

LOG NO:	APR 08 1992	RD.
ACTION:		
FILE NO:		

REPORT ON THE GAMBIER PROPERTY  
VANCOUVER MINING DIVISION, BRITISH COLUMBIA

FOR  
DOUGLAS BY RESOURCES INC.

NTS 92G/11

49 30' NORTH LATITUDE

123 21' WEST LONGITUDE

SUB-RECORDER  
RECEIVED  
MAR 26 1992  
M.R. # ..... \$ .....  
VANCOUVER, B.C.

BY

J.P. MCGORAN, B.SC.

MARCH 1992

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

22,232

## INTRODUCTION

## 1. Location

The Gambier Property, comprised of the MB mineral claim group in the Vancouver Mining Division, is located on the northeast side of Gambier Island, 30 kilometres northwest of the city of Vancouver (Figure 1). More precisely, it is located at 49 degrees and 30 minutes north latitude and 123 degrees and 21 minutes west longitude. (National Topographic System Map 92G/11)

## 2. Access and Physiography

Access to the property is best achieved from Horseshoe Bay by water taxi to Douglas Bay on the east side of Gambier Island. The area is centred 16 kilometres north of Horseshoe Bay. Old skid trails, originating from the beach in Douglas Bay provide walking access to the area. Recent logging on lot 2979 has left a fair amount of slash, resulting in reduced mobility. There are many areas of timber 'blowdown' throughout other parts of the MB claims, making access by foot difficult.

The terrain of the property is characterized by slopes that range from sea level on the coast to 450 metres (1500 feet) in the claim area. The work discussed in this report was undertaken at the centre of the claim group of the property in an area that ranged from 100 metres to 200 metres above sea level.

The vegetation in the grid area is characterized as second growth coastal forest of cedar, spruce and fir, with overmature cottonwoods and alders in the poorly drained valley bottoms. Undergrowth consists of variable salal, devil's club, alder and abundant moss.

## 3. Ownership

The Gambier property, as the MB mineral claim group, consists of four modified grid mineral claims, totalling 37 units and covering 925 hectares. The status of these claims is summarized below and the relative claim locations are plotted in Figure 2.

CLAIM NAME	NUMBER OF UNITS	TENURE NUMBER	RECORD DATE
MB 1	8	258252	JANUARY 3
MB 10	8	258264	MARCH 29
MB 11	9	258265	MARCH 29
MB 18	12	258266	MARCH 29

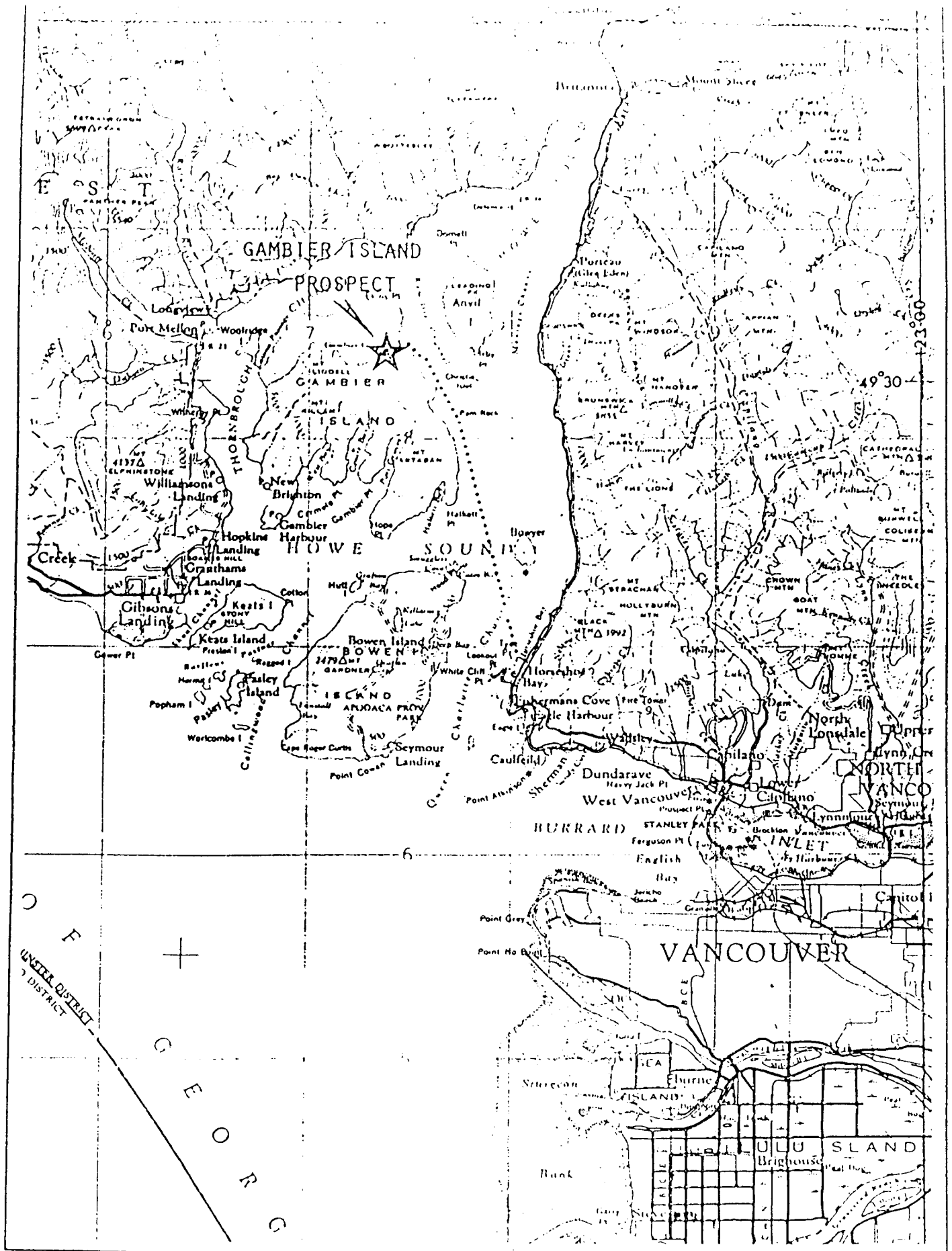


Figure 1. Location plan for the Gambier Island  
 Prospect 1:250,000 NTS 92G

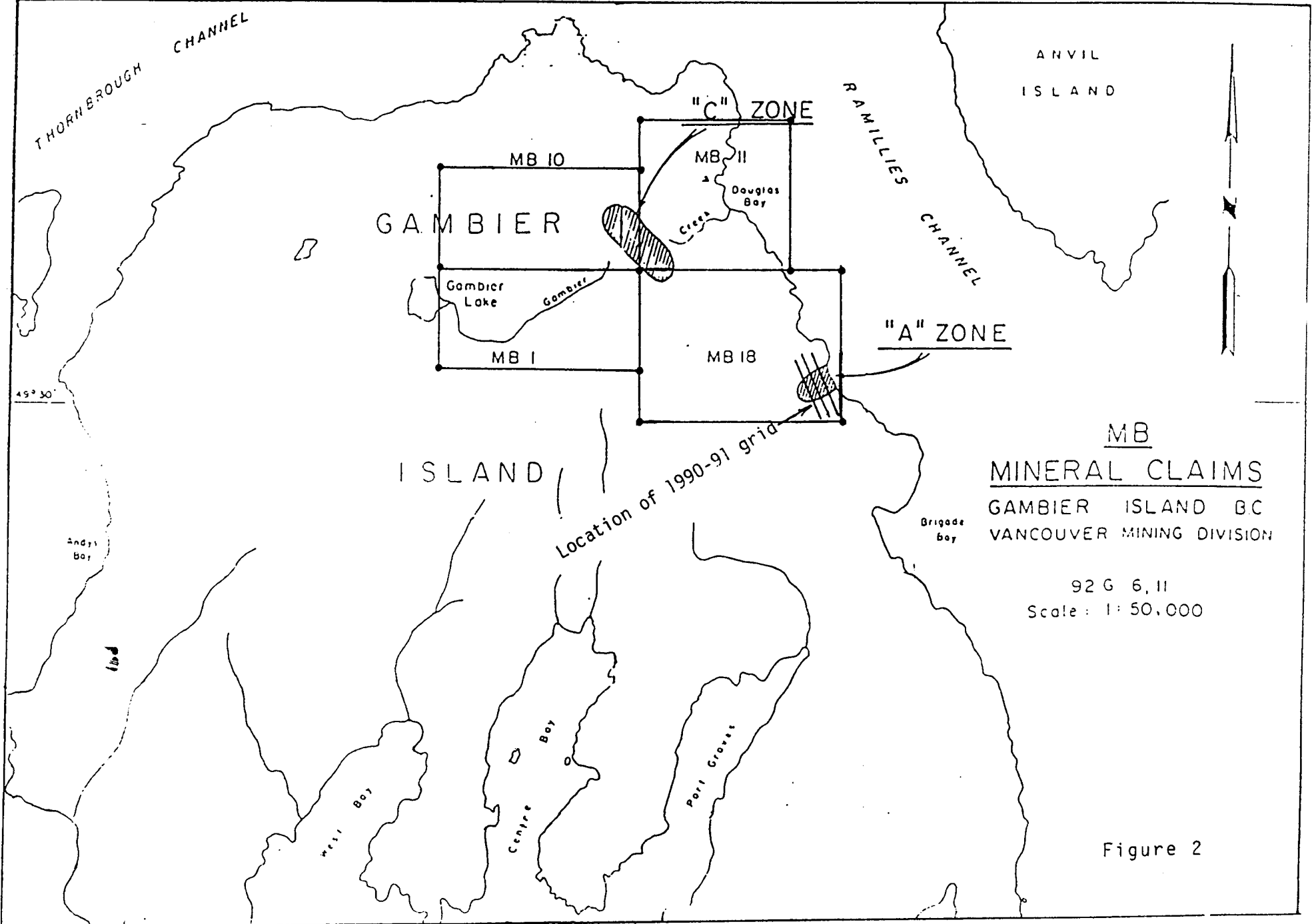


Figure 2

Messrs J.P. McGoran and R.M. Durfeld are the registered owners of the MB mineral claims.

#### 4. History and Previous Work

The first claim staking on Gambier Island in 1905 would have coincided with the exploration and development of the Britannia Mine. The location of this staking is not known.

A 1929 report by H.J. Airey refers to copper mineralization in the vicinity of Gambier Creek.

A report by W. Reed in 1966 refers to mineralization in the vicinity of Copper Cove.

The next documented work was in the early 1970s, by Gaylord Mines, who staked the northeast section of Gambier Island to cover old known copper showings. Gaylord Mines conducted soil sampling, EM 16 and magnetometer surveys over the northeast section of Gambier Island. This work defined anomalies "A", which is centred in the area of Copper Cove and "C", which is just south of Gambier Creek at a point approximately 1 kilometre inland from Douglas Bay. Anomaly "A" was tested by a single diamond drill hole that was cored at -45.5 for 815 feet (248 metres) and was reported to have assayed 0.117% copper over its entire length. Anomaly "C" was not tested by diamond drilling at that time. Gaylord Mines allowed the property to lapse.

The property was again staked in February 1978 by 20th Century Energy Corporation. During the period 1978 to 1981, 20th Century conducted extensive exploration in the area of anomaly "C" that was comprised of a geochemical soil sampling and induced polarization surveys, followed by 5,558 metres of diamond drilling. This work defined a 'Porphyry Copper-Molybdenum Deposit' with estimated reserves of:

- 198 million tonnes of 0.24% Cu and 0.015% MoS , with a 0.20% copper equivalent cutoff.

- or - 56 million tonnes of 0.36% Cu and 0.021% MoS , with a 0.40% copper equivalent cutoff.

In December 1984 and March 1985, the MB 1, MB 10, MB 11 and MB 18 mineral claims were forfeited and relocated by Messrs. J.P. McGoran and R.M. Durfeld.

Work conducted since 1985, on behalf of Durfeld and McGoran, has consisted of geochemical (soil, silt and rock sampling) and geological mapping surveys peripheral to anomaly "C" and covering much of the present claim group.

## 5. Work Program

The objectives of this program were to determine if economic gold values were associated with the Gambier deposit and also to determine the control on the gold mineralization.

Drill core from previous drilling is stored on the claims. A fire, started by vandals, and core, spilled by vandals, as well as the damp weather, has greatly reduced the amount of core that can be identified as to location.

An attempt, however, was made to take representative samples from mineralized core and from mineralized surface outcrops, in order to determine the magnitude and location of higher gold values.

During January 1 and January 2, 1992, J.P. McGoran assisted by C. McGoran sampled the MB 1 claim, using previous grids and 'hip chain' for control. The description of these samples is noted in Table 1 and the location plotted on Map 1.

Fifteen mineralized surface samples of 0.5 to 1.5 Kg were collected in plastic sample bags and marked as to sample number. Flagging with the same sample number was attached at the sample location. These samples were analysed at Acme Analytical Laboratories for 30 element ICP plus gold. The procedure is outlined in Appendix III. The description of these samples is noted in Table 2 and the location plotted on Map 1.

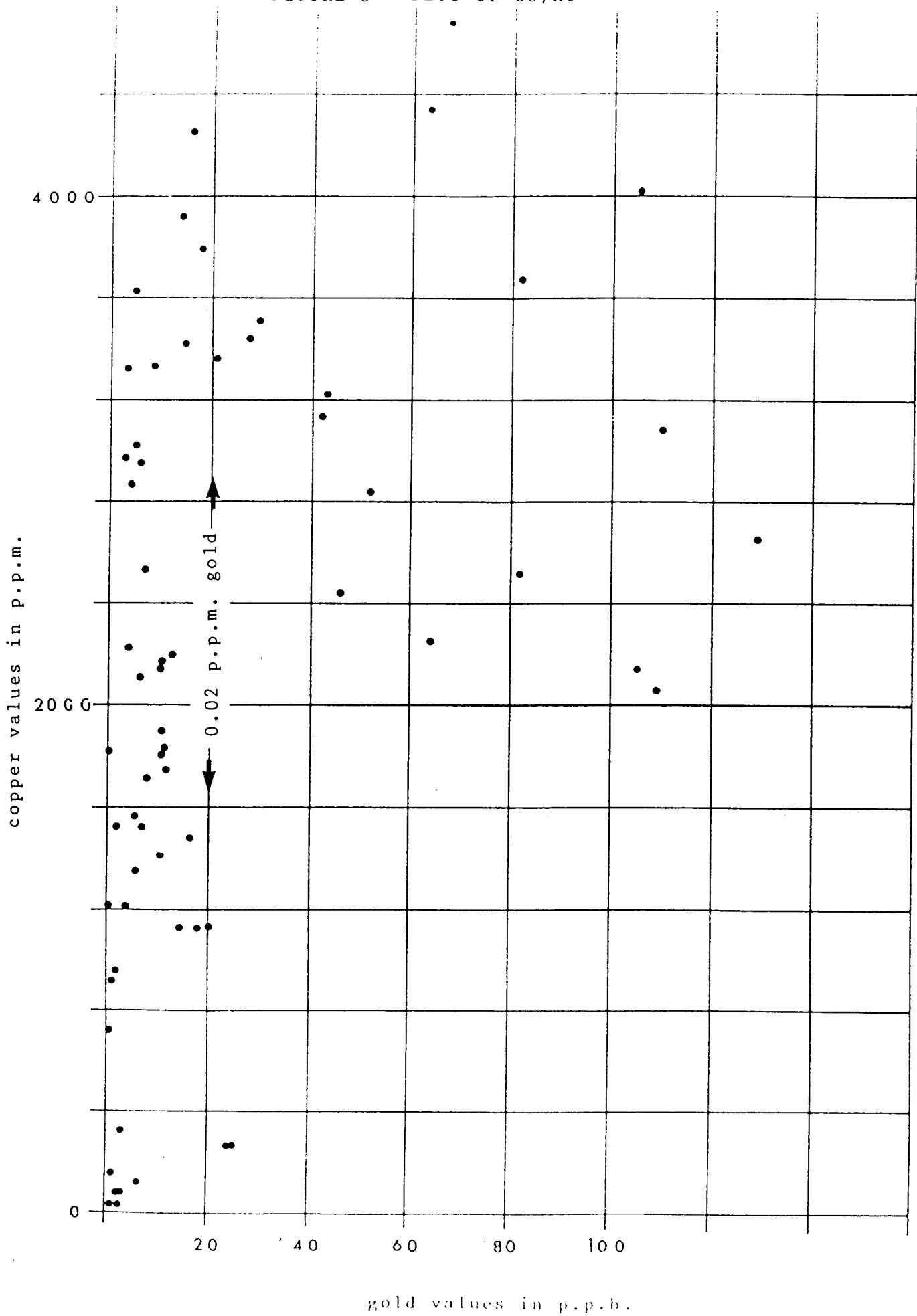
During March 12 to March 15, 1992, J.P. McGoran, assisted by C. McGoran, collected samples from the remaining core, which came from the drill program on the MB claims in 1978, 1979 and 1980. Where possible, samples of several metres were collected near the collar, one halfway down the hole and another sample at the base of the hole. These samples of 0.5 to 1.5 Kg were collected in plastic bags and marked as to hole number and footage. These samples were analysed at Acme analytical Laboratories for 30 element ICP plus gold. The procedure is outlined in Appendix III.

The range of gold, copper and silver results from this and the earlier surface sampling on the MB 1 claim were combined and outlined in Tables 3, 4 and 5. The gold values were plotted against copper values and shown in Figure 3.

The gold results in ppb are plotted on Maps 1 and 2, showing gold values and location. For the drill holes, the median of the sample interval is noted. The gold results are plotted on a 1980 base map prepared by P. Fox.

An isopleth of 20 ppb gold is outlined on the maps. The analytical results are presented in Appendix III.

FIGURE 3 - PLOT OF CU/AU



## GEOLOGY

## 1. Regional Geology

The regional geology of Gambier Island is mapped by J.A. Roddick of the Geological Survey of Canada and is published as Memoir 335 and Open File 611. This mapping shows the southern and western portions of Gambier Island to be underlain by intrusive rocks of granodiorite composition. Younger volcanic and clastic rocks of the Jurassic to Cretaceous Age Gambier Group underlie the northern portion of Gambier Island. The Gambier Group rocks have a north to northwest strike and steep easterly to northeasterly dips. Ramilles Channel through McNab Creek to the north shows a strong northerly trending regional structure on the east side of Gambier Island.

## 2. Lithology

Rocks of Jurassic to Cretaceous Gambier Group were the oldest and most dominant lithology in the Copper Cove area. This mapping divided the Gambier Group into:

- i. volcanic sediment and pyroclastic rocks, comprised of:
  - a) feldspar porphyry
  - b) feldspar-hornblende porphyry
  - c) volcanic breccia
  - d) chert
- ii. massive medium grained andesite.

During Upper Cretaceous to Tertiary time the Gambier Group rocks were intruded by massive medium grained diorite and quartz porphyry to quartz feldspar porphyry as dykes and small stocks.

Only one highly altered and silicified outcrop of diorite was identified on the north side of the central creek, although diorite float was found on the northern grid boundary.

## 3. Structure

Regionally the prominent structural directions on Gambier Island are west-northwest and north-south. Mapping in the Copper Cove area shows strong jointing and minor faulting with two most dominant trends being 035\75NW and 092\vertical.

## 4. Mineralization

Due to the heavy rainfall sulphide mineralization is absent from most outcrop exposures and only noted on freshly broken surfaces. Pyrite, occurring as disseminations and blebs in the matrix and on fractures and veins, was noted in all lithologies and commonly accompanied by lesser chalcopyrite and malachite.



## DISCUSSION

The higher gold values, within the 20 ppb isopleth, correlate spatially with the south fork fault and the south edge of the quartz porphyry intrusion.

It is the opinion of the author that although there is a correlation between some of the copper values and gold, gold does not make up a major proportion of the value in this deposit.

TABLE 1  
SURFACE ROCK SAMPLES

Sample Number	Rock Type
A	Andesite minor iron stain
B72	Andesite minor pyrite
G1	Medium Grained Andesite minor cp, py
G2	Quartz Feldspar Porphyry minor pyrite
G3	Quartz Feldspar Porphyry 2% pyrite
G4	Andesite Porphyry minor pyrite
G5	Andesite Porphyry minor pyrite
G6	Andesite considerable iron stain
670	Andesite 2% pyrite
713	Andesite minor pyrite
B1	Andesite minor pyrite
B2	Andesite 3% pyrite
B3	Andesite minor pyrite
B4	Andesite iron stain
B5	Andesite 2% pyrite

TABLE 2

LEGEND

C = Chalcopyrite

P = Pyrite

B = Hornfelsed and hydrothermally altered rock of the "C" zone

I = Quartz - feldspar porphyry, intramineral quartz porphyry  
dykes, intrusive breccia, subporphyritic granitic rocks

V = Massive andesitic rocks of the Gambier Group.

TABLE 2

## DRILL CORE SAMPLES

Hole Number	Sample Number	Distance from colar in metres	Rock type	Mineralization
78-2	A2	2 - 5	B	C P
		117 - 120	B	C P
		146.5 - 148.5	B	C P
78-3	A1	15 - 17	I	C P
		50 - 52	I	C
		103 - 111	I	C P
79-1		61 - 63	B	C P
		143 - 146	I	C
79-2	A3	47 - 50	B	C P
		119 - 125	B	C
79-3		21 - 24	B	C P
		124 - 127	B	C
		277 - 290	B	C
79-4	A4	68 - 75	I	C
		70 - 73	I	C
		180 - 184	I	C P
79-5		26 - 29	I	C P
		78 - 81	I	C
		145 - 148	I	C
79-6	A5	31 - 33	B	C
		195 - 197	B	C
79-7	A10	141 - 148	B	C
79-8		32 - 40	B	C P
		105 - 111	B	C
80-10		37 - 40	I	C
		130 - 133	I	C P
		223 - 227	I	C P
80-11	A11	3 - 5	B	C
		87 - 93	B	C
80-12	A27	190.5 - 193.5	B	C
		17 - 19.5	V	C P
		115 - 122	V	C P
80-13	A28	157 - 159	V	C P
		11 - 15	I	C
		136 - 139	I	C
80-14	A29	204 - 210	I	C
		210.5 - 212.5	I	C
		50 - 57	I	C
80-15	A23	77 - 79	I	C
		177 - 179	I	C
		50 - 56	B	C
80-16	A26	93.2 - 96	B	C
		19 - 22	I	C
		90 - 96	I	C
		241 - 244	I	C P

TABLE 2 (cont.)

Hole Number	Sample Number	Distance from collar in metres	Rock type	Mineralization
80-17		75 - 77.5	B	P
		131 - 134	B	C
	A24	241 - 248	B	C
80-18		33 - 36	I	C
		139 - 142	I	C
	A25	146 - 155	I	C
	A8	185 - 192	I	C
80-19		4 - 7	B	C
	A12	99 - 107	B	C
		196 - 199	B	C
80-20		60 - 62.5	D	P
80-21		23 - 26	B	C
		111 - 114	B	C
	A7	161 - 168	B	C
		202.5 - 205	B	C
80-22	A21	32 - 39	B	P
		74 - 77	B	P
		203 - 206	B	C
80-23		59 - 66	B	C
	A31	86 - 93	B	C
80-24		25.5 - 28	B	P
		60 - 62	B	P
80-25		3 - 7	B	C
	A6	85 - 88	B	C
		181 - 188	B	C
80-26	A20	43 - 50	B	C
		57 - 60	B	C
		124 - 127	B	C
		271 - 274	B	C
80-27		13 - 14.5	I	C
	A13	18 - 25	I	C
		122 - 123	I	C
		227 - 228.5	I	C
80-28		9 - 12	B	C
	A14	105 - 108	B	C
		186 - 189	I	C
80-29	A9	104 - 112	B	P
80-30		33 - 36	B	C
	A30	89 - 90	B	C

TABLE 3  
GOLD ANALYSES

Value in ppm	Number in interval	
0 - .09	-	
1 - 5	26	*****
6 - 10	14	*****
11 - 15	15	*****
16 - 20	10	*****
21 - 25	5	*****
28 - 30	5	*****
31 - 35	-	
36 - 40	3	***
41 - 45	4	****
46 - 50	2	**
51 - 55	-	
56 - 60	-	
61 - 65	1	*
66 - 70	2	**
71 - 75	1	*
76 - 80	-	
81 - 85	3	***
86 - 90	1	*
91 - 95	-	
90 - 100	2	**
101 - 120	2	**
120 - 150	2	**
151 - 200	2	**
210	1	*

TABLE 4

COPPER ANALYSES

Value in ppm	Number in interval	
0 - 500	19	*****
501 - 1000	8	*****
1001 - 1500	11	*****
1501 - 2000	13	*****
2001 - 2500	14	*****
2501 - 3000	10	*****
3001 - 3500	11	*****
3501 - 4000	6	*****
4001 - 4500	3	***
4501 - 5000	3	***
5001 - 6000	2	**

TABLE 5  
SILVER ANALYSES

Value in ppm	Number in interval	
0.0 - 0.09	-	
0.1 - 0.3	14	*****
0.4 - 0.6	15	*****
0.7 - 0.9	13	*****
1.0 - 1.2	16	*****
1.3 - 1.5	13	*****
1.6 - 1.8	7	*****
1.9 - 2.1	7	*****
2.2 - 2.4	1	*
2.4 - 2.7	4	****
2.8 - 3.0	0	
3.1 - 4.0	3	***
4.1 - 5.0	2	**



APPENDIX I  
ITEMIZED COST STATEMENT  
MB 1 CLAIM

Technical Staff

Senior Geologist - J.P. McGoran, B.Sc. 2 days (Jan 1 & 2, 1992) @ \$350/day	\$700.00
Geological Assistant - C. McGoran 1 day (Jan 2, 1992) @ \$200/day	\$200.00
Room and Board - 3 man days (Jan 1 & 2, 1992)	\$106.15
Geochemical Analyses (see Appendix Ia)	\$605.35
Transportation - water taxi (Jan 1 & 2, 1992)	\$320.00
Total	\$1,931.50
Recorded of claims	\$1,600.00
to PAC Account	\$331.50


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**FLECK RESOURCES**  
 305 - 455 Granville St.  
 Vancouver, BC  
 V6C 1T1

 File: 92-0024  
 Date: Jan 14 1992

QTY	ASSAY	PRICE	AMOUNT
31	MULTI-ACID DIGESTION ICP ANALYSIS @	6.50	201.50
31	GEOCHEM AU PT & PD BY FIRE ASSAY/ICP (10gm) @	8.50	263.50
31	ROCK SAMPLE PREPARATION @	3.25	100.75
			<hr/>
		GST Taxable	565.75
		7.00 % GST	39.60
			<hr/>
		<b>TOTAL</b>	<b>605.35</b>

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APPENDIX II  
ITEMIZED COST STATEMENT  
MB 10, MB 11, MB 18

Technical Staff

Senior Geologist - J.P. McGoran, B.Sc. 4 days (March 12 to 15, 1992) @ 350/day	\$1,400.00
Geological Assistant - C. McGoran 4 days (March 12 to 15, 1992) @ \$200/day	\$ 800.00
Room and Board - 8 man days @ \$40/day (March 12 to 15, 1992 x 2)	\$ 320.00
Geochemical Analyses (see Appendix IIa)	\$ 954.98
Transportation - water taxi (March 12 & 15, 1992)	\$ 160.00
Report Preparation	\$ 600.00
 Total	 \$4,234.98
 from PAC Account	 \$1,565.02


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**MCGORAN & ASSOCIATES**

305-455 Granville St.

Van, BC

V6C 1T1

File: 92-0546

Date: Mar 19 1992

QTY	ASSAY	PRICE	AMOUNT
70	30 ELEMENT ICP ANALYSIS @	4.50	315.00
70	GEOCHEM AU ANALYSIS BY ACID LEACH (10 gm) @	5.00	350.00
60	CORE SAMPLE PREPARATION @	3.25	195.00
10	ROCK SAMPLE PREPARATION @	3.25	32.50
			892.50
		GST Taxable	
		7.00 % GST	62.48
		<b>TOTAL</b>	<b>954.98</b>

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APPENDIX III



GEOCHEMICAL ANALYSIS CERTIFICATE

Fleck Resources File # 92-0024

305 - 455 Granville St., Vancouver BC V6C 1T1

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	B1	V	Ca	P	La	Cr	Mg	Ba	Ti	Al	Na	K	W	Zr	Sn	Y	Nb	Be	Sc	Au**	Pt**	Pd**	
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb
A1	67	2152	16	87	.8	9	14	247	4.54	12	5	ND	2 187	.8	3	2 102	1.28	.056	8	17	1.21	289	.25	7.80	1.70	1.65	8	7	1	18	3	.2	14.9	38	1	2			
A2	59	2255	17	138	1.4	10	18	302	6.57	12	5	ND	1 526	1.2	2	2 137	4.30	.075	7	34	2.09	154	.32	10.14	2.41	1.42	2	7	1	15	1	.2	19.9	192	11	2			
A3	67	2609	15	320	1.9	16	19	841	4.23	15	5	ND	2 334	1.0	6	2 139	3.55	.093	11	29	1.94	216	.32	9.86	2.51	1.17	2	16	1	22	7	.2	22.8	27	8	2			
A4	103	3071	21	143	1.3	9	8	335	3.02	9	5	ND	4 172	1.5	7	2 31	.70	.017	7	16	.81	317	.11	6.96	1.20	2.00	2	25	1	9	3	.2	8.4	65	1	3			
A5	233	1768	18	156	1.0	26	9	324	3.34	12	5	ND	1 386	.9	2	2 210	2.28	.119	19	79	1.70	441	.40	14.28	2.72	3.64	3	10	1	23	3	.3	34.3	8	1	5			
A6	20	1284	18	133	.9	13	18	442	5.51	9	5	ND	2 458	1.4	2	2 114	3.34	.039	13	30	1.51	144	.31	8.79	2.56	.47	2	29	1	11	3	.2	15.7	6	1	1			
A7	32	1287	21	115	.7	8	17	321	6.48	13	5	ND	1 433	1.5	2	2 113	3.88	.044	6	18	1.99	101	.26	9.00	2.38	.40	2	7	1	13	2	.2	16.8	19	11	1			
A8	29	2167	12	53	.9	14	2	159	.97	3	5	ND	3 24	2.6	9	3 62	.31	.067	11	59	.20	835	.12	7.90	.15	3.79	4	29	9	11	4	.2	13.4	1	11	6			
A9	30	41	6	7	.4	10	2	32	.62	3	5	ND	2 17	.2	6	2 40	.17	.054	13	15	.22	579	.11	8.49	.09	4.28	2	31	6	9	1	.4	10.6	3	6	5			
A10	29	2946	17	96	1.2	11	16	373	4.03	10	5	ND	2 452	.8	2	2 119	2.90	.047	7	22	1.52	228	.28	9.93	3.05	1.15	2	9	1	11	2	.2	16.6	72	4	4			
A11	576	2726	22	82	1.2	22	10	403	3.00	3	5	ND	2 301	.9	2	2 114	2.41	.068	9	67	1.89	375	.21	9.41	1.81	1.80	2	10	1	14	2	.2	17.9	39	9	6			
A12	89	4571	20	3436	4.8	31	32	3241	6.93	12	5	ND	1 228	94.9	2	7 142	4.80	.043	2	31	2.54	146	.31	8.76	.97	.15	2	5	1	11	1	.2	28.8	27	5	3			
A13	27	505	17	55	.1	5	2	187	.88	4	5	ND	2 54	.8	4	2 33	.34	.018	9	11	.26	586	.08	7.37	.43	3.28	2	30	3	4	1	.2	8.2	6	9	1			
A14	40	1063	22	154	.6	13	8	736	2.76	5	5	ND	2 80	.5	2	4 88	1.00	.031	10	56	1.04	592	.17	7.57	.49	2.71	2	25	1	13	3	.2	12.5	6	5	1			
A20	24	619	55	144	.6	10	25	973	6.50	15	5	ND	1 617	1.9	5	2 206	7.36	.069	6	13	2.07	96	.40	10.01	2.23	.35	5	18	1	13	1	.2	25.9	11	7	1			
A21	24	496	10	85	.5	11	28	455	7.78	8	5	ND	2 515	.9	2	2 160	3.74	.080	7	20	2.32	265	.36	9.58	2.04	.48	2	6	1	13	1	.4	19.7	30	1	3			
A22	24	828	24	101	.6	8	9	211	2.68	3	5	ND	3 248	.9	4	3 54	1.95	.032	9	50	.78	374	.14	7.55	1.74	1.20	2	34	1	13	5	.3	11.5	3	3	2			
A23	65	3671	14	109	1.5	13	16	548	4.16	6	5	ND	2 328	1.1	2	5 121	1.52	.095	12	18	1.90	265	.33	9.38	2.30	1.60	2	14	1	15	5	.2	16.6	16	10	10			
A24	60	1832	5	15	.4	6	5	113	1.23	2	5	ND	1 27	.8	5	5 84	.26	.037	8	20	.47	423	.14	7.58	.18	3.80	4	13	2	7	1	.2	11.7	12	1	2			
A25	95	4574	5	21	1.7	20	9	141	1.99	2	5	ND	1 27	.5	2	6 126	.18	.066	8	54	1.92	384	.12	8.50	.18	3.23	5	15	1	7	1	.2	15.4	156	3	1			
A26	235	2187	3	14	.5	13	9	84	2.01	3	5	ND	1 18	.6	3	4 165	.12	.052	4	21	.91	485	.16	9.48	.12	4.33	3	8	1	2	1	.2	15.0	44	1	3			
A27	8	682	15	329	.5	12	29	1262	5.37	9	5	ND	1 251	1.4	2	2 191	2.21	.116	13	22	2.76	618	.38	12.23	.83	3.27	2	37	2	19	7	.2	21.2	6	1	4			
A28	64	2075	2	109	.7	11	8	423	2.25	2	5	ND	1 58	.5	2	2 85	.47	.065	4	45	1.44	435	.16	7.12	.68	2.71	2	5	1	8	3	.2	11.5	12	2	2			
A29	19	836	15	149	1.8	8	6	874	2.27	2	5	ND	2 241	.5	2	6 31	1.28	.010	7	20	.61	264	.11	6.58	1.56	1.30	2	26	1	15	2	.3	10.0	18	1	1			
A30	58	5282	149	709	3.6	14	21	764	5.66	2	5	ND	1 425	14.7	2	4 188	4.51	.076	5	28	2.17	158	.34	8.52	1.17	.98	2	10	1	11	2	.2	21.4	148	2	4			
A31	80	1279	24	160	.9	11	16	690	5.42	6	5	ND	2 451	.9	2	2 96	3.38	.073	10	42	1.25	261	.26	8.70	2.17	.50	3	16	1	13	6	.2	11.0	44	3	4			
B1	2	57	19	116	.2	8	9	1548	7.15	37	5	ND	1 114	1.3	2	2 246	.51	.114	9	30	2.36	1007	.55	11.05	.75	1.77	2	16	1	12	1	.7	30.6	4	1	1			
B2	16	452	4	134	1.0	12	36	879	9.64	6	5	ND	2 77	1.6	2	2 483	.76	.084	10	20	2.01	555	.32	9.72	.16	2.83	2	39	2	14	1	.9	19.8	13	1	5			
B3	13	220	2	104	.3	22	19	262	3.75	11	5	ND	1 42	.2	2	2 307	.29	.109	2	20	2.56	382	.30	14.27	.19	4.75	2	14	5	7	1	.2	21.3	9	12	3			
B4	6	29	4	49	.1	13	5	210	1.54	3	5	ND	2 34	.2	2	5 25	.15	.005	16	44	.91	569	.09	7.61	.20	3.33	2	33	1	11	1	.2	4.3	4	5	5			
RE A31	83	1195	20	151	.7	11	15	685	5.33	2	5	ND	1 438	.7	2	2 92	3.30	.065	9	47	1.22	280	.26	8.65	2.11	.51	3	16	1	13	5	.2	10.6	59	4	3			
B5	12	206	33	57	.5	16	34	1351	6.91	5	5	ND	1 260	.4	2	2 343	10.83	.064	8	15	1.06	85	.37	8.84	.45	.04	2	34	1	17	1	.2	21.1	40	7	3			
STANDARD HFC/FA-10R	22	60	44	144	6.9	102	48	1295	4.79	43	17	7	36	59	20.7	17	20	79	.58	.120	40	112	1.10	232	.08	2.12	.06	.16	11	4	17	8	3	.2	6.0	481	460	488	

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: ROCK AU\*\* ANALYSIS BY FA/ICP FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: JAN 3 1992 DATE REPORT MAILED: *Jan 14/92* SIGNED BY: *Cherry* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



## GEOCHEMICAL ANALYSIS CERTIFICATE

 McGoran & Associates File # 92-0546 Page 1  
 305-455 Granville St., Van BC V6C 1T1


SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
78-2 2-5	31	1923	6	168	1.0	7	14	392	5.15	3	5	ND	1	43	1.1	2	15	58	.80	.050	2	15	1.28	42	.18	2	2.58	.16	.12	1	11
78-2 146-148.5	151	2537	6	83	.6	10	14	367	4.87	5	5	ND	1	34	.7	2	9	53	.54	.038	2	11	1.40	74	.08	4	3.12	.18	.35	1	82
78-3 15-17	83	1726	18	240	1.1	14	19	631	5.20	3	5	ND	1	61	1.4	2	14	71	.92	.056	2	20	2.24	42	.18	2	3.40	.27	.09	1	8
78-3 50-52	95	3233	19	116	1.4	13	13	334	4.14	4	5	ND	1	16	1.2	2	12	48	.68	.108	3	10	1.29	63	.09	4	2.59	.14	.25	1	44
79-1 9-12	104	1747	5	104	.4	13	10	374	3.84	7	5	ND	1	16	.8	2	13	32	.26	.031	6	10	.79	111	.03	6	2.52	.12	.45	1	210
79-1 61-63	32	2254	11	230	.8	13	17	668	6.17	3	5	ND	1	39	1.1	2	13	83	.56	.042	2	17	1.74	80	.18	4	3.63	.18	.44	2	69
79-1 143-146	55	3437	9	149	1.9	10	6	474	2.51	3	5	ND	2	8	1.3	2	6	33	.26	.044	2	11	1.09	54	.05	4	1.82	.07	.30	1	27
79-2 47-50	66	1743	6	179	1.4	4	17	445	7.03	8	5	ND	3	56	1.3	2	14	64	1.27	.049	3	6	1.20	78	.12	5	3.01	.21	.30	1	12
79-3 21-24	81	3663	47	132	1.6	9	18	354	6.94	9	5	ND	1	83	1.8	2	16	63	.82	.064	2	14	1.35	36	.13	4	2.64	.26	.12	1	81
79-3 124-127	115	4033	15	153	2.0	8	11	288	3.70	5	5	ND	1	40	1.5	2	12	52	.52	.051	2	11	.94	47	.11	3	2.02	.18	.30	1	100
79-3 277-290	80	2831	11	113	1.5	11	11	302	3.42	4	5	ND	1	50	1.0	2	7	69	1.24	.057	2	11	1.80	16	.20	6	2.52	.24	.17	1	47
79-4 70-73	56	4316	13	137	1.7	5	6	257	2.58	3	5	ND	2	14	1.9	2	9	11	.31	.026	2	29	.67	56	.03	4	1.70	.12	.30	1	64
79-4 182-184	37	1862	4	104	.6	10	5	428	2.60	3	5	ND	1	4	.8	2	3	17	.13	.042	2	8	1.17	54	.01	4	1.98	.03	.32	1	12
79-5 26-29	41	5613	5	297	4.4	8	17	1122	5.75	23	5	ND	4	27	2.6	2	11	11	.26	.038	2	7	.73	90	.03	3	2.45	.07	.35	2	18
79-5 78-81	103	4258	11	165	2.5	10	14	553	3.66	11	5	ND	1	35	1.8	2	14	27	.31	.044	2	29	1.07	95	.08	4	2.27	.09	.34	4	16
79-5 145-148	48	1688	3	78	1.0	10	8	344	2.30	6	5	ND	3	8	.5	2	5	14	.18	.031	2	7	.82	85	.02	4	1.89	.03	.45	3	22
79-6 31-33	77	2179	10	80	1.0	14	9	229	3.52	2	5	ND	3	79	.7	2	7	57	.92	.050	2	20	1.43	46	.13	3	2.86	.32	.18	1	11
79-7 141-148	69	3091	8	98	1.3	8	12	306	3.78	7	5	ND	1	38	.9	2	5	51	.74	.052	2	18	1.39	50	.11	3	2.50	.17	.19	1	110
79-8 32-40	90	2519	6	73	1.4	12	15	372	4.35	4	5	ND	3	53	.6	2	11	49	.73	.093	3	5	2.34	46	.03	3	3.63	.18	.31	1	8
79-8 105-111	214	1562	3	83	.6	12	10	403	2.24	2	5	ND	1	68	.4	2	6	41	1.04	.055	3	8	1.13	49	.05	5	2.84	.44	.22	1	4
80-10 37-40	30	1510	9	75	1.0	7	5	317	1.68	3	5	ND	2	8	.7	2	4	8	.16	.025	2	33	.35	61	.02	2	1.32	.05	.33	2	7
80-10 130-133	15	1536	7	82	1.9	3	10	274	2.48	7	5	ND	5	17	1.0	3	4	12	.41	.025	2	7	.50	56	.02	4	1.57	.10	.30	3	6
80-11 3-5	36	3137	9	89	1.2	23	14	394	3.84	8	5	ND	1	49	.8	2	10	50	.59	.085	3	7	2.52	63	.02	3	3.76	.18	.25	1	43
80-11 190.5-193.5	46	1487	14	92	.9	10	7	279	2.39	3	5	ND	2	23	.6	2	6	53	.86	.044	4	25	1.29	34	.07	3	1.93	.18	.21	1	17
80-12 17.5-19.5	7	137	8	120	.8	8	30	663	6.10	6	5	ND	3	141	.9	2	8	64	1.47	.077	2	5	2.11	45	.06	2	5.58	.25	.18	1	6
80-12 157-159	20	1227	19	174	.9	12	10	706	2.72	2	5	ND	3	11	.5	2	6	22	.27	.047	5	9	.97	94	.04	7	2.25	.04	.41	1	5
80-13 11-15	191	2172	5	31	.3	11	5	118	1.52	2	5	ND	3	5	.4	2	4	15	.18	.061	3	19	.84	55	.01	2	1.79	.05	.35	1	11
80-13 136-139	198	2923	6	193	1.2	21	12	879	3.49	2	5	ND	2	24	.9	2	10	54	.47	.060	3	27	2.24	41	.11	4	2.99	.14	.25	1	6
80-13 210.5-212.5	62	3312	13	165	2.4	5	7	849	2.59	8	7	ND	5	23	1.3	4	8	26	.54	.046	4	8	.95	93	.06	6	2.02	.11	.37	4	5
80-14 77-79	92	2187	26	111	2.5	2	5	495	1.84	2	5	ND	5	29	.9	2	4	10	.36	.024	2	26	.52	50	.04	2	1.50	.18	.24	1	13
80-14 177-179	67	3902	16	196	2.6	6	6	641	2.09	5	5	ND	6	23	1.7	3	8	12	.32	.025	2	8	.64	53	.05	3	1.46	.20	.15	2	15
80-15 93.2-96.0	73	2881	8	96	2.0	9	12	566	3.73	12	5	ND	4	40	.8	4	10	34	.66	.082	5	5	1.38	38	.10	4	2.74	.25	.26	4	5
RE 80-13 136-139	190	3007	9	202	1.2	14	13	932	3.69	3	5	ND	1	26	1.2	2	7	56	.50	.063	3	27	2.34	43	.12	6	3.13	.16	.26	4	6
80-16 19-22	57	3792	2	19	.9	31	10	71	2.21	8	5	ND	4	5	.4	2	6	14	.15	.053	6	26	.87	61	.01	6	1.88	.03	.34	2	19
80-16 241-244	105	4848	7	61	.8	11	17	281	4.66	2	5	ND	1	15	.4	2	8	29	.41	.070	8	5	1.87	53	.01	9	3.14	.06	.32	1	18
80-17 75-77.5	29	43	2	6	.2	108	1	34	.33	3	5	ND	7	5	.2	2	2	13	.20	.065	20	17	.50	36	.01	3	1.05	.02	.28	1	1
80-17 131-134	162	2101	19	50	1.1	52	6	241	1.34	3	5	ND	4	5	.5	2	6	18	.15	.045	12	34	.91	69	.01	4	1.57	.03	.37	2	7
STANDARD C/AU-R	20	60	45	138	7.5	71	32	1088	4.03	36	16	8	40	53	18.9	16	22	57	.49	.090	41	59	.90	176	.09	34	1.90	.09	.17	11	530

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB  
 - SAMPLE TYPE: CORE AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

 DATE RECEIVED: MAR 16 1992 DATE REPORT MAILED: *March 19/92* SIGNED BY: *[Signature]* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



ACMC ANALYTICAL



ACMC ANALYTICA

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm	ppb
80-18 33-36	55	1410	14	108	.8	10	18	289	5.44	2	5	ND	2	93	.5	2	2	75	1.21	.062	3	6	1.59	31	.20	5	3.11	.38	.19	1	12
80-18 139-142	21	366	10	61	.3	8	3	181	.92	2	5	ND	2	13	.3	2	2	11	.37	.013	2	8	.25	76	.04	3	1.15	.10	.28	3	3
80-19 4-7	63	2216	11	144	1.0	8	10	445	3.26	2	5	ND	2	41	.7	2	3	54	.75	.054	2	23	1.69	51	.13	5	2.53	.19	.20	1	5
RE 80-21 202.5-205	66	1141	44	149	.9	9	12	448	5.06	2	5	ND	1	93	1.7	2	2	72	1.34	.040	3	19	1.85	24	.19	4	3.17	.40	.28	3	21
80-19 196-199	82	3309	7	123	1.6	13	11	249	3.07	2	5	ND	1	32	1.6	2	4	52	.88	.048	2	13	1.64	34	.16	6	2.38	.21	.19	3	10
80-20 60-62.5	2	126	4	64	.1	8	18	575	4.65	5	5	ND	1	74	.2	2	2	115	1.50	.042	4	18	1.57	28	.16	8	2.69	.40	.04	1	2
80-21 23-26	48	1800	12	132	1.1	9	19	487	7.57	14	5	ND	1	106	1.0	6	3	74	1.58	.078	2	12	1.39	37	.16	7	3.91	.41	.12	3	11
80-21 111-114	61	2673	40	212	1.4	15	21	510	6.41	2	5	ND	1	98	1.3	2	2	66	1.37	.073	2	5	2.31	21	.18	3	3.17	.38	.21	1	129
80-21 202.5-205	91	1127	57	162	.8	16	15	492	5.55	3	5	ND	1	92	1.4	2	2	73	1.50	.053	3	20	2.05	23	.19	6	3.11	.38	.26	1	23
80-22 74-77	202	2149	9	146	1.3	14	30	444	9.00	13	5	ND	1	162	1.1	2	2	96	1.92	.086	2	12	1.76	41	.17	7	4.48	.54	.08	2	100
80-22 203-206	26	1122	3	71	1.3	12	19	236	4.53	4	5	ND	4	99	.9	2	2	53	1.38	.055	2	12	1.58	40	.07	10	3.49	.33	.17	3	14
80-23 59-66	33	1235	5	183	1.2	12	34	982	10.79	30	5	ND	1	176	.5	2	2	103	2.06	.075	2	12	2.00	31	.10	14	5.85	.59	.01	3	1
80-24 25.5-28	13	729	13	163	1.3	13	21	1333	11.07	14	5	ND	1	356	.4	2	2	105	4.43	.060	2	9	2.01	18	.10	4	8.72	.90	.03	1	1
80-24 60-62	8	976	5	283	1.1	12	24	794	8.78	40	5	ND	1	278	1.3	2	2	77	2.95	.077	4	10	1.83	43	.07	8	6.50	.71	.05	7	1
80-25 3-7	284	3638	60	333	3.8	9	27	1126	8.49	25	5	ND	2	53	1.4	2	5	75	1.30	.096	5	7	1.58	31	.09	7	3.61	.19	.22	2	6
80-25 85-88	57	2432	24	199	1.7	14	23	601	6.01	2	5	ND	1	102	1.4	2	2	79	1.60	.115	3	14	2.15	35	.17	5	3.50	.33	.12	1	46
80-26 57-60	110	2984	14	162	1.8	4	12	695	5.60	2	5	ND	3	48	.8	2	3	10	.70	.089	4	4	1.10	104	.08	7	2.96	.23	.32	1	3
80-26 124-127	86	4658	47	370	4.0	11	22	604	6.59	6	5	ND	2	56	2.3	2	2	80	1.22	.089	3	13	1.64	22	.17	7	2.98	.19	.19	2	67
80-26 271-274	50	2062	7	118	1.4	10	17	372	5.04	3	5	ND	1	118	.9	2	2	71	1.90	.075	3	14	2.43	11	.17	7	3.96	.44	.10	2	103
80-27 13-14.5	13	935	4	20	.2	5	2	84	.76	5	5	ND	2	9	.2	2	2	6	.18	.030	10	6	.26	54	.01	3	.87	.04	.28	1	1
80-27 122-123	19	1829	2	20	.7	7	3	106	.90	3	5	ND	1	5	.2	2	3	3	.09	.026	12	6	.25	98	.01	4	1.18	.03	.49	1	1
80-27 227-228.5	49	3006	8	195	1.9	7	8	1001	2.75	5	5	ND	7	23	.7	5	5	13	.23	.036	4	26	.65	125	.05	6	1.80	.13	.43	4	1
80-28 9-12	70	3420	13	118	1.4	13	16	532	4.26	2	5	ND	1	61	.6	2	4	57	.90	.083	3	7	2.27	73	.15	5	3.24	.22	.32	1	17
80-28 186-189	28	1357	7	93	.7	8	6	686	2.16	2	5	ND	2	20	.3	2	3	12	.36	.032	3	9	.90	65	.03	9	1.67	.17	.25	2	7
80-30 33-36	33	3349	32	253	2.6	14	24	980	10.10	7	5	ND	1	185	2.0	2	2	90	2.04	.084	2	16	2.39	35	.16	5	5.43	.56	.14	1	22
STANDARD C/AU-R	20	57	37	133	7.4	67	33	1045	3.96	42	15	7	41	52	18.6	16	19	56	.48	.090	39	58	.88	178	.09	32	1.87	.09	.14	11	520

Sample type: CORE. Samples beginning 'RE' are duplicate samples.





SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au* ppb
A	4	52	9	29	.1	7	2	234	1.20	2	5	ND	1	42	.2	2	4	5	.57	.030	3	8	.31	175	.07	3	1.48	.19	.21	2	3
B72	4	42	8	186	.3	69	26	1065	5.78	15	5	ND	2	26	.3	2	2	36	.39	.056	5	65	1.41	92	.23	5	2.67	.07	.23	2	2
G1	109	3502	25	172	2.1	17	23	518	6.30	6	5	ND	2	47	1.6	2	3	57	.81	.068	3	30	1.97	47	.16	4	3.44	.25	.21	3	30
G2	26	223	5	32	.1	11	5	151	2.12	2	5	ND	1	6	.2	2	2	15	.12	.038	5	8	.78	31	.01	3	1.21	.04	.12	1	12
G3	17	304	2	97	.5	8	14	369	5.78	5	5	ND	1	87	.2	2	2	52	1.03	.070	2	4	1.81	51	.25	5	3.37	.06	.25	2	26
G4	15	110	5	142	.2	4	6	466	3.49	2	5	ND	1	35	.3	2	2	6	.44	.049	5	14	.82	111	.12	3	2.34	.09	.23	1	19
G5	4	12	3	100	.1	12	10	318	3.07	5	5	ND	1	8	.2	2	2	45	.18	.075	3	7	3.52	44	.01	4	3.26	.03	.26	3	1
G6	4	63	27	143	.7	9	32	1128	7.88	15	5	ND	1	52	.2	2	2	76	.53	.072	2	5	3.03	48	.12	4	4.31	.08	.11	3	1
RE G3	15	312	2	101	.4	9	14	382	5.79	4	5	ND	1	87	.3	2	2	52	1.02	.075	2	5	1.81	49	.25	3	3.36	.06	.23	1	25
670	7	39	4	117	.2	55	15	987	4.79	4	5	ND	1	12	.2	2	2	39	.25	.057	4	58	1.38	122	.12	3	2.78	.03	.32	1	2
713	4	195	44	94	.4	7	3	631	1.88	4	5	ND	1	26	.4	2	2	9	.34	.026	3	7	.41	167	.07	3	1.27	.20	.11	2	1
STANDARD C/AU-R	20	57	37	133	7.4	67	33	1045	3.96	42	15	7	41	52	18.6	16	19	56	.48	.090	39	58	.88	178	.09	32	1.87	.09	.14	11	510

Sample type: ROCK. Samples beginning 'RE' are duplicate samples.

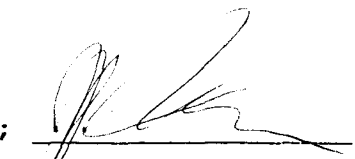
STATEMENT OF QUALIFICATIONS

I, John P. McGoran of 2111 West 34th Avenue, Vancouver, B.C. hereby certify that:

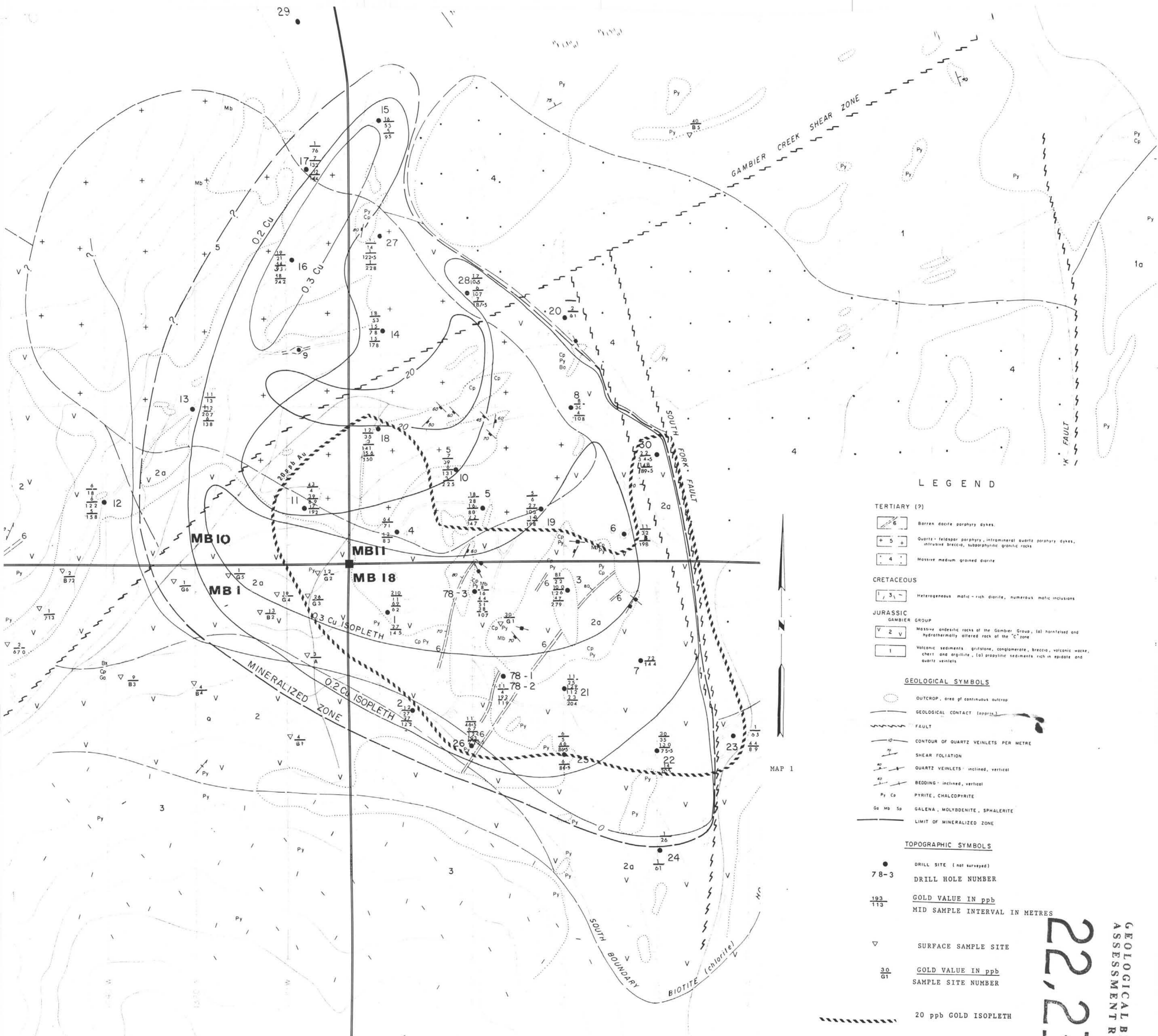
1. I am a graduate of Carlton University (1972) and hold a B.Sc. Degree in Geology.
2. I am a member in good standing of the following associations:  
Canadian Institute of Mining and Metallurgy  
Geological Association of Canada  
American Institute of Mining Engineers  
Prospectors and Development Association of Canada
3. I have been employed in my profession as an exploration geologist, geochemist and consultant for the last forty years.

DATED at Vancouver, British Columbia, this    day of    March, 1992

SIGNED;



John P. McGoran



### LEGEND

#### TERTIARY (?)

- Barren dacite porphyry dykes.
- Quartz-feldspar porphyry, intramineral quartz porphyry dykes, intrusive breccia, subvolcanic granitic rocks.
- Massive medium grained diorite.

#### CRETACEOUS

- Heterogeneous mafic-rich diorite, numerous mafic inclusions.

#### JURASSIC

##### GAMBIER GROUP

- Massive andesitic rocks of the Gambier Group, (a) hornfelsed and hydrothermally altered rock of the "C" zone.
- Volcanic sediments - gillstone, conglomerate, breccia, volcanic wash, chert and argillite, (a) prophyllitic sediments rich in epidote and quartz veinlets.

#### GEOLOGICAL SYMBOLS

- OUTCROP, area of continuous outcrop.
- GEOLOGICAL CONTACT (approx.)
- FAULT
- CONTOUR OF QUARTZ VEINLETS PER METRE
- SHEAR FOLIATION
- QUARTZ VEINLETS - inclined, vertical
- BEDDING - inclined, vertical
- PYRITE, CHALCOPYRITE
- GALENA, MOLYBDENITE, SPHALERITE
- LIMIT OF MINERALIZED ZONE

#### TOPOGRAPHIC SYMBOLS

- DRILL SITE (not surveyed)
- DRILL HOLE NUMBER
- GOLD VALUE IN ppb  
MID SAMPLE INTERVAL IN METRES
- SURFACE SAMPLE SITE
- GOLD VALUE IN ppb  
SAMPLE SITE NUMBER
- 20 ppb GOLD ISOPLETH

SCALE  
1:2400

0 50 100 150 200 250 METRES

TO ACCOMPANY GAMBIER REPORT BY J.P.MCGORAN, MARCH 1992

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

22,232