

# HOGEM JOINT VENTURE

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673258

93N/13E  
94C/4E

## EXPLORATION PROPOSAL SUMMARY SHEET

**NAME:** HAW EAST

**DISTRICT:** Omineca Mining Division

**LAND POSITION:** 5 claims, 86 units, staked August 1990.

**TARGET:** Porphyry Copper-Gold

**GEOLOGICAL SETTING:** Hogem Batholith intruded by Duckling Creek syenite complex.

**HIGHLIGHTS:** Numerous silt samples anomalous in copper drain known areas of migmatitic syenite. Several copper showings sampled recently returned values up to 1.84% Cu; one had trace gold. Two old soil grids show open anomalies with values into the 1,000's ppm Cu. Silts and soils were not analysed for gold.

**WORK HISTORY:** Prospecting;  
Regional silt sampling;  
Regional aeromagnetic surveying;  
Two restricted soil grid surveys.

**PROPOSED PROGRAM:** Line cutting, soil and lithochemical sampling, geological mapping, prospecting, magnetic and IP surveys.

**BUDGET:** \$150,000

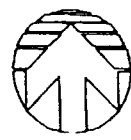
**PROPOSED TRADE TERMS:** Net Smelter Return: 2%  
Option Requirements:

<u>YEAR</u>	<u>SHARES</u>	<u>PAYMENTS</u>	<u>EXPENDITURES</u>	<u>INTEREST EARNED</u>
Closing	100,000	25,000		
1		25,000	125,000	
2		25,000	175,000	
3		25,000	200,000	50%
		\$100,000	\$500,000	

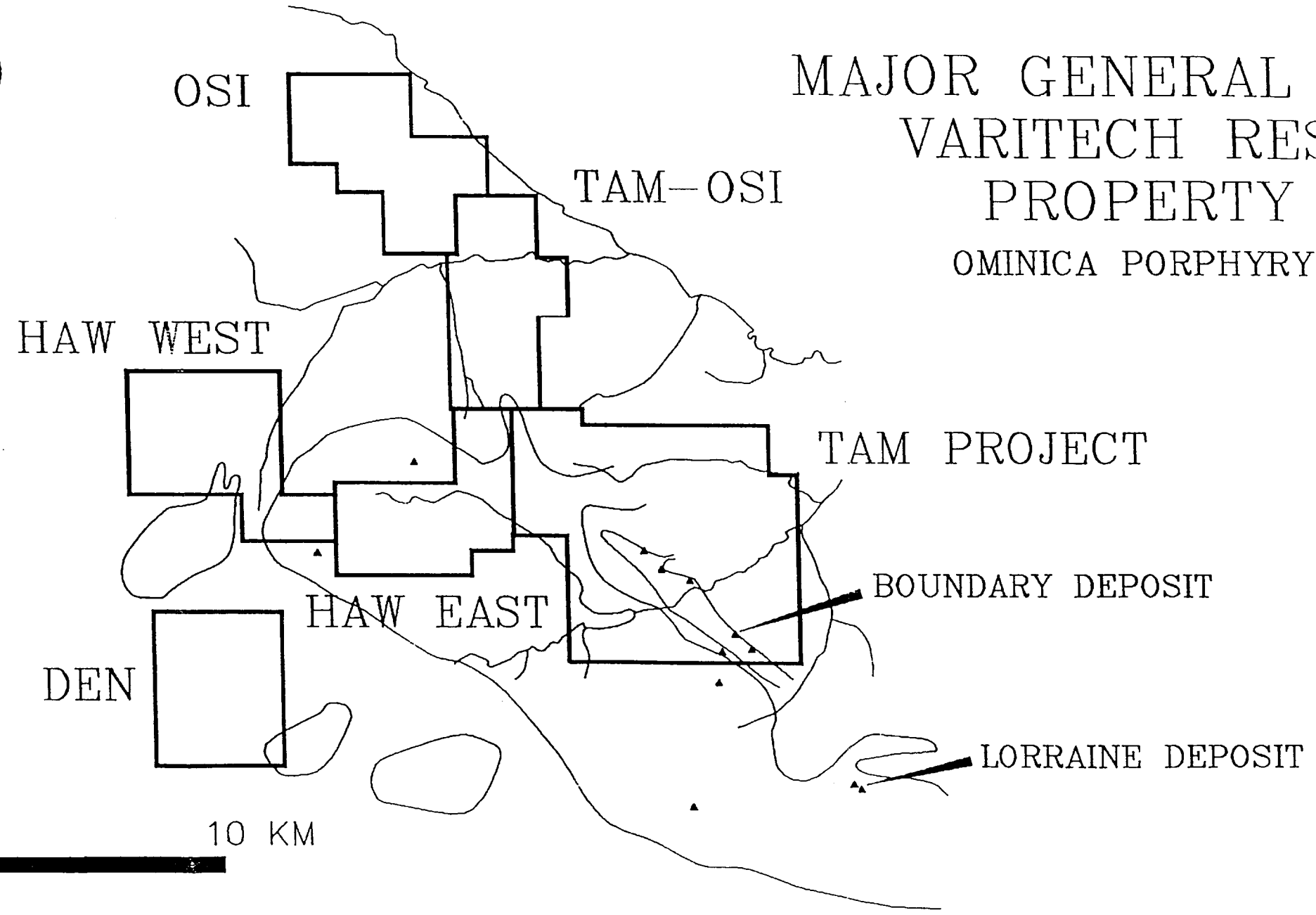
Operator: Hogem J.V.

**ATTACHMENTS:**

- I. Compilation of Geological, Geochemical, Geophysical and Other Data on the HAW EAST Group of Mineral Claims, Omineca Mining Division, NTS 94C/4E and 93N/13E.
- II. Draft Option Agreement



MAJOR GENERAL RESOURCES LTD.  
VARITECH RESOURCES LTD.  
PROPERTY LOCATIONS  
OMINICA PORPHYRY COPPER GOLD BELT



***HAW EAST PROPERTY***

***COMPILATION OF GEOLOGICAL, GEOCHEMICAL, GEOPHYSICAL  
AND OTHER DATA ON THE HAW EAST GROUP OF MINERAL CLAIMS***

***OMINECA MINING DIVISION,***

***NTS 94C/4E AND 93N/13E***

**Prepared by**

**Fred Chow, Geologist**

**and**

**Bernard H. Kahlert, P.Eng., Geologist**

**October 1990**

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## INTRODUCTION

During the past year or two, mineral exploration has again focussed on large, low-grade porphyry type copper deposits with associated gold/silver mineralization. Based on content values, these deposits may be classified as precious metal deposits with base metal or copper deposits with gold-silver values.

Activities have been focussed on the Hogem Batholith and to the adjoining Takla volcanics on the eastern flank. Much attention has been drawn towards properties which were explored for copper and/or molybdenum mineralization during the late 1960's and early 1970's.

During the above time period, precious metal content was not a large factor in the evaluation of porphyry copper deposits, because both price and gold/silver content were low. Since the increase in price of both copper and gold, these low-grade, large deposits are considerably more economically viable.

Major General Resources acquired the mining properties plus data on other work accumulated by Union Minière Explorations and Mining Corp. Ltd. (UMEX) in their joint venture with Wenner Gren during the nine years from 1969-77.

Major General Resources has teamed up with Varitech Resources to form the Major General - Varitech Joint Venture to further explore the Tam property; also, to acquire by staking mineral claims on targets which have mineral showings, and/or geochemical anomalies, and/or favourable aeromagnetic anomalies. The Joint Venture is focussing their attention on the Duckling Creek Syenite Complex intrusions (*Figures 2 and 7*). A large number of the targets were investigated by the UMEX/Wenner Gren Joint Venture, though some were examined only by reconnaissance geochemical sampling and prospecting. Some of the targets were recommended for further follow-up work but not completed.

**MINERAL CLAIMS** (See Figure 1)

The Major General - Varitech Joint Venture has acquired by staking, the following mineral claims, in the headwater area of the northern tributaries of HaHa Creek, within the Omineca Mining Division:

Claim Name	Record No.	No. of Units	Staking Date	Expiry Date
HAW 1	12335	20	July 26/90	July 26/91
HAW 2	12336	18	July 27/90	July 27/91
HAW 3	12337	18	July 27/90	July 27/91
HAW 4	12338	18	July 27/90	July 27/91
HAW 10	12344	12	July 28/90	July 28/91
TOTAL UNITS		86	TOTAL AREA	2,150 Ha or 5,310 ac.

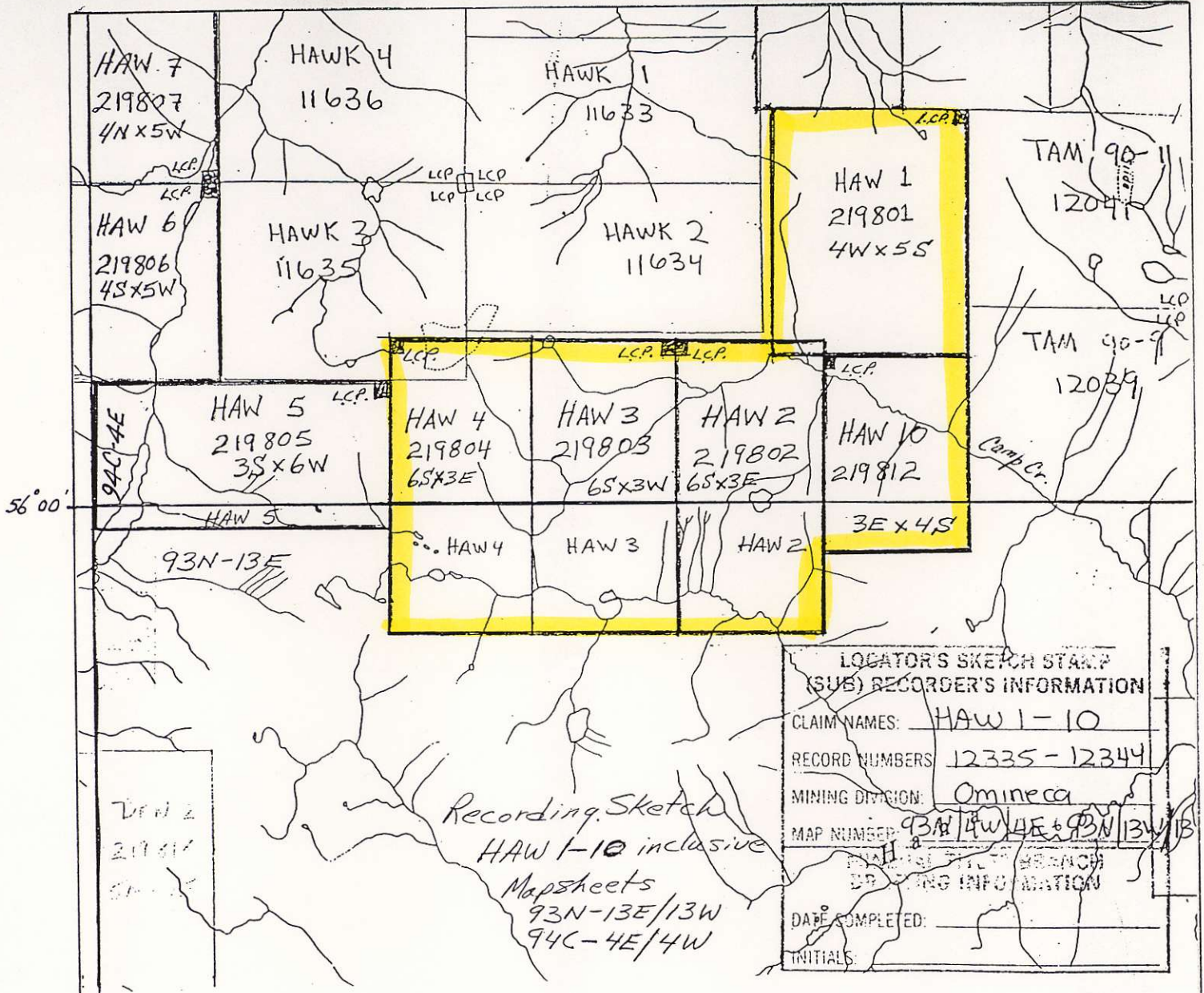
**REGIONAL GEOLOGICAL SETTING AND MINERALIZATION** (See Figure 2)

The HAW East property is situated within the Hogem Batholith, a large, complex, multiphase body intruding the Takla Volcanics. These volcanics, of basic to intermediate composition, are the main component of the Mesozoic Quesnel Trough which extends from the U.S. border to northwestern British Columbia (*see map over*).

The setting of the HAW West property is proximal to a complex body of syenite within granitic rocks of the Hogem Batholith. The syenitic body is named the Duckling Creek Syenite Complex and is located in north-central British Columbia, about 200 kilometres northwest of Prince George, B.C. It is a northwest trending, roughly elliptical body, approximately 5 kilometres by 32 kilometres in size. This Duckling Creek Syenite Complex lies diagonally across the mid-section of the 160 kilometre long northwest trending Hogem Batholith.

The Duckling Creek Syenite of Middle Jurassic age intrudes rocks of the Hogem Batholith alkalic suite, of Lower Jurassic to Upper Triassic age, which is comprised of granodiorite, monzonite, diorite and granite. The rocks of the syenite complex are variable in texture and mafic content but can be divided into two main divisions:





LOCATOR'S SKETCH STAMP  
(SUB) RECORDER'S INFORMATION

CLAIM NAMES: HAW 1-10

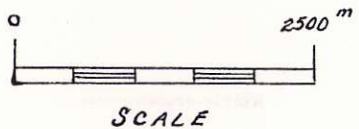
RECORD NUMBERS 12335-12344

MINING DIVISION: Omineca

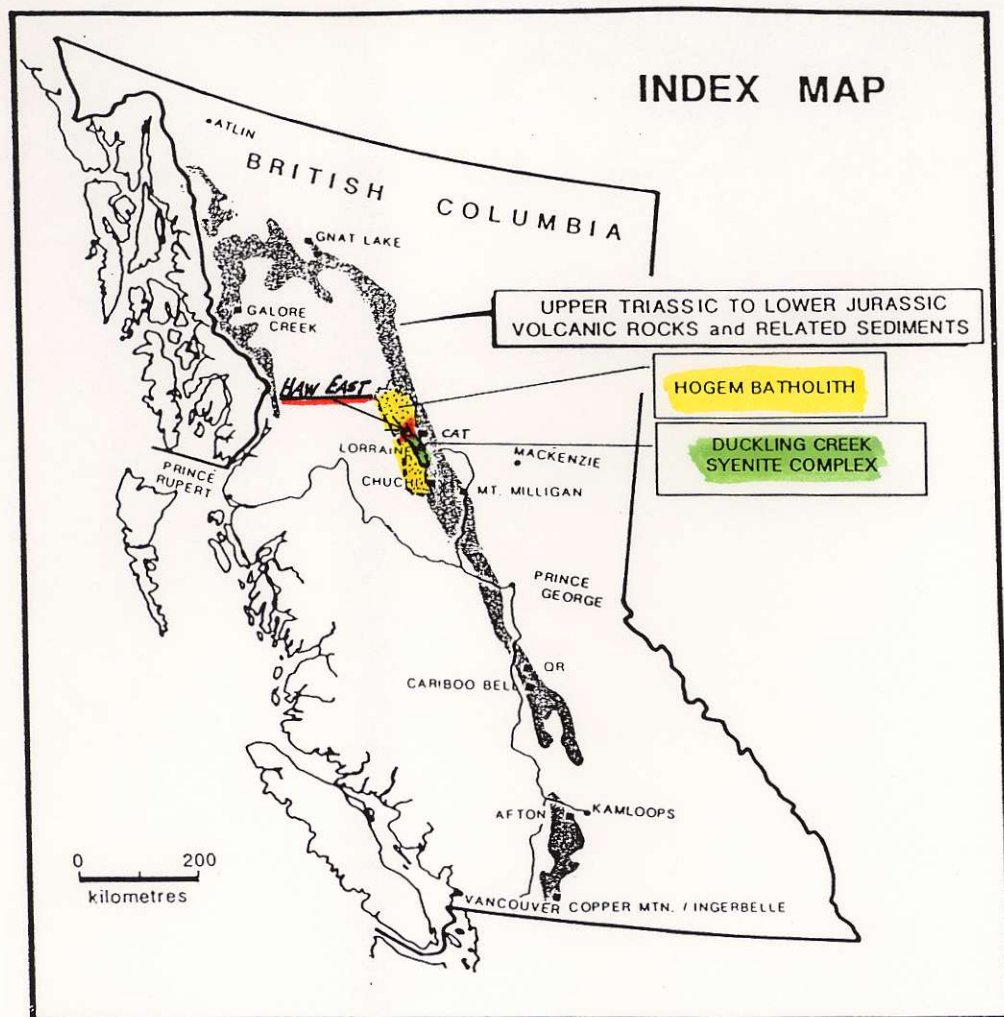
MAP NUMBER: 93N 13W 4E & 93N 13W 1B

DATE COMPLETED:

INITIALS:



MAJOR GENERAL RESOURCES LTD	
MAJOR GENERAL/VARITECH JOINT VENTURE	
HAW EAST GROUP	
HAW 1, 2, 3, 4 and 10 M.C.	
CLAIM MAP	
MIN. DIV. - Omineca	NTS: 94C/4E 93N/13E
SCALE - Reduced Approx. 1 cm = 625 m	DATE: Sept., 1990
DATA: Mining Recorder	FIGURE 1



MAJOR GENERAL RESOURCES LTD

MAJOR GENERAL/VARITECH JOINT VENTURE

HAW EAST GROUP

REGIONAL GEOLOGICAL SETTING

MIN. DIV. - <i>Omineca</i>	NTS : <i>93N-13E</i> <i>94C-4E</i>
SCALE -	DATE : <i>Oct., 1990</i>
DATA :	FIGURE <i>2</i>



1. Pink holofelsic syenite, mostly coarse grained but varying in texture from aplitic to pegmatitic.
2. Pink to gray, fine to medium grained migmatite, mostly syenitic in composition.

Mineralization, consisting of copper and minor amounts of gold and silver, occurs in the migmatite. Minerals in decreasing order of abundance are: magnetite, hematite, pyrite, chalcopyrite, bornite, chalcocite and very minor galena. These minerals are disseminated along foliae in the migmatite and along small fractures. Potash feldspathization, seritization and chloritization are found throughout the Duckling Creek Syenite. Biotite is prominently associated with the copper mineralization.

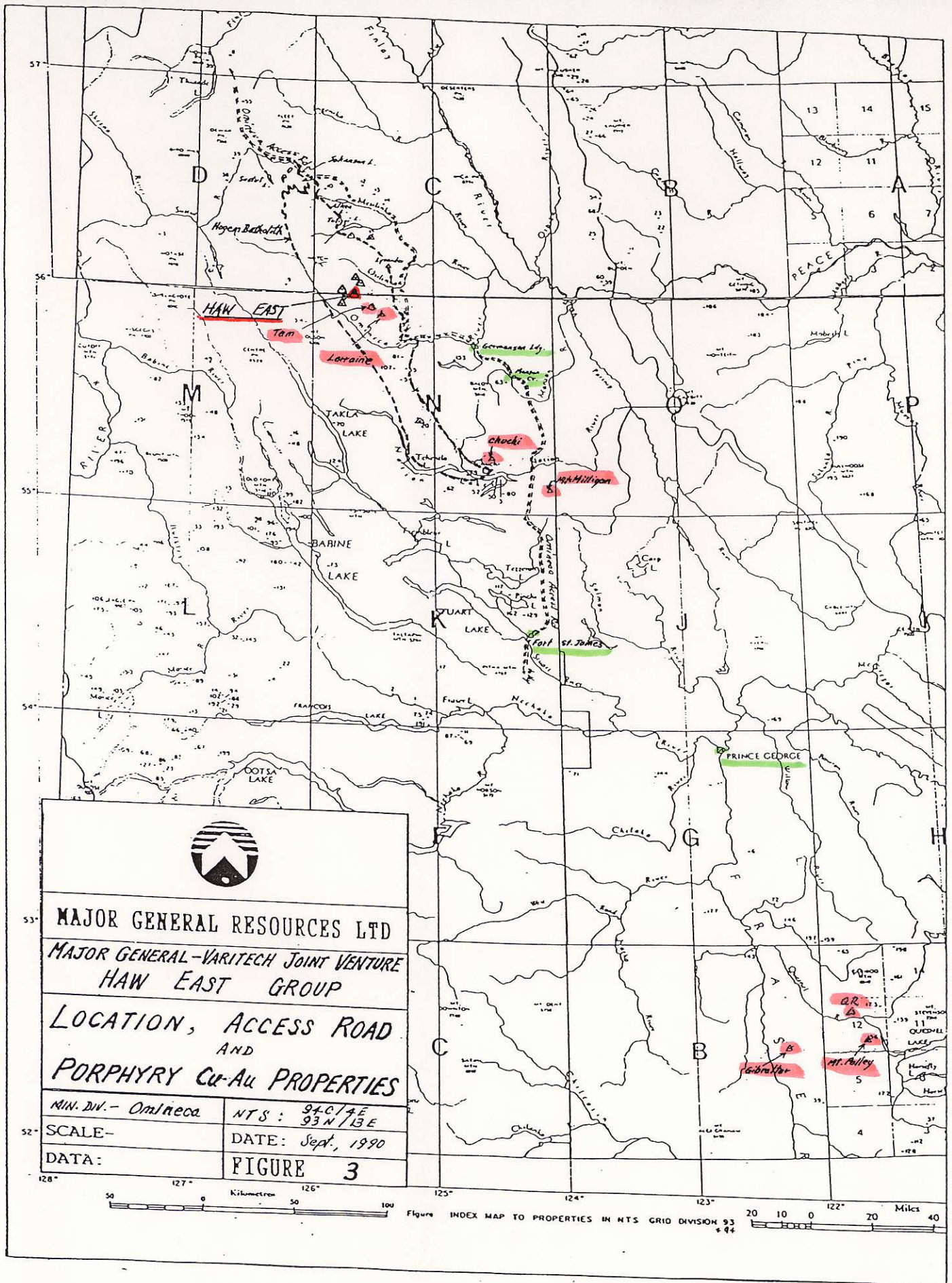
Ubiquitous minor copper showings are also found in the non-syenitic migmatite units of the Duckling Creek Complex which includes coarse and medium grained syenite, syenite-pegmatite, pegmatitic to aplitic syenite dykes and hybrid rocks of a syenite-monzonite composition.


#### **PORPHYRY COPPER/GOLD DEPOSITS IN THE REGION** *(See Figures 2 and 3)*

Many large and well known porphyry Cu/Au deposits have been found, developed and mined within Quesnel Trough. At present, a large number of these deposits are being explored.

The southernmost deposit is Copper Mountain which was in production for several decades. At present, in production is Similkameen Copper near Princeton and Afton near Kamloops. Being planned for production is the Mt. Polley Cu/Au deposit, east of Williams Lake, with published geological reserves of 105 million tonnes at a grade of 0.34% Cu and 0.471 g/t Au (0.013 oz/t). Also being planned for production are the Mt. Milligan Au/Cu deposits, situated 80 kilometres northeast of Fort St. James, which contain published drill indicated reserves of 384 million tons of 0.016 oz/t Au and 0.22% Cu. Placer Dome have recently purchased over 95% equity interest in this deposit. The most well known porphyry Cu/Au deposit within the Stikine Terrane is the Galore Creek deposit situated approximately 90 kilometres south southeast of Telegraph Creek in northwestern B.C., with published, drill-indicated reserves of 125 million tons grading 1.06% Cu and 0.012 oz/t gold.

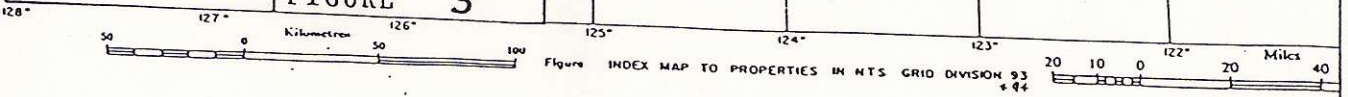
Smaller, but significant reserves are established in the Omineca Ranges near the HAW East property, with the Lorraine deposits (2) containing 11 million tons grading 0.6% Cu and 0.006 oz/T Au, and the Tam property Boundary Deposit with 7 million tons grading 0.55% Cu with minor gold and silver credits.





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 MAJOR GENERAL-VARITECH JOINT VENTURE  
 HAW EAST GROUP  
 LOCATION, ACCESS ROAD  
 AND  
 PORPHYRY Cu-Au PROPERTIES

MIN. DIV. - <i>Omniteca</i>	NTS: 94C/14E 93N/13E
SCALE-	DATE: Sept, 1990
DATA:	FIGURE 3



In the immediate area of the Major General - Varitech Joint Venture projects, exploration work is being conducted by Cyprus Gold on the Hawk claims located south of the south fork of the Osilinka River. Cyprus Gold is also doing work on the Steele claims located within the northern tributaries of Duckling Creek and southeast of the Tam property on HaHa Creek.

#### **HAW EAST MINERAL CLAIMS**

##### **Property, Location and Access** *(See Figures 3 and 4)*

The Major General - Varitech Joint Venture has acquired by staking five mineral claims, totalling 86 units, within the Omineca Mining Division.

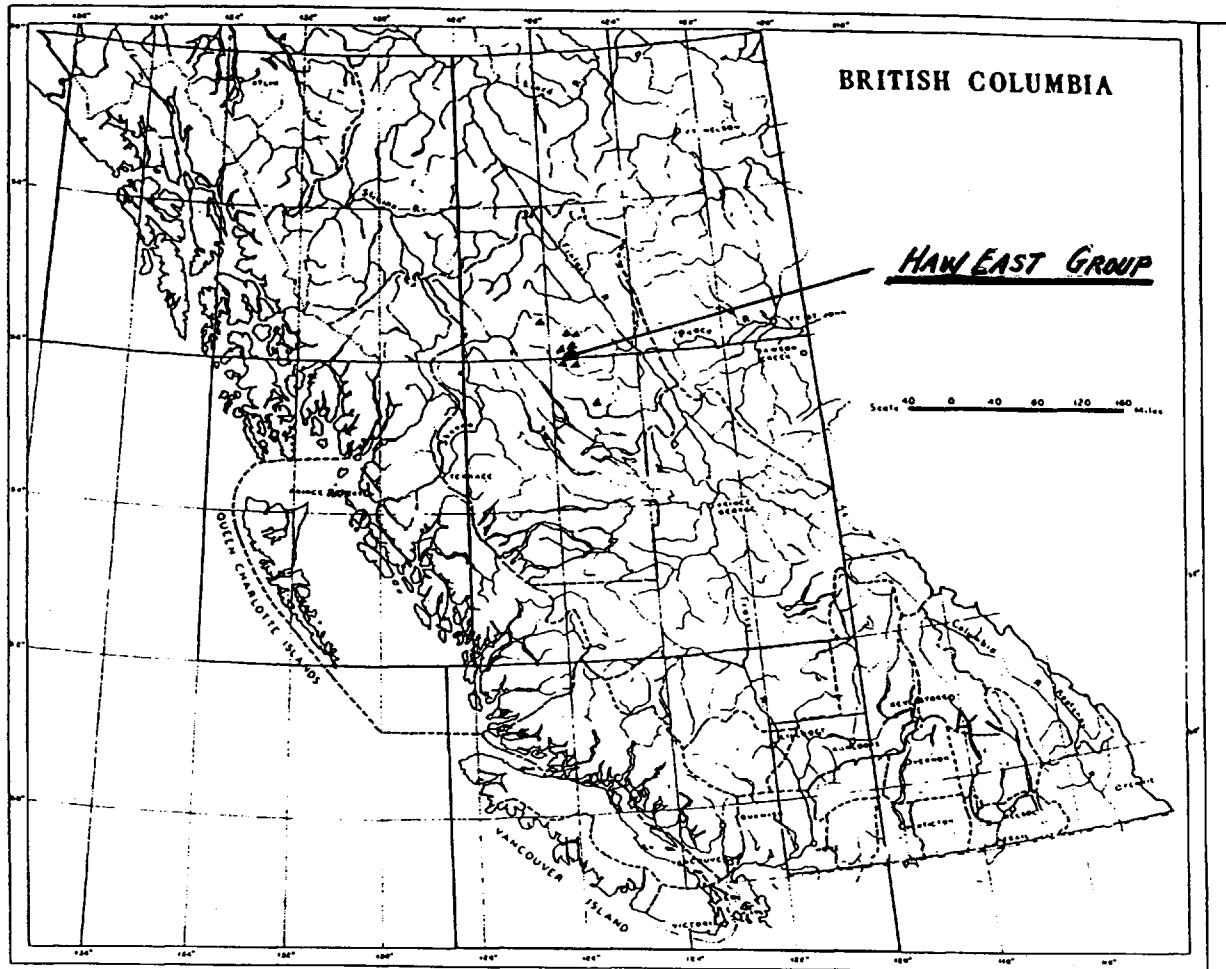
The Haw East Group of mineral claims is situated within the headwater area of "Camp" Creek, the middle and northern tributary of HaHa Creek; at map coordinates 56°0.3' latitude and 125°39' longitude.

The Omineca access road is 27 kilometres due east of the property. A good logging road, branching from the Omineca road, goes along Osilinka River and branches southwestward along HaHa Creek towards the Tam property, which adjoins the eastern boundary of the Haw claims. The end of the above road is about 14 kilometres east of the eastern boundary. A mineral exploration road, heading north from the Lorraine property, goes to the Tam property and from there it is about 10 kilometres to the central part of the Haw East property. Access via helicopter is available from Canadian Helicopters based at Silver Creek, about 40 kilometres south of the property.

##### **Property Geology and Mineralization** *(See Figures 5 and 6)*

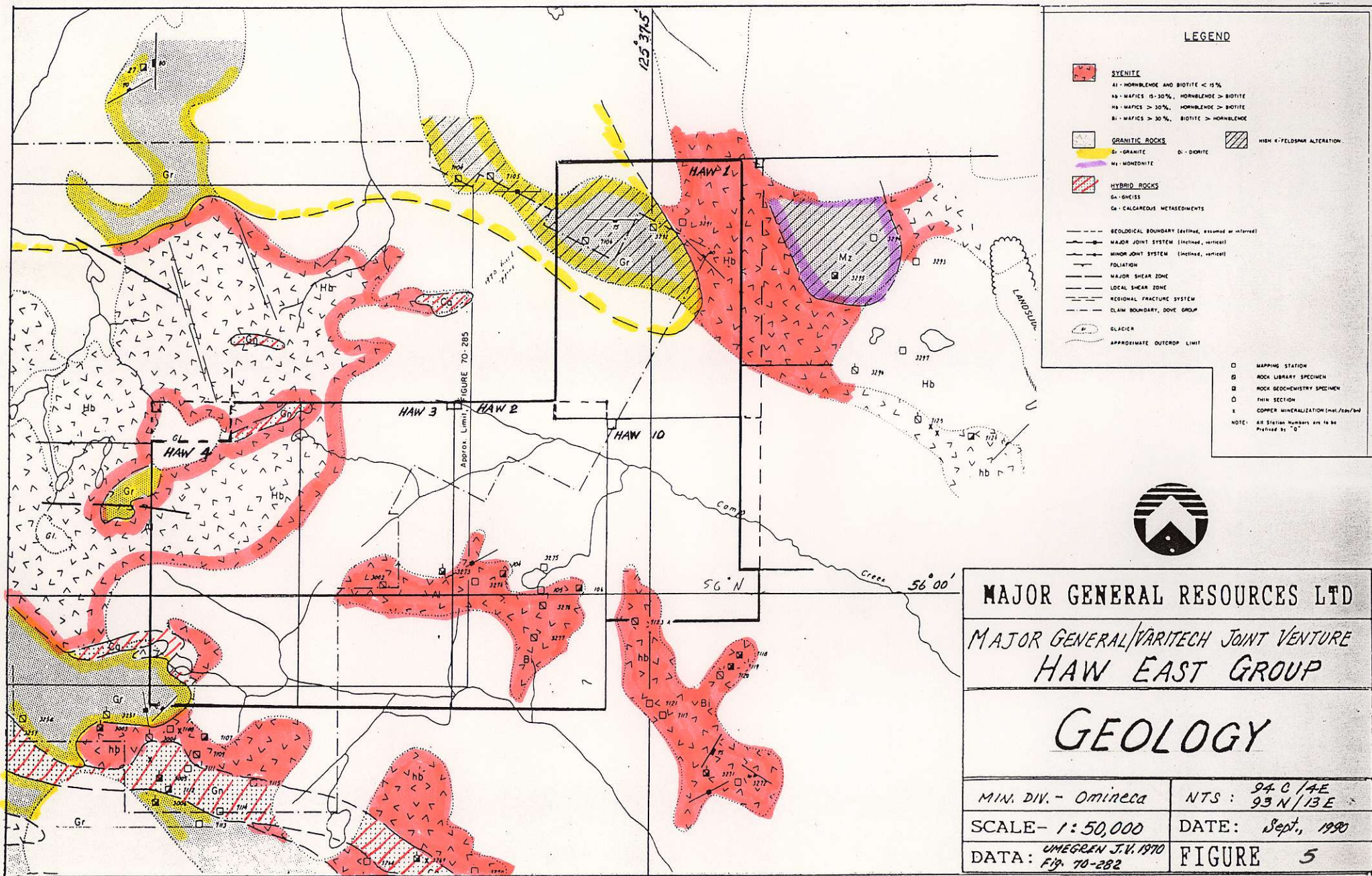
The HAW East property is underlain by the Duckling Creek Syenite Complex and its southwest and northeast boundaries are near or in irregular contact with granite and/or monzonite of the Hogem Batholith Suite of rocks.

Zones of syenitic migmatite, most favored for hosting economic grade copper mineralization, are found on Haw 4 M.C. These zones are located on the northern and western boundaries, and measure about 100 metres to 200 metres wide. A zone of migmatite is located outside of the property and may extend into the southeast corner of Haw 10 M.C. A much larger zone of migmatite, measuring about 500-600 metres wide and trends NW-SE, lies just southwest of the southwest corner of HAW 4 M.C., and is connected to the zone on the western boundary of Haw 4 M.C. mentioned above.

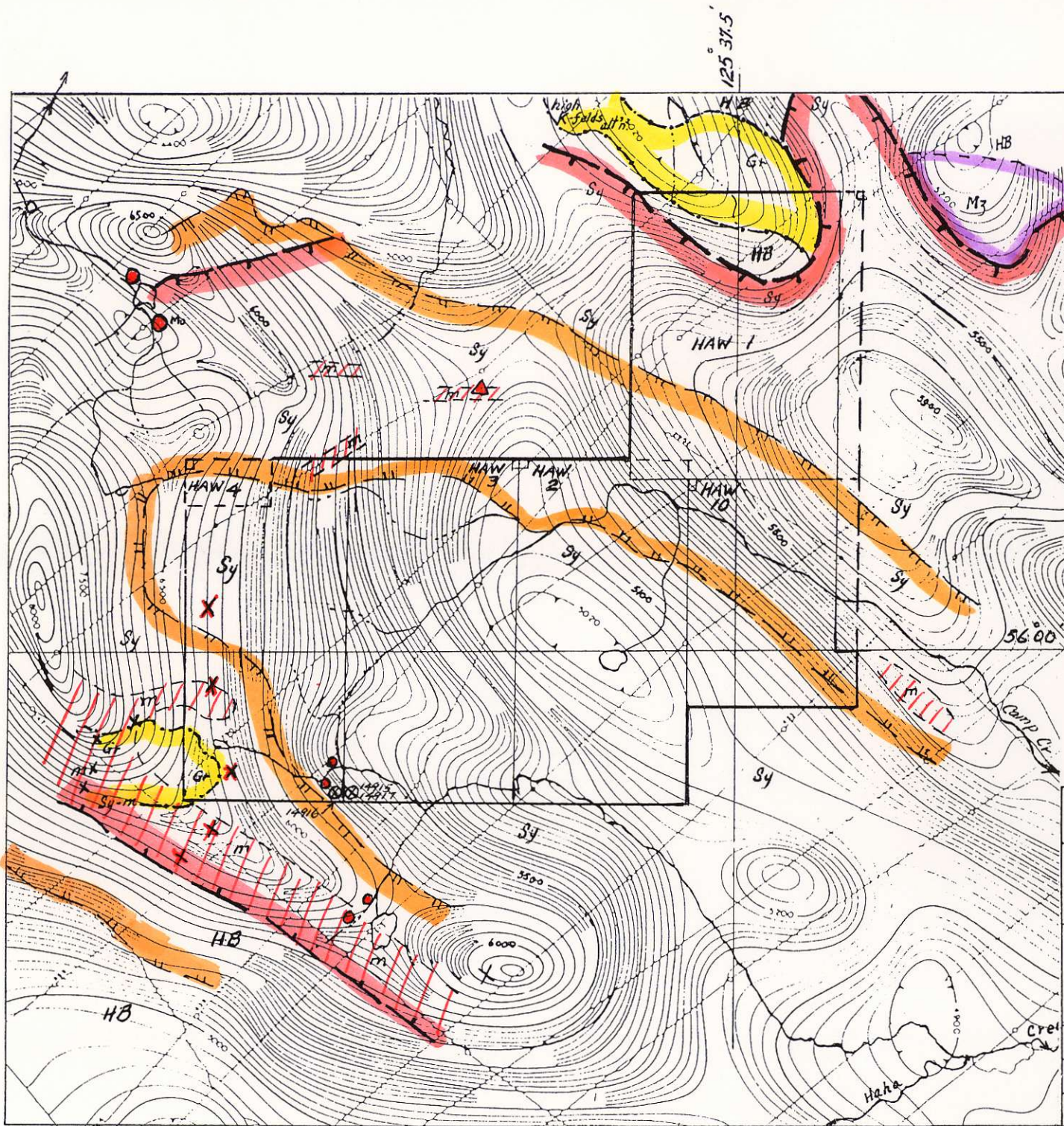


MAJOR GENERAL RESOURCES LTD	
MAJOR GENERAL-VARITECH JOINT VENTURE	
HAW EAST GROUP	
LOCATION MAP	
Min. Div. - <i>Omineca</i>	NTS : <i>94C-4E</i> <i>93 N-13 E</i>
SCALE-	DATE: <i>Oct, 1990</i>
DATA:	FIGURE <i>4</i>









# LEGEND

- HB Hogem Batholith granitic rocks, undiff.
- Limit of known Duckling Creek Syenite
- Syenite migmatite
- Areas of possible Syenite migmatite
- M3 Monzonite
- Gr Granite
- ⊗ mineralized rock, Cu
- 3-5 Anomalous Cu silt samples, >300 ppm
- Individual anomalous Cu silt sample
- Mo, Zn Anomalous Cu plus other anomalous metals
- ▲ × Cu Showing, mineralization (mal, cpy, bn)
- ⊖ Aeromagnetic anomaly in gammas
- Geological contacts

GEOLOGY after UMEX exploration reports, 1969-75  
 &  
 and BCDM Prelim. Map #12, 1972

AEROMAGNETIC after UMEGREN JOINT VENTURE 1971  
 flown at 300m terrain clearance.



MAJOR GENERAL RESOURCES LTD

MAJOR GENERAL/VARITECH JOINT VENTURE

## HAW EAST GROUP

COMPOSITE PLAN  
 DUCKLING CREEK SYENITE,  
 SYENITE MIGMATITE  
 GEOCHEM & AEROMAGNETICS

MIN. DIV. - Omineca	NTS: 94 C / AE 93 N / 13 E
SCALE - 1:50,000	DATE: Sept, 1990
DATA: see LEGEND	FIGURE 6



All the copper occurrences reported previously were found within the western half of HAW 4 M.C. Minerals noted were malachite, pyrite and chalcopyrite. Two of three syenitic rock specimens, brought back by the staking crew this year, contained interesting mineralization and unusually high copper content and one of these specimens returned anomalous value in gold.

These rock specimens were examined and analysed as follows:

Specimen #	Location	Description
14915	Haw 3, 6S3W	Syenite, gray-pink, altered, fine grained, some biotite foliated; a few hairline fractures, numerous leached? vugs. Malachite on surface, filling fractures and as splashes and blebs within rock. A few blebs of azurite amongst malachite on surface. Many crystals and grains of magnetite and chalcocite(?). No pyrite nor chalcopyrite noted.  <i>Analysis: Cu 7095 ppm (assay 0.865% Cu), Au 41 ppb, Ag 4.9 ppm, As 2 ppm, Sb 1 ppm.</i>
14916	Haw 4, 6S3E	Syenite or monzonite, pinkish-gray, highly altered, fine grained. Mafics altered to chlorite, a few specks magnetite and pyrite.  <i>Analysis: Cu 405 ppm, Au 2 ppb, Ag 4.7 ppm, As 45 ppm, Sb 1 ppm.</i>
14917	Haw 3, 6S3W	Syenite, grayish-pink, medium to coarse grained, crackled. Minor biotite, blebs and splashes magnetite. Disseminated chalcopyrite (probably intimate pyrite) as blebs and splashes and as filling in hairline fractures. Malachite on rock surface and a few scattered blebs/splashes within rock. Estimate 10% chalcopyrite/pyrite.  <i>Analysis: Cu 15,963 ppm (assay 1.84% Cu), Au 3 ppb, Ag 10.4 ppm, As 2 ppm, Sb 10 ppm.</i>

#### Geophysics (See Figures 6 and 7)

The G.S.C. conducted aeromagnetic surveys of map area 93N/13 during 1967 to 1969 and of map area 94C/4 during 1972; the former at flight altitude of 300 metres above ground level and the latter at 2,600 metres above sea level. The UMEX-Wenner Gren ("UMEGREN") Joint Venture conducted an aeromagnetic survey of the Duckling Creek Syenite Complex and adjoining area during 1970, at flight altitude of 300 metres above ground level.





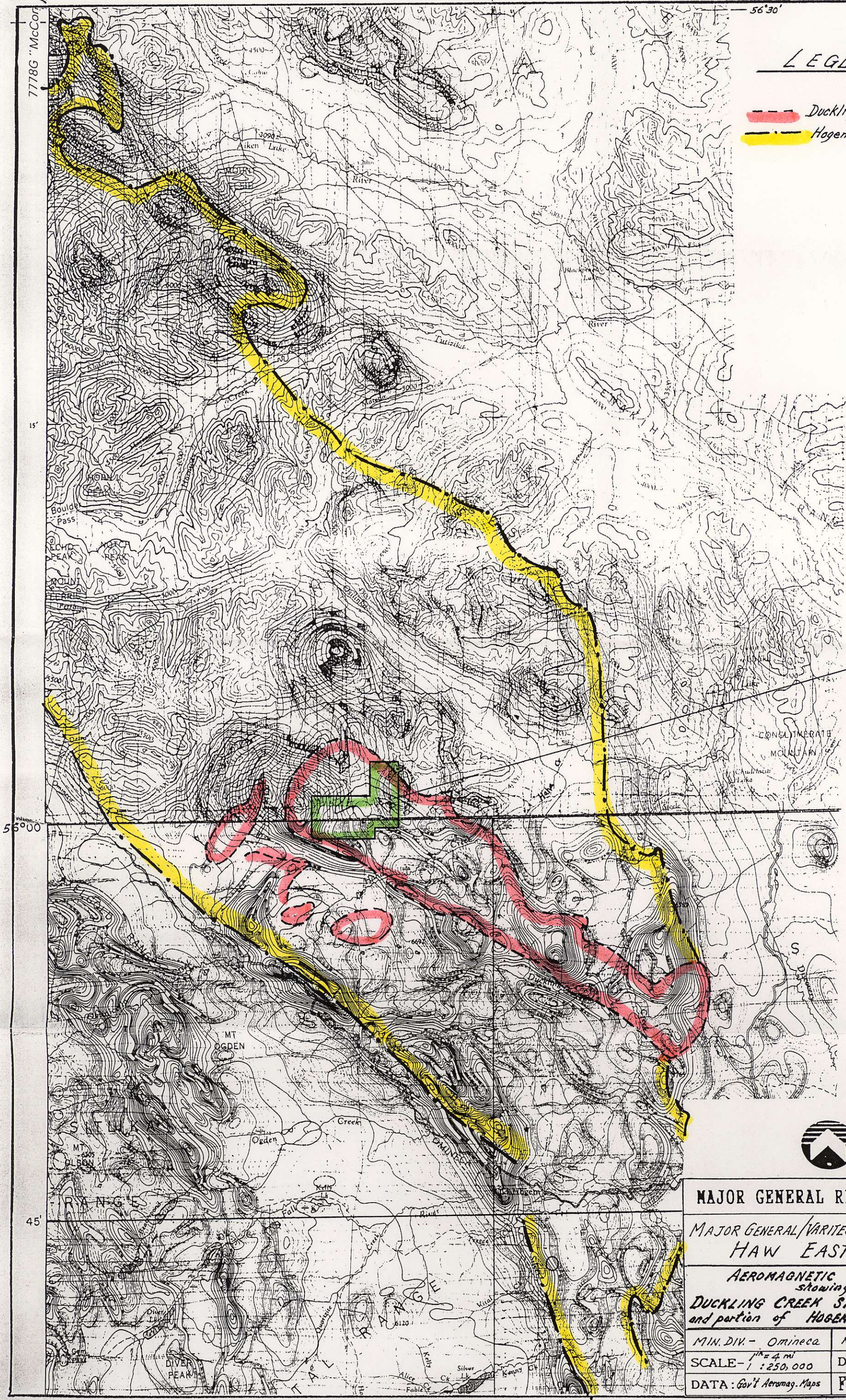
7778G "McCoy" 126°00'

125°30'

56°30'

### LEGEND

-  Duckling Cr. Syenite Complex
-  Hogen Batholith



HAW EAST GROUP



MAJOR GENERAL RESOURCES LTD	
MAJOR GENERAL/VARITECH JOINT VENTURE HAW EAST GROUP	
AEROMAGNETIC MAP showing DUCKLING CREEK SYENITE COMPLEX and portion of HOGEN BATHOLITH	
MIN. DIV. - Omineca	NTS : 93N + 94C
SCALE - 1 : 250,000 <small>1" = 4 mi</small>	DATE: Oct., 1990
DATA: Gov't Aeromag. Maps	FIGURE 7

56°00'

45°



The regional, northwesterly magnetic trend is similar in both the G.S.C. and UMEGREN surveys, but the magnetic response and individual magnetic anomalies differ slightly in magnitude and shape.

The high magnetic response representing the Duckling Creek Syenite Complex splits, just south of HaHa Creek, and creates a V-shape form northwestward. A magnetic low inside the "V" forms a trough which trends northwesterly across the central part of the HAW East property. The flanks of the two high magnetic trends cover the northeastern and southwestern part of the property.

A 400 gamma, elliptical-shaped magnetic anomaly, about 2,500 metres in length north-south, straddles the eastern boundary of the property on claims HAW 1 and 10.

At present, the relationship between magnetics and copper mineralization is unknown.

#### **Geochemistry (See Figure 6)**

A regional silt geochemical survey was conducted during 1969 by the UMEX-Wenner Gren Joint Venture. Within the present HAW East property, one drainage which flows across HAW 3 and 4 M.C. near the southern boundary, returned two samples which were anomalous (320 and 330 ppm) in copper. On this same drainage, a southern tributary is anomalous in copper near its headwaters, at two sites located about 800 metres and 1,000 metres south of the southern boundary of HAW 3 and 4 M.C. The source of the copper from the latter two locations is undoubtedly from copper mineralization within the 500 metres wide zone of syenitic migmatites as shown on Figure 6.

The 100 metres wide band of syenitic migmatite across the northern boundary of HAW 4 may contribute partly to the cause of the anomalous silt samples along the stream located northwest of HAW 4 M.C.

The regional silt samples were analysed for copper, zinc and molybdenum but not for gold or silver content.

#### **Soil Sampling (See Figures 8 and 9)**

In 1969, a copper showing in syenitic migmatite containing disseminated chalcopyrite and pyrite was found on a ridge, near the present western claim boundary of HAW 1 M.C. (see map

*inset on Figure 8*). Three lines were soil sampled to check this mineral showing (*North Soil Grid*).

In 1970, the highly anomalous copper values in silt samples collected from the headwaters of one of the northern tributaries of HaHa Creek were investigated by a 5-line soil sampling grid. The grid (*West Soil Grid*) is located on ground now occupied by the southern part of HAW 4 M.C. (*see map inset on Figure 9*).

#### North Soil Grid

Three 300 metres long lines spaced 120 metres (400 feet) apart were soil sampled at 30 metre (100 ft.) intervals, over the copper showing. The results show two, highly anomalous soil anomalies which trend northeasterly, roughly at 30 degrees to the foliation planes which contain the sulphide mineralization.

The anomalous zone surrounding the copper showing is about 300 metres wide within which the western anomaly (160 ppm Cu) ranges from 80-120 metres wide and contains values up to 1,000 ppm Cu; the central anomaly ranges from 10-50 metres wide and contains values up to 1,150 ppm Cu; and the eastern anomaly ranges from 10-30 metres wide with a high value of 298 ppm Cu. The anomalous zone is open to the northeast and southwest.

#### West Soil Grid

Five lines ranging from 490-730 metres long and spaced 120 metres apart were laid out on a grid covering the geochemically anomalous drainages. Soil samples were taken at 60 metre intervals along the grid lines.

Results of the copper analyses show a roughly oval anomaly (*see Figure 9*) (200 ppm Cu) approximately 200 metres by 340 metres in size, containing values up to 645 ppm Cu, within the eastern end of the soil grid. Another anomaly with values up to 600 ppm Cu was only partially covered by the soil grid; therefore, its ultimate dimension is unknown. At present, the anomaly occurs on the three lines sampled, bearing NE-SW, shows a minimum width of about 60 metres and widening to at least 100 metres towards the northeast. A 4,000 ppm Cu soil sample occurs, at the end of one of the soil lines, located immediately northwest of the eastern anomaly and about 240 metres east of the western anomaly.

Both the above mentioned soil anomalies contain appreciable copper values over a considerable area and may contain gold values which were not analysed. Both locations lie within areas designated as possible syenitic migmatite zones in Figure 5.



## DISCUSSION

The HAW East property is completely underlain by the Duckling Creek Syenite Complex and contains the syenitic migmatite which are favourable hosts for copper mineralization. Economic mineralization within other syenitic rocks may be found. High copper content (0.865%, 1.84% and 405 ppm Cu) of the syenitic rock specimens brought back by the stakers this year offers great encouragement for further exploration of the migmatites and other syenites on the property. Copper mineralization was located at several locations within the western part of the property during previous recce and mapping surveys. Overburden cover may be the reason for the lack of mineral occurrences to be seen within the eastern part of the property.

The presence of a wide zone of migmatite, with known copper mineralization and the most likely source of anomalous silt samples, on open ground south of the property should be acquired by staking. The migmatite zone follows the magnetic trend and is heading into a magnetic anomaly.

The soil copper geochemical anomalies located within the North and West Soil Grids are definite targets for further investigation.

## PROPOSALS FOR FURTHER EXPLORATION

It is recommended by the writers that the most important first step is to acquire the ground to the south of Haw 2, 3 and 4 by staking two mineral claims, 8 units east and 5 units south from the southwest corner of Haw 4 M.C.

An initial program consisting of linecutting, detailed silt and soil sampling, rock sampling, magnetic survey, geological mapping and prospecting be carried out. Work should commence from the known zones of migmatite on claims Haw 3 and 4 and the probable extension of the zone located southeast of Haw 10 M.C. Priority should be shifted to the ground south of the property if it is acquired. Areas of possible syenitic migmatite as shown on Figure 6 could be used as a guide to exploration planning.

Prospective areas should be surveyed in detail with induced polarization surveys to determine if drill targets can be outlined.



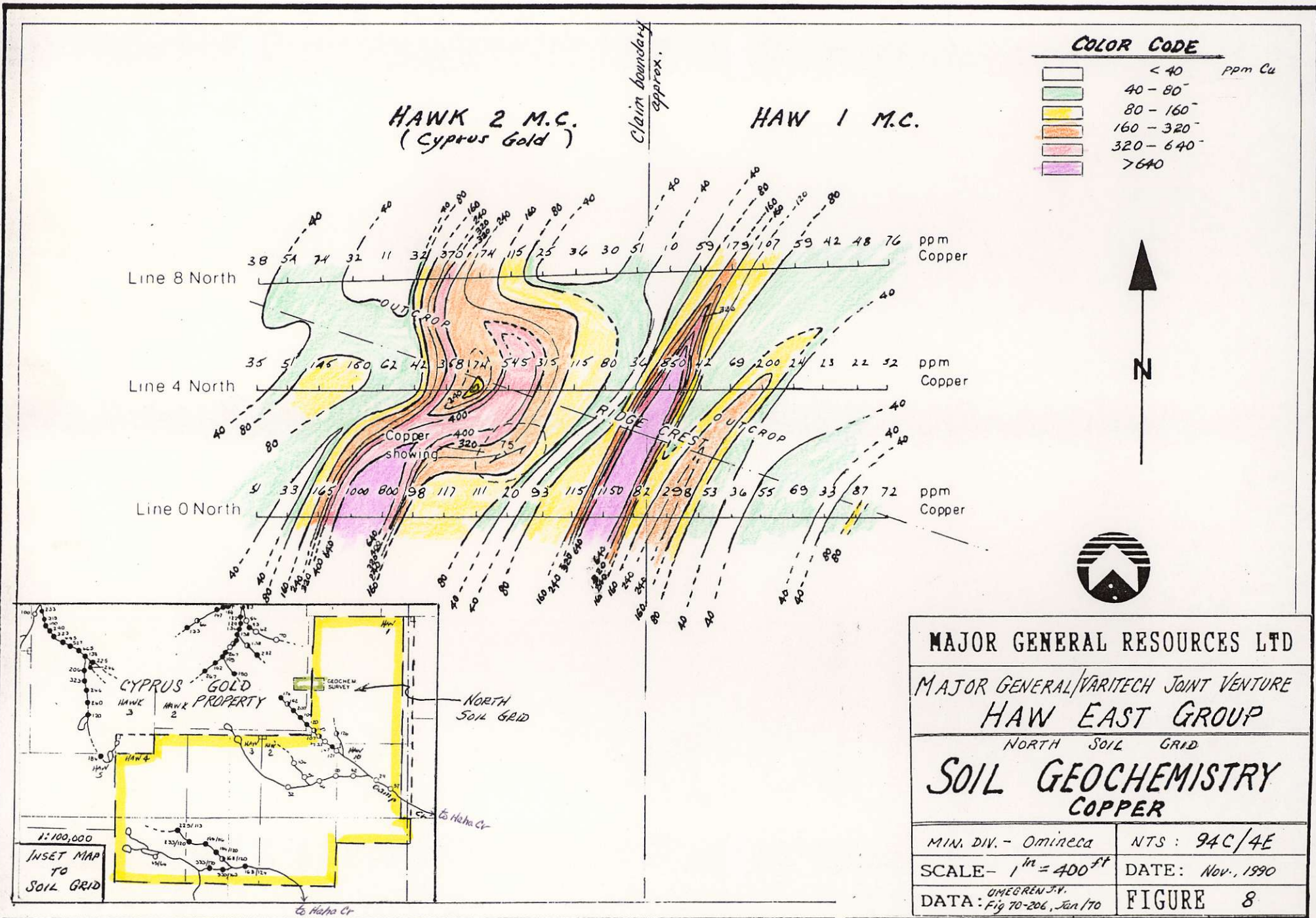
Fred Chow, Geologist



Bernard H. Kahlert, P.Eng., Geologist

October 16, 1990

HAWW0124



**COLOR CODE**

	< 40	ppm Cu
	40 - 80	
	80 - 160	
	160 - 320	
	320 - 640	
	> 640	



**MAJOR GENERAL RESOURCES LTD**

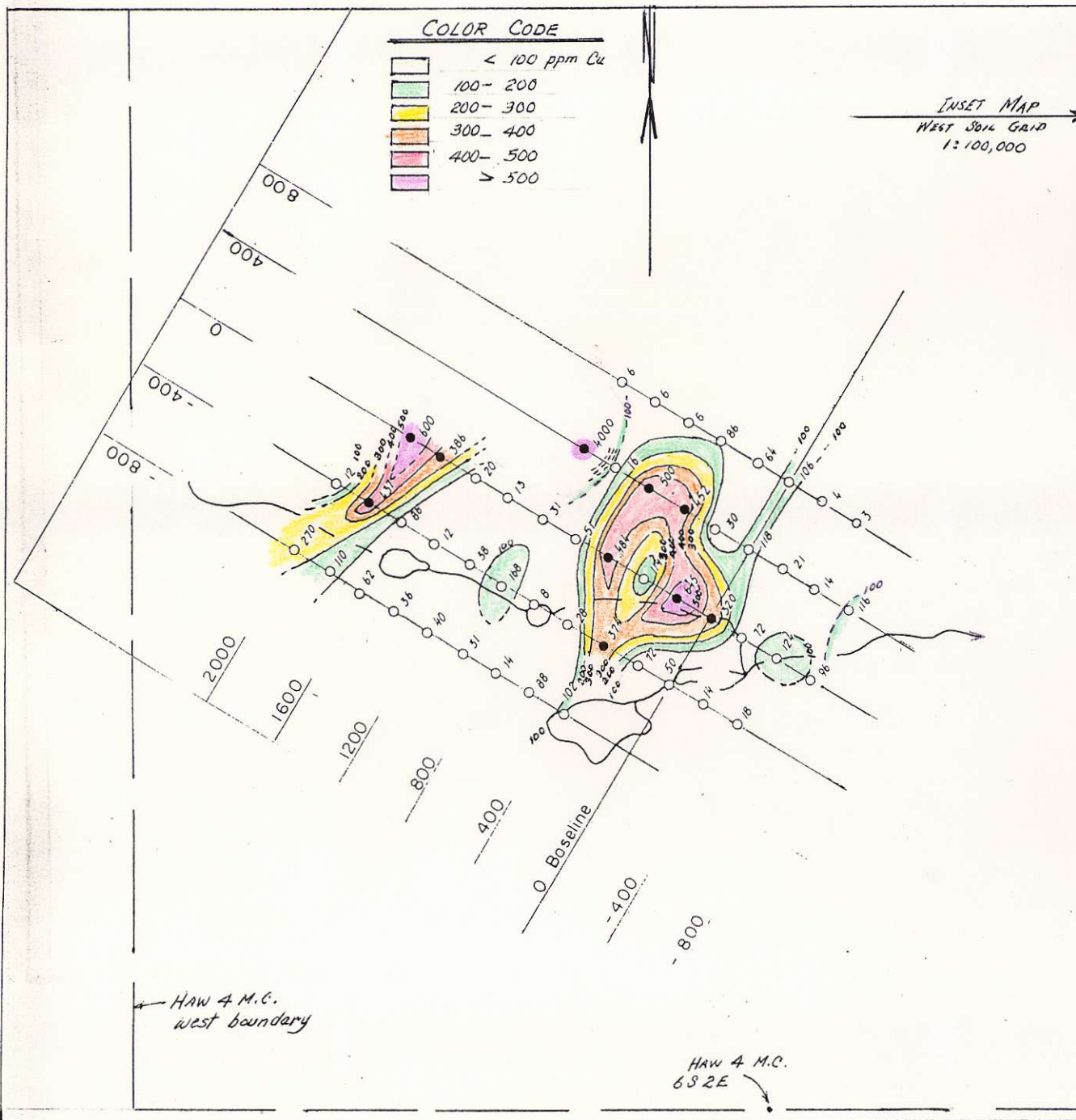
MAJOR GENERAL/VARITECH JOINT VENTURE  
**HAW EAST GROUP**

NORTH SOIL GRID

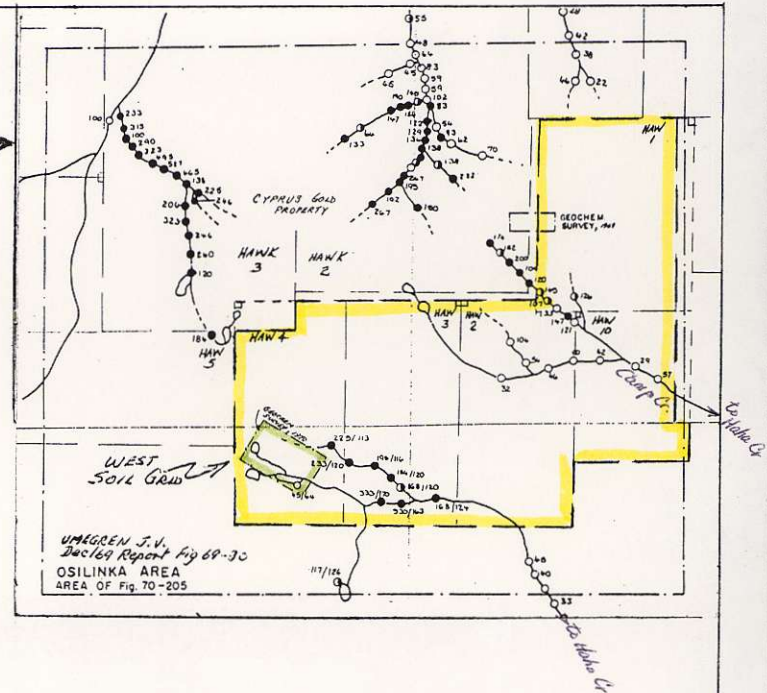
**SOIL GEOCHEMISTRY**  
**COPPER**


MIN. DIV. - Omineca	NTS: 94C/4E
SCALE - 1" = 400'ft	DATE: Nov., 1990
DATA: OMEGREN J.V. Fig 70-206, Jan 1/70	<b>FIGURE 8</b>





INSET MAP  
WEST SOIL GRID  
1:100,000





**MAJOR GENERAL RESOURCES LTD**

MAJOR GENERAL/VARITECH JOINT VENTURE

**HAW EAST GROUP**

WEST SOIL GRID

**SOIL GEOCHEMISTRY - Cu**

MIN. DIV. - Omineca	NTS: 93N-13E 94C-4E
SCALE - 1" ≈ 800'	DATE: Nov., 1990
DATA: UMEGREN J.V. 1990 Dectro Report, Fig 70-288	<b>FIGURE 9</b>



Major-Varitech acknowledges and agrees that \_\_\_\_\_ is entering into this agreement relying upon the representations and warranties made to it herein and the correctness of each such representation and warranty is a condition upon which \_\_\_\_\_ is entering into this agreement, each of which conditions may be waived in whole or in part solely by \_\_\_\_\_, and all such representations and warranties shall survive the execution and delivery of this agreement and the transactions contemplated hereby and Major-Varitech agrees to indemnify and hold \_\_\_\_\_ harmless from all loss, damage, cause, action or suits arising out of or in connection with any breach of any representation or warranty contained herein. \_\_\_\_\_, however, by its acceptance of this letter agreement acknowledges and agrees that no survey has been undertaken with respect to the Property and accordingly, although Major-Varitech is not aware of any prior claim to any area comprising the Property or any part thereof, the representations and warranties of Major-Varitech herein are qualified as to the precise boundaries of the Property.

2. Major-Varitech hereby grants to \_\_\_\_\_ the exclusive right and option to earn an undivided 50% interest in the Property by satisfying within the time limited therefor the obligations set forth in Section 3 hereof.
3. To earn an undivided 50% interest in the Property, \_\_\_\_\_ must pay the sum of \$25,000 to Major-Varitech upon the execution of this agreement and also must satisfy within the time therefor the obligations set forth in paragraphs 3(a), 3(b) and 3(c) hereof respectively:

- a) incur expenditures in respect of the exploration and development of the Property aggregating \$500,000 in accordance with the following schedule:
  - i) \$125,000 by December 31, 1990
  - ii) \$175,000 by December 31, 1991
  - iii) \$200,000 by December 31, 1992

provided that expenditures for exploration and development of the Property exceeding the required aggregate minimum expenditure shall be carried forward and credited to the expenditures required in subsequent periods; and

- b) make additional option payments to Major-Varitech aggregating \$75,000 in accordance with the following schedule:
  - i) \$25,000 on or before December 31, 1990;
  - ii) \$25,000 on or before December 31, 1991;
  - iii) \$25,000 on or before December 31, 1992;

provided that such payments may be accelerated at any time in the sole discretion of \_\_\_\_\_.

- c) issue an aggregate of 100,000 Common Shares in the capital of \_\_\_\_\_ to Major-Varitech upon acceptance by the Vancouver Stock Exchange.

PROVIDED THAT the issuance of the shares set out in Clauses (i), (iii) and (iv) of this subsection 3(c) shall be subject to the provisions of Section 34 hereof."



4. This agreement may be terminated at any time by \_\_\_\_\_ after \_\_\_\_\_ has issued an aggregate of 100,000 Common Shares to Major-Varitech and has made the initial option payment of \$25,000 required to be made pursuant to Section 3. All work commitments required to be fulfilled pursuant to the provisions of Section 3(a) hereof and all additional option payments required to be made pursuant to Section 3(b) hereof are optional at the sole discretion of \_\_\_\_\_. If \_\_\_\_\_ fails to satisfy the obligations by the dates specified in Sections 3(a), 3(b) and 3(c), Major-Varitech may terminate this agreement at any time by sending notice of the termination to \_\_\_\_\_ and, in such case, \_\_\_\_\_ shall return the Property free of all liens and encumbrances which may attach to the Property subsequent to the date of this agreement and ensure that the Property will be in good standing for a period of at least one year following the date of termination.
  
5. Major General or Varitech shall be the Operator of the Property prior to the time that a joint venture is formed. During the currency of this agreement, the Operator shall keep the Property in good standing, free and clear of all liens and encumbrances which may result from its activities and maintain adequate insurance coverage protecting the parties to this agreement from third party claims.
  
6. If \_\_\_\_\_ should satisfy all the obligations set out in Sections 3, 3(a), 3(b) and 3(c), \_\_\_\_\_ shall have earned an undivided 50% interest in the Property and may at any time thereafter during the currency of this agreement notify Major-Varitech that it has earned its interest hereunder, even if such date is prior to December 31, 1992. \_\_\_\_\_ and Major-Varitech shall then form a joint venture (the "Joint Venture") for the further exploration and development of the Property and each party shall have the right to participate in the Joint Venture according to each party's respective undivided interest and corresponding obligation to fund the further exploration and development of the Property ("Participating Interest") which at the time of formation shall be:

	50%
Major-Varitech	50%

subject only to a 2% net smelter return royalty in favour of Major-Varitech and paid by the Joint Venture in accordance with Schedule "B".

7. This section deliberately removed.
  
8. In the event of termination of this agreement for any reason, all buildings, plant, equipment, machinery, tools, appliances and supplies which have been brought upon the Property during the term of this agreement shall be removed by \_\_\_\_\_ at any time not later than 18 months after the termination of this agreement. Upon termination, \_\_\_\_\_ shall, forthwith on demand and at its expense, deliver to Major-Varitech one set of reports prepared by or for \_\_\_\_\_ relative to any work done on the Property.
  
9. Prior to earning its interest, all work done by \_\_\_\_\_ on the Property shall be done in accordance with good mining practice and in compliance with applicable laws and regulations. \_\_\_\_\_ shall keep the Property in good standing and shall pay all taxes and assessments with respect to the Property during the currency of its option.

10. Prior to \_\_\_\_\_ earning its interest, Major-Varitech and its authorized representatives shall have reasonable access to the Property at their sole risk and expense to review work being carried out thereon and also shall have access at all reasonable times to the records of \_\_\_\_\_ respecting exploration and development work carried out on the Property and the results obtained therefrom provided, however, that this shall not unduly interfere with or disrupt the activities of \_\_\_\_\_. Except for the foregoing, \_\_\_\_\_ shall have exclusive possession of the Property. In view of the timely disclosure obligations of both parties, \_\_\_\_\_ shall keep Major-Varitech apprised of ongoing exploration and development work on the Property and provide copies to Major-Varitech of all results and reports prepared by or for \_\_\_\_\_. The parties shall consult with one another as to proposed public announcements and news releases. In addition, \_\_\_\_\_ shall provide Major-Varitech with a report by March 31st in each year indicating the status of exploration work conducted on the Property in the previous calendar year. Major-Varitech agrees that all data and/or information with respect to the Property provided to or received by Major-Varitech shall be treated as confidential and shall not be disclosed to any other person, except as required by law or by any regulatory authority having jurisdiction to do so, without the prior written consent of \_\_\_\_\_, which consent shall not be unreasonably withheld.
11. Forthwith following the signing of this agreement, Major-Varitech shall execute and deliver transfers of the Property to \_\_\_\_\_, and \_\_\_\_\_ may record such transfers and hold the Property in trust for the parties during the currency of this agreement. In addition, \_\_\_\_\_ shall execute and deliver transfers of the Property back to Major-Varitech and Major-Varitech may record such transfers upon the failure of \_\_\_\_\_ to meet the obligations set in paragraphs 3(a), (b) and (c), and upon Major-Varitech giving notice to \_\_\_\_\_ as set out in Section 4 hereof. Each of the parties shall be entitled to record evidence of its beneficial interest in the Property from time to time during the currency of this agreement, and each party agrees to execute and deliver all necessary documents to facilitate such recordings from time to time.
12. Forthwith after formation of the Joint Venture hereunder, a Management Committee, consisting of two representatives of each of \_\_\_\_\_ and Major-Varitech shall be established. Each of the parties shall also nominate an alternate representative to the Management Committee who shall represent it in the absence of the appointed representative. The Management Committee shall be responsible for approving work plans and budgets and for determining the general policies and direction to be adopted by the Operator in the conduct of the operations.
13. \_\_\_\_\_ shall indemnify and save harmless Major-Varitech from any and all claims arising out of the operations which may be conducted upon the Property by \_\_\_\_\_ prior to the formation of the Joint Venture. After formation of the Joint Venture the parties shall indemnify and save harmless the Operator from and against third party liabilities in accordance with their respective Participating Interests in the Property, except for loss or damage arising from the Operator's failure to maintain such insurance coverage as may be required by the Management Committee or arising from the bad faith or willful misconduct of the Operator. The reduction or conversion to a carried interest of a party's Participating Interest shall not relieve such party of its share of any liability, whether it accrued before or after reduction or conversion, arising out of operations conducted prior to such reduction or conversion. A party's share of such liability shall be equal to its Participating Interest at the time that such liability was incurred.

14. The Management Committee shall meet at least once annually and otherwise on ten days notice given by the Operator and on 30 days notice given by a non-operator. Decisions of the Management Committee shall be by majority vote. Each party's representative shall be entitled to one vote for each 1% Participating Interest held by such party. In the event of a deadlocked vote, the Operator shall have a casting vote.
15. \_\_\_\_\_ shall be the Operator and shall remain Operator so long as it continues to hold at least a 50% interest in the Property. The Operator shall have exclusive charge of all Operations and shall conduct such Operations in accordance with approved work plans and budgets established by the Exploration or the Management Committee.
16. The Operator shall be entitled to charge and receive from the non-operator an overhead fee. The charge for overhead shall not exceed 10% of the cost of each work plan and shall remain at this level until the Exploration or the Management Committee approves a recommendation of the Operator to place any orebody located on the Property into Commercial Production, in which event the parties shall agree on a reasonable fee to compensate the Operator for management of the Property, such fee to be determined on the basis of normal industry practice.
17. The Operator shall submit work plans and budgets to the Management Committee for approval within 90 days of the expiration of the work plan then in effect. If the Management Committee should fail to approve the work plan and budget proposed by the Operator or the Operator should fail to submit a work plan and budget within this time then the non-operator may, not less than 60 days thereafter, propose a work plan and budget for the ensuing period of time. Should the Management Committee approve the work plan and budget proposed by the non-operator, then the Operator shall forthwith implement and carry out the approved work plan and budget. Should the Management Committee reject the work plan and budget proposed by the non-operator, then the non-operator within 60 days thereafter may elect to replace the Operator hereunder and shall forthwith propose a work plan and budget for the consideration of the Management Committee. Thereafter, so long as that party continues to propose work plans and budgets, such party shall be entitled to continued to act as Operator until he resigns or is replaced in accordance with the provisions of this agreement.
18. Each party must within 15 days of receipt of an approved work plan and budget elect whether to participate in the work plan and fund its required share of the expenditures. Failure to elect within the 15 day time period shall be deemed to be an election not to participate. A party who elects or is deemed to have elected not to participate in a work plan or whose Participating Interest has been diluted pursuant to the provisions of Section 21 shall be entitled to participate in subsequent work plans and budgets only to the extent of its Participating Interest at the time any subsequent work plans and budgets are approved by the Management Committee.
19. Monthly expenditures projections will be provided by the Operator on a quarterly basis in advance, and each party shall remit the required funds to the Operator on or before the first day of the month in which they will be expended, otherwise that party will be deemed to have elected not to participate in the current and any future work plan and shall be subject to dilution pursuant to Section 21 provided however that the Operator shall have given notice requiring the party to contribute the required funds within five days of the first day of the month and the party has not within the said five day period of such notice remitted the funds to the Operator. The expenditure projections shall include a description of the work being proposed as well as the estimated expenditure required to complete such work. If actual expenditures for a month exceed the expenditures projection for that month then the Operator shall provide to the non-operator an account

of the overrun. Upon receipt of such account the non-operator shall remit to the Operator its share of funds required to fund the overrun provided, however, that any expenditures made by the Operator in excess of 10% of the original expenditure projection for the work plan and budget shall be for the sole account of the Operator unless otherwise approved by the Management Committee.

20. The Operator shall prepare and submit reports on a monthly basis to the non-operator with respect to results obtained from the implementation of a work plan and shall further provide details of any material results obtained forthwith upon receipt. After the completion of each work plan, the Operator shall prepare and deliver to the parties a report containing the engineering and geological results derived from the exploration work just completed as well as a breakdown of the expenditures made in carrying out such work. In addition, each such report shall contain the Operator's recommendations regarding the next work plan and budget. All information provided to the non-operator shall be treated as confidential and shall not be disclosed to any other party, except as required by law or by any regulatory authority having jurisdiction to do so, without the prior written consent of the Operator, which consent shall not be unreasonably withheld.
21. If either party fails to make its required contribution to expenditures under a work plan then the party failing to make the contribution shall have its Participating Interest reduced. At any time after the formation of a joint venture a party's Participating Interest can be calculated by dividing that party's expenditures and deemed expenditures by the total expenditures and deemed expenditures of both parties and expressing the result as a percentage. For the purpose of calculating the initial and subsequent Participating Interest of each party, \_\_\_\_\_ and Major-Varitech shall be deemed to have expended the following amounts at the commencement of the Joint Venture:

_____	\$400,000
Major-Varitech	\$400,000

22. If either party's Participating Interest is reduced to a percentage equal to or less than 10%, then its Participating Interest will automatically convert to a 10% net profits royalty interest to be calculated and paid in accordance with Schedule "C" hereto.
23. Each party shall from time to time have the right of first refusal to purchase all or any part of the other party's Participating Interest, but this right shall not apply to any transaction between a party and any parent, affiliate, subsidiary or related company. Before making any offer or arrangement to sell or upon receiving any offer to purchase all or any part of such interest, which a party is prepared to accept (the "Offerer"), the Offerer shall give written notice to the other party (the "Other"). The Other shall have a period of 30 days from the time of receipt by it from the Offerer of such notice within which to purchase such interest upon terms no less favorable to the Other than offered to or by the Offerer under any bona fide arrangement with any third party. If the Other does not purchase such interest covered by such notice, then the Offerer shall be free to sell such. If the Other does not purchase such interest covered by such notice, then the Offerer shall be free to sell such interest to a third party within 60 days next following the aforesaid period of 30 days upon terms no more favorable to the third party than those offered to the Other. If the Offerer does not so sell such Interest within such last mentioned 60 days, then the Other shall continue to have the right of first refusal to purchase any Participating Interest not sold by the Offerer.
24. Any sale, assignment or transfer by a party (the "Transferor") of any part of its rights or obligations hereunder to a purchaser, successor or assignee, as the case may be (the "Transferee"), shall provide that the Transferee and the Transferor will agree to act as a single party hereunder with a joint appointment of full responsibility and authority under

this agreement to one party to exercise all of their rights. Any Transferee shall acknowledge and accept the respective interests of the other parties and agree to be bound by all of the terms of this agreement. The Transferee and Transferor shall remain jointly and severally liable for all of their obligations under this agreement. If all of a party's Participating Interest is transferred, the Transferor shall not be released from its obligations without first receiving the consent of the remaining party, which consent shall not be unreasonably withheld and the Transferee must agree with the other parties to assume all of the duties, obligations and responsibilities of the Transferor under this agreement.

25. The Operator may recommend to the Management Committee at any time to place any orebody located on the Property into production. In the event the Operator makes such recommendation, the Operator shall make available to the non-operator all data and information relied upon by the Operator in making such recommendation and the Management Committee shall meet to consider such recommendation within a period which is not less than 60 and not more than 120 days following the date of which the Operator's recommendation is received by the Management Committee, and the Management Committee shall approve or disapprove such recommendation. If the Management Committee approves such recommendation each party shall have a further 90 days to elect whether or not to contribute, in accordance with its Participating Interest, its proportionate share of the cost of placing any such orebody into production at that time. An election to contribute shall commit the electing party to provide its share of such cost, and an election not to contribute shall result in dilution of that party's Participating Interest pursuant to Sections 21 and 22.
26. Each party shall have the right to take delivery of products produced from the Property in kind, in proportion to its Participating Interest. Ownership of and title to such products, as and from the time of delivery to any party, shall be taken by such party separately and not as a joint tenant on a tenant-in-common with the other parties. Each party shall be responsible for separately disposing of its share of production, and if a party should fail to make the necessary arrangements to take in kind and separately dispose of its share of production according to its Participating Interest, the Operator shall not be responsible for storing and securing such party's share of production, but all costs incurred by the Operator because of such failure shall be for the sole account of the defaulting party failing to take its share of production. The increased costs, if any, arising from a party's election to take in kind shall be to the account of the party so electing.
27. The obligations of each party under this agreement shall be in every case several and shall not be, or be construed to be, either joint or joint and several and nothing herein shall be construed as creating a partnership between the parties. Nothing contained in this agreement shall be deemed to constitute a party an agent or legal representative of the other party or to create any fiduciary relationship for any purpose whatsoever. Except as otherwise specifically provided in this agreement, a party shall not have any authority to act for, or to assume any obligation or responsibility on behalf of any other party. Each party hereby waives its rights to partition of the Property and, to that end, agrees that it will not seek or be entitled to partition of the Property whether by way of physical partition, judicial sale or otherwise. Except as expressly provided in this agreement, each party shall have the free and full benefits of any and all business endeavors of any sort whatsoever not related to the Property whether or not competitive with the endeavors contemplated herein without consulting or inviting or allowing the other party any interest therein. No party shall be under any fiduciary or other duty to the other which will prevent it from engaging in or enjoying the benefits of competing endeavors within the general scope of the endeavors contemplated by this agreement. The legal doctrines of "corporate opportunity" or "business opportunity" sometimes applied to joint venturers or other fiduciaries shall not apply in the case of any other endeavor of a party.



In particular, without limitation, no party shall have any obligation to the others as to the erection of any smelter or refinery whether or not such smelter or refinery treats ores or concentrates produced from the Property.

28. Any notice or election permitted or required to be given hereunder shall be in writing and shall be effective if delivered or faxed or if mailed postage prepaid to the current address of a party or to such other address as a party shall inform the others by like notice. Any such notice will, if delivered, or faxed be deemed to have been given and received on the day it was delivered, and if mailed, be deemed to have been given and received on the fifth business day following the day of mailing, except in the event of a disruption of postal service, in which case notice will be deemed to be received on the seventh day following the resumption of normal postal service.
29. No party hereto shall be liable to the others and no party hereto shall be deemed in default under this agreement for any failure or delay to perform any of its covenants and agreements caused or arising out of any act not within the control of the party, excluding lack of funds but including, without limitation, acts of God, strikes, lockouts, or other industrial disputes, acts of the public enemy, riots, fire, storm, flood, explosion, government restriction, failure to obtain any approvals required from regulatory authorities, including environmental protection agencies, unavailability of equipment, interference of environmentalists or native rights pressure groups or other causes whether of the kind enumerated above or otherwise which is not unreasonably within the control of the party. No right of a party shall be affected for failure or delay of the party to meet any condition of this agreement, which failure or delay is caused by one of the events above referred to, and all times provided for in this agreement shall be extended for a period commensurate with the period of the delay, and so far as possible the party affected will take all reasonable steps to remedy the delay caused by the events above referred to provided, however, that nothing contained in this Section shall require any party to settle any industrial dispute or to test the constitutionality of any law enacted by any province or the Federal Government of Canada. Any party relying on the provisions of this Section shall forthwith give notice to the other party of the commencement of such event and of its end.
30. This agreement shall be binding upon the parties hereto and their respective successors and assigns.
31. Time shall be of the essence hereof.
32. This letter agreement, including Schedules "A", "B" and "C" attached hereto, constitutes the entire agreement between \_\_\_\_\_ and Major-Varitech pertaining to the Property and supersedes all prior agreements, understandings, negotiations and discussions, whether oral or written between \_\_\_\_\_ and Major-Varitech, and there are no warranties, representations or other agreements between \_\_\_\_\_ and Major-Varitech in connection with the Property except as specifically set forth herein.
33. This letter agreement shall be effective from and as of August 22, 1990.
34. Major-Varitech acknowledges that the terms of \_\_\_\_\_'s agreement with the Vancouver Stock Exchange (The "VSE") require that this agreement be accepted for filing by the VSE. In the event that the Effective date has not occurred before \_\_\_\_\_, this agreement shall be void ab initio and the parties shall have no further obligations to one another. In addition, the issuance of the shares to Major-Varitech pursuant to Subsection 3(c) hereof is subject in each case to \_\_\_\_\_ filing with VSE an engineering report on the Property by an independent engineer or

geologist summarizing the work carried out on the Property and recommending further work. \_\_\_\_\_ agrees to use its best efforts to file such a report on a time basis to permit the issuance of shares on or before the applicable date; provided however that notwithstanding that the shares may not have been issued by the applicable date, \_\_\_\_\_ shall not lose any of its rights hereunder if it has filed such a report with the VSE and is diligently seeking the consent of the VSE to the issuance of the applicable shares."

If the foregoing terms and conditions reflect our agreement, please execute and return the enclosed duplicate copies of this letter agreement and we shall consider it to be a binding agreement.

Yours truly,

**MAJOR GENERAL RESOURCES LTD.**

**VARITECH RESOURCES LTD.**

Byard H. MacLean, P.Eng.  
President

Bradford J. Cooke  
President

BHM:jd

ACKNOWLEDGED AND AGREED TO THIS  
\_\_\_\_ DAY OF NOVEMBER, 1990.

\_\_\_\_\_ **RESOURCES LTD.**

per: \_\_\_\_\_

AGMTVARUVA