

PROSPECTING AND SOIL GEOCHEMISTRY

on the

KMA 1 & 2 CLAIMS

OMINECA MINING DIVISION

by

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August 8 - 10, 1988

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Longitude: 126° 35'W

NTS Mapsheet: 94D/15E

October 15, 1988
Vancouver, B.C.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

17,925

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SUMMARY & CONCLUSIONS

In 1988, Mingold Resources Inc. carried out a program of prospecting, rock sampling and soil geochemistry over the KMA Claims in north-central B.C. A total of 20 rocks and 162 soils were collected and an area of approximately 150 hectares was prospected.

The prospecting/rock sampling of the area located several new areas of Takla feldspathic andesite float high in copper, gold and silver. The sampling of the original Marmot Veins confirmed the presence of very significant gold and silver mineralization accompanying the copper sulphides. It also indicated that the gold and silver mineralization has diffused into the wall-rocks of the veins locally.

The soil geochemical survey located large areas of low-grade copper mineralization on the western side of Marmot Ridge. The mineralization is apparently cut off at the faulted contact with Sustut Group sediments to the west. Gold mineralization appears to be localized along this fault and may be associated with a later stage of hydrothermal activity distinct from the copper-silver episode. This faulting trends northwesterly and subparallels the fault-shear system associated with the Marmot Veins.

In conclusion, the KMA claims appear to have significant gold-silver mineralization. Further work is required to determine if it is associated with the known porphyry copper zone or is part of a later fault-related hydrothermal event.


K.S. Taylor
Project Supervisor

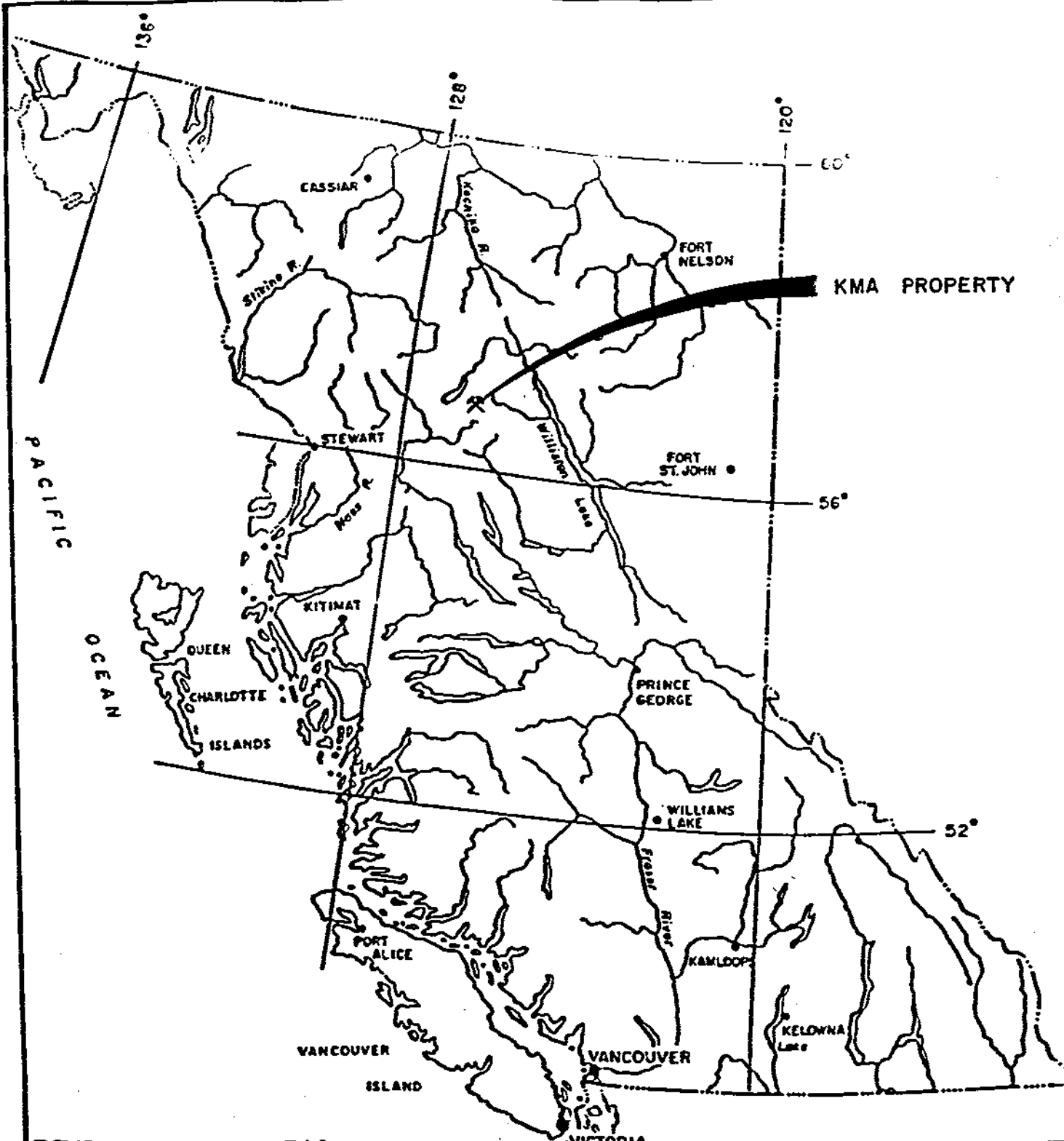
INTRODUCTION

While researching properties for a 1987 gold-copper program in the Aiken Lake - Johanson Lake area of B.C., Mingold personnel came across an old submission for the MARMOT claims near Thorne Lake, B.C. The property was originally submitted as a potential porphyry copper property however mention was made of significant accessory gold. Most of the values were in the .02 to .04 oz/t. gold range typical of porphyry coppers but one sample of a vein 1.0 to 1.5 feet wide ran 3.70% copper, 1.84 oz/t. gold and 2.16 oz/t. silver. This vein was located and sampled by Mingold field crews and returned values of 26,414 ppm (2.64%) copper, 112.6 ppm (3.31 oz/t.) silver and 9390 ppb (0.276 oz/t.) gold over 1.5 meters. The area was subsequently staked as the KMA 1 and 2 claims in August of 1987.

From July 23 to August 10, 1988, follow-up prospecting and soil sampling of the main area of interest was carried out. The details of this work are the subject of the following report.

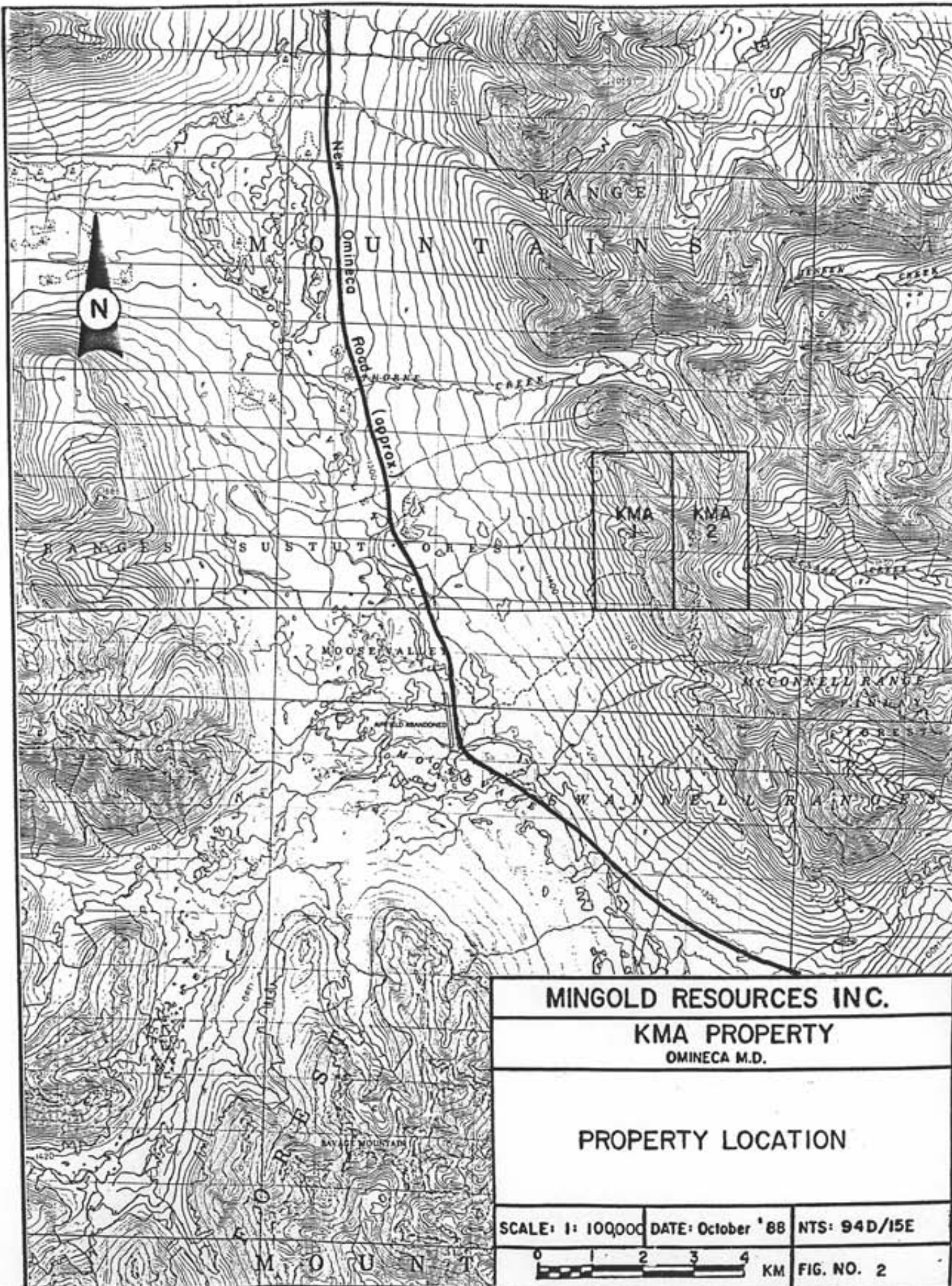
LOCATION & ACCESS

The KMA 1 and 2 claims are located at the headwaters of the Ingenika River in north-central B.C. They lie within the Omineca Mining Division at latitude 56° 46'N and longitude 126° 35'W on NTS mapsheet 94D/15E. The closest town is Fort St. James, some 300 kilometers by air to the southeast. The area remains relatively remote however recent upgrading of the Omineca Road has been undertaken as part of the access road to the new Cheni - Lawyers Mine in the Toadoggone. Access is now available from either Fort St. James, a distance of approximately 430 kilometers by road or from Windy Point on Hwy. 97 north of Prince George, a similar distance but better road. At Moose Valley Airstrip, a rough four-wheel drive access road heads eastward up into the area of the claims. The remnants of a road from the McConnell Creek side of the property



BRITISH COLUMBIA

MINGOLD RESOURCES INC.		
KMA PROPERTY		
OMINECA M.D.		
LOCATION MAP		
SCALE: 1:7,500,000	DATE: October '88	NTS: 94D/15E
		FIGURE No: 1



can be seen but has not been investigated for accessibility.

The main area of interest occurs along the northern and western margins of a broad glacial cirque at the headwaters of Menard Creek which flows eastward into the Ingenika River. The cirque valley itself is a relatively gentle rise however it terminates in extremely steep-walled ridges up to 2200 meters in elevation. The ridges are in many cases knife edged and the slopes covered in a thick mantle of talus making traversing arduous and in some cases extremely dangerous.

The area is entirely above tree-line with a matting of cariboo moss being the only vegetation present.

The climate of the area is relatively mild. Winter temperatures seldom fall below -20°C and are usually in the -5° to -10° range. Snow usually covers the area from late October to mid-May and reaches a maximum depth of about one meter. Summers are typically cool and damp although short hot periods up to 32°C do occur (Holbrooke, 1965).

CLAIMS

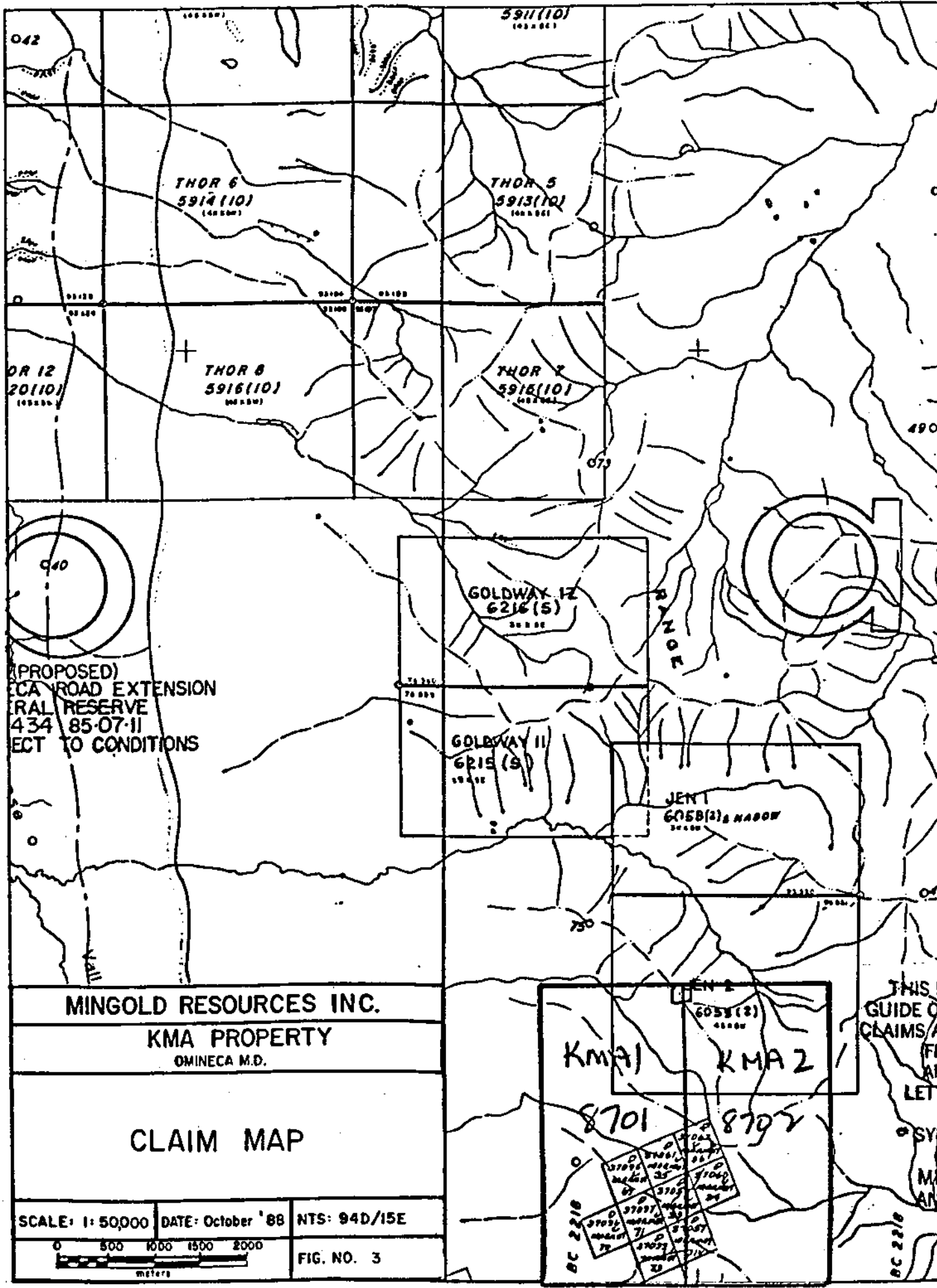
The KMA claims consist of 36 units in two contiguous blocks as follows:

<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Expiry Date*</u>	<u>Mining Division</u>
KMA 1	18	8701	Aug. 20, 1990	Omineca
KMA 2	18	8702	Aug. 20, 1990	Omineca

* Includes assessment presently being applied in this report.

The claims are wholly owned by Mingold Resources Inc. - Vancouver office and were grouped for assessment purposes on August 9, 1988.

A partial overlapping with the JEN 2 claim-record number 6059 occurs on the northern part of the claim block. This claim has precedent



(PROPOSED)
 ECA ROAD EXTENSION
 FEDERAL RESERVE
 434 85-07-11
 SUBJECT TO CONDITIONS

MINGOLD RESOURCES INC.
 KMA PROPERTY
 OMINECA M.D.

CLAIM MAP

SCALE: 1:50,000 DATE: October '88 NTS: 94D/15E

0 500 1000 1500 2000
 meters

FIG. NO. 3

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over the KMA however it does not infringe on the area on which the present work was carried out.

EXPLORATION HISTORY

Mineralization has been known in the Menard Creek area for many years. While mapping the area in the period 1941 - 1945, C.S. Lord of the Geological Survey of Canada sampled a sheared and brecciated zone about 5 feet (1.52 m.) wide which ran 5.18% copper, 0.13 oz/t. gold and 3.59 oz/t. silver (Lord, 1948). Placer gold was reportedly found in McConnell Creek, 10 kilometers to the north-east, in 1899 and activities continue there at the present time.

W.D. Savage prospected the area for a number of years in the early sixties. In early 1966, under Savage's direction, a block of claims was staked to cover copper mineralization found in the Menard Creek area. Title to these claims known as the MARMOT group was subsequently acquired by New Wellington Mines Ltd. During 1966, New Wellington carried out geological mapping of the entire claims and an IP survey was conducted over 5 claims. Eleven bulldozer trenches (762 meters total) were done as well as 10 acres of bedrock stripped. Access roads and temporary buildings were constructed.

In 1967, work was continued on the access roads (32 km.) and permanent camp facilities were erected. Geological, geochemical and I.P. surveys were carried out and 1.6 kilometers of bulldozer trenching was completed. One drill hole was completed to a depth of 15 meters when bad weather prevented its continuation.

Further stripping of the mineralized zone was done in 1968, along with extensive prospecting.

In 1969, Texada Mines Ltd. optioned the ground and stripped 100,000 square feet (9290 m²) of bedrock and constructed 8 kilometers of road with a

bulldozer. 2066 soil samples were taken and a geological survey was done over the entire claim block. A total of 783 feet (239 m.) of drilling was done in 5 AWL holes.

From 1970 to 1972, there is no record of any further work on the claims.

In 1973, Wesfrob Mines Ltd. optioned the claims and flew 188 line-miles (300 Line-kilometers) of airborne EM and magnetometer survey over the claims and surrounding area. In addition, five holes totalling 900 feet (274 m.) were drilled. At this same time, B.N. Church of the Geological Survey undertook a detailed analysis of the Takla rocks around the MARMOT claims (Church, 1973).

It appears that with the election of an N.D.P. government in 1973, further work on the property was curtailed. No evidence of continued exploration can be found for the period from 1974 to 1986.

In 1987, as part of a gold-copper property search, Mingold Resources Inc. examined and subsequently staked the MARMOT mineralized zone as the KMA claims. Only preliminary rock sampling and prospecting was completed before prior commitments required crews to be moved out of the area.

In 1988, Mingold had a four man crew in the area which carried out additional rock sampling and prospecting as well as a modest soil geochemical survey. The details and results of this program are the subject of this report.

REGIONAL GEOLOGY

The KMA claims occur within the central part of the Omineca Crystalline Belt which is one of two assemblages of plutonic and volcanic rocks extending the length of B.C. The area is dominated by andesitic and basaltic rocks of the Upper Triassic Takla Group and granitic rocks of the Jurassic to Cretaceous Omineca Intrusions. The property lies along the western boundary of the Omineca Intrusions within the Takla Group volcanics. Rock exposures are typically restricted to ridge tops with the deep incised valleys filled with

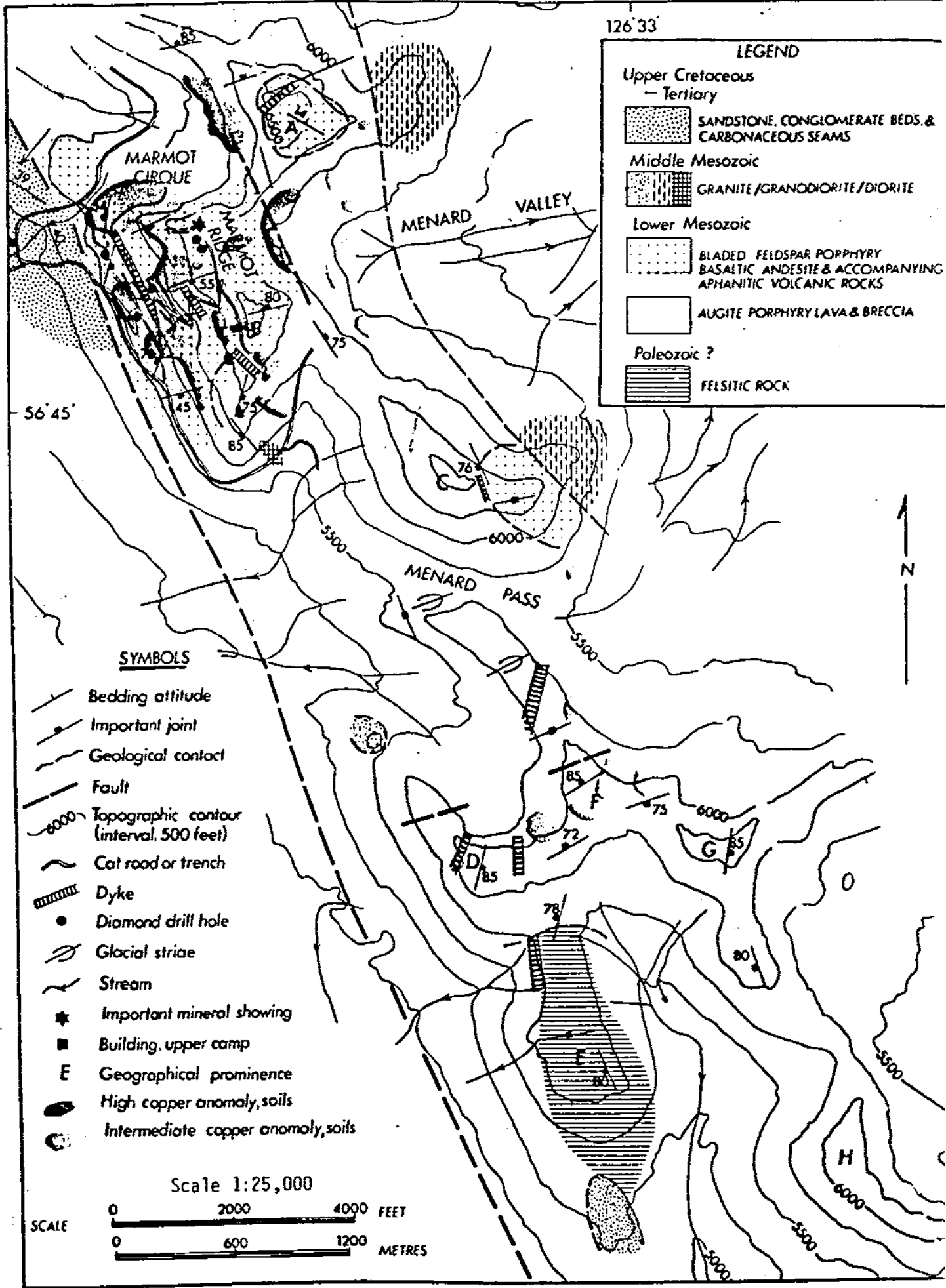


Figure 4. Geology of the Menard Creek Area (after Church, 1973)

glacial drift and alluvium.

The main structural feature of the area is the Omineca Fault which is the northern extension of the Pinchi Fault. Numerous subsidiary faults have been noted however as the faults often occupy drift-covered valleys many more faults probably remain unrecognized. The dominant structural trend of both folding and faulting is northwesterly.

This region of B.C. has been recognized for many years for its abundance of mineral occurrences. Unfortunately, due to the remoteness of the area, few have been able to achieve economic viability. With the renewed interest in the area for its potential in gold, silver and platinum, this status may change in the near future. Deposits which once were dismissed due to the enormous costs of shipping concentrates could see their accessory precious metals potential realized with the shipping of dore bars.

PROPERTY GEOLOGY

The KMA claims occur within the Upper Triassic Takla Group volcanics near their contact with granitic rocks of the Omineca Intrusions to the east.

The Takla rocks are mainly basic volcanic breccias and lavas equivalent to Lord's "lower division" (Lord, 1948). In his mapping of the MARMOT property, viz KMA, B.N. Church of the G.S.C. recognized two major lithologic units - an upper coarse plagioclase - rich basaltic andesite (referred to as andesite porphyry on Plate No.1) and a lower augite-rich basalt (Church, 1973).

The upper feldspathic unit is characterized by exceptionally large euhedral plagioclase plates up to 4 cm. long embedded in a fine-grained gray, greenish or reddish brown matrix. This rock is the dominant host to copper mineralization and typically shows patchy epidote alteration accompanied by bornite, chalcocite and malachite adjacent to shears and major fractures.

The augite-rich volcanics underlie much of the area east and south of the main MARMOT showings. Due to their resistant nature, the outcrops of this rock type often slab off forming steep craggy cliffs which are often unscalable. Augite phenocrysts up to 8mm in diameter are conspicuous and form 10 to 20 percent of the rock. Other phenocrysts were determined by Church to be mainly mixtures of serpentine and talc pseudomorphic after olivine.

The Omineca Intrusions, which are thought to be mainly of Jurassic age, occur as a large granitic intrusion to the east of the map-area. A few smaller plugs and dykes cut the Takla rocks locally.

The main intrusive body is gray, fine to medium grained granodiorite to diorite. The smaller plugs are generally of similar composition to the main pluton while the numerous dykes are diverse in composition and texture. The most common and largest dykes are quartz-feldspar porphyries of granitic composition.

Church also recognized exposures of Upper Cretaceous to Lower Tertiary Sustut Group along the western slopes of Marmot Ridge. A major gravity fault paralleling Moose Valley has resulted in these younger strata lying structurally lower and adjacent to Takla volcanic rocks. The Sustut rocks are mainly poorly indurated, light gray sandstones and conglomerates with intercalated dark carbonaceous seams.

Faulting is the dominant structural feature of the claim area. As mentioned above, a major gravity fault has down-dropped Sustut sediments relative to the adjacent Takla rocks. In addition, a major block fault to the east of Marmot Ridge has resulted in the upper Takla feldspar porphyry unit being structurally lower than the augite porphyry sequence to the east. It appears that much of the important mineralization in the KMA area is localized along this fault.

Two other minor faults have been postulated as occurring in a north-northwesterly and east-northeasterly directions.

MINERALIZATION

Mineralization has been found in three types of occurrences on the KMA claims:

- (i) fissure veins
- (ii) disseminations/ fracture fills in the volcanics, and
- (iii) disseminations in the hornfelsed contacts near the igneous intrusions.

The most important type so far appears to be the fissure veins.

The most significant of these has been the main focus of Mingold's attention thus far and occurs in a northwesterly trend silicified shear associated with the major fault to the east of Marmot Ridge. The shear is 1.5 meters wide and has been sampled at various times in the history of the property. These results are shown in Table 1:

Table 1. Sampling of Marmot Shear/Vein

<u>Date</u>	<u>Sampler</u>	<u>Width(m)</u>	<u>Copper(%)</u>	<u>Gold(oz/t)</u>	<u>Silver(oz/t)</u>
1945	Lord (G.S.C.)	Grab	5.18	0.13	3.59
1962	Holbrooke(Consultant)	0.3	3.70	1.84	2.16
		0.3	3.30	0.72	1.50
1987	Nicholson(Mingold)	1.5	2.64	0.28	3.31
1988	Diment (Mingold)	2.0	0.17	0.12	1.63(wallrock)
		1.0	2.57	0.04	0.99

As can be seen from the above sampling results, the grades of copper are relatively consistent however the gold and silver grades vary considerably.

This is probably due mainly to differing sample locations although it illustrates the dramatic changes in grades that can be expected both laterally and vertically within the shear. Diment's sample of the wallrock to a vein indicates that the veins themselves may not be the only target for precious metals. It appears that most of the copper mineralization has deposited within the vein but, at least locally, gold and silver mineralization has diffused into the wallrocks. Future sampling should bear this in mind.

The most widespread type of mineralization is disseminated and fracture-fill copper mineralization in the feldspathic basaltic andesites. Typically, chalcocite and bornite are found with quartz and calcite as fillings and fine disseminations in epidotized volcanic rock. K.J. Dove working for Texada Mines in 1969 states: "Disseminated copper mineralization is locally present within a few feet of the surface, but was not found at depth greater than 15 feet. The tenor of this mineralization is very low; values are in the range of 0.015% Cu to 0.040% Cu, rarely rising to 0.120% Cu." (Dove, 1970). Recent sampling by Mingold confirms these grade levels and also indicates that associated precious metal values are generally not significant.

The third type of mineralization, disseminated sulphides in hornfelsed volcanics, occurs along the western contact of the main granitic intrusion on the eastern side of the claims. This type has not been investigated by Mingold thus far. According to Church, pyrite is the only sulphide present in abundance and this occurs in the hornfelsic rocks 3 to 6 meters outward from the margin of the intrusion. Although it appears to hold little interest for copper mineralization, it may carry significant precious metal values. This possibility should be investigated in future work.

PROSPECTING/ROCK SAMPLING

A limited prospecting and rock sampling program was carried out by Rick Diment and Ursula Mowat for Mingold Resources from July 24 to 25, 1988. This work was confined mainly to the area of Marmot Ridge where significant mineralization had been found the year before. All mineralization of significance was from the plagioclase-rich basaltic andesite unit referred to in the field as "Andesite Feldspar Porphyry". Table 2 below describes the 20 rock samples taken during this program:

Table 2, 1988 Rock Sampling on the KMA Claims

<u>Sample No.</u>	<u>Type</u>	<u>Width(m.)</u>	<u>Description</u>	<u>Cu(ppm)</u>	<u>Au(ppb)</u>	<u>Ag(ppm)</u>
60788	Cont. chip	0.5	Iron-stained, chloritized andesite feldspar porphyry in 4m. wide shear zone (070/90°). Parallel qz. stringers, 3-5% malachite and trace py.	408	780	6.9
60789	Cont. chip	2.0	Chloritized andesite feldspar porphyry with quartz and calcite veinlets trending 160°. Minor malachite. Wallrock of 60790. Taken perpendicular to vein in 60790.	1650	4005	55.4
60790	Cont. chip	1.0	Mineralized vein(160/90°) Intensely chloritized andesite feldspar porphyry with qz. and calcite stringers (1-5cm wide) paralleling vein 3-5% malachite with minor azurite, covellite, pyrite and chalcocite. Taken across vein.	25,718	1430	33.7

<u>Sample No.</u>	<u>Type</u>	<u>Width(m.)</u>	<u>Description</u>	<u>Cu(ppm)</u>	<u>Au(ppb)</u>	<u>Ag(ppm)</u>
60791	Cont.chip	2.0	Wallrock of 60790. Chloritized andesite feldspar porphyry with scattered patches of calcite. Minor malachite. Taken perpendicular to vein in 60790.	373	57	2.9
60792	Grab	--	Float sample of intensely iron-stained, vuggy quartz. No visible sulphides.	1418	86	9.8
60793	Random Grab	--	Iron-stained vuggy quartz talus with 3% malachite and minor azurite, bornite, and chalcocite.	64,439	680	63.5
60794	Random grab	--	Andesite feldspar porphyry with qz. stringers. 1-3% malachite and azurite with minor py. Taken in talus.	7045	22	10.7
60798	Random chip	1.0	Rusty brown andesite feldspar porphyry with minor malachite and trace of py. Random chip taken 5m. from vein (60790)	3372	250	11.0
60799	Random grab	--	Iron-stained vuggy qz. talus in vicinity of Marmot shear zone (160°). No visible sulphides.	2385	605	106.7
24952	Random chip	1.0	Andesite feldspar porphyry with malachite staining and 5% py. along fractures.	17,171	1	2.1
24953	Random chip	1.0	Iron-stained andesite feldspar porphyry with ankerite.	106	11	0.1
24954	Random grab	--	Talus of intensely epidotized volcanic with qz. stringers, malachite staining and minor disseminated chalcocite.	28,323	11	4.7

<u>Sample No.</u>	<u>Type</u>	<u>Width(m.)</u>	<u>Description</u>	<u>Cu(ppm)</u>	<u>Au(ppb)</u>	<u>Ag(ppm)</u>
24955	Random chip	1.0	Massive, light green calcareous volcanic surrounded by crackle breccia. Moderate epidote alteration.	209	1	0.1
24956	Random chip	0.5	Large glacial erratic of conglomerate with minor iron staining.	259	12	0.1
MARMOT 1	Random chip	0.33	Red-brown gossan zone	--	315	--
R-2A	Random chip	0.33	Red-brown gossan zone	--	138	--
R-3	Random Chip	0.33	Red-brown gossanous, silicified shear.	--	4	--
R-4	Cont.chip	1.0	Chloritized and epidotized andesite feldspar porphyry Minor qz. veining and erratic pyrrhotite.	--	14	--
R-5	Random grab	--	Gossan float in talus	--	2	--
R-6	Random grab	--	Iron-stained andesite feldspar porphyry in talus.	--	3	--

These samples are keyed to Plate No. 1 at the back of this report. Traversing into the cirque area north of the Marmot Veins is impossible due to steep cliffs. Outcrop exposures are generally confined to the ridge tops with the side slopes covered in fine scree. Prospecting of the area resulted in the location of several areas carrying high copper. The only significant gold-silver values other than those around the original Marmot Veins were found in talus. These samples (60793 and 60799) do not appear to have travelled far from their source.

All samples were sent to Acme Analytical Labs in Vancouver for analysis. The "R" series of samples were only analysed for gold while all others were analysed for copper and silver as well. Copper and silver were

analysed by ICP while gold was by standard A.A. Rock samples are typically from 0.5 to 1.5 kilograms and are pulverized in preparation for analysis.

ICP analysis utilizes a 0.5 gram sample which is digested with 3 mls. of 3-1-2 HCl - HNO₃-H₂O at 95° for one hour. This solution is then diluted to 10 mls. with water and analysed by a standard ICP unit. Detection limits for copper and silver are 1 ppm and 0.1 ppm respectively.

Gold analyses use a 10 gram sample which is ignited at 600°C, digested with hot aqua regia and then extracted with MIBK. The solution is then analysed with a graphite furnace A.A. unit. The detection limit for gold is 1 ppb.

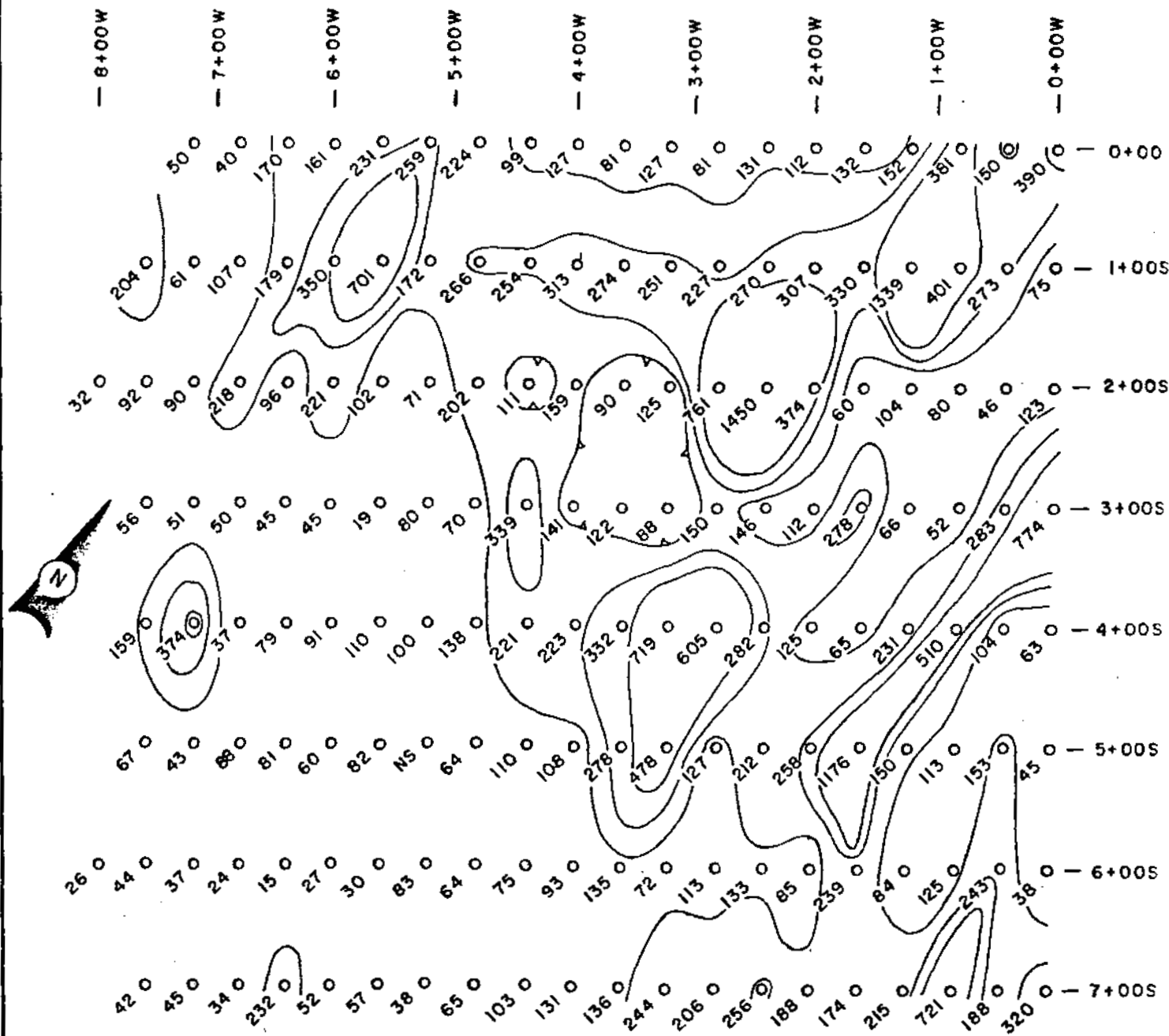
SOIL GEOCHEMISTRY

A soil geochemistry survey was done over a 700 meter by 800 meter area (see Plate No.1) where old reports showed two IP anomalies. Topography in this area is a fairly constant slope of about 30° to the southwest. Lines were put in at 100 meter intervals running 055° with stations every 40 meters. A total of 160 soil samples were collected and analysed for copper, gold and silver.

SAMPLING TECHNIQUE & ANALYTICAL PROCEDURES

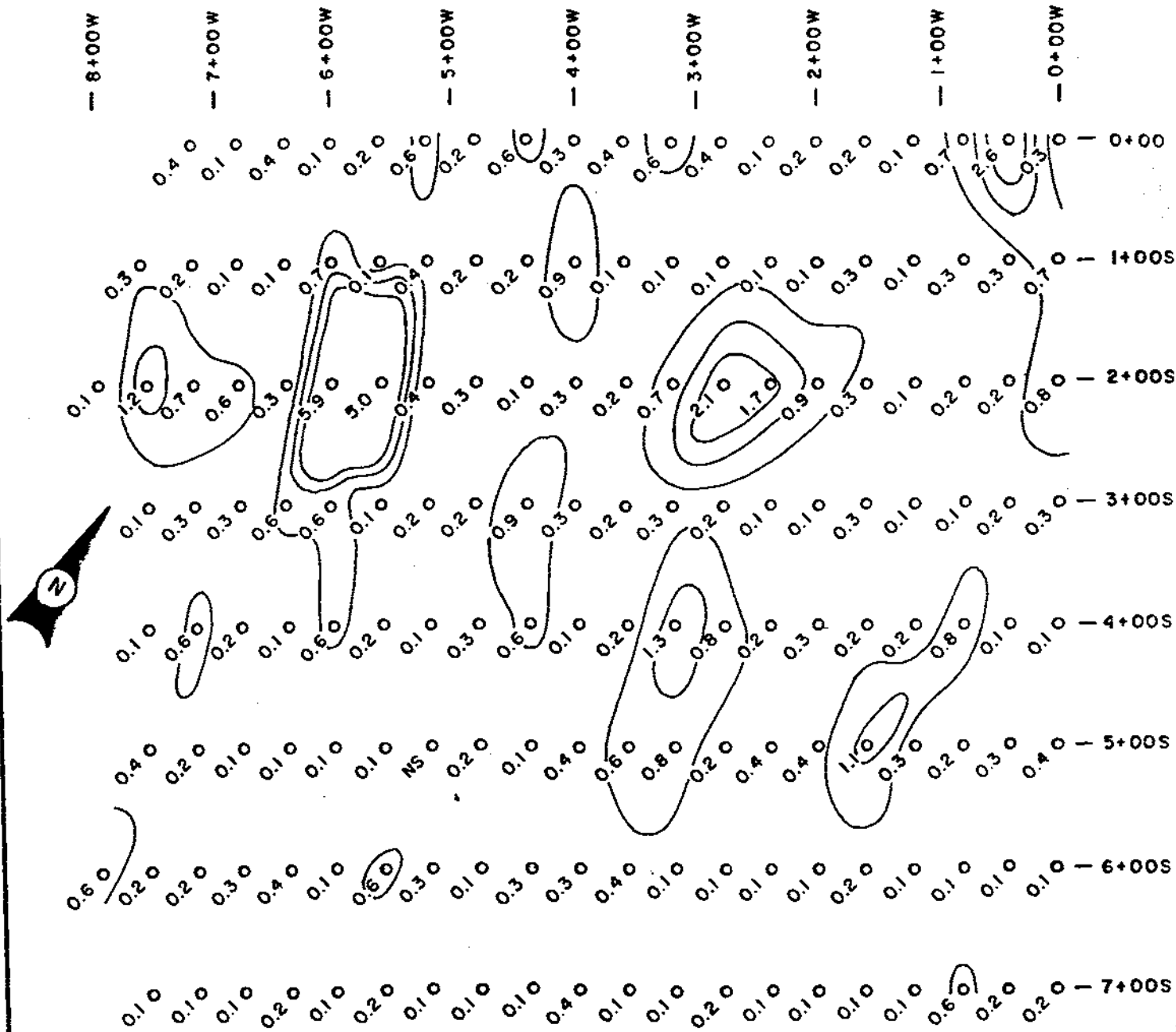
Samples were collected at 40 meter intervals along lines 100 meters apart. Where present, the "B" soil horizon was taken however due to the steep slope in many cases it was necessary to use the "A" (organic) or "C" (talus fines) horizons. Sample depths varied from 15 to 45 cm. Soils were placed in gusseted Kraft bags, air-dried and then shipped to Acme Analytical Labs in Vancouver for analysis.

All soils were analysed for copper, gold and silver. Copper and silver analysis were by ICP while gold was by standard A.A. The analytical



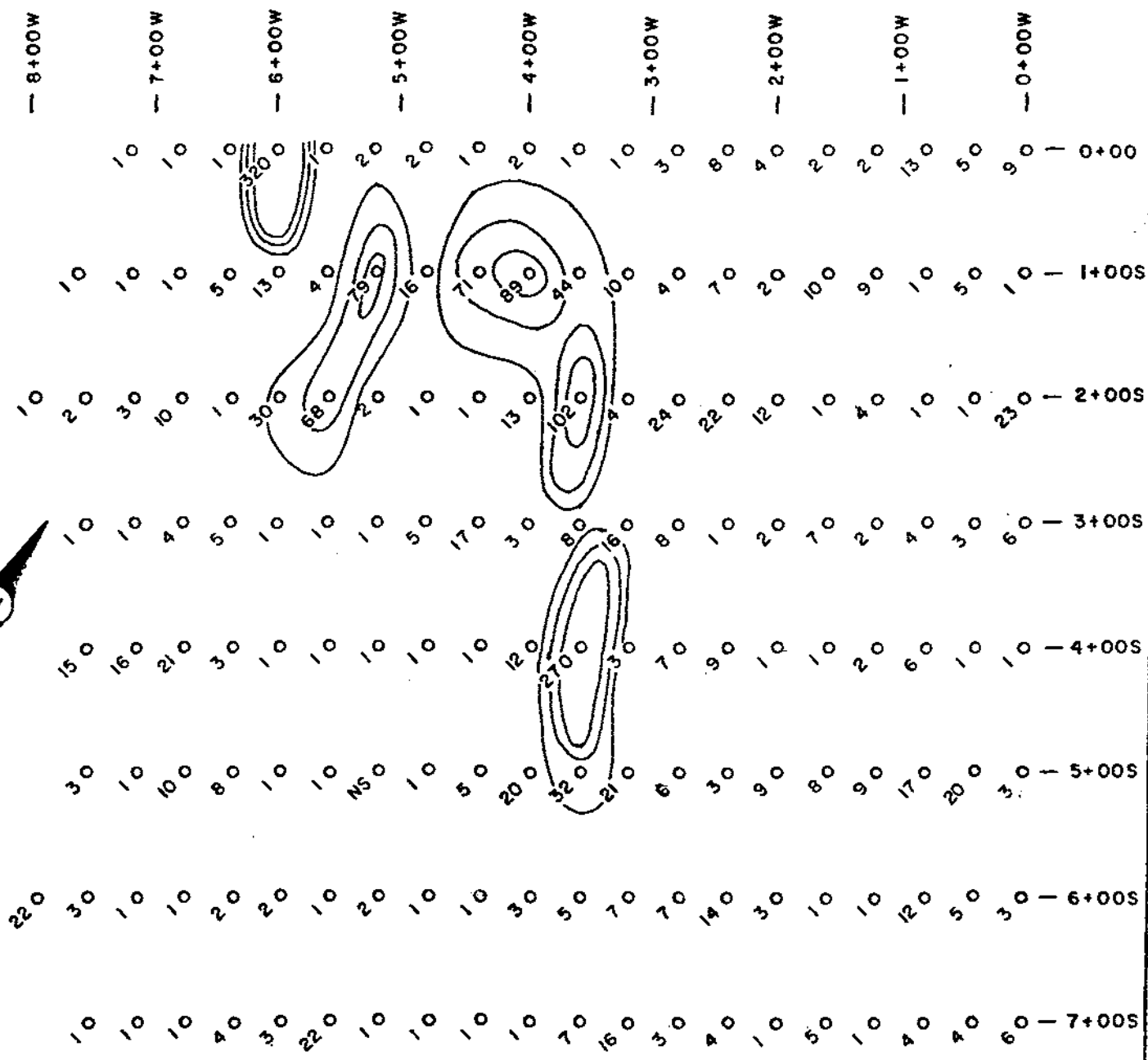
○ Sample site
 ○ 67 Copper value (ppm)
 Contour intervals 150, 250, 350 ppm

MINGOLD RESOURCES INC.		
KMA PROPERTY OMINECA M.D.		
SOIL GEOCHEM - COPPER		
SCALE: 1: 5000	DATE: October '88	NTS: 94D/15E
		FIG. NO. 5



○ Sample site
 ○ 0.2 Silver value (ppm)
 Contour intervals 0.5, 1.0, 1.5 ppm

MINGOLD RESOURCES INC.		
KMA PROPERTY OMINECA M.D.		
SOIL GEOCHEM- SILVER		
SCALE: 1: 5000	DATE: October '88	NTS: 94D/15E
 meters		FIG. NO. 6



○ Sample site
 ○ 15 Gold value (ppb)
 Contour intervals 25, 50, 75 ppb

MINGOLD RESOURCES INC.		
KMA PROPERTY OMINECA M.D.		
SOIL GEOCHEM - GOLD		
SCALE: 1: 5000	DATE: October '88	NTS: 94D/15E
		FIG. NO. 7

procedures are the same as those described for the rock samples and will not be reiterated here.

DISCUSSION OF RESULTS

The soil sample results are plotted on Figures 5, 6 and 7 included in this report. Contour intervals were chosen empirically based on experience with similar environments elsewhere in B. C..

Copper anomalies as expected are much more extensive than gold and silver. Almost the entire northern half of the grid shows weakly anomalous (>150 ppm) copper values. The highly anomalous values (>350 ppm) suggest a series of north trending mineralized zones which butt up against a northwest trending fault or lithologic contact. This likely correlates with the location of Church's interpreted Sustut contact. The large area of low-grade copper is probably due to disseminated type mineralization with zones of higher grade material occurring along major fractures or shears.

Gold anomalies are concentrated along the general area of the interpreted fault contact noted from the copper geochem. This may only be coincidental however it could indicate that the gold mineralization is associated with late stage faulting unrelated to an earlier copper mineralizing event.

Silver values show a scattering across most of the grid however the higher values correlate partially with the copper highs and partially with the gold highs. This indicates that silver may have been introduced at two different periods in the mineralizing process.

The soil geochemistry program was successful in locating several areas of potential copper, gold and silver mineralization. The geochemical pattern does not indicate significant dispersion due to downhill transport although the isolated copper-silver anomaly at 4+005/7+20W could be due to a float boulder from the anomalies upslope.

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STATEMENT OF COSTS

Personnel: Ursula Mowat, Contract Geologist \$ 200.00/day
Rick Diment, Geologist 120.00/day
Wayne Kowal, Geological Technician 90.00/day
Dan Cosgrove, Contract Sampler 100.00/day
Ken Taylor, Project Supervisor 172.00/day

Dates: Prospecting/Rock Sampling - July 24-25, 1988
- Ursula Mowat, Rick Diment (4 mandays)
Soil Geochemical Survey - August 8-9, 1988
- Ursula Mowat, Rick Diment, Wayne Kowal, Dan Cosgrove (16 mandays)

Cost Breakdown:

Prospecting - 2 mandays @ \$200.00/day \$ 400.00
- 2 mandays @ 120.00/day 240.00
- Helicopter - 2 hrs. @ \$600/hr incl. fuel 1200.00
- Report - 1 day @ 172.00/day 172.00
- Drafting - 1/2 day @ 172.00/day 86.00
- Travelling to/from project - 1 day @ \$200.00/day 200.00
- 1 day @ \$120.00/day 120.00
- Truck Rental - 3 days @ \$50/day incl. fuel 150.00
- Air travel - Vancouver to Prince George 181.30
- Room/board - 6 mandays @ \$40/manday 240.00

TOTAL \$ 2989.30

Rock Sampling - wages included in Prospecting
- 6 analyses for Au @ \$4.50/sample \$ 27.00
- 14 analyses for Cu, Au, Ag @ \$7.75/sample 108.50
- 20 sample preps. @ \$3.00/sample 60.00
- Supplies (bags, flagging etc.) 10.00

TOTAL \$ 205.50

Soil Geochem - 2 mandays @ \$200.00/day \$ 400.00
- 2 mandays @ \$120.00/day 240.00
- 2 mandays @ \$100.00/day 200.00
- 2 mandays @ \$ 90.00/day 180.00
- Report - 2 days @ \$172.00/day 344.00
- Drafting - 1 day @ \$172.00/day 172.00
- Travelling to/from project - 1 day @ \$200.00/day 200.00
- 1 day @ \$120.00/day 120.00
- 2 days @ 100.00/day 200.00
- 2 days @ 90.00/day 180.00
- Truck Rental - 3 days @ \$50/day incl. fuel 150.00
- Air travel - Vancouver to Prince George (2
people) 362.60

- Prince George to Vancouver (1 person)	181.30
- Room/Board - 14 mandays @ \$40/manday	560.00
- 160 analyses for Cu, Au, Ag @ \$7.75/ sample	1240.00
- 2 analyses for Au only @ \$4.50/ sample	9.00
- 162 sample preps. @ 0.85/sample	137.70
- Supplies (bags, flagging, etc.)	55.00
	<hr/>
TOTAL	\$ 4931.60
GRAND TOTAL	<u>\$ 8126.40</u>

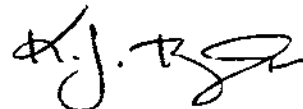
APPENDIX 1

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, KENNETH J. TAYLOR, do hereby certify that:

1. I am a Geologist with Mingold Resources Inc., Vancouver Office at 709-837 W. Hastings Street, Vancouver, B. C.
2. I am a graduate of the University of B. C., 1973 with a B.Sc. in Geology.
3. I am a Fellow in the Geological Association of Canada.
4. I have practised by profession for over 15 years.
5. This report is based on field information obtained by personnel under my supervision during the period of July 23-25 and August 8-10, 1988.
6. I am familiar with the area involved through an examination of the KMA Claims for July 29 to Aug. 2, 1987.



K. J. TAYLOR F.G.A.C.
Project Supervisor.

STATEMENT OF QUALIFICATIONS

I, RICHARD M. DIMENT, do hereby certify that:

1. I am a geologist with Mingold Resources Inc., Vancouver Office at 709 - 837 W. Hastings Street, Vancouver, B. C.
2. I am a graduate of the University of B. C., 1986 with a B.Sc. in Geology.
3. I have practised by profession for 3 years.

A handwritten signature in black ink, appearing to read "R. M. Diment". The signature is written in a cursive style with a prominent initial "R" and a long horizontal stroke extending to the right.

R. M. DIMENT
Field Geologist

APPENDIX II

Soil/Rock Assay Certificates

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716

DATE RECEIVED: AUG 5 1988
DATE REPORT MAILED: *Aug. 13/88.*

GEOCHEMICAL ANALYSIS CERTIFICATE

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 ACID LEACH/AA FROM 10 GM SAMPLE.

ASSAYER: *C. Leong* D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

MINGOLD RESOURCES INC. PROJECT 602 FILE # 88-3277

SAMPLE#	Cu PPM	Ag PPM	Au* PPB
E 24952	17171 ✓	2.1	1
E 24953	106	.1	11
E 24954	28323 ✓	4.7	11
E 24955	209	.1	1
E 24956	259	.1	12
E 60795	36	.3	4
E 60796	151	.7	81
E 60797	111	.6	21
E 60798	3372	11.0	250
E 60799	2385	106.7 ✓	605
STD C/AU-R	59	7.1	490

✓ ASSAY REQUIRED FOR CORRECT RESULT -

GEOCHEMICAL ANALYSIS CERTIFICATE

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 NG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
 - SAMPLE TYPE: P1-P5 SOIL P6 ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

ASSAYER: *C. Leong* D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

MINGOLD RESOURCES INC. PROJECT KMA FILE # 88-3337R Page 1

SAMPLE#	Cu PPM	Ag PPM	Au* PPB
LO+00N 7+20W	50	.4	1
LO+00N 6+80W	40	.1	1
LO+00N 6+40W	170	.4	1
LO+00N 6+00W	161	.1	320
LO+00N 5+60W	231	.2	1
LO+00N 5+20W	259	.6	2
LO+00N 4+80W	224	.2	2
LO+00N 4+40W	99	.6	1
LO+00N 4+00W	127	.3	2
LO+00N 3+60W	81	.4	1
LO+00N 3+20W	127	.6	1
LO+00N 2+80W	81	.4	3
LO+00N 2+40W	131	.1	8
LO+00N 2+00W	112	.2	4
LO+00N 1+60W	132	.2	2
LO+00N 1+20W	152	.1	2
LO+00N 0+80W	381	.7	13
LO+00N 0+40W	150	2.6	5
LO+00N 0+00W	390	.3	9
L1S 7+60W	204	.3	1
L1S 7+20W	61	.2	1
L1S 6+80W	107	.1	1
L1S 6+40W	179	.1	5
L1S 6+00W	350	.7	13
L1S 5+60W	701	.1	4
L1S 5+20W	172	.4	79
L1S 4+80W	266	.2	16
L1S 4+40W	254	.2	71
L1S 4+00W	313	.9	89
L1S 3+60W	274	.1	44
L1S 3+20W	251	.1	10
L1S 2+80W	227	.1	4
L1S 2+40W	270	.1	7
L1S 2+00W	307	.1	2
L1S 1+60W	330	.3	10
L1S 1+20W	1339	.1	9
STD C/AU-S	58	7.1	51

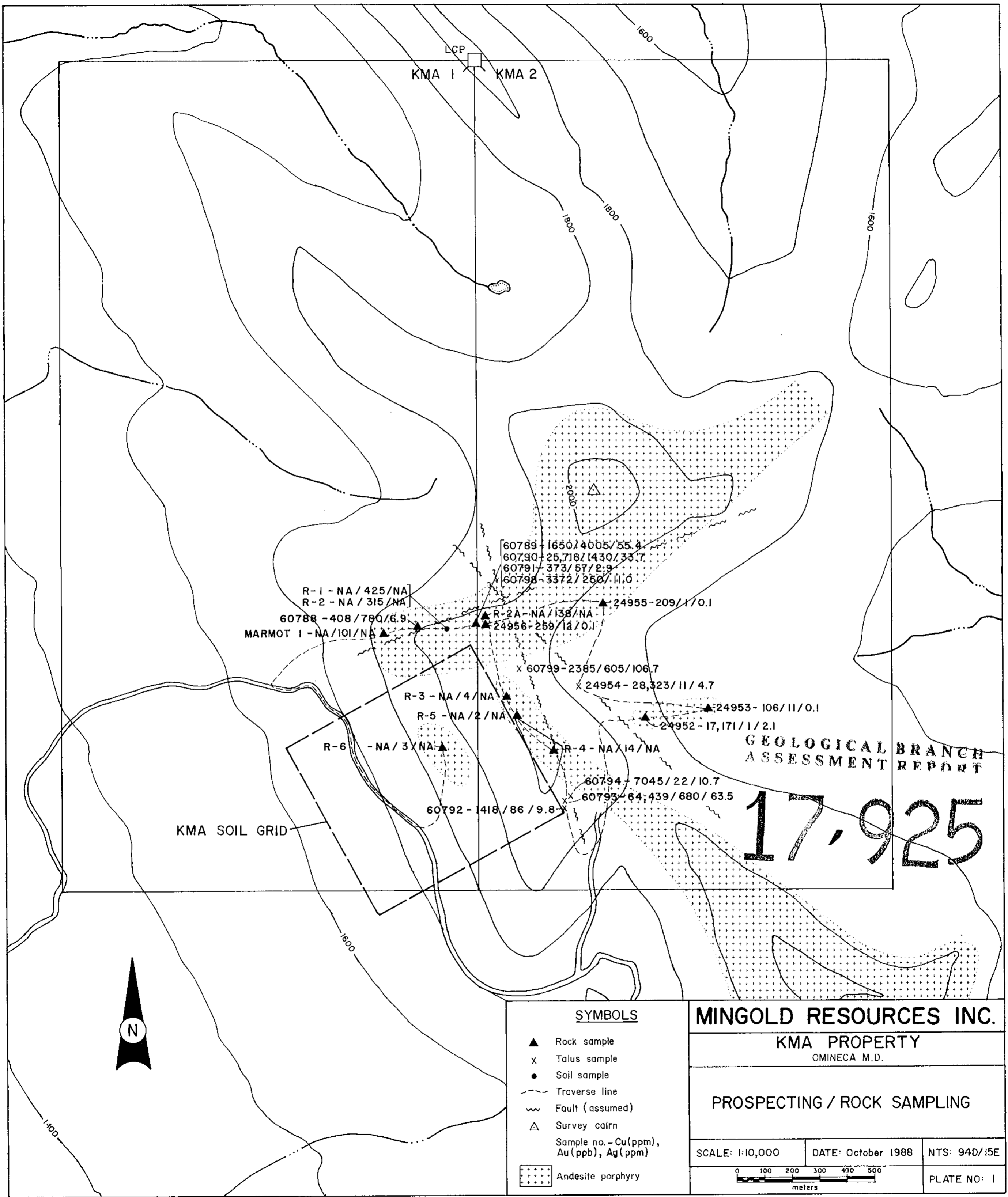
SAMPLE#	Cu PPM	Ag PPM	Au* PPB
L1S 0+80W	401	.3	1
L1S 0+40W	273	.3	5
L1S 0+00W	75	.7	1
L2S 8+00W	32	.1	1
L2S 7+60W	92	1.2	2
L2S 7+20W	90	.7	3
L2S 6+80W	218	.6	10
L2S 6+40W	96	.3	1
L2S 6+00W	221	5.9	30
L2S 5+60W	102	5.0	68
L2S 5+20W	71	.4	2
L2S 4+80W	202	.3	1
L2S 4+40W	111	.1	1
L2S 4+00W	159	.3	13
L2S 3+60W	90	.2	102
L2S 3+20W	125	.7	4
L2S 2+80W	761	2.1	24
L2S 2+40W	1450	1.7	22
L2S 2+00W	374	.9	12
L2S 1+60W	60	.3	1
L2S 1+20W	104	.1	4
L2S 0+80W	80	.2	1
L2S 0+40W	46	.2	1
L2S 0+00W	123	.8	23
L3S 7+60W	56	.1	1
L3S 7+20W	51	.3	1
L3S 6+80W	50	.3	4
L3S 6+40W	45	.6	5
L3S 6+00W	45	.6	1
L3S 5+60W	19	.1	1
L3S 5+20W	80	.2	1
L3S 4+80W	70	.2	5
L3S 4+40W	339	.9	17
L3S 4+00W	141	.3	3
L3S 3+60W	122	.2	8
L3S 3+20W	88	.3	16
STD C/AU-S	57	7.0	51

SAMPLE#	Cu PPM	Ag PPM	Au* PPB
L3S 2+80W	150	.2	8
L3S 2+40W	146	.1	1
L3S 2+00W	112	.1	2
L3S 1+60W	278	.3	7
L3S 1+20W	66	.1	2
L3S 0+80W	52	.1	4
L3S 0+40W	283	.2	3
L3S 0+00W	774	.3	6
L4S 7+60W	159	.1	15
L4S 7+20W	374	.6	16
L4S 6+80W	37	.2	21
L4S 6+40W	79	.1	3
L4S 6+00W	91	.6	1
L4S 5+60W	110	.2	1
L4S 5+20W	100	.1	1
L4S 4+80W	138	.3	1
L4S 4+44W	221	.6	1
L4S 4+00W	223	.1	12
L4S 3+60W	332	.2	270
L4S 3+20W	719	1.3	3
L4S 2+80W	605	.8	7
L4S 2+40W	282	.2	9
L4S 2+00W	125	.3	1
L4S 1+60W	65	.2	1
L4S 1+20W	231	.2	2
L4S 0+80W	510	.8	6
L4S 0+40W	104	.1	1
L4S 0+00W	63	.1	1
L5S 7+60W	67	.4	3
L5S 7+20W	43	.2	1
L5S 6+80W	88	.1	10
L5S 6+40W	81	.1	8
L5S 6+00W	60	.1	1
L5S 5+60W	82	.1	1
L5S 4+80W	64	.2	1
L5S 4+40W	110	.1	5
STD C/AU-S	57	7.2	51

SAMPLE#	Cu PPM	Ag PPM	Au* PPB
L5S 4+00W	108	.4	20
L5S 3+60W	278	.6	32
L5S 3+20W	478	.8	21
L5S 2+80W	127	.2	6
L5S 2+40W	212	.4	3
L5S 2+00W	258	.4	9
L5S 1+60W	1176	1.1	8
L5S 1+20W	150	.3	9
L5S 0+80W	113	.2	17
L5S 0+40W	153	.3	20
L5S 0+00W	45	.4	3
L6S 8+00W	26	.6	22
L6S 7+60W	44	.2	3
L6S 7+20W	37	.2	1
L6S 6+80W	24	.3	1
L6S 6+40W	15	.4	2
L6S 6+00W	27	.1	2
L6S 5+60W	30	.6	1
L6S 5+20W	83	.3	2
L6S 4+80W	64	.1	1
L6S 4+40W	75	.3	1
L6S 4+00W	93	.3	3
L6S 3+60W	135	.4	5
L6S 3+20W	72	.1	7
L6S 2+80W	113	.1	7
L6S 2+40W	133	.1	14
L6S 2+00W	85	.1	3
L6S 1+60W	239	.2	1
L6S 1+20W	84	.1	1
L6S 0+80W	125	.1	12
L6S 0+40W	243	.1	5
L6S 0+00W	38	.1	3
L7S 7+60W	42	.1	1
L7S 7+20W	45	.1	1
L7S 6+80W	34	.1	1
L7S 6+40W	232	.2	4
STD C/AU-S	57	7.2	52

SAMPLE#	Cu PPM	Ag PPM	Au* PPB
L7+00S 6+00W	52	.1	3
L7+00S 5+60W	57	.2	22
L7+00S 5+20W	38	.1	1
L7+00S 4+80W	65	.1	1
L7+00S 4+40W	103	.1	1
L7+00S 4+00W	131	.4	1
L7+00S 3+60W	136	.1	7
L7+00S 3+20W	244	.1	16
L7+00S 2+80W	206	.2	3
L7+00S 2+40W	256	.1	4
L7+00S 2+00W	188	.1	1
L7+00S 1+60W	174	.1	5
L7+00S 1+20W	215	.1	1
L7+00S 0+80W	721	.6	4
L7+00S 0+40W	188	.2	4
L7+00S 0+00W	320	.2	6
R-1	-	-	425
R-2	-	-	315
STD C/AU-S	58	7.1	49

SAMPLE#	Cu PPM	Ag PPM	Au* PPB
MARMOT 1	-	-	101
R-2A	-	-	138
R-3	-	-	4
R-4	-	-	14
R-5	-	-	2
R-6	-	-	3
E 60788	408	6.9	780
E 60789	1650	55.4	4005
E 60790	25718	33.7	1430
E 60791	373	2.9	57
E 60792	1418	9.8	86
E 60793	69439	63.5	680
E 60794	7045	10.7	22
STD C/AU-R	57	7.1	520



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

17,925

SYMBOLS

- ▲ Rock sample
- x Talus sample
- Soil sample
- - - Traverse line
- ~ Fault (assumed)
- △ Survey cairn
- Sample no. - Cu(ppm), Au(ppb), Ag(ppm)
- Andesite porphyry

MINGOLD RESOURCES INC.

KMA PROPERTY
OMINECA M.D.

PROSPECTING / ROCK SAMPLING

SCALE: 1:10,000

DATE: October 1988

NTS: 94D/15E

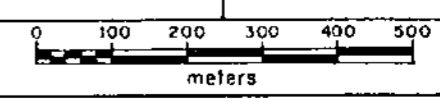


PLATE NO: 1