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FUEL RESEARCH INSTITUTE OF SOUTH AFRICA



TECHNICAL MEMORANDUM NO. 37 OF 1965

A REPORT ON A SCREEN ANALYSIS ON COAL
FROM AMAJUBA ANTHRACITE

by

P. J. F. Fourie

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INTRODUCTION

The Fuel Research Institute of South Africa was requested by the management of Amajuba Anthracite to take samples at the colliery of the run-of-mine coal after crushing, and to do a screen analysis on it. They also asked for proximate analyses on the different screen fractions.

SAMPLING OF THE COAL

The coal was sampled at the colliery by officers of the Institute. The samples were taken at regular 10-minute intervals by stopping the conveyor belt from the crusher and clearing about three feet of it. All these increments were collected and transported to the Institute for analysis.

ANALYSES

The sample was screened at $1\frac{1}{2}$ " , $\frac{5}{8}$ " and $\frac{3}{8}$ ". The results of this screen analysis are shown in Table 1. Samples for the proximate analyses were then prepared on each screen fraction. The results of these analyses are tabulated in Table 2.

P. J. F. FOURIE

Senior Technical Officer.

PRETORIA,

8th September, 1965.

/OvR.

TABLE 1
SCREEN ANALYSIS

Size	Yield		
	Weight %	Fract. %	Cum. %
+ 1½"	719¼	37.9	37.9
1½" x ⅝"	581	30.6	68.5
⅝" x ⅜"	168¼	8.8	77.3
- ⅜"	425½	22.4	99.7
Loss	5¾	0.3	-
Total	1899¾	100.0	100.0

TABLE 2
PROXIMATE ANALYSIS

Size	Cal. Val. lb/lb	H ₂ O %	Ash %	Vol. Mat. %	Fix. Carb. %	Total S %
+ 1½"	10.44	1.9	29.1	8.8	60.2	1.44
1½" x ⅝"	10.85	1.7	26.8	8.1	63.4	1.40
⅝" x ⅜"	10.85	1.7	27.1	9.1	62.1	1.51
- ⅜"	10.74	1.5	26.6	10.3	61.6	1.51

All proximate analyses are calculated on an air-dry basis.