ANALYSIS OF BULK SAMPLE

FROM

QUINSAM COAL PROJECT

FOR

LUSCAR LIMITED

PT 1S
PT 1N
PT 2
PT 3

Submitted by

CYCLONE ENGINEERING SALES LTD.

Edmonton, Alberta

Dated: January 16, 1978

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00069

SUMMARY

Four Bulk Samples designated as Seam 1S, Seam 1N, Seam 2 and Seam 3 from the Quinsam Coal Project were analyzed by Cyclone Engineering Sales Ltd. during the period of November and December 1977.

The analytical procedures were specified by Luscar Limited. The flowchart of the analytical program is attached in this report and the analytical results are reported in the same format for all samples.

Table 1 contains information of the total weight, as received moisture and analysis of head samples.

Table 2 contains the size consist data of R.O.M.

Table 3 contains the float-sinking data of all size fractions and the analytical data of all the specific gravity fractions of all size fractions on a fractional basis.

Table 4 contains analytical data for 100 mesh x 0 size fraction.

Table 5 contains the size consist data before and after attrition test on 3 lots of R.O.M. coal using the ASTM tumbler (specification D-3402).

Table 6 contains the same data as in Table 3 reported on the cumulative basis.

The as-received moisture values for all the samples are calculated from the residual moisture of the head sample and air-drying loss from the separatly packed "moisture samples".

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SEAM 1S

SAMPLE: Seam 1S

Total Weight: 2.84 Tons

As-Received Moisture: 11.25%

TABLE 1. Analysis of Head Sample.

Proximate Analysis:

Ash %	16.54
R.M. %	3.07
V.M. %	34.37
F.C. %	46.02
Sulphur %	1.14
Calorific Value (BTU/lb.)	11,500
Hardgrove Grindability Index	41

SAMPLE: Seam 1S

TABLE 2. Size Consist of 4" x 0 R.O.M.

Size	Wt. %
4" x 2"	9.92
2" x 1"	15.21
1" x 1/2"	17.08
1/2" x 1/4"	17.96
1/4" x 8 m.	11.33
8 m. x 28 m.	18.27
28 m. x 100 m.	5.96
100 m. x 0	4.27
Total	100.00

SAMPLE: Seam 1S

TABLE 3. Float-Sink and Analysis of Size Fractions.

a) 4" x 2"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	20.76	2.76	4.44	13,630	0.76
1.30 - 1.40	34.53	2.34	8.48	12,780	0.91
1.40 - 1.50	10.56	2.28	20.09	10,600	0.78
1.50 - 1.60	10.27	2.15	32.17	8,820	0.51
1.60 - 1.70	5.29	1.97	40.96	7,460	0.72
1.70 - 1.80	4.05	1.67	52.28	6,130	1.23
+ 1.80	14.54	1.36	68.30	3,280	2.18
Total	100.00	2.21	23.49	10,390	1.01

SAMPLE: Seam 1S

TABLE 3. Float-Sink and Analysis of Size Fractions.

b) 2" x 1"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	27.20	2.63	4.27	13,650	0.79
1.30 - 1.40	36.28	2.75	9.01	12,530	1.00
1.40 - 1.50	11.14	2.54	20.09	10,760	0.82
1.50 - 1.60	7.86	2.02	30.99	8,940	0.78
1.60 - 1.70	5.85	1.96	41.88	7,430	0.47
1.70 - 1.80	3.28	1.86	49.76	6,020	0.74
+ 1.80	8.39	1.66	68.87	3,260	1.83
Total	100.00	2.47	18.96	11,060	0.94

SAMPLE: Seam 1S

TABLE 3. Float-Sink and Analysis of Size Fractions.

c) 1" x 1/2"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	31.59	2.67	4.07	13,480	0.75
1.30 - 1.40	37.38	2.69	8.43	12,940	1.16
1.40 - 1.50	10.16	2.54	19.30	10,870	0.97
1.50 - 1.60	6.06	2.27	29.87	9,320	0.96
1.60 - 1.70	3.96	1.94	39.47	7,780	0.76
1.70 - 1.80	2.69	1.70	47.93	6,480	1.54
+ 1.80	8.16	1.31	68.70	3,210	2.99
Total	100.00	2.47	16.67	11,510	1.14

SAMPLE: Seam 1S

TABLE 3. Float-Sink and Analysis of Size Fractions.

d) 1/2" x 1/4"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	33.71	2.80	3.91	13,600	0.75
1.30 - 1.40	37.89	2.70	8.54	12,930	0.96
1.40 - 1.50	9.98	2.57	20.10	10,870	1.10
1.50 - 1.60	5.33	2.13	30.31	9,190	1.15
1.60 - 1.70	3.10	1.89	39.72	7,980	1.86
1.70 - 1.80	2.02	1.76	46.91	6,610	2.06
+ 1.80	7.97	1.39	67.79	3,140	3.48
Total	100.00	2.54	15.76	11,690	1.16

SAMPLE: Seam 1S

TABLE 3. Float-Sink and Analysis of Size Fractions.

e) 1/4" x 8 m.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	44.80	2.61	4.02	13,650	0.73
1.30 - 1.40	29.39	2.73	8.44	12,880	1.03
1.40 - 1.50	8.37	2.32	19.60	10,880	1.31
1.50 - 1.60	4.59	2.03	30.30	9,250	1.73
1.60 - 1.70	3.25	1.87	38.05	7,870	1.81
1.70 - 1.80	1.94	1.86	46.15	6,660	2.09
+ 1.80	7.66	1.41	67.52	3,070	3.28
Total	100.00	2.46	14.62	11,850	1.17

SAMPLE: Seam 1S

TABLE 3. Float-Sink and Analysis of Size Fractions.

f) 8 m. x 28 m.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	62.04	1.76	3.34	13,720	0.72
1.30 - 1.40	15.82	1.74	10.21	12,640	0.96
1.40 - 1.50	7.53	1.74	22.50	10,280	1.40
1.50 - 1.60	2.79	1.69	31.52	8,680	1.46
1.60 - 1.70	2.31	1.60	38.71	7,770	1.82
1.70 - 1.80	2.24	1.64	46.15	6,350	1.90
+ 1.80	7.27	1.14	68.06	2,850	3.25
Total	100.00	1.70	13.14	12,060	1.07

SAMPLE: Seam 1S

TABLE 3. Float-Sink and Analysis of Size Fractions.

g) 28 m. x 100 m.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	52.65	2.05	2.37	13,860	0.64
1.30 - 1.40	20.88	1.99	7.37	13,070	0.81
1.40 - 1.50	5.46	2.03	17.58	11,280	1.30
1.50 - 1.60	3.33	2.01	27.01	9,710	1.33
1.60 - 1.70	2.74	1.97	35.33	8,370	1.54
1.70 - 1.80	2.19	1.94	43.46	7,010	1.56
+ 1.80	12.75	1.12	73.37	2,310	2.54
Total	100.00	1.91	15.92	11,640	1.02

SAMPLE: Seam 1S

TABLE 4. Analysis of 100 m. x 0 Size Fraction.

R.M. %	1.22
Ash %	28.72
Calorific Value (BTU/lb.)	9,720
S. %	1.59

TABLE 5. Size Consist Before and After Attrition Test.

a) Before Attrition Test

Size	Lot 1 Wt. %	Lot 2 Wt. %	Lot 3 Wt. %
+ 1"	27.26	28.28	17.96
1" x 1/4"	33.75	39.59	35.93
1/4" x 28 m.	26.17	22.84	32.24
28 m. x 0	12.82	9.29	13.87
Total	100.00	100.00	100.00

b) After Attrition Test

Size	Lot 1 Wt. %	Lot 2 Wt. %	Lot 3 Wt. %
+ 1"	2.70	2.40	0.89
1" x 1/4"	26.33	28.63	25.22
1/4" x 28 m.	39.71	39.38	43.28
28 m. x 0	31.26	29.59	30.61
Total	100.00	100.00	100.00

SAMPLE: Seam 1S

TABLE 6. Float-Sink and Analysis of Size Fractions. (Cumulative Basis).

a) 4" x 2"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	20.76	2.76	4.44	13,630	0.76
1.30 - 1.40	55.29	2.50	6.96	13,100	0.85
1.40 - 1.50	65.85	2.46	9.07	12,700	0.84
1.50 - 1.60	76.12	2.42	12.19	12,170	0.80
1.60 - 1.70	81.41	2.39	14.05	11,870	0.79
1.70 - 1.80	85.46	2.36	15.87	11,600	0.81
+ 1.80	100.00	2.21	23.49	10,390	1.01

SAMPLE: Seam 1S

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis).

b) 2" x 1"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	27.20	2.63	4.27	13,650	0.79
1.30 - 1.40	63.48	2.70	6.98	13,010	0.91
1.40 - 1.50	74.62	2.67	8.94	12,670	0.90
1.50 - 1.60	82.48	2.61	11.04	12,310	0.89
1.60 - 1.70	88.33	2.57	13.08	11,990	0.86
1.70 - 1.80	91.61	2.54	14.39	11,780	0.85
+ 1.80	100.00	2.47	18.96	11,060	0.94

SAMPLE: Seam 1S

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis).

c) 1" x 1/2"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S.%
- 1.30	31.59	2.67	4.07	13,480	0.75
1.30 - 1.40	68.97	2.68	6.43	13,190	0.97
1.40 - 1.50	79.13	2.66	8.09	12,890	0.97
1.50 - 1.60	85.19	2.63	9.63	12,640	0.97
1.60 - 1.70	89.15	2.60	10.96	12,420	0.96
1.70 - 1.80	91.84	2.58	12.04	12,250	0.98
+ 1.80	100.00	2.47	16.67	11,510	1.14

SAMPLE: Seam 1S

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis).

d) 1/2" x 1/4"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	33.71	2.80	3.91	13,600	0.75
1.30 - 1.40	71.60	2.75	6.36	13,250	0.86
1.40 - 1.50	81.58	2.73	8.04	12,960	0.89
1.50 - 1.60	86.91	2.69	9.41	12,730	0.91
1.60 - 1.70	90.01	2.66	10.45	12,560	0.94
1.70 - 1.80	92.03	2.64	11.25	12,430	0.96
+ 1.80	100.00	2.54	15.76	11,690	1.16

SAMPLE: Seam 1S

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis).

e) 1/4" x 8 m.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	44.80	2.61	4.02	13,650	0.73
1.30 - 1.40	74.19	2.66	5.77	13,340	0.85
1.40 - 1.50	82.56	2.62	7.17	13,100	0.90
1.50 - 1.60	87.15	2.59	8.39	12,890	0.94
1.60 - 1.70	90.40	2.57	9.46	12,710	0.97
1.70 - 1.80	92.34	2.55	10.23	12,580	1.00
+ 1.80	100.00	2.46	14.62	11,850	1.17

SAMPLE: Seam 1S

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis)

f) 8 M. x 28 M.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	62.04	1.76	3.34	13,720	0.72
1.30 - 1.40	77.86	1.76	4.74	13,500	0.77
1.40 - 1.50	85.39	1.75	6.30	13,220	0.82
1.50 - 1.60	88.18	1.75	7.10	13,070	0.84
1.60 - 1.70	90.49	1.75	7.91	12,940	0.87
1.70 - 1.80	92.73	1.75	8.83	12,780	0.89
+ 1.80	100.00	1.70	13.14	12,060	1.07

SAMPLE: Seam 1S

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis)

g) 28 M. x 100 M.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	52.65	2.05	2.37	13,860	0.64
1.30 - 1.40	73.53	2.03	3.79	13,640	0.69
1.40 - 1.50	78.99	2.03	4.74	13,470	0.73
1.50 - 1.60	82.32	2.03	5.64	13,320	0.75
1.60 - 1.70	85.06	2.03	6.60	13,160	0.78
1.70 - 1.80	87.25	2.03	7.53	13,010	0.80
+ 1.80	100.00	1.91	15.92	11,640	1.02

SEAM IN

SAMPLE: Seam 1N

Total Weight: 2.62 Tons

As-Received Moisture: 7.47 %

TABLE 1. Analysis on Head Sample.

Proximate Analysis:

Ash %	25.27
R.M. %	2.75
V.M. %	30.59
F.C. %	41.39
Sulphur %	1.52
Calorific Value (BTU/lb.)	9,770
Hardgrove Grindability Index	42

SAMPLE: Seam 1N

TABLE 2. Size Consist of 4" x 0 R.O.M.

Size	Wt. %
4" x 2"	10.31
2" x 1"	11.46
1" x 1/2"	13.25
1/2" x 1/4"	15.43
1/4" x 8 m.	11.46
8 m. x 28 m.	21.36
28 m. x 100 m.	9.40
100 m. x 0	7.33
Total	100.00

SAMPLE: Seam 1N

TABLE 3. Float-Sink and Analysis of Size Fractions.

a) 4" x 2"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	9.08	3.29	3.92	13,340	0.56
1.30 - 1.40	39.73	2.96	7.44	12,620	0.58
1.40 - 1.50	14.57	3.17	14.33	10,910	0.61
1.50 - 1.60	4.48	2.51	26.01	9,210	1.92
1.60 - 1.70	2.41	2.06	38.53	7,880	1.98
1.70 - 1.80	1.67	2.03	39.72	7,690	9.80
+ 1.80	28.06	1.74	71.49	2,400	11.28
Total	100.00	2.62	28.21	9,220	3.83

SAMPLE: 1N

TABLE 3. Float-Sink and Analysis of Size Fractions.

b) 2" x 1"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	17.14	3.31	3.68	13,490	0.51
1.30 - 1.40	47.21	3.27	6.87	12,560	0.54
1.40 - 1.50	9.20	2.85	14.51	11,160	0.56
1.50 - 1.60	4.10	2.94	21.55	9,800	0.99
1.60 - 1.70	2.10	2.15	36.04	7,860	1.19
1.70 - 1.80	0.78	2.11	38.75	7,730	5.11
+ 1.80	19.47	1.89	72.00	2,480	5.74
Total	100.00	2.92	21.17	10,380	1.62

SAMPLE: Seam 1N

TABLE 3. Float-Sink and Analysis of Size Fractions.

c) 1" x 1/2"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	24.45	2.95	3.71	13,510	0.47
1.30 - 1.40	40.23	3.16	6.63	13,020	0.65
1.40 - 1.50	8.78	2.34	15.67	11,210	0.80
1.50 - 1.60	3.82	2.15	23.22	9,390	0.81
1.60 - 1.70	2.53	1.94	35.21	7,880	1.12
1.70 - 1.80	1.45	1.88	43.57	6,410	2.56
+ 1.80	18.74	1.80	71.88	2,380	4.31
Total	100.00	2.69	20.83	10,620	1.35

SAMPLE: Seam 1N

TABLE 3. Float-Sink and Analysis of Size Fractions.

d) 1/2" x 1/4"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	34.50	2.88	3.76	13,490	0.35
1.30 - 1.40	32.44	2.81	6.67	12,920	0.56
1.40 - 1.50	6.49	2.23	15.89	11,160	0.80
1.50 - 1.60	3.04	1.96	24.68	9,450	1.35
1.60 - 1.70	1.98	2.02	32.66	8,110	1.71
1.70 - 1.80	1.76	1.93	42.12	7,050	1.73
+ 1.80	19.79	1.62	74.58	2,020	2.94
Total	100.00	2.50	21.39	10,540	1.04

SAMPLE: Seam 1N

TABLE 3. Float-Sink and Analysis of Size Fractions.

e) 1/4" x 8 M.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	30.75	2.92	3.13	13,290	0.50
1.30 - 1.40	32.40	2.47	6.08	13,010	0.54
1.40 - 1.50	5.03	2.00	16.70	11,390	1.03
1.50 - 1.60	2.21	1.80	24.06	9,870	1.48
1.60 - 1.70	2.06	1.76	32.99	8,270	1.60
1.70 - 1.80	2.02	1.83	42.36	6,810	1.28
+ 1.80	25.53	1.80	74.10	2,210	1.90
Total	100.00	2.37	24.76	9,970	0.96

SAMPLE: Seam 1N

TABLE 3. Float-Sink and Analysis of Size Fractions.

f) 8 M. x 28 M.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	55.31	2.23	3.28	13,610	0.44
1.30 - 1.40	10.94	1.82	9.75	12,540	0.83
1.40 - 1.50	3.62	1.76	21.32	10,570	1.30
1.50 - 1.60	1.07	1.78	28.16	9,410	1.61
1.60 - 1.70	1.29	1.67	37.58	7,630	1.59
1.70 - 1.80	1.36	1.88	44.11	6,230	2.00
+ 1.80	26.41	1.49	73.85	1,700	1.46
Total	100.00	1.96	24.54	10,010	0.83

SAMPLE: Seam 1N

TABLE 3. Float-Sink and Analysis of Size Fractions.

g) 28 M. x 100 M.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	36.35	2.96	2.47	13,640	0.42
1.30 - 1.40	18.12	2.30	5.67	13,160	0.78
1.40 - 1.50	4.20	2.17	14.30	11,800	1.12
1.50 - 1.60	1.43	2.00	22.98	10,390	1.62
1.60 - 1.70	3.15	1.97	29.16	9,180	1.42
1.70 - 1.80	1.45	1.77	42.21	7,050	1.73
+ 1.80	35.30	1.42	74.51	1,650	1.60
Total	100.00	2.20	30.69	8,900	1.00

SAMPLE: Seam 1N

TABLE 4. Analysis of 100 m. x 0 Size Fraction.

R.M. %	1.39
Ash %	46.41
Calorific Value (BTU/lb.)	6,260
S. %	1.14

TABLE 5. Size Consist Before and After Attrition Test.

a) Before Attrition Test

Size	Lot 1 Wt. %	Lot 2 Wt. %	Lot 3 Wt. %
+ 1"	23.13	18.77	18.84
1" x 1/4"	25.52	25.77	28.56
1/4" x 28 m.	34.91	36.45	36.48
28 m. x 0	16.44	19.01	16.12
Total	100.00	100.00	100.00

b) After Attrition Test

Size	Lot 1 Wt. %	Lot 2 Wt. %	Lot 3 Wt. %
+ 1 "	1.00	0.81	2.54
1" x 1/4"	17.89	17.04	16.68
1/4" x 28 m.	49.34	50.59	48.75
28 m. x 0	31.77	31.56	32.03
Total	100.00	100.00	100.00

SAMPLE: Seam 1N

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis).

a) 4" x 2"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	9.08	3.29	3.92	13,340	0.56
1.30 - 1.40	48.81	3.01	6.79	12,750	0.58
1.40 - 1.50	63.38	3.06	8.52	12,330	0.58
1.50 - 1.60	67.86	3.02	9.67	12,120	0.67
1.60 - 1.70	70.27	2.99	10.66	11,980	0.72
1.70 - 1.80	71.94	2.96	11.33	11,880	0.93
+ 1.80	100.00	2.62	28.21	9,220	3.83

SAMPLE: Seam 1N

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis).

b) 2" x 1"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	17.14	3.31	3.68	13,490	0.51
1.30 - 1.40	64.35	3.28	6.02	12,810	0.53
1.40 - 1.50	73.55	3.23	7.08	12,600	0.54
1.50 - 1.60	77.65	3.21	7.85	12,450	0.56
1.60 - 1.70	79.75	3.18	8.59	12,330	0.58
1.70 - 1.80	80.53	3.17	8.88	12,290	0.62
+ 1.80	100.00	2.92	21.17	10,380	1.62

SAMPLE: Seam 1N

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis).

c) 1" x 1/2"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	24.45	2.95	3.71	13,510	0.47
1.30 - 1.40	64.68	3.08	5.53	13,200	0.58
1.40 - 1.50	73.46	2.99	6.74	12,960	0.61
1.50 - 1.60	77.28	2.95	7.55	12,790	0.62
1.60 - 1.70	79.81	2.92	8.43	12,630	0.63
1.70 - 1.80	81.26	2.90	9.06	12,520	0.67
+ 1.80	100.00	2.69	20.83	10,620	1.35

SAMPLE: Seam 1N

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis).

d) 1/2" x 1/4"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	34.50	2.88	3.76	13,490	0.35
1.30 - 1.40	66.94	2.85	5.17	13,210	0.45
1.40 - 1.50	73.43	2.79	6.12	13,030	0.48
1.50 - 1.60	76.47	2.76	6.86	12,890	0.52
1.60 - 1.70	78.45	2.74	7.51	12,770	0.55
1.70 - 1.80	80.21	2.72	8.27	12,640	0.57
+ 1.80	100.00	2.50	21.39	10,540	1.04

SAMPLE: Seam 1N

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis).

e) 1/4" x 8 M.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	30.75	2.92	3.13	13,290	0.50
1.30 - 1.40	63.14	2.69	4.64	13,150	0.52
1.40 - 1.50	68.18	2.64	5.53	13,020	0.56
1.50 - 1.60	70.39	2.61	6.11	12,920	0.59
1.60 - 1.70	72.45	2.59	6.88	12,790	0.62
1.70 - 1.80	74.47	2.57	7.84	12,620	0.63
+ 1.80	100.00	2.37	24.76	9,970	0.96

SAMPLE: Seam 1N

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis).

f) 8 M. x 28M.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	55.31	2.23	3.28	13,610	0.44
1.30 - 1.40	66.25	2.16	4.35	13,430	0.50
1.40 - 1.50	69.87	2.14	5.23	13,280	0.55
1.50 - 1.60	70.94	2.13	5.57	13,230	0.56
1.60 - 1.70	72.23	2.12	6.15	13,130	0.58
1.70 - 1.80	73.59	2.12	6.85	13,000	0.61
+ 1.80	100.00	1.96	24.54	10,010	0.83

SAMPLE: Seam 1N

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis).

g) 28 M. x 100 M.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	36.35	2.96	2.47	13,640	0.42
1.30 - 1.40	54.47	2.74	3.53	13,480	0.54
1.40 - 1.50	58.67	2.70	4.31	13,360	0.58
1.50 - 1.60	60.10	2.68	4.75	13,290	0.61
1.60 - 1.70	63.25	2.65	5.97	13,080	0.65
1.70 - 1.80	64.70	2.63	6.78	12,950	0.67
+ 1.80	100.00	2.20	30.69	8,960	1.00

SEAM 2

SAMPLE: Seam 2

Total Weight: 2.71 Tons

As-Received Moisture: 7.66 %

TABLE 1. Analysis of Head Sample.

Proximate Analysis:

Ash %	12.38
R.M. %	3.09
V.M. %	34.88
F.C. %	49.65
Sulphur %	2.41
Calorific Value (BTU/lb.)	12,220
Hardgrove Grindability Index	42

SAMPLE: Seam 2

TABLE 2. Size Consist of 4" x 0 R.O.M.

Size	Wt. %
4" x 2"	14.65
2" x 1"	15.27
1" x 1/2"	15.75
1/2" x 1/4"	15.68
1/4" x 8 m.	11.77
8 m. x 28 m.	15.91
28 m. x 100 m.	6.12
100 m. x 0	4.85
Total	100.00

SAMPLE: Seam 2

TABLE 3. Float-Sink and Analysis of Size Fractions.

a) 4" x 2"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	7.68	2.79	4.26	13,710	1.43
1.30 - 1.40	77.03	2.93	8.97	12,840	1.78
1.40 - 1.50	8.67	2.71	16.05	11,770	3.94
1.50 - 1.60	2.23	2.63	21.97	10,990	6.12
1.60 - 1.70	0.84	2.21	35.25	8,710	7.92
1.70 - 1.80	0.88	1.82	47.83	7,400	8.84
+ 1.80	2.67	1.84	50.95	6,240	14.76
Total	100.00	2.85	11.20	12,510	2.50

SAMPLE: Seam 2

TABLE 3. Float-Sink and Analysis of Size Fractions.

b) 2" x 1"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	18.80	2.54	3.98	13,790	1.38
1.30 - 1.40	64.52	2.40	9.04	12,930	2.58
1.40 - 1.50	7.62	2.29	19.67	11,330	3.27
1.50 - 1.60	2.13	2.19	28.61	9,970	5.29
1.60 - 1.70	1.32	2.05	33.54	8,950	5.63
1.70 - 1.80	0.83	1.92	42.54	7,410	6.30
+ 1.80	4.78	1.71	49.65	6,300	17.51
Total	100.00	2.37	11.86	12,490	3.25

SAMPLE: Seam 2

TABLE 3. Float-Sink and Analysis of Size Fractions.

c) 1" x 1/2"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	24.63	2.70	3.37	13,830	1.20
1.30 - 1.40	57.45	2.68	7.73	13,100	1.83
1.40 - 1.50	7.74	2.18	17.64	11,470	3.03
1.50 - 1.60	1.81	1.84	25.67	10,220	4.50
1.60 - 1.70	1.16	1.87	36.88	8,610	4.64
1.70 - 1.80	0.93	1.64	45.81	7,560	6.14
+ 1.80	6.28	1.35	59.58	4,800	14.71
Total	100.00	2.53	11.70	12,480	2.70

SAMPLE: Seam 2

TABLE 3. Float-Sink and Analysis of Size Fractions.

d) 1/2" x 1/4"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	25.72	1.66	2.96	13,940	1.20
1.30 - 1.40	55.74	1.58	6.90	13,220	1.60
1.40 - 1.50	7.86	1.30	16.66	11,740	3.42
1.50 - 1.60	2.18	1.18	27.04	10,360	4.86
1.60 - 1.70	1.24	1.03	33.63	8,910	5.66
1.70 - 1.80	0.86	1.13	42.67	7,650	5.70
+ 1.80	6.40	0.79	65.28	3,920	12.17
Total	100.00	1.51	11.47	12,530	2.47

SAMPLE: Seam 2

TABLE 3. Float-Sink and Analysis of Size Fractions

e) 1/4" x 8 M.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	27.62	2.50	2.76	13,920	1.17
1.30 - 1.40	54.01	2.56	6.54	13,300	1.65
1.40 - 1.50	6.68	2.21	16.45	11,790	3.75
1.50 - 1.60	1.80	1.89	26.31	10,990	4.84
1.60 - 1.70	1.52	1.84	32.87	8,950	4.96
1.70 - 1.80	1.08	1.88	40.74	7,720	5.22
+ 1.80	7.29	1.58	65.73	3,520	7.64
Total	100.00	2.42	11.60	12,490	2.24

SAMPLE: Seam 2

TABLE 3. Float-Sink and Analysis of Size Fractions.

f) 8 M. x 28 M.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	66.55	1.92	3.52	13,850	1.30
1.30 - 1.40	16.29	1.47	9.73	12,800	4.03
1.40 - 1.50	4.32	1.52	19.71	11,150	4.31
1.50 - 1.60	1.41	1.51	27.97	9,860	4.34
1.60 - 1.70	1.61	1.56	35.92	8,490	4.58
1.70 - 1.80	1.05	1.41	43.51	7,120	4.67
+ 1.80	8.77	1.24	68.97	2,860	6.82
Total	100.00	1.75	12.26	12,390	2.49

SAMPLE: Seam 2

TABLE 3. Float-Sink and Analysis of Size Fractions.

g) 28 M. x 100 M.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	48.72	1.96	2.46	13,950	1.06
1.30 - 1.40	21.17	1.83	6.70	13,240	1.47
1.40 - 1.50	4.79	2.03	15.10	11,790	2.52
1.50 - 1.60	2.40	1.78	23.99	10,530	2.83
1.60 - 1.70	1.74	1.72	32.21	8,950	3.42
1.70 - 1.80	1.32	1.77	42.00	7,280	3.42
+ 1.80	19.86	1.13	72.22	1,720	4.22
Total	100.00	1.76	19.37	11,010	1.96

SAMPLE: Seam 2

TABLE 4. Analysis of 100 m. x 0 Size Fraction.

R.M. %	1.19
Ash %	39.06
Calorific Value (BTU/lb.)	7,650
S. %	2.62

TABLE 5. Size Consist Before and After Attrition Test.

a) Before Attrition Test

Size	Lot 1 Wt. %	Lot 2 Wt. %	Lot 3 Wt. %
+ 1"	42.64	27.58	19.63
1" x 1/4"	24.30	31.73	34.46
1/4" x 28 m.	22.47	28.38	31.64
28 m. x 0	10.59	12.31	14.27
Total	100.00	100.00	100.00

b) After Attrition Test

Size	Lot 1 Wt. %	Lot 2 Wt. %	Lot 3 Wt. %
+ 1"	3.64	5.63	2.21
1" x 1/4"	16.83	17.95	23.05
1/4" x 28 m.	45.69	46.01	44.22
28 m. x 0	33.84	30.41	30.52
Total	100.00	100.00	100.00

SAMPLE: Seam 2

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis).

a) 4" x 2"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	7.68	2.79	4.26	13,710	1.43
1.30 - 1.40	84.71	2.92	8.54	12,920	1.75
1.40 - 1.50	93.38	2.90	9.24	12,810	1.95
1.50 - 1.60	95.61	2.89	9.54	12,770	2.05
1.60 - 1.70	96.45	2.89	9.76	12,730	2.10
1.70 - 1.80	97.33	2.88	10.11	12,690	2.16
+ 1.80	100.00	2.85	11.20	12,510	2.50

SAMPLE: Seam 2

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis)

b) 2" x 1"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	18.80	2.54	3.98	13,790	1.38
1.30 - 1.40	83.32	2.43	7.90	13,120	2.31
1.40 - 1.50	90.94	2.42	8.88	12,970	2.39
1.50 - 1.60	93.07	2.41	9.34	12,900	2.46
1.60 - 1.70	94.39	2.41	9.67	12,850	2.50
1.70 - 1.80	95.22	2.41	9.96	12,800	2.53
+ 1.80	100.00	2.37	11.86	12,490	3.25

SAMPLE: Seam 2

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis)

c) 1" x 1/2"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	24.63	2.70	3.37	13,830	1.20
1.30 - 1.40	82.08	2.69	6.42	13,320	1.64
1.40 - 1.50	89.82	2.64	7.39	13,160	1.76
1.50 - 1.60	91.63	2.63	7.75	13,100	1.81
1.60 - 1.70	92.79	2.62	8.11	13,050	1.85
1.70 - 1.80	93.72	2.61	8.49	12,990	1.89
+ 1.80	100.00	2.53	11.70	12,480	2.70

SAMPLE: Seam 2

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis)

d) 1/2" x 1/4"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	25.72	1.66	2.96	13,940	1.20
1.30 - 1.40	81.46	1.61	5.66	13,450	1.47
1.40 - 1.50	89.32	1.58	6.62	13,300	1.64
1.50 - 1.60	91.50	1.57	7.11	13,230	1.72
1.60 - 1.70	92.74	1.56	7.47	13,170	1.77
1.70 - 1.80	93.60	1.56	7.79	13,120	1.81
+ 1.80	100.00	1.51	11.47	12,530	2.47

SAMPLE: Seam 2

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis)

e) 1/4" x 8 M.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	27.62	2.50	2.76	13,920	1.17
1.30 - 1.40	81.63	2.54	5.26	13,510	1.49
1.40 - 1.50	88.31	2.51	6.11	13,380	1.66
1.50 - 1.60	90.11	2.50	6.51	13,330	1.72
1.60 - 1.70	91.63	2.49	6.95	13,260	1.78
1.70 - 1.80	92.71	2.48	7.34	13,190	1.82
+ 1.80	100.00	2.42	11.60	12,490	2.24

SAMPLE: Seam 2

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis)

f) 8 M. x 28 M.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	66.55	1.92	3.52	13,850	1.30
1.30 - 1.40	82.84	1.83	4.74	13,640	1.84
1.40 - 1.50	87.16	1.82	5.48	13,520	1.96
1.50 - 1.60	88.57	1.81	5.84	13,460	2.00
1.60 - 1.70	90.18	1.81	6.38	13,370	2.04
1.70 - 1.80	91.23	1.80	6.81	13,300	2.07
+ 1.80	100.00	1.75	12.26	12,390	2.49

SAMPLE: Seam 2

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis)

g) 28 M. x 100 M.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	48.72	1.96	2.46	13,950	1.06
1.30 - 1.40	69.89	1.92	3.74	13,730	1.18
1.40 - 1.50	74.68	1.93	4.47	13,610	1.27
1.50 - 1.60	77.08	1.93	5.08	13,510	1.32
1.60 - 1.70	78.82	1.92	5.68	13,410	1.36
1.70 - 1.80	80.14	1.92	6.28	13,310	1.40
+ 1.80	19.86	1.76	19.37	11,010	1.96

SEAM 3

SAMPLE: Seam 3

Total Weight: 2.29 Tons

As-Received Moisture: 9.00 %

TABLE 1. Analysis of Head Sample.

Proximate Analysis:		
	Ash %	25.93
	R.M. %	2.86
	V.M. %	30.18
	F.C. %	41.03
Sulphur %		1.84
Calorific Value (BTU lb.)		10,090
Hardgrove Grindability Index		44

SAMPLE: Seam 3

TABLE 2. Size Consist of 4" x 0 R.O.M.

Size	Wt. %
4" x 2"	26.73
2" x 1"	22.27
1" x 1/2"	10.67
1/2" x 1/4"	12.38
1/4" x 8 m.	8.62
8 m. x 28 m.	11.88
28 m. x 100 m.	4.83
100 m. x 0	2.62
Total	100.00

SAMPLE: Seam 3

TABLE 3. Float-Sink and Analysis of Size Fractions.

a) 4" x 2"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	4.51	3.86	4.11	13,560	0.78
1.30 - 1.40	29.59	3.57	9.35	12,700	1.50
1.40 - 1.50	15.86	2.99	18.78	11,330	4.31
1.50 - 1.60	5.36	2.86	33.47	9,060	2.73
1.60 - 1.70	4.08	2.43	45.19	7,930	4.31
1.70 - 1.80	4.44	2.18	52.44	6,000	0.80
+ 1.80	36.16	0.98	80.95	1,540	0.50
Total	100.00	2.41	41.17	7,790	1.70

SAMPLE: Seam 3

TABLE 3. Float-Sink and Analysis of Size Fractions.

b) 2" x 1"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	4.75	3.80	3.57	13,510	0.69
1.30 - 1.40	50.56	3.65	8.31	12,930	1.22
1.40 - 1.50	14.66	3.38	18.17	11,410	2.70
1.50 - 1.60	5.68	2.88	31.07	9,690	4.54
1.60 - 1.70	2.31	2.32	38.89	8,040	7.04
1.70 - 1.80	1.97	2.23	52.33	6,710	6.79
+ 1.80	20.07	1.28	79.33	1,900	1.06
Total	100.00	3.04	26.65	10,100	1.81

SAMPLE: Seam 3

TABLE 3. Float-Sink and Analysis of Size Fractions.

c) 1" x 1/2"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	12.42	3.62	3.66	13,590	0.57
1.30 - 1.40	47.35	3.60	7.41	13,020	1.25
1.40 - 1.50	13.60	3.11	16.80	11,380	3.31
1.50 - 1.60	4.08	2.62	26.46	10,030	4.87
1.60 - 1.70	2.35	2.27	34.57	8,680	5.57
1.70 - 1.80	1.57	2.02	45.01	7,060	3.88
+ 1.80	18.63	1.13	79.60	1,780	1.12
Total	100.00	2.98	23.68	10,460	1.71

SAMPLE: Seam 3

TABLE 3. Float-Sink and Analysis of Size Fractions.

d) 1/2" x 1/4"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	16.37	3.63	3.39	13,560	0.64
1.30 - 1.40	48.02	3.41	7.13	12,920	1.33
1.40 - 1.50	9.89	2.91	16.24	11,320	3.03
1.50 - 1.60	3.71	2.46	26.52	10,070	4.08
1.60 - 1.70	2.27	2.01	35.15	8,500	5.03
1.70 - 1.80	1.64	1.78	41.88	7,490	4.77
+ 1.80	18.10	0.90	78.67	2,100	2.49
Total	100.00	2.85	22.29	10,610	1.84

SAMPLE: Seam 3

TABLE 3. Float-Sink and Analysis of Size Fractions.

e) 1/4" x 8 m.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	16.45	3.24	3.12	13,630	0.59
1.30 - 1.40	52.83	3.29	6.13	13,070	1.00
1.40 - 1.50	7.81	2.62	16.95	11,450	3.13
1.50 - 1.60	3.06	2.50	25.60	10,030	4.29
1.60 - 1.70	1.98	2.28	33.41	8,800	5.25
1.70 - 1.80	1.46	1.95	41.19	7,450	5.41
+ 1.80	16.39	1.29	74.96	2,540	3.66
Total	100.00	2.84	19.41	11,050	1.78

SAMPLE Seam 3

TABLE 3. Float-Sink and Analysis of Size Fractions.

f) 8 m. x 28 m.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	59.46	1.82	3.54	13,810	0.71
1.30 - 1.40	17.42	1.55	10.17	12,690	1.69
1.40 - 1.50	4.67	1.74	20.45	10,990	2.75
1.50 - 1.60	1.33	1.70	28.81	9,670	4.25
1.60 - 1.70	1.51	1.59	36.75	8,170	4.69
1.70 - 1.80	1.04	1.64	43.76	7,400	4.12
+ 1.80	14.57	0.86	74.94	2,220	5.29
Total	100.00	1.62	17.14	11,590	1.79

SAMPLE: Seam 3

TABLE 3. Float-Sink and Analysis of Size Fractions

g) 28 m. x 100 m.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S.%
- 1.30	46.30	1.87	2.72	13,720	0.64
1.30 - 1.40	14.00	1.73	7.82	12,990	1.09
1.40 - 1.50	3.69	1.64	15.22	11,880	1.95
1.50 - 1.60	1.75	1.67	22.04	10,790	2.29
1.60 - 1.70	1.52	1.61	30.92	9,330	2.69
1.70 - 1.80	0.96	1.63	41.88	7,270	3.40
+ 1.80	31.78	0.52	82.04	1,120	3.19
Total	100.00	1.40	30.24	9,370	1.65

SAMPLE: Seam 3

TABLE 4. Analysis of 100 m. x 0 Size Fraction.

R.M. %	0.75
Ash %	42.32
Calorific Value (BTU/lb)	7,490
S. %	2.25

TABLE 5. Size Consist Before and After Attrition Test.

a) Before Attrition Test

Size	Lot 1 Wt. %	Lot 2 Wt. %	Lot 3 Wt. %
+ 1"	45.81	44.79	47.51
1" x 1/4"	24.59	25.34	27.29
1/4" x 28 m.	20.47	19.61	17.40
28 m. x 0	9.13	10.26	7.80
Total	100.00	100.00	100.00

b) After Attrition Test

Size	Lot 1 Wt. %	Lot 2 Wt. %	Lot 3 Wt. %
+ 1"	14.52	10.70	11.64
1" x 1/4"	4.54	14.56	12.91
1/4" x 28 m.	45.56	41.24	42.49
28 m. x 0	35.38	33.50	32.96
Total	100.00	100.00	100.00

SAMPLE: Seam 3

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis)

a) 4" x 2"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	4.51	3.86	4.11	13,560	0.78
1.30 - 1.40	34.10	3.61	8.66	12,810	1.40
1.40 - 1.50	49.96	3.41	11.87	12,340	2.32
1.50 - 1.60	55.32	3.36	13.96	12,020	2.37
1.60 - 1.70	59.40	3.29	16.11	11,730	2.50
1.70 - 1.80	63.84	3.22	18.64	11,330	2.38
+ 1.80	100.00	2.41	41.17	7.790	1.70

SAMPLE: Seam 3

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis).

b) 2" x 1"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	4.75	3.80	3.57	13,510	0.69
1.30 - 1.40	55.31	3.66	7.90	12,980	1.17
1.40 - 1.50	69.97	3.60	10.05	12,650	1.49
1.50 - 1.60	75.65	3.55	11.63	12,430	1.72
1.60 - 1.70	77.96	3.51	12.44	12,300	1.88
1.70 - 1.80	79.93	3.48	13.42	12,160	2.00
+ 1.80	100.00	3.04	26.65	10,100	1.81

SAMPLE: Seam 3

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis).

c) 1" x 1/2"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	12.42	3.62	3.66	13,590	0.57
1.30 - 1.40	59.77	3.60	6.63	13,140	1.11
1.40 - 1.50	73.37	3.51	8.52	12,810	1.52
1.50 - 1.60	77.45	3.47	9.46	12,670	1.69
1.60 - 1.70	79.80	3.43	10.20	12,550	1.81
1.70 - 1.80	81.37	3.40	10.87	12,440	1.85
+ 1.80	100.00	2.98	23.68	10,460	1.71

SAMPLE: Seam 3

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis).

d) 1/2" x 1/4"

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	16.37	3.63	3.39	13,560	0.64
1.30 - 1.40	64.39	3.47	6.18	13,080	1.15
1.40 - 1.50	74.28	3.39	7.52	12,850	1.40
1.50 - 1.60	77.99	3.35	8.42	12,720	1.53
1.60 - 1.70	80.26	3.31	9.18	12,600	1.63
1.70 - 1.80	81.80	3.28	9.83	12,490	1.69
+ 1.80	100.00	2.85	22.29	10,610	1.84

SAMPLE: Seam 3

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis).

f) 8 m. x 28 m.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	59.46	1.82	3.54	13,810	0.71
1.30 - 1.40	76.88	1.76	5.04	13,560	0.93
1.40 - 1.50	81.55	1.76	5.92	13,410	1.04
1.50 - 1.60	82.88	1.76	6.29	13,350	1.09
1.60 - 1.70	84.39	1.75	6.83	13,260	1.15
1.70 - 1.80	85.43	1.75	7.28	13,190	1.19
+ 1.80	100.00	1.62	17.14	11,590	1.79

SAMPLE: Seam 3

TABLE 6. Float-Sink and Analysis of Size Fractions (Cumulative Basis).

g) 28 m. x 100 m.

Sp. Gr.	Wt. %	R.M. %	Ash %	BTU/lb.	S. %
- 1.30	46.30	1.87	2.72	13,720	0.64
1.30 - 1.40	60.30	1.84	3.90	13,550	0.74
1.40 - 1.50	63.99	1.83	4.56	13,450	0.81
1.50 - 1.60	65.74	1.82	5.02	13,380	0.85
1.60 - 1.70	67.26	1.82	5.61	13,290	0.89
1.70 - 1.80	68.22	1.81	6.12	13,210	0.93
+ 1.80	100.00	1.40	30.24	9,370	1.65

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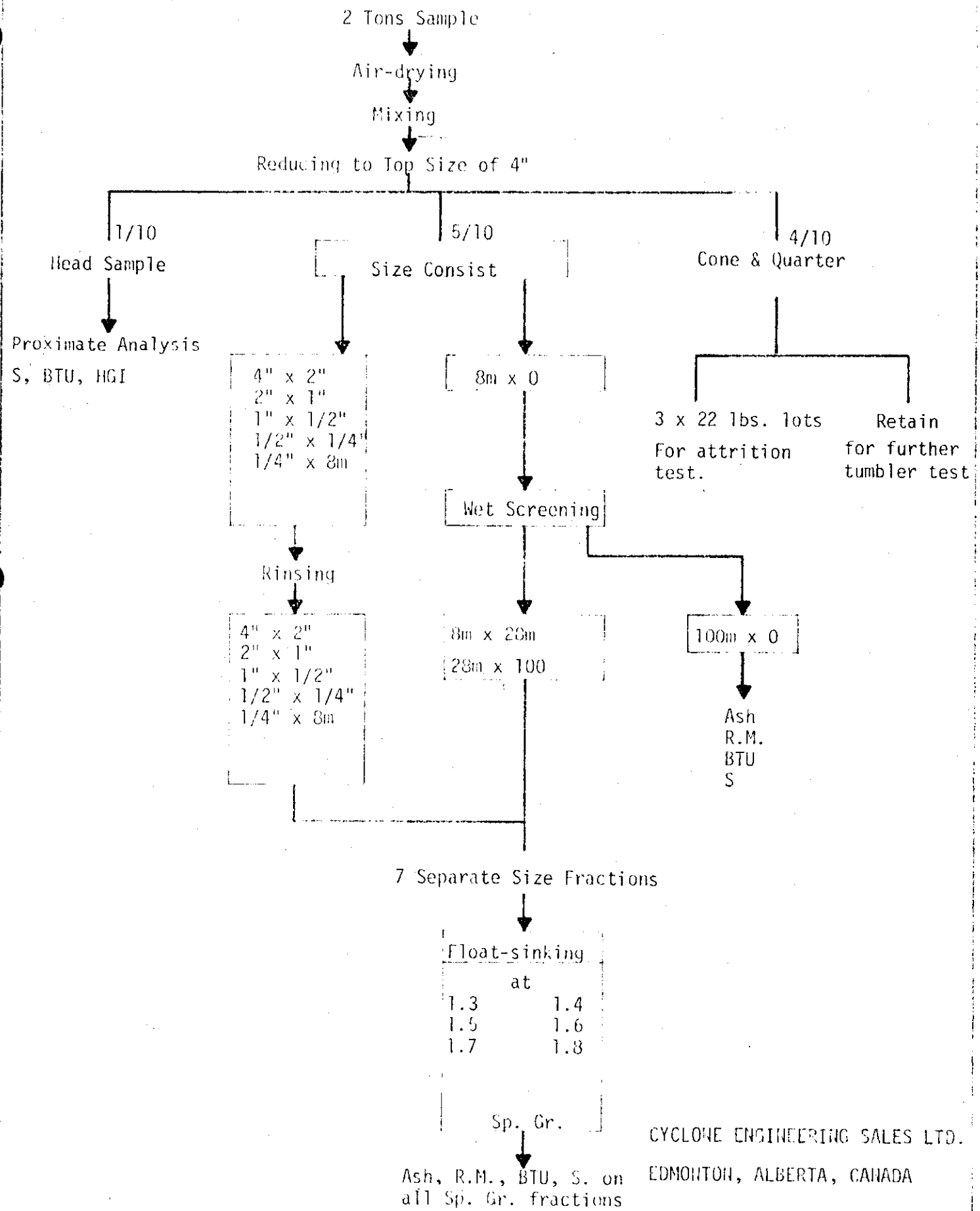

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