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Item 12

0720 0008

COMBINED METALS, Pioche, Nevada.

GEOLOGY

No. 1 Shaft at Pioche - Castleton Shaft over summit - about 1 mile apart. Ore body in "C.M." lime bed in Pioche shale near base - Prospect Mt. quartzite below. C.M. bed 30' thick - Mineralized portions 3'-5' thick - 2 to 3 horizons of ore. Average grade, Au. .03 - Ag. 6 oz. 6% Lead, 16% Zn., 17-19 Fe - Sulphide ore. Mineralization follows E.W. fissures - N.W. faults - drop W block down as much as 2--'-300'. Numerous porphyry dikes.

BRISTOL SILVER MINE - Bristol Range N of Pioche
Paul Gemmill, geologist - J. H. Buehler, Mgr.

GEOLOGY

Elevation at collar 7200 - Mine has been worked to 1700' on 75 deg. incline shaft. Ore occurs in fissure fillings and replacements along E-W S dipping normal fault. Upper formations are Highland Peak limestone and dolomite - lower, Burrows dolomite, Muav & Chisholm shale? Ore is nearly all secondary - Iron carbonates and sulphates and oxides - $PbCO_3$, SO_4 - $ZnCO_3$ - Typical assay - 25 oz. Ag, 15% Pb, 5% Zn, Au. .03 oz. Large "caves" containing soft ore occur - platy dolomite beds act as dams rich ore above. Leads are iron oxide stringers lamphrophyric dikes in lower levels - water table at 1720 - serves as domestic supply - raised by 3-cylinder plunger pump. Mine produces 60 tons per day. Some contain high grade Cuprite and Melanconite

CONSOLIDATED COPPERMINES CORPORATION
E.N.Pennebaker, Chief Geologist

GEOLOGY

Formations * Ore porphyry - altered monzonite - intruded into Paleozoic sediments - well fractured - occurs in anticlinal structure 2 miles to east chalcopyrite in seams and fractures - also phlogopite mica and molybdenite. Later "peanut porphyry - less altered seldom carries ore values - Tertiary rhyolite - some breccia carries fragments of high grade copper - indicating possibility of ore below.

Erosion just entering top of primary ore small amounts of secondary have been mined (chalcocite).

Rough zoning in district - copper, gold, silver, lead, zinc, manganese Mineralization in E-W break in N-S structures. Foot wall reverse fault controlling factor in ore deposition - ore in hanging only - movement pre-porphyry to post-rhyolite. Both por. are sills.