

Report on the  
ELECTRUM PROPERTY  
of  
Taywin Resources Ltd.  
Malksope River Area  
Alberni Mining Division  
N.T.S. 9ZL/3W

by  
Rebagliati Geological Consulting Ltd.

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## INTRODUCTION

In May 1986, Rebagliati Geological Consulting Ltd. was commissioned by W.L. Warner, a director of Taywin Resources Ltd., to make an appraisal of the Company's Electrum property situated at Malksope River, Vancouver Island, British Columbia.

Work in the district dates back to the early 1900's with the discovery of the Morris and Monteith alunite and pyrophyllite deposits at Kyoquot Sound. With the discovery of rich gold-quartz veins in the Zeballos mining camp located 42 km to the southeast, a renewed surge of prospecting activity took place. However, most activity resulted from the exploration for porphyry copper-molybdenum-gold deposits during the early 1970's, prompted by the discovery of the large Island Copper deposit, which lies near some pyrophyllite occurrences.

During this period, the ON zinc-bearing skarn, the EASY copper-quartz stockwork and the BP copper shear zone prospects were discovered on ground now covered by the SIN claims of the Electrum property. The Morris and Monteith deposits, situated a few kilometres to the southeast, were re-examined for their porphyry potential. At this time the chalcendonic quartz vein stockworks were interpreted to have formed from hot springs or solfataric activity with possible important precious metal implications.

Regional stream sediment geochemical surveying by BP Minerals Limited in 1981 resulted in the discovery of a gold-arsenic anomaly near the projected intersection of the Malksope River and Easy Creek topographic and structural lineaments.

Subsequent detailed soil geochemical surveys, geological mapping and prospecting resulted in the discovery of the rich Electrum Vein within an extensive area of quartz stockwork veining coincident with a multi-element soil geochemical anomaly.

This report is based upon a study of all available data, including government publications, BP Minerals Limited reports, and field examinations of the SIN claims by the writer on April 24, May 15, 1984; May 31 and November 11, 1985;

and February 19, 1986. The LOR and MAR Claims were examined during the period February 20 - 23, 1986.

### LOCATION AND ACCESS

The Electrum property is situated 43 km west northwest of the village of Zeballos and 26 km south of Port Alice on the Kyoquot Peninsula in the Alberni Mining Division. It is centered at 50°10' N latitude, 127°21' W longitude on the northwest coast of Vancouver Island (Fig. 1).

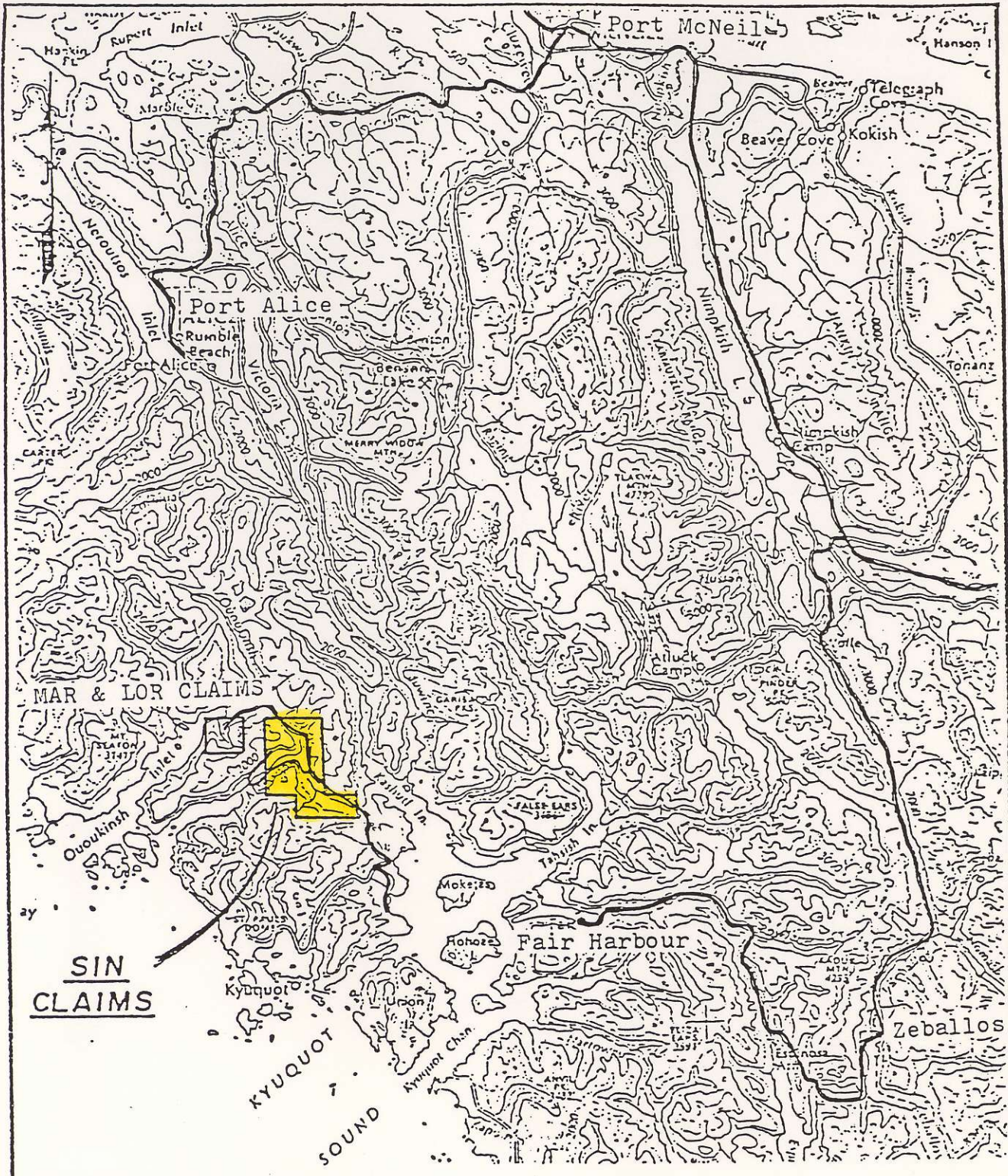
Float equipped fixed wing aircraft and helicopters are available at the Port Hardy airport, 50 km to the north.

Vehicle access to the claims is available from Zeballos via the Fair Harbour logging road. From Fair Harbour, Whonnock Forest Product's five ton capacity motorized barge is utilized, on a pre-arranged basis, for the 20 km crossing of the Markale Passage to Whonnock's Chamis Bay Camp. Alternately, Crown Forest Product's motorized barge "Beaver Cove" is sometimes available. From Whonnock's camp, an extensive network of logging haulage roads provide ready access to the two claim blocks. However, some of the secondary logging roads leading to the veins and to some parts of the soil geochemical anomaly require refurbishing.

Board and lodging, with full plumbing and laundry facilities, can be utilized on a pre-arranged, space-available basis at Whonnock's Chamis Bay camp or at Friell Lake Logging's Nootka Camp located 3.5 km to the north.

Terrain comprises moderate to steep u-shaped valleys separated by rounded ridges and highlands. Elevations range from a low 50 m along the Malksope River valley to a maximum of 800 m. The Electrum Vein occurs at an elevation of 180 m.

The area experiences high rainfall (c. 300 cm), particularly in the winter months, and is heavily forested with western red cedar, yellow cedar, hemlock, sitka



SIN  
CLAIMS



TAYWIN RESOURCES LTD.			
ELECTRUM PROJECT			
LOCATION MAP			
SCALE AS SHOWN	NTS 92 L/03	FIG 1	
DATE	PROJ.		

spruce and balsam. Alder is thick along the logged lower reaches of the Malksope River Valley. A large portion of the claims has been logged and some active logging continues. Logging activities have greatly increased the amount of rock exposure.

### CLAIMS

Two blocks of claims are held under option by the Company: the SIN block and the MAR-LOR block.

The following information for the SIN 1-7 claims inclusive was obtained from government and company records. The writer has not made a field examination of the SIN claim posts and can pass no opinion on the manner of staking, nor can he verify the position of the claims as depicted on the accompanying plan (Fig. 2). The MAR 2 claim was staked by the writer and he examined the LOR 2, 3, 4 and 5 claim posts. These claims are considered to conform to the Mineral Act regulations.

Essential claim data are listed as follows:

<u>BP OPTION</u>					
<u>Claim Name</u>	<u>Record #</u>	<u>Tag #</u>	<u>Units</u>	<u>Staking Date</u>	<u>Expiry Date</u>
SIN 1	1530	62112	20	Aug. 22, 1982	Sept. 17, 1990
SIN 2	1531	62113	20	Aug. 22, 1982	Sept. 7, 1990
SIN 3	1532	62114	16	Aug. 23, 1982	Sept. 17, 1990
SIN 4	1533	62115	16	Aug. 24, 1982	Sept. 17, 1990
SIN 5	1501	76050	20	Sept. 16, 1982	Sept. 17, 1988
SIN 6	1502	76051	20	Sept. 16, 1982	Sept. 12, 1988
SIN 7	1549	09000	4	Oct. 13, 1982	Nov. 12, 1990

<u>GRAHAM OPTION</u>					
<u>Claim Name</u>	<u>Record #</u>	<u>Tag #</u>	<u>Units</u>	<u>Staking Date</u>	<u>Expiry Date</u>
MAR 2	2845	75558	20	Feb. 21, 1986	Feb. 28, 1987
LOR 2	2841	540947	1	Feb. 20, 1986	Feb. 28, 1987
LOR 3	2842	540948	1	Feb. 20, 1986	Feb. 28, 1987
LOR 4	2843	540949	1	Feb. 20, 1986	Feb. 28, 1987
LOR 5	4844	540950	1	Feb. 22, 1986	Feb. 28, 1987

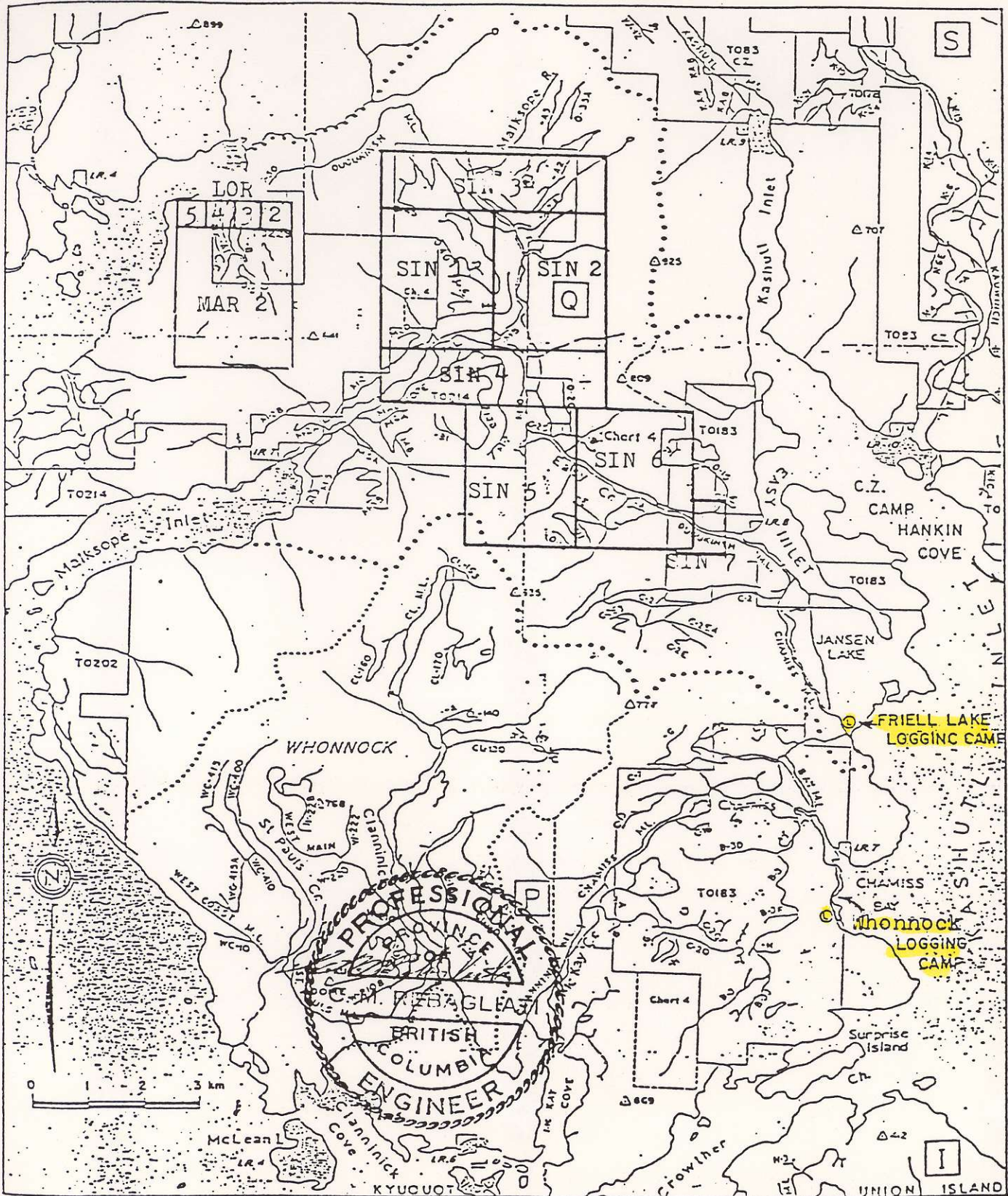


FIG. 2: SIN Claims in relation to logging roads and logging camps.

CLAIM MAP  
 ELECTRUM PROJECT  
 1:10,000  
 FIG.2



## EXPLORATION HISTORY

The first recorded work in the Malksope River-Easy Creek region was on alunite-pyrophyllite occurrences discovered at Easy Inlet in 1908, which were initially staked for their gold potential.

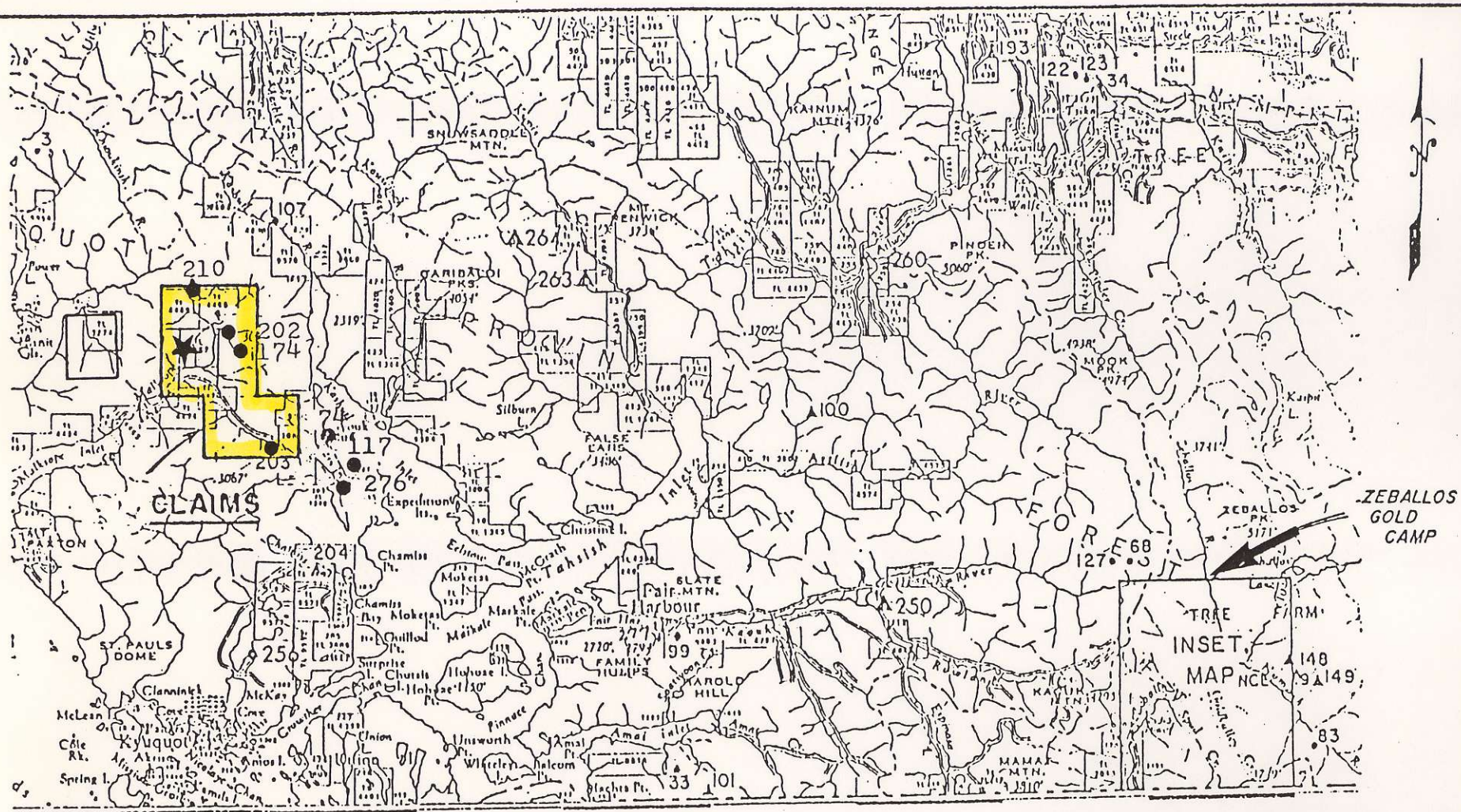
They were subsequently investigated as industrial minerals prospects (Dolmage, 1920; EMR Min. Report No. 803).

Renewed activity occurred in the 1930's with the discovery of the Zeballos gold camp, but no new mineral occurrences are recorded.

The discovery of the Cu-Mo-Au porphyry Island Copper Mine with its associated pyrophyllite again focussed attention on Easy Inlet. In 1970, Falconbridge Nickel Ltd. and the "Kyoquot Syndicate" carried out extensive stream sediment sampling on the Kyoquot Peninsula for porphyry copper mineralization. This led to the staking of three mineral occurrences on ground now covered by the SIN claims. The BP prospect is reported to have chalcopyrite in quartz veins cutting both Bonanza volcanics and Parson Bay sediments, and chalcopyrite, hematite and magnetite as shear-fillings within dark calcareous sedimentary rock. On the EASY prospect, pyrite and chalcopyrite were found in association with quartz veins cutting Bonanza volcanics. The ON prospect comprises an extensive skarn zone with minor disseminated sphalerite. Extensive stream and soil sampling over these areas produced weak copper-zinc responses. Gold content was not analyzed. Silver content was only analyzed in some of the samples, however, several samples yielded values in the 1.0 to 1.5 ppm range (Bond, 1971; Dyson, 1971).

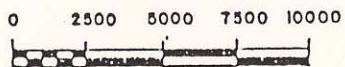
In 1972, the area around the pyrophyllite showings was examined by Kennco. Kennco's interpretation of the chalcedonic quartz vein networks, having formed from hot springs or solfataric activity, is intriguing with respect to gold deposition.

In 1982, BP Minerals Limited staked the SIN claims, comprising 116 units, to cover a gold-arsenic stream sediment anomaly. These claims covered the former BP, EASY, ON and KYU prospects (Fig. 3). During 1982 and 1983, the claim block was geologically mapped and covered by an extensive geochemical survey



<u>OCCURRENCE NO.</u>	<u>NAME</u>	<u>METAL</u>	<u>ELECTRUM VEIN</u>
72	MORRIS	Natro-alumite, pyrophyllite.	★
117	MONTEITH	Pyrophyllite	
174	KYU	Copper	
201	BP	Copper, Iron	
202	EASY	Copper	
203	ON	Zinc	
276	SIC	Silica	

METRES



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MINERAL OCCURRENCES  
MALKSOPE RIVER AREA  
ELECTRUM PROJECT

SCALE 1:250,000

NTS 92 L/03

FIG. 3

DATE

PROJ.

To accompany report:

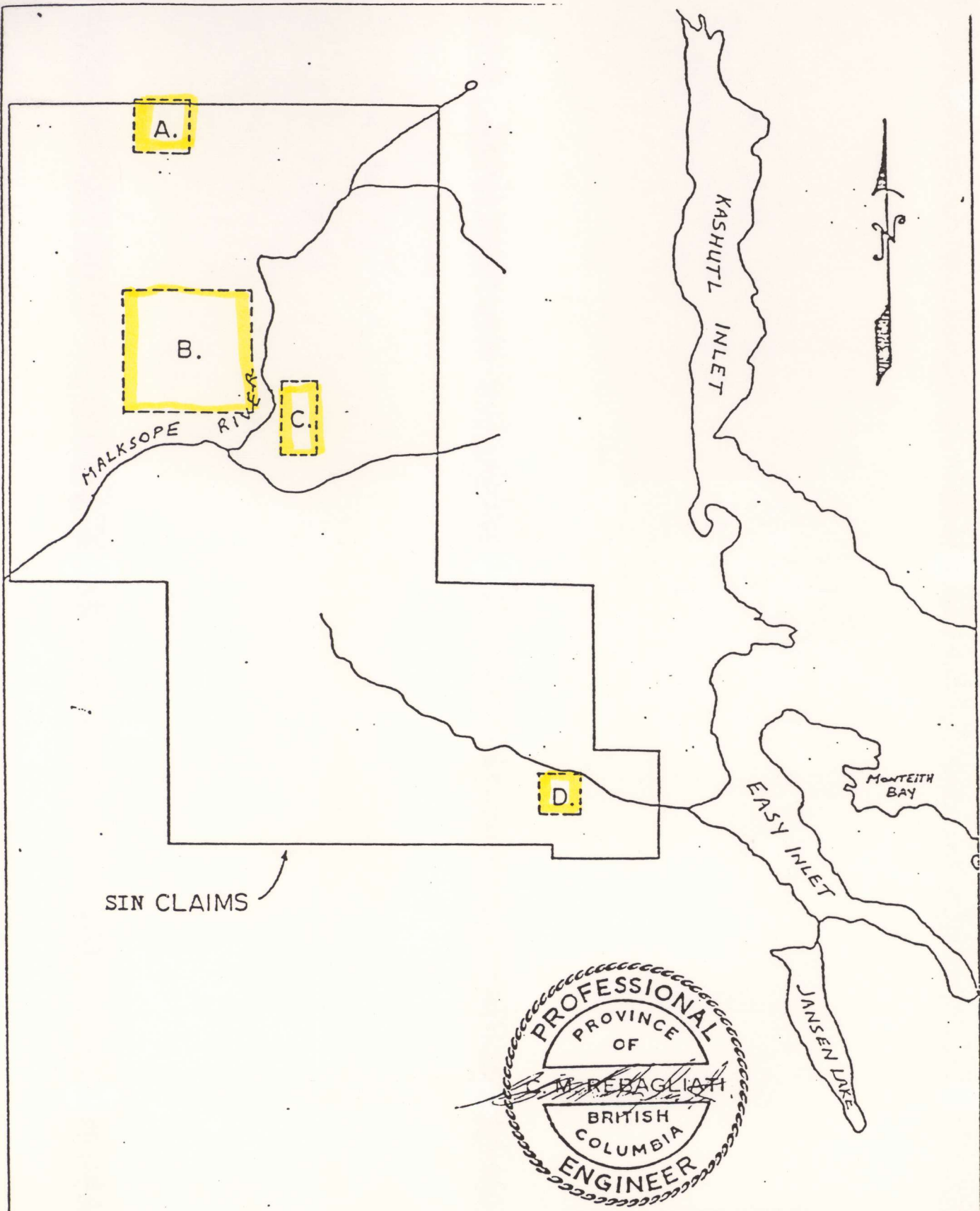
in which 1444 soil, stream sediment and rock chip samples were collected (Hoffman, 1984). Samples were analyzed for gold, mercury and for 30 other elements by ICP. Four multi-element precious metal anomalies were identified by the soil survey (Fig. 4). Eight diamond drill holes, comprising 1,025 m, were sunk to test portions of two of the anomalies.

During the April 24, 1984 examination of the property, the writer, who at the time was employed as Senior Geologist for the Selco Division of BP Resources Canada Limited, discovered numerous grains of electrum in a previously unmapped quartz vein. Detailed chip sampling by a BP crew, under the supervision of the writer, substantiated the presence of bonanza gold-silver values. No work has been undertaken on the SIN claims since the sampling of the Electrum Vein in May of 1984.

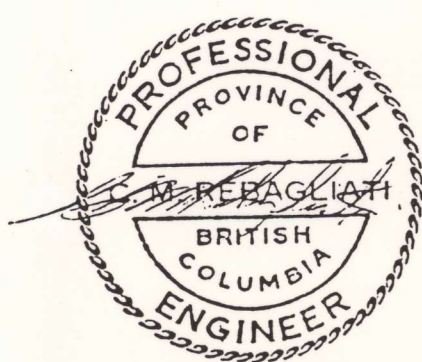
#### REGIONAL GEOLOGICAL SETTING

The property is located on the western margin of the Insular Belt of the Canadian Cordillera (Fig. 5). The Insular Belt, of which Vancouver Island forms the main part, has remnants of an apparent gneiss-migmatite basement overlain by a late Paleozoic volcanic arc sequence, the Sicker Group. The overlying Vancouver Group is a thick volcanic-sedimentary sequence of Triassic to early Jurassic age, and is the only group represented in the Electrum prospect area (Fig. 6 and 7).

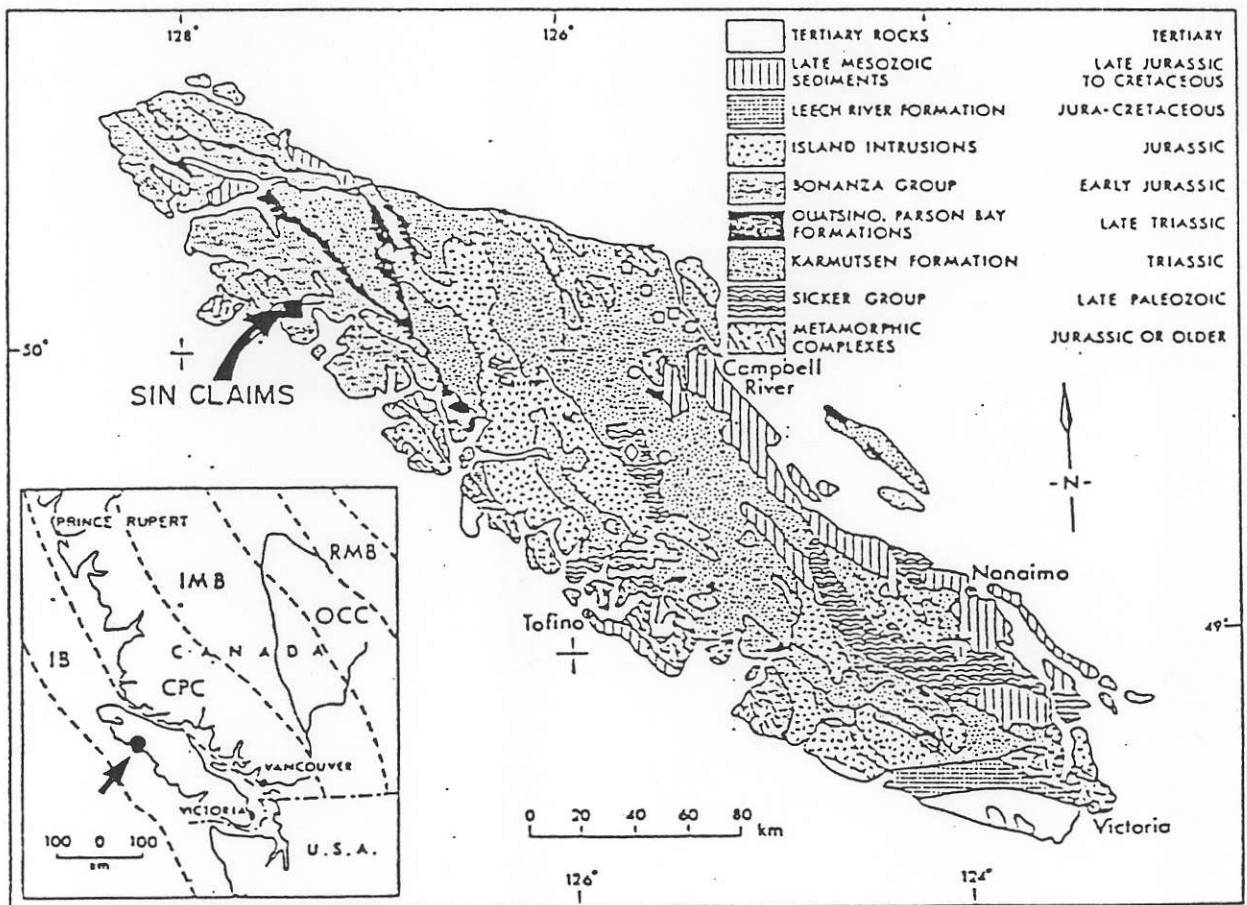
The basal formation of the Vancouver Group is the Karmutsen Formation, a tholeiitic basalt comprising a lower division of pillow lavas, a middle one of pillow breccia and aquagene tuffs, and an upper one of layered flows. The overlying Quatsino Formation is a bedded to massive crystalline limestone that, with the appearance of beds of black calcareous shale, passes gradationally up into the Parson Bay Formation. The Parson Bay Formation consists of thin bedded and laminated black calcareous siltstone with minor beds of limestone and tuff or volcanoclastic grit. Volcanoclastic sediments form the upper part of the formation. The Bonanza Volcanics are a heterogeneous sequence of island arc style volcanics. They consist of basaltic andesite and andesite flows and



SIN CLAIMS



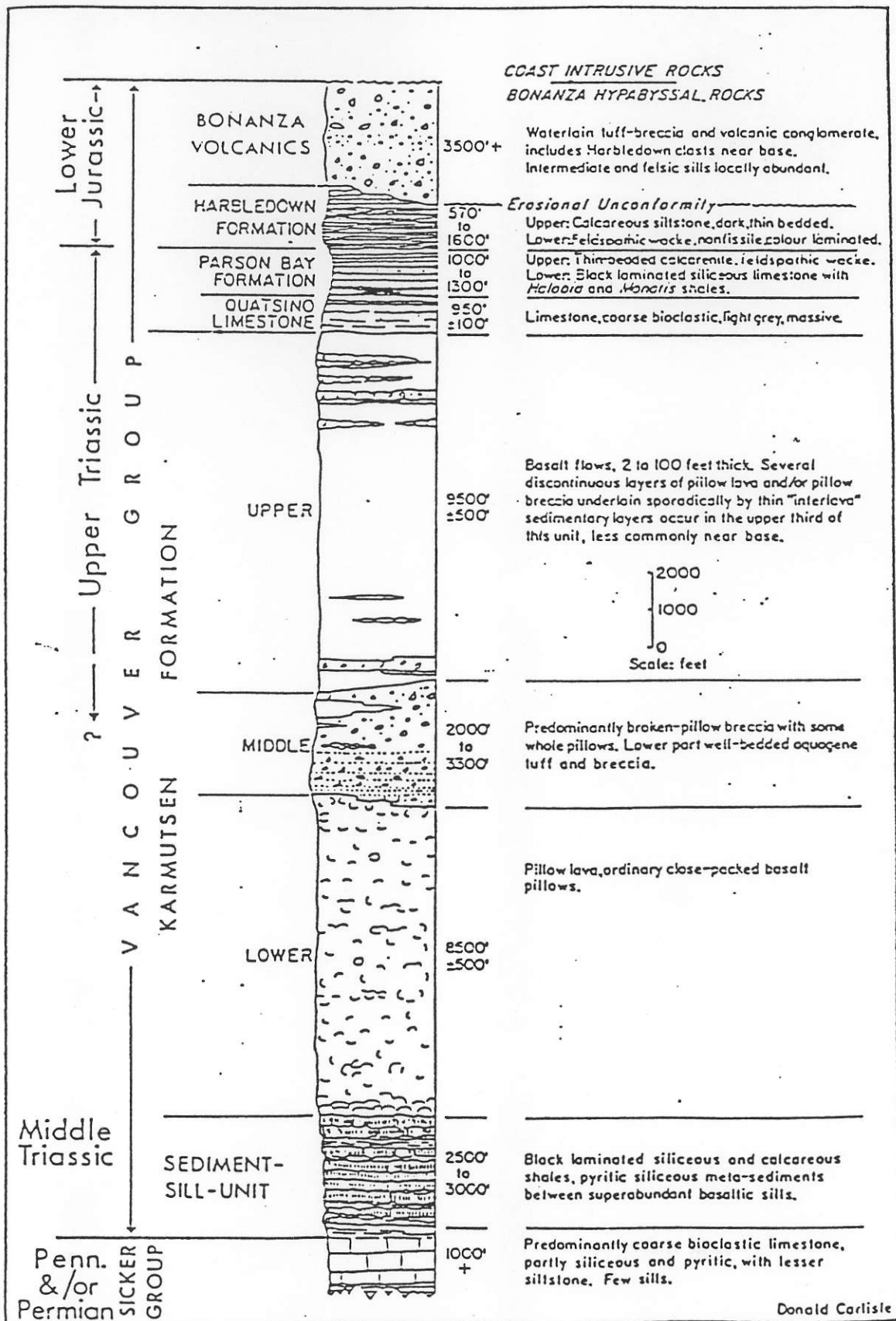
TAYWIN RESOURCES LTD.			
ZONES OF ANOMALOUS GEOCHEMISTRY			
ELECTRUM PROJECT			
SCALE	1:50,000	NTS	92L03
DWG No	DATE	PROJ	FIG. 4



Generalized geology of Vancouver Island showing location of the SIN Claims.

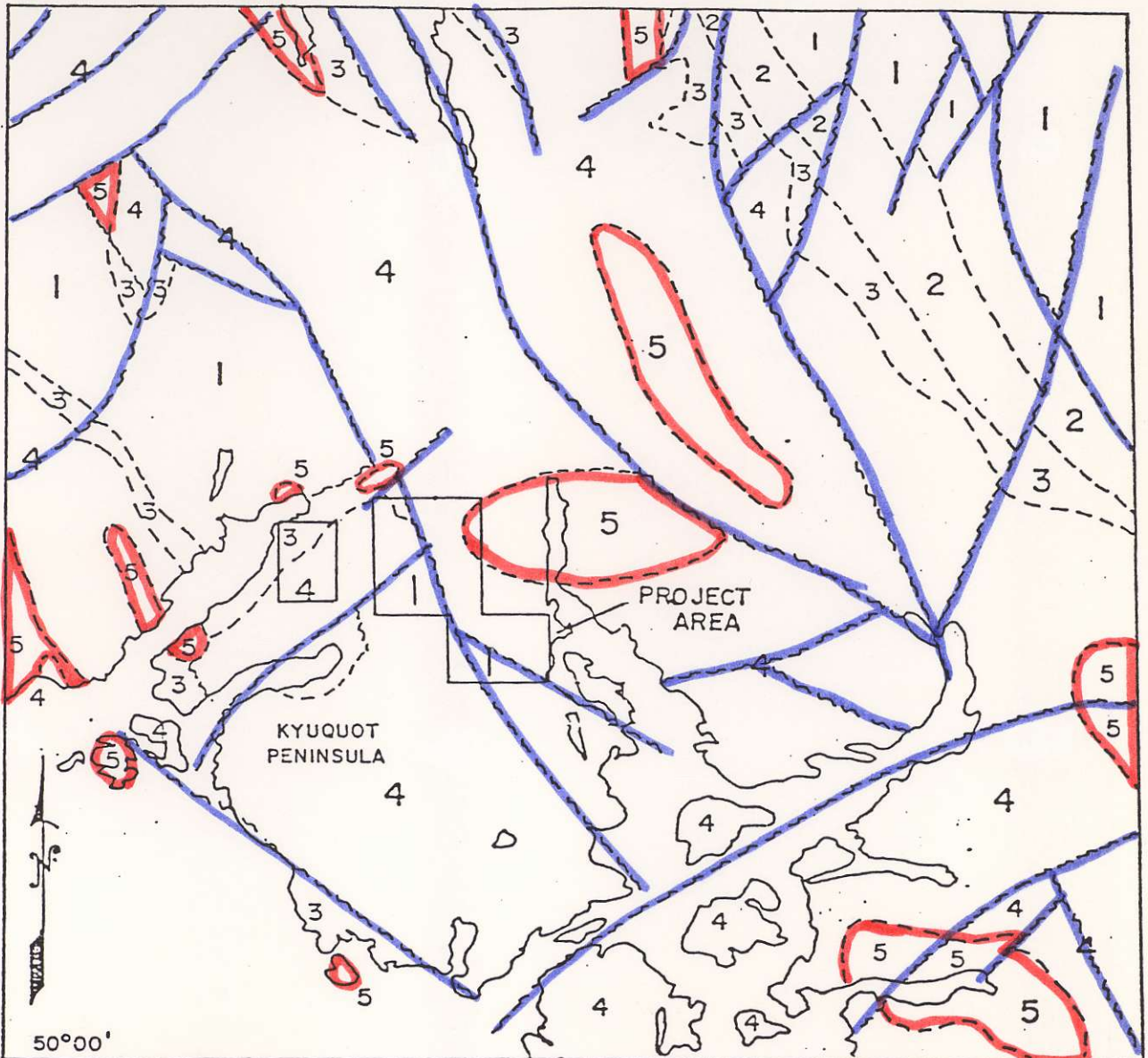
ELECTRUM PROJECT

FIG.5



Regional stratigraphy, northern Vancouver Island. The Harbledown Formation is only represented at the northern extremity of the region.

FIG. 6



**LEGEND**

After Wong 1983

**JURASSIC**

**5** ISLAND INTRUSIONS: quartz diorite, granodiorite, quartz monzonite, quartz feldspar porphyry

**TRIASSIC AND JURASSIC VANCOUVER GROUP LOWER JURASSIC**

**4** BONANZA VOLCANICS: andesitic to rhyodacitic, lava, tuff, breccia

**UPPER TRIASSIC**

**3** PARSON BAY FORMATION: calcareous siltstone, shale, limestone, greywacke, conglomerate, breccia

**2** QUATSINO FORMATION: limestone

**1** KAR MUTSEN FORMATION: basaltic lava, pillow lava, breccia, aquagene tuff



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**REGIONAL GEOLOGY  
ELECTRUM PROJECT**

SCALE 1:250,000	NTS 92 L/03	FIG 7
DWG No	DATE	PROJ.

To accompany report:

flow breccias, dacite and rhyodacite flows and ash flow tuffs and breccias. The Formation includes minor sedimentary units. The depositional environment ranged from shallow marine to subaerial.

An episode of broad regional folding and block faulting followed immediately after deposition of the Bonanza Volcanics. This phase of deformation was partly overlapped by intrusion of a suite of major granitic plutons in Middle to Late Jurassic time. The Malksope area lies within a belt of epizonal quartz diorite to quartz monzonite plutons and associated quartz feldspar porphyries.

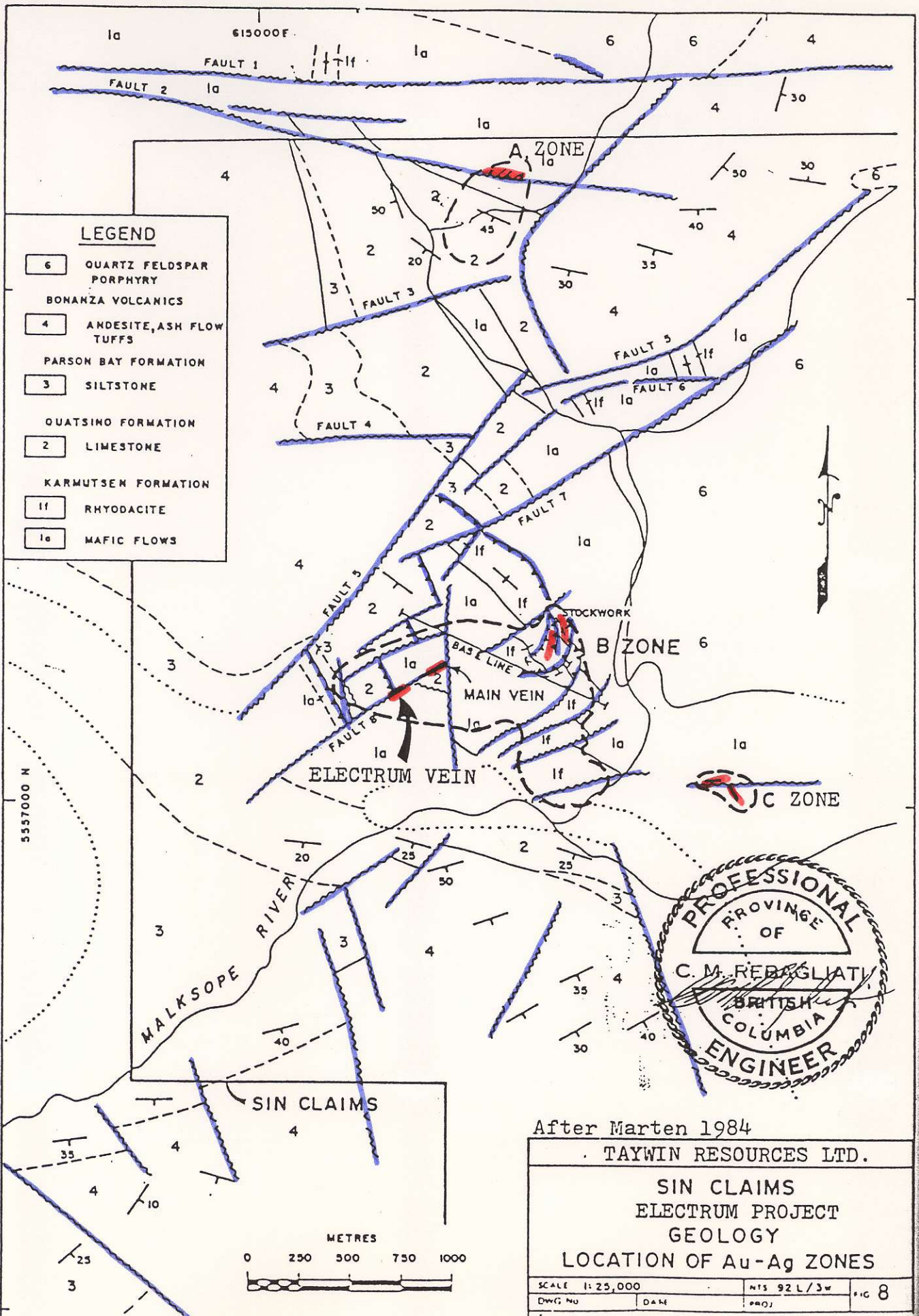
Minor Eocene plutons of dacite porphyry and quartz diorite occur in several linear belts. They have an association with gold-quartz veins, notably in the Zeballos mining camp.

#### ELECTRUM PROPERTY GEOLOGY (SIN CLAIMS)

The Electrum property lies within the Kyoquot Fault Block, defined by Muller et al (1974) as a "jumbled group of smaller blocks". The complexity of faulting makes interpretation difficult, but has correspondingly enhanced the structural preparation for vein and stockwork controlled gold-silver mineralization (Fig. 8).

The Upper Triassic Karmutsen Formation forms the base for the geological section. Upwards from the lowermost exposed units, it is comprised of basalt flows, andesitic flows and tuffs, flow laminated rhyodacite, andesite and isolated lenses of massive grey limestone. Quartz vein and stockwork development are best developed in the upper portion of the Formation. The Quatsino Formation appears to conformably overlie the Karmutzen and is comprised of grey, commonly recrystallized massive to bedded limestone with argillaceous partings. The upper transition of the Quatsino Formation into the Parson Bay Formation is marked by an increase in the number and thickness of silty, shaley beds and a corresponding decrease in limestone beds. The Formation consists of thinly bedded to laminated, dark calcareous siltstone and argillite. In places, it includes thin interbeds of dark grey limestone.





The Lower Jurassic Bonanza Volcanics occur on topographically high areas separated by older formations in the valleys. The volcanics consist of mafic to felsic flows, mafic tuffs, breccias, ash flow tuffs and minor thin bedded tuffs and laharc breccias. Rapid lateral and vertical facies changes make it difficult to define stratigraphy. However, the base of the formation is marked by a unit of epiclastic tuff and limestone breccia up to 100 m thick.

Four groups of intrusive rocks are recognized:

- a) Andesite dykes 1 - 2 m thick are present, but are not common. Where they cut the Quatsino limestone or calcareous Parson Bay Formation their margins are bleached and carbonatized. Their age relationship to the dacite dykes was not seen.
- b) Dacite dykes up to several metres wide occur throughout the area. Two varieties are distinguished: quartz porphyritic and, more commonly, non-quartz porphyritic. Where mapped in detail, they are irregular in shape. Some have intruded along major faults, and other have a spatial association with other faults. Marten (1984) speculates that there are two sets of dacite dykes, one of synvolcanic Karmutsen age and the other post-Bonanza.
- c) A major body of quartz feldspar porphyry extends from the head of Ououkinish Inlet eastwards along the north edge of the area. It has a contact with both the Karmutsen Formation and Bonanza Volcanics where gradationally hybridized basalt xenoliths become progressively assimilated inwards.
- d) A set of northeast striking microdiorite dykes are the youngest igneous rocks in the area. They average 4 m in width. They are particularly abundant in the northwest corner of the grid area where they locally comprise about 80% of the total rock volume (Marten, 1984).

Northeastward directed thrusts are interpreted by Marten to be an important component of the structural pattern and control for precious metal mineralization. Evidence for thrusting is seen in the repetition of map units,

small scale structures and in Karmutsen rhyodacite where en-echelon sheeted quartz veins having a consistent attitude splay off a silicified thrust plane. The veins and an associated quartz vein stockwork are geochemically enhanced in gold.

Two major high angle fault systems are present, one trending east and the other northeast. Each system consists of several subparallel normal faults. The relative ages of the two sets are not known. A large vein, the Main Vein, and possibly the Electrum vein, occupy a steep northeast trending fault (Fig. 9).

A number of the fault zones are occupied by quartz veins and stockworks geochemically enriched in gold and silver. A late northerly trending normal fault dipping 75° west disrupts and terminates the Main Vein. The fault zone is 1 -2 m wide and includes a slice of the Main Vein.

## GEOCHEMISTRY

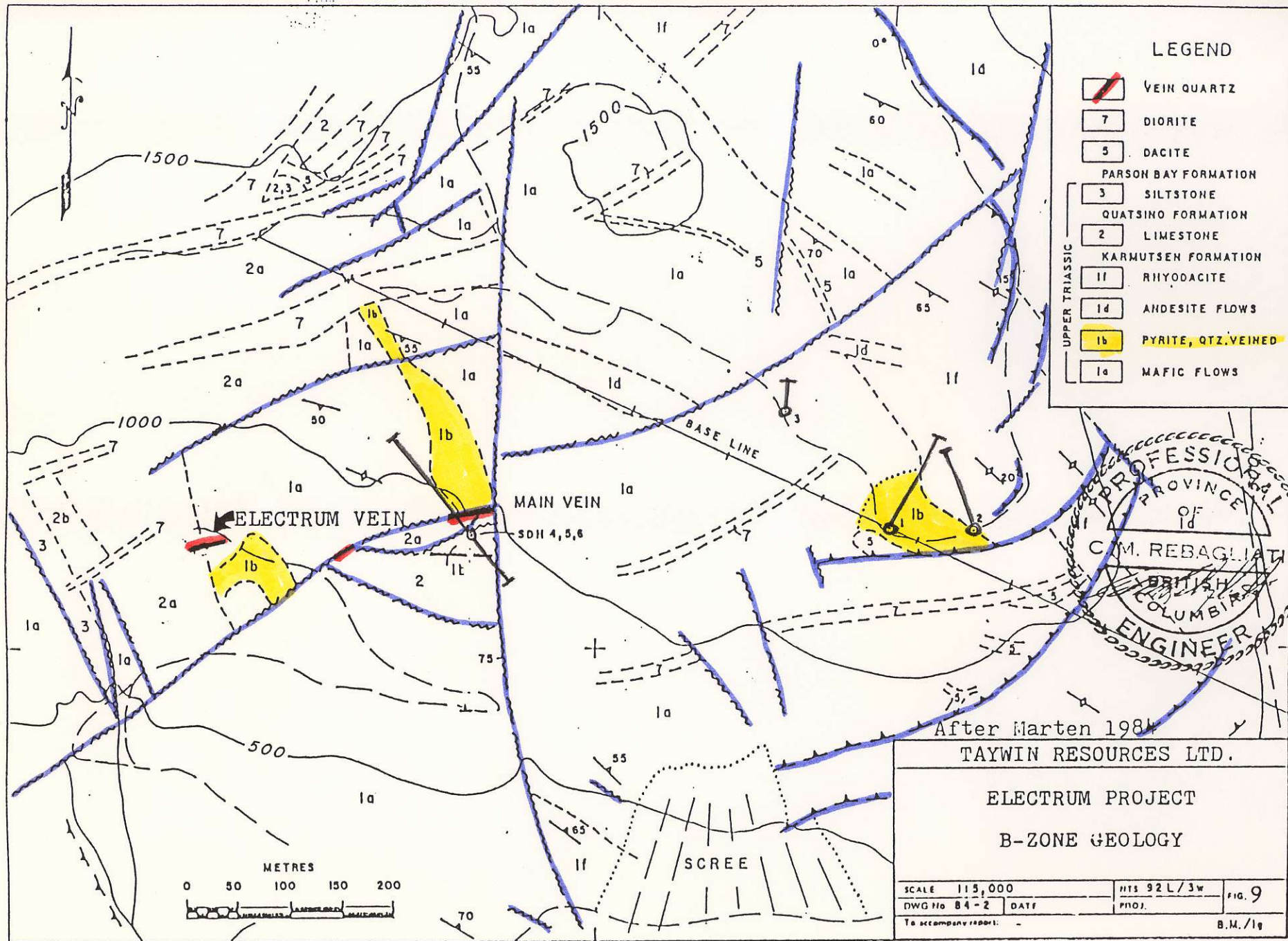
A total of 1,444 rock, soil and stream sediment samples were collected from the property. All samples were analyzed for gold and mercury and for a suite of 30 other elements by ICP methods. Each sample medium proved effective in identifying several significant gold multi-element anomalies.

Figure 4 shows the relative position of the four most significant zones of multi-sample anomalies. Numerous low priority single-sample or single-element and/or low contrast anomalies were found, but are not shown.

### a) Stream Sediment Geochemistry

#### ANOMALOUS ELEMENTS

<u>Zone</u>	<u>Au</u>	<u>Ag</u>	<u>As</u>	<u>Hg</u>	<u>Pb</u>	<u>Zn</u>	<u>Cu</u>	<u>Mo</u>	<u>Fe</u>	<u>Mn</u>	<u>Ni</u>	<u>Co</u>	<u>Ba</u>
A	x		x				x	x	x	x			x
B	x	x	x	x	x	x	x		x	x	x	x	x
C	x		x	x		x	x		x	x	x	x	x
D	x	x	x	x	x	x							



Zones A, C and D lie close to the position indicated in the Falconbridge assessment report for the BP, EASY and ON copper and zinc prospects.

b) Soil Geochemistry

Reconnaissance soil sampling in the region of the four main clusters of anomalous sediments confirmed the precious metal results and indicated probable source areas (Fig. 4). Maximum values for the four anomalous zones are:

A Zone - 100 ppb Au, 3.2 ppm Ag and 138 ppm As.

B Zone - 2,400 ppb Au, 719 ppm Ag and 5,200 ppb Hg. The anomalous gold values are consistently within the 100 - 600 ppb range.

C Zone - 280 ppb Au, 215 ppm Ag, 200 ppm As and 950 ppb Hg.

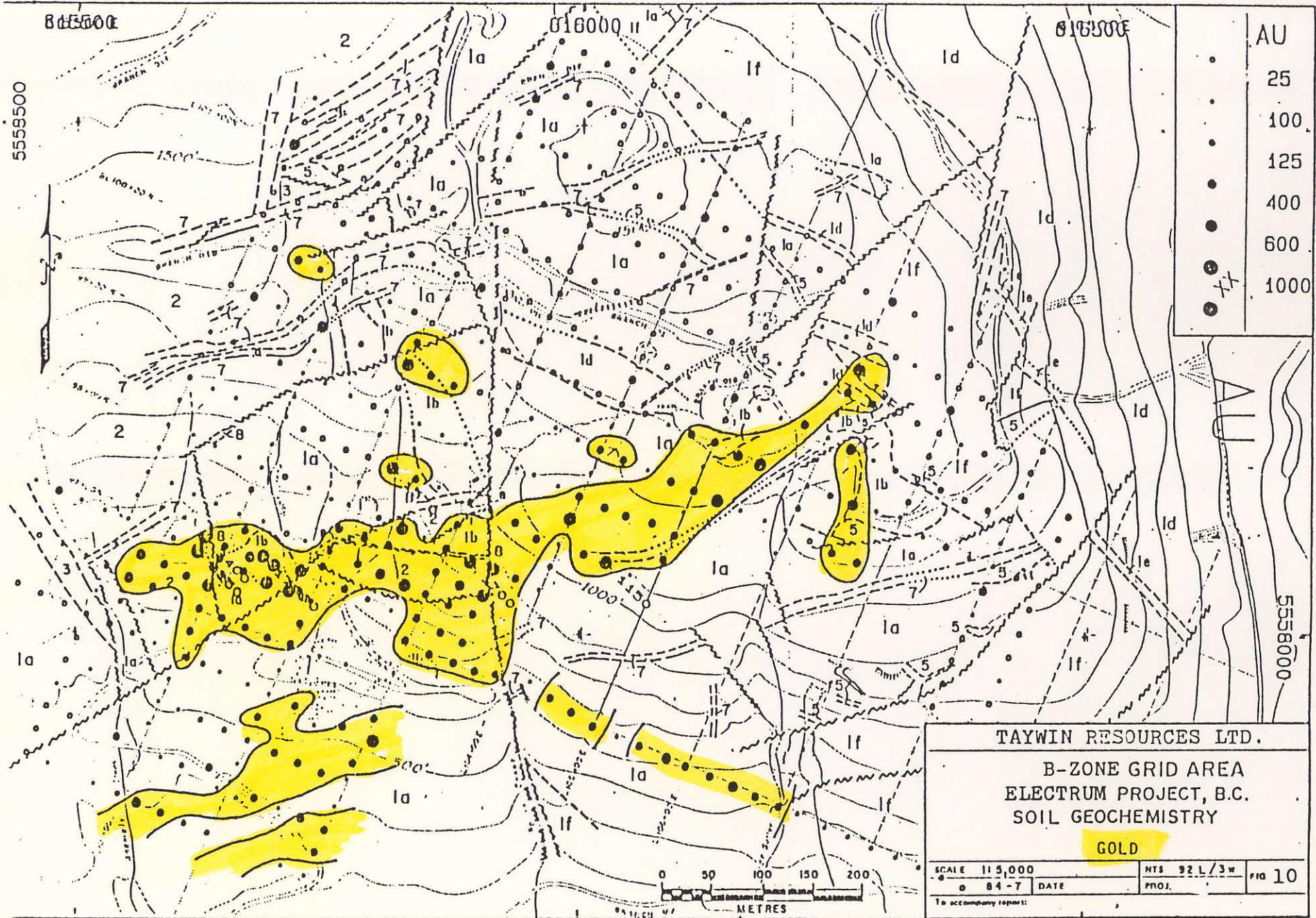
D Zone - 350 ppb Au, 23.0 ppm Ag, 335 ppm As and 2,900 ppb Hg.

A detailed 25 x 50 m soil grid established over the B Zone anomaly delineated an outstanding east-northeast trending high contrast gold anomaly with coincident high silver and arsenic values (Fig. 10, 11, 12). Enhanced levels of Mo, Cu, Pb, Zn, Fe and Sb are associated with the gold anomaly. The gold values generally exceed 125 ppb and reach a maximum of 3,400 ppb, whereas silver generally exceeds 5 ppm and reaches a maximum of 60 ppm. The anomalous multi-element zone crosscuts geology, but parallels the trend of east-northeasterly trending dykes and faults.

c) Lithochemochemistry

During the course of routine geological mapping, two types of rock chip samples were collected, character samples of exposed lithologies and special samples taken from vein, alteration zones or pyritic zones. Only the former are discussed under this section (Fig. 8).

The gold lithochemochemical patterns are different to the gold distribution in the soils. The lithochemochemical gold pattern is reflected by identical patterns of silver, lead and arsenic. Highest values are associated with



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B-ZONE GRID AREA  
ELECTRUM PROJECT, B.C.  
SOIL GEOCHEMISTRY

**GOLD**

SCALE 1:5,000

NTS 92.L/3W

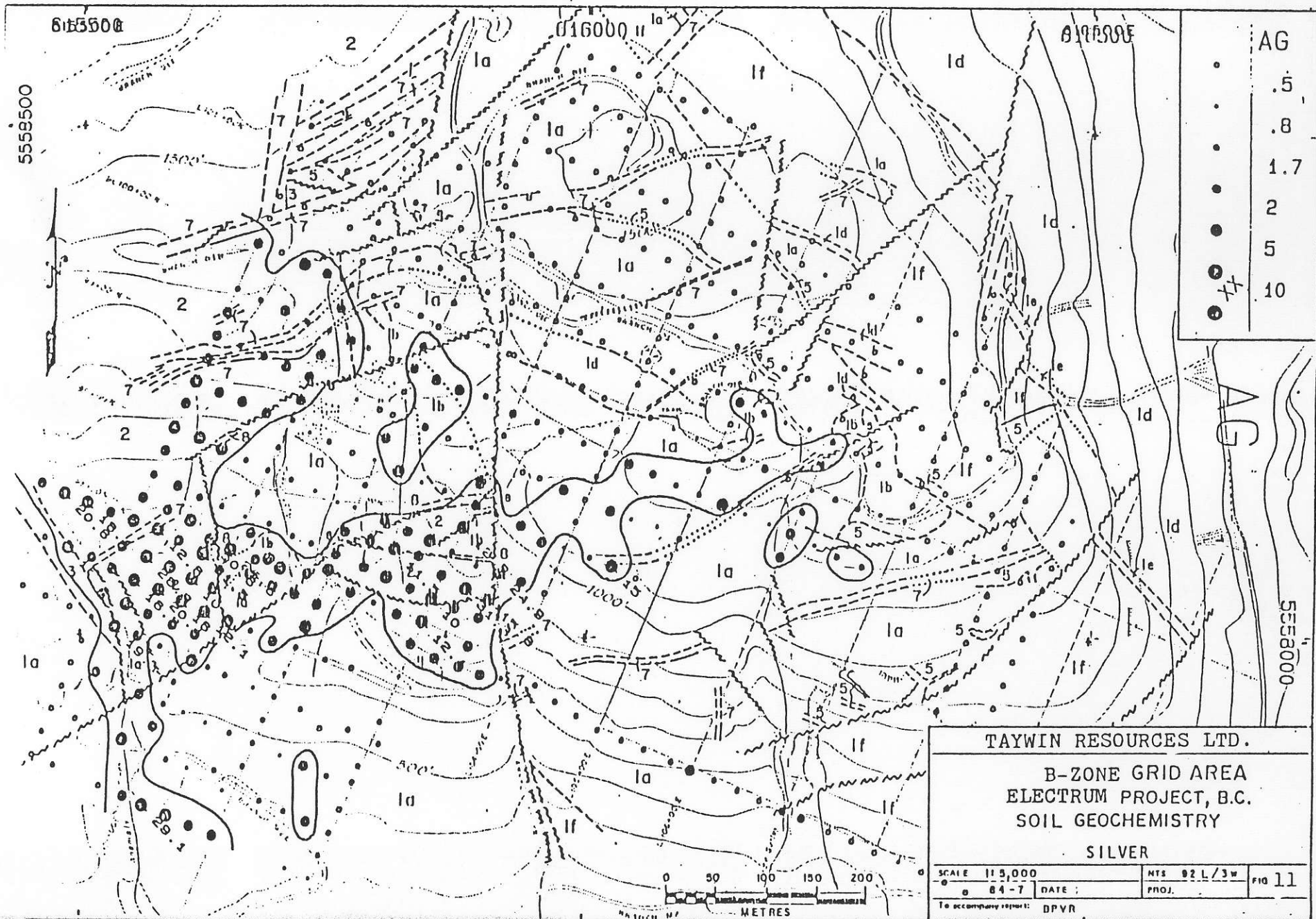
FIG 10

84-7 DATE

PROJ.

To accompany report:

After Hoffman 1984



AG	0.5
	0.8
	1.7
	2
	5
	10

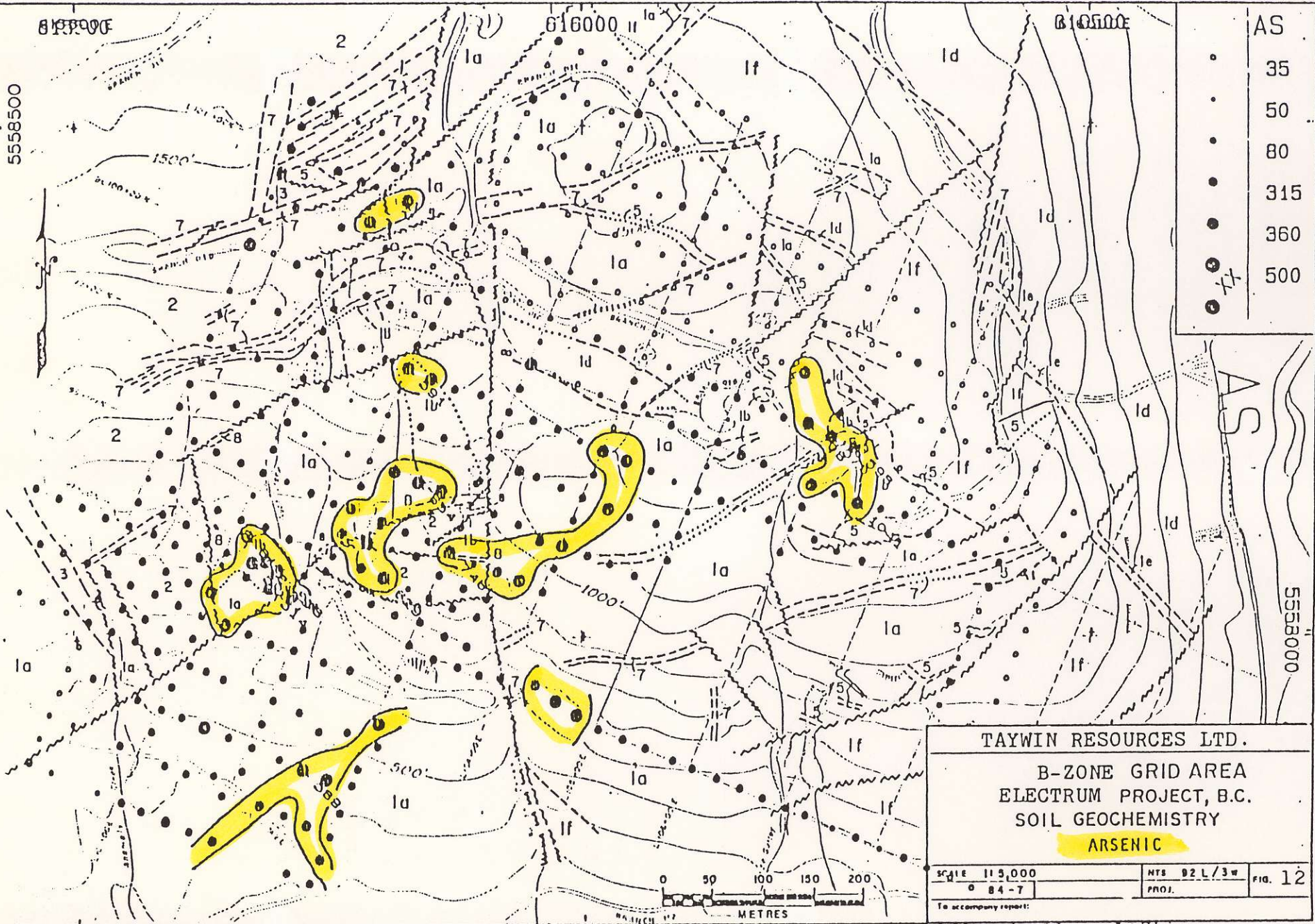
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B-ZONE GRID AREA  
ELECTRUM PROJECT, B.C.  
SOIL GEOCHEMISTRY

SILVER

SCALE 1:5,000	NTS 82 L/3w	FIG 11
64-7	DATE :	PROJ.
To accompany report: DPVR		

After Hoffman 1984



AS	•
35	•
50	•
80	•
315	•
360	•
500	•
	•

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 B-ZONE GRID AREA  
 ELECTRUM PROJECT, B.C.  
 SOIL GEOCHEMISTRY  
**ARSENIC**

SCALE 1:5,000	MTS B2 L/3 W	FIG. 12
84-7	PROJ.	

To accompany report:



pyritized and silicified zones in basalt with a weaker response from rhyodacite units.

Because the soil anomaly is not defined by representative rock chip sampling, its source is probably structurally controlled.

### MINERALIZATION

Gold mineralization associated with quartz veins and/or quartz stockwork systems have been discovered in each of the four geochemically anomalous zones.

#### A Zone

Scattered quartz veins ranging from a few centimetres to a metre thick cut a dark green chloritic amygdular basalt. Chip samples of vein material range from 185 ppb to 570 ppb gold. Silver and arsenic values are anomalous but low. Alteration is generally weak in this area except for some pyritization (Wong, 1982).

Approximately 400 m to the west of the A zone are two skarn occurrences in limestone. A chip sample of a nearby quartz vein returned 1800 ppb Au across 1.5 m (Marten, 1984).

#### B Zone

Geologically, the B zone is about 1.5 km long and up to 500 m wide. It is reflected by a coherent east-northeast trending 750 by 100 m multi-element soil anomaly in which gold contents are generally greater than 200 ppb and range up to 3400 ppb. The zone comprises two areas of relatively intense quartz veining separated by a central zone of sparse quartz veins. At the west end a quartz vein stockwork encloses a series of massive veins. (Massive refers here to veins exceeding 30 cm in thickness, in contrast to the stockwork veins which are usually less than 2 cm thick, but which may be distributed across broad areas).

Potential!

a) Quartz Vein Stockwork in Rhyodacite

Planar quartz veins and erratic quartz vein stockworks permeate the highly faulted southeastern half of the rhyodacite unit. Veining and silicification also extends into the andesite unit overlying the rhyodacite. The veins consist of locally vuggy white quartz with traces of pyrite. They are generally 1 to 3 cm thick, but in several places are up to 1 m wide. The amount of pyrite in the host units (trace to 4%) show good correlation with the degree of silicification. Planar veins have a relatively consistent west to west-northwest trend and moderate northerly dips. The intensity of the veining diminishes upwards in the hanging wall of a thrust fault.

Systematic, but small volume, rock chip samples show the rhyodacite to have a relatively uniform gold content ranging from 12 to 65 ppb and averaging about 35 ppb. Selected samples grade up to 1,160 ppb. Silver is generally at background levels. Selected sampling of the thicker veins indicate that they are not preferentially enriched in any element. The silicified andesite was found to have higher values in gold, in the range of 50-265 ppb.

Diamond drill holes SDH 82-1, 2 and 3, drilled to assess zones of quartz stockwork and strong silicification in the andesite and rhyodacite, returned low but anomalous concentrations averaging 74, 66 and 24 ppb gold respectively. A 1.4 m sample from 2.6 to 4.0 m at the top of Hole SDH 82-2, which was highly oxidized, ran 2,200 ppb gold.

The three holes were oriented subparallel to the dip direction of the planar vein orientation and, as such, tested a relatively narrow interval. A more optimum approach would have been to reverse the drill direction.

b) Central Area

The central portion of the B Zone is underlain by basalt with sparse planar quartz veins and localized erratic quartz stockworks. The veins are similar to those in the rhyodacite, being of white, locally vuggy quartz; are generally in the 1 - 3 cm range, and, rarely, up to 1 m in thickness. The host basalt appears unaltered, but is weakly pyritized where quartz veins

are closely spaced or form stockworks.

Representative chip samples of quartz vein stockworked outcrops give results ranging up to 250 ppb gold and 3.0 ppm silver. Selected samples of the quartz veins yield results in the 200 - 2,000 ppb range, but average about 600 ppb. The highest values of 3.8 g/t and 3.5 g/t gold were obtained respectively from a 0.7 m wide vein and a 3 m wide quartz stockwork.

c) Western Area

The western area includes three styles of quartz veining:

1. Sheeted quartz veins in limestone.
2. Bodies of pyritized, silicified and quartz veined basalt.
3. Sizeable veins of massive quartz localized along basalt-limestone contacts.

Sheeted quartz veins hosted by limestone are abundant in outcrops south of the Main Vein and in Anomaly Creek. The veins range from 1 mm up to 1 m in width. They have a consistent west-northwest strike and vertical to steep northerly dips. Chip samples of selected vein material give results much lower than those hosted by basalt, with gold in the range of 8 - 9 ppb. Two samples ran 380 and 255 ppb. Silver content, in the range of 1 - 18 ppm, is roughly comparable to the basalt hosted veins. The background silver content of 1.0 ppm in the limestone is elevated.

A zone of silicified basalt forms a gossanous trend extending to the northwest from the drill site at the Main Vein. Outcrops are prominently rusty due to weathering of 2 - 8% disseminated and fracture-controlled pyrite. The basalt is cut by a network of minor quartz veinlets and quartz veins, generally on a cm scale, but in a few places up to 40 cm in width. Representative chip samples range from 180 to 825 ppb gold and 1.7 to 2.3 ppm silver.

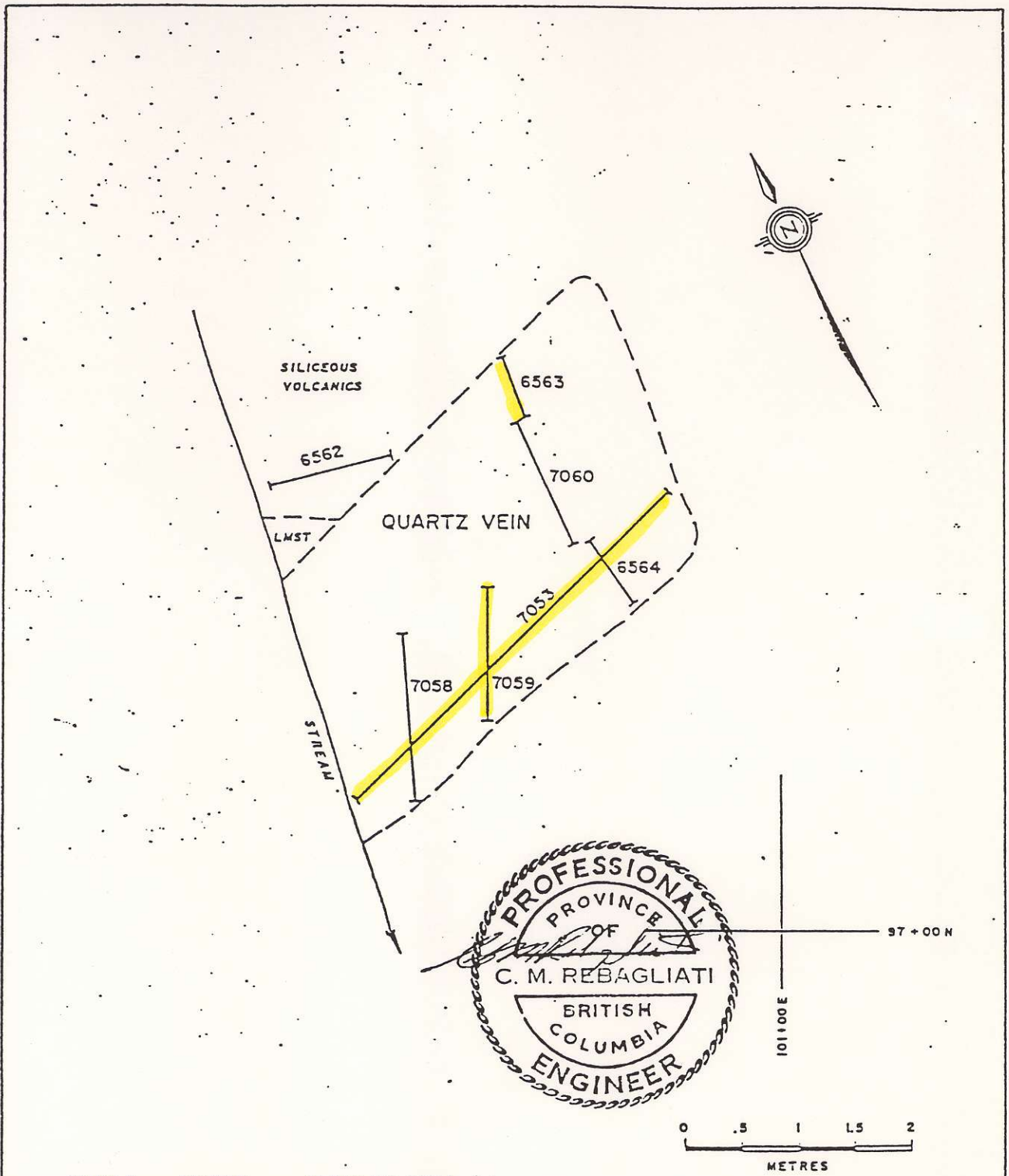
Three massive quartz veins localized along basalt-limestone contacts occur in the B Zone. They form a discontinuous 300 metre long east-

northeasterly trend which is terminated by post vein faults at each end. There are few outcrops between the vein occurrences and it is probable that the occurrences represent a single massive vein which is only intermittently exposed. Late faulting may have caused minor offsets along the strike of the vein(s).

1. The Main Vein is the largest of the massive quartz veins with a width of 8 m and a 65 m exposed strike length. The vein displays cm scale banding reflecting multiple layers of quartz crystal growth and has minor quartz crystal-lined vugs where calcite was weathered out. Its contacts with the basalt and limestone are sharp. At surface the vein appears to have a vertical dip. Surface samples gave results of less than 1.0 g/t gold except for one 1 m sample at the south edge of the vein which ran 18 g/t gold and 56 g/t silver (Marten, 1984). Diamond drill holes SDH 82-4 and 5, drilled from the same site, tested the Main Vein. In both holes, assuming a near-vertical dip, the Vein was intersected sooner than expected. A moderately steep southerly dip is indicated. In both holes the walls of the vein returned the highest values. Hole SDH 82-4 cut 1.0 m grading 1.23 g/t gold and 13.9 g/t silver from 25-26 m. Hole SDH 82-5, drilled at a shallower angle to penetrate the vein between the surface exposure and the intersection in Hole SDH 82-4, intersected 1.58 g/t gold and 11.7 g/t silver across 8.0 m from 17 - 25 m. The highest grade for a 1.0 m interval is 4.3 g/t gold and 30.1 g/t silver. This interval from 24 - 25 m occurs at the vein's footwall.

Fifty metres south of the Main Vein another massive vein, with a higher calcite content, is exposed in outcrop. Hole SDH 82-6, collared from the previous drill site, returned a 1.0 m sample from 64 -65 m running 2.2 g/t gold and 8.4 g/t silver from this vein. Both veins are terminated to the east by the north trending Fault Creek Fault.

2. The poorly exposed Extension Vein, located 270 metre to the west, is similar in character to the Main Vein. The weighted average of seven 2.5 kg continuous chip samples, cut from the 10 square metre surface



SAMPLE NO.	SAMPLE LENGTH (METRES)	ASSAY VALUES (g/t)	
		Au	Ag
6562	1.1	1.299	0.325
6563	0.6	9.096	196.793
6564	0.7	3.573	219.278
7053	3.9	8.706	116.299
7058	1.5	3.184	241.369
7059	1.2	26.003	311.538
7060	1.2	1.072	13.319
WEIGHTED AVERAGE GRADE (Excluding Sample 6562)		8.97 g Au / t	161.65 g Ag / t

TAYWIN RESOURCES LTD.

EXTENSION VEIN  
ELECTRUM PROJECT-B.C.  
SAMPLE PLAN  
GOLD & SILVER ASSAYS

SCALE 1:50 | DRAWN BY: | FIG. 13  
DATE | CHECKED BY: L.G.

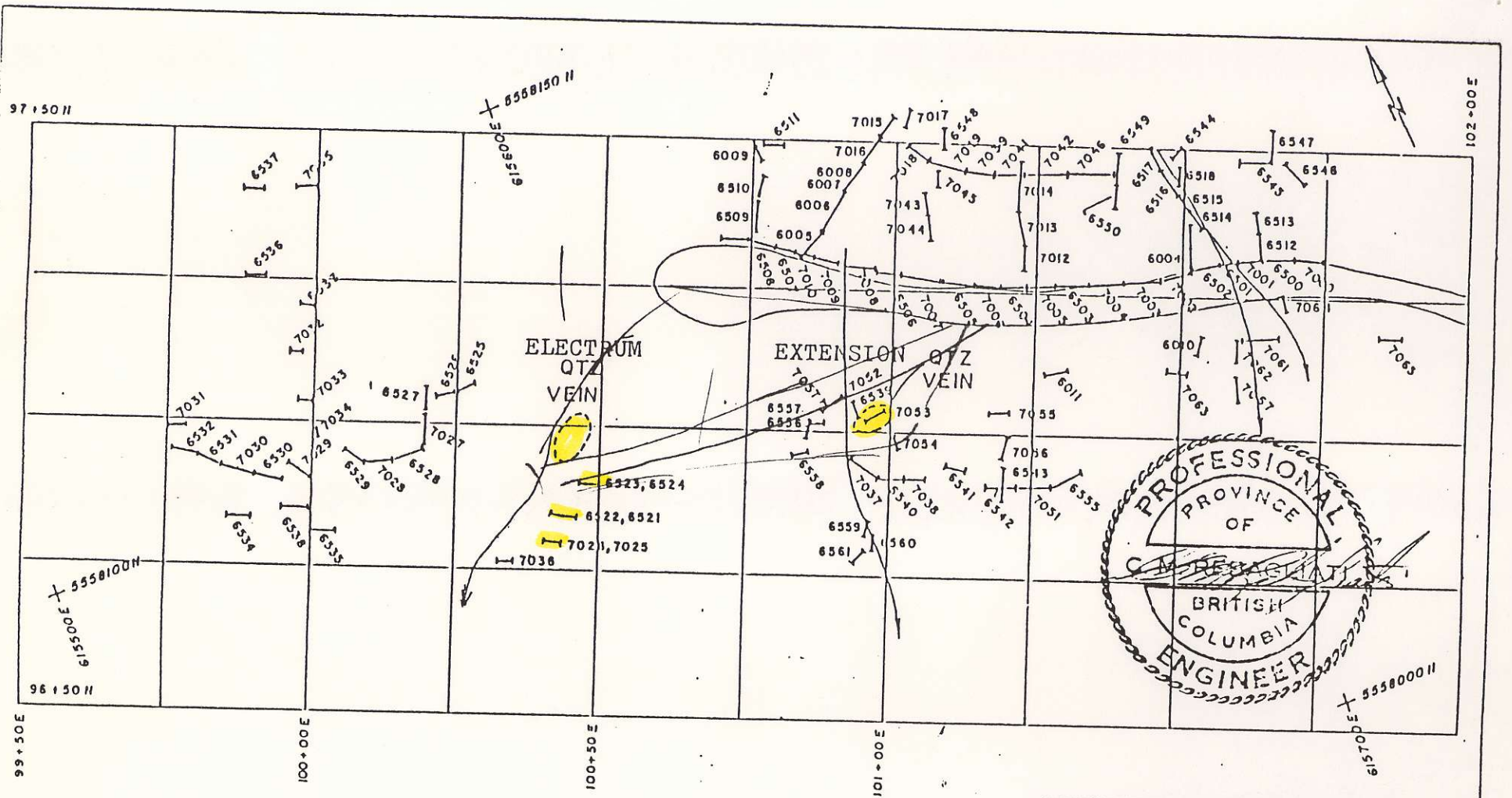
area of the vein, is 8.97 g/t gold and 161.65 g/t silver (Fig. 13). These samples were cut in 1984 by geologist Hans Smit, working under the supervision of the writer.

3. The easterly striking Electrum Vein outcrops in a steep bank on the east side of a northerly trending dry gully 50 m west of the Extension Vein (Fig. 14). This 2 - 3 m thick vein is similar to the other massive veins with the exception that several 1 mm to 10 mm thick sulphide-rich seams of very fine grained pyrite, sphalerite, chalcopyrite and minor galena occur near to and parallel to the hanging wall contact. Eighteen separate clusters and aggregates of electrum grains were observed near to, but not within, the sulphide-rich seams. Most clusters comprise 1 to 4 separate, irregularly shaped 1 mm sized grains whereas the aggregates, comprised of numerous coalescing grains, have dimensions up to 3 cm x 2 cm x 0.5 cm. Thirteen 2.5 kg representative, continuous chip samples cut from the 36 square metre, diagonal and partial dip slope exposure of the vein returned a weighted average of 68.16 g/t gold and 4469.61 g/t silver (in imperial units 1.99 oz/t gold and 130.36 oz/t silver) (Fig. 15). Samples 6001, 6002 and 6003 were collected by the writer on May 15, 1984.

Intermittent outcrops of quartz veined, silicified limestone occur at approximately 5 metre intervals down slope from the Electrum Vein (Fig. 14) and grade as follows:

<u>Sample No.</u>	<u>Au ppb</u>	<u>Ag ppm</u>	<u>Length m</u>
6521	3702	271	1.8
6522	2331	169	0.7
6523	2810	124	1.1
6524	1714	128	0.9
7025	4799	154	1.0
7026	1645	137	0.8
7036	335	34.6	3.0

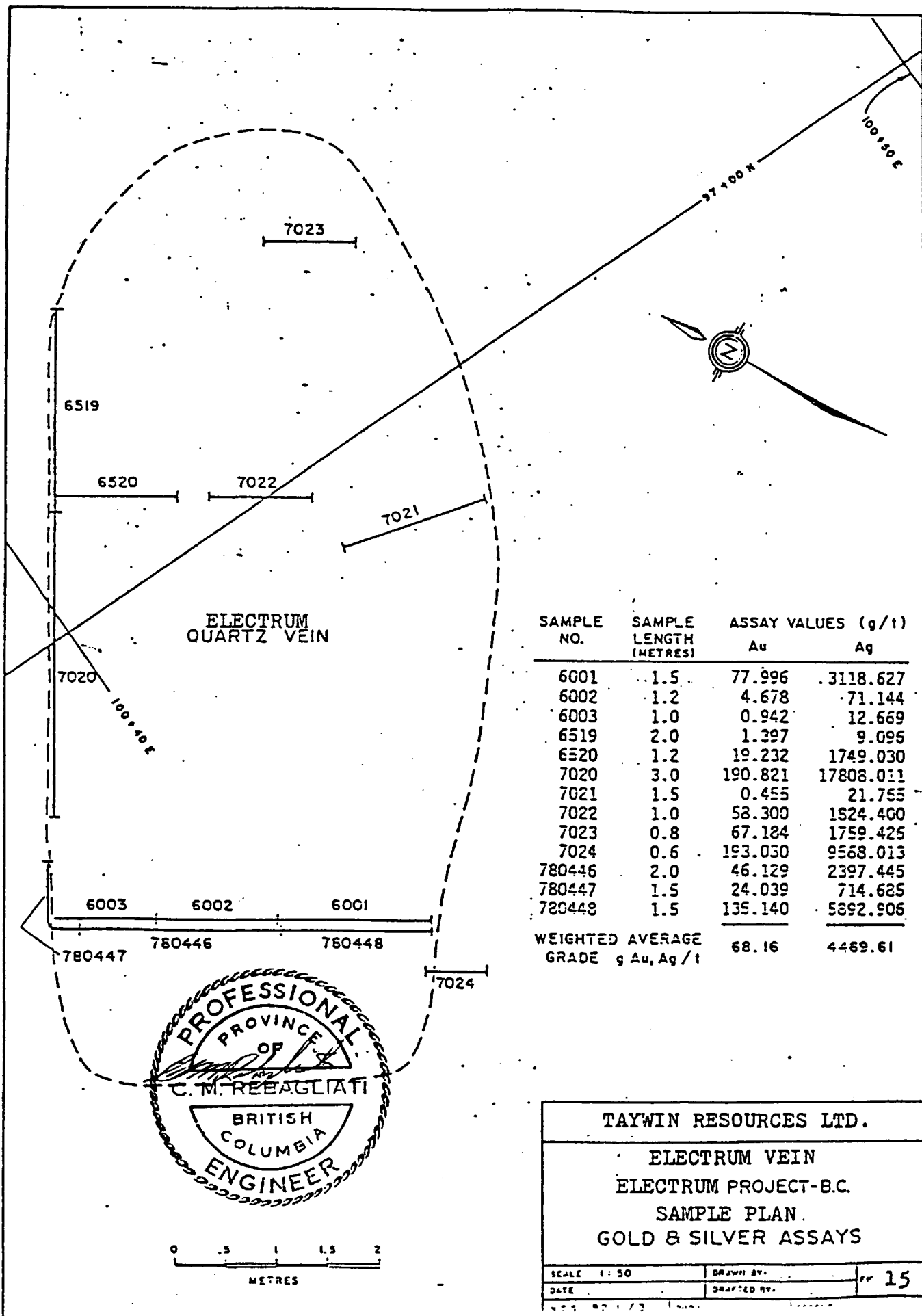
These mineralized outcrops may represent the down dip extension of the Electrum Vein or three parallel veins.



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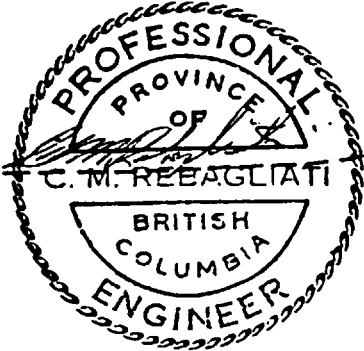
ELECTRUM PROJECT-B.C.  
SAMPLE PLAN

SCALE 1:1,000	DRAWN BY: H. Smit	FIG. 14
DATE SEPT. 1984	DRAFTED BY:	
H.T.S. 92 L/3	PROJ.	REPORT



ELECTRUM  
QUARTZ VEIN

SAMPLE NO.	SAMPLE LENGTH (METRES)	ASSAY VALUES (g/t)	
		Au	Ag
6001	1.5	77.996	3118.627
6002	1.2	4.678	71.144
6003	1.0	0.942	12.669
6519	2.0	1.397	9.096
6520	1.2	19.232	1749.030
7020	3.0	190.821	17808.011
7021	1.5	0.455	21.755
7022	1.0	58.300	1824.400
7023	0.8	67.184	1759.425
7024	0.6	153.030	9568.013
780446	2.0	46.129	2397.445
780447	1.5	24.039	714.625
780448	1.5	135.140	5892.905
WEIGHTED AVERAGE GRADE		g Au, Ag / t	
		68.16	4469.61



TAYWIN RESOURCES LTD.		
ELECTRUM VEIN ELECTRUM PROJECT-B.C. SAMPLE PLAN. GOLD & SILVER ASSAYS		
SCALE 1:50	DRAWN BY	15
DATE	DRAFTED BY	



### C Zone

This zone comprises two areas of quartz veining and silicification. The lower zone comprises a series of quartz-carbonate-pyrite veins exposed on the main logging haulage road, a chip sample of which yielded 2,300 ppb gold and 10.6 ppm silver (Wong, 1982). The upper zone is located 300 m upslope and is a more impressive area of large quartz veins rivalling the Main Vein in size. Veins range from 3 m to 5.8 m in width; one has been traced for 60 m along strike. Like the Main Vein in the B Zone, the quartz is white, well banded on a 1 cm scale and locally vuggy where calcite has weathered out. Most show traces of pyrite. Chip samples returned geochemically enhanced values in the range of 21 to 780 ppb gold and 0.1 to 10.3 ppm silver.

A reconnaissance soil grid and a minor amount of prospecting are the only work conducted on the C Zone. Experience at the B Zone has shown that high density soil gridding and intensive prospecting coupled with large-volume rock samples are required to adequately assess the potential of silicified areas.

### D Zone

A diorite intrusion of possible Tertiary age has caused considerable skarn alteration of calcareous sediments which form a low ridge of silicified rock. A chip sample from this zone returned 1796 ppb gold and 32.0 ppm silver. Diamond drill holes SDH 82-7 and SDH 82-8 were drilled across the silicified ridge and intersected low, but geochemically enhanced gold and silver concentrations. However, one element which shows extreme enrichment is boron. Intervals from skarny sediments which host strongly-developed stockwork of quartz-epidote veins contain from 1,000 to 22,000 ppm boron. Boron values in the drill holes from the B Zone do not exceed 100 ppm. Maximum zinc and mercury values from Hole SDH 82-8 are 3247 ppm and 34,000 ppb respectively.

### GEOLOGY MAR-LOR CLAIMS

Only a small portion of the outcrop on the Mar and Lor claims has been geologically mapped. The Parson Bay Formation and the Bonanza Volcanics are

present.

The Parson Bay Formation consists of recessive, soft and presumably decalcified shaley siltstone. It is dark grey, thickly bedded and contains minor disseminated pyrite. Some sections near the inlet have been silicified to a cherty rock cut by a stockwork of quartz veinlets forming up to 40% of the rock. Other sections have been altered to a grey-green banded fine-grained silicic skarn with green epidotic bands. Only a few reconnaissance chip samples were collected. Some were enhanced in arsenic, but not in gold.

The Bonanza Volcanics comprise andesitic flows and tuffs and andesitic dykes and sills similar to those within the Parson Bay Formation. Numerous silicified faults and fracture zones and quartz vein stockworks cut the volcanics.

Systematic rock chip sampling and soil gridding are required to make an initial assessment of the claim block.

#### DISCUSSION

The Electrum property lies within a belt of complexly faulted rock which is structurally well prepared to host fracture controlled mineral deposits. Quartz porphyry and quartz diorite plutons of possible Tertiary Age, similar to the Zeballos stock, intrude the disrupted volcanic and sedimentary strata.

Epithermal hydrothermal activity controlled by faulting is evidenced by a linear trend of pyrophyllite occurrences extending from Easy Inlet to the centre of the SIN claim group. Regional stream sediment geochemistry reveals that precious metal mineralization is widespread within this structurally complex belt.

Prospecting and geological mapping of the geochemically responsive areas of the SIN claim group has confirmed the presence of potentially economic gold and silver mineral occurrences. Of the four mineralized areas discovered to date, all but one of which returned multi-gram reconnaissance gold assays, the B Zone Electrum, Extension and Main Veins offer the greatest mine making potential.

The Electrum Vein, with its bonanza grades, is of obvious and immediate interest and, after trenching and stripping to determine its structural orientation, warrants aggressive drill testing.

With their similar apparent trends and occurrence between a basalt-limestone contact, it is probable that trenching will reveal that the Electrum and Extension Veins are part of the same vein. If correct, an inferred length of 50 metres is indicated for this rich ore shoot. A systematic trenching program along the trend between the Extension and the Main Veins also offers good potential to expose more precious metal mineralization. The outstanding gold and silver soil geochemical anomaly, which extends westward from the Electrum Vein, has not been closed off. An extension of the detailed soil grid, followed by prospecting, chip sampling of all outcrops and trenching are required to investigate the source of the high precious metal concentrations.

The successful application of detailed soil sampling, followed by detailed prospecting and systematic rock chip sampling in the vicinity of the Electrum and Extension Veins, promotes the recommendation that similar procedures be extended over the remainder of the B Zone anomaly and to the A, C and D Zones.

In addition to volcanic hosted vein and stockwork deposits, the Quatsino argillaceous limestone and the overlying calcareous shale of the Parsons Bay Formation, in this structurally well-prepared and hydrothermally active area, have good potential to host Carlin-type disseminated gold deposits.

## RECOMMENDATIONS

A three-phase, success-contingent exploration program is recommended.

### Phase I

1. **B Zone: Soil sampling, rock chip sampling and trenching.**
  - a) Extend the soil grid to close off the outstanding gold-silver anomaly utilizing a 25 x 50 m sample spacing.

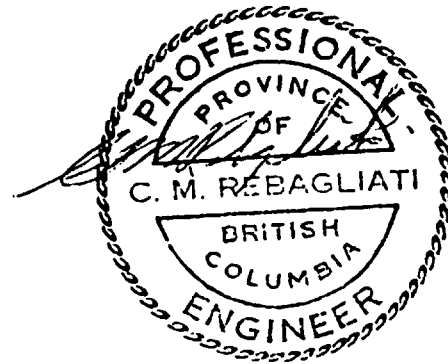
- b) Prospect and systematically rock chip sample all of the quartz vein stockwork zones within the large soil anomaly.
  - c) Trench and strip the Electrum and Extension Vein area to determine their attitude, surface extent and grade.
  - d) Trench the projected trace of the basalt-limestone contact between the Extension and Main Veins; the hanging and footwall contacts of the Main Vein; and the vein located 50 m downslope from the Main Vein.
2. **A, C and D Zones: Soil sampling, rock chip sampling.**
- a) Blanket the three zones with detailed 25 x 50 m soil grids.
  - b) Prospect and systematically rock chip sample all veins, quartz stockworks and outcrops within the soil anomalies.
3. **Mar-Lor Claim Block: Prospecting and rock chip sampling.**
- a) Prospect for and systematically rock chip sample all quartz veins, quartz vein stockworks and zones of silicification.

## Phase II

1. **B Zone: Electrum, Extension and Main Veins: Diamond drilling.**
- a) Diamond drill on a tight grid pattern, utilizing NQ equipment, to trace and to determine the grade and tonnage of the Electrum and Extension Veins.
  - b) Diamond drill mineralized zones identified by Phase I trenching.
2. **A, B, C and D Zones: Trenching and diamond drilling.**
- a) Trench or diamond drill, as appropriate, the mineralization indicated by Phase I prospecting, soil and rock chip sampling.

Phase III

1. **B Zones: Diamond drilling.**
  - a) Continue definition drilling on the Electrum, Extension and Main Veins.
  
2. **A, B, C and D Zones: Diamond drilling.**
  - a) Continue to trace mineralization identified by Phase II trenching and drilling of geochemical anomalies.



**PROPOSED BUDGET**

**Phase I: Soil sampling, rock chip sampling and trenching.**

Salaries	\$16,000	
Barge Rental	3,500	
Accommodation and Travel	6,500	
Communication and Freight	1,500	
Equipment Purchase	3,000	
Vehicle Expenses	3,500	
Geochemical Analyses and Assays	14,750	
Drafting, Reproduction and Maps	3,250	
Bulldozer - Road Repair 30 hrs @ \$150	4,500	
Backhoe Trenching 150 hrs @ \$100	15,000	
Report Preparation	<u>3,500</u>	
<b>Subtotal</b>		<b>\$ 75,000</b>

**Phase II: Trenching and diamond drilling.**

Salaries	\$14,000	
Barge Rental	3,500	
Accommodation and Travel	5,500	
Communications and Freight	1,500	
Equipment Purchase	2,000	
Vehicle Expense	3,500	
Geochemical Analyses and Assays	12,000	
Drafting, Reproduction and Maps	3,000	
Trenching	10,000	
Diamond Drilling 900 m @ 157.22/m	141,500	
Report Preparation	<u>3,500</u>	
<b>Subtotal</b>		<b>200,000</b>

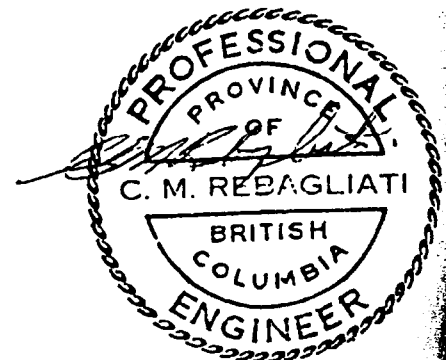
**Phase III: Diamond drilling.**

Diamond drilling all inclusive		
1,500 m @ \$200/m		<u>300,000</u>
<b>TOTAL</b>		<b><u>\$ 575,000</u></b>

## CERTIFICATE OF QUALIFICATIONS

I, Clarence Mark Rebagliati, of 3536 West 15th Avenue, Vancouver, B.C., hereby certify that:

1. I am a consulting geological engineer with offices at 3536 West 15th Avenue, Vancouver, B.C.
2. I am a graduate of the Provincial Institute of Mining, Haileybury, Ontario (Mining Technology, 1966).
3. I am a graduate of the Michigan Technological University, Houghton, Michigan U.S.A. (B.Sc., Geological Engineering, 1969).
4. I have practiced my profession continuously since graduation.
5. I am a member in good standing of the Association of Professional Engineers of British Columbia.
6. The foregoing report is based on:
  - a) A study of all available company and government reports; and
  - b) My personal knowledge of the general area resulting from regional studies and compilations and property examinations carried out during the period April 24, 1984 to February 23, 1986.
7. I have no interest nor do I expect to receive any interest in the securities or properties of Taywin Resources Ltd.
8. I consent to the inclusion of this report in a prospectus or statement of material facts.



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