

SIZING TESTS AND ANALYSES OF CAUCA VALLEY

COAL SAMPLES

by

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To supplement the data on the preparation characteristics of the Cauca Valley coals of the Bureau of Mines report, five (5) run-of-mine samples were collected in the field and screened at the laboratory of Ferrocarril del Pacifico, in Cali. The results of these screen tests are presented in Tables 1 to 5, inclusive.

These samples represent three of the high-volatile bituminous coal mines of the north and central regions, and two low-volatile mines of the southern region. Thus there are size consistent data of samples of all the types and classes of coal. It will be observed that the low-volatile coals of the south are extremely friable.

Samples 1 and 3 are most typical of the high-volatile bituminous coals. Sample 2 (table 2) is from the Hermita Mine of Pablo Lopez, commonly considered to be the most lumpy coal of the region. This should not be considered representative, but rather as typical of the coarsest raw coal that will be received at the preparation plant. Samples 1 and 3 are probably about average with respect to the high-volatile A and B coals. The two samples from the south reported in Tables 4 and 5, are typical of the low-volatile coals so far as size consistency is concerned.

These tests were made with round hole screens of 1-1/2", 3/4", 3/8" and 3/16" diameters, and with standard wire mesh screens No. 15, 30 and 100 (U.S. standard).

The tests were carried out under the supervision of Dr. Nestor Dominguez.

Table 1 - SCREENING TEST OF RUN-OF-MINE COAL SAMPLE

Prueba: Zarandeo y Cenizas.

Zona: Norte Mina: Campiña Veta #1. Municipio: Cali

Grupo: A Mina de: F. del Pacifico

Muestras: analizadas por: Dr. Nestor Dominguez

Fecha: Cali 10/12/50

Tamaño	Peso en gramos	Porcentajes A %	Porcentajes B %	Porcentajes B, totales %	Humedad	Cenizas del car- bon se- co %
Size	Weight	Percents A	Percents B	Percents B, Total %	Moisture %	Ash in dry coal %
1-1/2"	61.250	15.72	15.72	15.72	3.08	16.67
1-1/2" x 3/4"	71.250	18.28	18.28	34.00	3.46	20.19
3/4" x 3/8"	102.000	26.17	26.17	60.17	4.07	19.95
3/8" x 3/16"	112.000	28.73	28.73	88.90	3.88	21.00
3/16 x 0	43.250	11.10	-	-	6.13	22.85
Total	389.750	100.00				
3/16 - #15	1,380	41.32	4.59	93.49	1.99	22.23
#15- #30	1,650	49.41	5.48	98.97	2.11	25.55
#30 - #100	70	2.09	0.23	99.20	1.74	29.12
#100	<u>240</u>	<u>7.18</u>	<u>0.80</u>	100.	2.02	30.95
	3,340	100.00	100.00			

From north region Campiña Mine - No. 1 Bed Class A Coal

A- Weight percentages in coarse coal and fine coal separately.

B - All weights combined to make 100 percent in Run-of-Mine sample.

Table 2 - SCREEN TEST OF SAMPLE OF RUN-OF-MINE COAL

Prueba: Zarandeo y Cenizas.

Zona: Norte Mina: Hermita Veta: grande Municipio: Cali

Grupo carbon: A Mina de: Pablo Lopez

Mina #

Muestras analizadas por: Dr. Nestor Dominguez

Fecha: Cali 10/12/50

Tamaño	Peso en gramos	Porcen- tajes A	Porcen- tajes B	Porcen- tajes B totales	Humedad %	Cenizas en carbon seco, %
Size	Weight in grams	Percent	Percent	Percent	Moisture	Ash in dry Coal %
1-1/2"	157.000	42.71	42.71	42.71	1.33%	10.64%
1-1/2" x 3/4"	83.500	22.71	22.71	65.42	1.83%	16.67%
3/4" x 3/8"	56.500	15.36	15.36	80.78	3.27%	23.94%
3/8" x 3/16"	46.250	12.64	12.64	93.42	3.98%	28.00%
3/16" x 0	24.250	6.58	-	-	4.49%	28.77%
Total	367.500	100.00				
3/16 - #15	1.820	49.72	3.27	96.69	2.14%	31.92%
#15 - #30	1.600	43.72	2.88	99.57	2.02%	32.92%
#30 - #100	140	3.83	0.25	99.82	2.03%	34.11%
#100	100	2.73	0.18	100.	2.28%	41.59%
Total	3,660	100.	100.			

From north region Hermita Mine - Grande Bed.
Class A Coal.

- A - Weight percentages in coarse coal and fine coal separately.
B - All weights combined to make 100 percent in Run-of-Mine sample.

Table 3 - PRUEBA: ZARANDEO Y CENIZAS

Zona: Centro Mina: Los Chorros Veta #7 - Municipio: Cali

Grupo: Carbon B Mina del P. de Pacifico

Mina #

Muestras analizadas por: Dr. Nestor Dominguez

Fecha: Cali 10/12/50

Tamaño	Peso en gramos	Porcen- tajes A	Porcen- tajes B	Porcen- tajes B, suma- dos	Humedad %	Cenizas en carbon seco
Size	Weight in grams	Percents A	Per- cents B	Percents Total	Moisture	Ash in dry coal
1-1/2"	36.250	9.14	9.14	9.14	1.62%	15.40%
1-1/2" x 3/4"	46.750	11.78	11.78	20.92	2.56%	12.93%
3/4" x 3/8"	79.250	19.98	19.98	40.90	2.35%	12.98%
3/8" x 3/16"	101.500	25.58	25.58	66.48	4.05%	13.52%
3/16" x 0	133.000	33.52	-	-	7.28%	16.12%
Total	396.750	100.00				
3/16 - #15	1,970	44.77	15.00	81.48	3.58%	14.76%
#15 - #30	1,800	40.91	13.72	95.00	3.86%	16.83%
#30-#100	370	8.41	2.82	88.02	5.02%	19.94%
#100	260	5.91	1.98	100.00	5.89%	25.52%
	4,400	100.00	100.00			

From Central region Los Chorros Mine - No. 7 bed
Class B coal.

Table 4 - PRUEBA: ZARANDEO Y CENIZAS

Zona: Sur Mina: Riverita Veta #3 Municipio: Jamundi

Grupo Carbon: C Mina del: Cemento del Valle

Mina #

Muestras analizadas por: Dr. Nestor Dominguez

Tamaño	Peso en gramos	Porcen- tajes A	Porcen- tajes B	Porcen- tajes B, total	Humedad %	Cenizas en carbon seco, %
Sizes inches & mesh	Weight in grams	Percent A	Percent B	Percent B total	Moisture %	Ash in dry coal, %
1-1/2"	8.000	2.92	2.92	2.92	1.40%	42.88%
1-1/2" x 3/4"	26,200	9.55	9.55	12.47	2.45%	31.79%
3/4" x 3/8"	48.800	17.80	17.80	30.27	2.77%	24.66%
3/8" x 3/16"	68.000	24.80	24.80	55.07	3.04%	21.94%
3/16" x 0	<u>123.200</u>	<u>44.93</u>				
Total	274.200	100.00				
3/16-#15	1,060	25.93	11.66	66.73	2.33%	20.52%
#15-#30	1.500	36.67	16.48	83.21	2.06%	21.44%
#30-#100	530	12.96	5.83	89.04	1.88%	23.64%
#100	<u>1,000</u>	<u>24.44</u>	<u>10.96</u>	100.00	1.93%	27.90%
Total	4,090	100.00	100.00			

From South region Riverita Mine - No. 3 bed.
Class C coal.

Table 5 - PRUEBA: ZARANDEO Y CENIZAS

Zona: Sur Mina: Puente Velez Veta: Grande
Municipio: Jamundi

Grupo Carbon: C Mina del: Carboneras Jamundi (Dawilla)

Muestras analizadas por: Dr. Nestor Dominguez

Fecha: Cali 12/15/50

Tamaño	Peso en gramos	Porcen- tajes A	Porcen- tajes B	Porcen- tajes B, toat	Humedad %	Cenizas en carbon seco, %
Size	Weight in grams	Percent A %	Percent B %	Percent B total, %	Moisture %	Ash in dry coal, %
1-1/2"	10.000	4.4	4.4	4.4	1.81%	16.93%
1-1/2" x 3/4"	21.000	9.2	9.2	13.6	1.36%	13.59%
3/4" x 3/8"	43.000	18.9	18.9	32.5	2.19%	12.75%
3/8" x 3/16"	68.000	30.1	30.1	62.6	3.09%	12.87%
3/16" x 0	<u>85.000</u>	<u>37.4</u>	-	-	5.06%	11.43%
Total	227.000	100.0				
3/16-#15	900	41.9	15.7	78.3	2.75%	12.55%
#15-#30	750	34.9	13.0	91.3	0.27%	12.26%
#30-#100	200	9.2	3.5	94.8	0.40%	15.42%
#100	<u>300</u>	<u>14.0</u>	<u>5.2</u>	100.0	0.20%	14.30%
Total	2,150	100.0	100.0			

Southern region - Puente Velez Mine

Class C Coal.

Table 6 - TENTATIVE ORGANIZATION PLAN OF
OPERATING PERSONNEL

Administrative & salaried Employees Designation	Rate per month Colombian pesos
1 General Superintendent	1000.00
1 Accountant	400.00
1 Secretary-payroll clerk	300.00
1 Yard foreman	250.00
1 Washery foreman	400.00
1 Analyst	300.00
1 Watchman	<u>150.00</u>
Total Salaries	2800.00
Plus 25% for social services	<u>700.00</u>
	3500.00
II. Plant operating labor - day shift 9 workmen at 6.00 per day	1620.00
Plus 25% for social services	<u>405.00</u>
Total day labor	2025.00
III. Plant operating labor - second shift 9 laborers at 6.00 per day	1620.00
At 25% extra for 4 hours	<u>202.50</u>
	1822.50
Plus 25% for social services	<u>445.00</u>
Total operating labor - second shift	2267.50