

TR9-155-157

R. 462

22. CORNWALL COAL COMPANY WASHERY: JIG MIDDLEINGS

A sample of jig middlings from the Cornwall Coal Company's washery was submitted for sink-float examination after crushing to minus one inch size.

The object of the investigation was to determine the quantities of usable coal that could be obtained by retreatment.

Summary

Shown below are the quantities and grades of coal that were obtained at the densities shown.

	Individual Per Cent		Cumulative Per Cent	
	Weight	Ash	Weight	Ash
Float at Sp.G. of 1.4	2.5	13.1	2.5	13.1
Sink at 1.4 float at 1.5	12.8	22.2	15.3	20.7
Sink at 1.5 float at 1.6	16.5	33.9	31.8	27.6

Test Results

	Weight	Per Cent Ash
Float at 1.4		
+ $\frac{3}{4}$ "	0.3	18.8
+ $\frac{1}{2}$ "	0.3	18.1
+ $\frac{1}{4}$ "	0.5	14.3
+ 6 mesh	0.7	11.3
+ 30 mesh	0.7	9.5
Comp. Float at 1.4	2.5	13.1

Float at 1.5—Sink at 1.4		
+ $\frac{3}{4}$ "	4.1	24.5
+ $\frac{1}{2}$ "	1.9	24.1
+ $\frac{1}{4}$ "	2.7	21.4
+ 6 mesh	2.6	19.5
+ 30 mesh	1.5	19.3
Comp. Float at 1.5	12.8	22.2

Float at 1.6—Sink at 1.5		
+ $\frac{3}{4}$ "	4.1	36.6
+ $\frac{1}{2}$ "	2.1	35.8
+ $\frac{1}{4}$ "	4.2	33.4
+ 6 mesh	4.1	32.2
+ 30 mesh	2.0	31.4
Comp. Float at 1.6	16.5	33.9

Sink at 1.6		
+ $\frac{3}{4}$ "	20.7	56.5
+ $\frac{1}{2}$ "	12.4	59.8
+ $\frac{1}{4}$ "	14.2	61.1
+ 6 mesh	9.8	58.0
+ 30 mesh	8.9	61.7
Comp. Sink at 1.6	66.0	59.0

Untreated Minus 30 mesh	2.2	43.6
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Summation

	Individual Weight	Per Cent Ash	Cumulative Weight	Per Cent Ash
Float at 1.4	2.5	13.1	2.5	13.1
Float at 1.5	12.8	22.2	15.3	20.7
Float at 1.6	16.5	33.9	31.8	27.6
Sink at 1.6	66.0	59.0	97.8	48.8
Untreated Minus 30 mesh	2.2	43.6	100.0	48.7

Coal Middling

Initial Sizing. Sample received in wet condition in which state it was hand screened and fractions weighed wet. Sizing was—

	%	Cum. %
+ 3"	6	6
+ 2"	15	21
+ 1½"	14	35
+ 1"	14	49
+ ¾ mesh	33	82
— 4 mesh	18	100
	<hr/> 100	

All the plus 1" material was reduced to minus 1" using a hand hammer. Material then air dried.