FAX to John @ Chemainus

To: D. Watkins, D. J. T. Carson

From: K. G. Stowe

Re: Baseline Testing of Lara High and Low Grade Composites

Date: 18 April, 1989

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J. Y. Kim and S. Lajoie have just completed their initial test program on the two Lara composite samples obtained from Lakefield Research. Their detailed report is essentially complete and should be issued next week. In this brief memo, I will highlight the important findings.

In several aspects, the treatment of Lara ore is similar to that of Samatosum, namely:

- the valuable minerals are relatively coarse grained and do not require a fine primary grind or regrind
- losses of all metals in the tailings should be very low
- sphalerite and pyrite are highly activated and effective depression of these minerals in the copper-lead circuit will be a significant metallurgical concern
- the sphalerite has a low iron content giving the potential for high grade zinc concentrates

Some very good results have been achieved on the high grade ore composite (1.3% Cu, 1.7% Pb, 9.9% Zn, 170 g/t Ag, 3.5 g/t Au). High Cu, Pb, Ag and Au recoveries (90+, 80+, 70+ and 70+ respectively) have been obtained to a Cu-Pb cleaner concentrate of a grade close to that which could be sent to copper-lead separation (33% combined Cu+Pb). Excellent zinc concentrates have also been achieved with little difficulty.

Results on the second much lower grade composite have been considerably inferior mainly with regard to the grade of the cleaner concentrates. Metal recoveries have however remained very good and the results could probably be improved with refinement of the reagent balance.

For both composites a combination of SO2 and ZnSO4 was found to be effective in depressing zinc. More testing is required in this important area.

In general, the findings to date have been very promising. The scope of the original baseline testing program has now been completed. We will not conduct any more tests until informed that you plan to proceed to the next stage of development.