675444
82M/8

J & L stratiform Pb Zn Ag Au As

MEG talk March 21/84 — Brian Grant Selco-BP
(Marc Rebagliati in charge)

Sulfides: interfingering laminae in Hamill qtze (eoct)
(Below Goldstream horizon)
1.9 km long (on surface), underground workings trace for 530m
Thickness 2m
Assays avg: 3.5% Zn, 1.5% Pb, 67 gm Ag, 5 gm Au, 4.3% As

First staked 1895
Ranger Gold developed in 1930's.
Westairs worked deposit in 1960's, found As too high for economic mining.
1980 picked up by Pan Am Energy and Selco-BP
1981 mapping sampling geophys.

Location 21 miles N of Revelstoke
in Carnes Ck area, Goat Mtn.
Near Mastodon property - containing 40,000+ Pb Zn ore.
on several horizons.

Lardeau graphitic phyllite
on west

Mohican
Badshot dolomitic grit
Hamill

Hamill isoclinally folded, poor outcrop. Limestone forms footwall to ore horizon, graphitic, contains minor sulfide laminae - low grade Zn values.
Many other sulfide showings on lst. unit

Sed. cycle evident qtze —up to→ chlorite schist → sulfides → qtze
Al_2O_3 decreases upwards in qtze, SiO_2 increases up.

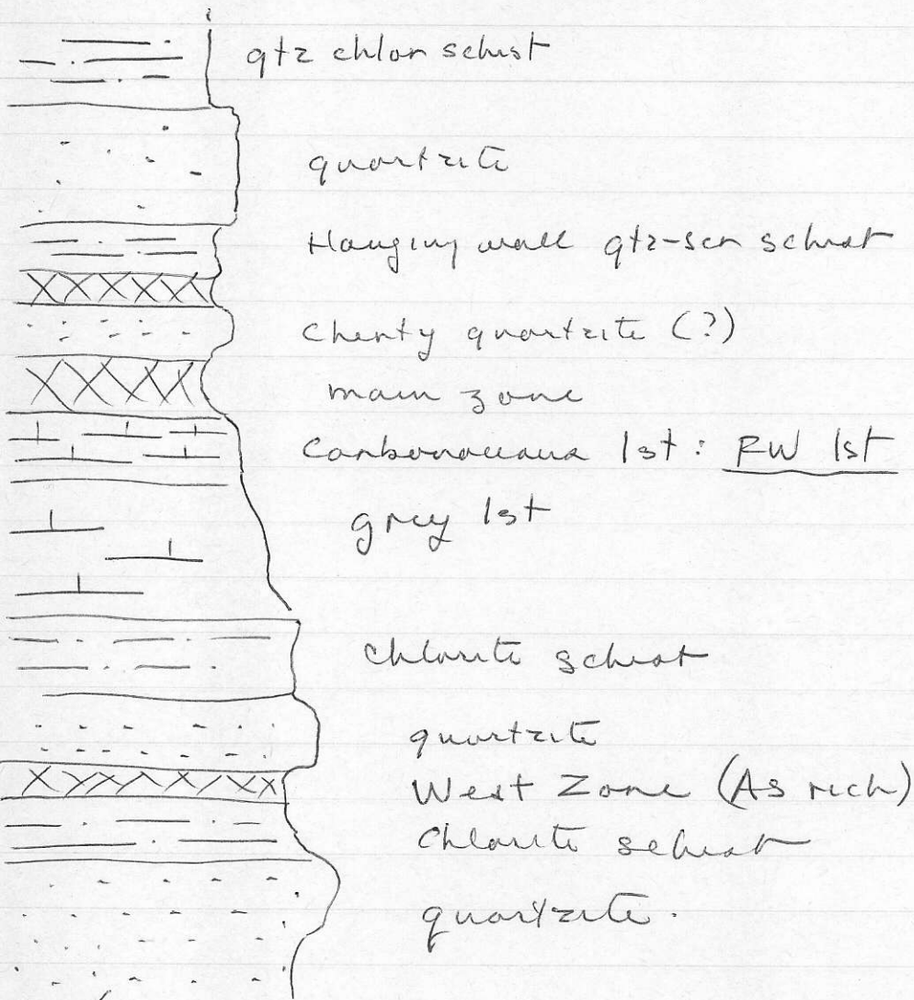
West zone is rich in As, no Au Ag Pb Zn

Main zone upwards: qtze → chl. schist → grey lst. → black carbon. lst (anom. Sb, ZnS, diss FeAsS)

$CaCO_3$ 'injection' in carbonaceous lst (pillars, (?) pneu. soln struct) KMD

Main zone sulfides interfingered over 2 to 6 horizons, interbedded with 'chenty quartzite (exhalite? KMD) plus pyrite, arsenopyrite.
Pyrite is fragmental in py - aspy - sphal assembl.

Qtz-ser-schist alteration zone overlies sulfides in HW, plus Zn, As anomaly.



(Query - is this true strat. section or structural repeats? KMD)

Feldspar porphyry dikes cut F.W. lst only.
No dates yet.

Fabric appears to be mainly tectonic (KMD).

Carbon. lst infilled by calcite.
ZnS runs calcite of the 'injection' type in carb. lst.

Pyrite is milled and cataclastic — forms a black rock unit in FW of sulfide zone.

Cherty qtzc $\xrightarrow{up}$ pyrite cataclasite → $ZnS + FeS_2 + PbS$

Gradational change Fe rich FW → Fe poor HW.
also
FeAsS rich FW → Fe poor HW
Mineral Fe, As depletion up section
Arsenopyrite coarsely xlln in HW commonly.

Sulfide zone thins when carb. lst absent from FW.

ZnS in HW is low in Fe up to 20m above ore horiz.

Goldstream has higher volcanic component, Cu-rich, Tsh Cu-poor, formed at higher Temp.

Ba anomalous at Tsh, minor vein barite in HW.

Now known to be Lookout in Kootenay Terrane (N end Kootenay Lk) not N. America