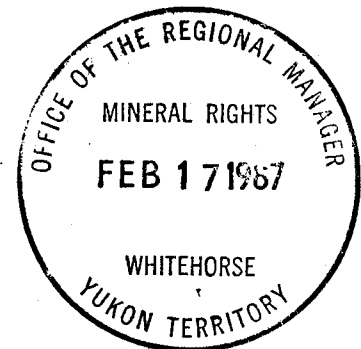


091908

**GEOLOGICAL, GEOCHEMICAL
and
MAGNETOMETER SURVEY
ASSESSMENT REPORT
on the
MAY 1-59 CLAIMS**



Whitehorse Mining District
Yukon Territory
December 3rd-11th, 1986

Claims

MAY 1-59 (YA94148 - YA94206)

Location

1. 50 Km SW of Whitehorse, Yukon
2. NTS 105 D/5, 105 D/6
3. Latitude 60°17'N
Longitude 135°30'W

For

Mr. Tom May
8585 - 123rd Street
Surrey, B.C.
V3W 6E2

By

R. Allan Doherty, B.Sc.
AURUM GEOLOGICAL CONSULTANTS INC.
604 - 675 West Hastings Street
Vancouver, B.C.
V6B 1N2

January 22, 1987

This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
exploration work in the amount

\$ 7094.26.

RD Emond

for Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

SUMMARY

The *May Claims* consist of 59 contiguous quartz mineral claims located in the Wheaton River area approximately 50 km southwest of Whitehorse, Yukon. The centre of the claim block is 7 km northwest of the Mt. Skukum gold-silver deposit, currently producing approximately 5000 ounces of gold per month (Total Erickson Resources Ltd. Annual Report 1986). The Skukum Creek property of Omni Resources Inc. located 13 km southeast of the May Claims has preliminary drill indicated reserves of 418,000 tons of 0.23 oz/ton gold and 9.87 oz/ton silver (Omni Resources Inc. Annual report 1986), and development work is ongoing.

The Current work program on the *May Claims* was completed in early December of 1986 and was primarily intended to provide assessment credits to maintain the ground in good standing. Work consisted of geological mapping, geochemical sampling and a proton magnetometer survey.

Results of this preliminary evaluation indicate that the *May Claims* are located on the northwest ring fracture zone of the Mt. Skukum Caldera Complex, a potentially good zone for localizing epithermal gold-silver deposits. Current mapping indicates that a number of northeast trending fault structures occur on the property and have variably developed quartz and calcite stockworks and clay alteration zones.

Limited geochemical sampling on the claim block has returned a value of 4.2 ppm silver in one stream silt, with other values from eight rock samples returning background levels for gold and silver.

Based on structures and alteration located to date on the property, additional mapping and geochemical sampling is recommended.

TABLE OF CONTENTS

	Page
SUMMARY	i
INTRODUCTION	1
LOCATION AND ACCESS	1
HISTORY	1
PROPERTY	3
CLIMATE, TOPOGRAPHY AND VEGETATION	3
GEOLOGY	5
Regional	
Property	
GEOCHEMISTRY	6
PROTON MAGNETOMETER SURVEY	7
CONCLUSIONS	7
RECOMMENDATIONS	8
REFERENCES	8
STATEMENT OF COSTS	9
STATEMENT OF QUALIFICATIONS	10
 APPENDIX I Magnetometer Instrument Specifications	 11
 <u>List of Figures</u>	
Figure 1. Location map	2
Figure 2. Claim location map	4
Figure 3. Geology and Geochemistry	In Pocket
Figure 4. Magnetometer Survey	In Pocket

INTRODUCTION

This report describes the exploration for assessment purposes carried out by Aurum Geological Consultants Inc. on the *MAY 1-59 Claims* from December 3-11, 1986. The field work was carried out at the request of Mr. Tom May and consisted of geological mapping, geochemical sampling and a proton magnetometer survey.

Due to weather conditions at the time work was carried out, not all outcrops were located and some areas were inaccessible due to potential avalanche instability within the snow pack.

LOCATION AND ACCESS

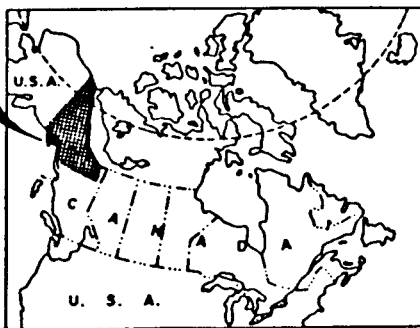
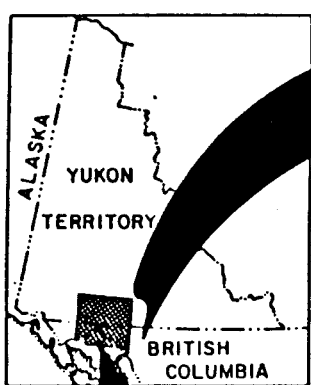
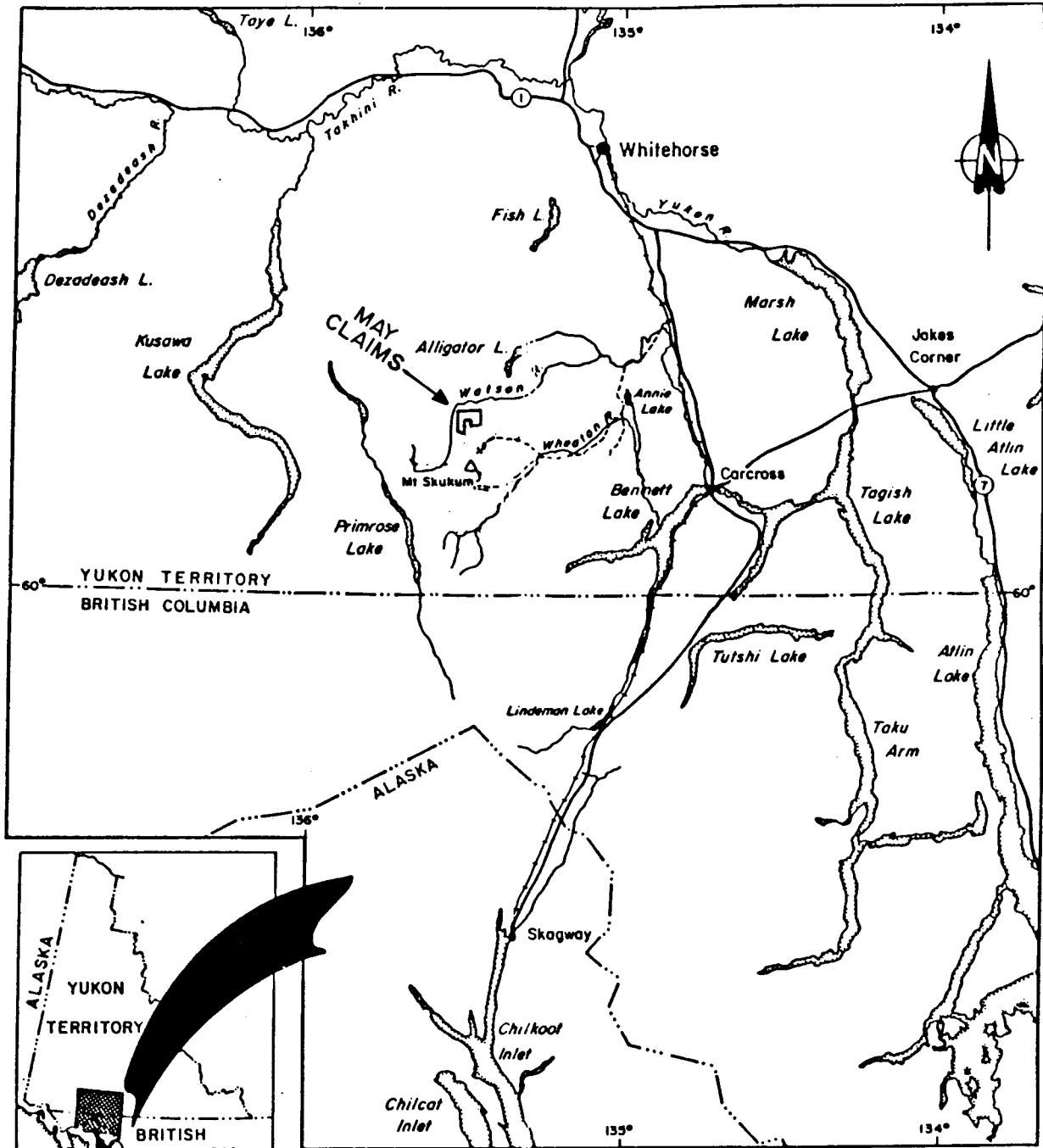
The *May 1-59* claims are located in southwestern Yukon, approximately 50 km southwest of Whitehorse (Figure 1). An all weather gravel road leads from the Carcross highway south of Whitehorse to the Mt. Skukum mine site approximately 7 km south of the *May Claims*.

Access to the property is by helicopter from Whitehorse or from a seasonal helicopter base in the Wheaton River valley. An old tote road along the Watson river passes within 2 km of the property.

HISTORY

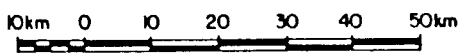
There is no record of prior claim staking or mineral exploration on the ground now covered by the *May Claims*. Exploration for gold-silver in the Wheaton and Watson Rivers area has been intermittent since the late 1890's to the present, with increasing activity since 1980. The discovery of the high grade gold-silver deposit at Mt. Skukum during 1980-83 has resulted in a major claim staking rush in the area and a dramatic increase in the level of exploration expenditures.

Currently the Mt. Skukum deposit is producing 5000 ounces of gold a month (Total Erickson Resources Ltd. Annual Report 1986), and the Skukum Creek property adjoining Mt. Skukum to the southeast has drill indicated reserves of 418,000 tons of 0.23 oz/ton gold and 9.87 oz/ton silver (Omni Resources Inc. Annual Report 1986).



MAY 1 - 59 CLAIMS

LOCATION MAP



<i>Aurum Geological Consultants Inc.</i>	Scale: 1:1,000,000
Drawn by: H.D.P.	Date: 86/09/05
	Figure: 1

PROPERTY

The *May 1-59 Claims* (YA94148-YA94206) consist of fifty-five full unsurveyed claims and four fractional claims which make up a large 'U' shaped claim block straddling the 105 D-5 and 105 D-6 claim map boundary (figure 2). The claims adjoin the *BOTWAT* claims to the south and east and the *KUKU* claims to the south. The claims cover an area of approximately 1190 hectares (2943 acres). The area was staked in accordance with the Yukon Quartz Mining Act by MBW Surveys Ltd of Whitehorse on February 2-3rd, 1986 and were recorded on February 10th, 1986. The claims are wholly owned by Mr. Tom May of Surrey, B.C. Current claim status is listed below.

CLAIM NAME	GRANT #	RECORDING DATE	EXPIRY* DATE
MAY 1-47	YA94148-4194	FEB. 10/86	MAY 10/88
MAY 48-59	YA94195-4206	FEB. 10/86	FEB. 10/88

* includes assessment credits filed with this report

CLIMATE, TOPOGRAPHY AND VEGETATION

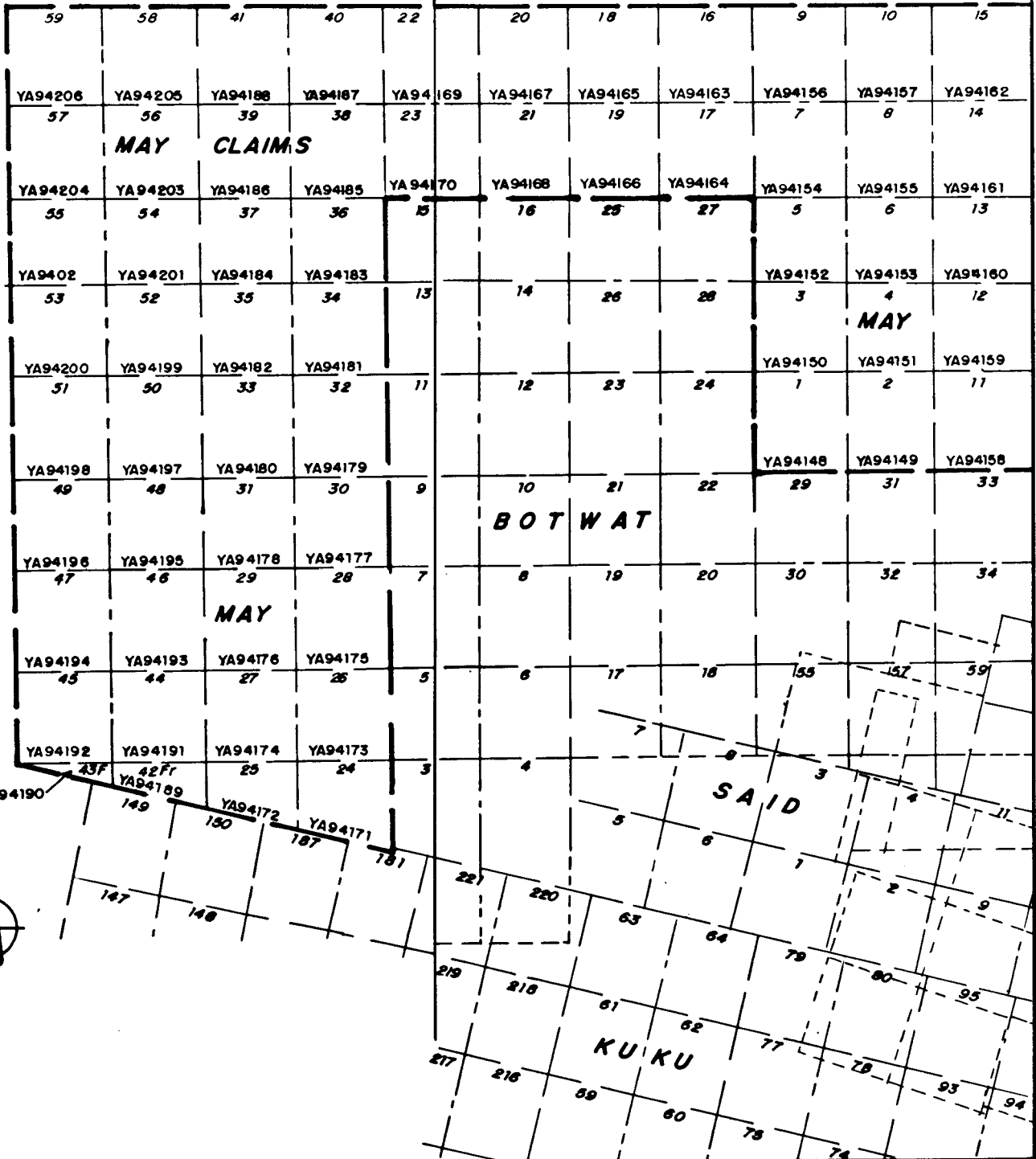
The climate in southwestern Yukon is variable with moderate dry summers and long cold winters. Precipitation is light (40 cm annually), with moderate snowfalls occurring during the winter months. The area is susceptible to periodic high winds from moist Pacific systems rising over the Coast Mountains. The exploration season extends from mid-May through to September-October. Limited work can be completed in the winter months during mild weather.

The *May Claims* cover mountainous terrain, with elevations ranging from 1050 m to 1850 m; tree line in the area is at approximately 1200 m. Most of the claims are on steep rock and talus slopes facing the Watson River to the west and north. More subdued topography in the form of undulating felsenmeer covered plateaus occur between 1500 to 1600m .




At lower elevations on the north and west side of the claim block a moderate cover of white spruce and alpine fur extends down to the bottom of the Watson river valley. Above treeline, vegetation is typically alpine with sparse mosses, grasses and alpine flowers giving way to lichen covered felsenmeer at the highest elevations.

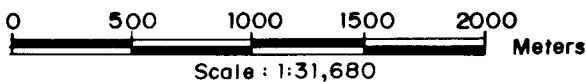
105 D-5

105 D-6



LEGEND

-  ← claim boundary
-  ← claim number
-  ← tag number



MAY 1 - 59 CLAIMS

CLAIM MAP

Aurum Geological Consultants Inc.

DRAFTED BY: D.E.M.	DATE: JAN, 1987	FIGURE: 2
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GEOLOGY

Regional Geology

The oldest exposed rocks in this area of southwestern Yukon are low grade schists and gneisses of the early Paleozoic Yukon Group which occur as large roof pendants within Cretaceous foliated and non foliated granitoid rocks of the Coast Crystalline Complex. To the east, flanking the Coast Plutonic Complex are low grade metamorphosed sediments and volcanics of the Mesozoic Whitehorse-Nechako Trough. The regional geology is described by Wheeler (1961) and Lambert (1974).

Intruding and overlying all older rocks is a suite of Tertiary (Eocene) felsic to intermediate volcanics of the Skukum Group, which were deposited from two volcanic centres at Bennett Lake and Mt. Skukum.

The *May Claims* are located on the northwest rim of the Tertiary Mt. Skukum Complex, an elliptical (>10 Km wide) erosional remnant of subaerial felsic to intermediate volcanics preserved as a result of cauldron subsidence.

The deposition of the Quaternary Miles Canyon flood basalts followed by glaciation and present day erosion are the most recent geological events occurring in the region.

The structural trend in the Wheaton-Watson River area is northwest, with some later Tertiary age northeast trending faults.

Property Geology

The current mapping coverage on the *May 1-59 Claims* is presented in Figure 3. Rock outcrops generally occur on ridges or ridge flanks and probably constitute less than 10% of the total property area. Although some outcrops were well exposed, heavy snow accumulations in gullies and lee slopes made geological mapping difficult.

The most common lithology outcropping on the property is weakly foliated granodiorite (map unit Kgd) with diorite to quartz diorite phases. These rocks are commonly weakly chloritized and epidotized. Large areas of intrusive breccia (map unit KTbx) occur on the northwest corner of the property where they are shown in contact with rhyolite porphyry of Tertiary age (map unit Trp). The breccias are heterolithic, and contain both intrusive and volcanic phases

and are thought to have been emplaced during ring fracturing on the northwest side of the Skukum cauldrea.

The rhyolite porphyries (Trp) are fine grained hypabyssal phases of the Skukum group rhyolites that occur commonly in the Wheaton river area. They display a tightly spaced jointing pattern, are often limonitized and cut by fine grained and flow laminated dykes. Clay alteration is locally developed.

Two small areas of flow banded rhyolite containing numerous lithic fragments occur at the northeast corner of the claims. These units are commonly grey blue in colour and appear to be unaltered (map unit Tr).

A prominent 045^o trending fault zone has been traced for 1.5 km through a topographic low that passes just south of the #2 posts *May 32/33*. This fault zone contains veins and stringers or stockwork of quartz and minor calcite.

No other areas of mineralization have been located.

GEOCHEMISTRY

A total of nine samples were collected and analyzed for gold and silver. One silt sample was collected on the east side of the claim block, six rock chip samples were taken along the 045^o trending fault zone, and two samples were taken on outcrops of rhyolite. Sample locations and results are plotted on the geology map (Figure 3).

Most samples returned background values for gold and silver (i.e. Ag <0.2 ppm ; Au <5 ppb). The silt sample (sample # M206) returned 4.3 ppm silver and one rock sample (# M107) returned 10 ppb gold.

No attempt was made to collect soil samples because the ground was frozen.

PROTON MAGNETOMETER SURVEY

A total of 9.4 line-km of magnetometer surveying was completed at 50 m station intervals using a GEM Systems GSM-8 Proton Magnetometer (see instrument specifications, Appendix 1). The contoured magnetometer data is presented in Figure 4 and the location of the grid lines are plotted on the Geology map Figure 3. A base line loop was surveyed to provide control because a base station was not available. Each line surveyed was tied to the base line and corrections were made to smooth out diurnal fluctuations in the total magnetic field.

The magnetometer survey was carried out to assist in delineating rock units, alteration and structures beneath thin overburden and talus cover over the grid area. The grid area was chosen because the gentle terrain would have a minimum topographic effect on the survey, and to allow for easy access.

Results show a 042^o trending magnetic low that crosses the baseline at 4+00 N and extends for over 900m. To the southeast of the 042^o trending low two east-west trending ridges of high relief separated by an area of low magnetic relief occur, the cause of these latter features is uncertain. The 042^o trending magnetic low probably reflects an underlying structure and/or alteration zone.

CONCLUSIONS

The *May Claims* are underlain by Cretaceous granodiorite cut by Tertiary hypabyssal rhyolite plugs, dikes and coeval extrusive rhyolite flows. Intrusive breccias on the northwest side of the property are related to ring fracturing developed during collapse of the Mt Skukum Caldera complex.

Structural data collected during mapping indicate that a well developed northeast trending fault system occurs on the property. Clay altered wallrock and quartz vein stockwork occur along this fault.

A magnetic low occurs 1km southeast of the mapped fault and has an identical trend. The magnetic low may represent the destruction of magnetic minerals by hydrothermal fluids introduced along fault structures which could be a suitable site to localize gold-silver mineralization.

Several gold-silver veins in the Wheaton River area are localized along northeast trending structures.

RECOMMENDATIONS

Soil geochemistry is considered to be the most effective preliminary exploration tool in the area when combined with structural, lithologic and alteration mapping. Detailed geological mapping with contour soil sampling at the base of steep slopes and grid sampling over flatter ground is recommended as follow-up work on the May claims.

REFERENCES

- | | |
|----------------------|--|
| Lambert, M.B., 1974: | The Bennett Lake Cauldron
Subsidence Complex, British
Columbia and Yukon Territory
G.S.C. Bulletin 227. |
| Wheeler, J.O., 1961: | Whitehorse Map Area, Yukon
Territory, 105D; G.S.C. Memoir
312. |

STATEMENT OF COSTS

AURUM PERSONELL

R. A. Doherty	Dec. 3-11th, 5 days @ \$275/day	\$ 1375.00
S. Tufford	Dec. 3-11th, 5 days @ \$180/day	\$ 900.00

TRANSPORTATION

Crownsnest Helicopters, Bell 206 5.7 hrs.	\$ 3287.19
Norcan Leasing Dec. 2-3rd, vehicle rental	\$ 180.92

GEOCHEMICAL ANALYSES

Bondar-Clegg and Company Ltd. 9 samples analysed for Au,Ag.	\$ 105.65
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SUPPLIES AND EQUIPMENT

Meals and accomodations	\$ 131.05
Pickets, batteries, flagging tape, maps	\$ 91.65
Gasoline	\$ 39.00
Freight charges on Geophysical instruments	\$ 78.15

REPORT PREPARATION

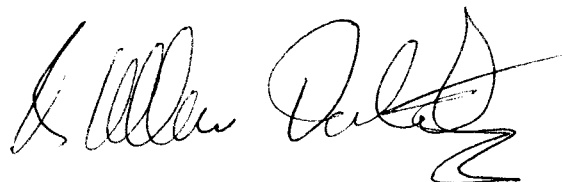
Drafting and map reproduction	\$ 218.15
R. A. Doherty, 2 1/2 days @ \$275.00/day	<u>\$ 687.50</u>

TOTAL	\$ 7094.26
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STATEMENT OF QUALIFICATIONS

I, R. Allan Doherty, hereby certify that:

1. I am a geologist with AURUM GEOLOGICAL CONSULTANTS INC of 604-675 West Hastings Street, Vancouver, B.C.
2. I am a graduate of the University of New Brunswick with a degree in Geology (Honours B.Sc. 1977) and have completed three years of graduate studies at Memorial University. I have been involved in mineral exploration and Government Survey mapping in the Yukon, British Columbia, Northwest Territories and Newfoundland & Labrador since 1975.
3. I have no interest or ownership in the claims discussed in this report nor do I expect to obtain any.
4. I am the author of this report on the MAY 1-59 Claims and I participated in the field work described in this report.



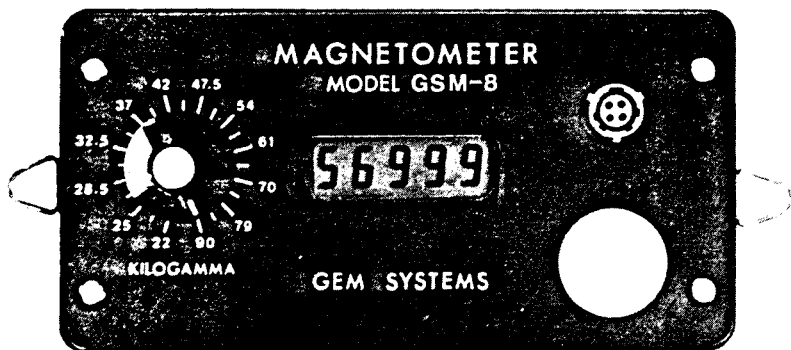
R. Allan Doherty, B.Sc.
February 9, 1987

APPENDIX 1

GEM SYSTEMS

GSM-8 PROTON MAGNETOMETER

FEATURES



- 1 gamma resolution and accuracy, 0.5 gamma optional
- Worldwide range
- High gradient tolerance
- Excellent visibility of the display in any ambient light
- Display stays active between readings
- **WORLD'S LIGHTEST AND MOST COMPACT 1 GAMMA PROTON PRECESSION MAGNETOMETER**
- External trigger and digital output standard, analog output optional
- Rugged, all-metal package
- No-lock indication
- Polarize indication

The GSM-8 is a lightweight one gamma proton precession magnetometer designed primarily for hand held and base station operations, but adaptable for other Earth's magnetic field measurements like airborne/marine surveys, pipe and cable detection and tracking, treasure hunting etc.

The instruments power consumption, size and weight have been minimized to make it the World's lightest and most compact one gamma proton precession magnetometer.

Ruggedized Liquid Crystal Display allows for easy reading in bright sunlight and an all-metal package ensures lasting use in rough field conditions.

Flexible design of electronics enables a wide selection of cycling speeds and other necessary features for almost universal Earth's field measurements, and complete selftest feature ensures reliable operation and early warning of instrument malfunction due to interferences like excessive field gradient, power line or other electromagnetic radiation, or internal breakdown.



- Shoulder and/or belt strap for easy carrying
- Sensor back-pack for hand-free operation optional
- Nonmagnetic battery pack optional
- Custom modifications available

GEM SYSTEMS, INC.

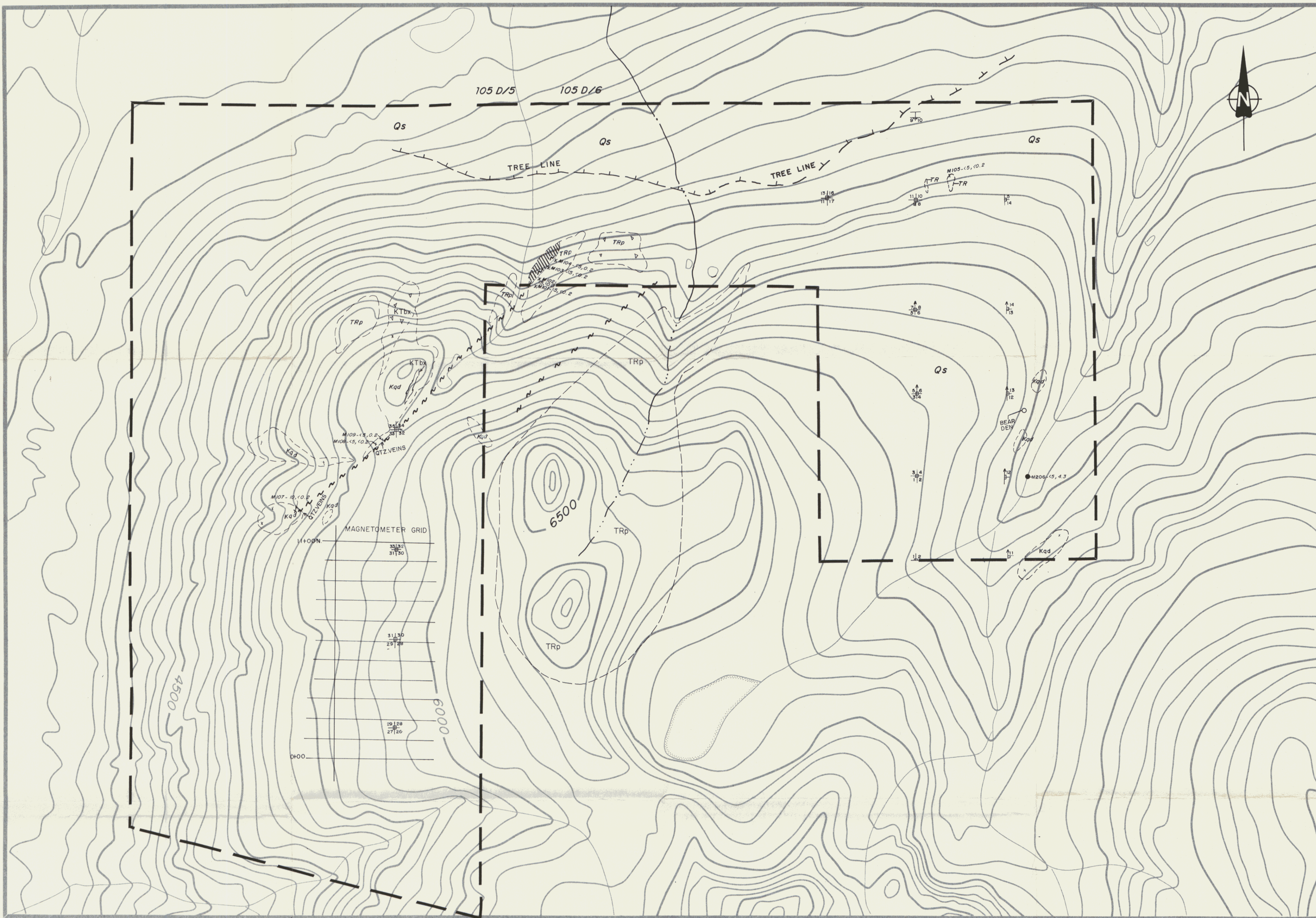
FOR FURTHER INFORMATION CONTACT

urtec INSTRUMENTS SALES LIMITED

131 TELSON ROAD, MARKHAM (TORONTO) ONTARIO CANADA L3R 1E4 • TELEPHONE (416) 475-1133 TELEX 06-986677 CABLE: "URMARK"

S P E C I F I C A T I O N S

RESOLUTION:	1 gamma or 0.5 gamma optional
ACCURACY:	\pm 1 gamma over operating range
RANGE:	20,000 - 100,000 gamma in 23 overlapping steps
GRADIENT TOLERANCE:	Up to 5000 gamma/meter
OPERATING MODES:	MANUAL PUSHBUTTON, new reading ever 1.85 sec., display active between readings CYCLING, pushbutton initiated, 1.85 sec. period. SELFTTEST cycle, pushbutton controlled, 7 sec. period.
OUTPUT:	VISUAL: 5 digit 1 cm (0.4") high Liquid Crystal Display, visible in any ambient light DIGITAL: Multiplied precession frequency and gating pulse ANALOG: 0 - 99 gamma (optional)
EXTERNAL TRIGGER:	Permits externally triggered cycling with periods longer than 1.85 sec. (cycling faster than once per sec. optional)
POWER REQUIREMENTS:	10-28V DC 8Ws per reading
POWER SOURCE:	INTERNAL: 12 V 0.75 Ah NiCd rechargeable battery, 3,000 readings between chargings EXTERNAL: 12-28 V
BATTERY CHARGER:	Input: 120/220 V 50/60 Hz, Output 75 mA DC constant current
OPERATING TEMPERATURE:	- 35 to + 55 C
DIMENSIONS:	CONSOLE: 15 x 8 X 15 cm (6 x 3¼ x 6") SENSOR: 14 x 7 cm dia (5¾ x 2¾" dia) STAFF: 175 cm (70") extended, 53 cm (21") collapsed
WEIGHT:	2.7 kg (6 lb) complete, 2.3 kg (5 lb) in back-pack mode
STANDARD PACKAGE:	CONSOLE, with batteries, carrying harness SENSOR, with cable STAFF, collapsible
STANDARD ACCESSORIES:	BATTERY CHARGER, MANUAL, CARRYING CASE
GUARANTEE:	15 Months from the date of shipping



LEGEND

QUATERNARY

Qs Surficial deposits

TERTIARY - Eocene

TR Rhyolite Lithic tuff & flow

TRp Rhyolite porphyry

CRETACEOUS - TERTIARY

KTbx Intrusive breccia

Kqd Granodiorite - quartz monzonite

GEOLOGICAL SYMBOLS

Area of outcrop

Fault, defined approximate

Gossan

XM101-105 Rock sample # number Au (ppb), Ag (ppm)

OM201-1 Silt sample # number Au (ppb), Ag (ppm)

OTHER SYMBOLS

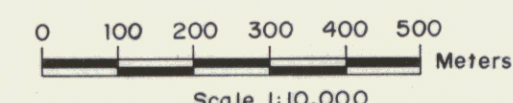
Claim boundary

Claim posts, Locations approximate

Limits of tree line

NOTE: TOPOGRAPHY MODIFIED FROM NTS 105 D5, D6

MAGNETIC DECLINATION 31°14' EASTERLY (1985)



MAY 1-59 CLAIMS

WHEATON RIVER AREA, Y. T.

GEOLOGY
and
SAMPLE LOCATIONS

Aurum Geological Consultants Inc.		JANUARY 1987.	
NTS 105 D/5,6	DRAWN BY: RAD, ST	CHECKED BY: D.E.M.	SCALE: 1:110,000
			FIGURE: 3

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