

3070 0007

FLOW SHEET - 250 TON WO₃ CONCENTRATING PLANT - NEVADA-MASACHUSETTS, Mill City

2 - 250 ton coarse ore bins	trommel screen
	1/2" -1/2"
Pan conveyor	
Grizzly	Rolls Fine ore bin
Pacific Jaw	Water - bucket elevator
	3/16"x1/2" Trommel screen
	-3/16" 3/16"
Secondary rolls	Primary rolls
Bucket Elevator	
14 mesh Callow screen	Thickener
-14 14	
Fahrenwald	3 slime tables
Hydraulic	
Classifier slimes	
6 products	Conc. Mid. Tails
11 sand tables	
Conc. Mid. Tails	
2 tables	
Conc. Mid. Tails	
Conditioner	
Moly.float cells Tail. Treat. Plt.	
Akins dewaterer Moly. to tails	
Drier water	
3 sets Magnets (pyrite to pile)	
(1,12,36 amps)	
Roaster (700 deg. F)	
Weak Magnet	
Strong Magnet (pyrite, garnet, 2% WO ₃)	
Strong Magnet (good WO ₃ and impurity)	
Rotating weak magnet (small Amt.)	Stock Pile 1% WO ₃ - oxidize - mill later
Conc. about 73% WO ₃ - 500# per day with Tail Plant product	

FLOW SHEET 800-TON WO₃ TAILING PLANT - Mill City. Ott F. Heizer.

250 tons new tails pumped through screen with 550 tons old tails scraped by carryall to belt then screen.

Bin

Shaking screen

Dorr bowl

Dorr class.

Storage tank

Akins dewaterer

Slime
-150

Sand

Ball mill

Dorr class.

Fahrenwald Hyd. Class.

Sand & Slime

8 prod. to 8 sand tables

Tails Conc. Mid.

Thickener

Cone dewaterer

Akins dewaterer

2 cleaner tables

Conditioner (209)

WO₃ Garnet, calcite

Acid treated at upper plant to remove Phos. Conc. shipped with above

Sulphide floats (PH elect. Cont)

2 slime tables

Conditioner - sodium silicate depress garnet. Oleic floats scheelite & calcite

Conc. Mid. & tails Shipped 6% Golconda 60% or U.S. Vanadium

Float cells WO₃ & H₂O

Tails to sluice

Pond

Tails run about 0.22% WO₃. New tails run about 60% sands, old ones about 80% sands - slimes carried most values but have disappeared. Deister Overstrum tables preferred. 800 tons put through one ball mill in "semi-open circuit".

MINE: Shrinkage stope in hornfels and shales 70 deg. E. dip. 0.4% WO₃ cutoff point.

June 29 Mn MINE 21 mi. SOUTH OF GOLCONDA.

Pat Divine, owner.

Open pit, hand shovelled into cars - bin - jaw crusher to -3". 30' bedded replacement deposit in sedimentaries above igneous schists & cherts. Ore grades lower in Mn, higher in SiO₂ at edges. 200,000 tons 30% Mn blocked out - trenching. 20,000 tons shipped to date. Psilomelane principal mineral. Columbia Steel pays 30¢ per unit (\$9.00 per ton) \$1.25 per ton truck to Golconda, \$3.25 per ton to Provo. SiO₂ 55% and pretty high. Must crush -3" to sample. 5 cars being loaded for U. S. Government at Boulder Dam.

June 28

NEVADA-MASACHUSETTS COMPANY

Ott F. Heizer, U.N. General Manager Since 1926.

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(Same company owns Golconda property and Toulon Mill at Toy below Lovelock and known as Rare Metals Co. Ore being shipped to latter from Mr. Segerstrom's Old Hickory Mine in Milford, Utah)

Two mills are operating here, one on 250 tons mine ore, other on 250 tons tailings from above plant and 550 tons old tailings from above plant. Old tails go about 0.22% WO_3 and are about 70% sands. Bulldozer and LaTourneau scrape old tails to belt of tailings plant. One million tons of old tails.

Also have property at Brucite (near Luning) where tungsten associated with magnesite. Permanente Corporation taking magnesite and leaving tungsten - near edges of deposit.