

CHARACTER OF COAL IN THE THOMAS BED NEAR HARRISON, WEST VIRGINIA.

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In a report recently issued by the United States Geological Survey ¹ the coal of the Oakmont mine, on Abram Creek, 1 mile southeast of Harrison, W. Va., was reported, on the basis of a single analysis, to contain 2.95 per cent of sulphur. On receiving a protest from the owners of the mine that this percentage is entirely too great and that the publication of this figure would tend to discredit the coal in the market, the mine was visited on July 15, 1920, by the writer, and new mine samples for analysis were cut. These represent the coal in the parts of the mine from which most of the coal is now being mined or from which production is expected in the near future. The analyses of the samples, together with that published previously (No. 69071), are as follows:

Analyses of coal from the Oakmont mine, near Harrison, W. Va.

	75355	75356	75357	69071
Moisture.....	2.3	1.8	2.1	2.4
Volatile matter.....	16.3	16.6	16.6	15.4
Fixed carbon.....	73.2	71.1	71.2	71.8
Ash.....	8.2	10.5	10.1	10.4
Sulphur.....	1.01	1.56	2.78	2.95
British thermal units.....	14,040	13,490	13,620	13,420

Sample 75355 was cut at the face of the first right entry, about 2,500 feet from the mine mouth; sample 75356 at the face of the seventh left entry, 300 feet from the main entry and about 4,000 feet from the mine mouth; sample 75357 in room 19, off the twelfth right entry, 1,000 feet from the main entry and about 5,000 feet from the mine mouth; and sample 69071 in room 11, off the thirteenth right entry, 5,100 feet from the mine mouth.

¹Ashley, G. H., The Abram Creek-Stony River coal field, northeastern West Virginia: U. S. Geol. Survey Bull. 711, pp. 85-103, 1920.

The sections of the coal bed at the points sampled and the parts included in the samples are as follows:

Sections of Thomas coal bed in Oakmont mine, near Harrison, W. Va., showing parts sampled.

75355.		Ft.	in.	75357.		Ft.	in.
Bone.....	..	1		Coal ².....	..	9 $\frac{1}{4}$	
Coal ².....	..	2 $\frac{1}{2}$		Bone and coal.....	..	1	2 $\frac{1}{4}$
Bone.....	..	2		Coal ².....	..	2	9 $\frac{1}{2}$
Coal ².....	..	2	9 $\frac{1}{2}$				
Total coal.....	..	4	0	Total coal.....	..	3	6 $\frac{3}{4}$
Bed.....	..	4	3	Bed.....	..	4	9
75356.		Ft.	in.	69071.		Ft.	in.
Coal ².....	..	11		Coal ².....	..	11	
Bone and coal.....	..	10 $\frac{1}{2}$		Shale.....	..	1 $\frac{1}{2}$	
Coal ².....	..	2	9	Coal ².....	..	5 $\frac{1}{2}$	
				Bone.....	..	5	
Total coal.....	..	3	8	Coal ².....	..	2	7
Bed.....	..	4	6 $\frac{1}{2}$				
				Total coal.....	..	3	11 $\frac{1}{2}$
				Bed.....	..	4	6

From these analyses it is apparent that the coal of the Oakmont mine is a semibituminous or smokeless coal, which is rather high in ash and contains a variable amount of sulphur. The analyses show that the coal with the lowest percentage of sulphur (1.01 per cent) is within half a mile of the mouth of the mine; that the sulphur content increases with considerable regularity to 1.58 per cent at a point about 4,000 feet from the mine mouth, 2.78 per cent about 5,000 feet from the mine mouth, and 2.95 per cent about 5,100 feet from the mine mouth. A short distance beyond the point last mentioned the main entry of the mine has been driven through to the outcrop of the coal bed on the south side of the spur of the hill which projects from the west into the bend of Abram Creek at Emoryville. On account of this limitation of the mine in a southerly direction it is not known whether the sulphur continues to increase in that direction or whether the high-sulphur coal is limited to a certain area and is succeeded by coal of a lower sulphur content than that showing in the southern part of the mine.

In the recent sampling the writer was accompanied by the mine foreman, who, at each place where a sample was cut, indicated the parts of the coal bed that were excluded in mining, and these parts were carefully excluded from the sample cut for analysis. At the point where sample 75355 was taken only two small layers of bone were excluded, but where samples 75356 and 75357 were cut the middle member of the bed consists of an intimate mixture of bone

² Part sampled.

and coal, some of which is "gobbed" by the miners but most of which is loaded on the mine cars and is supposed to be thrown out when the coal passes from the screens into the railroad car. Much of the bone is thus doubtless removed, but some of it escapes the pickers, and hence it is probable that the coal which reaches the market contains a higher percentage of ash than is shown in the analyses given above.

The main entry of the mine is driven on the coal bed, which dips gently northward, at an angle sufficient for drainage of the mine by gravity. At the time of sampling the superintendent stated that the daily output of the mine was about 450 tons.

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