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MArine 8734

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XXXXXXXXXXXXX Room 206 - 413 Granville St.

May 26, 1952.

Mr. A. M. Ham, Manager,
Western Exploration Co. Ltd.
Silverton, B. C.

Dear Art:-

Herewith please find a copy of my letter of December 2nd, 1949 Re; Hydraulic Elevator, Mammoth, and a print of the drawing which accompanied it.

The following notes are from Peele's Handbook -- The elevator nozzle water will lift from 0.5 to 1 times its own volume of outside water.

The maximum height of lift for economical operation is about 17% of the effective head at the elevator nozzle. (At the Mammoth the height of lift will be about 9½% of the head.)

This afternoon I called at the Reliance Foundry Co. Ltd. for an estimate on the hydraulic elevator but both Mr. Englebein and his estimator were out so I left a print of t the drawing, and they are supposed to phone me. I also called at the Vancouver Engineering Works who said they were too busy to make an estimate for several weeks, and recommended the Progressive Engineering Works, who promised an estimate tomorrow or the day after.

I will wire you as soon as I get these two estimates.

Please note my new address and phone at the head of this letter; please continue to send mail to P. O. Box 514.

Yours sincerely,

C.C. Starr
[from KDH 2906].

000118

COPY

December 2, 1949.

Mr. A. M. Ham, Manager,
Western Exploration Co. Ltd.
Silverton, B. C.

Re: Hydraulic Elevator
-Mammoth*

Dear Art:-

Thanks. The stope maps that I asked for recently have arrived; Herewith is a print of my drawing of the hydraulic elevator to be used as a sump pump at the Mammoth. I hope you will approve of it.

It was designed as intermediate to the AMSCO elevator and the one shown on page 10-572 Of Peele's Handbook by assuming the nozzle diameter at 3/8" on the cuts, and making other dimensions proportionate. I found no figures to apply directly to the discharge ofaa nozzle as small as 3/8" and had to more or less guess at the value of the constant "C" in the formula Q = CA H (see Peele), but the error should not be very great. By my figures a 300 foor head on a 3/8" nozzle should pass about 5 cu. ft. of water per minute and should take with it from 3 to 5 cu.ft. per minute of sump water, which I presume would be sufficient to keep the sump free of what water will necessarily come down the shaft. If, during the spring, there is more water and there will be more feed water also, and I would suggest that you have two 3/8" nozzles made, one of which can be bored out to ½ inch if needed later.

Note that in the drawing I have omitted the material in "All other parts to be made of....." Cast iron should be strong enough, I think, and should be as hard as can conveniently be machined, as I suppose there will be a considerable amount of grit in the water. I dont know the proper grade of iron.

If you approve the design in general I would suggest that Ralph check the drawing over in detail, tho I am pretty sure it is OK. Ralph's figure of o.164 cu. ft. per second in #7 tunnel is about 6¼ cu ft per minute.

Yours sincerely,

C.C. Starr
(fr. KDH 2006)