AGNICO EAGLE

DESIGN REPORT FOR JETTY A8

MELIADINE SITE, RANKIN INLET, NUNAVUT

May 7th, 2025

Revision: R0

Doc. Nº: 6542-695-132-REP-002

Tt Project Nº: 711-50067

TETRA TECH

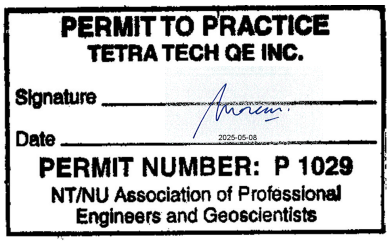
REVISION FOLLOW-UP

REV.	DATE	DESCRIPTION	COMPANY	PREPARED BY
0	07-05-2025	Issue for use	Tetra Tech	S. Moreau Member Nº: L5021

SIGNATURES

TETRA TECH

Prepared by:



Solène Moreau, P. Eng.

Civil Engineer

NAPEG # L5021

PRODUCTION TEAM

CLIENT – AGNICO EAGLE MINES LIMITED	
Civil Construction Lead	Jennifer Pyliuk, P. Eng.

FIRM – TETRA TECH	
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APPENDICES

1 INTRODUCTION

1.1 PROJECT OVERVIEW

Agnico Eagle Mines Ltd (Agnico Eagle) intents to expand their existing Meliadine gold mine near Rankin Inlet in Nunavut by mining new deposits. To support further mine development, some new water management infrastructures are required to facilitate the construction and operations. During mine operations, Lake A8 will be used to collect some surface runoff water in the open-water season. A new submersible pump will be installed in the vicinity of the lowest point of the lake before freshet and will be removed before freeze and it will pump out the collected water to Collection Pond CP1. Water collected in CP1 will be treated by the Effluent Water Treatment Plant (EWTP) prior to discharge to the environment via the diffuser into Meliadine Lake or prior to be reused by the process plant.

To allow the installation and the access of the pump, a jetty will be built in Lake A8. The jetty will be approximately 430m long and be made of granular material. It will be wide enough to allow crane access.

A general location plan for the project is shown in Figure 1 (Appendix A).

The general site location and the proposed location for Jetty A8 are shown on Figure 2 (Appendix A).

1.2 PURPOSE OF THE REPORT

Agnico Eagle retained Tetra Tech to design the Jetty A8, which will be built to pump out water from Lake A8 to Collection Pond CP1.

This report is intended to present the design basis, codes and regulation overview, specific considerations, engineering design and construction details related to the project. It includes the final design and construction drawings as specified under Nunavut Water Board (NWB) Water License 2AM-MEL1631.

1.3 SCHEDULE

Works is planned to begin in mid-September 2025 after the dewatering of Lake A8 and to be completed by December 2025.

2 DESIGN OF THE JETTY

2.1 DESIGN BASIS

- The lake bathymetric elevations (data from Agnico Eagle, November 2024) indicated that the bottom of lake is 58.7 masl (meters above sea level) and the highest water level is 61.5 masl.
- Lake A8 will be dewatered and fished out by Agnico Eagle operations.
- Then, Lake A8 will be used to collect surface runoff water during the open water season each year. A submersible pump will be installed at the bottom of the lake in the vicinity of the lowest point of the lake. It will be installed before freshet and will pump out water during the open water season to Collection Pond CP-1. It will be removed by the winter season. The maximum operating level of Lake A8 will be then 61.2 masl.
- The causeway Jetty A8 will be constructed to provide access to the crane that will be used for the installation of the submersible pump in the vicinity of the lowest point of the lake and occasionally by maintenance vehicle. A TADANO 130T crane is expected to be used.
- The construction of the jetty will be undertaken after Lake A8 dewatering when the water is low.
- There will be a HDPE pipe and an electrical cable running along the jetty.
- A “Seacan” container (20’x8’) will be installed on the extremity of the jetty for instrument and control panel.

2.2 PROPOSED JETTY A8

The construction drawings for the proposed Jetty A8 are provided in Appendix B.

Jetty A8 will extend approximately 430 m in length into Lake A8. Jetty A8 will be 11 m wide, including a minimum roadway surface of 8 m plus room for pipeline, power cables as well as suitable safety barriers if required. There will be a widened area at the extremity of the jetty. Lateral slopes into the lakes are 1V:3H maximum for stability.

The jetty will be constructed of non-acid generating (NAG), coarse rock fill from esker or from Run-of-Mine (ROM) waste rock obtained from the development of the mine. A compacted final layer of Granular Fill 0-50mm will be placed as a final grade for the road surface.

The elevation of the top of the jetty was set to provide a suitable freeboard (0.8m min.) above the maximum operation water level in the lake to allow protection for wave action.

Table 1 summarizes the characteristics of the proposed jetty.

Table 1 - Design parameters for the proposed jetty

Design parameters	Proposed value
Length	430 m
Width	11 m
Top elevation	62.0 masl min
Embankment slope	1V:3H max

2.3 CONSTRUCTION METHODS AND MONITORING

2.3.1 Works description

An access road to Lake A8 will be built prior to the start of construction.

The construction of the jetty will be undertaken once Lake A8 will be dewatered. The work will occur in the driest conditions possible so that adequate compaction will be achieved.

Civil Works consists mainly in adding granular material on the lakebed of Lake A8, once the lake is dewatered to build the jetty.

No excavation is required.

2.3.2 Equipment to be used

The proposed design requires traditional civil works equipment, such as loaders and 10T vibratory rollers.

2.3.3 Erosion and sediment release control

No need for erosion and sediment control measure is expected during the construction due to the nature of the work and the location of the works. Moreover, the construction will occur during the driest conditions (September to December).

2.3.4 Construction monitoring

A quality control/assurance program is required during construction and will be carried out by qualified Agnico Eagle personnel. It will ensure that the construction is as per design and as per the best management practices applicable in the industry.

The monitoring during construction activities will include, but not limited to:

- The backfill material will be placed in accordance with the construction drawings.
- Slope stability and top elevation of the jetty will be inspected after completion of the works.
- Surveys will be conducted to document the completed works.

3 EARTH WORKS

3.1 CONSTRUCTION MATERIAL QUANTITIES

Table 2 below presents the estimated in-place material quantities for the construction of the pad.

Table 2 – Material quantities estimation

Item	TOTAL
Run-of-Mine 0-600mm	**19 385 m3**
Granular Fill 0-50mm	**960 m3**
TOTAL BACKFILL	**20 345 m3**

3.2 CONSTRUCTION MATERIAL SPECIFICATIONS

3.2.1 Granular Fill (0-50 mm)

Granular Fill (0-50 mm) shall consist of hard durable particles, be free of roots, topsoil and other organic material and have a particle size distribution as presented in Table 3. Processing will be required to achieve the specified gradation.

Table 3 - Granular fill (0-50 mm) – Particle size distribution limits

Particle size (mm)	% Passing
50	100
38	87–100
19	60-95
12.5	46-80
5	35-60
2	25-45
0.315	10-25
0.08	4-10

3.2.2 RUN OF MINE 0-600mm

The run of mine material will be sourced from Non-Acid Generating (NAG) and Non-Metal Leaching (NML) run-of-mine waste (mine) rock. It will be free from snow, ice, frozen chunks, organic matters, and debris and can have a wide variation of gradation with a maximum particle size of 600 mm. Any oversized boulders should be removed before the rock fill is placed into the earth structures.

4 LIMITATIONS OF REPORT

This report and its contents are intended for the sole use of Agnico Eagle Mines Ltd. and their agents. Tetra Tech does not accept any responsibility for the accuracy of any of the data, the analysis, or the recommendations contained or referenced in the report when the report is used or relied upon by any Party other than Agnico Eagle Mines Ltd., or for any Project other than the proposed development at the subject site. Any such unauthorized use of this report is at the sole risk of the user. Tetra Tech accepts no responsibility for losses, claims, expenses or damages, if any, suffered by a third party as a result of any decisions made or actions based on this report. Use of this report is subject to the terms and conditions stated in Tetra Tech's Services Agreement.

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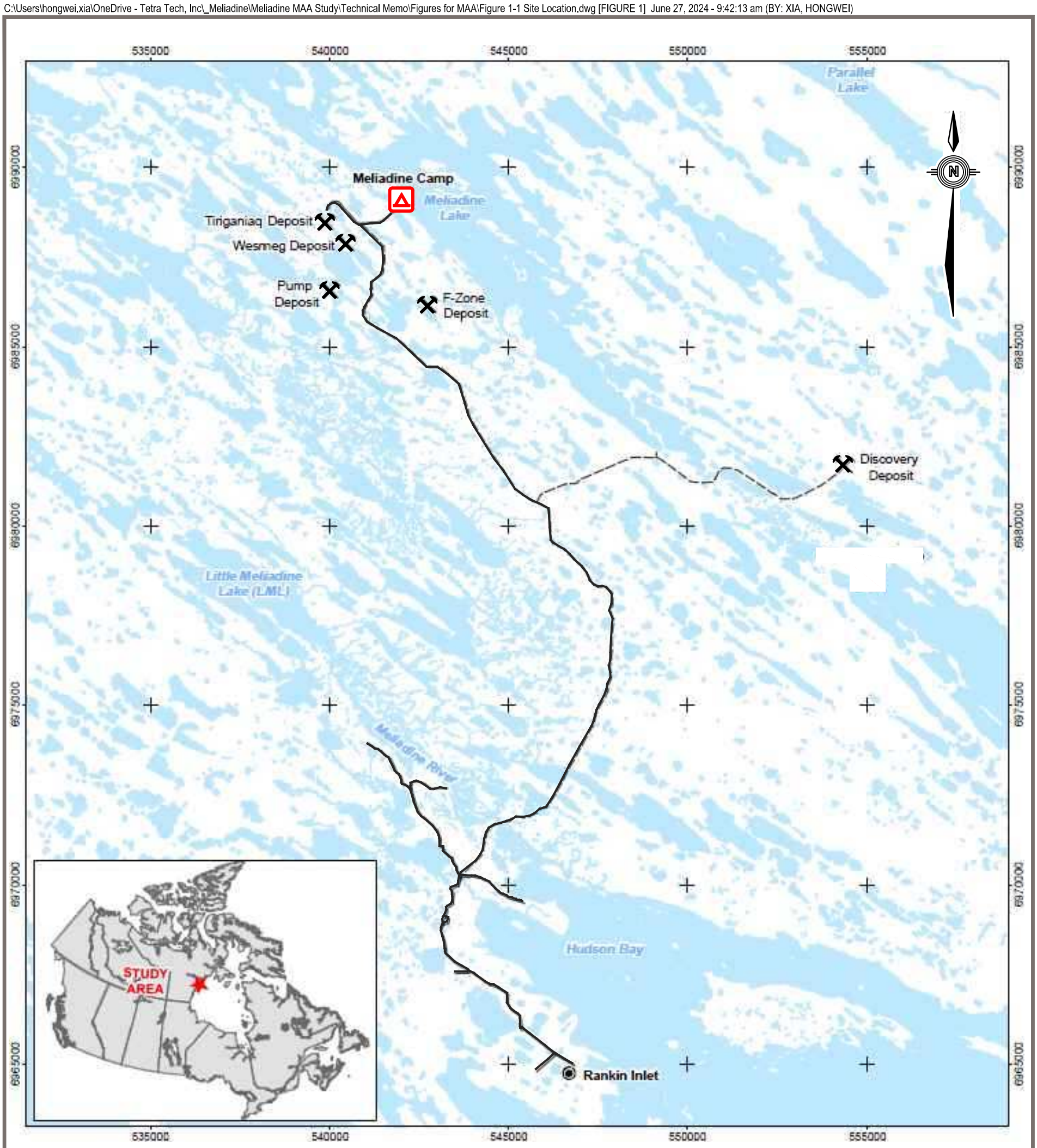
Use of this Document acknowledges acceptance of the foregoing conditions.

APPENDIX A – FIGURES

Number	Title	Rev
FIGURE 1	MELIADINE GOLD MINE, NU, CA SITE LOCATION PLAN	0
FIGURE 2	2024 MELIADINE SITE LAYOUT AND PROPOSED JETTY A8 LOCATION	A

C:\Users\hongwei.xia\OneDrive - Tetra Tech, Inc_Meliadine\Meliadine MAA Study\Technical Memo\Figures for MAA\Figure 1-1 Site Location.dwg [FIGURE 1] June 27, 2024 - 9:42:13 am (BY: XIA, HONGWEI)



NOTES
BASED ON DRAWING PROVIDED BY AGNICO EAGLE MINES LTD.
DATUM: NAD83 PROJECTION: UTM ZONE 15

0 5 000 m

Scale 1: 150 000

STATUS
ISSUED FOR USE

LEGEND

- EXISTING CAMP
- MELIADINE GOLD DEPOSIT
- EXISTING ROAD
- PROPOSED ROAD
- WATERBODY

CLIENT

AGNICO EAGLE

TETRA TECH

MELIADINE GOLD MINE
NUNAVUT, CANADA

SITE LOCATION PLAN

PROJECT NO.	DWN	CKD	REV
EARC03284-01	HX	NG	0

OFFICE	DATE
EDM	JUNE 27. 2024

Figure 1

NO. DESSIN
DRAWING NO.

FORMAT ANSI B–PORTRAIT

REV	DESCRIPTION	DATE	PAR BY
A	ISSUED FOR USE	27-03-2025	SM

REVISIONS

TETRA TECH

AGNICO EAGLE

DESSINÉ PAR DRAWN BY	DS	DATE 11–10–2024
VÉRIFIÉ PAR CHECKED BY	HX	11–10–2024
APPROUVÉ PAR APPROVED BY	HX	11–10–2024
PROJET NO. PROJECT NO.		
DATE		

TITRE/TITLE

AGNICO EAGLE – GOLD MINE

FIGURE 2 - 2024 MELIADINE SITE LAYOUT AND PROPOSED JETTY A8

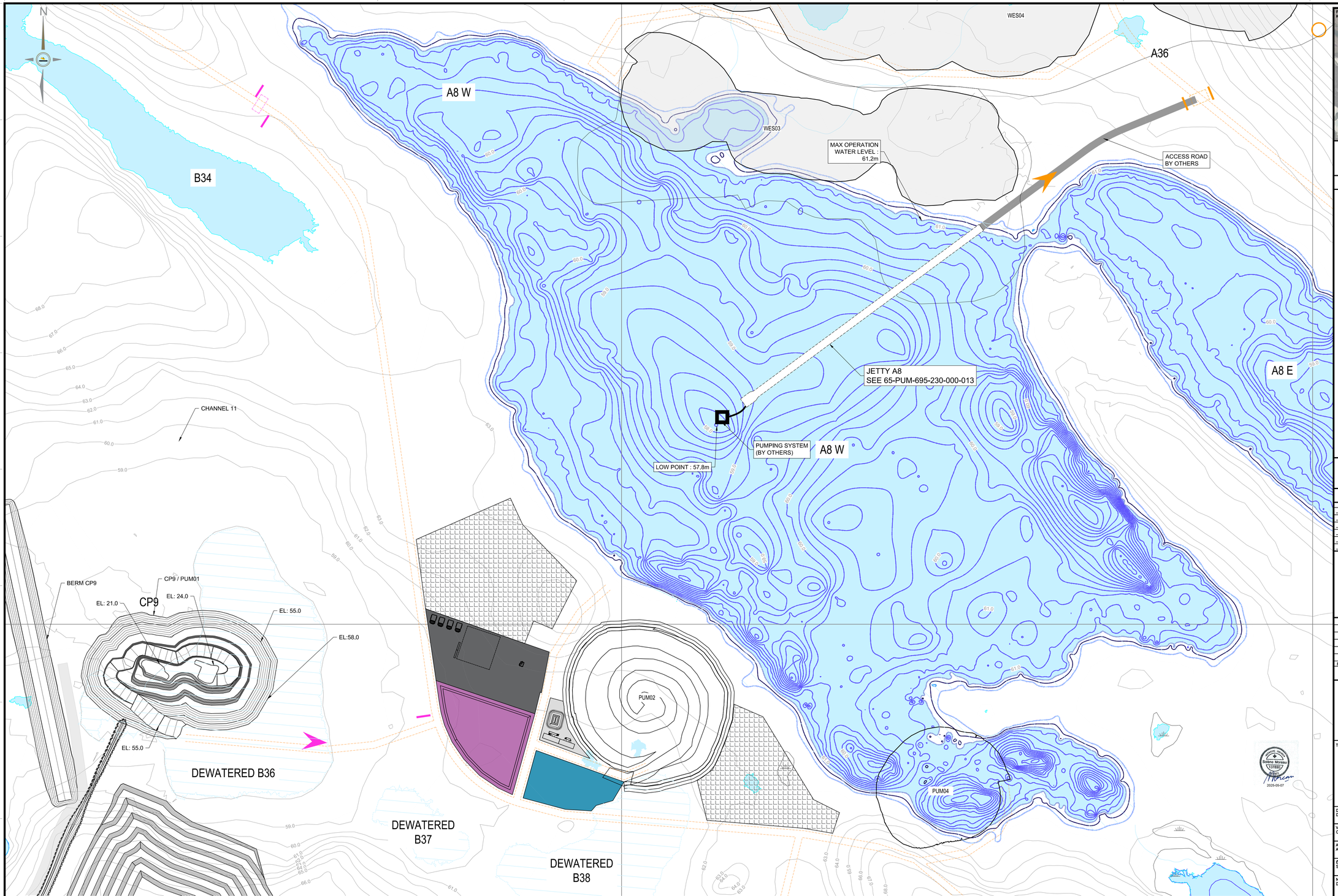
ÉCHELLE SCALE	1:20000	FICHIER FILE	.DWG
NO. DESSIN DRAWING NO.		REVISION	A
		FEUILLE / SHEET	1 / 1

APPENDIX B – CONSTRUCTION DRAWINGS

Number	Title	Rev
65-PUM-695-230-000-012	AGNICO EAGLE - MELIADINE DIVISION 695 – WATER MANAGEMENT 230- GENERAL EARTH WORKS JETTY A8 GENERAL LOCATION PLAN	0
65-PUM-695-230-000-013	AGNICO EAGLE - MELIADINE DIVISION 695 – WATER MANAGEMENT 230- GENERAL EARTH WORKS JETTY A8 PLAN VIEW, SECTIONS AND DETAILS	0

NO. DESSIN
DRAWING NO. 65-PUM-695-230-000-012

FORMAT ARCHD



1 : 2 500

20 0 20 40 60 80 100m

PLAN CLÉ
KEY PLAN

TETRA TECH
TT#711-50067

NOTES GÉNÉRALES / GENERAL NOTES

GENERAL NOTES:

1. EXISTING GROUND DTM PROVIDED BY AEM.
2. ALL UNITS ARE IN METERS.

POUR CONSTRUCTION
FOR CONSTRUCTION
AGNICO EAGLE
DATE : 2025-05-07

DESSINS EN RÉFÉRENCE / REFERENCE DRAWINGS

TITRE / TITLE	# DWG
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AGNICO EAGLE

REV.	DATE	DESCRIPTION	PAR/BY	APP.	CLIENT
0	2025-05-07	ISSUED FOR CONSTRUCTION	S.L.	S.M.	

REVISIONS

PERMIT TO PRACTICE
TETRA TECH QIE INC.
Signature
Date
PERMIT NUMBER: P 1029
NTNU Association of Professional Engineers and Geoscientists

Solène Moreau 137880 Québec
2025-05-07

TITRE / TITLE
AGNICO EAGLE – MELIADINE DIVISION
695 – WATER MANAGEMENT
230 – GENERAL EARTHWORKS
JETTY A8
GENERAL LOCATION PLAN

DESSINÉ PAR / DRAWN BY	STEPHANE LEROUX	DATE 2024-12-19
VÉRIFIÉ PAR / CHECKED BY	SOLENE MOREAU	2024-12-19
APPROUVÉ PAR / APPROVED BY	SOLENE MOREAU	2024-12-19
ÉCHELLE / SCALE	1:2500	DATE 2024-12-19

NO. DESSIN / DRAWING NO.
65-PUM-695-230-000-012

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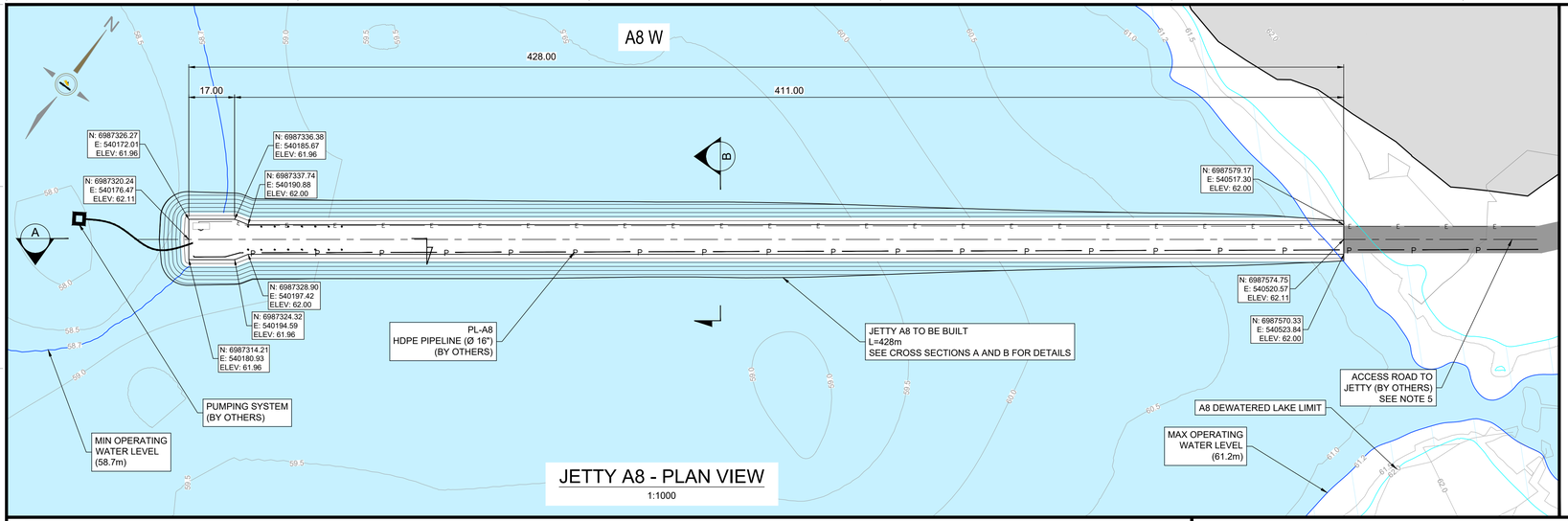
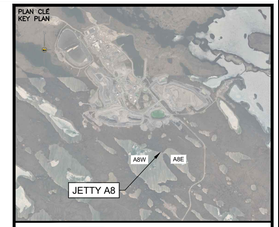


JETTY A8 - PLAN VIEW
1:1000

ESTIMATED IN-PLACED QUANTITIES
CONSTRUCTION - JETTY A8

	AVERAGE THICKNESS (mm)	REQUIRED (m³)
GRANULAR FILL,0-50mm	200	960
ROM, 0-600mm	±3000	19385
TOTAL		20345



TETRA TECH
TT#711-50067

NOTES GÉNÉRALES / GENERAL NOTES

GENERAL NOTES:

1. THE COORDINATES SYSTEM IS UTM15 NAD83.
2. THE UNITS SYSTEM IS METRIC. ALL DIMENSIONS ARE IN METER, UNLESS NOTED OTHERWISE.
3. ENSURE A TRANSITION LAYER BY REMOVING BIGGERS BOULDERS FROM ROM IF REQUIRED.
4. SAFETY BOULDERS REQUIREMENTS SHALL BE VALIDATED ON FIELD WITH THE REPRESENTANT OF AEM.
5. DESIGN OF ACCESS ROAD WAS NOT PROVIDED. EXPECT SOME ADJUSTMENTS TO ENSURE A PROGRESSIVE TRANSITION BETWEEN ACCESS ROAD AND JETTY.

POUR CONSTRUCTION
FOR CONSTRUCTION
AGNICO EAGLE
DATE : 2025-05-07

DESSINS EN RÉFÉRENCE / REFERENCE DRAWINGS

TITRE / TITLE	# DWG
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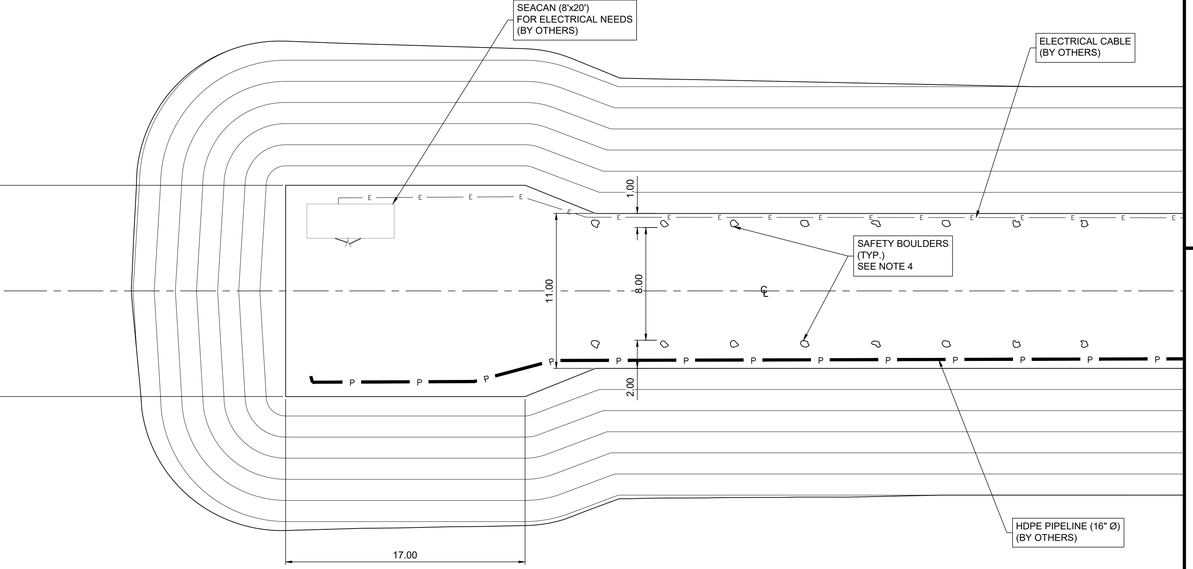
AGNICO EAGLE

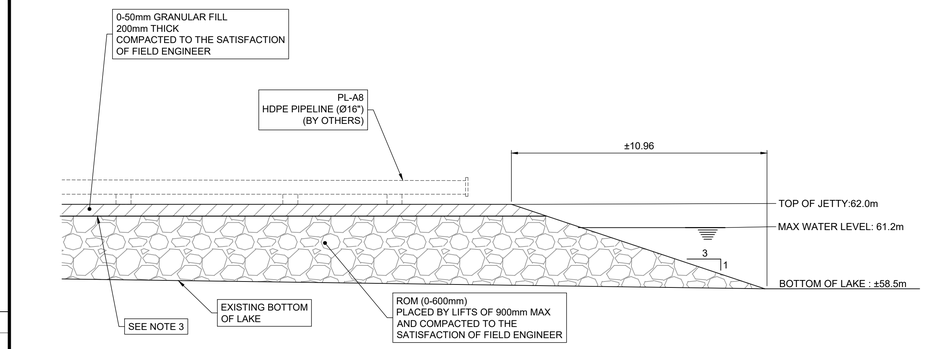
REV.	DATE	DESCRIPTION	PAR/BY	APP.	CLIENT
0	2025-05-07	ISSUED FOR CONSTRUCTION	S.L.	S.M.	

REVISIONS

PERMIT TO PRACTICE
TETRA TECH QE INC.
Signature
Date
PERMIT NUMBER: P 1029
NT/NU Association of Professional Engineers and Geoscientists



JETTY A8 - PLAN VIEW
1:200



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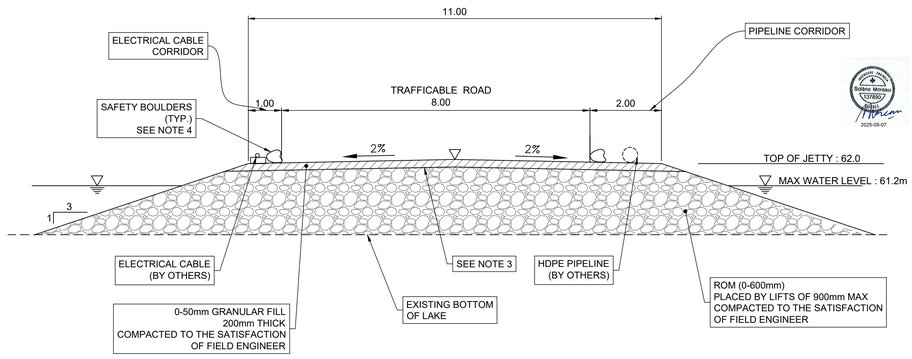
NTS



CROSS-SECTION B
NTS

TITRE / TITLE
AGNICO-EAGLE – MELIADINE DIVISION
695 – WATER MANAGEMENT
230-GENERAL EARTH WORKS
JETTY A8
PLAN VIEW AND DETAILS

DESSINÉ PAR / DRAWN BY	STEPHANE LEROUX	DATE 2025-03-14
VERIFIÉ PAR / CHECKED BY	SOLÈNE MOREAU	2025-03-14
APPROUVÉ PAR / APPROVED BY	SOLÈNE MOREAU	2025-03-14
ÉCHELLE / SCALE	AS INDICATED	DATE 2025-03-14

NO. DESSIN / DRAWING NO.
65-PUM-695-230-000-013

NO. PROJET / PROJECT NO.	REVISION	FEUILLE / SHT
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