July 1 STANDARD MILL (700 ton) Elev. 5220 ft. at office

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Mr. Frazer, Superintendent

Mr. Bradley, Geologist

Mr. Walker, Mill Superintendent

Open pit mine with underground workings done by Pacific Syndicate to prospect - \$70,000 spent to develop, then decided too low grade. (Standard Oil men) Standard Cyaniding took over lease and option Gold Standard Mine in April '40. one million tons \$2.15 - ore developed before mill built. 250,000 tons since developed and same amount milled (250,000 tons). So far sampling results check actual recovery to cent. Pit is bounded on west by shale and limestone on east. Ore bottoms on flat thrust fault, probably post-mineral dipping SW and supposed to have great displacement. Ore in quartz stringers in limestone. Colors in pit seem to indicate values.

Au:Ag - 1:1 by weight. no other minerals. Ore runs minus \$1.00 to plus \$5.00, average \$2.15. \$1.30 is cutoff point, but \$1.25 or less run through mill as more economical than to dump as waste. $2\frac{1}{2}$ waste to one stripped by Isbell Construction Co., with two trucks and shovel. Contract trucking ore for 27ϕ per ton to grizzlies; with waste charged to ore, hauling and stripping - 40ϕ per ton of ore and total of 47ϕ per ton for mining. Milling cost @ 50ϕ per ton. Siliceous outcrop above.

Orebody similar to Getchell mine. Churn dril to blast benches in pit. Gold is very fine, but is panned. Water from Eldorado Canyon by gravity @ 500 gallons per minute. Power from Sierra Pacific at little over l¢ per K.W.H. 82% power factor - capacitors used. Mill designed for 500 tons now run at 700 tons, 70% sand leach and 30% slime. (Slime is -80 mesh) \$300,000 total investment of plant About 82% extraction on both sand and slime circuits. 900 tons \$1.50 pregnant solution precipitate per day in Merrill-Crowe system using bag filters for

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collecting precipitate. Sands from 5/16" screen to leaching tanks - 6 tanks.

FLOW SHEET - STANDARD CYANIDING CO.

20"x22" grizzly bag Clarifier Bowl class. (Slimes -80) Vac. Tank Coarse ore bin Sands to 6 tanks Thickener Zn dust Ross chain feeder Bag filter Tails Mill 2 Agitators Solution prec. to Selby 24"x36" Jaw (-42) Barren Thickener (1-1/4")Vib. screen 1.4# protective Two drum filters Alkalinity parallel 3' T-Y Gyratory 0.7-0.8# NaCN titr.tables Repulper Weightometer 2400# lime /day consumed Drum filter sample Fine ore bin 900# NaCH /day Tails Rod mill Rake Class. 82% extraction on both circuits. 5/16" Vib. screen When gouge in ore, tails higher.

-5/16" Conveyor belt

Soluble losses are about 6¢ per ton. 2:1

dilution in thickeners wont settle well;

therefore, necessary to repulp and filter. Two agitators out of circuit - not necessary - another filter added to original two for repulping. Overflow from first thickener was sent to precipitation, but now to sand tank as second wash, first wash being mill solution. This probably due to poor settling conditions. 9 washes given to sands, next to last is barren solution and last is fresh water. About five days leach. Overflow of mill solution as sand is placed on tank goes to rod mill with barren. First wash from sand tank goes to precipitation. Wash ore last filter after repulp is fresh water - no gold lost in tails this way, and lowering of soluble loss is economical. At first 1/4" vib. screen after rod mill, but this gave too much slime to handle with poor settling; also no more recovered in leach of smaller sand particles.

Assay Office: 10-11 gal. Diesel oil (@ 7.5¢ per gal.) per day in one furnace. 1

A.T. fusion on heads, 4 A. T. on tails. Boneash cupels.