



GEOLOGICAL MAPPING & GEOCHEMICAL SAMPLING
On The
BYNG 1-102 CLAIMS

Whitehorse Mining District
Yukon Territory

105-D-16 **091873**



[Faint, illegible text]

[Faint, illegible text]

R. Allan Doherty, B.Sc.
AURUM GEOLOGICAL CONSULTANTS INC.
1614 - 675 West Hastings Street
Vancouver, BC
V6B 4W3

October 23, 1986

091873

This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of \$ 7800.00.

DD Emend

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

GEOLOGICAL MAPPING & GEOCHEMICAL SAMPLING

**On The
BYNG 1-102 CLAIMS**

**Whitehorse Mining District
Yukon Territory**

Claims

BYNG 1-24 (YA 93565 to YA 93588)
BYNG 31-34 (YA 93595 to YA 93618)
BYNG 65-82 (YA 93629 to YA 93646)
BYNG 91-102 (YA 93655 to YA 93666)

Location

1. Mt. M'Clintock Area
2. NTS 105 D-16
3. Latitude, 60°52'N
Longitude, 134°16'W

For

Beavon Consultants Limited
8720 Millridge Road
Richmond, BC
V7C 1S9

M.J. Moreau Enterprises Ltd.
P.O. Box 5282
Whitehorse, Yukon
Y1A 4Z2

By

R. Allan Doherty, B.Sc.
AURUM GEOLOGICAL CONSULTANTS INC.
1614 - 675 West Hastings Street
Vancouver, BC
V6B 4W3

October 23, 1986

SUMMARY

A total of 23 man days were spent mapping, prospecting and geochemical sampling on the Byng 1-102 claims between September 3 and September 18, 1986.

The area is underlain by a suite of Mesozoic sediments and volcanics which are intruded by Cretaceous granodiorite to granite. Tertiary volcanism in the area consist of rhyolite dykes and subarial felsic to intermediate flows and tuffs.

Recent discoveries of economic precious metal mineralization associated with epithermal vein systems within Tertiary volcanic complexes (eg. Mount Skukum/Mount Nansen areas) in the Yukon suggests that the Mount Byng area may have potential for gold-silver mineralization.

Previous work in the Mt. Byng area has indicated anomalous gold geochemistry in silts and heavy mineral concentrates. The presence of placer gold in Sheldon Creek to the North of the Byng claims is also encouraging.

Geochemical sampling reported here has indicated low grade 30-40 ppb. An anomalies^{is} associated with rhyolite dykes on the Byng claims.

TABLE OF CONTENTS

	Page
<i>SUMMARY</i>	1
<i>TABLE OF CONTENTS</i>	2
<i>INTRODUCTION</i>	3
<i>LOCATION AND ACCESS</i>	3
<i>TOPOGRAPHY & VEGETATION</i>	3
<i>PROPERTY</i>	4
<i>PREVIOUS WORK</i>	5
<i>PERSONNEL</i>	5
<i>GEOLOGY - Regional Geology</i>	5
<i>- Property Geology</i>	6
 <i>MINIERALIZATION</i>	 7
<i>GEOCHEMISTRY</i>	7
<i>CONCLUSIONS & RECOMMENDATIONS</i>	8
<i>REFERENCES</i>	9
 <i>APPENDIX I</i>	
<i>- Statement of Costs</i>	
<i>- Statement of Qualifications</i>	
 <i>APPENDIX II</i>	
<i>- Analytical Results</i>	
 <i>LIST OF FIGURES</i>	
<i>- Figure 1 Location Map</i>	
<i>- Figure 2 Claim Location Map</i>	
<i>- Figure 3 Geology and Sample Locations</i>	

INTRODUCTION

This report was prepared at the request of Beavon Consultants Limited of Vancouver and M.J. Moreau Enterprises Ltd. of Whitehorse, the beneficial owners of the Byng 1-102 claims. It describes exploration work carried out on these claims by Aurum Geological Consultants Inc. between September 3 and September 18, 1986.

Work was carried out from a fly camp on Byng Creek and consisted of mapping and, rock and soil geochemical sampling.

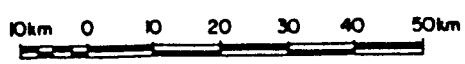
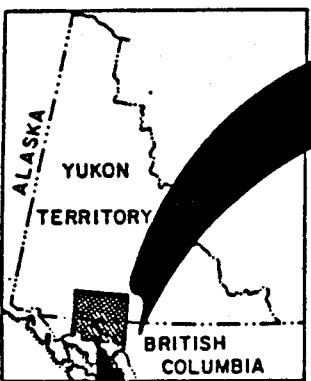
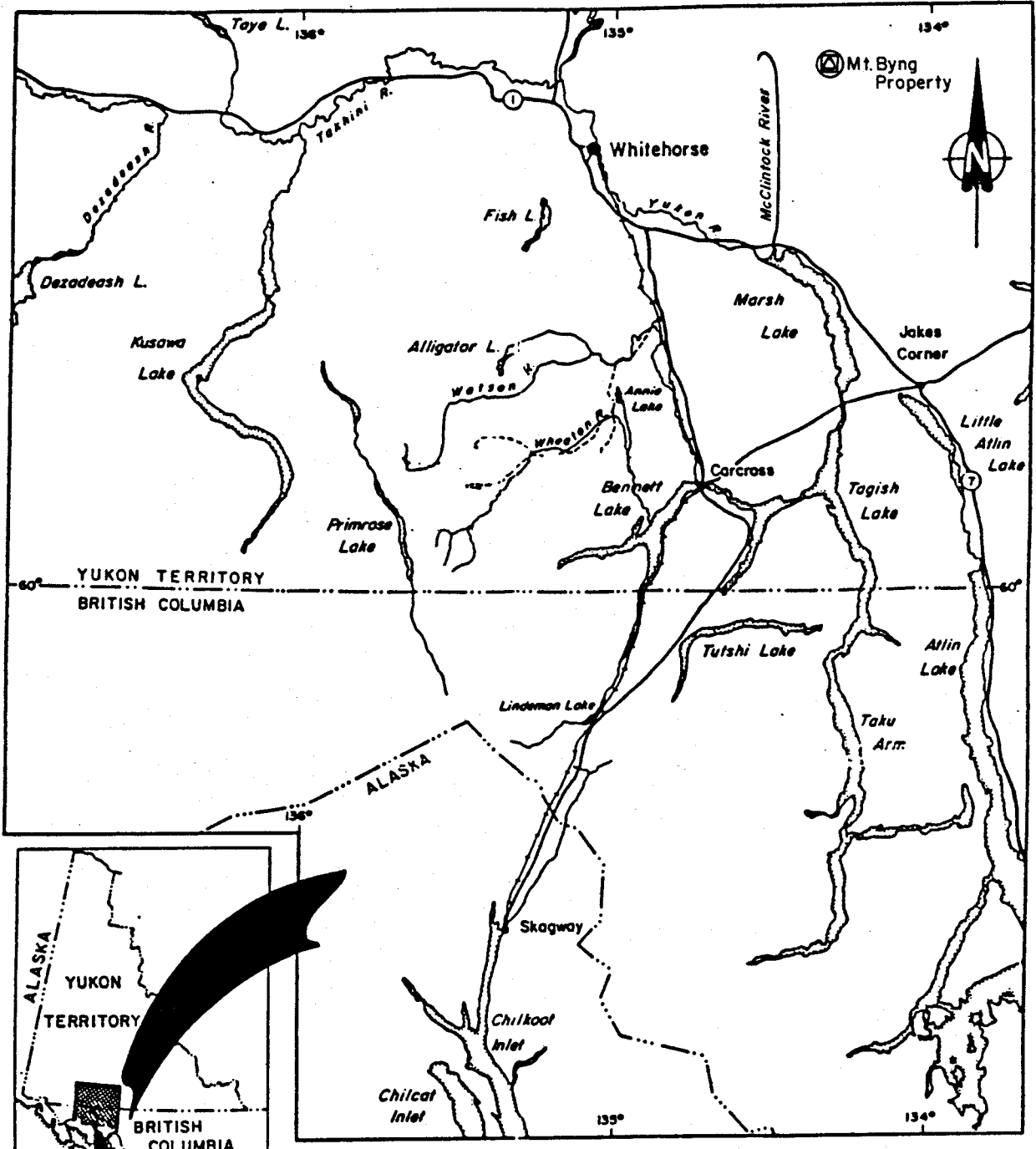
LOCATION AND ACCESS

The Byng 1-102 claims are located in Southwestern Yukon approximately 45 Km Northeast of Whitehorse, Figure 1. The claims cover an Alpine Highland East of the M'Clintock Lakes and River and Southwest of the Teslin River. The centre of the claim block is at 60°52'N Latitude and 134°16'W Longitude on N.T.S. sheet 105 D-16.

Access to the property is by helicopter from Whitehorse, a 0.6 hour return trip. A tote trail leads from the North end of Marsh Lake up the M'Clintock River and Mitchie Creek to Byng Creek and the Sheldon Creek Placers which are 6 Km North of the centre of the Byng Claims, presently this tote trail is only usable as a winter road or with all terrain cycles during the summer months.

TOPOGRAPHY AND VEGETATION

The property is mountainous, the East side is marked by a large East facing whaleback ridge with topographic relief of 800 meters. The valley below has a flat profile and drains from a 2 Km long lake into the Teslin River. The majority of the property lies to the East and Northeast of the whaleback ridge and consists of an eroded upland plateau sloping to the Southeast the topography here is less severe than on the East facing whaleback ridge.



BYNG I-102	
LOCATION MAP	
Aurum Geological Consultants Inc.	Scale:
Drawn by: H.D.P.	Date: 86/10/23
	Figure:

Vegetation is sparse above the 1600 m level and progresses through Alpine willows and alders to Alpine fir and White Spruce forests into poorly drained soil and swampy valleys with thick brush cover. The topography of the valleys is controlled by the latest Alpine Glaciation and outcrop is sparse below 1300 m elevation.

PROPERTY

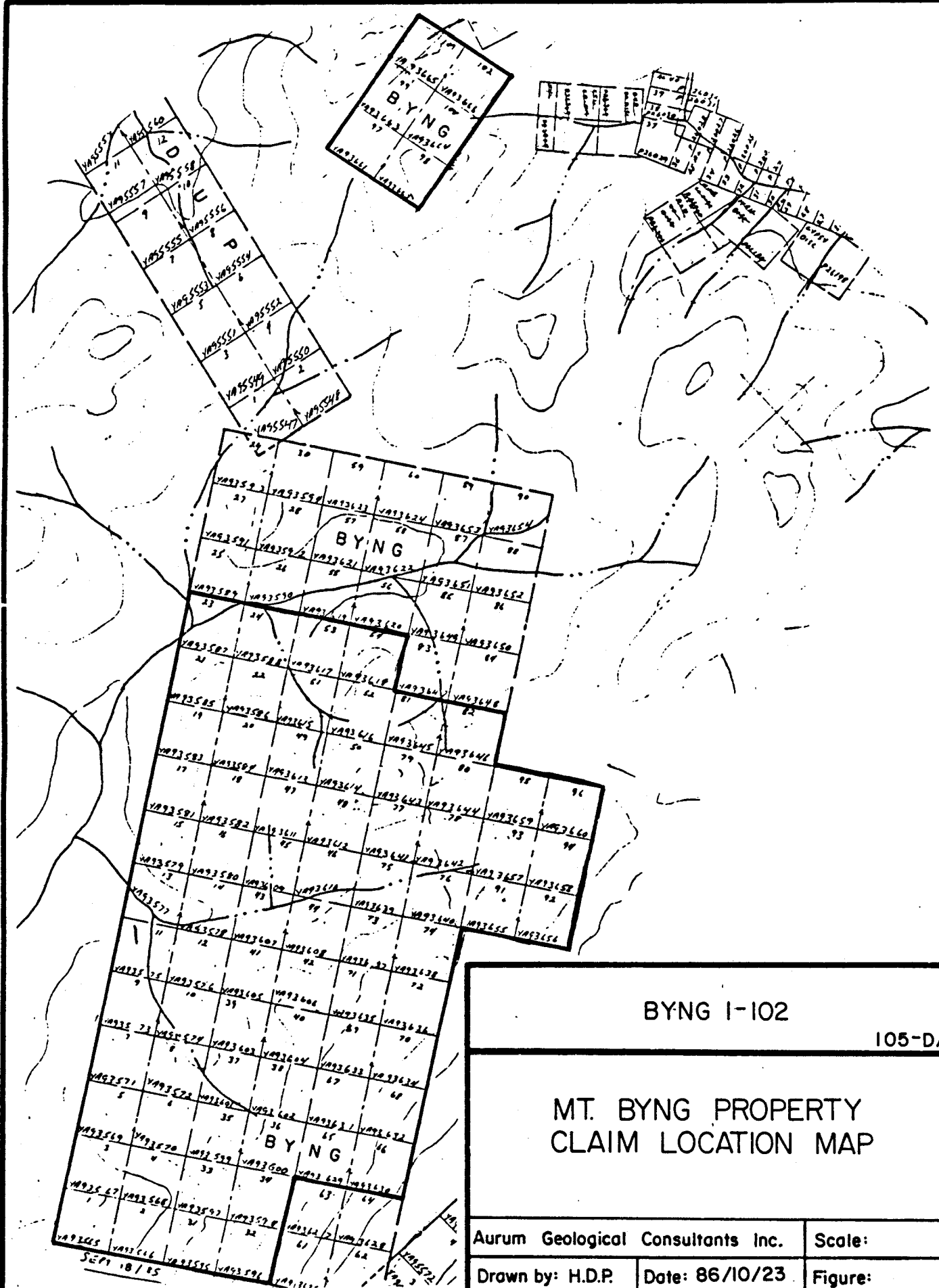
The Byng property was staked as two separate blocks, a large group Byng 1-96 with six outlying claims, Byng 97-102 approximately 3 Km North of the main claim block. The large claims cover an area, formerly staked, as Gammon 1-88 by Agip Canada in 1981. The Byng 97-102 claims are on the Northeast side of the lapsed Utshig 1-48 claim block also staked in 1981 by Dupont Canada Exploration Ltd.

The claims are shown on DIAND Quartz and Placer Map Sheet 105 D-16, Figure 2.

The present claim status for Byng 1-102 is as follows:

<u>Claim Name</u>	<u>Grant #</u>	<u>Mining District</u>	<u>Recording Date</u>	<u>Expiry Date</u>
Byng 1-24	YA93565-YA93588	Whitehorse	18/09/85	18/09/87
Byng 25-30	YA93589-YA93594	Whitehorse	18/09/85	Claims Lapsed
Byng 31-54	YA93595-YA93618	Whitehorse	18/09/85	18/09/87
Byng 55-64	YA93619-YA93628	Whitehorse	18/09/85	Claims Lapsed
Byng 65-82	YA93629-YA93646	Whitehorse	18/09/85	18/09/87
Byng 83-90	YA93647-YA93654	Whitehorse	18/09/85	Claims Lapsed
Byng 91-102	YA93655-YA93666	Whitehorse	18/09/85	18/09/87

A total of 24 claims were allowed to lapse on the September 18, 1986 expiry date, the remaining 78 claims are in good standing until September 13, 1987.



BYNG I-102

105-D/16

MT. BYNG PROPERTY
CLAIM LOCATION MAP

Aurum Geological Consultants Inc.

Scale:

Drawn by: H.D.P.

Date: 86/10/23

Figure:

PREVIOUS WORK

Regional reconnaissance exploration programs for gold-silver in the early 1980's resulted in the staking of two claim groups; Gammon 1-88 (Agip Canada Ltd.) and Utshig 1-48 (Dupont Canada Exploration Ltd.) in the Mount Byng area. Both groups were staked on stream sediment silt or heavy mineral concentrate gold geochemical anomalies. Gammon 1-88 was staked to cover two anomalous watersheds in 1981. Follow-up work in 1982 returned an 1180 ppb gold anomaly in a soil sample; (Van Angren, 1982). Utshig 1-48 claims were staked on a 320 ppb gold anomaly in a heavy mineral concentrate. Follow-up work in 1982 returned two additional heavy mineral concentrates of 950 ppb Au and 1500 ppb Au, (Holmgren and Neelands 1982).

Both properties were allowed to lapse when Agip Canada and Dupont Canada Explorations ceased active work in Western Canada.

PERSONNEL

Geological mapping and sampling was carried out by R.A. Doherty assisted by Kevin Capnerhurst of Aurum Geological Consultants Inc., between September 3 and September 8. Additional work was completed by A. Doherty, M.J. Moreau and D. Nadrofsky between September 16th to 18th. Map compilation and report preparation were completed by A. Doherty.

GEOLOGY

Regional Geology:

The Mount Byng area lies within a belt of Mesozoic volcanic and sedimentary rocks within the Whitehorse trough, part of the Intermontane belt of the Western Cordillera which extends from central British Columbia through to the Central Yukon. The Intermontane belt is flanked to the East by the Omineca Crystalline belt and to the West by the Cretaceous granites of the coast Plutonic belt.

Whitehorse trough rocks consist of Lewis River group and Laberge group dominantly of sedimentary origin, overlain by Triassic-Jurassic sediments and volcanics which have been mapped as Hutshi group by (Wheeler 1961). In this area of the Yukon the Whitehorse trough rocks are folded about a northwest trending synclinalorium. A number of small Cretaceous granite to granodiorite intrusions are localized in this area of Whitehorse trough.

Locally intruding and overlying the above rocks are a suite of late Cretaceous-Tertiary rhyolite porphyries and subaral felsic to intermediate tuffs and flows. Other areas of Tertiary volcanics occur outside the Whitehorse trough at the Mt. Skukum, Bennett Lake and Montana Mountain eruptive centres all to the Southwest of Mt. Byng, in Tintina trench to the Northeast and in the Carmacks-Aishihik Lake areas.

Property Geology:

The Byng claims are underlain by a north trending ridge formed by Triassic-Jurassic sediments (TJs) and Jurassic Cretaceous metabasalts (KJv) which are shown as Hutshi group volcanics on the Whitehorse Map Sheet of (Wheeler 1961). These rocks extend from Mt. Byng to the South end of the Byng claims and from the steep slopes on the East boundary of the claim block, Figure 3. Flanking these rocks to the West in unconformable contact is a 100-300 m thick belt of steep West dipping Tertiary felsic to intermediate subaral volcanic flows and tuffs (Twt, Tbt, Tan). The Tertiary volcanics outcrop along a 4 Km strike length.

A broad plateau and adjoining basin shaped depression Southeast of Mt. Byng is underlain by coarse grained hornblende granodiorite to biotite granite (Kgd) of cretaceous age. Late Tertiary porphyry dikes (Trp) and quartz monzonite intrusive plugs (Kqm) occur throughout the claim group. The porphyry dykes are more variable both chronologically and compositionally than indicated on the geology map, Figure 3. Numerous

dykes occur about Mt. Byng and range from even grained granite phases related to Cretaceous intrusion to dacite-rhyodacite and rhyolite porphyry dykes.

Mt. Byng is underlain by a thick massive basalt unit (KJv) with variable developed hornfels and skarn zones. These rocks are commonly black to dark green with a well developed network of thin metamorphic quartz veinlets. Structural relations with surrounding rock types are not exposed, however the basalt unit may be a part of the Triassic-Jurrassic sediments which also display valuable metamorphic textures.

A major northwest trending fault separates the granodiorite from Triassic-Jurrassic sediments to the West. The fault can be traced for an 3.0 Km and has a distinct intrusion breccia developed at the South end of the fault. This breccia has a green volcanic matrix supporting clasts of grandiorite, limestone and flow banded rhyolite.

MINERALIZATION

Mineralization located to date on the Mt. Byng claims consist mainly of pyrite-pyrrhotite zones in the Triassic-Jurrassic sediments (TJs) and in the Jurrassic-Cretaceous basalts (KJv) related to contact metamorphism and skarn development. A number of quartz and pyrite veins were located about Mt. Byng.

GEOCHEMISTRY

A total of 113 geochemical samples were collected including rock, soil and silt samples, of these, 82 samples have been analysed for gold and silver by Bondar and Clegg Laboratories Ltd. Sample locations are plotted on the geology map, Figure 3, results are tabulated in Appendix II.

Rock chip samples were collected over altered rhyolite dykes or pyrite-pyrrhotite gossans in sediments, any vein material located was also sampled. Results show that most samples carry background values for gold and silver.

Samples returning greater than 30 ppb Au are considered anomalous. One soil sample #23046 returned 40 ppb Au; two samples #11001 and #22004 returned 30 ppb each from rhyolite dykes and one sample of vein quartz float #12006 returned 40 ppb Au.

CONCLUSIONS AND RECOMMENDATIONS

Reconniassance scale mapping and geochemical sampling on the Mt. Byng property has defined a belt of Tertiary volcanics and coeval dykes. The dyke rocks are commonly rhyolitic and contain low grade 30-40 ppb gold anomalies. All values are within a 2 Km long area in the centre of the claim block, west of the major fault juxtaposing Cretaceous granodiorite against Triassic-Jurrassic sediments.

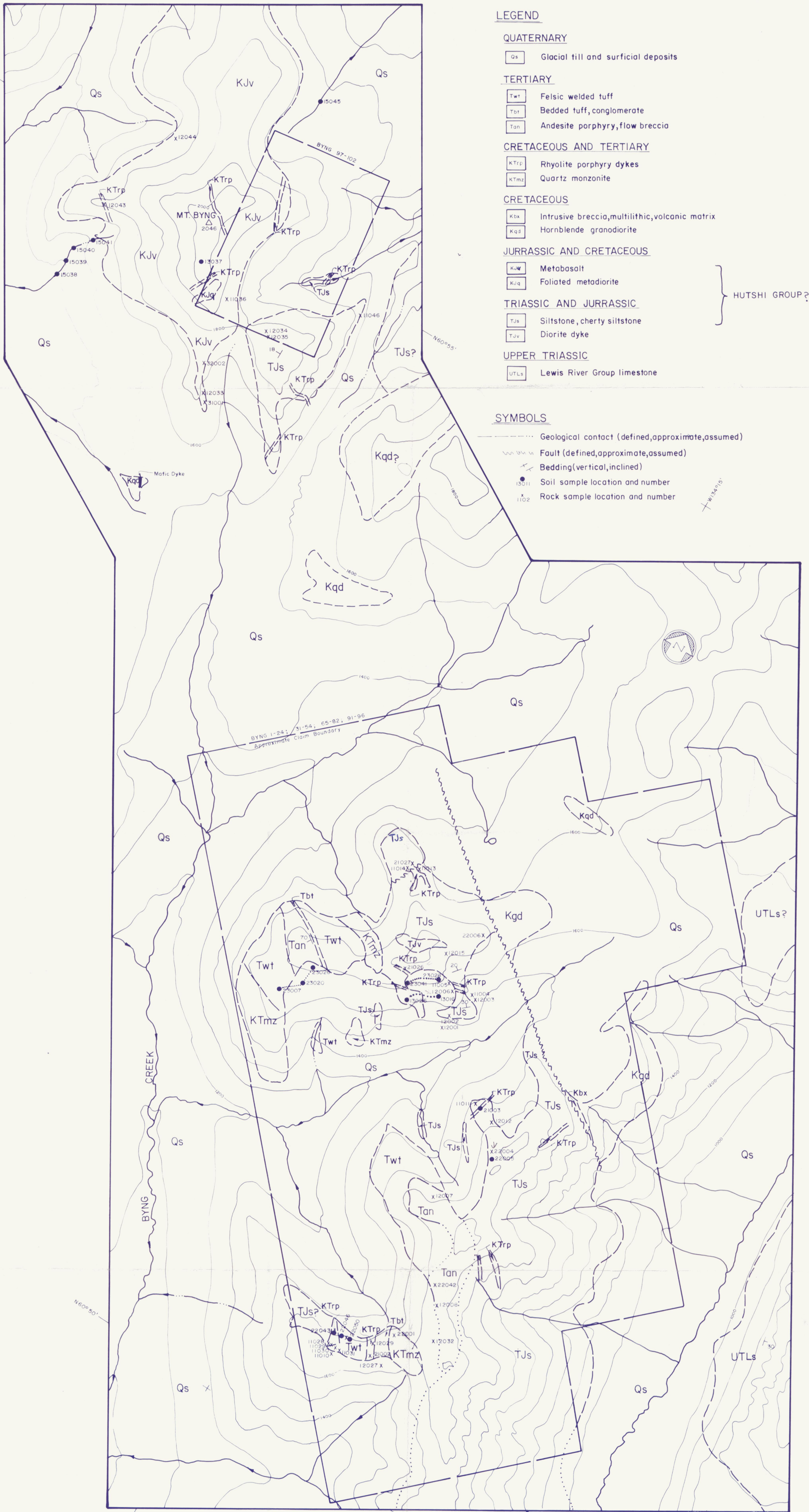
Additional samples from the Byng 97-102 claims have been submitted for analyses. If further anomales values in rock are detected then further work should be considered in the area.

REFERENCES

Holmgren, L.D., and Neelands, J.T. 1982. Geological and Geochemical report on the UTSIG Property, Whitehorse Mining District Assessment Report #09143, Mining Recorders office, Whitehorse, Yukon.

Van Angeren, P.D., 1982 Assessment Report, Geological Mapping and Geochemical Sampling Gammon Claims, Whitehorse Mining District, Assessment Report #091390, Mining Recorders office, Whitehorse, Yukon.

Wheeler, J.O.; 1961 Whitehorse Map Area, Yukon Territory (105-D); G.S.C. Mem. 312



LEGEND

QUATERNARY

Qs Glacial till and surficial deposits

TERTIARY

Twt Felsic welded tuff
 Tbt Bedded tuff, conglomerate
 Tan Andesite porphyry, flow breccia

CRETACEOUS AND TERTIARY

KTrp Rhyolite porphyry dykes
 KTMz Quartz monzonite

CRETACEOUS

Kdx Intrusive breccia, multilitic, volcanic matrix
 Kqd Hornblende granodiorite

JURASSIC AND CRETACEOUS

KJw Metabasalt
 KJq Foliated metadiorite

} HUTSHI GROUP?

TRIASSIC AND JURASSIC

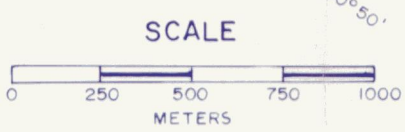
TJs Siltstone, cherty siltstone
 Tjv Diorite dyke

UPPER TRIASSIC

UTLs Lewis River Group limestone

SYMBOLS

--- Geological contact (defined, approximate, assumed)
 Fault (defined, approximate, assumed)
 Bedding (vertical, inclined)
 • Soil sample location and number
 x Rock sample location and number



BEAVON CONSULTANTS LIMITED
 and
 M.J. MOREAU ENTERPRISES LTD.

**BYNG CLAIMS
 GEOLOGY AND SAMPLE LOCATIONS**

Aurum Geological Consultants Inc.		NTS I05 D / 16	
Date: 86/10/18	Scale: 1:25,000	Geology by: R.A.B. Drawn by: H.D.P.	FIGURE 3

APPENDIX I

STATEMENT OF COSTS

Personnel

A. Doherty	Sept 3-18	9 days @ \$210	\$ 1,890.00
K. Capnerhurst	Sept 3-08	6 days @ \$120	720.00
J. Moreau	Sept 16-18	3 days @ \$250	750.00
D. Nadrofsky	Sept 16-18	3 days @ 250	750.00

Transportation

Bell 206 L	Sept 3, 8, 16, 18	2.4 hrs	1,768.80
------------	-------------------	---------	----------

Geochemical Analyses

Bondar & Clegg Laboratories Ltd. - 82 analyses of Au, Ag	875.90
--	--------

Camp Supplies & Equipment

Groceries - 21 man days	420.00
Propane	26.50
Hardware	98.63
Sample Bags, Flagging Tape	109.30

Report Preparation


R.A. Doherty - 1.5 days @ \$210	315.00
Drafting and reprographics	<u>150.00</u>

TOTAL expenditure	<u><u>\$ 7,874.13</u></u>
-------------------	---------------------------

STATEMENT OF QUALIFICATIONS

I, R. ALLAN DOHERTY, hereby certify that:

1. I am a geologist with AURUM GEOLOGICAL CONSULTANTS INC. of 1614 - 675 West Hastings Street, Vancouver, BC.
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 in the Yukon, Northwest Territories and British Columbia since 1980.
3. I am a member of the CIMM.
4. I have no interest or ownership in the claims discussed in this report nor do expect to obtain any.
5. I am the author of this report on the Byng 1-102 Claims and participated in the field work described in this report.


R. Allan Doherty, B.Sc.
October 20, 1986

APPENDIX II

Bondar-Clegg & Company Ltd.

136 Industrial Road
Whitehorse, Yukon Territory Y1A 2V1
Phone (403) 667-6523
Telex 036-8-460



BONDAR-CLEGG

Geochemical
Lab Report

REPORT: 126-4432 (COMPLETE)

REFERENCE INFO:

CLIENT: AURUM GEOLOGICAL CONSULTANTS INC.
PROJECT: BENE BA

SUBMITTED BY: L. DOHERTY
DATE PRINTED: 19-SEP-86

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	AG SILVER	82	0.2 PPM	HNO3-HCL HOT EXTR	ATOMIC ABSORPTION
2	AU GOLD FIRE ASSAY	82	5 PPB	FIRE ASSAY	FIRE ASSAY AA

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
S SOILS	46	1 -80	46	DRY, SEIVE -80	46
R ROCK OR BED ROCK	36	2 -150	36	CRUSH, PULVERIZE -150	36

REPORT COPIES TO: AURUM GEOLOGICAL CON. INC
MR. ALLAN DOHERTY

INVOICE TO: AURUM GEOLOGICAL CON. INC

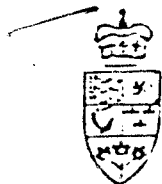


REPORT: 126-4432

PROJECT: BYNL B6

PAGE 1

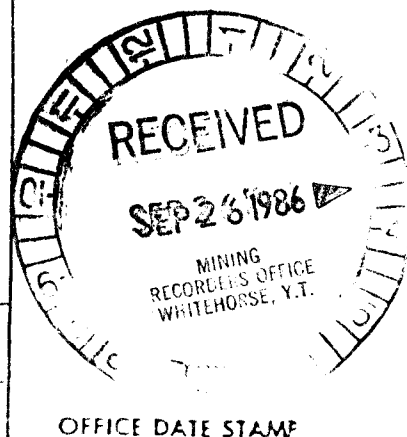
SAMPLE NUMBER	ELEMENT UNITS	AG PPM	AU PPB	SAMPLE NUMBER	ELEMENT UNITS	AG PPM	AU PPB
S1 13016		<0.2	5	S1 23037		<0.2	<5
S1 13017		<0.2	10	S1 23038		<0.2	<5
S1 13018		<0.2	<5	S1 23039		<0.2	5
S1 13019		0.2	5	S1 23040		<0.2	40
S1 13020		<0.2	<5	S1 23041		<0.2	<5
S1 13021		<0.2	<5	S1 23043		<0.2	10
S1 13022		<0.2	5	R2 11004		1.8	<5
S1 13023		<0.2	<5	R2 11005		0.7	15
S1 13024		<0.2	20	R2 11010		0.4	15
S1 13025		<0.2	5	R2 11011		0.5	30
S1 13026		<0.2	<5	R2 11013		5.6	15
S1 23005		<0.2	5	R2 11014		0.4	10
S1 23007		<0.2	<5	R2 11028		0.4	<5
S1 23008		<0.2	<5	R2 11029		0.4	10
S1 23009		<0.2	<5	R2 11030		0.2	<5
S1 23010		<0.2	20	R2 11031		0.3	10
S1 23011		<0.2	<5	R2 12001		1.6	20
S1 23012		<0.2	<5	R2 12002		1.6	10
S1 23013		<0.2	<5	R2 12003		1.2	5
S1 23014		<0.2	<5	R2 12006		0.8	40
S1 23015		<0.2	<5	R2 12007		0.6	15
S1 23016		<0.2	<5	R2 12008		1.2	10
S1 23017		<0.2	5	R2 12009		0.8	25
S1 23018		<0.2	<5	R2 12012		0.4	10
S1 23019		<0.2	5	R2 12015		0.4	10
S1 23020		<0.2	<5	R2 12027		0.4	10
S1 23021		<0.2	<5	R2 12032		0.3	5
S1 23022		<0.2	<5	R2 21002		0.3	15
S1 23023		<0.2	<5	R2 21003		0.2	<5
S1 23024		<0.2	<5	R2 21026		0.2	20
S1 23025		<0.2	<5	R2 21027		0.4	10
S1 23028		<0.2	<5	R2 22001		<0.2	25
S1 23029		<0.2	<5	R2 22004		0.3	30
S1 23030		<0.2	<5	R2 22006		0.2	15
S1 23031		<0.2	<5	R2 22042		0.3	5
S1 23032		<0.2	20	R2 22044		0.2	<5
S1 23033		<0.2	10	R2 22045		0.2	<5
S1 23034		<0.2	5	R2 22046		0.4	<5
S1 23035		<0.2	<5	R2 22047		0.3	<5
S1 23036		<0.2	<5	R2 22048		0.4	5



Department of Indian Affairs and Northern Development
YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

(This form required in duplicate with sketch showing location of work.)



(Name)	R. ALLAN DOHERTY	Occupation	Geologist
Postal Address)	Aurum Geological Consultants Inc. 8-4078-4th Avenue, Whitehorse, Yukon. Y1A 4K8		

TAKE OATH AND SAY, THAT :-

1. I am the ~~owner~~ agent of the owner, of the mineral claim(s) to which reference is made herein.

2. I have done, or caused to be done, work on the following mineral claim(s):
(Here list claims on which work was actually done by number and name)

YA93565 to YA93666 inclusive - BYNG 1 to BYNG 102 inclusive

situated at Mt. Byng and east of Byng Creek Claim Sheet No. 105-D-16

in the Whitehorse Mining District, to the value of at least \$7,800.00

dollars, since the 18th day of September 19 85

to represent the following mineral claims under the authority of Grouping Certificate No. _____

(Here list claims to be renewed in numerical order, by number and name, showing renewal period requested).

- YA93565 to YA93588 inclusive: BYNG 1 to BYNG 24 inclusive (24 claims)
- YA93595 to YA93618 inclusive: BYNG 31 to BYNG 54 inclusive (24 claims)
- YA93629 to YA93646 inclusive: BYNG 65 to BYNG 82 inclusive (18 claims)
- YA93655 to YA93666 inclusive: BYNG 91 to BYNG 102 inclusive (12 claims)

Totalling 78 claim years - renew each claim listed for one year from September 18, 1986 to September 18, 1987.

3. The following is a detailed statement of such work: (Set out full particulars of the work done in the twelve months in which such work is required to be done, as shown by Section 53.)

Work included geological mapping traverses, prospecting and geochemical rock and soil sampling between the 3rd of September 1986 and the 18th September 1986 (assessment report to follow).

Seen before me at Whitehorse

on 26 day of September 19 86

Mary E. Patten
Notary Public

091873

R. Allan Doherty
Applicant.
R. ALLAN DOHERTY, B.Sc., for: M. J. Moreau Enterprises Ltd. and Beavon Consulting Limited.