005683

To: MR N. Cornish and MR D. Gregoire June 13, 1984

From: John Maissan

subject: Tailings Deposition Proposal

With a view to minimizing cost and maximizing the ease of operation, I would like to put foreward ~~a~~ for discussio a tailings deposition proposal. After considerable thought, I felt that this would be a very desirable method from point of view of simplicity, cost, and manpower. Furthermore in my judgement this proposal will meet the intent of the water licence as regards tailings deposition. The relevant sections of the water licence are these:

PART B 3 (a): "From the effective date of this licence and for a period ~~of~~ to be determined by the controller, the licencee shall place only fines from the mill tailings in the tailings pond behind the Intermediate dam and shall distribute those fines as evenly as practicable over the floor of the pond to the satisfaction of the controller."

(b) "During the period referred to in Part B, Section 3 (a) of this licence, coarse tailings shall be deposited in the tailing pond in use prior to the effective date of this licence."

(c) "Commencing at a date to be determined by the Controller, the licencee shall place all mill tailings in an unclassified ~~manner~~ distribution in the tailings pond behind the Intermediate dam in the valley of Rose creek."

My proposal is as follows. End dump tailings into the Rose creek diversion spillway gulch (see Map 1, attached) at a convenient

point which will not affect the spillway if ever required. This would result in some unclassified tailings settling at the base of this gulch, but then finer material would radiate (flow) slowly from this point to eventually cover the entire tailings area. The finest material would be along the north side where the beds of coarser sand and gravel occur. A causway could easily be constructed across the old tailings pond to carry the line. We would not require any new tailings line.

Should tailings "back up" into the spillway in an undesirable manner, or the gulch just fill up too much we could then build another short causway and ~~dump~~ end dump from the centre of the old tailings dam (See map 2 attached). This would continue the flow of finer material throughout most of the tailings area while the coarser material would settle on a bed of fines developed from "stage one" described above.

I think that this proposal would also result in maximum deposition in the tailings area before we are required to raise the intermediate dam.

I look foreward to discussing this proposal with you when I return from holidays.

John Maissan

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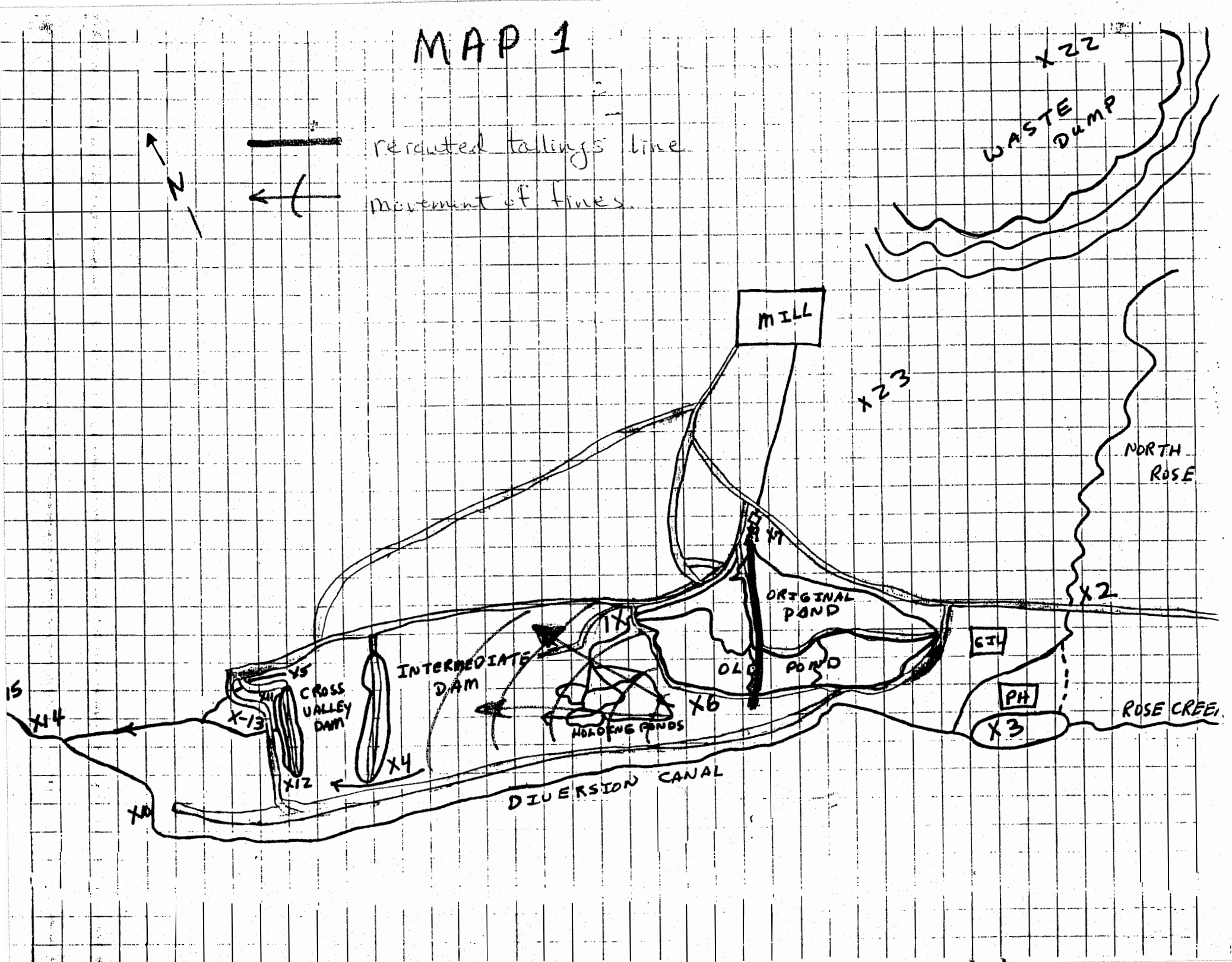
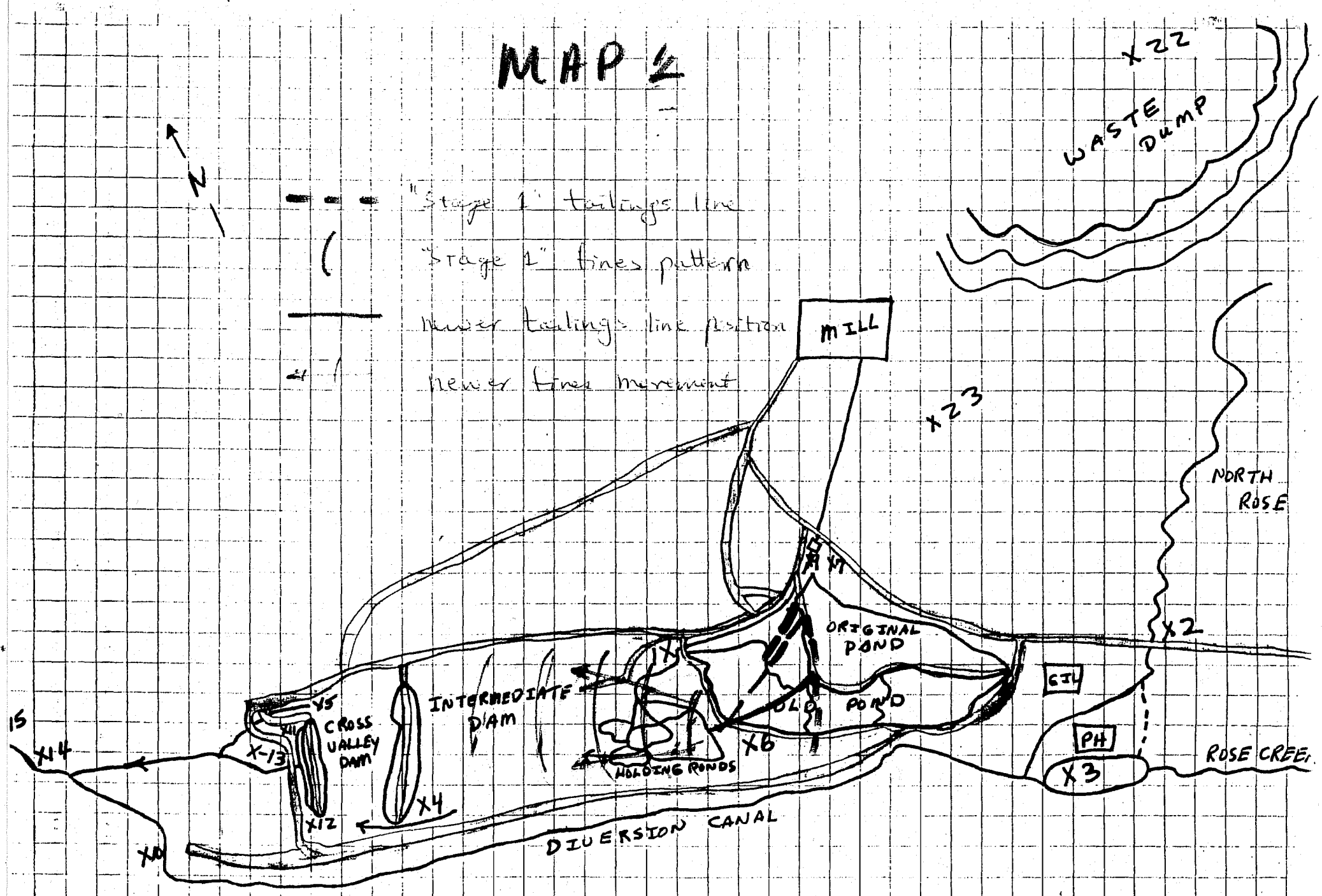
MAP 1


N
rerouted tailings line
movement of fines
X22
WASTE DUMP
MILL
X23
NORTH ROSE
X1
ORIGINAL POND
X2
CIL
OLD POND
PH
X3
ROSE CREEK
INTERMEDIATE DAM
X5
CROSS VALLEY DAM
X11
X-13
X14
X12
X4
X6
HOLDING PONDS
DIVERSION CANAL
X10

MAP 2


N
"Stage 1" tailings line
"Stage 1" fines pattern
Newer tailings line position
Newer fines movement
MILL
WASTE DUMP
X22
X23
NORTH ROSE
X2
X1
ORIGINAL POND
OLD POND
GIL
PH
X3
ROSE CREEK
INTERMEDIATE DAM
HOLDING PONDS
X6
CROSS VALLEY DAM
V5
X-13
X12
X4
X14
15
X10
DIVERSION CANAL