

886903

TGS → Red Chris
June 7/94

Tatogga Lake Project Plan Fiscal 1994/5

By Chris Ash

General Statement

The Tatogga Lake Project will study several occurrences of porphyry style Au-Cu mineralization in northwestern British Columbia (Figure 1). The study area is relatively accessible, being transected by the Stewart-Cassiar Highway with the village of Iskut situated in its north central region.

(GS) ← Three previously defined porphyry occurrences including the Red Chris, Rose and Groat, will be the focus of investigation. All of these are hosted by Mesozoic Stikine terrane arc rocks along the northern margin of the Bowser Basin (Figure 2).

Mineralization in each is hosted primarily by porphyritic, subvolcanic felsic stocks that intrude arc volcanic and sedimentary rocks of either Late Triassic or Early Jurassic age.

The Red Chris deposit which was evaluated by Texasgulf during the mid seventies will be the focus of a major exploration drilling program to be initiated in early July by American Bullion Minerals Ltd.

The Tatogga Lake Project will attempt to classify:

- 1) deposit type(s),
- 2) local and regional stratigraphic and structural setting
- 3) age(s) of both alteration and host magmatism
- 4) lithochemical character of related arc volcanic and plutonic rocks.

Field Component

Field work will be conducted by a 2 person field crew over a two month period, beginning in early July.

Geological mapping will be conducted at a 1:20,000 scale and summarized at a 1:50,000 to focus on characterizing the local and regional stratigraphic and structural controls of the individual deposits. Sampling for fossil and isotopic ages as well as geochemical analysis to constrain the above listed objectives will be an additional aspect of the fieldwork for 1994/95.

Proposed Outputs

Initial results will be published in Geological Fieldwork and presented in poster format at the Cordilleran Round-up.

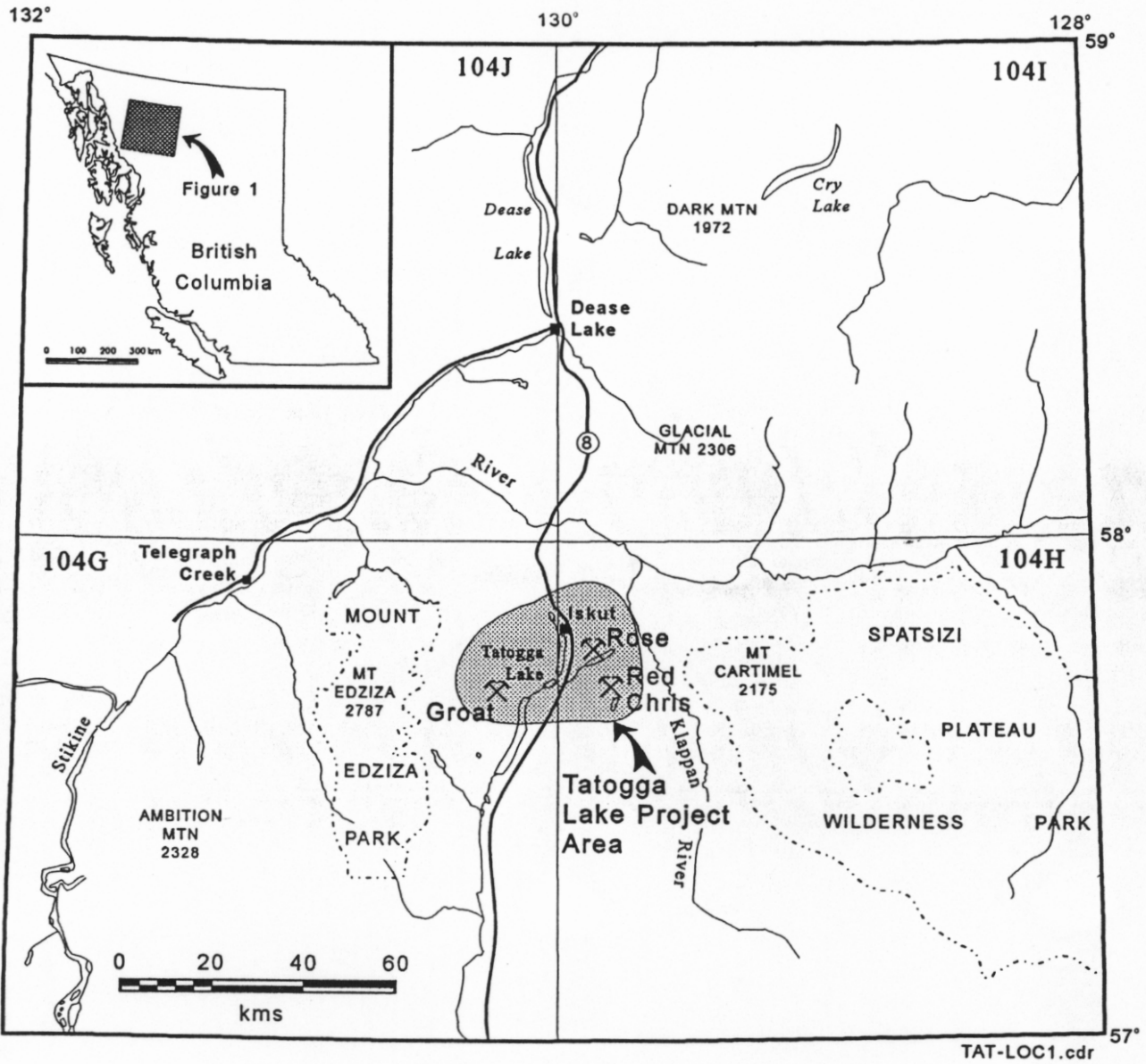


Figure 1. Location of the Tatogga Lake Project Area

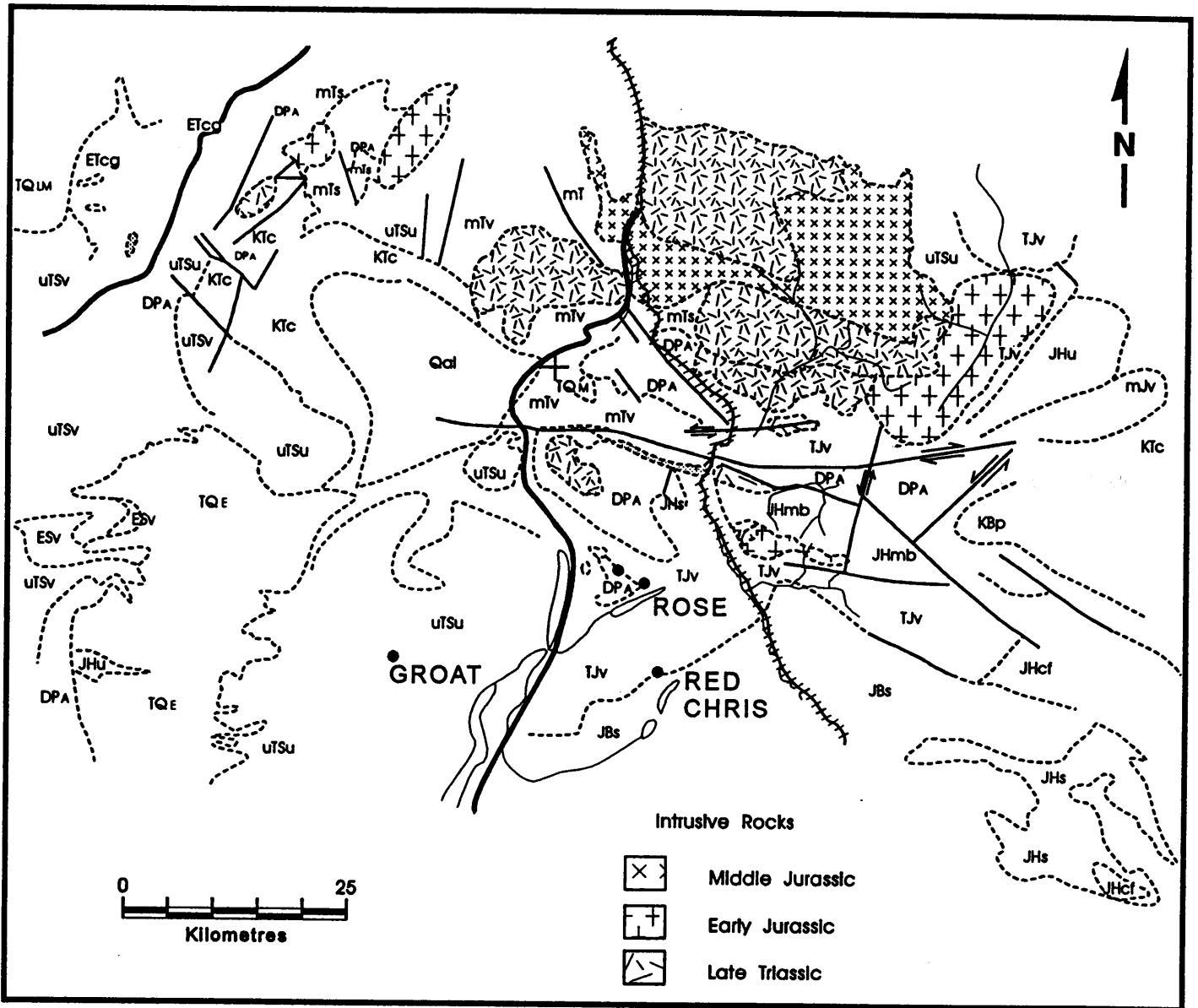


Figure 2. Regional geological setting of the Red Chris, Groat and Rose porphyry occurrences (geology compiled by J. Logan, 1994)

PLEISTOCENE AND RECENT

Qal Unconsolidated glacial till and poorly sorted alluvium

TERTIARY AND QUATERNARY

STIKINE VOLCANICS

TOE Alkali olivine basalt, peralkaline trachyte and lesser intermediate trachybasalt of the Mount Edziza volcanic complex (TOE), Level Mountain volcanic complex (TQM), Maitland volcanics (TQM) and undivided (TOv)

EOCENE

ETcg Tanzilla Canyon Formation: chert pebble conglomerate, shale, sandstone, fresh water limestone

SLOKO GROUP

ESv Rhyolite and dacite flows, domes and tuff and high-level intrusive equivalents

MIDDLE TO UPPER CRETACEOUS

SUSTUT GROUP

KBp Brothers Peak Formation: sandstone, siltstone and conglomerate

KTc Tango Creek Formation: micaceous sandstone, siltstone, mudstone and minor quartz grit

MIDDLE JURASSIC TO LOWER CRETACEOUS

BOWSER LAKE GROUP

JBs Sandstone, siltstone and conglomerate, chert pebble conglomerate

LOWER MIDDLE JURASSIC

mJv Maroon, grey and green aphyric and plagioclase porphyritic flows, breccia and tuff

MJT HOTALUH BATHOLITH, THREE SISTERS PLUTON (MJTs), MOUNT ALBERT DEASE PLUTON (MJMa) HORNBLende BIOTITE GRANITE AND HORNBLende DIORITE

LOWER AND MIDDLE JURASSIC

HAZELTON GROUP

JH Interbedded grey, green and maroon subaerial mafic to felsic flows and volcanoclastic rocks; plagioclase porphyritic flows and breccia, rhyodacite-rhyolite and tuffaceous wacks. Includes: Hettangian and/or Lower Sinemurian Griffin Creek volcanics (JHgc), Late Sinemurian to Early Pliensbachian Toodoggone volcanics (JHt), Lower Pliensbachian Cold Fish volcanics (JHcf), Lower to Middle Toarcian Mount Brock volcanics (JHmb) and Flysch succession of siliceous, tuffaceous siltstone, shale and mudstone of the Pliensbachian to Bajocian Spatzel Formation (JHs).

JHu Hazelton Group undivided

UPPER TRIASSIC TO LOWER JURASSIC

TJvs Light grey, green and mauve, plagioclase and locally sugite porphyritic breccia, tuff and flows, pink rhyodacite flows and epiclastic equivalents. Tuffaceous wacks, siltstone and limestone lenses.

EJgd HOTALUH BATHOLITH, McBRIDE RIVER PLUTON (EJg), BIGGERLAY CREEK PLUTON (EJgc), PALLAN CREEK PLUTON (EJpc), McEWAN CREEK PLUTON (EJmc), SPRUCE HILL PLUTON (EJsv), HORNBLende BIOTITE GRANODIORITE

UPPER TRIASSIC

STUHINI GROUP

uTSv Green and maroon aphanitic plagioclase ± sugite porphyry breccia, tuff, and flows

uTSs Grey and green tuffaceous wacks, siltstone and volcanic-derived conglomerate, limy sediments and limestone

uTSu Stuhini Group undivided

LT HOTALUH BATHOLITH CAKESHILL PLUTON (LTCh), LATHAM CREEK PLUTON (LTc)

HORNBLende BIOTITE GRANITE AND HORNBLende DIORITE
STIKINE BATHOLITH AND ASSOCIATED INTRUSIONS (LTs), BIOTITE HORNBLende MONZODIORITE, MONZONITE AND GRANITE

Tmd RAILWAY PLUTON (Tr), NIGHTOUT PLUTON (LTn) AND ASSOCIATED INTRUSIONS
BIOTITE ALKALINE MONZODIORITE

MIDDLE TRIASSIC

TSAYBAHE GROUP

mTv Porphyritic plagioclase flows; overlain by green tuffaceous wacks, argillite and limestone; overlain by more porphyritic volcanic rock

mTs Grey to green phyllite and argillite

DEVONIAN, CARBONIFEROUS AND PERMIAN

STIKINE ASSEMBLAGE

DPA Volcanic flows and volcanic-derived sedimentary rocks, carbonate (Dpc), phyllite and volcanoclastic rocks

DCgr BIOTITE MUSCOVITE LEUCOGRAHITE, BIOTITE HORNBLende QUARTZ DIORITE AND TONALITE: mylonitic to massive. May be equivalent to 370 Ma Forrest Kerr Plutonic Suite.

2-phase Project

1) upgrade + expand existing res. - eq. 'high-grade'
+ test Au values
'goal' - size up to 400m tons
2) $\frac{2}{3}$ Cu + $\frac{1}{3}$ Au values

Black Sheep Motel Tel. 234-3141 (new owner)

\$70/day (room + board)

- mobilize next wk.
\$3.5m 15,000 m

\$695/hr
(one shift)
500-D

Van. T. J. Farrell
Bob Quinn-DiGregg
"bak-up"

Charlie Mooney
(Vic)