

TR6. 202.203

R. 377

RENISON ASSOCIATED TIN MINES. N. L.**SULPHUR CONTENT OF MILL GRAVITY SECTION FEED****Sample**

The sample consisted of one Winchester bottle of pulp, stated to be a sample of gravity section mill feed (desulphurized flotation tailing) from Renison Associated Tin Mines N.L. The company requested a sizing analysis with sulphur determination of each sizing.

Sizing and Elutriation

The pulp was dispersed by agitation with sodium silicate. The minus 200 mesh material was further sized in an elutriator. The elutriator used and method of elutriation is described in the paper "Research Procedure in an Investigation into the Basic Causes of High Tailing Loss at Mt Morgan", by W. H. Cropp. Proceedings Aust. I.M. & M., No. 115, 30th September, 1939, p. 357.

Fraction B.S. Screen	Theoretical Grain Sizes Left in Tube in Microns			Percent	
	Cassiterite	Pyrite	Quartz	Weight	Sulphur
+ 60	....	....	....	4.0	1.34
+ 72	....	....	....	4.6	1.69
+ 85	....	....	....	6.8	2.83
+ 100	....	....	....	6.8	3.42
+ 120	....	....	....	11.4	3.02
+ 150	....	....	....	9.6	2.08
+ 200	....	....	....	11.2	1.11
Elutriator Tube 1	76—40	76—70	....	1.2	1.88
Elutriator Tube 2	40—28	70—49	....	6.1	0.55
Elutriator Tube 3	28—20	49—34	76—54	13.7	0.19
Elutriator Tube 4	20—13	34—20	54—30	7.8	0.20
Elutriator Tube 5	13—10	20—10	30—18	5.5	1.17
Elutriator overflow	minus 10	minus 10	minus 18	11.3	8.94
	....	....	....	100.0	....