

V-18

Vangorda

A Synopsis of Testwork Performed on Vangorda Ore

003446

| REF | FEED | | LEAD CON. | | ZINC CON. | | TAILING | | GRIND | CLEAN STAGES Pb Zn | COMMENTS |
|-----|------|------|-----------|------|-----------|------|---------|------|-----------------------|-----------------------|---|
| | % Pb | % Zn | GRADE | REC. | GRADE | REC. | % Pb | % Zn | | | |
| 1 | 4.01 | 4.91 | 49.9 | 77.0 | 49.4 | 60.4 | 0.15 | 0.66 | "<200" | 3 3 | Pb also attempted in flot. No benefit. |
| 2 | 4.59 | 4.71 | 56.6 | 83.8 | 54.4 | 79.7 | 0.63 | 0.54 | 64 $\frac{1}{2}$ -325 | 3 3 | "Z grade 54% at 80% rec could be expected" |
| 3 | 4.10 | 5.17 | 51.7 | 89.7 | 55.4 | 78.1 | 0.38 | 0.65 | 82 $\frac{1}{2}$ -325 | 2 2 | "Widering for Z in flot in Pb - otherwise ok" |
| 3A | 3.2 | 5.2 | 46.1 | 77.6 | 53.0 | 49.5 | - | - | - | - | Noranda 1954 |
| 3B | 4.0 | 4.9 | 49.8 | 77.0 | 49.4 | 60.4 | - | - | - | - | Mitsui 1969 |
| 3C | 3.9 | 5.1 | 56.5 | 72.5 | 50.8 | 51.5 | - | - | - | - | Gallagher 1968 |
| 4 | 4.37 | 5.00 | 22.7 | 85.2 | 24.2 | 60.0 | 0.52 | 0.44 | 82 $\frac{1}{2}$ -325 | | Pre-oxidized Z in Pb con. due to oxidation |
| 5A | 5.8 | 6.1 | 29.1 | 85.4 | 11.0 | 60.1 | 0.54 | 1.22 | 80 $\frac{1}{2}$ -325 | right | "shallow ore" some oxidation |
| 5B | 3.4 | 3.7 | 22.3 | 75.6 | 12.5 | 69.2 | 0.38 | 0.70 | 80 $\frac{1}{2}$ -325 | right | "deep ore" VI 12.70 11.4 respect. |
| 6A | 1.6 | 2.7 | 37.4 | 77.9 | 49.2 | 77.4 | 0.34 | 0.36 | 55 $\frac{1}{2}$ -325 | 2 2 | "low grade" |
| 6B | 3.6 | 4.1 | 53.6 | 77.9 | 51.8 | 77.3 | 0.64 | 0.63 | 63 $\frac{1}{2}$ -325 | 2 2 | "average grade" all lots quintuple |
| 6C | 3.7 | 6.8 | 48.7 | 81.4 | 54.4 | 80.4 | 0.51 | 0.74 | 77 $\frac{1}{2}$ -325 | 2 2 | "medium grade" locked |
| 6D | 6.2 | 10.5 | 25.0 | 93.2 | 48.6 | 64.6 | 0.34 | 0.72 | 75 $\frac{1}{2}$ -325 | 2 2 | "high grade" locked |
| 7 | 3.1 | 4.4 | 61.7 | 78.3 | 55.3 | 86.6 | 0.19 | 0.14 | 80 $\frac{1}{2}$ -325 | | exp. in core "sulfide minerals free, locked" |
| 8A | 3.0 | 5.1 | 65.9 | 66.0 | 50.7 | 63.3 | 0.35 | 1.19 | P ₈₀ 37m | 4 3 | } GRUM |
| 8B | 3.3 | 5.2 | 64.3 | 71.5 | 49.7 | 76.0 | 0.40 | 0.62 | P ₈₀ 37m | 4 4 | |

- References:
1. Dowry Mining Company Report March 25th 1969
 2. Gallagher Company July 17th 1969 Series 2 test
 3. Brunswick Mining & Smelting 1969?
 - 3A, B, C. Brunswick Mining & Smelting - attachment "Refractory Ores - Metallurgical Comparison"
 4. Noranda report "Vangorda & Brunswick M&S ore samples" December 9-13th 1969
 5. Noranda report "Preliminary Flotation Testwork on Vangorda D/D core" April 2nd 1970
 6. Noranda report "Preliminary locked lots on low medium & high grade ores" February 26th 1975
 7. Dowry Mining Company Report of the Metallurgical Test of the Vangorda Ore May 1975
 8. Dowry Mining Company Flotation Test of the GRUM ore October 1976
- Included for general conclusions & interesting "product" size distributions is fine grind.