AtkinsRéalis	AGNICO EAGLE	**TECHNICAL NOTE** Design Report: Saline Pond 1		
		Document No.: Agnico Eagle no.: 6212-695-132-REP-003 ATRL Ref.: 704148-6000-41ER-0001	**Rev.** R1	**Date:** December 16, 2025

Title of document: **Design Report: Saline Pond 1**

Client: Agnico Eagle Mines Limited

Project: **Hope Bay Block 4 and 5 (6212-E-132-004 & 6212-E-132-005)**

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List of Revisions

#	Prep.	Rev.	App.	Date	Pages	Remarks
RA	ALN, HB	RL	RL	Oct. 31, ‘25		Issued for internal review
RB	ALN, HB	RL	RL	Nov. 3, ‘25		Issued for client comment
R0	ALN, HB	RL	RL	Nov. 18, ‘25		Issued for design
R1	ALN, HB	RL	RL	Dec. 16, ‘25	All	Issued for design

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1. Introduction

The **Hope Bay property** is in the Kitikmeot region of Nunavut, Canada, approximately 685 km northeast of Yellowknife and 125 km southwest of Cambridge Bay. The property spans 191,342 hectares and includes portions of the Hope Bay and Elu greenstone belts. The 80-km-long Hope Bay greenstone belt hosts three main gold deposits: Doris, Madrid, and Boston.

Agnico Eagle Mines Limited (Agnico Eagle) acquired the Hope Bay property in February 2021. The project has significant infrastructure, including underground mine development at the Doris and Boston deposits, a processing plant, airstrips, a port, and an all-weather road network.

The site development involves new civil constructions such as pad ore storage, diversion berms, roads and others. Contact water from freshet, rain and underground mining dewatering is handled by storing water in sumps, ponds and pits which are then pumped to a treatment plant for re-use and discharge to the environment.

Part of the project involves the development of the Saline Pond 1 to manage the saline contact water transferred from the Doris, Madrid and Patch 7 underground mining operations.

2. Design Concept

Figure 2-1 presents an overview of the Saline Pond 1. It is a pond used to collect saline water transferred from the following areas:

- From Saline Pond 2 (located at Quarry D), which is used to store saline water transferred from:
  - Naartok underground mine at Madrid
  - Patch 7 underground mine
- From the Doris underground mine

Water stored in this pond is then pumped to the Saline Effluent Treatment Plant (SETP) for treatment prior to discharge to the receiving environment.

The drawings for Saline Pond 1 can be found in **Appendix A** of this report.

The main design features of Saline Pond 1 are the following:

- The pond will be excavated within bedrock.
- An access ramp will be built to allow access to the bottom of the pond.
- If required, diversion berm to divert non-contact water away from the pond.

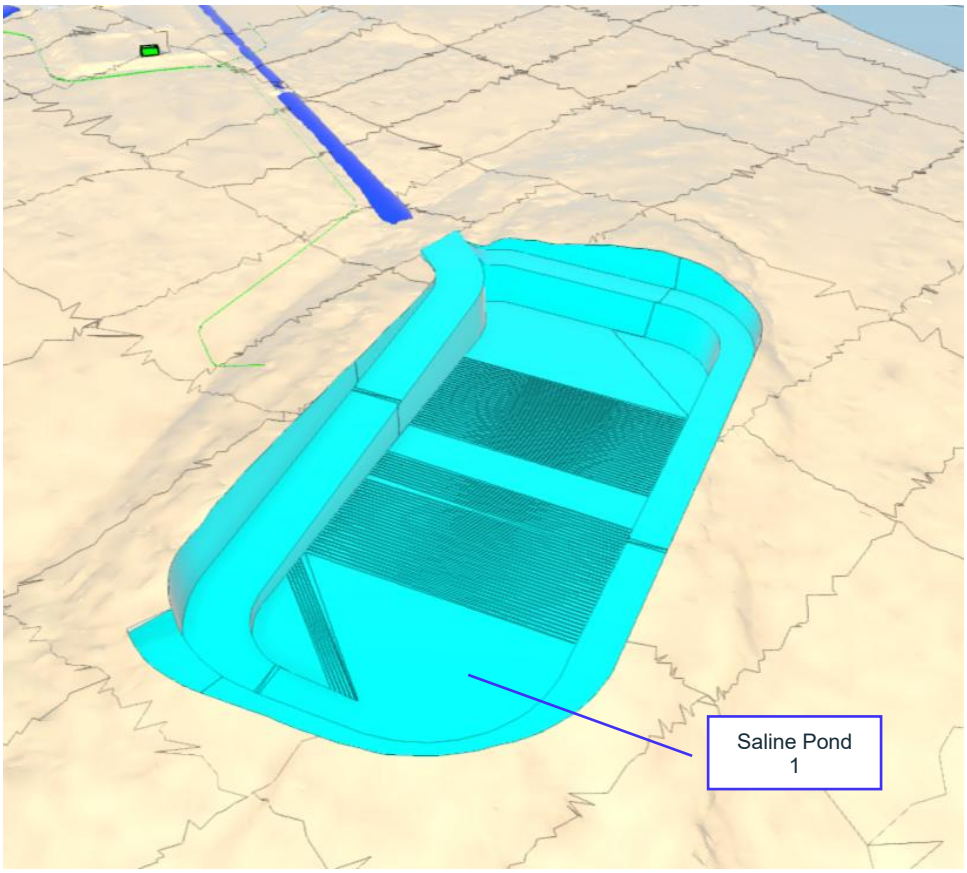

Figure 2-1: Saline Pond 1

3. System Design

3.1 Design Criteria

The following design criteria are based on the general design criteria developed for this project (AtkinsRéalis 2025).

The design criteria for Saline Pond 1 are as follows:

- Pond capacity to contain contact water from a 100-year, 24 hr rain event (57.2 mm) and an average year (2.33 yr) 30-day snowmelt (190.0 mm)
- Runoff coefficient: 1
- Catchment area draining to pond (pond surface area): 15,000 m^2

- Additional volume to store:
  - Contingency volume for a 10-day shutdown of SETP at 130 m^3/h: 31,200 m^3
  - Contingency volume for high inflow over 30 days: 41,400 m^3
- Time to drain pond down: 30 days
- Live volume required: approx. 83,000 m^3
- Freeboard: minimum 1.0 m
- Dead storage: 0.5 m
- The Saline Pond 1 is designed for temporary storage of water and is not designed as a permanent holding pond.

3.2 Design

The following section provides an overview of the design of Saline Pond 1. Further details can be found in the drawings in **Appendix A**.

3.2.1 Pond Excavation

Quary 3 Saline Pond will be blasted and excavated in bedrock using benches up to 10 m deep with 10V:1H slope side wall to ensure its stability. The Quary 3 Saline Pond sizes are approximately as:

- Saline Pond 1: Length: 145 m x Width from 70 m x Depth from 17 to 21 m.

3.2.2 Diversion Berms

If required, the diversion berms will consist of an earthwork structure with a HDPE geomembrane liner anchored into the overburden.

3.2.3 Thermistors

To monitor thermal regime within and below the containment boundary of the Saline Pond 1, a thermistor string will be installed, at a strategic and critical location of the pond perimeter. The size of thermistor string will be defined during the detailed engineering phase of the facility.

3.3 Survey Data

The design of these water management infrastructures is based on topographic contour maps produced from aerial LiDAR survey taking in September 2024 supplied by Agnico Eagle.

3.4 Foundation Conditions

The project site is in a continuous permafrost that has been estimated to extend to depths more than 500 m, with an active layer of about 1 m to 2 m.

Based on the review of satellite imagery and survey topography data of the area, the Quary 3 Saline Pond is located on predominantly on rock outcrop, with a limited footprint extending over tundra area. The general slope trend is in all directions from this raised outcrop, with predominance towards east and west, and the predominant ground elevation in the Quary 3 Saline Pond area is about 50-70 m.

The project geotechnical database comprises of a series of geotechnical drilling campaigns, many mine exploration drill holes, and numerous geological and geotechnical studies commissioned during various phases of this project. The project geomorphology is described as typical coastal lowland with numerous lakes and ponds separated by glacial landforms. These geological features run parallel to the geological intrusions of diabase dykes and sills. The shape of the drainage basins is generally long and narrow and is predominantly orientated along the north-south axis. Lakes are usually present along the bottom of those elongated valleys.

Surface conditions are either rock outcrop or tundra or surface runoff and water features and lakes. Patterned ground, usually consisting of surface drainage rills, mask the underlying soils. Small, frost-heaved clay-silt polygons are very common. The bedrock is mainly comprised of mafic metavolcanic (mainly meta-basalts) and meta-sedimentary rocks that are bound by Archean granite intrusives and gneisses.

The overburden soils are mostly of marine origin and include clay, silt and some sand. The overburden soils are typically ice rich and thaw sensitive.

The Saline Pond 1 layout may be slightly adjusted as field fit to ensure the pond water containment is located within the bedrock excavation. Further detailed geotechnical investigation specific to the Saline Pond 1 area is on-going.

4. Construction Methodology

4.1 Construction Materials

The most common material available at the site is the Run of Quarry (ROQ). The low permeable till is almost absent at the site; therefore, HDPE geomembrane is used as liner for pond and the surface runoff diversion berms. The Liner system typically is a liner sandwiched between geotextile and crushed rock bedding material.

All geosynthetics materials and liner construction shall be in accordance with the requirements developed by the Geosynthetic Research Institute (GRI).

Natural sand or sand and gravel borrows are also not available at the site, therefore, crushed rock is used as transition, bedding and surfacing materials.

To protect the liner from crushed stone damages non-woven geotextile, install on one or both sides of the liner is used, depending on the use of bedding layer.

All materials used for earthworks are natural and from local excavations, free from acid generation/metal leaching potential (i.e. non-PAG). Materials selection, placement, compaction and quality control requirements are as per project's earthworks specifications.

A summary description of the earthworks materials (per SRK 2022) is presented in the following Table 4-1.

Table 4-1 : List of Earthworks Materials

Type	Description
ROQ	Run-of-Quarry Material, (Ø 0-600 mm); minimum thickness 900 mm; compacted to method specification (specified roller passes)
Transition Material	Crushed stone (Ø 0-200 mm); minimum thickness 300 mm; compacted to method specification (specified roller passes)
Bedding Material	Crushed stone (Ø 0-25 mm); minimum thickness 100 mm; compacted to 95% Standard Proctor Maximum Dry Density (S.P.M.D)
Surfacing Material	Crushed stone (Ø 0-38 mm); minimum thickness 100 mm; compacted to method specification (specified roller passes)
Geotextile	Needle punched Non-woven Geotextile Fabric
Geomembrane	High Density Polyethylene liner, 1.5 mm thickness (60 mil)

4.2 Quality Control

The project's earthworks construction Quality Control and Assurance Program (QA/QC) testing standard procedures listed in Table 4-2 shall be followed.

Table 4-2 : List of Tests for Earthworks

Test Standard	Details
ASTM D2487	Classification of Soils for Engineering Purposes
ASTM D2216	Water (Moisture) Content in Soil and Rock
ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM D854	Specific Gravity of Soils
ASTM D698	Laboratory Compaction Characteristics of Soil Using Standard Effort
ASTM D2922	ASTM D2922 Density of Soil in Place by Nuclear Methods

4.3 Construction Equipment

The following construction equipment will be used in the construction of Quary 3 Saline Pond:

- CAT 374 Excavator
- John Deere 470 Excavator or similar sized equipment
- CAT 745 Rock Trucks or similar sized equipment
- CAT D8 Dozer
- CAT 14H Grader
- Sandvik D800 Drill.

4.4 Construction Schedule and Sequence

The Saline Pond 1 excavations are predominantly in the rock; hence the timing is of less concern from constructability considerations. This is unlike tundra excavation which might require excavation in winter for workability and stability concerns. The planned construction sequence is as follows:

1. A temporary access road has previously been constructed to access the Quarry 3 area where Saline Pond 1 will be built. This road will be improved and constructed to the IFC drawings with ROQ and 38mm crush for road surfacing
2. Overburden material within the pond footprint will be ripped, stripped and hauled away from the area to the designated overburden stockpile.
3. Sandvik drills and explosives will be used to pioneer blast the area down to a flat grade. Drilling and blasting will continue following the blast engineering master plan and sequencing to develop the pond and internal ramp.

4. As material is blasted to produce ROQ, excavators will load out the material and it will be hauled away to other project locations for placement.
5. Excavators and dozers will support the drill and blast program to scale the walls and manage the produced ROQ.
6. The safety berm will be constructed during the initial development of the pond.

5. Operational and Closure Considerations

The principal operational considerations for the Saline Pond 1 shall include as a minimum the following:

- Monitoring of operational water levels.
- Monitoring of temperature profile within the foundation influence depth at Saline Pond 1 at a critical and strategic location during operation to ensure design assumptions are met to verify the stability and functioning of the pond.

Closure activities for Saline Pond 1 will be carried out in accordance with the Interim Closure and Reclamation Plan.

6. References

AtkinsRéalis 2025 — General Design Criteria for Water Management MPEI Infrastructure, 6212-695-132-DGC-001, revision RC, 2025-09-22.

SRK 2022 — Technical Specifications Earthworks and Geotechnical Engineering Hope Bay Project, Nunavut Canada Revision I – Issue for Construction. Prepared for Agnico Eagle Mines Limited.

APPENDIX A. DRAWINGS

Drawing List

Drawing No.	Revision	Title
62-695-230-001	RE	230 – General Earth Works Saline Pond 1 General Location Plan View
62-695-230-002	RE	230 – General Earth Works Saline Pond 1 Profiles

NO. DESSIN
DRAWING NO. 62-695-230-001_RE

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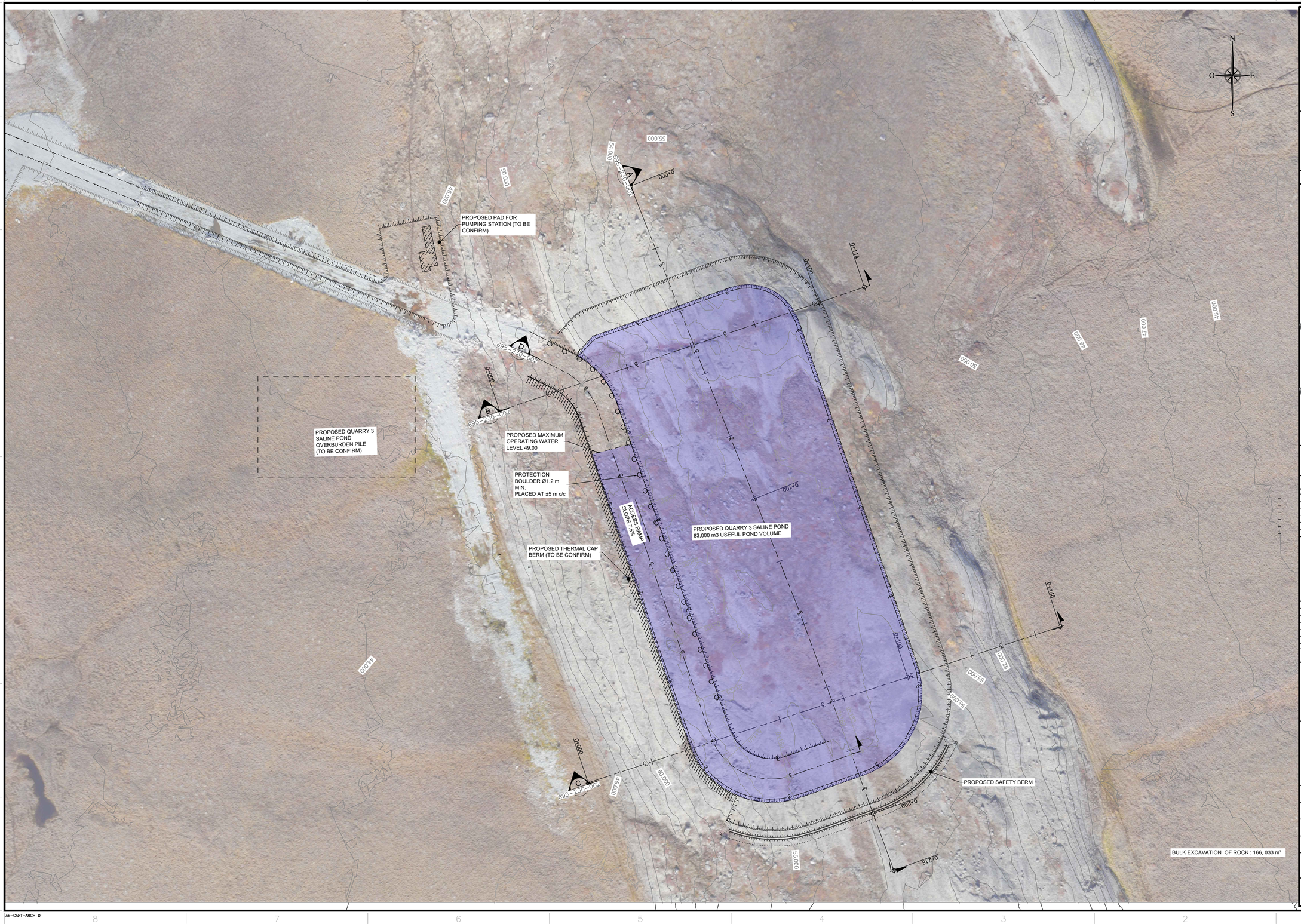

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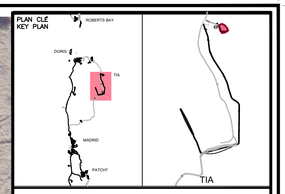

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NOTES GENÉRALES / GENERAL NOTES

1. CONTOURS, ELEVATIONS, COORDINATES AND DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE.
2. COORDINATE SYSTEM IS UTM NAD83 ZONE 13.

EXISTING TOP OF SLOPE
EXISTING BOTTOM OF SLOPE
PROPOSED TOP OF SLOPE
PROPOSED BOTTOM OF SLOPE

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RB	2025-09-16	FOR COMMENTS	R.M.	R.L.	M.G.
RA	2025-09-16	INTERNAL REVIEW	R.M.	R.L.	M.G.

REVISIONS

TITRE / TITLE
AGNICO EAGLE – HOPE BAY DIVISION
695 – WATER MANAG.
230 – GENERAL EARTH WORKS
QUARRY 3 SALINE POND
TIA LAYOUT
GENERAL LOCATION PLAN VIEW

DESSINÉ PAR / DRAWN BY	BP BISHAL PAUDEL, E.I.T.	DATE 2025-10-31
REVU PAR / REVIEWED BY	ALN ANH-LONG NGUYEN, P.Eng.	2025-10-31
VÉRIFIÉ PAR / VERIFIED BY	RL RENÉ LAVIOLETTE, P.Eng.	2025-10-31
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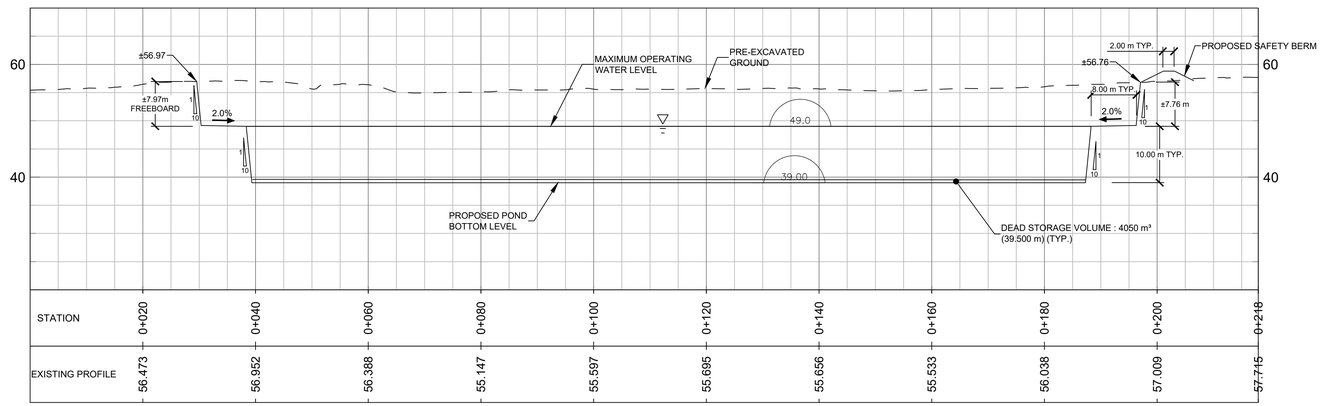

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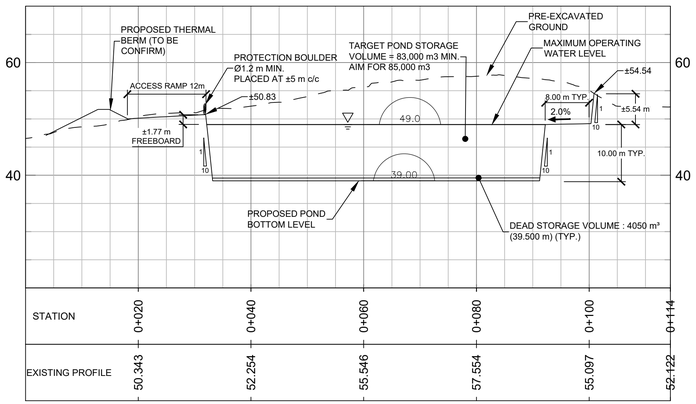

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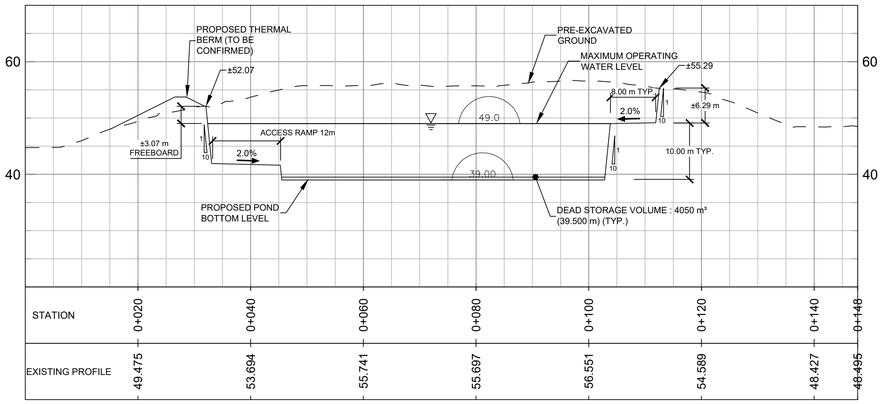

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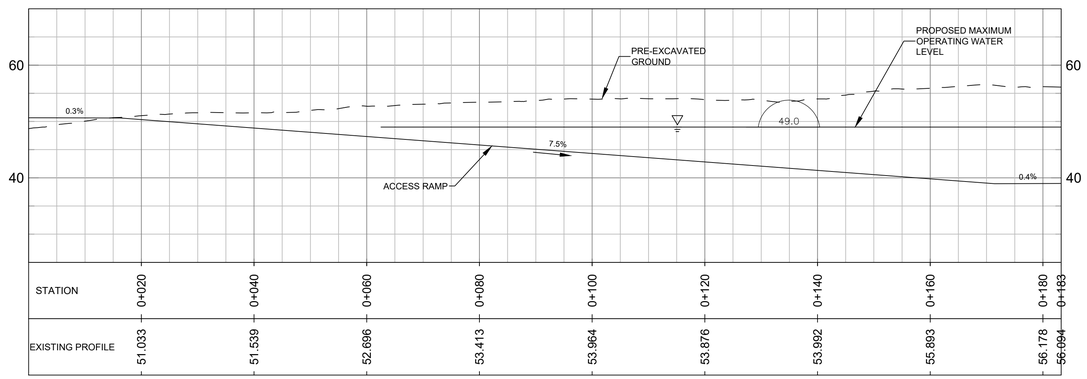

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