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Item 5

June 26 WEST COAST MINE

Cowley, Manager; Frank Baby, mine foreman; Smith, geologist.

Mine about 20 mi. west of Winnemucca. Vein strikes N 15 deg. E. dips E 65 deg. 12" - 18" wide. On 700' level crosscut to E hit 6" parallel vein recently. Arsenopyrite main mineral with $\frac{1}{2}$ oz. Au (Ag: Au - 100:1) also Jamesonite, pyrite and sphalerite. Ore consists of primary barren quartz with later dark sulphide quartz. Filling as ore - two intermixed. Ore about \$15.00 a ton after 2:1 dilution in mining. Sulphide zone starts at 270' level with 70% minerals sulphides - oxides clear to 700' level. Series of W. dipping N-S faults step fault vein and hard to follow at first. Slates (Triassic?) and phyllites upturned 50 deg. and quartzites in country rock unconformably overlain by conglomerates then Tertiary tuffs and basalt capping on high spots. Diorite dikes through vein; vein probably on top of stock - mine on top of ridge. Ore mined by cut and fill - ore and waste shot separately - ore mucked off floor on waste and put in raises to be dumped in skip by car tramming on 400' and 800' (?) levels.

150 HP induction hoist - 65 deg. incline shaft. Ore and waste bin in head frame - hoistman can't see collar. Ore concentrated 5 to 1 in float and table mill - shipped to A. S. & R. Co., at Salt Lake - copper and lead paid for.

CONC. \$4.50 per ton smelting; \$5.50 per ton freight; 0.7 ozs. Au, 57 ozs. Ag; 6-1/4% Pb, 0.5% Cu, 6% Zn, 26% S, 17% As, 25% Fe, 1.8% Sb, 0.2% CaO. About 135 tons ore per day - 27 tons concentrates.

Direct costs: Mining \$6.50; Milling \$1.50; Smelting 0.90; Freight \$1.10, or a total of \$10.00 a ton - \$64.70 per ton conc. - \$12.94 heads - \$2.94 per ton for taxes, office, amortization and profit.

FLOW SHEET (135 tons per 24 hrs) WEST COAST MILL

Coarse Ore Bin - Pacific Jaw Crusher - Fine Ore Bin

Jig (1/8" screen)	- 1/4"	Marcy Ball Mill
Table	1/8" tail & mid	Trommel Screen 1/4"
Filter (drum inside)	Hydraulic cone classifier	Akins class.
Conc. bin		Water
		Sand 83% - 200 mesh.
		Conditioner
		2 cleaner cells
		4 Roughers
		Filter
		Tails (50# ton)
		Conc. bin

Recovery - 96.4% (@ 0.50# tails, heads \$13.89) 1/3 of conc. from table - higher in Ag than float conc. which is higher in Au. Reagents: 322 Xanthate, Aero float 15, B-23 Dupont frother, CuSO₄ activator, Na₂CO₃ disperser. 4# balls per ton - classi-