82FNE052

SULLIVAN

Oct 8/97

Sunpeaks +8°C

- Vic Mann - mine geol
- disc: 1892 Smelter: 1903 [with RGS]
1909: bought by Cominco Prior to WWI - no Zn prod

Road To Date - 157 m Tons @ 2.2 oz/t Ag 6.4% Pb 5.8% Zn .037% Sn + Fe
1903-1997 7 M Tons ore left @ 1.2 Ag, 0.8 Pb 12.1 Zn 28.1 Fe

1.49 By = timing of sulphide emplacement

1996: 1.2M to drill 8000' deep on Mark Ct. Temp = 140°F

UTEM = show large anomaly

Tourmalinite - expl'n tool plus "conglomerate" - fragmentals - hydrothermal muds

HW = albite/chlorite

FW = tourmaline

Western/Eastern Ore Zones

Western: high in Ag + Pb - "Vent" Zone

Eastern: higher Zn - well banded

- Iron core - massive pyrrhotite (= molten rock) + peripheral Pb/Zn

Lower "Main Band" = 1 M to 80 M thick

Now - mining 'up' to the "C" Band.

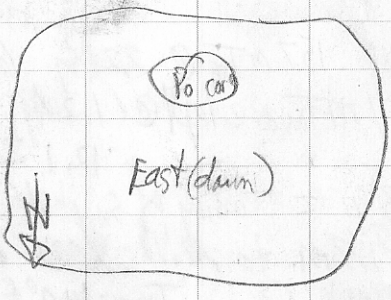
Also - some open stoping on Main Band.

Ore bodies dip @ ~20°

888150

② Current mined sulphides to E. Shaft down: 2001 – Dec. 31st. (Note: Polaris In June '2001)

PHOTO: Mine model



Tourmalinite has hardness of 8.2 (i.e. > chert)

PHOTO: R8 Area – Massive po core with thin (1") bed of boulangerite.

PHOTO: Steeper than normal bedded sul. With higher Ag + Pb in po-core (Western ore zone)

PHOTO: Host fragmental/Cgl. (FW) – selective replacement of fragments by tourmaline (matrix is argillite)

PHOTO: Main Band ~ 60' thick – Pillar with ~ 500,000 tons @ 18% Zn

CRANBROOK CONFERENCE Sat. Oct. 1/94

Sunny +25°C

Upper Aldridge
Middle Aldridge
Lower Aldridge

- Vine straddles Lower-Middle Aldridge boundary — a vein but later than Aldridge (i.e. fault related?)

- Sullivan occurs at contact/transition between Lower & Middle Aldridge.

Stop 1 — "Sundown" marker (1 of 20 markers Cominco has in Middle Aldridge) — extends several hundred km south into US
→ fn. lam. wackes — "black & white striped rx."
- occurs about 1 km above Sullivan horizon

"How many more hidden vents (Sullivan)?" — Cominco using deep probing (continued)

EM

Purcell Belt rx. are mainly siltstones, not shales (cf. Selwyn Basin) - Bob Turner
→ aeolian transport of sands (desert envir.) over large basin (up to 500 km wide?)
- i.e. white bands (tropical sand layer) interbedded with black bands in "B+W striped" markers.

Ex. Gulf of Calif. - coarse laminated units (silty layers) ⇒ annual varves can't up to present = annual dust storm (not annual runoff)

Feb. 4/03

SULLIVAN (#2)

John Mirko (in confidence) shows TGS a letter from TeckCominco re-option (magnetic) of Mark Ck. property (Sullivan 'lower half')
→ Mirko to talk with town of Kimberley
→ Keep (Roundup) 'bullish' re long term outlook for zinc! (website?)