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24. ABERFOYLE TIN, N.L.: EXAMINATION OF JIG TAILINGS

Three sized fractions of jig tailings were examined by sink-float separation, grinding and gravity concentration to indicate the recoverable cassiterite, and the results obtained are shown below.

⅜ inch Jig Tailings. Sizing all plus 14 mesh and 97 per cent plus 6 mesh.

Product	% Wght	% Tin	Tin Units
Free Cassiterite	0.11	70	7.7
Sink at Sp.G. 2.95	3.61	3.48	12.55
Float at Sp.G. 2.95	96.28	....	1.92
Composite	100.00	0.22	....

Excluding the free cassiterite, the tailings would have an assay value of 0.145 per cent tin. Regrinding and concentration of the 2.95 sink product could result in a further recovery of the order of 0.06 per cent of tin, and thus leave a tailing of the order of 0.08 per cent tin.

¼ inch Jig Tailings. Sizing 3.7 per cent minus 14 mesh.

Product	% Wght	% Tin	Tin Units
Free Cassiterite	0.07	70	4.9
Sink at Sp.G. 2.95	5.3	2.57	13.6
Float at Sp.G. 2.95	94.63	0.02	1.89
Composite	100	0.20	20.39

Excluding the free cassiterite, the tailings would be reduced from 0.2 to 0.15 per cent tin.

Regrinding and reconcentration of the 2.95 sink product could further reduce the tailings to 0.08 per cent tin.

⅛ inch Jig Tailings. Sizing 3.4 per cent minus 36 mesh.

Product	% Wght	% Tin	Tin Units
Sink at Sp.G. 2.95	11.53	1.53	17.64
Float at Sp.G. 2.95	88.47	0.02	1.77
Composite	100	0.19	19.41

No free cassiterite was observed in the sink product. Regrinding and reconcentration of the sink product could reduce the tailing to under 0.1 per cent of tin.

In the three cases the sink products were reground and concentrated to evaluate the basis of the above comments.