

84-#178 - 12133  
2

REPORT  
on the  
KING MINERAL CLAIM  
ROCHER DEBOULE MOUNTAIN, HAZELTON AREA,  
BRITISH COLUMBIA

Latitude 55 10'N; Longitude 127 37'W  
N.T.S. 93M/4E

on behalf of

OWNER: JIM HUTTER

OPERATOR: JIM HUTTER

by

COLIN HARIVEL, B.Sc, F.G.A.C.

JANUARY 25, 1984.

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

12,133

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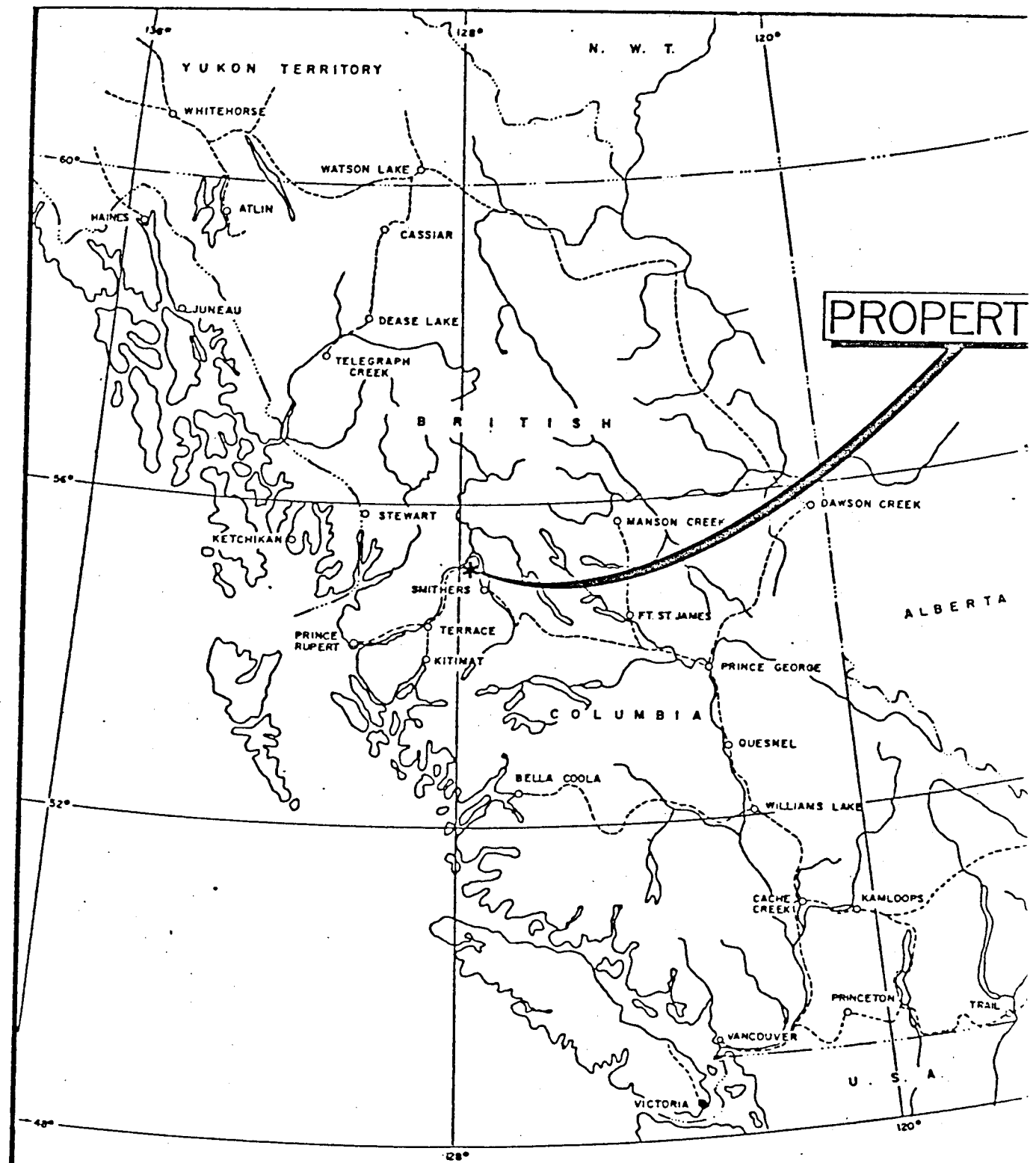
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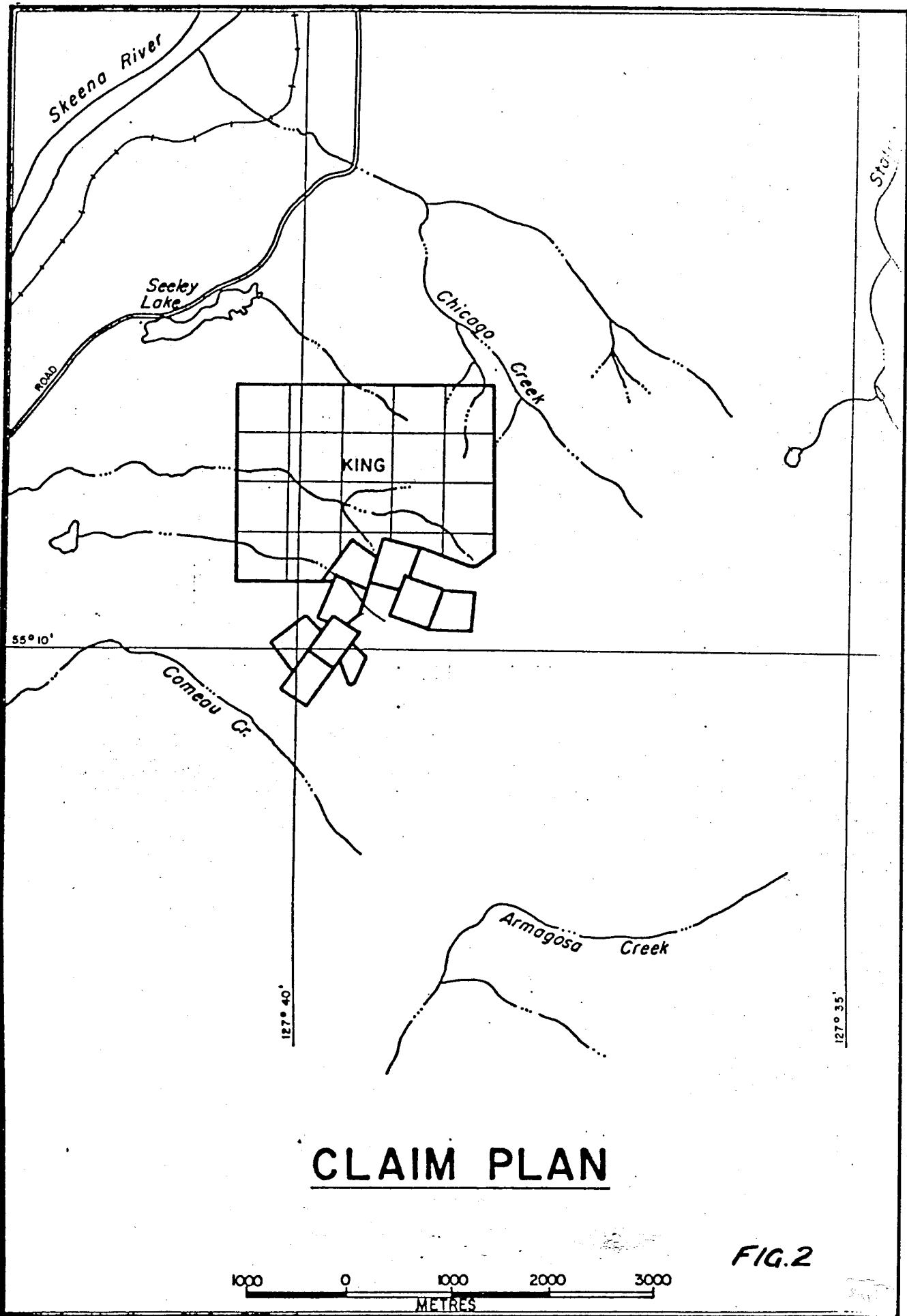


# INDEX MAP

BRITISH COLUMBIA

100 KM.

FIG. 1



Skeena River

Seeley Lake

Chicago Creek

KING

Comeau Cr.

Armagosa Creek

Stair

55° 10'

127° 40'

127° 35'

CLAIM PLAN

FIG. 2



## INTRODUCTION:

In November, 1983 the writer visited the property accompanied by Mr. W. Pratt. The purpose of the visit was to effect assessment work and to make a preliminary investigation of the ground. Snow cover prevented an extensive traverse in the area of the claim and in the course of the visit 20 geochemical soil samples and 4 rock-chip samples were taken. These samples form the basis of this report.

## LOCATION AND ACCESS:

The property is situated on the northwestern flank of Rocher Deboile Mountain, between elevations of 300 metres and 1860 metres, m.s.l. Access to the property is gained by travelling west from New Hazelton, B.C. for 11 kilometres on Highway 16 and thence for 6.5 kilometres to the southeast on a good 4 X 4 dirt road.

## PROPERTY AND OWNERSHIP:

This report refers to the KING mineral claim comprising a total of 20 units, less a portion of several known crown grants. The claim record number is 4970 and the claim expiry date is January 20, 1984.

The owner of record is Jim Hutter of Telkwa, B.C.

## TOPOGRAPHY AND LOCAL ENVIRONMENT:

The glacially shaped topography of the claim area varies from gently sloping to rugged, mountainous terrain.

The claim area below 1500 metres is generally conifer covered while the lowest areas of the property are covered by a mixture of coniferous and deciduous trees (cottonwood, birch, and aspen).

The claim area receives abundant precipitation of which as much as six metres annually may occur as snow in the highest reaches of the property.

## GEOLOGY:

The Rocher Deboile Range lies within the intermountain belt of the Western Cordillera and forms a segment of the Hazelton Mountains. The passively emplaced Rocher Deboile stock forms the mountain core and is surrounded on all sides by predominantly Skeena Group volcanics and sediments. Three minor N-S faults cut both the stock

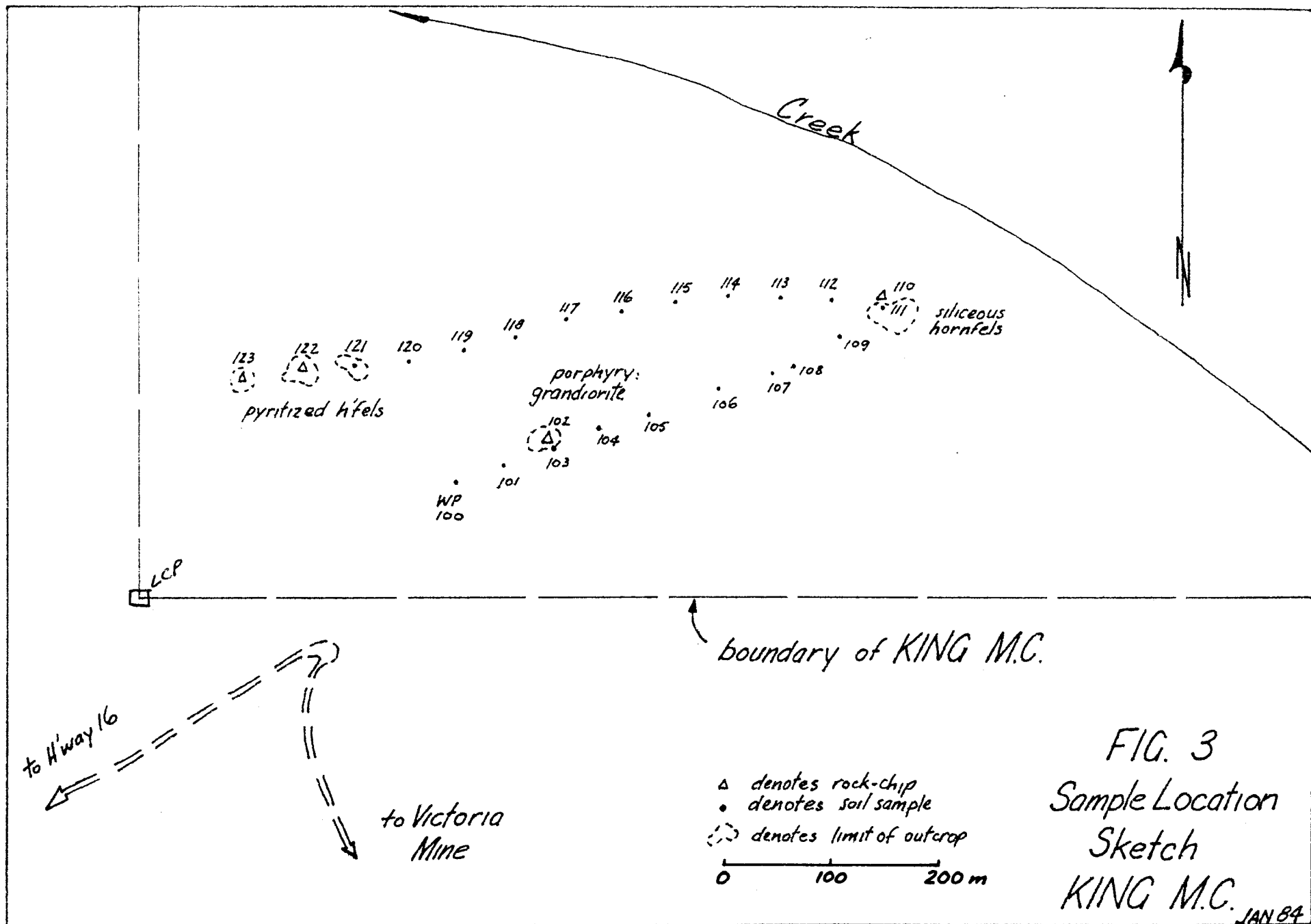


FIG. 3  
 Sample Location  
 Sketch  
 KING M.C. JAN 84

and the surrounding strata.

The stock is composed primarily of porphyritic granodiorite with a younger quartz monzonite phase.

Mineralization in the mountain range consists, for the most part, of fissure veins and shear zone replacements, although a molybdenum porphyry was explored at the south end of the range.

Structurally the veins are simple, striking generally east-west and dipping north on the western flank of the stock and north-south with a westerly dip on the eastern flank.

Mineralogically the veins are complex with several phases of mineralization documented.

Outcrops of pyritized hornfels were noted on the Victoria Mine access road on the day of the visit to the property and in the course of the sampling traverse in the extreme southwest of the King claim, a few outcrops of hornfels were encountered and sampled.

#### GEOCHEMICAL SAMPLES AND RESULTS:

The samples were analysed by Acme Analytical Laboratories, Vancouver. The method selected by the writer was I.C.P. which results in rapid quantitative analysis. In this case 30 elements were reported.

The summarized analytical procedure is:

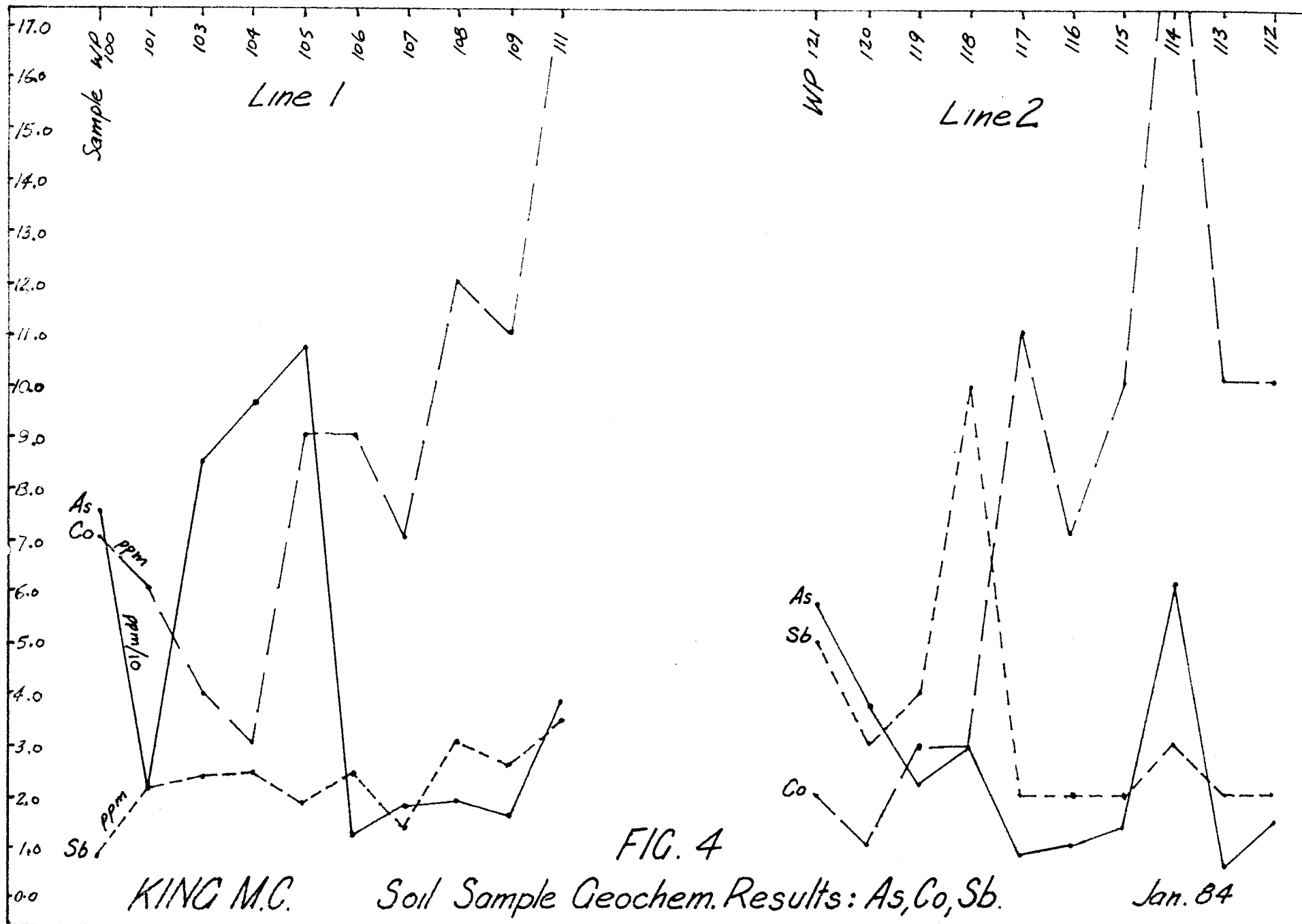
a 0.500g sample is digested with 3 ml of 3:1:3 HCl to HNO<sub>3</sub> to H<sub>2</sub>O at 90 degrees C. for 1 hour. The sample is diluted to 10 ml with water. This leach is partial for; Ca, P, Mg, Al, Ti, La, Na, K, W, Ba, Si, Sr, Cr, and B. The detection limit for Au is 3 ppm.

Sample results show anomalous values in some samples for Mo, Cu, Pb, Zn, Ag, Ni, Co, Mn, As, Au (one sample), Sb, Bi and V. The results are included as an appendix and ranges and apparent background may be derived by inspection.

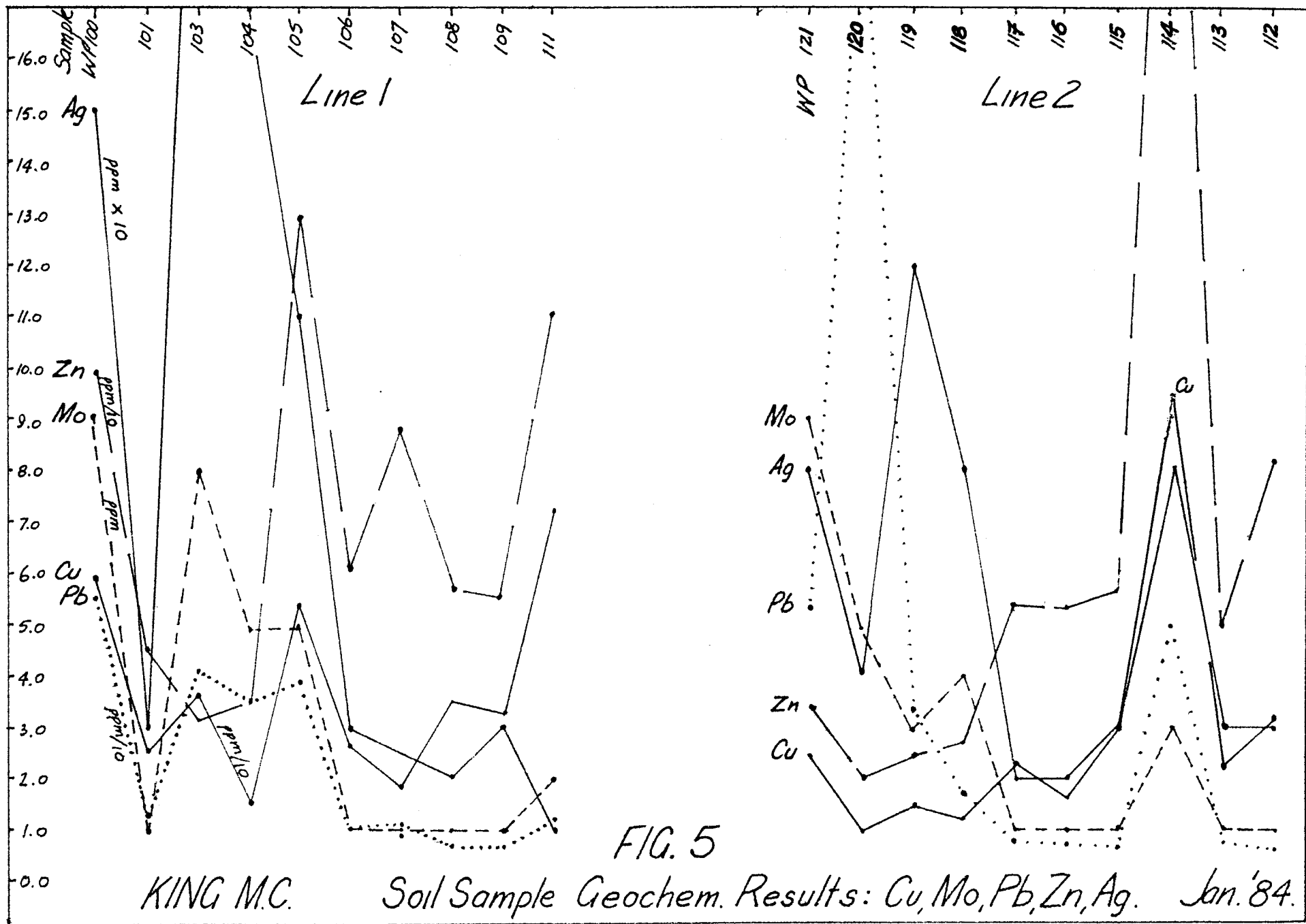
The sample locations are shown on Fig.3, and a description of the samples is included as an appendix. Figures 4 and 5 are soil sample profiles. Correlations between lines are easily made by overlaying the left and right parts of each figure.

Generally, the twenty soil samples' results indicate a significant range of values for many of the elements reported. A detailed interpretation of the results is not warranted because the number of samples is low. Some broad observations are outlined below.

In the light of Hutter's estimated potential tonnage and grade at Victoria Mine to the south east, the results for gold and cobalt, the principal elements of interest, are mentioned first. Only one







sample (# 122, a rock-chip from a pyritic, siliceous hornfels) had detectable gold value using the ICP analytical technique. Since the detection limit for ICP is relatively high at 3ppm it is probable that significant information will be gained by having the samples re-analysed using a more sensitive technique such as neutron activation. This is recommended as a trial on this first batch of samples. Results from this trial will aid in the interpretation of gold dispersion in the area.

Results for cobalt are generally higher on the eastern end of the soil lines with samples #114 and #111 returning the highest values. Zinc and, to a lesser extent, copper show good correlation with cobalt results.

Good correlations are also evident between molybdenum and arsenic, between molybdenum and lead and between zinc, lead, molybdenum and copper.

The reported complex sulphide mineralogy of the Victoria Mine veins could give geochemical indications similar to the associations noted above.

The flat, relatively low profiled results for samples #106-#109 and #115-#117 are interpreted to represent anomalously low values for most elements in the transported soils at these sample sites. These soils were grey, sandy and commonly showed very little horizon development. Some sample sites showed evidence of mixing of horizons. In the area traversed a number of old slides were evident and these could easily account for some of the immature soils. Material from these sites would reflect different geochemical values from those of nearby residual soils.

Interpretation of results must be done with care. The immature, recently transported soils materials give relatively low values for many elements and this material should be noted on maps in subsequent soil sampling work. Soils obviously derived from nearby bedrock, but immature should be also clearly identified (#111 is an example of this type).

It is suspected that an earlier geochemical survey, done along the 600m contour in the northwest of the King claim by Arbor Resources Inc., includes two sample populations; one of soils locally generated and the other of mixed and transported soils. Low values reported in this survey are probably not representative of much underlying bedrock.

Single - result anomalies of significance in the present survey are the 2ppm Au returned for sample 122 - a rock-chip, and the 3.3ppm Ag returned for soil sample 103.

CONCLUSIONS AND RECOMMENDATIONS:

The KING claim lies athwart the western contact of the Rocher Deboule intrusive granodiorite and the volcanics and sediments of the Skeena Group. The claim covers ground immediately north of the Victoria Mine claims. Potential tonnage and grade for the Victoria Mine has been estimated by Hutter (1980) to be 100,000 tonnes grading 0.35 oz/ton Au and 0.3% Co over a mining width of one metre.

The preliminary geochemical sampling on the KING claim indicates anomalous values for Co and base metals and a more extensive mapping, soil sampling and rock-chip sampling programme is warranted. The samples collected for 1983 assessment work, the basis of this report, should be submitted to neutron activation analysis for Au.

The 1983 sampling does not significantly test the KING claim and should be treated as an orientation survey for further work to be conducted in the summer months.

It should be borne in mind that the most likely economic mineral deposit target is one modelled on the vein-type deposit at Victoria Mine. Accordingly, soil sampling will assist in the definition of up-slope, probably small, mineralized zones. These mineralized zones could be completely covered. While mapping is in progress rock-chip samples should be collected with a view to defining mineralized areas, and particularly in areas where soil sampling is impractical or impossible.

The next phase of work would involve about 12 line-kilometres of soil and rock-chip sampling on lines along contours spaced about 75m apart in elevation. Samples should be collected at about 50m intervals.

The cost of this work is estimated as follows;

sample collections and mapping.....10 man-days	
@ \$300/geologist day and \$150/assistant day.....	=\$2250
transportation.....6 days @ \$110/day.....	=\$ 600
supplies expended.....	=\$ 150
assays and analyses, including freight.....	=\$1800
contingency.....	=\$ 400
report preparation.....	=\$ 600
filing fees.....	=\$ 300
	-----
	TOTAL
	\$6100
	-----

This work should begin as near as practical to the intrusive contact, an important general guide to ore-mineral veins in the area. The work can be done in stages with no significant increase in total cost, and so as each batch of mapping and sampling is done, alternate traverses may be planned.

STATEMENT OF COSTS

FEES: C. Harivel, geologist, Nov. 8, 1983.....	\$300
W. Pratt, assisting, Nov. 8, 1983.....	\$150
TRUCK RENTAL.....	\$ 91.08
GASOLINE.....	\$ 24.70
SUPPLIES EXPENDED.....	\$ 50
ANALYSIS OF SAMPLES AND FREIGHT.....	\$161.40
MEALS.....	\$ 22.50
PREPARATION OF REPORT, INCL. PHOTOCOPYING.....	\$300
	-----
	\$1099.68
	-----

STATEMENT OF QUALIFICATIONS.

I, Colin Harivel, of Box 233, Smithers, B.C., hereby state:

1. I am a geologist, residing at Hislop Road, Telkwa, B.C.
2. I graduated in 1972 from the University of British Columbia with a B.Sc. in Geology.
3. I have been active in mineral exploration since 1963 and have practised my profession as a mineral exploration geologist since 1972.
4. This report is based on work conducted by me on the mineral claim(s) mentioned in the report.

Signed: .....



Colin Harivel.

Dated: .....

Jan. 13, 1984

#### REFERENCES.

Sutherland Brown, A., Geology of the Rocher Deboule Range, B.C. Dept. of Mines, Bulletin 43, 1960.

Hutter, J.M., Sampling Report on the VICTORIA Mineral Claim, Assessment Report #8336 filed with the Ministry of Energy, Mines and Petroleum Resources, 1980.

Plecash, D.C., Rocher Deboule Property, Private Company Report, Groot Logging, Mineral Exploration, Smithers, B.C., 1983.

## ICP GEOCHEMICAL ANALYSIS

A .500 GRAM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO HNO<sub>3</sub> TO H<sub>2</sub>O AT 90 DEG.C. FOR 1 HOUR. THE SAMPLE IS DILUTED TO 10 MLS WITH WATER.  
THIS LEACH IS PARTIAL FOR: Ca, P, Mg, Al, Ti, Li, Na, K, W, Ba, Si, Sr, Cr AND B. Au DETECTION 3 ppm.  
SAMPLE TYPE - SOIL & ROCK

DATE RECEIVED JAN 10 1984

DATE REPORTS MAILED

*Jan 16/84*

ASSAYER

*D. Toye*

DEAN TOYE, CERTIFIED B.C. ASSAYER

HARVEX MANAGEMENT CO FILE # 84-0040

PAGE # 1

SAMPLE #	Mo	Cu	Pb	Zn	Aq	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hq	Ba	Ti	B	Al	Na	K	W
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	%	%	%	%	ppm
WP-100	9	59	56	99	1.5	15	7	270	13.65	75	2	ND	3	8	1	2	6	86	.04	.26	8	42	.19	107	.03	2	3.71	.01	.05	2
WP-101	1	25	12	45	.3	12	6	118	4.07	20	2	ND	2	21	1	2	3	78	.10	.09	8	23	.22	108	.04	4	2.92	.01	.08	2
WP-102 ROCK	2	123	7	60	.3	18	13	930	4.40	50	2	ND	4	62	1	2	7	110	1.64	.09	9	44	1.91	305	.25	6	2.30	.16	.08	2
WP-103	8	36	41	31	3.3	8	4	112	5.20	85	2	ND	2	23	1	14	20	69	.03	.14	13	24	.15	169	.01	3	3.33	.01	.07	2
WP-104	5	16	35	35	1.7	7	3	135	5.38	96	2	ND	2	24	1	13	19	79	.04	.13	17	23	.29	121	.01	6	2.01	.01	.11	2
WP-105	5	54	39	129	1.1	16	9	237	6.16	107	2	ND	3	18	1	2	18	67	.06	.18	8	32	.28	149	.02	4	3.52	.01	.08	2
WP-106	1	27	10	61	.3	14	9	258	3.12	12	2	ND	2	24	1	2	5	56	.25	.10	7	23	.49	138	.05	4	2.32	.02	.12	3
WP-107	1	19	11	88	.1	14	7	200	3.96	18	2	ND	2	13	1	2	5	68	.10	.11	6	22	.33	110	.05	4	2.62	.01	.08	2
WP-108	1	35	7	58	.2	16	12	455	3.04	19	2	ND	2	30	1	2	4	56	.30	.06	9	22	.57	126	.06	3	2.17	.02	.16	2
WP-109	1	33	7	56	.3	16	11	377	3.08	16	2	ND	2	26	1	2	4	58	.32	.06	9	23	.56	119	.07	5	2.20	.02	.19	2
WP-110 ROCK	1	12	5	73	.1	16	11	468	3.34	2	2	ND	2	19	1	2	4	82	.19	.04	3	34	.61	118	.12	5	3.71	.06	.23	2
WP-111	2	72	12	111	.3	27	18	865	3.80	38	2	ND	2	34	1	2	4	57	.38	.06	9	26	.74	124	.04	4	2.72	.02	.19	2
WP-112	1	31	6	82	.3	15	10	468	3.21	15	2	ND	2	31	1	2	5	59	.40	.07	8	21	.51	139	.06	5	2.29	.02	.15	2
WP-113	1	22	7	50	.3	15	10	437	2.70	6	2	ND	2	25	1	2	4	50	.39	.07	9	21	.51	107	.06	8	1.80	.02	.20	2
WP-114	3	94	50	279	.8	26	26	923	4.92	61	2	ND	2	44	1	3	6	59	.35	.08	8	23	.67	174	.03	3	2.95	.02	.22	2
WP-115	1	29	6	56	.3	14	10	350	2.89	13	3	ND	2	23	1	2	5	52	.26	.06	8	22	.46	111	.05	5	1.96	.01	.14	2
WP-116	1	16	7	53	.2	12	7	190	3.16	10	2	ND	2	21	1	2	4	59	.17	.10	6	19	.34	97	.05	4	2.06	.01	.09	2
WP-117	1	23	7	54	.2	18	11	298	3.23	8	2	ND	2	16	1	2	4	53	.11	.04	7	21	.50	122	.04	3	2.37	.01	.12	2
WP-118	4	12	17	27	.8	5	3	66	2.97	30	2	ND	2	35	1	10	10	47	.06	.13	7	15	.06	259	.01	4	1.37	.01	.06	2
WP-119	3	14	33	24	1.2	6	3	87	3.80	22	2	ND	2	46	1	4	23	56	.05	.12	9	15	.11	146	.01	3	1.78	.01	.08	2
WP-120	5	9	182	20	.4	5	1	57	3.44	38	2	ND	2	67	1	3	13	40	.02	.17	14	11	.38	115	.01	2	2.50	.02	.05	2
WP-121	9	24	53	36	.8	7	2	103	7.65	57	2	ND	2	131	1	5	13	69	.04	.37	12	20	.24	260	.01	2	4.38	.04	.06	2
WP-122 ROCK	3	20	16	47	.5	31	14	298	3.84	46	2	2	3	111	1	2	11	61	1.67	.12	9	118	2.38	56	.01	5	4.85	.40	.16	2
WP-123 ROCK	1	24	10	70	.1	44	19	372	5.44	100	2	ND	2	74	1	2	10	116	1.13	.11	4	120	2.20	53	.12	6	4.01	.26	.14	2
STD A-1	1	31	39	179	.3	35	12	1005	2.82	10	2	ND	2	36	1	2	2	56	.61	.10	8	77	.71	281	.08	7	2.04	.02	.20	2

Appendix 1.

## APPENDIX 2

## DESCRIPTION OF SOIL AND ROCK - CHIP SAMPLES, KING CLAIM.

DATE OF SAMPLING: NOV. 8, 1983....SAMPLER: COLIN HARIVEL.

- WP 100 100m from fourth switchback in Victoria Mine access road and at elevation 3050'/red soil/angular frags grey 0 + rounded boulders mixed rock types
- WP 101 +150m at 3030'/red soil/sandy component suggests till/rounded boulders
- WP 102 \* +200m rock chip/ grey 0 w. 5% pyrite
- WP 103 +200m reddish-brown soil, somewhat fluffy-high organic?/3000'
- WP 104 +250m /2900'/soil reddish to br. red/ rubbly sub-oc/
- WP 105 +300m/2900'/reddish soil similar to prev.
- WP 106 +374m/2875'/sl.reddish brown - sandy with rounded cobbles/
- WP 107 +425m/2820'/reddish, sandy to light-fluffy/B horiz. with rounded granitoid cobbles/
- WP 108 +480m/2780'/greyish to light brown/sandy and somewhat clay-bound--glacial/
- WP 109 +530m/2820'/greyish, simil to prev./change elev to read 2720'/
- WP 110 \* +580m/2900'-wrong elev.reading should be approx.2670'/ rock chip of flinty hornfels in area of plentiful sub-rounded sub-oc/just above bank of stream/
- WP 111 at same loc prev. soil derived from h'fels/no devel. B horizon/END OF LINE

## RETURN LINE ON 2700' CONTOUR (APPROX.)

- WP 112 +50m reddish brown - some clay
- WP 113 +100m grey soil, no devel. B horiz./
- WP 114 +150m/2690'/brown, clay rich, interstitial soil from mixed cobbles and sub-rounded boulders/
- WP 115 +200m/2700'/mixed B and C horiz./reddish brown and grey sandy with rounded cobbles and pebbles, boulders of hornfels and granitoid/
- WP 116 +250M/2700'/bright red B/silty compos./fine w. v. few cobbles/
- WP 117 +300m/2720'/greyish -brown, B << C/rounded pebbles, boulders of granitoid/
- WP 118 +350m/reddish brown/ cobbles and pebbles/ang. to sub-rounded/signif. change in vegetation-slide zone/
- WP 119 +400m/2675'/bright red soil/bleached pebbles/
- WP 120 +450M/2700'/bright red soil/sand, clay, pebbles and cobbles/
- WP 121 +500m/2710'/bright red soil/mixed/much charcoal in soil hole - old burn and mixed horizon soil/
- WP 122 \* +600M/2750'/5-10% pyrite in hornfels- very siliceous/bright red soil/
- WP 123 \* +650m/2740'/outcrop 20 x 10 m/hornfels with >5% pyrite/END OF SAMPLE LINE