UIAN PRUPERIT JOINT VENTURED - Andrew F. " Milligan. chairman, ports that

Cornucopia Resources has entered into a joint venture with Centurion Mines Corporation of Salt take City, Utah for the exploration and development of near surface oxidized precious metal deposits in the West Tintic mining district of central Utah, about 80 miles SW of Salt Lake City. Cornucopia can earn 50% interest by enending US\$250,000 within the next year and issuing 50,000 treamer aboves and an additional 10% interest by spending a further 45\$250,000 on the properties and buying US\$250,000 of Centurion treasury stock and issuing another 50,000 shares. Proceeds from the sale of Centurion shares will be contributed to the joint venture.

Cornucopia will manage the project. The joint venture is now compiling old data and conducting geophysical surveys. Disseminated gold mineralization has been identified around the Scotis mine, the largest of the 28 mines that operated in the area until 1920.

BLACK SMAN GOLD MINES LTD\_(BSN-V, Australia)

	EL PARA	ISO RES	MRCES_LID	(EPR-V)
HOLE	INTERCEPT	LENGTH	OZ_GOLD/I	BROVINIA RESULTS
1	98-134 ft	36 ft	0.41	Arthur T. Fisher,
includes	105-108.3	3.3	4.35	president, reports
	202-230	28	.01 '	that Black Swan,
2	5- 16	11	.01 '	15%, and El Paraiso.
	33- 49	10		35%, have finished
		*****		detailed resampling

and assaying on the Brovinia property, Queensland, Australia, where 9 holes were drilled about 80 feet apart to test 3 zones. The results are for the May Queen workings and revisethose reported in GCNL28 p.1,10Feb88. The other 7 holes returned low values. A drilling contract has been let for a follow-up program of percussion and diamond drilling to be completed in April 1988.

COLDTECK MINES LTD. (GKT-V)

ZONE	OZ.GOLD/T	MIDTH	' W.R. Bergey, president
Wood Lal	0.09		of Goldtech Mines,
"C"	.62	1.7	reported results from
"C"	.11	3.3	three holes on the
			- Stairs property, in
atachewar			
ngs". Si	rface drill	ing to	test the Pope vein below
haft is i	n progress	with 2	rias.
	Nood Lab "C" "C" atachewan No.34 p. The un dematered ng and se levels, of the o ngs". Se	Mood Lake 0.09 "C" .62 "C" .11  atachewan area of Or No.34 p.2.18Feb88. The underground dewatered and rehab ng and sampling were levels, but Mr. Be of the ore was mine ngs". Surface drill	Mood Lake 0.09 3.3 ft "C" .62 1.7 "C" .11 3.3

PICHEER METALS CORPORATION(PSM-V.T) SILBAK PRENIER MINES LTD. (SBP.A-V)

DIRECTORS RECOMMEND ANALGAMATION - The directors of both Pioneer Metals and

Silbak Premier Mines are recommending the amalgamation of Pioneer and Silbek under the name Pioneer Metals Corporation. Based on an evaluation of assets by Kilborn Engineering and a fairness opinion by Loewen Ondaatje, the ratio recommended for amalgamation is 1 Pioneer share

12 MONTHS 6 MONTHS PERIOD ENDED 31 DECEL 1987 1986 \$30,700,000 Gross Revenue Not reported Net Income Bef.Extra Item 678,699 \$280,406 Per Class A Common Share 94 40 Extraordinary Costs 595,394 .. 83,305 Net Income 280,406 Per Class A Common Share 14 44

In presenting comparative results of CanHest Trustco Limited for the year 1987 and the 6 months ended 31Dec86, president Christopher J. Cann notes that the extraordinary costs were incurred in reorganization of the company's operations. Assets increased during the year by \$18,000,000 to \$280,000,000 while assets under administra21on were an additional \$336,000,000.

Vancouver-based Caniest Trustco Limited and its Subsidiaries, CanWest Trust Company and Bancorp Mortgage Limited, are members of The CanWest Capital Group Inc. DATEL INDUSTRIES INC. (DTL-V.T)

MINE MONTHS ENDED 31 JANUARY	1988	1987
Revenue	\$8,102,045	\$5,371,797
Net Loss	694,645	992,505
Loss Per Share	19≴	314
Shares Outstanding	3,731,627	3,176,072

MEENSTRIKE GOLD CORP. (GGK-Alberta) PAN EAST RESURCES INC. (PAT-Alberta)

SOME RICH GOLD CUT - Excellent results have been IN NOVA SCOTIA recorded from an ongoing diamond

drilling program at Pan East Resource Inc.'s Fifteen Hile Stream property in Nove Scotia. Two new gold-bearing zones have been discovered. Gunnar Gold Inc. is midway through a 5-drill, 30,000-foot exploration program. This is part of a \$5,000,000 agreement with Petromet Resources Limited whereby Gunnar can earn 25% interest in the property. Gunnar can contribute up to 75% of further expenditures to production to earn a total of 37-1/2% interest, Petromet would have 12-1/2% and Pan East retains 50% in the property. Greenstrike Gold Corp. (a 50%-owned subsidiary of Petromet) previously earned an interest in the property which will be exchanged for about 1,500,000 shares of Pan East, being 27% of the issued common shares.

Assay results are PRINTED OVERLEAF. They include 8.27 feet grading 1.475 oz.gold per ton and 7.78 feet of 1.387 oz.gold/t in Hole F5-87-42 in the Egerton Mclean zone.

H.O. MINERALS LTD. (HQ-V)

ASSAYS AMAITED FROM HOLES - On the Aladdin property of DRILLED ON LASQUETI ISLAND H.Q. Minerals Ltd. on

Lasqueti Island,

Phase II diamond drilling was recently c. ,leted under the supervision of MPH Consulting Limited.

A total of 1,401 feet of BQ wireline diamond drilling was completed in 6 holes drilled from 3 set-ups near the St. Joseph adits where surface grab sampling yielded assay results up to 1.066 oz. gold/ton with 5.48% copper. Massive magnetite and chalcopyrite over widths up to 4.3 feet were encountered. Assays are awaited.

\* NO.58(MARCH 23, 1988) \* GEORGE CROSS NEWS LETTER LTD. \* FORTY-FIRST YEAR OF PUBLICATION \*

4.TE.

GERLE GOLD LTD. (GGL-V)

GOLD INVENTORY IN - Reserves, drill indicated and ARIZONA ESTIMATED inferred of 400,000 tons grading 0.06 oz.gold/t available to a stripping

ratio of 2 tons of waste to each one ton of ore have been reported from the Gold Dome claims, Frisco property in Mojave county, Arizona. The property is joint ventured with MAHOGANY MINERALS RESOURCES INC. (MOY-V). The reserves are within an area 650 feet long by 200 feet wide which is open to extension along a further 500 feet of strike length. The last hole drilled in the zone returned 65 feet assaying 0.078 oz.gold/t. A drill program is planned in preparation for a feasibility study.

Previous heap-leach operations at the property treated 60,000 tons grading 0.058 oz.gold/t with recoveries of 60% and 70%. As a result of this operation, extrasive infrastructure exists at the site. This includes access roads; pit benches partly stripped of waste; leach pads; a large level area prepared for additional pads and equipment; pregnant, barren and over-flow ponds; two water wells and a 150,000-gallon steel tank. The operation remains fully permitted and ready for production.

Gerle holds an option to acquire all of the joint venture option to acquire a 100% interest in the Permit. subject to royalties and to any subsequent mineral leases. Ray A. Hrkac, president of Gerle, said a recent Arizona State Supreme Court ruling may make mineral leases subject to an open bidding system. Therefore, it is not in the best interest of Gerle to make the results of the exploration available to potential competitors. The ruling is being opposed. The prospecting permit remains valid and the ruling does not affect patented or unpatented mining claims.

Elsewhere, a \$1,210,000 underground exploration program has been recommended for Gerle's 100%-owned McConnell Creek gold property, located 150 miles north of Smithers, B.C. The program will include surface trenching and drilling. Metallurgical tests from both trench and drill hole samples have returned excellent results. reporting up to 98.6% recovery of gold by flotation.

# FTI FOODTECH INTERNATIONAL INC. (FTI-V.New York OTC Pink Sheets)

TIME/TEMPERATURE MONITOR - FTI Foodtech International SOUGHT FOR CHILLED GOODS and a U.S. company intend to develop over the next 3 months

an agreement for a joint venture to manufacture, market and distribute a time/temperature monitor world wide. Such monitors indicate whether or not products shipped by refrigerated or freezer transport, or stored in refrigerators and freezers, have been exposed to temperature changes that may affect them.

Wm. Hullah, FII president, says the U.S. company has developed a relatively inexpensive disposable monitor that appears to offer the most accurate single temperature abuse reading of any such type on the market. He states that the market for time/temperature monitors is huge. Temperature sensitive products include frozen and refrigerated foods, vaccines and serums, chemicals, photographic supplies, cut flowers, pharmaceuticals, radiological supplies, fresh fruits and products, etc.

W C MINE			.,
DORNOCH INTER	RALS LTD.		
ZONE Lower St. Joseph Adits	HOLE AL88-2	INTERVAL 14.5 Feet	07.GOLD/I
	Includes	1.4	0.034
		0.5	0.106
		3.6	0.025
	AL88-3	12.4	0.015
	Includes	0.7	0.174
1 P Anomaly	AL88-4	0.3	0.129
		4.4	
Upper St. Joseph Adits	AL88-6	5.94	0.011
ENCOURAGING GOLD VALUES	-In the Ala	addin gold i	project on
CUT ON LASQUETI ISLAND		Island some	

WNW of Vancouver, H.Q. Minerals

GEORGE CROSS NEWS LETTER LTD. \* FORTY-FIRST YEAR OF PUBLICATION \* Ltd. and Do noch International Ltd., each with 50% NO.68(APRIL 8, 1988)

property ownership, have completed the Phase II drilling program, being 1,401 feet of diamond core drilling in 6 holes from 3 set-ups using BQ wireline equipment.

Holes AL88-1,2 and 3 were to test the structure hosting the mineralization in the Lower St. Joseph adits and any parallel structures which may be present. Hole AL88-1 entered the main St. Joseph tunnel at a depth of 130 feet. This was not anticipated as the tunnel is not indicated there on the Lasco mine plan. Hole AL88-2 intersected 3 zones of significant mineralization. One is the St. Joseph zone which is characterized by a 1.3foot seam of massive magnetite (80%), chalcopyrite (2%) and pyrite (2%) central to the 11.5-foot shear zone. The second mineralized shear zone includes a quartz vein that yielded values in silver, 0.983 oz/ton and in copper, 1.6%, as well as in gold, see table. The third mineralfied zone is character zed by 5% magnetite. 2% chalcopyrite and 1% pyrite in 1 mm stringers. A 4-inch quartz vein occurs at the bottom of the intersection. Hole Al 39-3 intersected the St. Joseph zone over a core length of 17.4 feet.

Hole AL88-4 was to test an induced polarization andmaly with coincident anomalous gold soil geochemistry about 245 ft. east of the St. Joseph zone. Massive pyrite (80%) and chalcopyrite (5%) were intersected over 4 incher and yielded an assay of 0.129 oz.gold/t.Also, a 4-inch quartz vein with 20% pyrite and 10% chalcopyrite yielded the highest gold assay of the drilling program at 0.408 or./t. Holes AL88-5 and 6 were to test the structure which hosts mineralization in the Upper St. Joseph adits, see table. No massive sulphide intervals similar to those mined in the adits were encountered.

# EUROPEAN ORIGINAL NEW YORK SELTZER LTD. (ENY-V)

DISTRIBUTION RIGHTS TERMINATED - James P. Wohl, chairman of European Original New

York Seltzer reports that Original New York Seltzer U.S. has given notice that it is immediately terminating all rights and options to manufacture and distribute Original New York Seltzer for reasons that European ONYS disputes. The notice requires the immediate shut-down of all operations. While European ONYS had agreed on a restructuring plan with its investment banking firm, the termination by the U.S. company means that all operating companies will be immediately bankrupted. European ONYS will pursue its rights against the U.S. company for breach of the licensing agreement, monies owed to European ONYS and consequential damages for destruction of the business. (See GCNL 66,p.3 for background).

# FAIRFIELD MINERALS LTD. (FFD-V)

YUKON SILVER LEAD ZINC - Fairfield Minerals Ltd. has PROPERTY FARMED OUT granted Chevron Minerals Ltd.

the right to earn 50% interest

in its Tim silver, lead, zinc property located 45 miles west of Watson Lake, Yukon.

Chevron may earn the interest by spending \$1,500,000 on exploration and paying Fairfield \$250,000 before 28Feb92. Chevron may increase its interest in the property to 70% by spending a further \$1,000,000 on exploration and paying Fairfield an additional \$250,000.

Chevron will pay Fairfield an initial option payment of \$50,000 and has approved a 1988 exploration budget of \$300,000.

QUARTZ MOUNTAIN GOLD CORP. (OZM-V. OZMGF-Nasdag)

	The state of the s	
SIX MONTHS ENDED 31 JANUARY	1987	1986
Cash and Equivalents	\$3,696,912	\$844,204
Accounts Receivable	958,006	234
Total Current Assets	4,682,182	878,125
Current Liabilities	99,810	170,564
Working Capital	\$4,582,372	707,561
Exploration & Development Co	sts 1,964,954	1,068,058

FOR THE RECORD

BMP TECHNOLOGIES LTD (BMP-V) has arranged a private placement of 200,000 units at \$1.00 each. Each unit consists of one share and one warrant to buy a further share at \$1.25 for a period of 6 months, subject to regulatory



# PROPERTY FILE

REVISED REPORT ON GEOLOGICAL, GEOCHEMICAL, AND GEOPHYSICAL WORK IN THE AREA OF THE RAVEN AND GOLDEN CLAIMS, LASQUETI ISLAND, B.C.

Nanaimo Mining Division, British Columbia NTS 92F/8W, 92F/9W 49<sup>O</sup>30'N Latitude, 124<sup>O</sup>20'W Longitude for

July 28, 1987
T.G. Hawkins, P.Geol.



#### SUMMARY

The Raven and Golden claims, operated by Imax International Inc., are located on northwestern Lasqueti Island, B.C., and total 25 units. Geological, geochemical, and geophysical exploration work conducted by MPH Consulting Limited for H.Q. Minerals Ltd. on the adjacent Aladdin property in April 1987 included some rock sampling and grid work on the Raven claim. Highly favourable results from the work in this area suggest that further exploration for Au-Ag-Cumineralization is warranted on the Raven and Golden claims.

The regional geology of Lasqueti Island is dominated by basalt intruded by Jurassic biotite-hornblende quartz diorite, which crops out between False Bay and Barnes Cove on the west end of Lasqueti Island, trending north-northeast parallel to regional structure. A narrow "roof pendant" of Karmutsen Formation basalt crops out for approximately 2 km south-southeast from the mouth of Barnes Cove.

The principal showings are referred to as the Helen K adits, the Ohm adit, the Venus adits, the St. Joseph adits, the Upper St. Joseph adits, and the Hill 60 Zone. The Ohm adit and Hill 60 zone are located within the Raven claim. Mining took place in the early 1900's out of the Venus and St. Joseph adits primarily for their copper content. All of these showings comprise narrow shear zones hosting seams of massive pyrite, chalcopyrite, magnetite, and pyrrhotite. The shear zones are vertical, strike from  $010^{\circ}$  to  $040^{\circ}$ , and are hosted by basalt and quartz diorite. Assays returned from these showings are up to 36.55 g/t (1.066 oz/ton) Au, 127.5 g/t (37.2 oz/ton) Ag, and 13.56% Cu; with highest values from the Raven claim of 8.50 g/t (0.248 oz/ton) Au (sample 18090).

Grid A was established over the mineral leases and part of the Raven claim on the northern side of the island during Phase I exploration of the Aladdin property. A soil geochemical survey over this grid outlined significant Au and Cu anomalies with local Ag and As highs. Trends are observed parallel to the Venus and St. Joseph zones, as well as striking toward the Ohm showing on the Raven claim. A magnetometer survey over Grid A delineated the contact zone of basalt and quartz diorite; however, because of the high magnetic character of the host rock, it failed to define clearly massive magnetite observed within narrow shear zones. A VLF-EM survey over Grid A helped to define the mineralized shear zones seen on surface, and revealed the presence of a strong conductor striking southwest from the head of Barnes Cove, possibly extending onto the Raven claim.

Exploration work done to date on the property is limited yet extremely encouraging for the development of Au-Ag-Cu-bearing shear zones.

Phase I geological, geochemical, and geophysical (magnetometer and VLF-EM surveys) exploration is recommended for the Raven and Golden claims at an estimated cost of \$50,000.



#### 1.0 INTRODUCTION

The purpose of this report is to demonstrate the mineral exploration potential of the Raven and Golden claims on Lasqueti Island, B.C.

This report is written at the request of Imax International Inc. with the permission of H.Q. Minerals Ltd. for the use of information collected in March and April, 1987 by MPH Consulting Limited during a field program on the adjacent property. The H.Q. Minerals Ltd. property comprises the Aladdin, Harold 1 and Harold 2 claims, as well as Lots 50, 51, 52, and 81 (Figure 1; Gunning and Hawkins, 1987).

Because of the proximity of the Raven and Golden claims to the area reported on in Gunning and Hawkins (1987), the geological information in that report is considered to be pertinent to an assessment of the Raven and Golden claims. Some of the fieldwork was actually done on parts of the Raven claim, in order to assess the potential of old showings on and near the property, and thus these data are directly applicable to the Raven property.

Geological exporation conducted by MPH Consulting Limited on the Aladdin property consisted of regional geological mapping and sampling (at a scale of 1:10,000) and more detailed work in the area of the mineral leases located adjacent to the northern part of the Raven claim (at a scale of 1:2500, Figure 5).

Rock and stream sediment samples were analyzed for Au by AA and 30 elements by ICP; 35 rock samples were taken on the Raven claim.

Grid A, located on the mineral leases and extending onto the Raven claim, was established to cover the mineralized shear zones exposed at surface in many showings on the mineral leases. The grid comprises 10.1 line km on 14 lines perpendicular to a 1.0 km baseline trending 035°. Soil sampling, magnetometer, and VLF-EM surveys were done over Grid A; data are plotted at 1:2500 in Gunning and Hawkins (1987).

#### 2.0 PROPERTY LOCATION, ACCESS AND TITLE

The Raven and Golden claims are located on northwestern Lasqueti Island between False Bay, Scottie Bay, and Barnes Cove. They are centred at approximately 49°30'N latitude, 124°20'W longitude, in the Nanaimo Mining Division, B.C. on map sheets 92F/8W and 92F/9W (Figure 1).

Access to Lasqueti Island is via ferry from French Creek located between Qualicum Beach and Parksville on Vancouver Island. The main road on Lasqueti Island is gravel. Logging roads provide good access throughout the property.

The Raven and Golden claims are owned by Hans E. Madeisky and operated by Imax International Inc. Claim information is summarized below:

Mineral				Year
Claim	Record No.	Units	Anniversary Date	Registered
Raven	2317(4)	20	April 7, 1988	1986
Golden	2318(4)	5	April 7, 1988	1986



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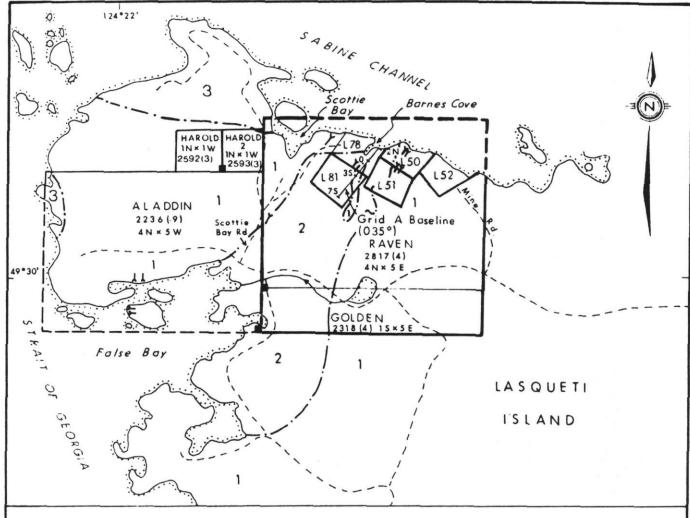
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Aladdin Group = Aladdin claim, Harold claim, Harold 2 claim

Mineral Lease 17 = Lot 81 Mineral Lease 20 = Lots 50,51,52

# LEGEND

#### cithologic Units \*

- Upper Cretaceous Nanaimo Group; conglomerates, 3 sandstones, shales, and limestones.
- Lower Jurassic Island Intrusions; medium 2 grained, biotite-hornblende quartz diorite.
- Upper Triassic Karmutsen Formation; 1 amygdaloidal and agglomeratic basalt.
  - \* Muller, 1977, 1980 (a,b)

#### Symbols

Road

River

Geologic contact

LCP (as located in field)

Adit

Property boundary

Ref. N.T.S. 92 F/8, 92 F/9 Gunning and Hawkins 1987.



# IMAX INTERNATIONAL INC.

COMPILATION MAP: CLAIM, GRID, GEOLOGY LASQUETI ISLAND PROJECT NANAIMO MINING DIVISION

M.G. Project No: V 256 By: Dete 1987



**MPH Consulting Limited** 



The following claims are operated by H.Q. Minerals Ltd.:

Mineral				Year
Claim	Record No.	Units	Anniversary Date	Registered
Aladdin	2236 (9)	20	Sept. 20, 1988	1985
Harold	2592(3)	1	March 23, 1989	1987
Harold 2	2593 (3)	1	March 23, 1989	1987

Mineral	Lease	Lot	Area	Anniversary	Year
Claim	Number	Number	(Hectares)	Date	Recorded
St. Joseph	ML 20	50 )		Dec. 8, 1987	1966
St. Anthony	ML20	51 )	42.75	Dec. 8, 1987	1966
Ajax	ML 20	52 )		Dec. 8, 1987	1966
Venus	ML17	81	19.84	Apr. 5. 1988	1966

#### 3.0 PROPERTY HISTORY

The area covered by the Raven and Golden claims and adjacent Aladdin property has been the site of considerable mining work throughout the 1900's, concentrating on massive sulphide mineralization in narrow Au, Ag, Cu and Febearing shear zones hosted by Karmutsen Formation basalt, and closely related to a quartz diorite intrusion. The regional economic setting is very similar to Au, Ag, and Cu deposits found on Texada Island (Figures 2, 3).

The first geological mapping and recognition of the economic potential of Lasqueti Island was done by G.M. Dawson (1886). In 1921, J.D. MacKenzie compiled the most comprehensive geologic map of Lasqueti Island including the areas covering the crown grants around Barnes Cove. Major mining activity began prior to 1908 at the Lower St. Joseph adits with one main adit 35.4 m long and a vertical shaft dropped 30.5 m from an area above the shoreline in order to intersect the mineralized "crushed zone" that the main adit was following. The adit followed seams (20 to 41 cm) of massive pyrite, chalcopyrite, and magnetite. MacKenzie (1921) reports that ore from the showing typically grades 28.1 g/t (0.82 oz/ton) Au, 75.3 g/t (2.2 oz/ton) Ag, and 11.4% Cu, although the amount of ore shipped is not given.

According to local residents on Lasqueti Island, two barge loads of ore, the second rich in gold, were shipped from the Lower St. Joseph adit to Tacoma in 1955 after one summer of mining activity. The Upper St. Joseph adits have also been mined but no documentation is available.

In 1920, two tunnels, the upper 12.2 m, and the lower 42.7 m long, were driven and mined at the Venus showing. Up until December 1921, a total of 177.8 tonnes of ore was shipped from this site to a smelter in Tacoma. Grades averaged 21.6 g/t (0.63 oz/ton) Au, and 112.0 g/t (3.27 oz/ton) Ag, and 12.8% Cu. The ore consisted of massive pyrite, chalcopyrite, and magnetite hosted in vertical seams within a 10 to 60 cm shear zone. The Hill 60 mineralization zone, located within the present Raven claim, was also recognized in the early 1920's as a favourable target, but no ore was taken from the showings.

In 1923, three main occurrences were exploited in the False Bay area: the Aladdin showing, the Old Bill showing, and the Helen K showing, comprising a

**MPH Consulting Limited** 

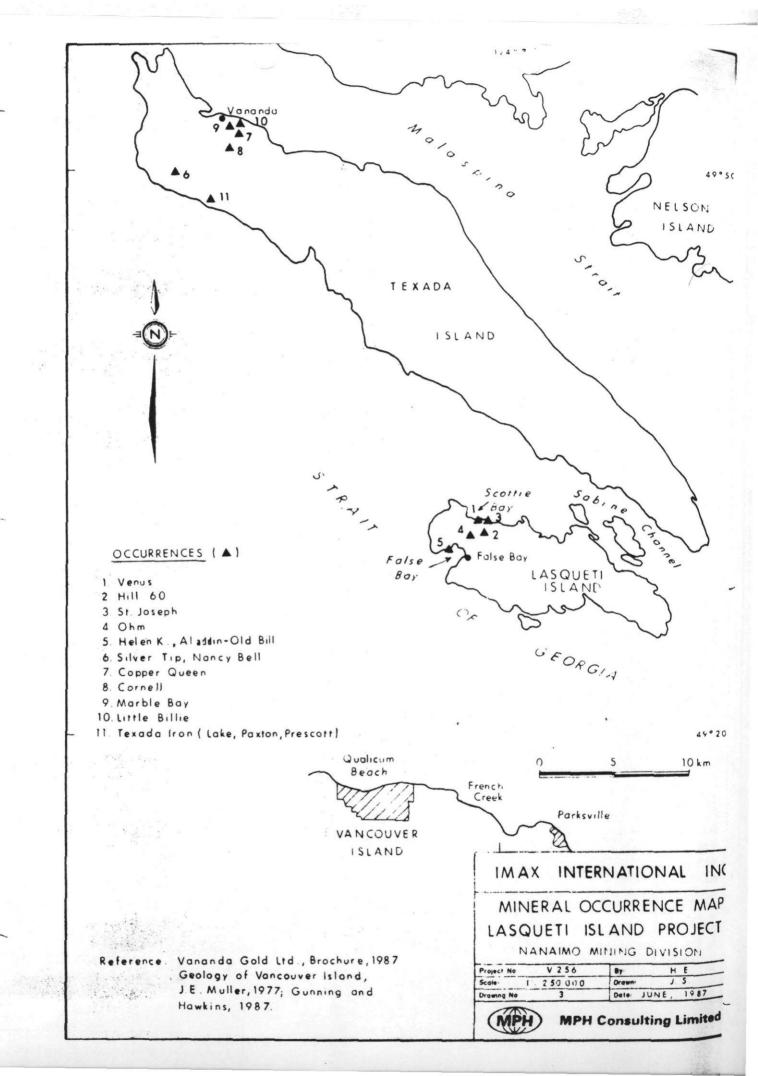
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single adit 9 m long. The Aladdin and Old Bill showings are related to a vertical, east-west striking shear zone hosting mineralized quartz veins. The Helen K showing is related to a 5 to 20 cm wide shear zone (070°/30°NE). Although no ore is reported to have been taken from these areas, a report to the Minister of Mines (1923) suggests that the Helen K showing is the most promising mineral claim, especially considering the reported 275 m continuity of the mineralized area.

In 1926, several pits and trenches were dug on the Morare, Ohm, and Kim mineral leases, and the main Ohm adit was driven for about 25 m along strike of a narrow shear zone hosting mineralized quartz veins. Although no tonnage was removed, a sample from the mineralized zone averaged 6.9 g/t (0.2 oz/ton) Au, 41.1 g/t (1.2 oz/ton) Ag, and 19.6% Cu. The Ohm adit is located within the present Raven claim (Figures 3, 4, 5).

Surface prospecting continued on Lasqueti Island in 1928, and in 1929, rejuvenated interest in the Venus zone saw extension of the main tunnel for another 43 m. Ore was hosted in a 20 cm wide seam of massive pyrite and chalcopyrite averaging 17.1 g/t (0.5 oz/ton) Au and 14.5% Cu (Minister of Mines, 1928). Prospecting work on Lasqueti Island continued sporadically until 1945.

Numerous modern assessment programs have been conducted on Lasqueti Island, commencing in 1967. Work from that time on concentrated on the crown grant areas around the Venus, St. Joseph, and Hill 60 zones.

Sweepstakes Mines Ltd. conducted VLF-EM and magnetometer surveys in 1968 and a major IP survey in 1969. Various targets were defined, but no follow-up work was done.

In 1971, Anchor Mines Limited conducted a major exploration program over the crown grants (Sherwin Group) involving geophysical surveys and diamond drilling of two main targets defined by surface showings and geophysics: the St. Joseph zone 100 m south of the lower adit, and the Hill 60 zone. Significant Intersections from the St. Joseph site included 4 m of 4.1 g/t (0.12 oz/ton) Au and 1.07% Cu containing a 1.2 m section of 11.0 g/t (0.32 oz/ton) Au and 4.23% Cu.

Grassroots surface exploration programs were conducted over the Barnes Cove area in 1981 and 1983 by H.E. Madeisky and D.G. Leighton, respectively. No follow-up work to these programs was initiated.

Geological, geochemical, and geophysical surveys (including magnetometer and VLF-EM) were conducted by MPH Consulting Limited for H.Q. Minerals Ltd. in 1987 (Gunning and Hawkins, 1987).

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#### 4.0 REGIONAL GEOLOGY

The Lasqueti Island and Texada Island area is underlain mainly by Middle to Upper Triassic Vancouver Group limestone and mafic volcanic rocks of the Quatsino and Karmutsen Formations, intruded during the Lower Jurassic by granodiorite and diorite of the Island Intrusions. All are overlain by Upper Cretaceous Nanaimo Group sedimentary rocks (Muller, 1977). Paleozoic Sicker Group rocks occur only on southeastern Texada Island (Figure 2).

Karmutsen Formation volcanic rocks unconformably overlie Sicker Group limestone to form the base of the Vancouver Group. The Karmutsen Formation consists mainly of tholeiitic pillow basalt, massive basalt, flows, and pillow breccia. Pillow lavas generally occur toward the base of the section.



Upper Triassic sedimentary rocks (mainly limestone) of the Quatsino Formation are found on the northwestern part of Texada Island. Associated with the limestone are several significant Au-Ag-Cu skarn deposits.

Exposures of Island Intrusions consisting mainly of quartz diorite and lesser biotite-hornblende granodiorite occur throughout the area and are assigned an age of Middle to Upper Jurassic (Muller, 1977). Contacts with Karmutsen Formation volcanic rocks are sharp and well-defined. Skarn zones are reported at the contact of Island Intrusion rocks with Quatsino Formation limestone and less abundantly with Sicker Group limestone. Metalliferous deposits associated with these zones are common on both Texada and Lasqueti Island.

Cretaceous Nanaimo Group nearshore conglomerate, shale, and sandstone are minor and economically insignificant on Lasqueti Island.

Vancouver Group rocks are not as intensely folded as Sicker Group rocks; Karmutsen basalt on Lasqueti Island is apparently nearly flat-lying, and relatively undeformed.

Early Mesozoic faulting occurred in the Vancouver Island area prior to the emplacement of the Island Intrusions during the Jurassic. This event may have occurred during the outflow of Karmutsen lavas during the Late Triassic (Muller, 1977), and formed the main northwest-southeast trending fault structures which have imparted the main structural grain on Vancouver Island, Texada Island, and Lasqueti Island.

Extensive northeast-trending faulting also occurred in the Late Mesozoic and Tertiary. Rocks as young as Upper Cretaceous Nanaimo Group show offsets related to these major deformational events.

# 5.0 LOCAL GROLOGY

#### 5.1 Geology and Mineralization

The geology of the area around the Raven and Golden claims comprises three mappable lithologic units (Figures 1, 2, 5). Unit 1 is correlative with the Upper Triassic Karmutsen Formation of the Vancouver Group. This unit is characterized by medium to dark grey-green, amygdaloidal and agglomeratic basalt. Bedding or flow layering is rarely seen in the basalt, striking northwest and dipping gently northeast.

Unit 2, composed of biotite-hornblende quartz diorite, is exposed in a northeast-striking belt 3 km wide between Barnes Cove and False Bay. The intrusion is medium to light grey, generally fresh and unaltered, medium-grained and equigranular with approximately 10% mafic minerals (hornblende greater than biotite) and 20-30% quartz. Fine-grained, disseminated magnetite is common. The quartz diorite is compositionally heterogeneous. MacKenzie (1921) comments that the quartz diorite in the Barnes Cove area is generally more mafic than in the False Bay area.

The quartz diorite intrudes the basalt. Younger aplitic dykes, commonly exposed in the area, intrude both quartz diorite and basalt. A small roof pendant of hornfelsed basalt occurs as a narrow tongue striking southwest from the Barnes Cove area.



Unit 3 crops out on the northwest end of Lasqueti Island (Figures 1, 2). It is composed of Upper Cretaceous Nanaimo Group coarse conglomerate to sandstone, siltstone, shale and minor fragmental limestone, unconformably overlying Karmutsen Formation basalt.

The structure on Lasqueti Island is evident as distinctive, narrow, vertical shear zones or "crushed" zones (Dawson, 1886; MacKenzie, 1921). These zones are generally less than 2 m wide, strike from 010° to 040°, and often host seams of massive sulphide mineralization. The shear zones commonly occur along the contact of the quartz diorite and basalt and are hosted by both rock types. Most common on the north side of the island in the Barnes Cove area, the shear zones parallel a major air photo linear possibly representing a major fault, which passes through Barnes Cove and extends southwest onto the Raven claim. Further evaluation of this structure is recommended.

The quartz diorite body is elongated parallel to the regional trend, which suggests a structurally controlled emplacement.

East-west striking, possibly right-lateral faults evident in the Barnes Cove area are responsible for offset of the volcanic roof pendant as well as a possible offset of the St. Joseph mineralization zone. Abundant east-west trending aplitic dykes in the Barnes Cove area may have intruded along related fractures.

Massive sulphide mineralization, common in narrow shear zones hosted by basalt and quartz diorite, has been the target of numerous old workings and mining activities. A summary of results returned from samples taken from these zones is given in Table 1.

Table 1: ROCK GEOCHEMISTRY SUMMARY

	Sample	1	Mu	1	Ng	Cu
Showing	Number	g/t(d	oz/ton)	g/t(	oz/ton)	8
Helen K Adits	18109	18.34	(0.535)	43.2	(1.26)	0.83
	18110	14.54	(0.424)	35.0	(1.02)	0.73
	18111	13.23	(0.386)	121.4	(3.54)	1.32
	18108 .	8.67	(0.253)	130.3	(3.80)	10.44
Old Bill -	18003	4.18	(0.122)	42.5	(1.24)	5.78
Aladdin Adits	18119	5.47	(0.158)	32.2	(0.94)	1.12
	18117	6.41	(0.187)	17.1	(0.50)	0.87
*Ohm Adit	18103	1.92	(0.056)	4.5	(0.13)	0.04
*Gravel Pit	18090	8.50	(0.248)	14.1	(0.41)	0.02
*Pits at L5+00S,	18018	6.07	(0.177)	21.9	(0.64)	0.24
4+50W	18017	0.55	(0.016)	7.9	(0.23)	1.54
*Pit at L2+00S, 4+25W	18091	2.23	(0.065)	2.1	(0.06)	0.02
Venus Adits	18075	20.91	(0.610)	52.1	(1.52)	4.68
	18076	15.50	(0.452)	52.8	(1.54)	0.57
•	18079	26.06	(0.760)	63.8	(1.86)	6.20
St. Joseph Adits	18035	30.93	(0.902)	127.5	(3.72)	13.56
- Shear 30 m east	18094	5.83	(0.174)	15.8	(0.46)	0.19
- Trench 100 m south	18065	36.55	(1.066)	71.3	(2.08)	5.48
Upper St. Joseph	18073	6.72	(0.196)	9.3	(0.27)	0.24
Adits	18067	4.11	(0.120)	67.9	(1.98)	6.64



Detailed descriptions of the geology, mineralization, and former production of these occurrences can be found in Gunning and Hawkins (1987).

On the map of detailed geology and rock sample locations (Figure 5), 35 rock samples are shown to have been collected on the Raven claim. Of these 35 samples, 28 are anomalous (over 50 ppb) in Au, including 12 with over 500 ppb Au, of which 9 have over 1000 ppb Au. Assays of the best samples are shown above (Table 1).

# 5.2 Soil Geochemistry

Sampling of the B-Horizon soil was conducted on Grid A (Figures 4, 5) (Gunning and Hawkins, 1987). A total of 413 B-Horizon soil samples was taken on Grid A and analysed for Au by AA and 30 elements by ICP.

A statistical analysis of the Au, Cu, and As values was done to determine threshold concentrations. The thresholds for Au, Ag, Cu and As are 10 ppb, 0.2 ppm, 100 ppm, and 10 ppm respectively. Values range up to 9700 ppb Au, 27.3 ppm Ag, 8742 ppm Cu, and 977 ppm As.

Areas of elevated Au concentrations in soil form linear trends parallel to the regional structure in the area (Figure 4). The most pronounced zone of anomalous Au trends 600 m southwest from the mouth of the Barnes Cove to Line 6+00S. Gold concentrations along this zone are up to 820 ppb. This trend may indicate sulphide mineralization along the western margin of the basalt roof pendant. This zone may also correlate with the mineralization exposed in the Venus adits.

Discontinuous zones are found along the western edge of the grid on Lines ON, 2S, 4S and 5S, associated with old workings along the western margin of the quartz diorite, located on the Raven claim.

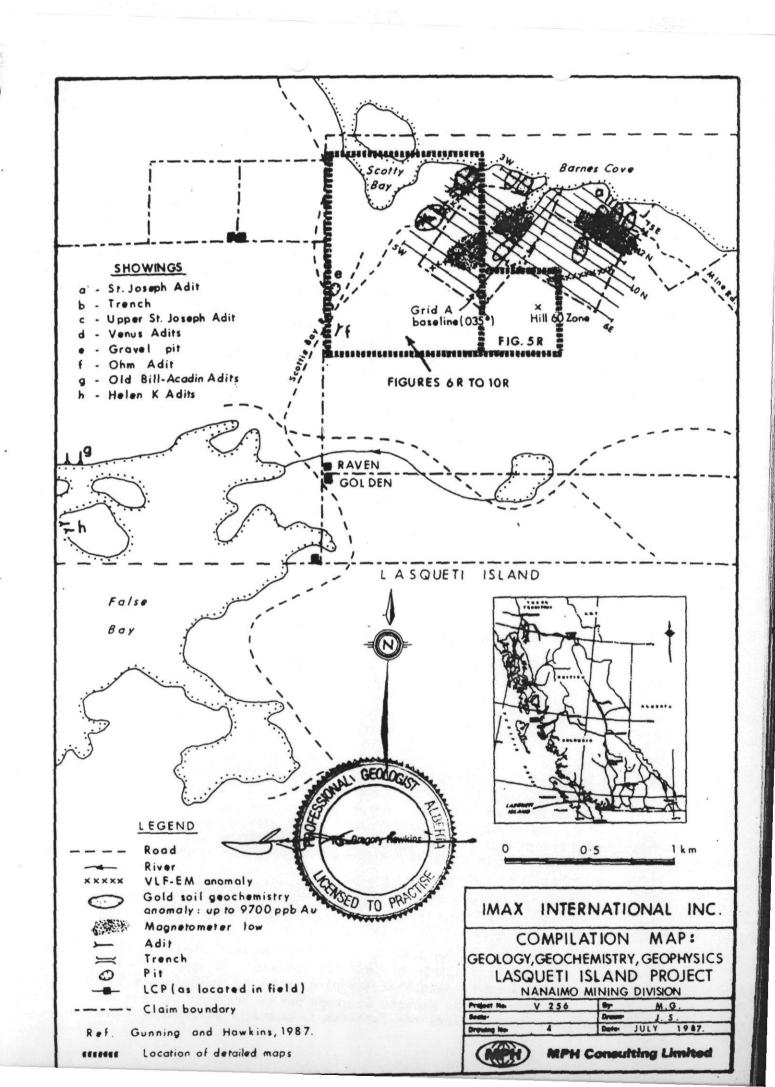
Another zone of anomalous Au concentrations (up to 1460 ppb) occurs west of Barnes Cove on Line 0+50N; the anomaly trends northeast parallel to regional structure and may indicate a localized, Au-bearing shear zone.

Two highly anomalous belts are defined in the area of the St. Joseph zone: one directly overlying the trench area with values up to 9700 ppb Au, and a second 150 m to the east with values up to 600 ppb Au. Both zones form linear trends parallel to the regional structure. A zone of modestly elevated Au values occurs south of the Upper St. Joseph adits; it is likely associated with the St. Joseph zone. There is a distinct 'break' in this northeast trending zone just north of the Upper St. Joseph adits, which may indicate an east—west fault.

Anomalous silver concentrations in soils on Grid A are spotty and subdued relative to gold, but correlate well with gold. Areas of increased Cu and As concentrations correlate very well with Au and Ag highs. In addition, a distinctive east-west trending zone of up to 1180 ppm Cu occurs along Line 1+50N from 1+75E to 3+00E, an area with an inferred fault. The anomaly may be caused by Cu derived from the St. Joseph zone and mobilized along the fault.

In summary, B-Horizon soil geochemistry has been very useful in outlining mineralized shear zones previously defined by rock geochemistry. In addition, soil sampling has provided indications of other mineralized shear zones not previously disclosed by prospecting, geological mapping, and rock sampling.

Gold geochemical anomalies on the Raven claim appear along a trend striking southwest from an old shoreline adit west of Barnes Cove toward the Ohm adit (Figure 4).



#### 5.3 Geophysics

Magnetometer and VLF-EM surveys were conducted over Grid A by MPH Consulting Limited during Phase I exploration program of the Aladdin property (Gunning and Hawkins 1987).

The magnetometer survey was performed with a station separation of 12.5 m to ensure a resolution of narrow, near-surface sources. The survey was conducted using an EDA PPM 350 proton precession magnetometer. Magnetic data has been corrected to a base level of 56100 nT (gammas) at 0+00N/0+00E.

The magnetic survey disclosed extremely variable patterns of magnetization. Some areas exhibited less than several hundred nT (gammas) relief; others several thousand. The survey area has been divided into three magnetic domains based on magnetic anomaly characteristics.

Domain 1 comprises the northwestern third of Grid A. It is characterized by moderate to very strong local magnetic relief. Individual anomalies vary considerably in orientation and continuity. This domain most likely contains numerous skarn bodies and hornfelsed volcanic rocks with appreciable magnetite and possibly pyrrhotite.

Domain 2 comprises the central portion of Grid A; it exhibits a northeast-southwest trend. The domain is generally characterized by subdued magnetic relief although variations of several hundred nanoteslas (gammas) are common. Domain 2 is partially coincident with a quartz diorite body. Pronounced lows in the western portion of this domain may indicate a major fault structure, which may extend onto the Raven claim.

Domain 3 occupies the southeastern and eastern portions of the survey area. It is characterized by strong localized anomalies.

The VLF-EM survey was conducted on Grid A using a Sabre 27 receiver tuned to receive signals transmitted from Hawaii. Dip angle and horizontal field strength readings were taken at each station. Direction to the transmitter was 230°.

The VLF-EM survey outlined 14 significant conductive zones. These conductors trend north-northeast to northeast and are up to one kilometre long. They have been interpreted in terms of possible bedrock features, although some may be in part attributed to overburden.

The most persistent and prominent VLF-EM conductor outlined on Grid A extends from line 7+00S near 5+00W to line 1+00M near 1+00E where it trends into a small inlet. The conductor most likely continues farther to the southwest and northeast. It is a bedrock feature, possibly a fault, although, as it coincides with a ravine, there may be some contribution from conductive overburden.

In summary, the magnetic survey has outlined a magnetic terrain consistent with skarn and hornfelsed volcanic rock where local concentrations of magnetite and/or pyrrhotite have developed. The VLF-EM survey has outlined persistent conductors related to structural features, as well as discrete conductors related to skarn-sulphide zones.

#### 6.0 CONCLUSIONS

The Raven and Golden claims, located on the northwest portion of Lasqueti Island, are underlain mainly by basaltic rocks of the Upper Triassic Karmutsen Formation. A narrow, northeast-trending body of biotite-hornblende quartz diorite has intruded the basalt; it crops out in the area between False Bay and Barnes Cove. Basalt along the contacts is commonly hornfelsed and magnetic.

12.

The structural grain of the Island is characterized by abundant, narrow shear zones. The shear zones are vertical, strike from 010° to 040°, and commonly occur along the contacts of the basalt and quartz diorite. The timing of movement and mineralization along these structures relative to the emplacement of the intrusion is uncertain. It appears that a number of events related to plutonism and shearing are responsible for the present style of mineralization.

Mineralization along these shear zones is significant; numerous old mining activities have been concentrated on them. Mineralization generally occurs as seams of massive sulphides ranging from 30-50 cm wide that are hosted within one to two metre wide shear zones, separated by zones of barren host rock. Sulphide mineralization is generally fine-grained massive chalcopyrite, pyrite, and magnetite. The main showings are referred to as the Helen K adits, the Old Bill-Aladdin adits, the Ohm adits, the Venus adits, and the St. Joseph zone. The St. Joseph zone consists of several adits and trenches over a length of about 300 m. The Ohm adit and the Hill 60 zone are located on the Raven claim.

All of the showings have proven to be consistently rich in Au, Ag, Cu, and more sporadically in Mo, Co, Ni, and Fe. Gold assays are commonly from 6.9 to 24.0 g/t (0.2 to 0.7 oz/ton), and range up to 36.6 g/t (1.07 oz/ton). The highest value from the Raven claim is 8.50 g/t (0.248 oz/ton) Au (sample 18090). Previous mining activities in the early and mid-1900's mined the zones for their Cu content.

During geological exploration by MPH Consulting Limited in April 1987, Grid A was established over the area of the mineral leases and part of northern Raven claim in order to outline by soil geochemistry the mineralized zones defined by rock geochemistry. B-Horizon soil sampling over the grid defined the known showings with zones of elevated Au, Ag, Cu, and As. In addition, soil sampling also revealed two new anomalous zones previously undisclosed by surface mapping and rock sampling.

Soil geochemistry suggests a close correlation between Au and Cu enrichment which agrees with the rock geochemistry of the mineralized showings. Increased Au concentrations generally occur in seams of massive sulphide mineralization dominated by chalcopyrite.

Magnetometer and VLF-EM surveys were conducted over Grid A and were useful in defining the known areas of mineralization. Zones of massive magnetite mineralization within the main shear zones were not clearly defined due to the highly magnetic basaltic host rock. Conductive shear zones were clearly defined by the VLF-EM survey; the most persistent zone extends in a southwest direction for 700 m from the mouth of Barnes Cove. This anomaly coincides with a strong air-photo linear in that area and may indicate a major fault zone, which probably extends onto the Raven claim.

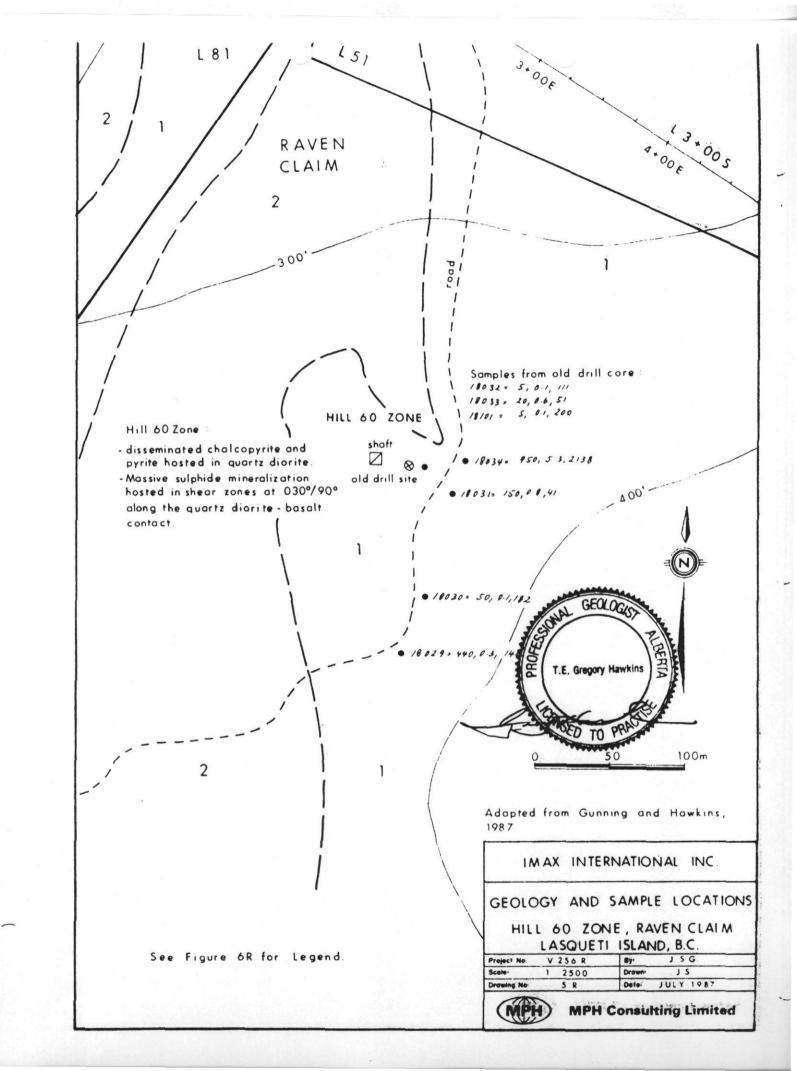
The soil geochemistry, magnetometer, and VLF-EM surveys over Grid A indicate that an east-west trending fault offsetting the St. Joseph zone may be present.

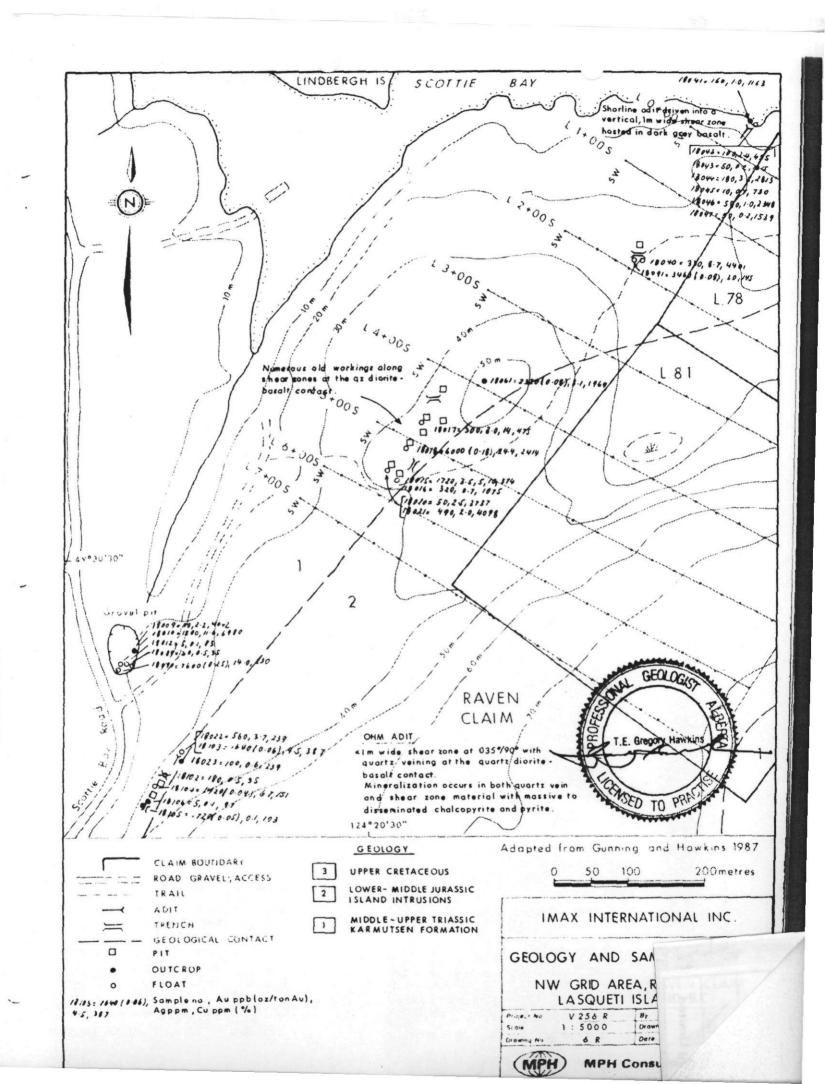
Geological, geochemical, and geophysical exploration work conducted by MPH Consulting Limited for H.Q. Minerals Ltd. on the Aladdin property in March and April 1987 included some rock sampling and grid work on the Raven claim. Highly favourable results from the work in this area suggest that further exploration for Au-Ag-Au mineralization is warranted on the Raven claim, and on the adjacent Golden claim.

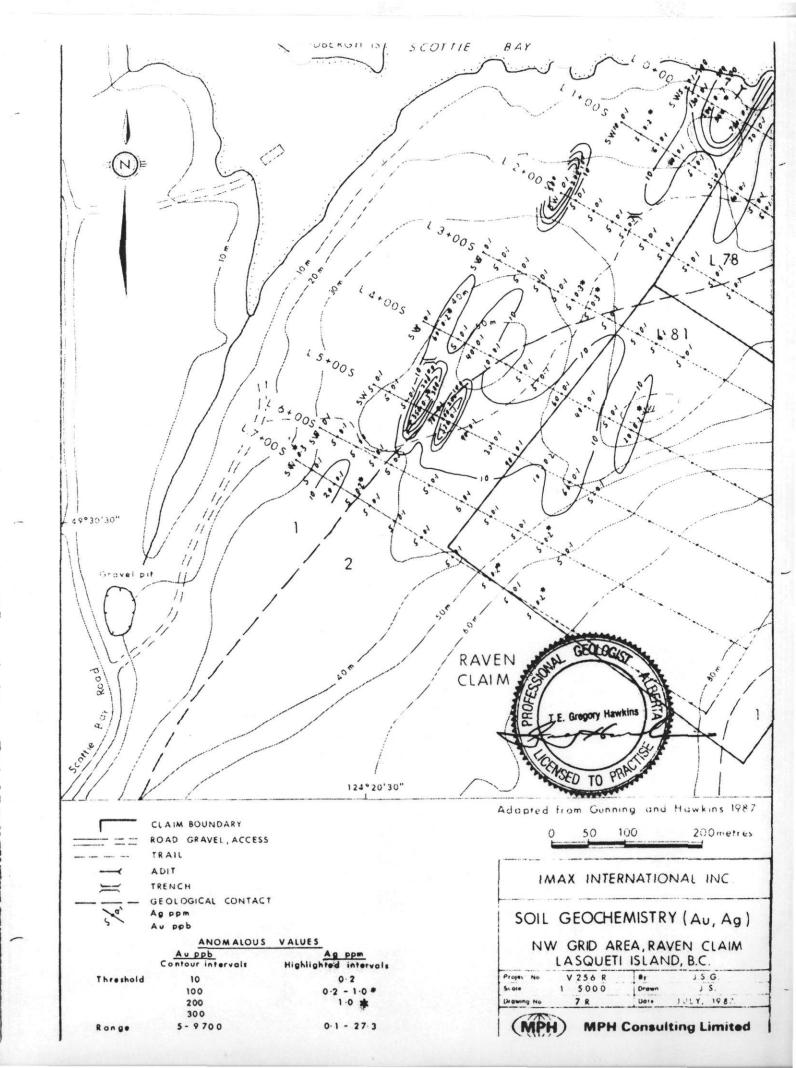


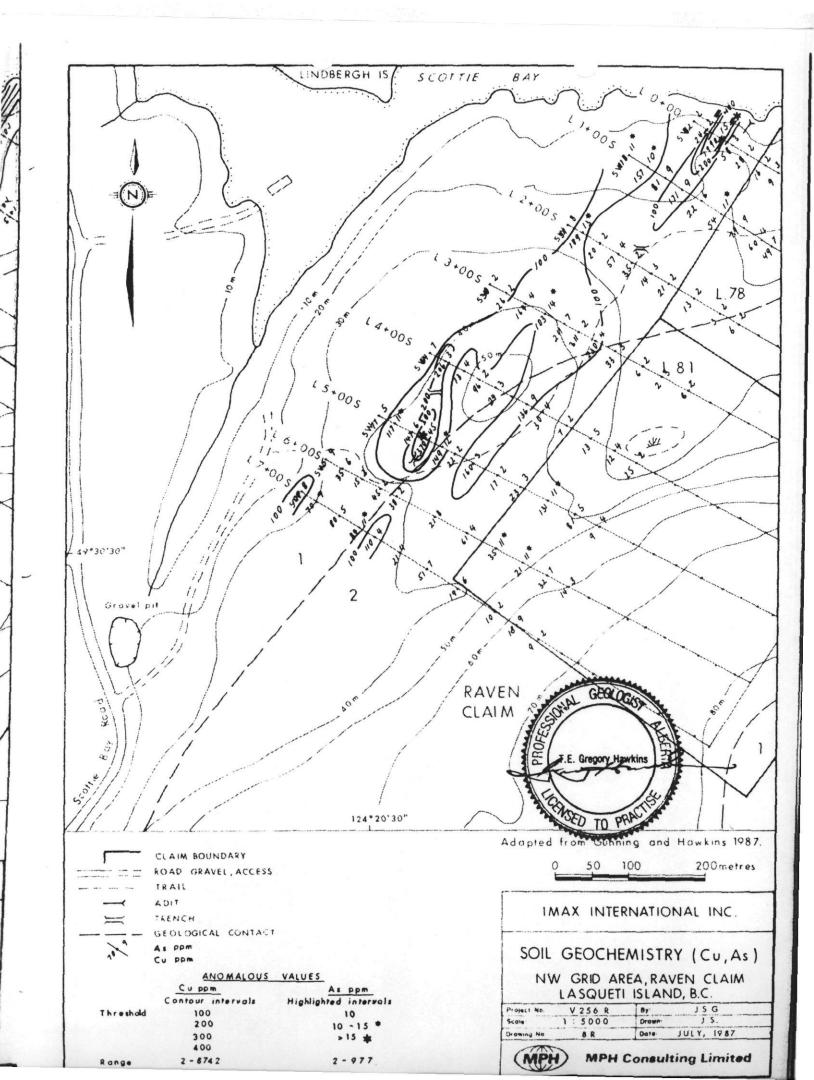
# PEPERENCES

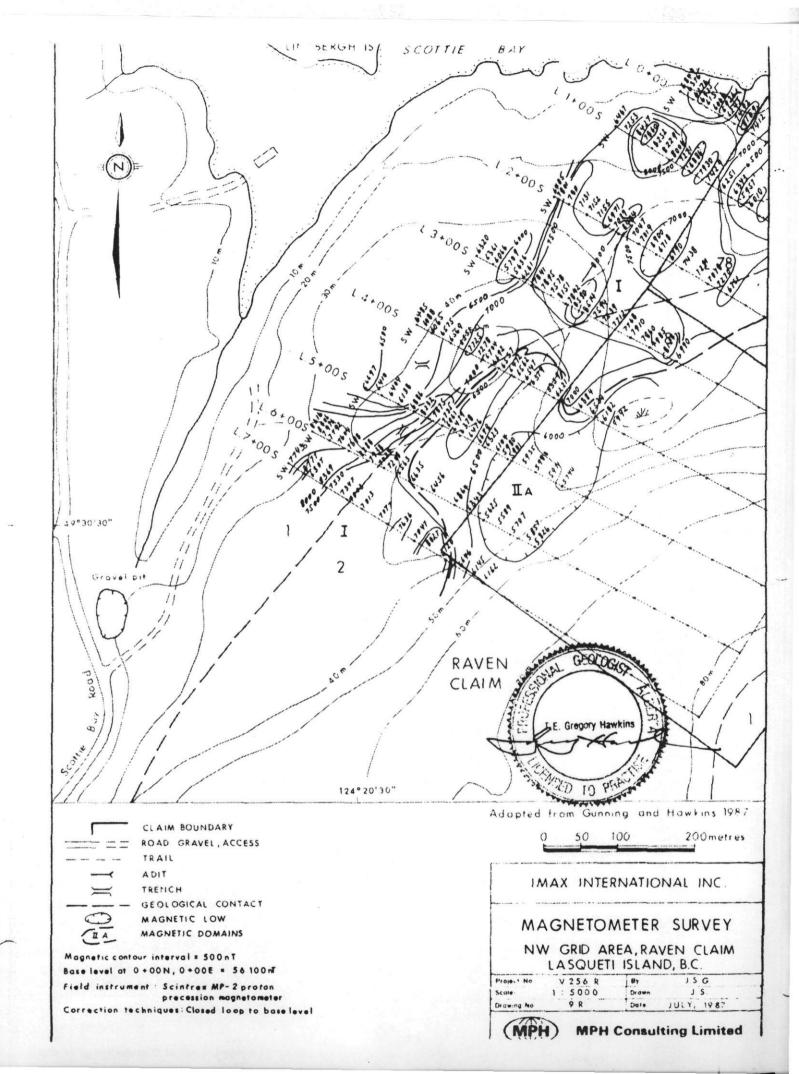
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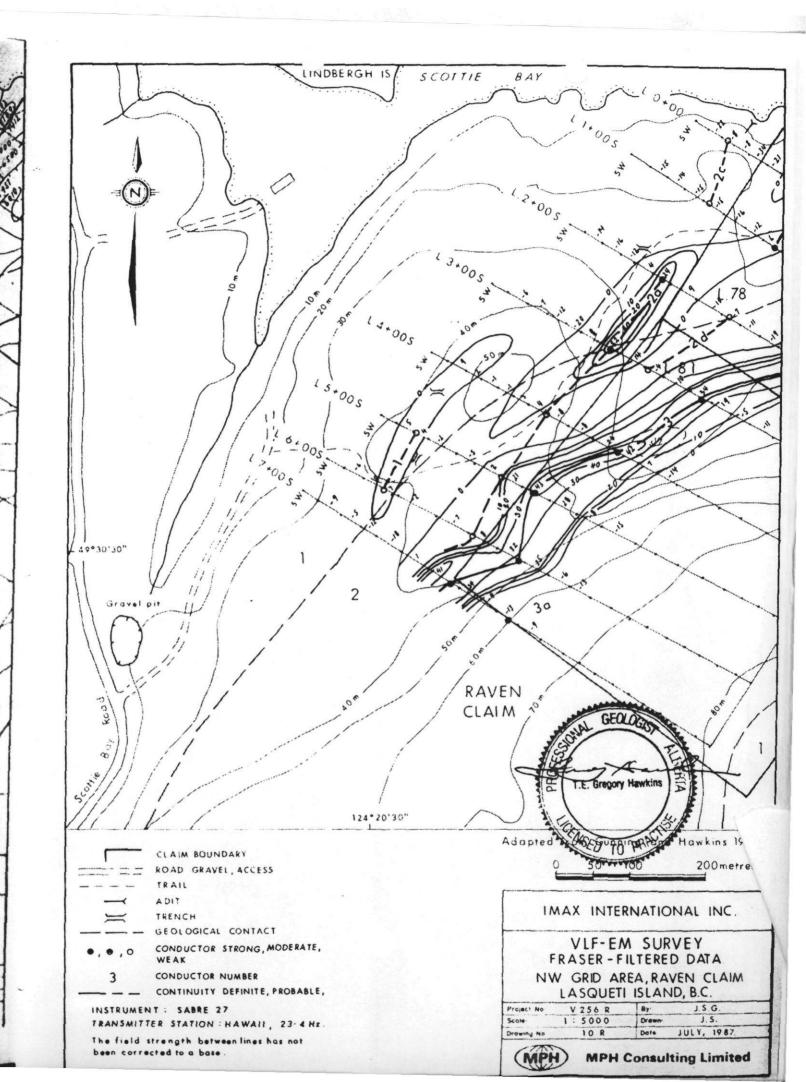












# EFFECTIVE DATE: NOVEMBER 24, 1987

NG OF THESE SECURITIES

THIS PROSPECTUS CONSTITUTES A PUBLIC OFFERING OF THESE SECURITIES ONLY IN THOSE JURISDICTIONS WHERE THEY MAY BE LAWFULLY OFFERED FOR SALE AND THEREIN ONLY BY PERSONS PERMITTED TO SELL SUCH SECURITIES.

NO SECURITIES COMMISSION OR SIMILAR AUTHORITY IN CANADA HAS IN ANY WAY PASSED UPON THE MERITS OF THE SECURITIES OFFERED HEREUNDER AND ANY REPRESENTATION TO THE CONTRARY IS AN OFFENCE.

**NEW ISSUE** 

# PROPERTY FILE

#### H.Q. MINERALS LTD.

(the "Issuer")
(Incorporated under the laws of British Columbia)
#201 - 225 Canada Avenue
Duncan, B.C.

#### NATURAL RESOURCE ISSUER

The Offering Price of the securities offered herein was established by negotiation between the Issuer and the Agent. The Offering Price of \$0.65 per Common Share exceeds the net tangible book value per Common Share by \$0.406 after giving effect to this Offering, representing a dilution of 62.5%. Reference is made to "Dilution". An investment in the securities offered herein should be regarded as speculative. Reference is made to "Risk Factors".

THERE IS NO MARKET THROUGH WHICH THESE SECURITIES MAY BE SOLD.

#### 400,000 Common Shares @ \$0.65 per share

	Price to Public	Commissions	Net Proceeds to be received by Issuer
Per Share	\$0.65	\$0.065	\$0.585
Total	\$260,000.00	\$26,000.00	\$234,000.00

<sup>\*</sup>Before deduction of cost of offering payable by the Issuer estimated not to exceed \$18,000.

UPON COMPLETION OF THIS OFFERING THE ISSUE WILL REPRESENT 20.5% OF THE COMMON SHARES THEN OUTSTANDING AS COMPARED TO 57.9% THAT WILL THEN BE OWNED BY THE CONTROLLING PERSONS, PROMOTERS, DIRECTORS AND SENIOR OFFICERS OF THE COMPANY. REFER TO THE HEADING "PRINCIPAL HOLDERS OF SECURITIES" ON PAGES 17 & 22 HEREIN.

# Stage 2

Contingent on the results of Stage 1, drilling from surface across the structure at intervals across its known length will be required to test the 3rd dimension of depth. Initially 10 holes of 200 feet depth would be anticipated. Large core diameter and a system for catching cuttings would be required. The Issuer has reserved \$60,000 for the Stage II recommended work program contingent on the results of Stage I (see "Use Of Proceeds").

# The Aladdin Property

- 1) the Aladdin, Harold and Harold 2 claims;
- 2) the Venus (ML17), St. Joseph, St. Anthony and Ajax (ML20) mineral leases.

The Issuer has acquired the right to earn a 100% interest in the Aladdin series of claims pursuant to an option agreement entered into on January 30, 1987 with James Scott of R.R. #2, Payne Road, Duncan, B.C. V9L 1N9. Under the terms of the option the Issuer will earn an undivided 100% interest in the Aladdin claims subject to 5% net profits interest for the following consideration: \$2,000 paid on execution of the Agreement and the issuance of an aggregate of 175,000 common shares of the Issuer to Scott on the following basis:

- a) 25,000 shares upon acceptance and approval of this agreement by the Superintendent of Brokers for British Columbia;
- b) 25,000 shares on the commencement of the first work program on the Property as recommended by an approved engineering report;
- c) 25,000 shares subject to prior approval of the Superintendent or if the Issuer is listed on the Vancouver Stock Exchange then the approval of the Exchange based on the submission of a satisfactory engineering report acceptable to the Superintendent or the Exchange which report reviews the first work program on the Property and recommends that a second work program be commenced.
- d) 25,000 shares on commencement of the second work program on the Property as recommended by the approved engineering report;
- e) 25,000 subject to the prior approval of the Superintendent and/or the Exchange based on the submission of a satisfactory engineering report acceptable to the Superintendent or the Exchange which report reviews the second work program on the Property and recommends a third work program be commenced;
- f) 25,000 shares on commencement of the third work program on the Property as recommended by the approved engineering report;
- g) 25,000 shares subject to prior approval of the Superintendent or the Exchange based on the submission of a satisfactory engineering report acceptable to

the Superintendent or the Exchange which report reviews the third work program on the Property and recommends that a further work program be commenced.

At such time as the payments are made and all the shares are issued, the Issuer shall be deemed to have acquired the 100% interest in and to the Properties.

The mineral leases 17 and 20 were acquired by Leslie Broadway of 330 Beech Avenue, Duncan, B.C. V9L 3J6 pursuant to a Bill of Sale dated October 22, 1986 from Ken Boyd of #1 - 55 Station Street, Duncan, B.C. V9L 1M2 for an acquisition price of \$25,001. The \$25,001 was payable by Mr. Broadway to Mr. Boyd by payment of \$1.00 upon execution of the Bill of Sale, by payment of \$10,000 which was paid to Mr. Boyd on November 22, 1986 and by payment of \$15,000 which was paid to Mr. Boyd on June 30, 1987. Mr. Broadway, an insider of the Issuer, sold the Property to the Issuer for the cost of acquisition, being \$25,001.

# Location and Access



The claims and leases are located on the northwest portion of Lasqueti Island between Stevens Passage, Mud Bay and Barnes Cove. The claims and leases are in the Nanaimo Mining Division and are centered on 49 degrees 30' latitude, 124 degrees 22' longitude.

Access to Lasqueti Island is via ferry from French Creek located between Qualicum Beach and Parksville on Vancouver Island. The ferry runs four times daily, only twice on Sunday, and not at all on Tuesdays or Wednesdays. A privately owned barge is available for vehicle transport. Both the ferry and barge dock in Mud Bay at the town of False Bay. The main roads on Lasqueti are gravel. Logging roads provide good access to the Aladdin, Harold, and Harold 2 claims and mineral leases 17 and 20.

#### History

The area covered by the Aladdin property on the western half of Lasqueti Island has attracted considerable attention as early as 1881. The first major mining activity occurred around the Lower St. Joseph adits prior to 1908. One main adit was driven approximately 35.4 m long with a vertical shaft dropped about 30.5 m to intersect the mineralized "crushed zone" that the main adit was following. The zone hosted numerous seams of massive pyrite, chalcopyrite, and magnetite that varied from 20 to 41 cm in width. The amount of ore shipped from the site is uncertain, but J.D. MacKenzie (1921) reports that ore from the showing typically graded .82 oz/ton gold, 2.2 oz/ton silver, and 11.4% copper.

In 1920, mining of the Venus tunnels occurred. Two tunnels were driven, the upper 12.2 m, and the lower 42.7 m long. By December of 1921, a total of 177.8 tonnes of ore were shipped from this site to a smelter in Tacoma. Grades of this ore are said to have averaged 0.63 oz/ton gold, and 3.27 oz/ton silver, and 12.8% copper. The ore consisted of massive pyrite, chalcopyrite, and magnetite hosted in vertical seams within a shear zone varying from 10 to 60 cm in width.

Surface prospecting continued on Lasqueti Island and in 1929, renewed interest in the Venus zone saw an extension of the main tunnel for another 43 m. In the report to the Minister of Mines, a 20 cm wide seam hosted massive pyrite and chalcopyrite averaging 0.5 oz/ton gold and 14.5% copper. Work on the showings, however, was short lived, and prospecting work on Lasqueti Island continued only sporadically until 1945.

Numerous modern assessment programs have been conducted on Lasqueti Island commencing in 1967, but have been concentrated on the crown grant areas around the Venus, St. Joseph and Hill 60 zones. VLF-EM and magnetometer surveys were conducted by Sweepstakes Mines Ltd. in 1968. In 1969, Sweepstakes Mines Ltd. also conducted a major IP survey over the area but no follow up work was conducted. In 1971, Anchor Mines Limited conducted a major exploration program over the crown grants involving geophysical surveys and diamond drilling. The program involved drilling two main targets defined by surface showings and geophysics; the St. Joseph zone 100 m south of the lower adit, and the Hill 60 zone. Although no economically significant intersections appeared from the Hill 60 zone, the St. Joseph site reported as 4 m of 0.12 oz/ton gold and 1.07% copper which contained a 1.2 m section grading of 0.32 oz/ton gold and 4.23% copper. Follow up drilling was recommended but none was undertaken.

### Geology

The program procedures undertaken in the exploration of the Aladdin property was conducted from March 18 through April 5, 1987. The work consisted of prospecting, geological mapping, soil and stream sediment sampling, magnetometer and VLF-EM surveys. Regional geological mapping on a scale of 1:10,000 was conducted over the entire property and delineated the boundaries of the quartz diorite stock and Karmutsen Formation basalts.

Detailed geological mapping was done on all mineral leases and on the southern half of the Aladdin claim around the False Bay area. A total of 124 rock samples were taken and analysed for gold by AA and an additional 30 elements by ICP during this period of mapping and prospecting. Grid A, with 1.0 km baseline striking 035 degrees just east of Barnes Cove, was established to cover the main mineralized shear zones exposed in several places on the mineral leases. A total of 10.1 line km were established with a B-Horizon soil geochemical survey done over the entire grid. Magnetometer and VLF-EM surveys were also done over Grid A.

The regional geology of Lasqueti Island is underlain mainly by mid to upper Triassic Vancouver Group limestone and volcanic rocks of the Quatsino and Karmutsen Formations. These rocks were intruded by granodiorite and diorite of the Island Intrusions during the Lower Jurassic period. All are overlain by Upper Cretaceous Nanaimo Group sedimentary rocks.

The Aladdin property is on the western end of Lasqueti Island and is underlain almost entirely by amygdaloidal and agglomeratic, dark grey-green, basaltic flows of the Triassic Karmutsen Formation. There is a narrow body of light grey, generally unaltered, equigranular biotite-hornblende quartz diorite that strikes notheast and crops out between False Bay and Barnes Cove. Rock exposure on Lasqueti Island is excellent; greater than 50% of the island has bedrock exposed

to some degree at surface.

The structure and metamorphism of the geology of the Island are summed up in the words of M.H. Gunning B.Sc. and T.G. Hawkins, P.Geol. in their report dated April 22, 1987, when they say at page 27:

"The structure on Lasqueti Island is very evident as distinctive, narrow, vertical shear zones or "crushed" zones (Dawson, 1886; MacKenzie, 1921). These zones are generally less than 2 m wide, strike from 010 degrees to 040 degrees, and often host seams of massive sulphide mineralization. The shear zones commonly occur along the contact of the quartz diorite and basalt; they are most common on the north side of the island in the Barnes Cove area. The shear zones parallel a major air photo linear which passes through Barnes Cove. The linear is coincident with a ravine and may represent a major fault. Further evaluation of this structure is recommended.

The shear zones are hosted by both the basalt and quartz diorite; the timing of their mineralization is uncertain. The quartz diorite is often sheared, suggesting post intrusion emplacement. However, the quartz diorite body is elongated parallel to the regional trend, which suggests a structurally controlled emplacement. Therefore, it is likely that these structures have been active at several different times throughout their history. Mineralization along these shears may be related to hydrothermal fluids related to the intrusion.

Structures striking east-west in the form of offsetting faults are also evident in the Barnes Cove area. Offset of the volcanic roof pendant is evident, as well as a possible offset of the St. Joseph mineralization zone. These faults are right-lateral. Magnetometer and VLF-EM surveys also indicate such a structure. Abundant aplitic dykes with an east-west orientation are seen in the Barnes Cove area; they may have intruded along fractures related to a second phase of deformation.

Metamorphism on Lasqueti Island is not significant. Hornfelsed basalt is common along the contact with the quartz-diorite. This textural feature is useful for geologic mapping but not significant on a large scale."

The mineralization and rock geochemistry are summed up in the same report at page 28, when the writers say:

"Massive sulphide mineralization is common in narrow shear zones hosted by basalt and quartz diorite. The shear zones are vertical to steeply west dipping, generally less than 2 m wide, and have been the target of numerous old workings and mining activities."

Assay results obtained from the old workings and mining activities are as follows:

the Helen K Adits ranged from 0.253 to 0.535 oz/ton gold, 1.02 to 3.80 oz/ton silver, and from 0.73 to 10.44% copper;

- 2) the Old Bill Aladdin Adits ranged from 0.122 to 0.187 oz/ton gold, 0.50 to 1.24 oz/ton silver, and from 0.87 to 5.78% copper;
- 3) the Ohm Adit showed 0.056 oz/ton gold, 0.13 oz/ton silver, and 0.04% copper;
- 4) the Gravel Pit showed 0.248 oz/ton gold, 0.41 oz/ton silver, and 0.02% copper;
- 5) the Pits at L5+OOS, 4+50W ranged from 0.016 to 0.177 oz/ton gold, 0.23 to 0.64 oz/ton silver, and from 0.24 to 1.54% copper;
- the Pits at L2+00S, 4+25W showed 0.065 oz/ton gold, 0.06 oz/ton silver, and 0.02% copper;
- 7) the Venus Adits ranged from 0.452 to 0.760 oz/ton gold, 1.52 to 1.86 oz/ton silver, and from 0.57 to 6.20% copper;
- 8) the St. Joseph Adits ranged from 0.174 to 1.066 oz/ton gold, 0.46 to 3.72 oz/ton silver, and from 0.19 to 13.56% copper;
- 9) the Upper St. Joseph Adits ranged from 0.120 to 0.196 oz/ton gol., 0.27 to 1.98 oz/ton silver, and from 0.24 to 6.64% copper.

# Geophysics

Magnetometer and VLF-EM surveys were conducted on the Aladdin property between March 24 and April 4, 1987. The areas surveyed comprises Grid A, which covers reverted crown grants on the northern side of Lasqueti Island. Fourteen lines totalling 10.1 line km were surveyed. A discussion of the results of this geophysical survey from the report of M.H. Gunning and T.G. Hawkins dated April 22, 1987 is as follows:

"The magnetic survey has outlined a magnetic terrain consistent with skarn and hornfelsed volcanic rock where local concentrations of magnetite and/or pyrrhotite have developed.

The VLF-EM survey has outlined persistent conductors related to structural features, as well as discrete conductors related to skarn-sulphide zones.

Careful examinations in areas of limited overburden should enable recognition of the source of some of the VLF-EM anomalies. It may be necessary to conduct additional fill-in surveys on intermediate lines in areas of multiple anomalies where continuity is uncertain."

#### Conclusions

The following conclusions and recommendations were made in the engineering report dated April 22, 1987 at page 44:

"The structural grain of the Island is distinct and is characterized by

abundant, narrow, one to two metre wide shear zones. The shears are vertical, strike from 010 degrees to 040 degrees, and commonly occur along the contacts of the basalt and quartz-diorite. Mineralization along these shear zones is significant; numerous old mining activities are concentrated on them. Mineralization generally occurs as seams of massive sulphides ranging from 30-50 cm wide that are hosted within a one to two metre wide shear zone. The main showings are referred to as the Helen K adits, the Old Bill-Aladdin adits, the Ohm adits, the Venus adits, and the St. Joseph zone. The St. Joseph zone consists of several adits and trenches over a length of about 300m.

All of the showings have proven to be consistently rich in gold, silver, and copper, and more sporadically in Molybdenum, Cobalt, Nickel and Iron. Gold assays are commonly from 0.2 to 0.7 oz/ton, and range up to 1.07 oz/ton. Previous mining activities in the early and mid-1900's mined the zones for their copper content.

Soil geochemistry suggests a close correlation between gold and copper enrichment which agrees with the rock geochemistry of the mineralized showings. Increased gold concentrations generally occur in seams of massive sulphide mineralization dominated by chalcopyrite.

Magnetometer and VLF-EM surveys were conducted over Grid A and were useful in defining the known areas of mineralization. Zones of massive magnetite mineralization within the main shear zones were not clearly defined due to the highly magnetic basaltic host rock. Conductive shear zones were clearly defined by the VLF-EM survey; the most persistent zone extends in a southwest direction for 700 m from the mouth of Barnes Cove. This anomaly coincides with a strong air-photo linear in that area and may indicate a major fault zone."

# Recommendations

Phase II exploration of the Aladdin property is recommended. Work should be directed at evaluating the known gold-silver-copper bearing shear zones. Further investigation of possible new zones outlined by soil geochemistry and geophysical surveys is needed.

Diamond drilling is recommended to evaluate the known showings on the property. Approximately 1980 m (6500 ft.) of drilling from 13 set-ups along strike of the various shear zones is required.

The Phase II work program is expected to take 13 weeks to complete at an estimated cost of \$350,000. This program will be financed from the proceeds of the flow-through shares being issued to First Exploration Fund 1987 and Company, Limited Partnership (see "Acquisitions").

#### **Exploration Expenditures**

Since the Issuer originally acquired the properties, it has expended or caused to be expended \$59,120 in exploration. This work consisted primarily of