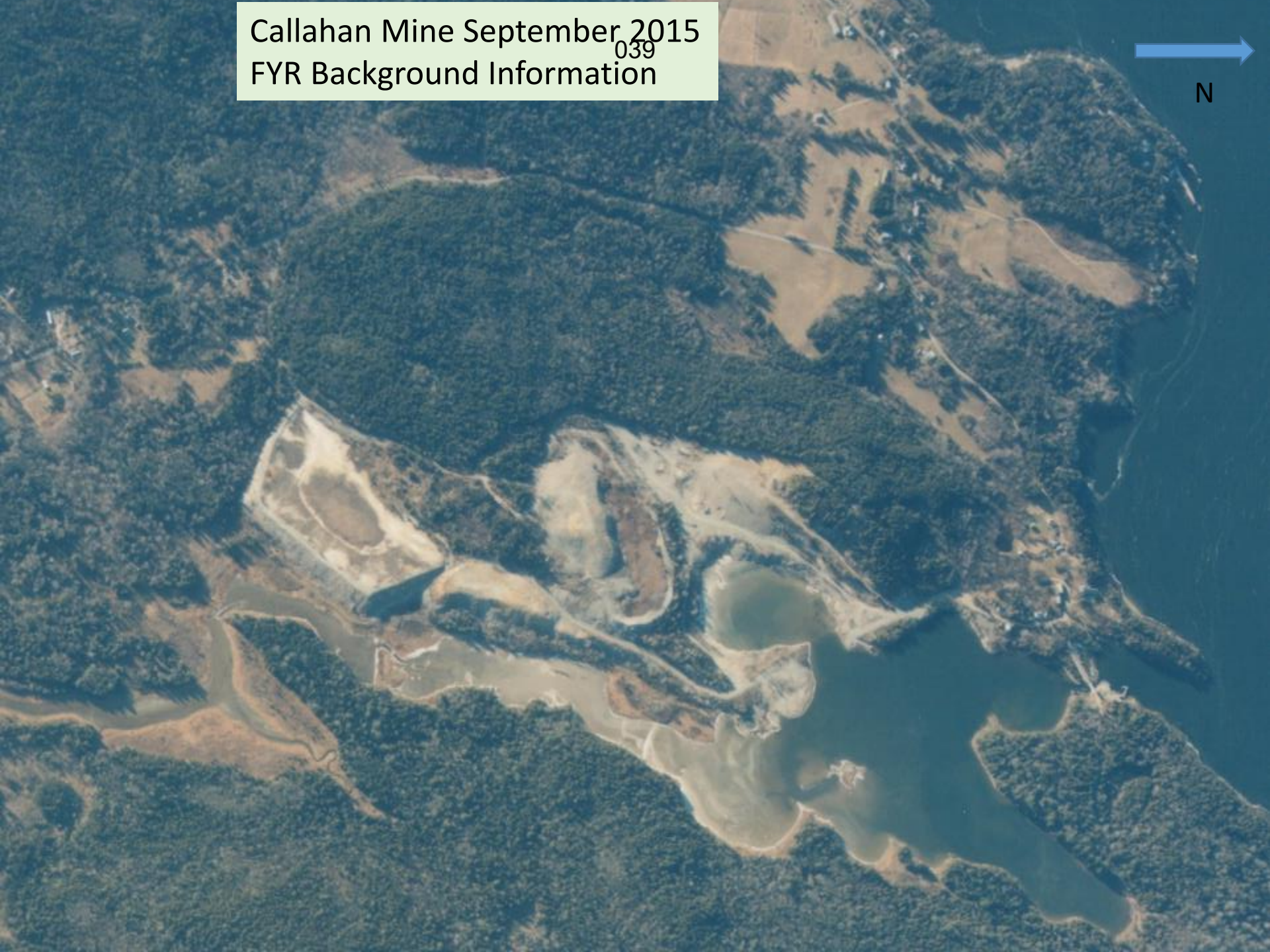
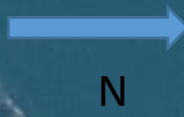
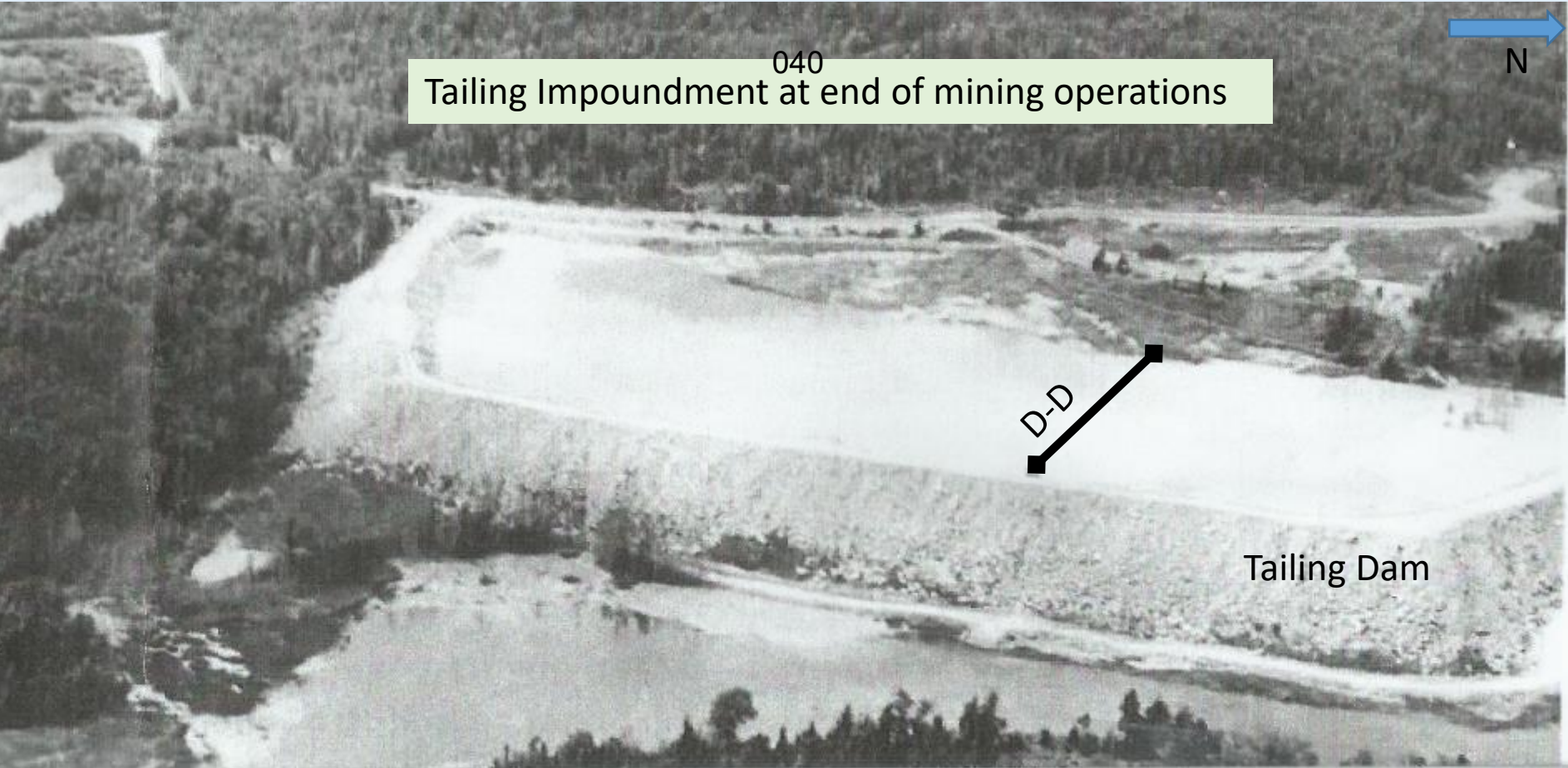


Callahan Mine September 2015
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FYR Background Information

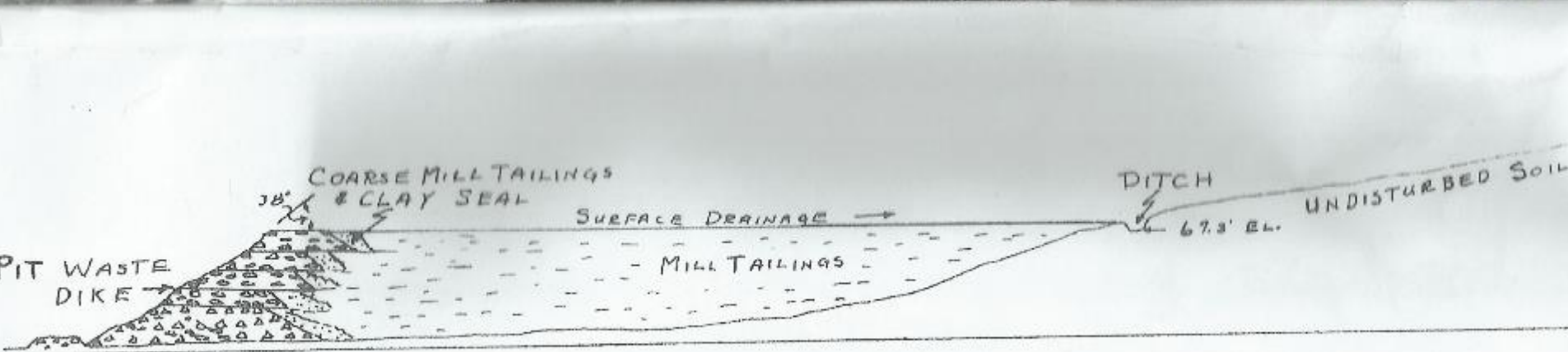


040

Tailing Impoundment at end of mining operations

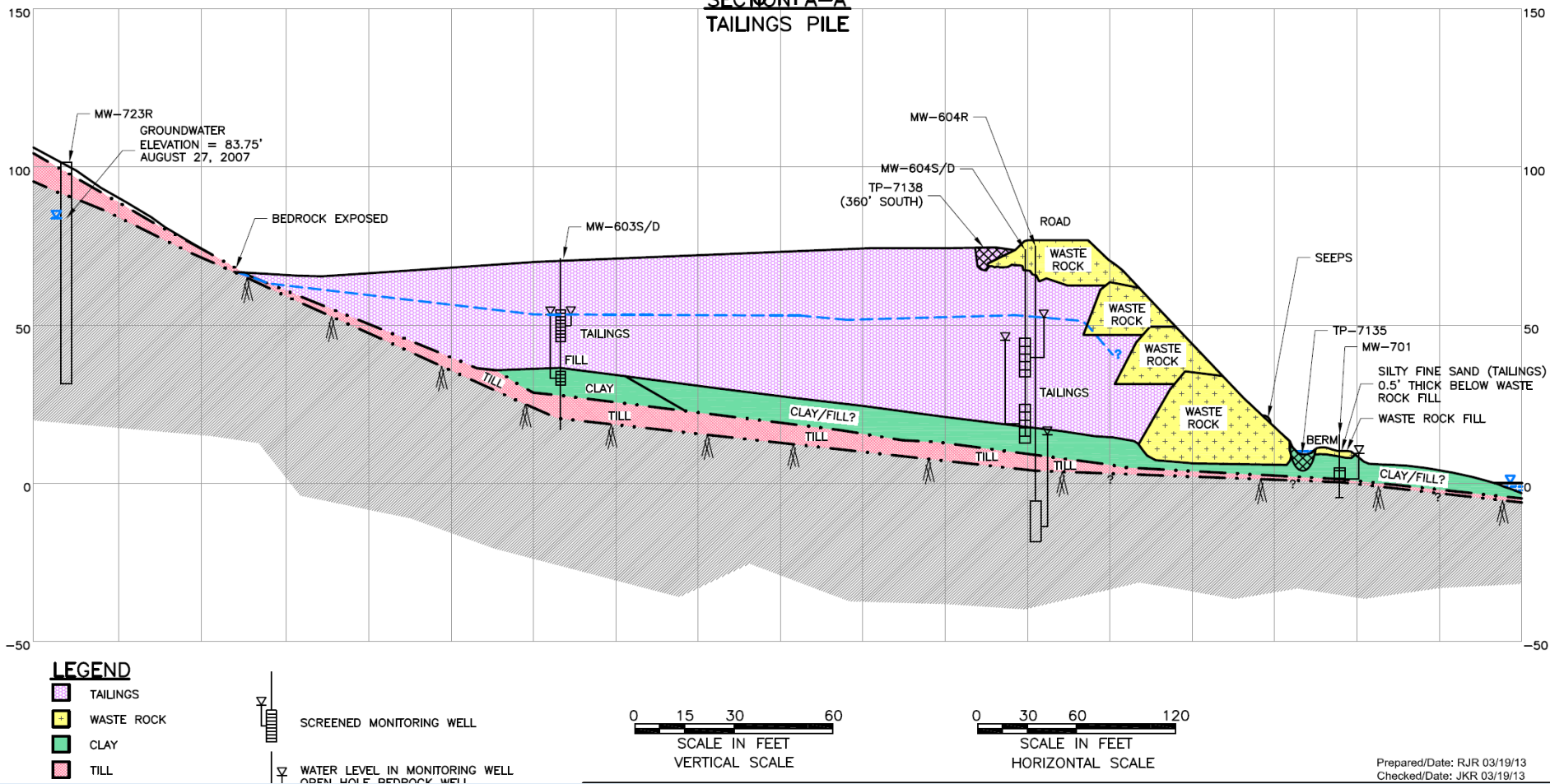


Tailing Dam



SECTION D-D'

SECTION A-A' TAILINGS PILE



Prepared/Date: RJR 03/19/13
Checked/Date: JKR 03/19/13

- This tailings impoundment is unique. The design includes a rock wall with clay backing to create a bathtub effect.
- The intent was to keep water in the impoundment to allow for re-use of the water.
- The native soil at the base is clay and does not transmit water well.
- The water creates instability in the tailings material and the dam.
 - Static stability Factor of Safety is 1.04 – 1.2 based on existing current conditions, generally accepted Factor of Safety is 1.5
 - Factor of Safety is below 1.0 for a scenario where an earthquake triggers liquefaction.



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044



045



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