

NTS 93N/11 Mt. MILLIGAN

July 11/88
Cloudy, Rain 15°C

- Camp

Photos - Looking W towards Thompson
on h. 1
- Core - Camp area

- Look W over Esker Zone
trench

- Look E over Magnetite Bx. Zone
(+ drill)

look W towards prop.



Core Samples Taken - Magnetite Bx Zone

DOH ① 26 - 56.7m Typical ore eq. 75% Cu
2 g/t Au

② 29 - 51m 'Por. bsl' flow with
5% dissem. py pluville cherty No. 4

③ 26-67m for latite dyke
with dissem. + frac. py
(py (~10% total) in pre-syn-
genetic

Esker Zone

- host = pyroclastic volcs
(huffs $\rightarrow$ epidote + py)

④ 33-161m - intense re-cr.
granular pyrite in silic
+ carb. (Shear) zone

- also locally arsenopyrite

- grades up to 60 g/t Au

^{OSC}
* Geol. - Fort St. James Map 907A (1964)
8000 ft ddh

June '89 - Age dating samples

1) DDH-89-129 (154-164m)

2) DDH-89-123 (108-122m)

^{K-Ar}
88-25 (90m) = $\sim 109 \pm 4$ Ma (all d volcs)

88-26 (18m) = 66.3 ± 2.5 Ma (dyke)

① MT MILLIGAN June 30/89
mark Regablati, Nadia Casira, Mike Hall, +20°C
Brian?, Lou Stark, Jeff Swanson
Barb (pick up)
Photo Boundary Zone

Sections: cut off: .68 g/t Au
.2% Cu
≥ 2.0 m interval

Central Monzonite 'body'
~ 450 m diameter with
'hybrid' ± brecciated zones
on west + south sides

- ~~late~~ Monzonite dyke occupies
'northern' part of Rainbow Fault
Zone.

- 'Ore' lies in HW + 'into' fault
zone (but not FW)

VISITORS Placer
Rio

8 million shares
- 'boys' want ~ \$12/share
or ~ \$100 million

Noranda - Hemlo Gold - offered \$7/share
FMC ~ \$56 milli.

Inco Gold

Teck

Imperial Metals

Cam DeLong - UBC MSc. thesis
à la Afton - Mark R.

Takla 'Package' - strikes NW ^{dips} _{40°+10°} NE
- high K content (all stained)
i.e. 'laxites'

MBX type ^(Cu-Au) grades southwards
into 66-type (Au).

North slope = old Pechiney (early '70's)
drilling on PHIL cks. - surface
exp. of monzonite (+ pinkalt'n) with quartz stock

Well bedded argillites on
'Boundary' Zone to the West
(apparently caught up in Takla pyroclastic
sequence i.e. interbedded)

- 4 drills working - Quest Drilling + Paradox
~ 100,000 feet since Nov. '88
Spent ~ \$2m - another \$2m by end Aug.
Pre-feasibility by Sept.?

② MT MILLIGAN June 30/89

66 Zone - outcrop in creek
(with ~.2% Cu + .09 oz/t Au
(Rick Meyers 'missed'))

VEIN ZONES - with carbonate (not gtz)

- still rep. good precious metals
targets - perhaps mined later
by u/g from 'bottom' levels
of open pit.

SULPHIDES - cpy, bn, py

OXIDES - cuprite, magnetite

trace - tetrahedrite, ZnS

- some (minor) supergene enrichment.

Possible reserves ~ 200 m tons @

.35% Cu and 0.02(5) oz/t Au

or ~ 4 m oz Au + 900 ml(?) lbs Cu

~ 4 m tons / square on map!

Geophysics - IP + mag OK

Geochem - OK - eq. > 500 ppm Cu

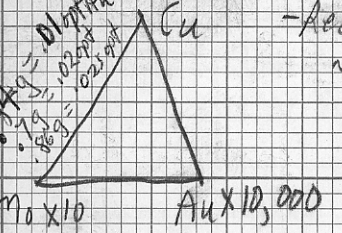
DDH 89-138 Sample (109m)
 - good looking hole (Cu) in Monzonite.
 DDH 159-17.5m - Carbonate + py + tetra?
 + PbS?
 = NE extension of Ester Vein?

Mt. Milligan (Peak) is cored by
gabbro → then PPM to SE.

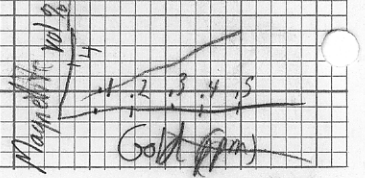
K-silicate alt'n overprinted by sericite-clay
 - chlorite
 Positive correlation between gold + hydrothermal
 magnetite
 major part of Au intro with K-silicate-
 related Cu min, + assoc. br + cpx.

Philippines - prime ex. of island arc type

- Magnetite is a characteristic component
 of K-silicate alt'n. (+ specularite)
 - Au-rich por. av. 1 ppm Au, down to 0.4 ppm
 > 2.0 ppm Au = 'relatively Au-rich'



- Recoveries in Philippines
 ~ 50 to 60% Au to 45%



③ MT. MILLIGAN June 30/89
- Correl. d Marian dep. with BC altalite
± diatreme bx.

Reference: Philippine Porphyry Copper
Deposits: Geologic Setting and Characteristics
by Richard H. Sillitoe + Irineo M. Gappe, Jr.

Tech. Pub. 14

- (COP Project - UNDP Technical Support
For Regional Offshore Prospecting in
East Asia (RAS/81/120) Nov. '84

CORE EXAM

89-105 - good bn + cpx in MBX
zone

88-66 - 'Transition' from MBX zone
southwards into '66' zone

- host rk. = dark 'latite' à la
MBX.

88-92 - '66' zone - Host looks
like MBX but without cpx $\rightarrow \sim 10\%$ dissem.
px.

88-70 - MBX zone - good frac. central
cpx.

89-90 West bx. Zone - more leucocratic
monzonite? with dissem. cpy.
(to .44% Cu)

89-172 MBX - Kspar alt'n
(+ cpy)

89-116 '66' Zone - typical MBX-type
'goes into' bleached variety with more
noticeable hematite frags.

- trace moly

MT. MILLIGAN

Sept. 5/89

Sunny + 158°

+ Bill, Andre, + Fillipo (+ Faulkner)
- Mark Rebagliatti

~ 175,000 ft. of core to date
(at 00H 260)

200
244
(6304)
217

00H 217 - new 'hit'

4 drills - 2 more within week

- Monzonite dyke on east side

NW part of MBX Zone - gtz veining
(better gold grades ~ 1 g/t)

MBX = 'saturated'
Stock (2 to 5% silica)

66 Zone - rough spatial assn. to
Rainbow Fault

(eg. Line 92N - min. in H/W of fault)

8950N - southern 'mineable' of
66 Zone (due to strip ratio)

'Borinite' Zone - east side of MBX stock
at intersection of latite dyke
(~ 150 m in diam.)

'Southern Extension'

eg. OOH 220 on Line 8700N
(~ 1 km from centre of MBX star)

36,000 \$/ddh/mo.
~ 1 million/mo.

OOH #89-217 - good 'hit'
+ bn

OOH #89-244 - good 'bn'
+ replacement of sub.