[Notes GAC/MAC Van '90]

675694
Copper Mtn.
92H/7

Copper Mtn U of Cincinnati

Holly Huyk

ore host = stock over volcanics — down to fluids

Preto 1972 structural study of veins — pattern covers whole ... ; mineralized fractures — mainly EW, ENE (N40E N80E)
(Ingerbelle + rest of district)

Altn (1) hfls + recrystn bleaching
(2) K altn a) minor 'pegmatitic' veins | Kspar biot calc + bn cpy mt high Ag
low qtz
(b) outer pervasive | Kspar - biot - albite - chlorite + cpy - py - mt low Ag

(3) 'propylitic': Epid - chl - albite - calcite (px, garnet)

(4) Phyllic (local) pyrite sericite qtz

(5) peak Kspar - Scapolite albite > Kspar = hem
(strong at Ingerbelle).

Response propylitic altn
Inner potassic pit 3
outer potassic edge pit 3, + pit 1, 2

Ingerbelle has bx ...
Phyllic only pit 2
hem - mt at very + shale - vein ...
(... vein system)

Inner potassic bornite stable pegmatitic veins common ... bornite, ... bn, pegmatitic veins.
accompanied by propylitic altn: biot → chl
Cu grades ... grade go down. bn ...

Outer potassic — pyrite stable py - biot - Kspar ... Veins + ...
biot → chlorite (... ?) cpy > py

propylitic altn chl epid py > cpy
common. low Cu grade. ... bx at Ingerbelle

Cu Mtn cont

propyl. dissolves bn + cpy. epidote common

Phyllic – only ~~place~~ alter with qtz. S. Pit 2
py > cpy. minor qtz. chl & seric.

Hematite – Magnetite alter in Vogt Shock
vein related (1) specularite + calcite low Cu, Au
(2) cpy – hem – mt – py + small Cu Au   Ag low
Ag/Au < 1. Low in Pb Zn. Pb Zn low ppm
not classic peripheral veining.
High Au. vs high Ag in potassic alter
(+ pyrite)

Propylitic alter + high cp – py (inexplicable) highest
in both Cu + Au (pit).
Calc silicate alter best for Au.

bornite is highest min in Ag.
vis Au only seen in pyrite grains.
Au content varies widely within one mineral.
Ag is higher in bn than cpy
Au slightly higher in py.
Bayles 1979 high Au in Cu Mtn bn. (.4 ppm)
Au does not seem to conc with bornite.

250 C or higher fluid inclusion study.
Au Cl type or Au HS₂ epithermal type?