672941

PROPERTY SUMMARY

PROJECT: POISON MOUNTAIN

CLAIMS: REX 201-214/REX 216-221, CONTIGUOUS (252 UNITS)

OWNER: 100% LAC MINERALS

PROVINCE: BRITISH COLUMBIA

NTS SHEET: 92 O/2

COMMODITIES: CU-AU-MO-AG

LOCATION: LAT: 51'08 N LONG: 122' 35' W

MINING DIVISION: CLINTON MINING DIVISION

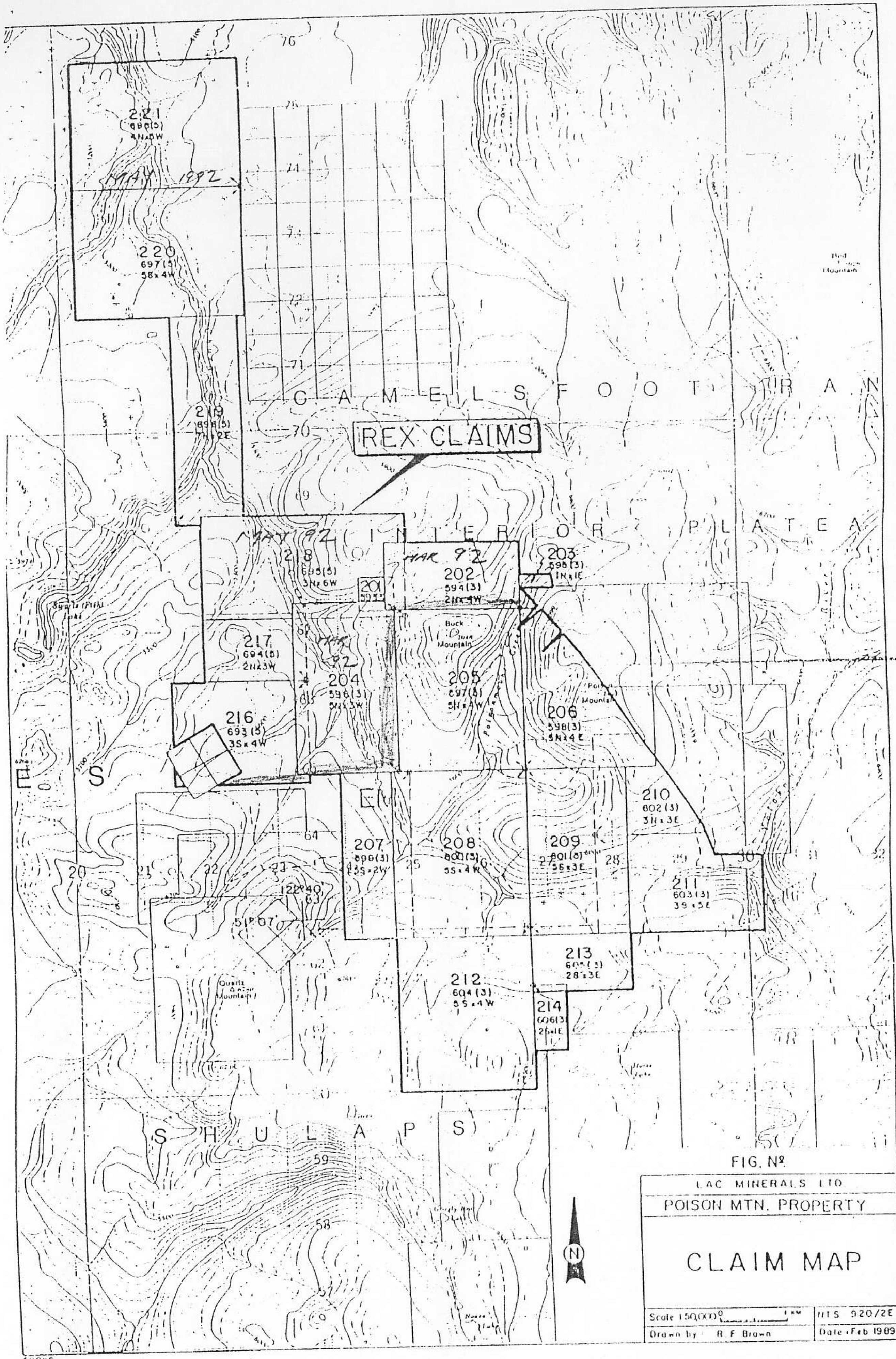
ACCESS: Yalakom road turns off from the Lillooet-Bralorne highway and travels northwesterly along the Yalakom valley to Poison Mountain. Additional access could be gained by travelling westward from the Big Bar Creek, through Moore Lake and China Head Mountain. These two roads are loose surface, single lane and in good condition during the summer months.

PROPERTY STATUS: Rex claims 208 and 212 expire in March of 1997. Rex 201, 203, 205-207, 209-211, and 213-214 expire in March of 1999. Rex 202 and 204 expire in March of 1992. Rex 216-221 expire in May of 1992.

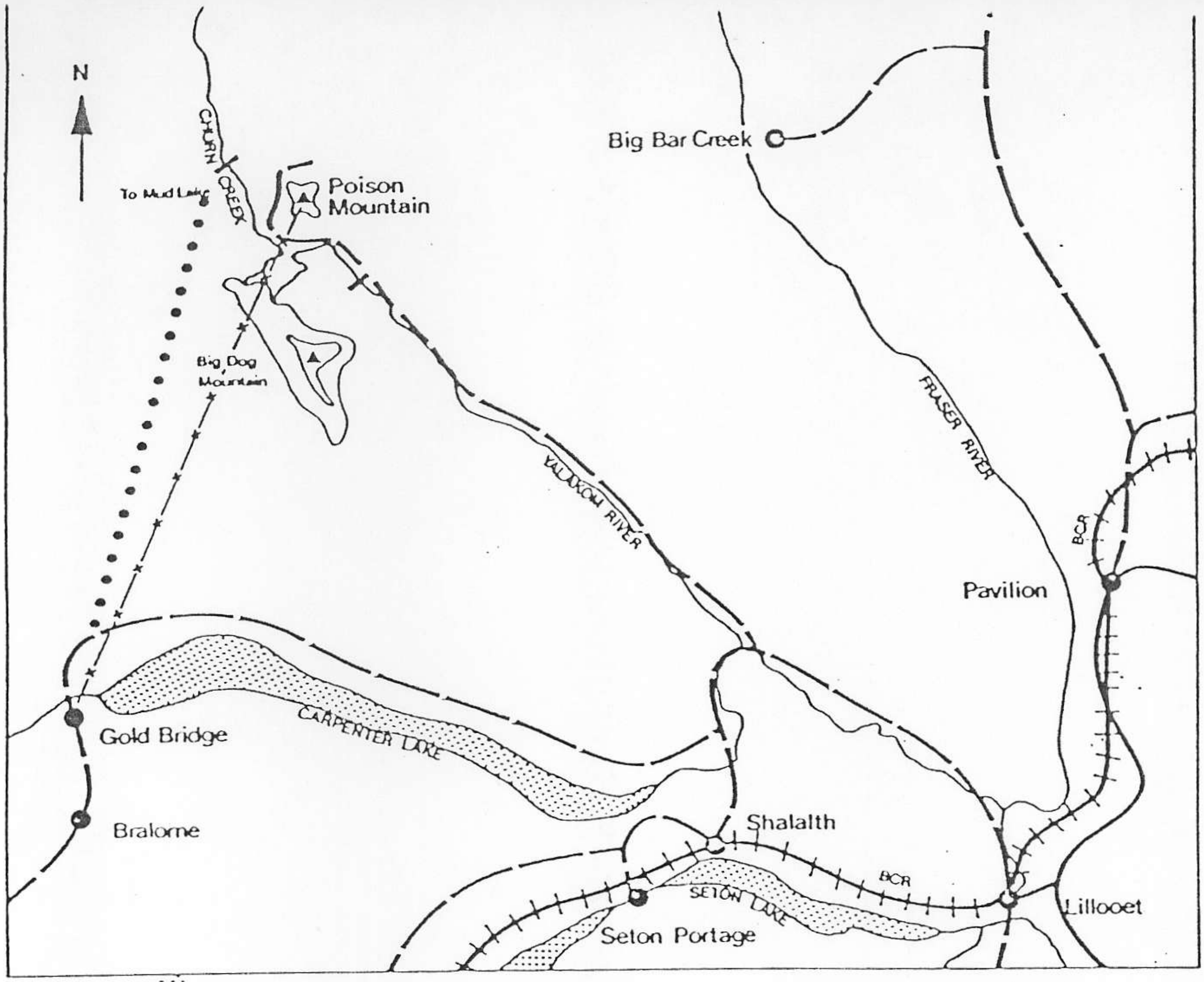
HISTORY: The Poison Mountain property, held by LAC Minerals since 1979, has been periodically worked since the intial hand-trenching discovery of some copper showings in 1935. To date, 124 diamond drill holes and 268 percussion drill holes, totalling approximately 18,492 and 21,131 metres respectively, have been drilled. Additional extensive surveys include soil geochemistry, magnetometer, induced polarization, topographical, hole site ground control and road access. Kilborn (1981), using a 0.25% Cu equivalent for a 20 year open pit design, gives a mineral inventory of 280 million tonnes at 0.2621% Cu, 0.0.1424 gAu/t, 0.007% Mo and 0.514 gAg/t. The mineral inventory was determined using a computerized kriged block model. A summary of the work to date is as follows:

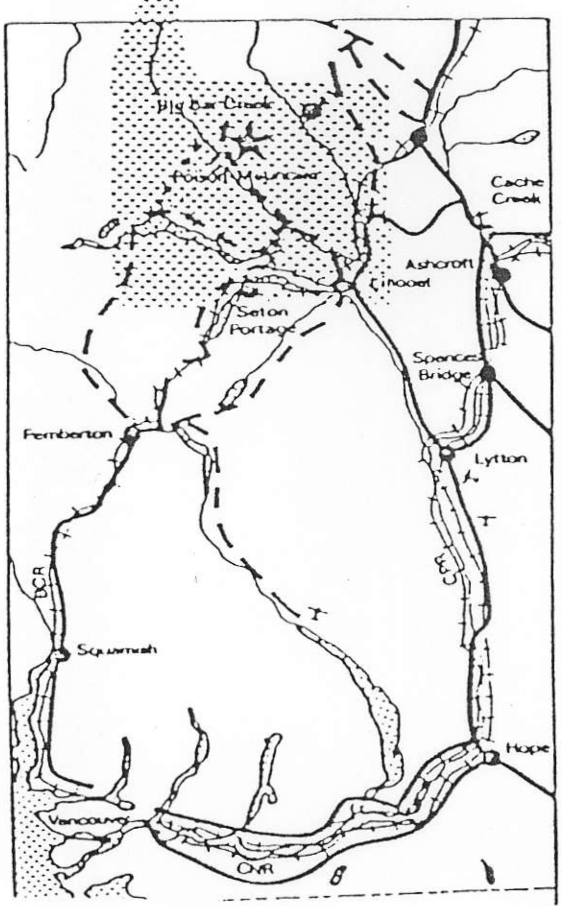
1935-1956: hand trenching of some copper showings

1956: Granby Consoldated Mining, Smelting and Power Company Ltd.;



REX CLAIMS
C A M E L S F O O T R A N
I N T E R I O R P L A T E A
S H U L A P S
221
220
697(3)
219
218
217
216
204
202
203
205
206
207
208
209
210
211
212
213
214
MAY 1992
MAY 92
MAR 92
Buck Mountain
Poison Mountain
FIG. Nº
LAC MINERALS LTD.
POISON MTN. PROPERTY
CLAIM MAP
Drawn by: R.F. Brown
Date: Feb 1989





LEGEND

- Paved Road
- Unpaved Road
- Railway
- Airstrip
- Dams (proposed)
- Power Line (proposed)
- River
- Road under construction

0 10 20 30 40 MILES

LOCATION PLAN:

POISON MOUNTAIN PORPHYRY COPPER PROJECT

KILBORN

access road construction, trenching and ten diamond drill holes (601 m)

1959-1960: New Jersey Zinc Ecploration Company Ltd.; magnetometer and soil surveys, trenching and 15 diamond drill holes (610 m)

1961: American Smelting and Refining Co.; trenchng and and induced polarization survey.

1966: Copper Giant Mining Corporation Ltd.; 4 diamond drill holes (unknown meterage)

1966-1967: Homestake Mineral and Development Co.; induced polarization and ground control surveys, road construction, 20 percussion drill holes (1,408 m) and 28 diamond drill holes (3,497 m)

1970-1971: Canadian Superior Exploration Ltd.; soil, magnetic, induced polarization, ground control surveys, trenching, 42 percussion drill holes (2,722 m) and 18 diamond drill holes (2,438 m)

1979-Present: LAC Minerals; topographical and hole site surveys, road construction, trenching, 206 percussion drill holes (17,001 m) and 54 diamond drill holes (11,346 m)

ABSTRACT: The Poison Mountain Cu-Au-Mo porphyry deposit is hosted by Lower Cretaceous Jackass Mountain Group greywackes, conglomerates and shales. The sediments are intruded by an elongate Tertiary granodiorite pluton. Both the sediments and the granodiorite were subsequently intruded by dykes and sills of porphyritic quartz diorite. The Cu-Au-Mo mineralization is related to potassically altered greywackes and the porphyry.

Both the petrology and geochemistry point to a dominately "dry" thermal metamorphic event for the potassic alteration and associated hypogene mineralization. Dominate petrological features in the potassic altered porphyry are recrystallization and biotization of the matrix, hornblendes altered to biotite, quartz veining, minor K-spar veining and sulphide mineralization. The greywackes are hornfelsed with biotization of lithic clasts amd matrix, minor quartz and K-spar veins, sulphide and magnetite-hematite mineralization. Potassic altered sediments host 50% of the ore (> 0.25% Cu equivalent) and also forms a broad (200 m) pyrite and magnetite-hematite halo around the ore zone. Geochemically the potassic altered sediments and porphyry show only small major element percentage differences with the back-ground sediments and porphyry. The potassic alteration at Poison Mountain shows Rb, K, Rb/Sr and Ca/Sr ratios increases and Ca, Sr and K/Rb ratios decreases in the porphyry, while in the sediments the same pattern is repeated except that Ca/Sr decreases. Similar patterns have been documented where oopper

porphyry mineralization is related to potasically altered rocks. The absolute value changes and ratio variations at Poison Mountain when compared to the documented cases are minimal to very modest.

Elements enhanced during potassic alteration were S, Cu, Mo, Au, Ag, G, Hg and Sb in porphyry, no change in As, and depleted Zn and Ba. The sedeiments were enriched in S, Cu, Mo, Au, Ag and Hg, and were depleted in Ba, As, Sb, and Pb.

GEOLOGY: Poison Mountain is situated northeast of the right lateral transcurrent NW-SE trending Yalakom Creek fault in the Lower Cretaceous Jackass Mountain Group greywackes, shales and conglomerates. On both the regional and local scale the geology has been complicated by numerous faults dissecting the area into blocks. East of Poison Mountain, an open NW-SE trending syncline has been outlined by shales in a coarse grained gritty immature greywacke intercalated with minor volcanic flows and pillow lavas. On a very tentative basis there is a parallel anticlinal axis SW of the syncline. The anticlinal axis would cut Poison Mountain Creek near its junction with Copper Creek and has been outlined by bedding attitudes. Stratigraphic correlation has been difficult due to the limited extent of any marker horizons, the lack of outcrop and rapid facies changes.

The sediments in the Copper Creek area are mainly massive fine-medium grained greywackes with intercalated thin shale lenses or pebble bands. In the Fenton Creek area lenses of polymictic boulder comglomerate are bedded with greywackes and shales displaying a NNW trend with a steep east dip. Conglomerates prevail further north and west in Poison Mount Creek in the Buck Mountian area.

A large aureole of hornfelsed greywacke surrounds the ore zones on Copper Creek and Fenton Creek. The hornfels is characterized by its massive texture: pyrite, magnetite-hematite disseminations and veinlets, quartz veins and dark grey black coulour due to biotite induration. Due to the paucity of outcrop, the hornfels outline is from induced polarization and magnetometer surveys. Diamond drilling has shown 50% of the ore zone (0.25% Cu equivalent) to be in hornfelsed sediments or brecciated sediments. The ore zone hornfels shows the same characteristics as listed above with the addition of chalcopyrite, bornite, molybdenum and trace K-spar veinlets. Bordering the 0.25% Cu equivalent is a pyrite halo with greater than 5% pyrite with an approximate thickness of 200 metres. The hornfels retains its sedimentary texture except in highly brecciated contact areas with the porphyry where it has been recrystallized.

The centre of the mineralized zone is occupied by a barren pluton of granodiorite. Typically the granodiorite displays a massive granular texture and a pale green discolouration due to chloritization of the hornblendes and groundmass. It is composed of coarse euhedral grains (5-7 mm) of plagioclase and hornblende with interstitial grains of quartz, plagioclase, potash feldspar and trace apatite. The granodiorite cross cuts the sediments in a passive manner as there is no brecciation of the greywackes. The passive nature of the intrusion is bore out by its homogeneous texture.

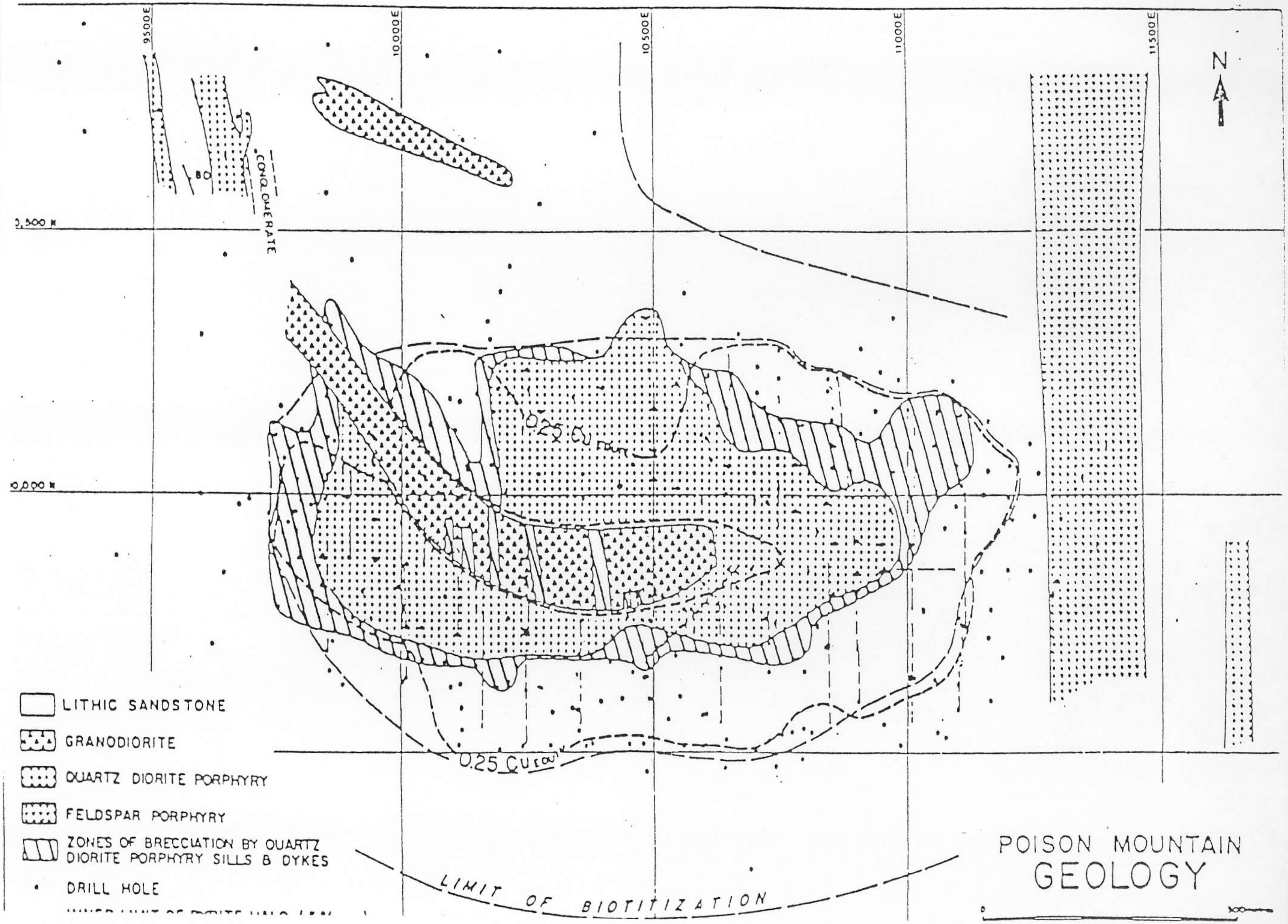
Both the sediments and granodiorite are intruded by quartz diorite porphyry dikes and sills. Granodiorite inclusions are noted within the quartz diorite. The quartz diorite can be subdivided into two types by alteration and to a certain extent by phenocryst size.

Found predominately to the east of the ore zone is a quartz diorite porphyry (QDP) with large feldspar phenocrysts (8-15 mm), hornblende laths (2-7 mm) and biotite books (7-10 mm) in a light grey quartz-feldspar matrix. Conspicuous in hand sample is abundant epidote (1-10%).

The second variety predominately (90%) has smaller phenocrysts of plagioclase (4-8 mm), hornblende (2-5 mm) and rare biotite books (4-6 mm). Of the remaining 10%, 9% is made up of porphyry of similar phenocryst size to the first type and the remaining 1% with phenocrysts of plagioclase (2-5 mm) and hornblende (1-3 mm). It is the dark grey-black matrix that gives the second variety its distinctive trait. The discolouration is caused by fine biotite indurating the matrix. The second variety is referred to as biotitized quartz dioroirte porphyry (BQDP) and is host for the remaining 50% of the ore zone. The biotitized porphyry is inevitably pyritic (1-3%) with subordinate chalcopyrite, bornite, molybdenite, magnetite-hematite. A cataclastic texture is shown in many samples by broken feldspar phenocrysts. Combined with the abundance of dykes and sills, the biotitized porphyry intruded in a forceful manner.

HYPOGENE MINERALIZATION: Sulphides associated with the biotitized quartz diorite porphyry and hornfels are pyrite, chalcopyrite, molybdenite and minor chalcocite, covellite and bornite. They are intimately linked with the metamorphism (potassic alteration) as witnessed by quartz-biotite-sulphide segregations, sulphide-quartz-K-spar veining and magnetite-sulphide veinlets and blebs. Pyrite content ranges from 0.5-1% in the porphyry and is found disseminated, in fractures, with quartz and K-spar veins associated with other sulphides and rarely with magnetite-hematite. The porphyry similarily hosts 0.5-2% chalcopyrite. The minor amounts of bornite are predominately found intergrown with chalcopyrite. Molybdenite content ranges from negligable to trace amounts in quartz veins and along slips in the porphyry.

The greywacke host the mineralization in the same manner although overall mineral percentages vary. The bornite content is negligable, pyrite increases to 0.5-2% and molybdenite is consistently found in trace amounts. Chalcopyrite and pyrite



9500E
10,000E
10500E
11000E
11500E
N
BO
CONGLOMERATE
0.25 Cu
0.25 Cu
LITHIC SANDSTONE
GRANODIORITE
QUARTZ DIORITE PORPHYRY
FELDSPAR PORPHYRY
ZONES OF BRECCIATION BY QUARTZ DIORITE PORPHYRY SILLS & DYKES
DRILL HOLE
LIMIT OF BIOTITIZATION
POISON MOUNTAIN
GEOLOGY
0

more often occur in fractures, in magnetite-hematite veinlets or in quartz veins. The percentage of disseminated chalcopyrite drops as the pyrite halo is approached.

The pryite halo consists of hornfelsed greywackes with 5-10% pyrite in veinlets or disseminations. The pyrite is often associated with quartz, magnetite, hematite and trace chalcopyrite and molybdenite.

A high grade Cu-Au mineralization zone occurs in the BQDP, about 20 metres south of the granodiorite contact. The zone trends E-W, is approximately 30 metres in thickness and dips from 17 to 45 degrees to the north. This high grade zone diminishes eastward after the granodiorite changes to a NE trend.

PARAGENESIS: In both the potassic altered hornfels and biotitized quartz diorite porphyry, there are three stages of alteration. The amount of overlap between the first and second stages is unknown as cross cutting relationships are poorly developed. The first stage was characterized by biotite induration with quartz and K-spar veining, hypogene mineralization and magnetite-hematite. The second stage, which may in part be retrograde, consisted of chlorite, sericite, carbonate and minor epidote. Gypsum veining constituted a distinct and final third phase.

SUPERGENE ALTERATION: Weak supergene alteration is concentrated in the biotitized porphyry and brecciated areas of the central and north sides of the ore zone from surface to 25 metres vertically, and in the hornfelsed greywackes to a vertical depth of 10 metres. Detailed polished section work in the biotitized porphyry shows a clustering of bornite, chalcocite, covellite and malachite/azurite around the 20 metre depth. Assaying for CuO done during 1979-1980 inevitably showed a drastic decrease in CuO values from surface downward. Bornite most often occurred interlocking with chalcopyrite or in small anhedral grains. Malachite/azurite form in clusters, aggregates and in better samples fills fractures showing a botryoidal texture.

AGE DATES: Three age dates have been completed using the K/Ar method on biotites and hornblendes. Hornblendes (primary) from the biotitized quartz diorite porphyry are 61.4 Ma (+/- 2.1 Ma) old. Biotites (primary) from the quartz dioritie porphyry to the east of the ore zone have been dated at 58.2 Ma (+/- 2.0 Ma) and 57.8 Ma (+/- 2.0 Ma).
