanics, and along parts of Harrison River. Within the interbedded light and dark coloured tuff and argillite are rare plagioclase porphyry flows and medium grained sandstone beds. The flows are up to 10 meters thick and closely resemble the green andesite flows of Harrison Lake volcanics. Because this sequence is closely related to Harrison Lake volcanics, it is better described as the Echo Island Formation. Beds are commonly lensoidal and the unit is quite variable in thickness and lithology. On the southeast corner of Echo Island, volcanic sandstone is common and some volcanoclastic beds are found but no flows. Northeast of Mt McRae the sequence is finer grained and flow rocks are common. West towards Chehalis valley exposure is poor but volcanic rocks seem to dominate. The Echo Island Member of the Harrison Lake Group marks the waning of Middle Jurassic volcanism in the area as shown by an increase in sediments and a decrease in volcanics. Attitudes in the Echo Island Member are highly variable and small scale folding is common. The attitudes of the overlying Mysterious Creek Formation, however are regular and no small scale folding is apparent. This may imply a possible hiatus between the Harrison Lake Formation (Echo Island Member) and the overlying Mysterious Creek Formation.

"Harrison Lake Formation (Middle Jurassic)

The Harrison Lake Formation unconformably overlies the Middle Triassic Camp Cove Formation. The unconformity is marked by a basal conglomerate with abundant fossils found in the weathered calcareous clasts. Immediately overlying the conglomerate is well indurated calcareous argillite with minor volcanic flows possibly suggesting the onset of the Harrison Lake volcanism. These conglomerates and argillites are known as the Lower Member (Lower Jurassic) of the Harrison Lake Formation. Most of the Harrison Lake Formation consists of a thick section of intermediate to acid volcanic flows and pyroclastics that cover a large area, from the top of the argillite unit near Harrison Lake, 10 km west to the Chehalis valley and 15 km north to Hale Creek. The lensoid nature of the units, lack of abundant bedding structures and high degree of hydrothermal alteration (especially in the central region) make internal stratigraphic correlation within the volcanics difficult. Crickmay (1925) measured 2816m of volcanic material along the west shore of Harrison Lake. The flow rocks include massive, thick dacite, light grey to tan rhyolite and dark green plagioclase porphyry andesite, which are locally amygdaloidal (Thompson, 1972). Pyroclastic rocks exceed flow rocks in abundance and vary from tuffs to volcanic breccias.

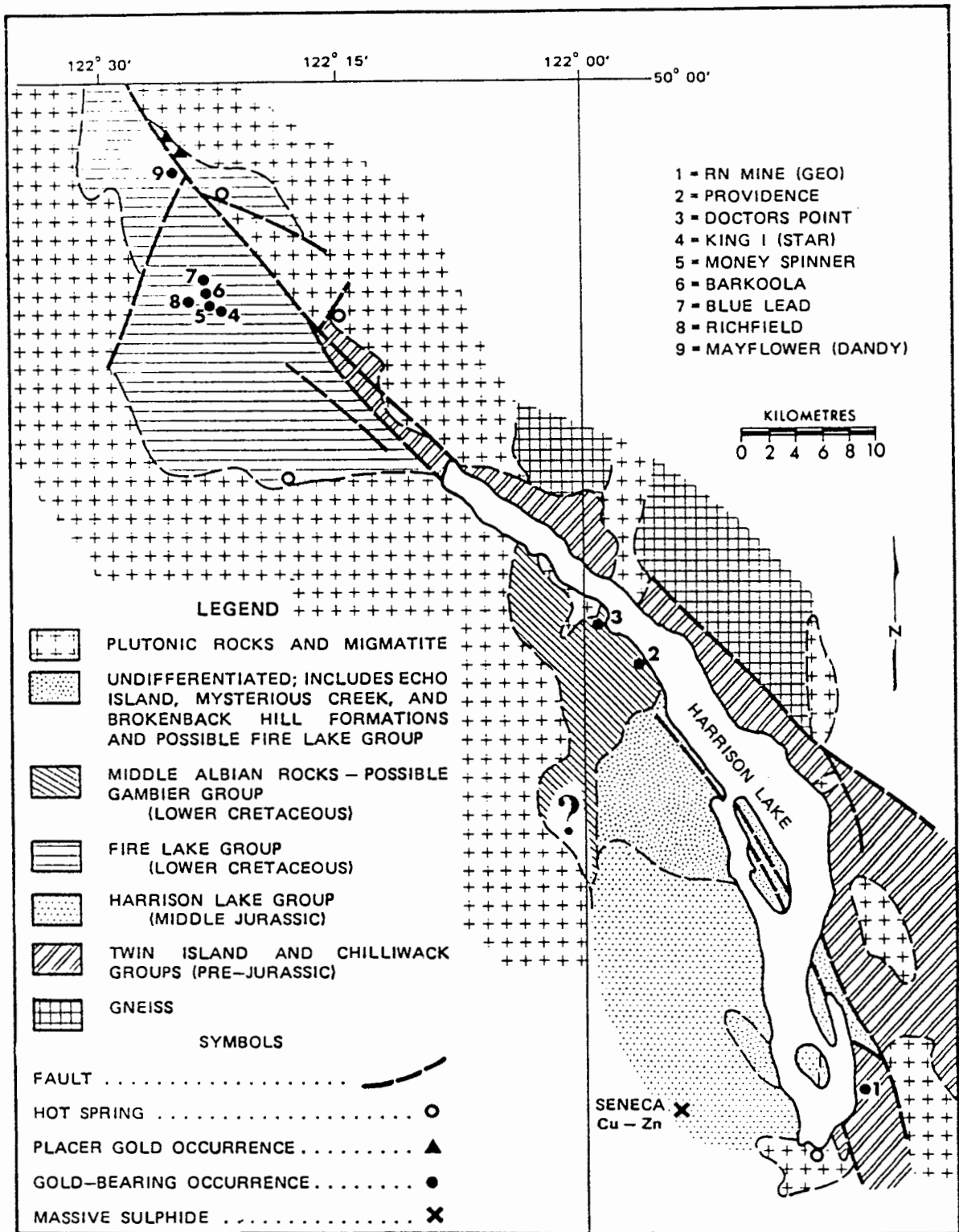
REGIONAL MINERALIZATION and PROSPECTS

The region is known to contain several different types of base and precious metal mineralization. To date, 'Kuroko' style volcanic massive sulphide is one of the most important developed prospects (Seneca), followed by thrust related mesothermal Au-Cu veins (Fire Mountain), and dioritic related epithermal to mesothermal gold vein mineralization associated with Tertiary intermediate intrusives (Doctors Point, RN and Quet?). Significant tonnage has been developed at several of these prospects. The following mineral properties will be described starting in the northwest section of the Harrison Lake belt and proceeding through and down to the southern end of Harrison Lake as seen on the regional location map.

Fire Mountain Au-Cu (MI #'s 92G/NE-2,3,4,5,6): Approximately 20 kilometres northwest of the logging camp of Port Douglas at the north end of Harrison lake is a cluster of small mineralized veins on and around Fire Mountain. These include the *Money Spinner, Barkoola, Blue Lead, King 1, and Richfield* showings. The area is underlain by a variety of dominant sedimentary and lesser volcanic rocks of the Upper Jurassic to Lower Cretaceous Fire Lake Group (Brokenback Hill and Peninsula Formations). The basalts and porphyritic andesites of this Group play host to fault filled quartz-(calcite) veins enriched in free gold and lesser copper. They are generally found along the footwalls of the large Harrison Lake thrust and are classified as mesothermal in origin although banded or "ribbon structure" have been

recorded at the Money Spinner and Blue Lead prospects. An important and recently discovered jasper bearing unit that lies at the junction of volcanic greenstone and overlying aquagene breccias and tuffs has been interpreted as submarine exhalite. This suggests the Fire Mountain area not only holds promise for precious metal quartz vein mineralization as indicated by these known showings but it holds extremely good potential for volcanic massive sulphide prospects.

Slo and Quet prospects Au-Ag-Pb-Zn-Cu (MI #'s 92G/NE-27,38): These two relatively new precious showings are found approximately 15 kilometres west of the north end of Harrison Lake. They are generally flat lying stratabound zones of intensely altered rhyolitic and dacitic lapilli tuffs that include lesser amounts of intercalated feldspar porphyritic andesitic flows (Brokenback Hill and Peninsula Formations). Fault bounded argillaceous rocks are found overlying these sequences. Mineralization is confined largely to the felsic tuffs as well as highly silicified and altered quartz diorite (intrusive equivalent?) and an extensive quartz vein stockwork. Pyrite occurs as blebs, stringers, disseminations and massive pods up to 30 centimetres in diameter. Typical assays taken in 1990 across a 1 metre section assayed 3.4 g/t Au, 442 g/t Ag, 17%Pb 10%Zn. Cominco and Noranda have explored these prospects during the 1980's focusing on Kuroko-type volcanogenic massive sulphide targets. Other possible explanations of deposit type as suggested by this author include epithermal mineralization (as stratabound and vein stockwork) generated by convective heat flow and associated fluids resulting from buried and partly



Regional setting of the Harrison Lake fault system.

exposed quartz diorite. Limited drilling currently suggests there is potential for large tonnage low grade precious metal mineralization.

Providence Mine Zn-Pb-Ag (Au,Cu,As,Hg)

(MI # 92H/NW-30): This old prospect is located on two crown grants along the west shore of Harrison Lake approximately 5 kilometres south of Doctors Point. Local geology surrounding this prospect consists primarily of massive andesitic and basaltic rocks with lesser amounts of volcanic breccia. Fossil data obtained near the Doctors Point prospect, four kilometres to the north, suggest this area to be underlain by Gambier Group equivalent volcanic rocks (ie; Fire Lake Group). A major north northeast trending fault passes along Davidson Creek and the Zn-Pb-Ag bearing veins are controlled by several fractures which are either subparallel to or represent splays from the Davidson Creek fault. Details of the mines past production from the turn of the century is not entirely clear although records during 1896 indicate *91 tonnes of ore grading 51g/t Au* was in fact mined and shipped from two north northeasterly trending 0.3 to 1.3 meter wide quartz veins. Recent rock analysis of the waste pile near the adits and shaft indicate the veins are not gold bearing but carry Pb-Zn-Ag mineralization. Studing the mineralized waste from these adits, Ray *et al* came to five conclusions as follows:

- 1) Early northeast-trending, brittle faulting in the andesites produced subvertical, open fractures.
- 2) Deposition of banded, crustiform, vuggy, possibly epithermal quartz, which was possibly associated with the mercury, bismuth and antimony.

- 3) A third period of faulting causing brecciation of quartz vein.
- 4) The introduction of carbonate matrix, together with the lead, zinc, silver and copper mineralization.
- 5) A third period of faulting causing rebrecciation of the quartz and fracturing of the carbonate matrix

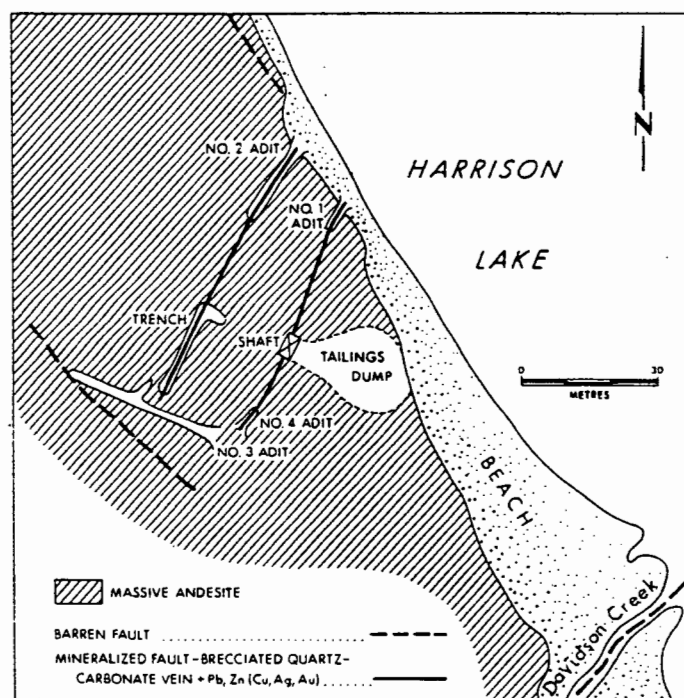


Figure 6. Geology and plan of the Providence Zn-Pb mine, Harrison Lake. (After Ray *et al.*, 1984)

RN Mine Au-Ag (Zn,Cu,Mo,As,W,Bi) (MI#

92H/SW-92): This prospect is located 4 kilometres northeast of Harrison Hot Springs at the south end of Harrison Lake along the 1-2 kilometre wide Harrison Lake Fault. The gold is hosted in several zones of flat lying (15 to 40 degrees) quartz veins and stringers that cut small diorite intrusives. The diorite themselves have in turn intruded sediments

and volcanics of the Cretaceous Brokenback Hill Formation and the pelites of the Permian Chilliwack Group. The mineralized quartz veins are restricted to the 25Ma quartz diorite intrusives and are not known to occur more than 2 metres outside the contact with the country rock. There are at least four zones of mineralization that have been identified with drilling, the Breccia Zone, Hill Stock, Jenner Stock and Lake Stock. Currently inferred tonnage stands at 2.2 million tonnes of 3.2 - 4.1 g/t Au from the Jenner Stock.

Seneca Zn-Cu-Pb(Ag,Au,Ba) (MI# 92HSW013):

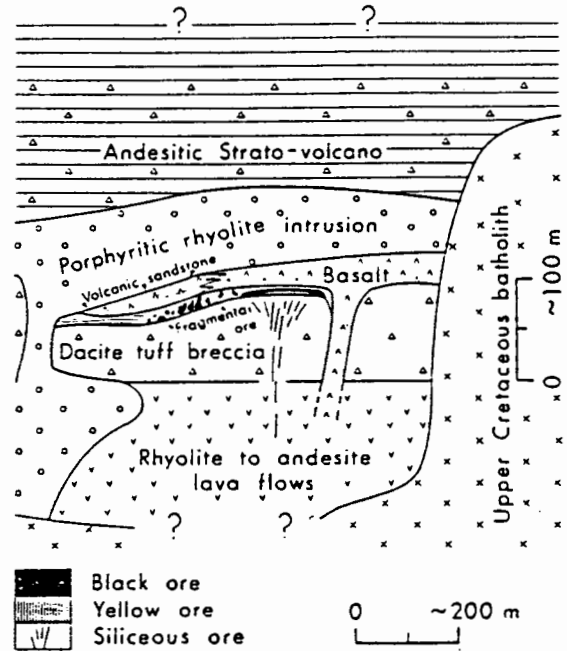


FIG. 4. Schematic geologic section, looking southeast, of the Seneca prospect. Yellow ore is the small lens below the black ore.

This Kuroko style VMS deposit is located in the southern exposures of the Harrison Lake Group volcanics along the eastern slope of the Chehalis River approximately 14 kilometres east of the small community of Harrison Hot Springs. Mineralization was initially found during a logging operation in 1950-51, and since then the property has received sporadic exploration and drilling work. Chevron Minerals outlined a deposit known to contain 1.5 million tonnes grading 3.57% Zn, 0.63% Cu, 0.82g/t Au and 41.1g/t Ag(Minfile, 1991). Presently two other mineralized showings found 1 and 3 kms to the northwest of Seneca are currently receiving considerable attention by Minnova. Two drill holes in the 'Vent Zone' during 1985 (1 km nw of Seneca) assayed 4.09%Zn, 1.45%Pb, .26%Cu, .82 g/tAu and 36

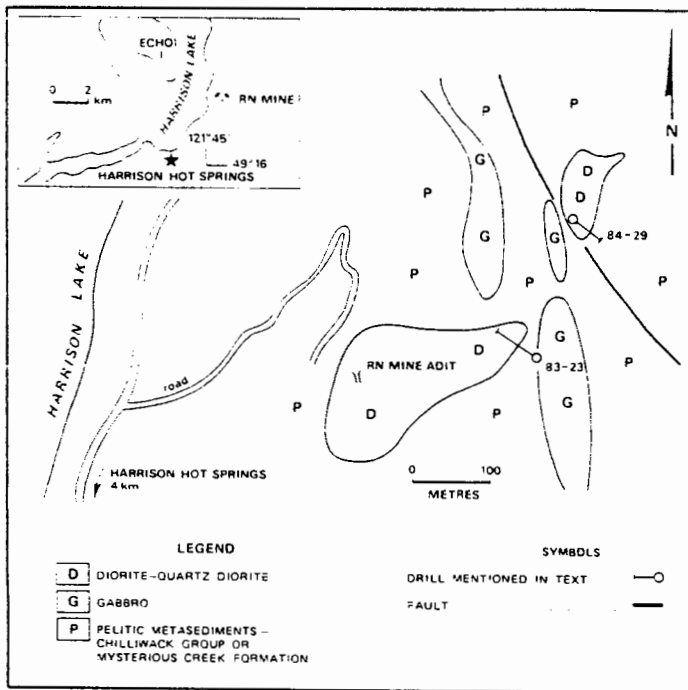


Figure 7. Geology of the RN mine vicinity, Harrison Lake.

g/tAg over 9.6 meters. A second hole assayed 1.69% Zn over 33 meters. During 199, drilling on the 'Fleetwood' Zone (3 km nw of Seneca) had three holes along a 500 meter strike average 7.65% Zn, .52%Cu, .89%Pb, 2.49opt Ag and .03opt Au over 1.83 meters (Northern Miner, 1991). Mineralization at Seneca can be found in what is thought to be slumped sulphide bearing argillite containing fragmental ore within a narrow rhyolitic to pyroclastic host. Thin bands of laminated argillite and andesite lapilli tuff are intercalated (Thompson, 1972). The kuroko deposit has a chalcopyrite + pyrite rich base (yellow ore) with a partly zoned overlying layer of sphalerite + barite + galena ore (black ore) with a closely associated and underlying silicified stringer zone in dacitic tuff breccia. A basalt flow and porphyritic rhyolite cap the bimodal sequence of rocks around Seneca.

Significant tonnage and assays from properties

- 1) **Seneca**, VMS 1.5 million tonnes, 3.57% Zn, .63% Cu, .82g/t Au, 41g/t Ag
- 2) **RN Mine**, (Vein) 2.2 million tonnes, 3.2 - 4.1 g/t Au (+Ag) (from Jenner Stock)
- 3) **Doctors Point**, (Vein) 113,600 tonnes, 2.16g/t Au, 6.2g/t Ag (from Main Zone)
- 4) **Providence Mine**, (Vein) 91 tonnes, 51 g/t Au
- 5) **Slo**, (Vein) 1 meter, 3.4g/t Au, 422 g/t Ag, 12% Pb, 10% Zn
- 6) **Quet**, (Stockwork silicification & diss py) 57.7m, 839ppb Au (DDH #2 of 6, lost hole)

LOCAL GEOLOGY and MINERALIZATION (Doctors Point) (MI# 92HNW071)

Quoting a modified geological description from the B.C Government's "minfile" database, the local and surrounding property geology is described as follows:

" The Doctors Point area is underlain by a northwest striking, gently east dipping sequence of interbedded sediments, volcanics and volcanoclastics assigned to the Early Cretaceous Brokenback Hill Formation, which is correlated as part of the Fire Lake Group. Here the formation comprises volcanic flows and tuffs, with minor argillite, volcanic sandstone, siltstone and polymictic conglomerate.

These rocks are intruded by the Tertiary Doctors Point pluton and four smaller (25 to 2000m diameter) diorite to quartz diorite plutons. Potassium argon dates for this intrusive are 22 - 24 Ma.

The diorite plutons are surrounded by a 100 to 300 metre wide hornfels aureole characterized by silicification, pyrrhotite, pyrite, magnetite and 'red diorite flake'. Cordierite, andalusite, garnet and coarse poikiloblastic biotite have also developed in the rocks adjacent to the intrusions. Major faults trend 330 and 360 degrees across the property, with numerous conjugate and en echelon fractures."

To date 12 veins are found on the property and can be defined as shallow dipping vuggy quartz sulphide veins, most likely related to a late hydrothermal event from the intrusion of several small Tertiary diorite plutons and an associated suite of late mafic dykes. The veins occupy gently dipping "cone sheet fractures" which have developed in concentric form around the diorite as a result of the intrusions. Dips of these veins generally slope towards the diorite plugs and have been found in many instances to parallel regional jointing patterns. Some of these fractures have been offset by small mineralized subvertical northeast and southeast faults. Surface exposures and drill intercepts show the veins to vary in width from a few cms to over 3.0m while trenching and drilling have suggested some may extend for a strike length of over 200 metres. Within the 350m zone of hornfels as well as the diorite itself the precious metal veins (Au,Ag)veins consist of massive to semi massive zones of pyrite, arsenopyrite and lesser quartz, with anomalous amounts of mercury, bismuth, antimony, copper, lead and zinc. Where exposed and weathered the outcropping of these veins are heavily coated with scorodite. Outside the hornfelsic aureole, some 350m from the diorite, the veins are still enriched in gold and silver but contain abundant galena and tetrahedrite. It has been suggested a temperature related mineral zonation may exist at Doctors Point, with gold predominating closer to the plutons and base metals predominating outside the hornfelsic envelope. The mineralized veins are enveloped by a bleached zone of fine quartz, sericite and kaolin which vary in width from a few cms up to 3m while the hangingwalls themselves

contain the largest amount of noticeable alteration. These narrow zones of bleaching pass gradually out towards a wider (<8m) "rotted zone", characterized by a rusty and weathered zone where feldspars have been intensely kaolinitized and pyrite occurs as finely disseminated sulphide zones. Gold assays are generally absent from these areas.

Petrographic work done by Littlejohn of Vancouver Petrographics in 1983 suggest the native gold occurs mainly along the boundaries of the pyrite crystals as well as to a lesser extent with the arsenopyrite. Microfracturing of these sulphides are infilled with calcite together with pyrite, clay, native bismuth, argentite and lead bismuth sulphosalts. Littlejohn goes on to conclude the veins have experienced two episodes of precious metal mineralization, one with the introduction of gold, sulphide and quartz, followed by a period of brecciation and the second with the introduction of silver-bismuth minerals.

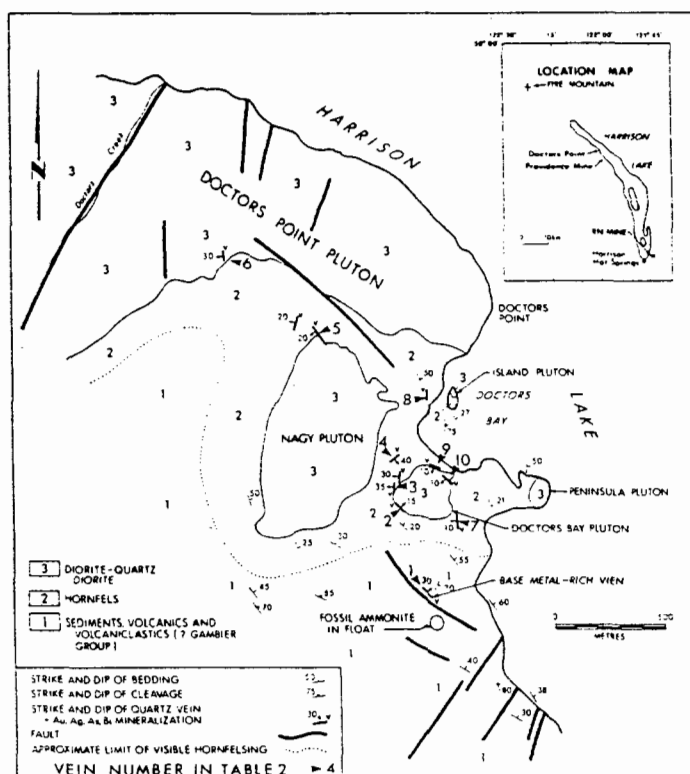


Figure 3. Geology of the Doctors Point area, Harrison Lake (after Ray *et al.*, 1984).

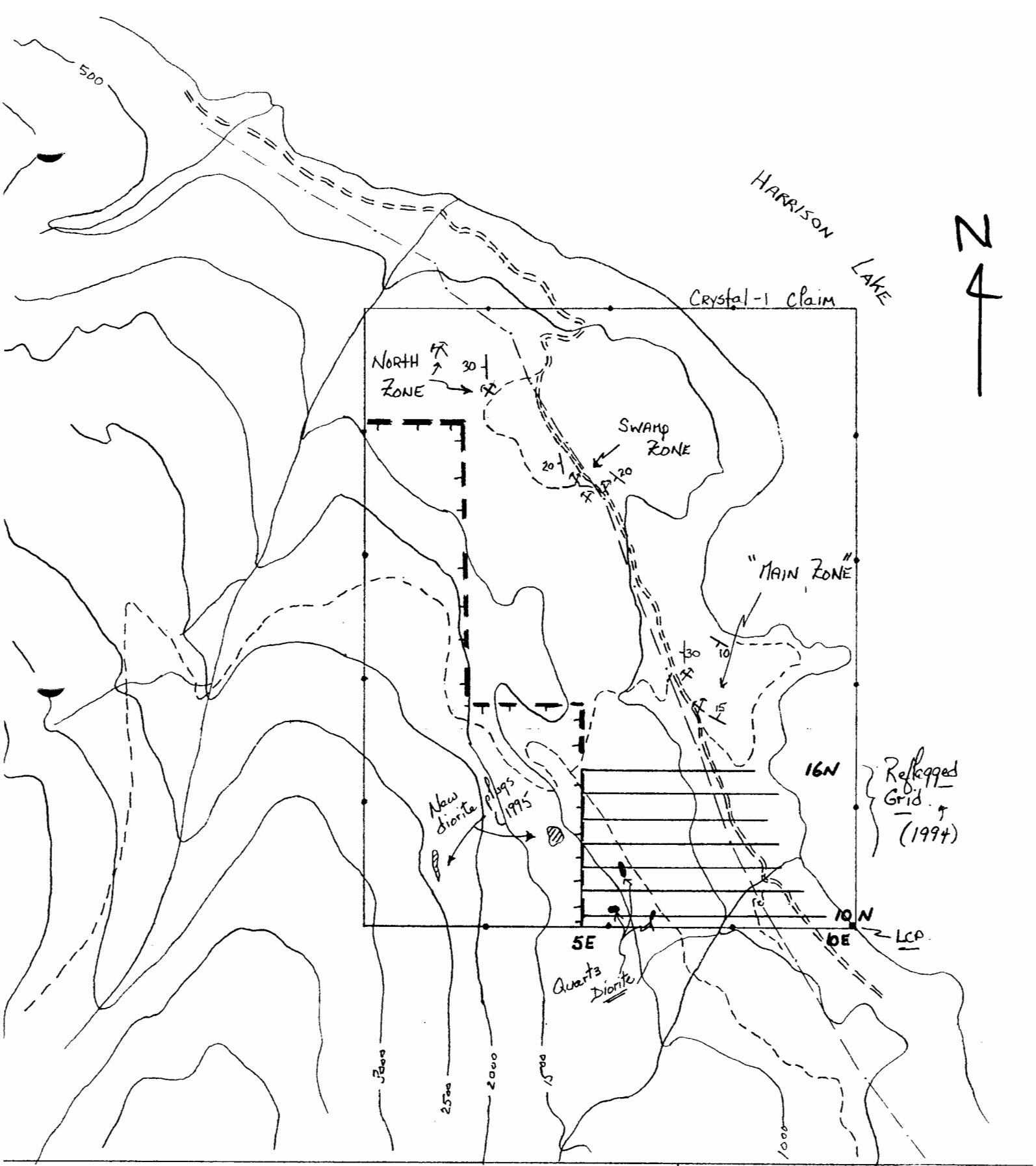
GEOLOGICAL MAPPING and FIELD WORK, 1995

Approximately four days were spent mapping the southwest corner of the Crystal-1 claim, where according to previous assessment reports there has been little if any recorded geological work carried out during past reconnaissance programs. From the 1995 work, generally the northwest section of the claim is underlain with fresh medium grain diorite and is in contact with volcanic and sedimentary rocks of the Brokenback Hill Formation to the south. The terrain is rugged and steep, and although outcrop is numerous it is sometime difficult to map due to cliff faces and inaccessible areas. Main creeks, claim lines and roads served as control points for the location and mapping of generally four different rock units.

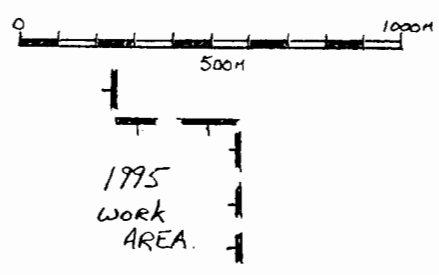
Mineralization at "Doctors Point" is closely associated with small satellite diorite intrusives which have intruded along northwest and northeasterly structural breaks. These intrusive bodies have created a series of shallow dipping concentric fracture planes within a hornfels host, which were at a later date these fractures were mineralized with Au-Ag-As mineralization. The mineralized veins along the shallow fracture planes generally dip towards the intrusive and are commonly associated with clay alteration and disseminated pyrite.

Mapping outlined three areas of interest during 1995. Within the diorite along the west section of the claim (see map) there occurs two very limited northeast and northwest trending shear zones mineralized with arsenopyrite and quartz. These vertical dipping veins or mineralized shear planes pinch and swell over a strike length of 10 meters and have widths that vary from 5cms to 10cms. Although the host diorite has remained unaltered and fresh throughout this area it is encouraging to note that the mineralization occupies similar structures or fault planes that are commonly found elsewhere on the property. Two new exposures of small concentric to linear diorite plugs have been located in the southwest of the claim block. They intrude along a possible northwest trending fault contact between dark green andesitic volcanic flows and overlying argillaceous rocks. Locally the sedimentary argillites and shales have been hornfelsed and there are small but consistent areas of gossanous iron staining (primary pyrite with the argillites?). Jointing and fracturing of the country rock is a common occurrence near these small intrusive stocks although most are steeply dipping and should no signs of clay alteration or sulphide enrichment.

To conclude, these three areas will be investigated more closely by means of detail geological mapping and soil geochemistry. These two new small plugs located in the southwest corner of the claim may well represent a buried expression of a larger underlying pluton and in theory portray a similar geological and exploration target to that of the "Main Zone", found only 700 meters to the northeast. The "Main Zone" hosts 113,600 tonnes of proven ore grading 2.16 g/t Au and 6.2 g/tAg.



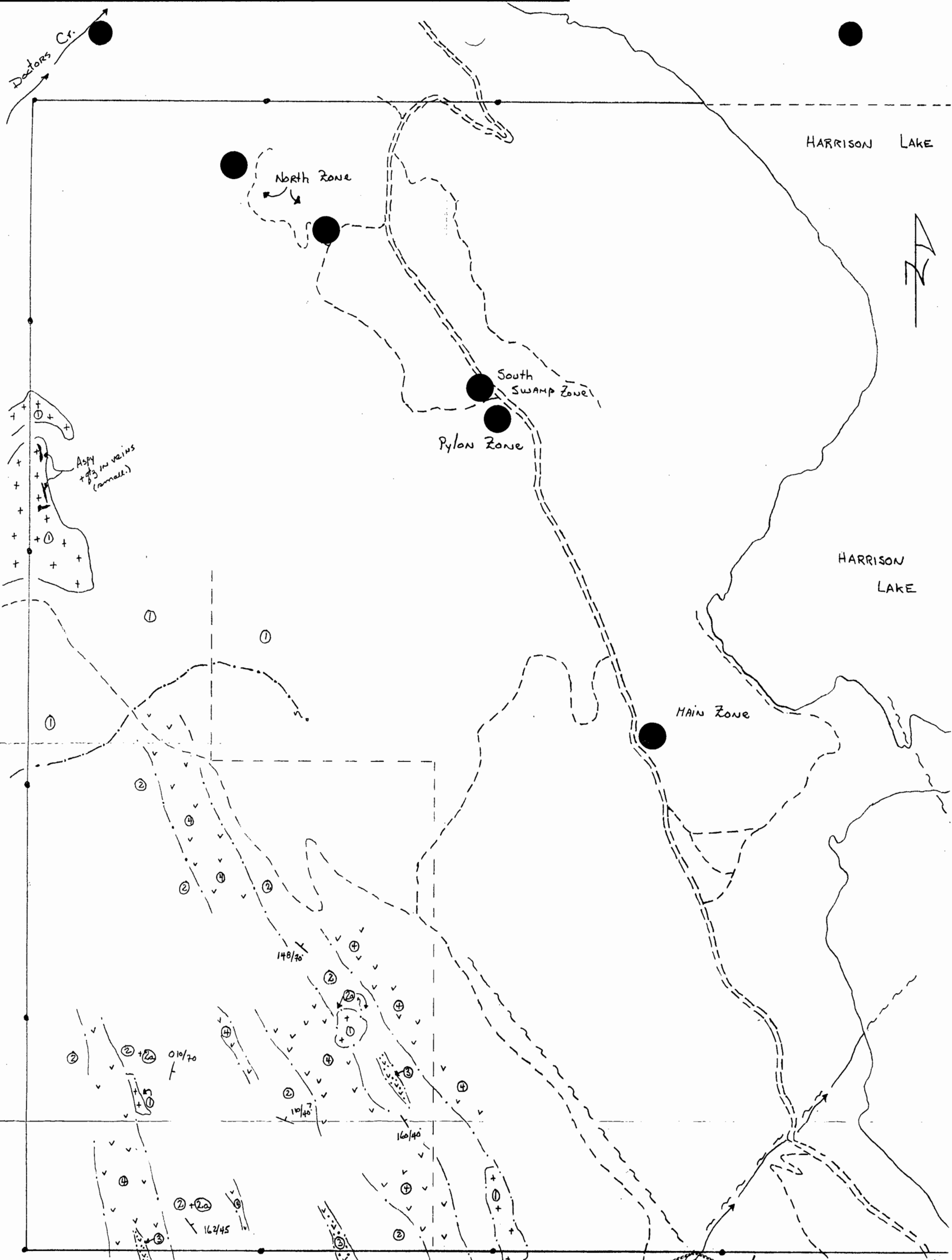
- Small quartz diorite plugs
- Main Logging Road.
- Known Au-Ag-As showings
- Dip and strike of vein



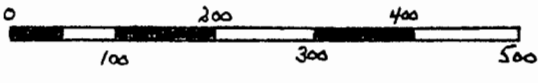
CRYSTAL-1 CLAIM
(HARRISON LAKE AREA)

Scale: 1:20,000

NTS: 92H/RW



- ①+ Quartz Diorite / Diorite
- ② phyllite - Argillite (± Hornfels as 2a)
- ③ Volcanic Tuff
- ④ Andesite flows (± dacite)
- - - Assumed contact
- ☁ Large outcrop (①)
- ~ ~ ~ Fault
- Au-Ag-As Mineralization



CRYSTAL-1 CLAIM

PARTIAL CLAIM GEOLOGY
1:7407

DATE: MAY, 1996
 Rv: J.C. map #

Brokenback
HILL
FORMATION
(?)

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STATEMENT OF COSTS

(during September 24,25, 28,29, 1995)

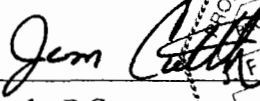
Wages	4 days geological mapping @ 350/day	1400.00
Rental	Truck for 4 days @ 60.day	240.00
Food		35.00
Gas (Truck)		90.00
Supplies	(Hip chain thread, flaging etc)	30.00
Report Compilation	1day @ 350/day	350.00
	Total expenses	2120.00

CERTIFICATE

I, **Jim Cuttle**, of the Municipality of Whistler, British Columbia, do hereby certify:

1. THAT I am an exploration geologist, having practiced my profession in Canada, Norway and Portugal for the last fifteen years;
2. THAT I am a graduate of the University of New Brunswick with a Bachelor of Science in Geology;
3. THAT I am a registered member of The Association of Professional Engineers and Geoscientists of British Columbia, (# 19313);
4. THAT I am the sole owner of the Crystal I Mineral Claim, located in the New Westminster Mining Division, British Columbia.
5. THAT this report is based in part upon my personal field observations and geological mapping during September, 1995;
6. THAT I am presently working as a private consultant at the home address of, #25-2217 Marmot Place, Whistler, British Columbia.

Dated at Whistler, British Columbia, this 23 day of June, 1996.



Jim Cuttle, P.Geol.

