

TR6. 190

R. 382

ABERFOYLE TIN MINING Co. N.L.

SLIME TABLE CONCENTRATE

Sample

A sample of slime table concentrates, of approximately 3 lbs. weight, was submitted by Aberfoyle Tin Mining Co. N.L. in May, 1961. The sample was stated to be taken from a batch of approximately 600 lbs. prior to desulphidizing by flotation. The sample was submitted for fine sizing to determine the size recovered on the slime tables under current operating conditions.

Summary

The sizing shows that little material below the 20 to 30 micron size range is recovered in the slime table concentrate. This confirms previous data relating to recoveries of fine cassiterite by tabling.

The nature and extent of loss of cassiterite and wolfram in the slime table tailings is currently being studied in Investigation R.379.

Sizing

The sample was sized and infrasized according to normal procedure.

Fraction	Theoretical Grain Sizes		Weight	Percent			Percent Distribution	
	Cassiterite	Quartz		Sn	WO ₃	Sn	WO ₃	
+100			0.4	6.2	23.9	8.4	4.1	3.4
+120			0.9					
+150			1.2					
+200			3.7					
I.S. 1	+45	+56	32.6	44.2	17.9	39.9	37.7	
I.S. 2	30-45	40-56	32.9	36.8	16.1	33.6	34.2	
I.S. 3	20-30	28-40	18.0	32.7	14.7	16.3	17.1	
I.S. 4	14-20	20-28	7.0	24.3	11.6	4.7	5.2	
I.S. 5	10-14	14-20	1.8	18.5	11.6	0.9	1.4	
I.S. 6	8-10	10-14	0.9	15.5	13.9	0.4	0.8	
I.S. 7	- 8	-10	0.6	4.8	6.4	0.1	0.2	
Composite			109.0	36.1	15.5	100.0	100.0	

The increase in the WO₃/Sn ratio in the fine sizes is of interest.