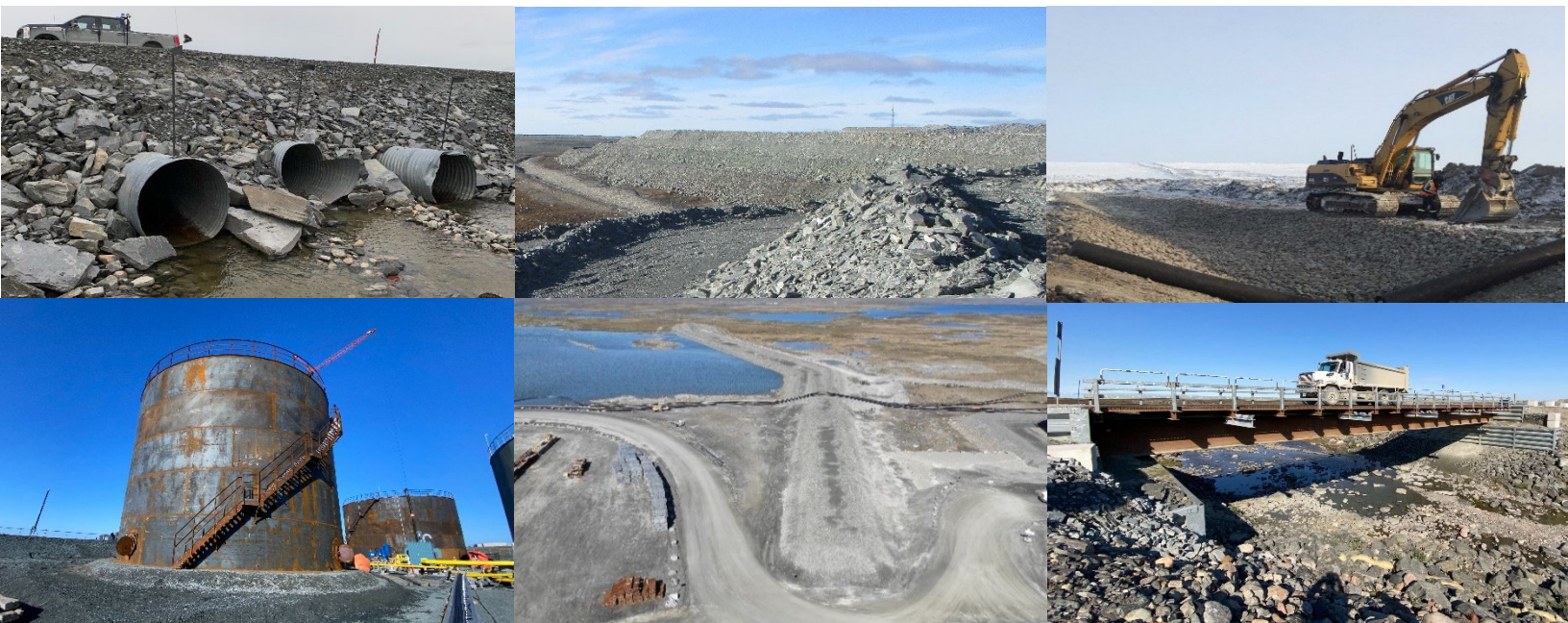


Design Report for Collection Pond 9 (CP9), Meliadine Gold Mine, Nunavut



PRESENTED TO
Agnico Eagle Mines Limited

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EXECUTIVE SUMMARY

Agnico Eagle Mines Limited (Agnico Eagle) is operating the Meliadine Gold Mine, located approximately 25 km north of Rankin Inlet, Nunavut. The current operation consists of mining the Tiriganiaq deposit with two open pits and an underground operation under the existing Nunavut Water Board Type A Water Licence (No. 2AM-MEL1631). The amended Type A Water Licence approved by the Minister of Northern Affairs on November 22, 2024, allows Agnico Eagle to mine the Wesmeg, Wesmeg North, Pump, FZone, and Discovery deposits that were included in the 2014 Final Environmental Impact Statement and Nunavut Impact Review Board Project Certificate No.006.

To support further mine development at Pump, water management infrastructure (WMI) is required to manage runoff water from the waste rock and overburden storage facility 6 (WRSF6) and adjacent mining development areas during operation. The required WMI at Pump includes a water diversion channel (Channel11), a collection pond 9 (CP9), a thermal berm (CP9 Thermal Berm), a water diversion berm (Berm4), and a culvert (Culvert22).

Tetra Tech Canada Inc. (Tetra Tech) was retained by Agnico Eagle to carry out the detailed design of the required WMI at Pump to facilitate the water management during operation and closure. Tetra Tech completed the detailed design of Channel11, CP9 Thermal Berm, Berm4, and Culvert22, and documented the design in the following detailed design reports:

- Design Report for Channel11, CP9 Thermal Berm, and Berm4, Meliadine Gold Mine, Nunavut, dated December 10, 2024. Agnico Eagle Document Number: 6542-695-132-REP-001.
- Design Report and Drawings for Culverts at the PUMP Area, Meliadine Gold Mine, Nunavut, dated March 20, 2025. Agnico Eagle Document Number: 65-695-230-REP-001.

The Pump 01 open pit will serve as CP9 after mining activities are completed. CP9 is required to collect and store runoff water from the WRSF6 and adjacent mining areas and serve as one of the main water storage areas during operation. The design of CP9 is based on the following criteria and key considerations:

- Contact water under Inflow Design Flood (IDF) (i.e., full equivalent unit runoff during a 1 in 100 wet year spring freshet) will be stored in CP9 under designed maximum operating water level (MOWL) without pumping out during the spring freshet. The MOWL under IDF is set to be minimum 2.0 m lower than the outlet of the pond (the lowest ground elevation (i.e., 59 m) along the perimeter of Pump01 open pit).
- A water pumping system will be installed in CP9 to manage the water in CP9. The pumping rate was designed to pump out the entire runoff volume generated under IDF event and total rainfall under a mean precipitation condition over 81 days (from mid-June to mid-September) with 10 days contingency. Under an extreme wet year scenarios (i.e., IDF plus total annual rainfall under a 1 in 100 wet year precipitation), excess runoff water can be managed by adaptive water management measures including water transfer to other storage, extending pumping period, and/or installation of temporary pumping system as needed.
- During normal operation, the water level in CP9 will be maintained below the bedrock top elevation. However, it is permissible to allow the water level to be maintained in the overburden zone for temporary storage, if there are resource limitations or other operational constraints during the freshet period.
- Before freeze-up, water will be pumped out and only minimal water will be left in CP9 to provide sufficient storage for the runoff generated in the following year freshet. The freeze-up target water level is determined by the difference in volume between the MOWL and the volume to be stored during the IDF event plus 50% contingency (for snow accumulation and other unforeseen events).

This report is to summarize the site conditions, design basis, considerations, design criteria, and presents the detailed design, and Issued for Construction drawings for CP9. This report is also intended to meet the requirements of Part D Items 1 and 2 of the of the amended Type A Water Licence.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	I
1.0 INTRODUCTION	1
2.0 GENERAL SITE CONDITIONS	2
2.1 Climate and Meteorology	2
2.2 Topography and Lakes	2
2.3 Permafrost	2
2.4 Groundwater	3
2.5 Seismic Zone	3
2.6 General Subsurface Conditions	4
3.0 DESIGN BASIS	4
3.1 General Water Management Plan at Pump	4
3.2 CP9 Operation Plan	4
3.3 Precipitation, Surface Runoff, and Lake Surface Evaporation	5
3.4 Geotechnical Conditions around CP9 Area	6
3.5 Geochemical Characteristics of Overburden and Rock	7
4.0 DESIGN OF CP9	7
4.1 Design Assumptions, Parameters, and Typical Section	9
4.2 Water Storage Curve for CP9	10
4.3 Thermal Analysis	11
4.4 Stability Analysis	12
5.0 CONSTRUCTION OF CP9	12
5.1 Overall Construction Schedule	12
5.2 Construction Materials and Specifications	12
5.3 Estimated Quantities of Construction Material	12
5.4 Key Construction Activities	12
5.5 Water Management during Construction and Erosion Control	13
5.6 Quality Assurance and Quality Control	13
5.7 Survey Requirements	13
6.0 MONITORING AND INSPECTION	13
7.0 REPORTING	14
8.0 CLOSURE	15
REFERENCES	16

LIST OF TABLES IN TEXT

Table 1: Various Parameters for Surface Runoff Estimation5
Table 2: Geotechnical Ground Conditions around the CP9 Area6
Table 3: Recommended Rock Slope Geometry for Pump01 by KP8
Table 4: Stage-storage Capacity and Pond Surface Area with Elevations for CP9 10

LIST OF FIGURES IN TEXT

Figure A: Stage-storage Curve and Pertinent Elevations of CP9 11

APPENDIX SECTIONS

FIGURES

- Figure 1 General Mine Location Plan
- Figure 2 General Site Layout Plan and Water Management at Pump
- Figure 3 Borehole Locations from 2021/2024 Geotechnical Investigation

APPENDICES

- Appendix A Borehole Logs from 2021/2024 Drilling Program
- Appendix B Issued for Construction Drawings for CP9
- Appendix C Tetra Tech’s Limitations on Use of this Document

ACRONYMS & ABBREVIATIONS

Acronyms/Abbreviations	Definition
Agnico Eagle	Agnico Eagle Mines Limited
AEP	Annual Exceedance Probability
BOWL	Bedrock Operating Water Level
CP	Collection Pond
FEIS	Final Environmental Impact Statement
FoS	Factor of Safety
FTWL	Freeze-up Target Water Level
Golder	Golder Associates Ltd.
IDF	Inflow Design Flood
IF	Iron Formation
LE	Limit Equilibrium
Lorax	Lorax Environmental Services
km	Kilometers
KP	Knight Piésold Consulting
masl	Metres Above Sea Level
The Meliadine Mine	Meliadine Gold Mine
MOWL	Maximum Operating Water Level
NIRB	Nunavut Impact Review Board
NP	Neutralization Potential
NWB	Nunavut Water Board
PAG	Potentially Acid Generating
PGA	Peak Ground Acceleration
ppt	Parts Per Thousand
QA/QC	Quality Assurance and Quality Control
Tetra Tech	Tetra Tech Canada Inc.
TDS	Total Dissolved Solids
WMI	Water Management Infrastructure
WRSF	Waste Rock Storage Facility
WSP	WSP Canada Inc.

LIMITATIONS OF REPORT

This report and its contents are intended for the sole use of Agnico Eagle Mines Limited. and their agents. Tetra Tech Canada Inc. (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 Limited, 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. Use of this document is subject to the Limitations on Use of this Document attached in Appendix C or Contractual Terms and Conditions executed by both parties.

1.0 INTRODUCTION

Agnico Eagle Mines Limited (Agnico Eagle) is operating the Meliadine Gold Mine (the Meliadine Mine), located approximately 25 km north of Rankin Inlet, Nunavut. Situated on the western shore of Hudson Bay, the project site is located on the peninsula between the east, south, and west basins of Meliadine Lake (63°01'23.8"N, 92°13'6.42"W). A general location plan for the Meliadine Mine is shown in Figure 1.

Agnico Eagle obtained the initial Type A Water Licence (No. 2AM-MEL1631) for the project on April 1, 2016 and started mine production in early 2019. The current operation consists of mining the Tiriganiaq deposit with two open pits and an underground operation under the existing Nunavut Water Board (NWB) Type A Water Licence. In January 2024, Agnico Eagle submitted a Water Licence Amendment application to support the completion of licensing components approved under Nunavut Impact Review Board (NIRB) Project Certificate No. 006. The 2024 Water Licence Amendment will allow Agnico Eagle to mine the Wesmeg, Wesmeg North, Pump, FZone, and Discovery deposits that were included in the 2014 Final Environmental Impact Statement (FEIS) and NIRB Project Certificate No.006. The amended Type A Water Licence was approved by the Minister of Northern Affairs on November 22, 2024.

To support further mine development at Pump, water management infrastructure (WMI) is required to manage runoff water from the waste rock and overburden storage facility 6 (WRSF6) and adjacent mining development areas during operation. The required WMI at Pump includes a water diversion channel (Channel11), a collection pond 9 (CP9), a thermal berm (CP9 Thermal Berm), a water diversion berm (Berm4), and a culvert (Culvert22).

The general site layout plan at Pump and the proposed locations of Channel11, CP9, CP9 Thermal Berm, Berm4, and Culvert22 are shown on Figure 2. The purpose of Channel11 is to collect and divert the runoff water from the proposed WRSF6 catchment area to CP9. CP9 will be formed by the Pump 01 open pit and used to collect and store runoff water from the WRSF6 and adjacent mining areas and serve as one of the main water storage areas during operation. The proposed CP9 Thermal Berm is to preserve the permafrost foundation within the CP9 Thermal Berm footprint and to prevent seepage from Lake B4 to CP9. The Berm4 will be used to divert runoff water from WRSF6 to Channel11 and CP9 and to prevent contact water from flowing into the outside receiving environment (e.g., Lakes B45 and B59). Culvert22 will be used to convey the water collected in former Pond B38 to former Pond B37, from where the water will flow naturally by gravity to CP9.

Tetra Tech Canada Inc. (Tetra Tech) was retained by Agnico Eagle to carry out the detailed design of the required WMI at Pump to facilitate the water management during operation and closure. Tetra Tech completed the detailed design of Channel11, CP9 Thermal Berm, Berm4, and Culvert22, and documented the design in the following two detailed design reports:

- Design Report for Channel11, CP9 Thermal Berm, and Berm4, Meliadine Gold Mine, Nunavut, dated December 10, 2024. Agnico Eagle Document Number: 6542-695-132-REP-001 (Tetra Tech 2024a).
- Design Report and Drawings for Culverts at the PUMP Area, Meliadine Gold Mine, Nunavut, dated March 20, 2025. Agnico Eagle Document Number: 65-695-230-REP-001 (Tetra Tech 2025).

This report is to summarize the site conditions, design basis, considerations, design criteria, and presents the detailed design, and Issued for Construction drawings for CP9. This report is also intended to meet the requirements of Part D Items 1 and 2 of the of the amended Type A Water Licence.

2.0 GENERAL SITE CONDITIONS

2.1 Climate and Meteorology

The Meliadine Mine site lies within the Southern Arctic Climatic Region where daylight reaches a minimum of 4 hours per day in winter and a maximum of 20 hours per day in summer. The nearest weather station is Rankin Inlet A (Station 2303401), located approximately 25 km south of the Meliadine Mine site. The closest long-term regional evaporation station operated by Environment Canada is in Churchill, Manitoba. The monthly mean air temperature is typically above 0°C for the months of June to September and is below 0°C between October and May. July is typically the warmest month and January the coldest. Winters are typically long and cold, while summers are short and cool. The mean annual temperature for the period of record from 1994 to 2023 was -9.8°C based on the measured air temperature data at Rankin Inlet.

The annual total precipitation under mean conditions at the Meliadine Mine site is 394 mm/year and falls almost equally as snow and rainfall (Tetra Tech 2021a). Average annual evaporation for small waterbodies in the Meliadine Mine site is estimated to be 323 mm between June and September. The average annual loss of snowpack to sublimation and snow redistribution is estimated to vary between 46% and 52% of the total precipitation for the winter period and occurs between October and May (Golder 2013).

The region is known for high winds, which are due in part to the broad, flat, uninterrupted expanses offered to moving air masses. The wind blows generally from the northwest and north-northwest direction. The mean values for wind speed show that the north-northwest, together with northwest winds, have the highest speeds and tend to be the strongest. Mean monthly wind speeds are typically between 19 km/hour and 29 km/hour, with an average of 22.3 km/hour.

2.2 Topography and Lakes

The dominant terrain in the Meliadine Mine area comprises glacial landforms such as drumlins (glacial till), eskers (gravel and sand), and lakes. A series of low relief ridges are composed of glacial deposits, oriented in a northwest-southeast direction, which control the regional surface drainage patterns. The Meliadine Mine is about 60 m above sea level (masl) in low-lying topography with numerous lakes.

The surveyed lake surface elevations in the Meliadine Mine area range from about 51 masl at Meliadine Lake to about 74 masl for local small, perched lakes. Lakes formed by glaciofluvial processes or glacial processes, are common throughout the Meliadine Mine area. Most of the perched lakes at the Meliadine Mine site are relatively shallow (less than 2 m water depth). Late winter ice thicknesses on freshwater lakes in the Meliadine Mine area range between 1.0 m and 2.3 m with an average thickness of 1.7 m. Ice covers usually appear by the end of October and are completely formed in early November. The spring freshet typically begins in mid-June and is complete by early July (Golder 2012a).

2.3 Permafrost

The Meliadine Mine site is in a zone of continuous permafrost within the Southern Arctic terrestrial eco-zone which is one of the coldest and driest regions of Canada. Continuous permafrost to depths of between 285 m to 430 m is expected based on ground temperature data from thermistors installed near Tiriganiaq, FZone, and Discovery deposits (WSP 2024a). The measured ground temperature data indicates that the active layer ranges from 1.0 m to 3.0 m in areas of shallow soils and areas away from the influence of lakes. It is anticipated that the active layer

adjacent to lakes or below a body of moving water such as a stream could be deeper. The typical permafrost ground temperatures at the depths of zero annual amplitude (typically at depths below 18 m) are in the range of -5.9°C to -7.0°C in the areas away from lakes and streams. The geothermal gradient ranges from 0.015°C/m to 0.02°C/m (WSP 2024a).

Open taliks (defined by the 0-degree isotherm) are predicted to be present beneath portions of each of the following lakes near the proposed open pits: Lakes B4, B5, B7, A6, A8, and CH6. Based on the 0-degree isotherm from the thermal model, it is interpreted that a closed talik is present below Pond D4 (WSP 2024b).

2.4 Groundwater

In areas of continuous permafrost, there are generally two groundwater flow regimes: a shallow groundwater flow regime located in the active layer near the ground surface, and a deep groundwater flow regime located beneath permafrost. From late spring to early autumn, when temperatures are above 0°C, the active layer thaws. Within the active layer, the water table is expected to be a subdued replica of topography and is expected to parallel the topographic surface. Groundwater in the active layer flows to local depressions and ponds that drain to larger lakes in the Meliadine Mine area.

Permafrost in the rock in the Meliadine Mine area would be virtually impermeable to groundwater flow. The shallow groundwater flow regime, therefore, has little to no hydraulic connection with the deep groundwater regime. A numerical hydrogeological model for the deep groundwater flow regime was developed in 2012 and updated several times in 2016, 2019, and 2021. It was reported that the elevations of the larger lakes with taliks extending down to the deep groundwater regime (referred to as open taliks) provide the principal driving force for deep groundwater flow. Through thermal modelling, open-taliks were suggested to exist beneath Lake B4, Lake B5, Lake B7, Lake A6, Lake A8, Lake CH6, and Lake D4. Hydrogeological testing conducted at the Meliadine Mine indicated that the bulk of bedrock is generally of low hydraulic conductivity, ranging from 1×10^{-10} m/s to 6×10^{-9} m/s (WSP 2024b). Groundwater velocities in the deep groundwater regime are very low and on the order of 0.2 m/year to 0.3 m/year.

To a lesser degree, groundwater beneath the permafrost is influenced by density differences due to the upward diffusion of deep-seated brines (density-driven flow). In the Canadian Shield, concentrations of Total Dissolved Solids (TDS) in groundwater increase with depth, primarily in response to upward diffusion of deep-seated brines. A “West Bay”-type well was installed in 2011 at the site near the proposed Tiriganiaq underground infrastructure to establish a baseline for deep groundwater quality. A second “West Bay”-type well was installed in 2020 near the Discovery deposit to collect more baseline data. Mean salinity of groundwater below the permafrost has been estimated at approximately 61,000 mg/L. Salinity can induce a freezing point depression, creating a cryopeg in permafrost where water can be unfrozen even though the temperature is below 0°C. The freezing point depression was calculated to be equivalent to -3.3°C (with salinity approximately 61,000 mg/L), suggesting the depth to the basal cryopeg is between about 350 m and 375 m below ground surface in the Meliadine Mine area (Golder 2012a).

2.5 Seismic Zone

The Meliadine Mine site is in an area of low seismic risk and is classified as “Class C” based on the ground conditions. The Peak Ground Acceleration (PGA) for a reference “Class C” site under various Annual Exceedance Probability (AEP) was estimated using the 2020 National Building Code of Canada Seismic Hazard Tool. The estimated PGA is 0.0285 g for a 5% in 50-year probability of exceedance (0.001 per annum or 1 in 1,000 year return) and 0.0498 g for a 2% in 50-year probability of exceedance (0.000404 per annum or 1 in 2,475 year return) for the Meliadine Mine site.

2.6 General Subsurface Conditions

Several site investigation programs were carried out at the Project site in 1998, 1999, 2007, 2009, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2021, and 2024.

In general, the near surface stratigraphy comprises a veneer of organic material, underlain by non-cohesive soils (i.e., silty sand and sandy silt) with gravel, cobbles, and boulders. The overburden thickness ranges between 0.9 m and 15.0 m and is underlain by greywacke, medium to strong with some fracturing and frost jacking of the upper bedrock surface. A layer of ice-rich overburden (silt or sand) has been observed in some of the boreholes drilled. Overburden soils with excess ice (V_s , V_x , and V_r) were observed in the non-destructive boreholes. The estimated percentage (by volume) of the excess visible ice ranged from 2% up to 20% in the overburden soils. Soil porewater salinity tests (EBA 2013) indicated that the overburden soils have a porewater salinity of 4 to 12 parts per thousand (ppt).

3.0 DESIGN BASIS

3.1 General Water Management Plan at Pump

One of the primary water management objectives for the Meliadine Mine is to minimize potential impacts to the quantity and quality of surface water at the Meliadine Mine and surrounding waterbodies. This objective will be achieved by constructing WMI (e.g., dikes, collection ponds, channels, berms, and culverts) to divert clean (non-contact) water away, where possible, and separate surface contact water and saline water.

Figure 2 presents the general water management plan and site layout at Pump. Surface contact water from WRSF6 Phase 1 will be diverted either by Channel11 or water diversion Berm4 to prevent it from being released to the outside receiving environment (e.g., Lake B59 and Lake B4). The contact runoff water will eventually be collected in CP9.

Surface runoff from the north and southeast portions of WRSF6 Phase 1 will flow naturally or be diverted by Berm4 to the dewatered Ponds B38 and B37. The collected runoff water in former Pond B38 will be conveyed to former Pond B37 through Culvert22 installed across the haul road in the narrow between former Pond B37 and former Pond B38. The service road constructed across the narrow between former Pond B37 and former Lake B36 will be excavated to baseline condition, so that runoff water accumulated in former Pond B37 can flow naturally to CP9. The contact runoff collected in CP9 will be directly pumped into CP1 (the main water attenuation pond at the Meliadine Mine) for treatment prior to discharge into Meliadine Lake.

3.2 CP9 Operation Plan

The key considerations of the CP9 operation are as follows:

- CP9 will serve as a water collection pond to collect the runoff water from the WRSF6 catchment and adjacent mining areas at Pump including water accumulated in Pump02 and Pump04. The runoff water diverted by Channel11 and Berm4 will report to CP9.
- Contact water under Inflow Design Flood (IDF) (i.e., full equivalent unit runoff during a 1 in 100 wet year spring freshet) will be stored in CP9 under the designed maximum operating water level (MOWL) without pumping during the spring freshet.

- A water pumping system will be installed in CP9 to manage the water in CP9. The pump system will operate for approximately 81 days each year (from mid-June to mid-September) with 10 days of contingency.
- Before freeze-up, water will be pumped out and only minimal water will be stored in CP9 to provide sufficient storage for the runoff generated in the following year freshet.
- No water will be discharged from CP9 directly to the outside receiving environment during operation.

3.3 Precipitation, Surface Runoff, and Lake Surface Evaporation

Surface runoff parameters for a mean precipitation year and a 1 in 100 wet precipitation year are presented in Table 1. These parameters were derived based on the climate characterization update study (Tetra Tech 2021a) and the studies performed for the 2014 FEIS (Golder 2014).

Table 1: Various Parameters for Surface Runoff Estimation

Item	Value	Source or Comments
Mean Precipitation Year		
Total adjusted annual precipitation for a mean precipitation year	394 mm	Tetra Tech (2021a)
Total adjusted annual rainfall for a mean precipitation year	194 mm ^(a)	Tetra Tech (2021a)
Total adjusted annual water equivalent snowfall for a mean precipitation year	200 mm	Calculated based on values above
Total estimated snow sublimation	99 mm	Golder (2014)
Estimated snow melt water equivalent in spring freshet	101 mm	Calculated based on values above
24-hour duration rainfall with a 1 in 2 years of return period	29.9 mm	Tetra Tech (2021a)
1 in 100 Wet Precipitation Year		
Total adjusted annual precipitation for a 1 in 100 wet precipitation year	636 mm	Tetra Tech (2021a)
Total adjusted annual rainfall for a 1 in 100 wet precipitation year	339 mm	Tetra Tech (2021a)
Total adjusted annual water equivalent snowfall for a 1 in 100 wet precipitation year	297 mm	Calculated based on values above
Total estimated snow sublimation	99 mm	Golder (2014)
Estimated snow melt water equivalent in spring freshet for a 1 in 100 wet precipitation year	198 mm ^(b)	Calculated based on values above
5-min duration extreme rainfall with a 1 in 100 years of return period	5.0 mm	Computerized IDF CC Tool for the Development of Intensity-Duration-Frequency Curves under a Changing Climate: (idf-cc-uwo.ca)
30-min duration extreme rainfall with a 1 in 100 years of return period	10.6 mm	
24-hour duration extreme rainfall with a 1 in 100 years of return period	69.2 mm	
24-hour duration extreme rainfall with a 1 in 1,000 years of return period	71.1 mm	Tetra Tech (2021a)
24-hour duration PMP (probable maximum precipitation)	264 mm	Tetra Tech (2021a)
Runoff coefficient for natural ground under extreme rainfall	1.0	Assumed
Runoff Coefficient for disturbed area (e.g., WRSF)	0.35	Assumed

Note: ^(a) Used for CP9 pump and pipeline design. ^(b) Used for CP9 pump and pipeline design and IDF.

3.4 Geotechnical Conditions around CP9 Area

The availability of subsurface geotechnical information within the footprint of CP9 is limited. A total of eight boreholes (GT21-18 to GT21-21, GT21-26, and GT24-30 to GT24-32) were drilled close to the footprint of CP9 during the 2021 and 2024 geotechnical site investigation programs (Tetra Tech 2021b and Tetra Tech 2024a). The locations of the boreholes are presented on Figure 3. Table 2 summarizes the ground conditions in the boreholes in the vicinity of CP9. Borehole logs for GT21-18 to GT21-21, GT21-26, and GT24-30 to GT24-32 are attached in Appendix A.

Table 2: Geotechnical Ground Conditions around the CP9 Area

Borehole No.	Organic Layer Thickness (m)	Major Overburden Soil Types	Ground Ice Conditions	Depth to Bedrock (m)	Bedrock Conditions
GT21-18	0.26	Peat; Rubble; Sand; Ice and Silt and Sand	Up to 73% Vs, Vx; ice lenses 1 mm to 10 mm thick; 1.5 m ICE + Silt and Sand	4.4	Fresh to slightly weathered; medium strong; moderately jointed; competent rock
GT21-19	0.06	Peat; Silt; Gravel; Ice and Sand and Silt; Cobbles	Up to 55% Vs, Vx, Nbn, Nf; horizontal lenses 1 mm to 5 mm thick	3.8	Unweathered; strong; competent rock
GT21-20	0.06	Peat and Gravel; Silt; Ice and Sand	Up to 57% Vx, Vc, Vs, Vu; clear ice crystals and coatings	4.0	Quartz veins; competent rock
GT21-21	0.21	Peat; Silt; Gravel	Up to 33% Vx, Vs, Vu, Nbn; clear lenticular ice lenses to 4 mm thick	4.0	Quartz veins; competent rock
GT21-26	0.60	Peat; Sand and Gravel; Gravel; Ice and Sand; Gravel	Up to 64% Vx, Vr, Vs, Nbe, Nbn; clear ice lenses 1 mm thick	5.8	Fresh; medium strong; moderately jointed; semi-competent rock
GT24-30	0.3	Peat, Sandy Gravel, Sandy Ice + Gravel, and Silty Sand	Nbe, Nbn, Vx, and excess ice up to 52%	7.7	Greywacke; fair to excellent quality; medium strong to very strong; fresh to slightly weathered
GT24-31	0.0	Sandy Silt and Silty Sand	Nbn, Vc, and excess ice up to 5%	5.9	Greywacke; fair to excellent quality; strong to very strong; fresh to slightly weathered
GT24-32	0.05	Ice + Sand and Gravel, Peat, Sand and Gravel, Silt and Cobbles	Nbe, Nbn, Vc, Vs, Vx, and excess ice up to 56%	4.0	Greywacke; poor to excellent quality; strong; fresh to slightly weathered

Based on borehole information collected from past drilling programs at other locations and in the vicinity of CP9, it is expected that the subsurface conditions within the footprint of CP9 are like those encountered in the eight boreholes summarized in Table 2. Generally, it consisted of a thin layer of organics (thickness ranging from 0.05 m to 0.6 m), a layer of silt or sandy gravel, various layers of sand and silt, sandy gravel, sandy silt, and silt over

greywacke bedrock. Excess ice (Vs, Vx, Vr, Vu, and Vc) was observed in most of the boreholes. Excess ice occurred in the form of clear lenticular ice lenses up to 10 mm thick and clear ice coatings up to 10 mm thick.

The overburden thickness within the footprint of CP9 was estimated based on the data files provided by Agnico Eagle. The overburden thickness along the perimeter of CP9 ranges from 2.0 m to 8.0 m.

3.5 Geochemical Characteristics of Overburden and Rock

Agnico Eagle conducted a comprehensive geochemical characterization program to support the FEIS (Golder 2014). In 2022, Agnico Eagle conducted another geochemical characterization program by undertaking a series of static and kinetic tests (Lorax 2022). The purpose of the geochemical characterization program conducted in 2022 was to supplement the 2014 study and to determine the acid rock drainage and metal leaching (ARD/ML) potential of the geologic materials expected to be disturbed by mining activities at the Meliadine Mine. The key findings from the geochemical characterization programs are summarized below:

- Waste rock that is classified as potentially acid generating (PAG) or Uncertain is mostly Iron Formation (IF) waste rock. About 50% of IF waste rock at Pump was classified as Uncertain and about 7% of Mafic Volcanic waste rock was classified as PAG. Waste rock from other lithologies/formations were classified as non-PAG. Considering all waste rock produced, approximately 5% of total waste rock from the proposed open pits at the Pump area are expected to be classified as PAG or Uncertain.
- The dominant carbonate mineral in IF waste rock has the potential for the long-term neutralization capacity of acid drainage. Overall, the carbonate mineral composition is highest in the Pump deposits compared to other deposits at the mine.
- Paste pH is a primary indicator of the presence of existing buffering capacity or water-soluble acidity. When the paste pH values are less than 5.5, neutralization potential (NP) present is limited or non-existent. Higher paste pH values imply the presence of immediately available NP. Based on the Acid Base Accounting results from the laboratory tests samples from the Pump area, the paste pH ranges from 8.1 to 8.9 for the waste rock collected from the Pump area.
- Geochemical characterization of overburden for the 2014 FEIS (Golder 2014), showed that overburden was non-acid generating, and contained low metal concentrations. Salinity associated with overburden was found to be 0 in the active layer, and increased with depth below the active layer until it becomes relatively constant at a depth below 6 m. The overburden salinity rinsing test results on the samples collected at a 0 to 12.4 m depth range from the Pump area showed that the TDS loads range from 583 mg/kg to 962 mg/kg (Lorax 2022).

4.0 DESIGN OF CP9

CP9 will be formed by the Pump01 open pit once the open pit is mined out. The components of CP9 include Pump01 open pit and thermal cover for the overburden slope of Pump01 open pit.

The key considerations for the design of CP9 and its components include:

- In accordance with Agnico Eagle's Corporate Standard – RMMS Corporate Standard Water Management (Agnico Eagle 2021), if applicable;
- Meet the requirements in the amended Type A Water Licence for Meliadine;
- Meet Mine Health and Safety Act, if applicable;

- Maximize the use of available construction materials produced at the site;
- Minimize overall environmental footprints and effects;
- Optimize the design based on the monitoring performance observed from the existing structures at the Meliadine Mine site, and
- Facilitate an effective/safe construction plan and an effective closure plan.

For the design of the open pits at Pump, Knight Plésold Consulting (KP) conducted a geotechnical site investigation program and developed feasibility level open pit slope geometry recommendations for the open pits at the Pump Area in 2021. A technical report was prepared by KP to summarize the site investigation program, geomechanical domain definition, stability analyses, and open pit slope geometry recommendations (KP 2022).

In 2024, a study was conducted by KP to re-evaluate whether the open pit slope geometry recommendations provided in 2022 for Pump 01 were still applicable and whether they were suitable for construction based on the new information. Updated slope geometry recommendations were developed for Pump01 based on the new information and the results of the stability analyses. The updated rock slope geometry recommendations are summarized in Table 3 and more details on the reassessment and updated recommendations can be found in the KP report (KP 2024).

Table 3: Recommended Rock Slope Geometry for Pump01 by KP

Wall	Approach	Design Bench Face Angle (°)	Design Bench Width (m)	Bench Height (m)	Inter-Ramp Angle (°)
Hangingwall and End Walls	Double Benching with Pre-Shear Holes	75	10	20	52.5
	Single Benching without Pre-Shear Holes	75	11	10	36
Footwall	Double Benching with Pre-Shear Holes	60	10.5	20	42
	Single Benching with Staggered Blast Holes	55	9.5	10	31

Overburden slope geometry recommendations were developed for the existing Tiriganiaq01 and Tiriganiaq02 open pits at the Meliadine Mine by Tetra Tech (2020) and have been successfully implemented by Agnico Eagle. The recommendation for the overburden slope is to incorporate a 3 Horizontal to 1 Vertical slope with a layer of thermal cover to maintain the slope stability.

The design of the thermal cover for the overburden slope of the Pump01 open pit was documented in:

- Technical Memorandum – Thermal Cover Design for Pump Open Pit, Meliadine Gold Mine, Nunavut, dated December 16, 2024 (Tetra Tech 2024b).

4.1 Design Assumptions, Parameters, and Typical Section

The following design water levels and assumptions were adopted for the CP9 design:

Maximum Operating Water Level (MOWL)

The MOWL under IDF in CP9 was determined based on similar design criteria adopted for the existing CPs (CP2, CP3, CP4, and CP6 – excavated pit into bedrock) at the Meliadine Mine, which the MOWL under IDF is set to be minimum 2.0 m lower than the outlet of the pond (the lowest ground elevation i.e., 59 m, along the perimeter of the Pump01 open pit).

Bedrock Operating Water Level (BOWL)

For water contained in an excavated pit, the Bedrock Operating Water Level (BOWL) is determined by the elevation at which all water contained in the pit will remain in the lowest bedrock elevation along the interface of the overburden and bedrock. During normal operation, water level in CP9 will be maintained below the BOWL. However, it is permissible to allow the water level to be maintained in the overburden zone for temporary storage, if there are resource limitations or other operational constraints during the freshet period.

Freeze-up Target Water Level (FTWL)

It is assumed that CP9 will be in “near empty” condition before freeze-up (at the end of each fall) to provide the storage capacity for the following spring freshet season. A freeze-up target water level (FTWL) is set to determine the maximum volume of water that can be left in CP9 at the end of each fall. The FTWL is determined by the difference in volume between the MOWL and the volume to be stored during the IDF event plus 50% contingency (for snow accumulation and other unforeseen events).

In this study, the 1 in 100 wet year spring snowpack snow water equivalent of 198 mm (as presented in Table 1), which is more critical than the 1-day extreme rainfall value of 69.2 mm under 1 in 100 wet year, is adopted as the IDF for the CP9 design. The IDF for CP9 design is aligned with the criteria adopted for the design of other existing CPs at the Meliadine Mine and meet/exceed the Agnico Eagle’s Corporate Standard – RMMS Corporate Standard Water Management (Agnico Eagle 2021).

CP9 was designed to store the entire runoff generated under the IDF event within its catchment area and potential water transfer from other temporary water storage at Pump. The design assumes that the entire runoff volume generated under the IDF event and total rainfall under a mean precipitation condition will be pumped out over 81 days (from mid-June to mid-September).

The maximum catchment area for CP9 is approximately 1,250,712 m², including the catchment area of Pump01, Pump04, and Lake B59, as shown in Figure 2. For an IDF of 198 mm, the volume of runoff water generated is approximately 221,660 m³. The volume of runoff water generated under total annual rainfall for a mean precipitation year (194 mm) is approximately 217,812 m³. Based on the pumping plan, the minimum designed pumping rate is approximately 5,420 m³/day (226 m³/h).

The proposed design pumping rate of 226 m³/h is expected to be sufficient to manage the runoff generated under IDF and total annual rainfall for a mean precipitation year given the assumptions adopted in the design. Under an extreme wet year scenarios (i.e., IDF plus total annual rainfall under a 1 in 100 wet year precipitation), excess runoff water can be managed by adaptive water management measures including water transfer to other storage, extending pumping period, and/or installation of temporary pumping system as needed. To accommodate such extreme condition, the pump and pipeline system should be designed with flexibility to handle higher pumping rates and/or increased hydraulic water head, if required.

The key design parameters for CP9 are summarized as below:

- The pond bottom elevation: 20 m
- The pond excavation depth from the original ground: approximately 36 m
- The lowest ground elevation around the perimeter of CP9: 56.0 m
- The MOWL in CP9 under IDF: 54.0 m
- The BOWL in CP9: 47.5 m
- The FTWL in CP9: 30.0 m

A ramp with a safety berm on the outside is incorporated in the pond design to serve as a haul road during the open pit mining and as a service road during operation. In accordance with the Mine Safety Act, a safety berm will be constructed on the open side of the ramp to minimize the risk of people or vehicles accidentally falling into the pond. Both the ramp and safety berms are designed for an assumed rock truck type of a Komatsu HD605 or equivalent. The ramp has a road width of 21.0 m and a typical longitudinal slope of approximately 10%. The height of the safety berm is 1.5 m. A ring road with a width of 8.0 m will be constructed along the pit perimeter to provide service access.

The drawings for CP9 are presented in Appendix B.

4.2 Water Storage Curve for CP9

The stage-storage capacity and water surface area with elevations for CP9 are summarized in Table 4. Figure A illustrates the stage storage curve in comparison with pertinent design elevations of CP9.

Table 4: Stage-storage Capacity and Pond Surface Area with Elevations for CP9

Pond Elevation (m)	Pond Storage Volume (m ³)	Pond Surface Area (m ²)
20.0	0	0
25.0	8,404	2,229
30.0 ^a	29,329	5,372
35.0	67,873	8,573
40.0	114,994	10,495
45.0	180,827	14,385
47.5 ^b	220,913	16,814
49.0	246,762	17,663
50.0	264,782	19,786
51.0	286,281	22,498
52.0	309,716	24,381
53.0	335,130	26,480
54.0 ^c	362,679	28,623
55.0	392,402	30,832
56.0	424,364	33,110
57.0	458,599	35,385

Note:

^a: Freeze-up Target Water Level. ^b: Bedrock Operating Water Level. ^c: Maximum Operating Water Level (2.0 m below the lowest ground level around the pit perimeter).

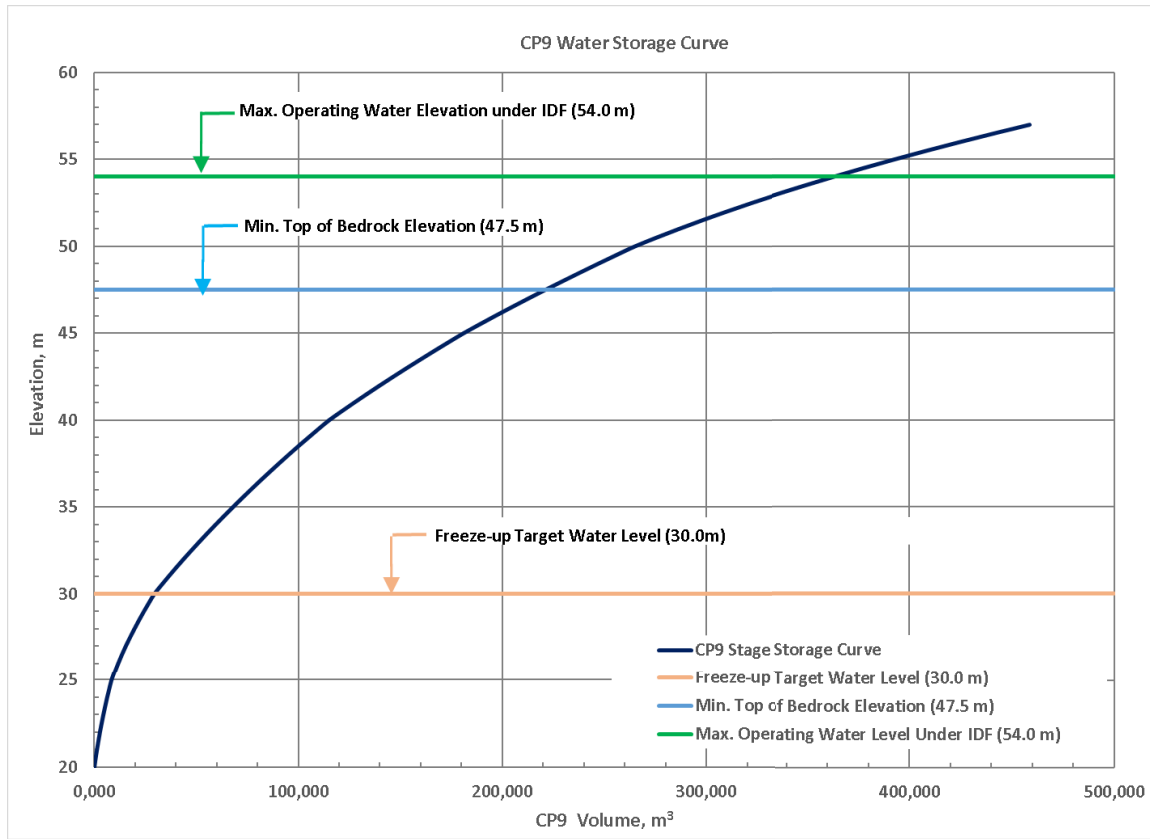


Figure A: Stage-storage Curve and Pertinent Elevations of CP9

4.3 Thermal Analysis

To facilitate the design of a thermal cover on the overburden slope of CP9, a series of two-dimensional thermal analyses were carried out using Tetra Tech's proprietary finite element computer model, GEOTHERM. The model simulates transient heat conduction with change of phase for a variety of boundary conditions, including heat flux, convective heat flux, and temperature and ground-air boundaries. The heat exchange at the ground surface is modelled with an energy balance equation considering air temperatures, wind velocity, snow depth, and solar radiation. The model facilitates the inclusion of temperature phase change relationships for saline soils, such that any freezing depression and unfrozen water content variations can be explicitly modelled.

Three different thicknesses of thermal cover (i.e., 1.0 m, 2.5 m, and 3.0 m) on the overburden slope of CP9 were considered in the thermal analyses for the thermal cover design on the overburden slope of CP9 to facilitate the slope stability analyses. More details on the thermal analyses for the thermal cover design on the overburden slope of CP9 can be found in Technical Memorandum – Thermal Cover Design for Pump Open Pit, Meliadine Gold Mine, Nunavut (Tetra Tech 2024b).

4.4 Stability Analysis

A series of limit equilibrium (LE) slope stability analyses were carried out using the two-dimensional analysis software, Slope/W of GeoStudio 2023.1.0 (Version 23.1.0.520) to determine the minimum thickness of the thermal cover for the overburden slope of CP9. The results of the slope stability analyses indicate that a minimum thermal cover thickness of 1.0 m is required for an unbent slope height of 8.0 m to meet the selected design of Factor of Safety (FoS) (1.3 under short-term construction condition and 1.5 under normal operation with static loading condition).

KP conducted LE slope stability analyses based on the recommended rock slope geometry presented in Table 3 and rock mass characteristics to calculate the target FoS against deep-seated failure for the overall slopes (KP 2022 and 2024). The results of the analyses significantly exceed the target FoS of 1.3 (e.g., the minimum calculated FoS was 3).

5.0 CONSTRUCTION OF CP9

5.1 Overall Construction Schedule

CP9 will be formed by the mined-out Pump01 open pit. Based on the latest mine plan, mining is scheduled to begin in Pump01 in early 2025 and the pit is expected to be mined out before the spring freshet of 2025 (June 2025). The above construction schedule may change due to on site operation requirements.

5.2 Construction Materials and Specifications

Only Run-of-Mine rockfill material will be used for the construction of the thermal cover on the CP9 overburden slope. The rockfill material will be sourced from the Pump01 open pit excavation or other mining areas. The rockfill will be free from snow, ice, frozen chunks, organic matters, and debris and can have a wide variation in gradation with a maximum particle size of 600 mm. The Run-of-Mine rockfill will be non-acid generating and non-metal leaching.

5.3 Estimated Quantities of Construction Material

Based on the minimum required thermal cover thickness (i.e., 1.0 m), the estimated quantity of rockfill material required for the construction of the thermal cover on the overburden slope of CP9 is approximately 25,400 m³.

5.4 Key Construction Activities

The key site activities related to the construction of CP9 include:

- Layout and survey the footprint of CP9.
- Drilling, blasting, and stripping overburden within the footprint of CP9.
- Placement of the Run-of-Mine rockfill along the overburden slope as the thermal cover.
- Pump01 open pit mining to design bottom elevation.

5.5 Water Management during Construction and Erosion Control

Based on the construction schedule presented in Section 5.1 and site conditions, requirements for water management and erosion control are not expected during the construction of CP9.

5.6 Quality Assurance and Quality Control

A quality assurance/quality control (QA/QC) program is required during construction of the thermal cover to ensure that construction-sensitive features of the design are achieved.

It is recommended that the rock conditions and stability be assessed during the Pump01 open pit mining by a qualified geotechnical or rock engineer to determine the final rock slope geometry. If required, the rock slope should be flattened to reduce the potential risk of local failure or rock falls.

5.7 Survey Requirements

An as-built survey and documentation is required to verify quantities and produce as-built drawings for CP9.

The Surveyor should carry out but not be limited to the following tasks:

- Prior to the commencement of construction, additional detailed high-resolution contour data are required to produce elevation contours to an accuracy of approximately 0.1 m.
- During and after construction, the following tasks should be performed:
 - Survey the as-built overburden excavations;
 - Survey the as-built conditions after the placement of the thermal cover;
 - Survey the as-built open pit geometry once the open pit is mined out; and
 - Provide the Engineer an AutoCAD drawing showing 3D lines and surfaces of each of the excavations and fill materials at critical stages or as required.

6.0 MONITORING AND INSPECTION

Performance monitoring is an integral part of the operation of any WMI, particularly in an arctic environment. It is intended to provide the following information:

- Confirmation that the performance of the pond and thermal cover are consistent with the predictions made during the design studies.
- Early warning of the development of potentially adverse trends such as deformation and slope failure.

Regular visual inspection of the overburden slopes should be performed to identify any signs of excess deformation, instability, or distress. If any of these signs are identified, the information should be provided to Tetra Tech to evaluate the root cause and develop a mitigation plan if required. Periodically, maintenance may be required depending on the overall performance.

An annual geotechnical inspection, in accordance with Part I, Items 13 and 14 of the amended Type A Water Licence – 2AM-MEL1631 and Agnico Eagle's Corporate Standard on critical infrastructure (Agnico Eagle 2019) will

be conducted by a qualified Geotechnical Engineer to document the performance of each structure. These visits should take place between the months of July and September of each year. The specific tasks conducted during these visits should include inspection of the slopes for any sign of distress and deformation, inspection of the crest for any sign of transverse cracking. The annual inspection report will be submitted to the NWB as per the amended Type A Water License requirements.

7.0 REPORTING

Upon the completion of the construction activities, an as-built construction report will be prepared and submitted to the NWB within 90 days. The construction summary report should meet the requirements of the amended Water Licence Schedule D and provide all relevant supporting documentation compiled during implementation of the QA/QC plan. The construction report will include, but not be limited to the following:

- Construction drawings based on the as-built survey information of the surface of all material placed;
- Actual construction quantities;
- Summary of the construction issues and resolution applied;
- Report on construction and design changes made during construction; and
- Installation details of any required instrumentation or monitoring devices, if any.

8.0 CLOSURE

We trust this report meets your present requirements. If you have any questions or comments, please contact the undersigned.

Respectfully submitted,
Tetra Tech Canada Inc.

FILE: 704-ENG.EARC03140-40
FILE: 704-ENG.EARC03140-40
FILE: 704-ENG.EARC03140-40

Prepared by:
Hongwei Xia, Ph.D., P.Eng.
Principal Specialist/Senior Geotechnical Engineer,
Arctic Region
Direct Line: 587.460.3646
Hongwei.Xia@tetrattech.com

/jf

FILE: 704-ENG.EARC03140-40
FILE: 704-ENG.EARC03140-40
FILE: 704-ENG.EARC03140-40

Reviewed by:
Fai Ndofofor, M.Sc., P.Geo.
Principal Consultant, Arctic Region
Direct Line: 587.460.3486
Fai.Ndofofor@tetrattech.com

**PERMIT TO PRACTICE
TETRA TECH CANADA INC.**

Signature _____

Date _____

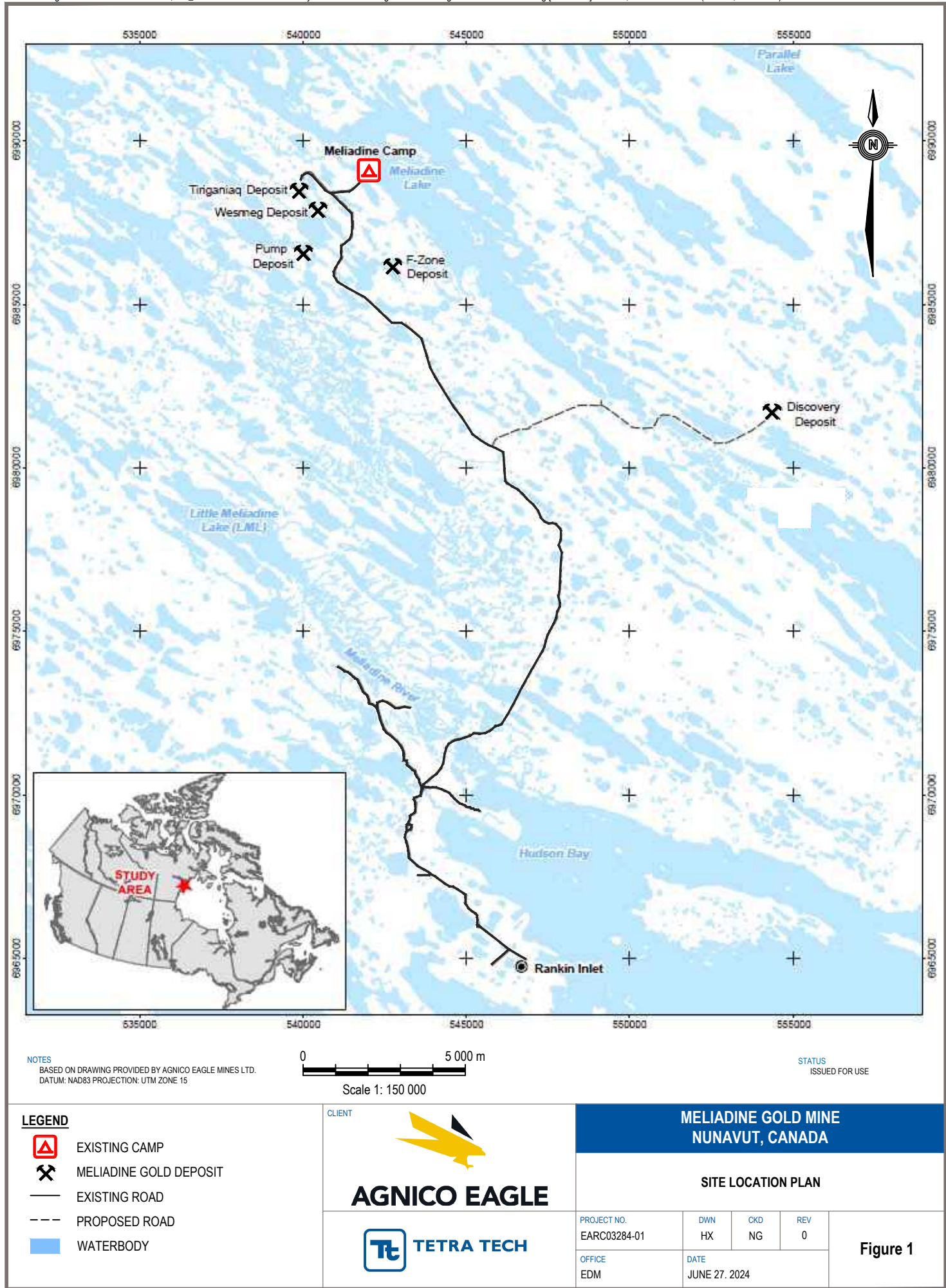
PERMIT NUMBER: P 018
NT/NU Association of Professional
Engineers and Geoscientists

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FIGURES

- Figure 1 General Mine Location Plan
- Figure 2 General Site Layout Plan and Water Management at Pump
- Figure 3 Borehole Locations from 2021/2024 Geotechnical Investigation





LEGEND

- CATCHMENT BOUNDARY
- HAUL ROAD
- WATER FLOW
- DRAINED LAKE AREA
- WASTE ROCK STORAGE FACILITY



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TITRE / TITLE	
# DWG	

DESSINS EN RÉFÉRENCE/REFERENCE DRAWINGS

REV	DESCRIPTION	DATE	PAR BY

REVISIONS

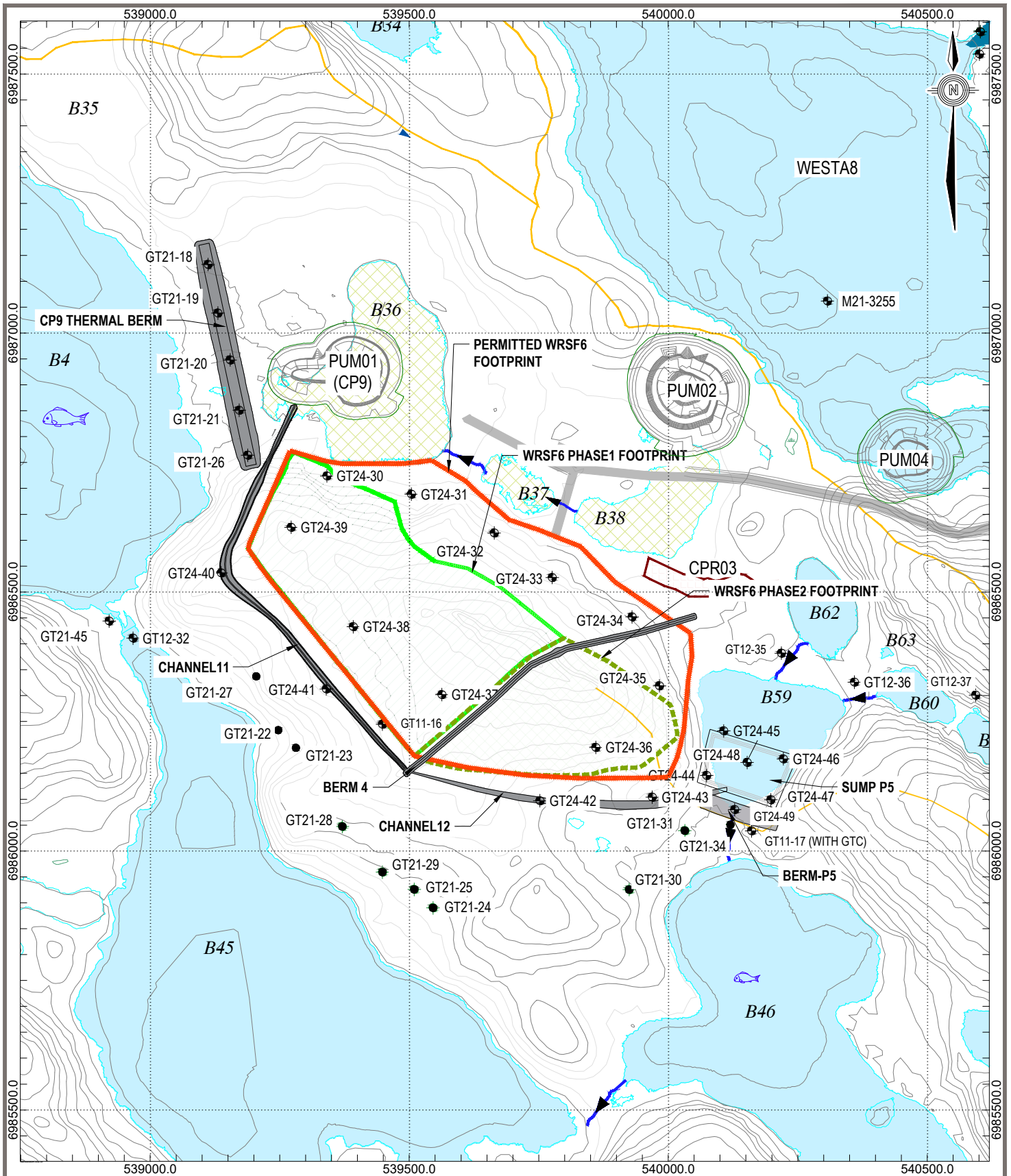
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VÉRIFIÉ PAR CHECKED BY	HX		2015-01-15
APPROUVÉ PAR APPROVED BY			
No. PROJET PROJECT NO.	ENG.EARCO3140-39		

DATE

TITRE / TITLE
AGNICO EAGLE – MELIADINE GOLD MINE
GENERAL SITE LAYOUT AND WATER MANAGEMENT PLAN
AT PUMP DEPOSITS

ÉCHELLE/ SCALE	FICHIER FILE	.DWG	REVISION	FEUILLE/SHT 1 / 1
No. DESSIN/ DRAWING NO.		FIGURE 2		

Q:\Edmonton\Engineering\E141\Projects\MELIADINE\ENG EARC03140-40 PUM Cover Design\Figure 3 - Pump 01, Pump 02, Pump 04 and Borehole Locations.dwg [FIGURE 3] April 16, 2025 - 9:13:32 am (BY: XIA, HONGWEI)



LEGEND:

- EXISTING BOREHOLE (DESTRUCTIVE)
- ⊕ EXISTING BOREHOLE

0 500m
Scale: 1:10,000 @ 8.5"x11"

CLIENT



MELIADINE GOLD MINE, CANADA

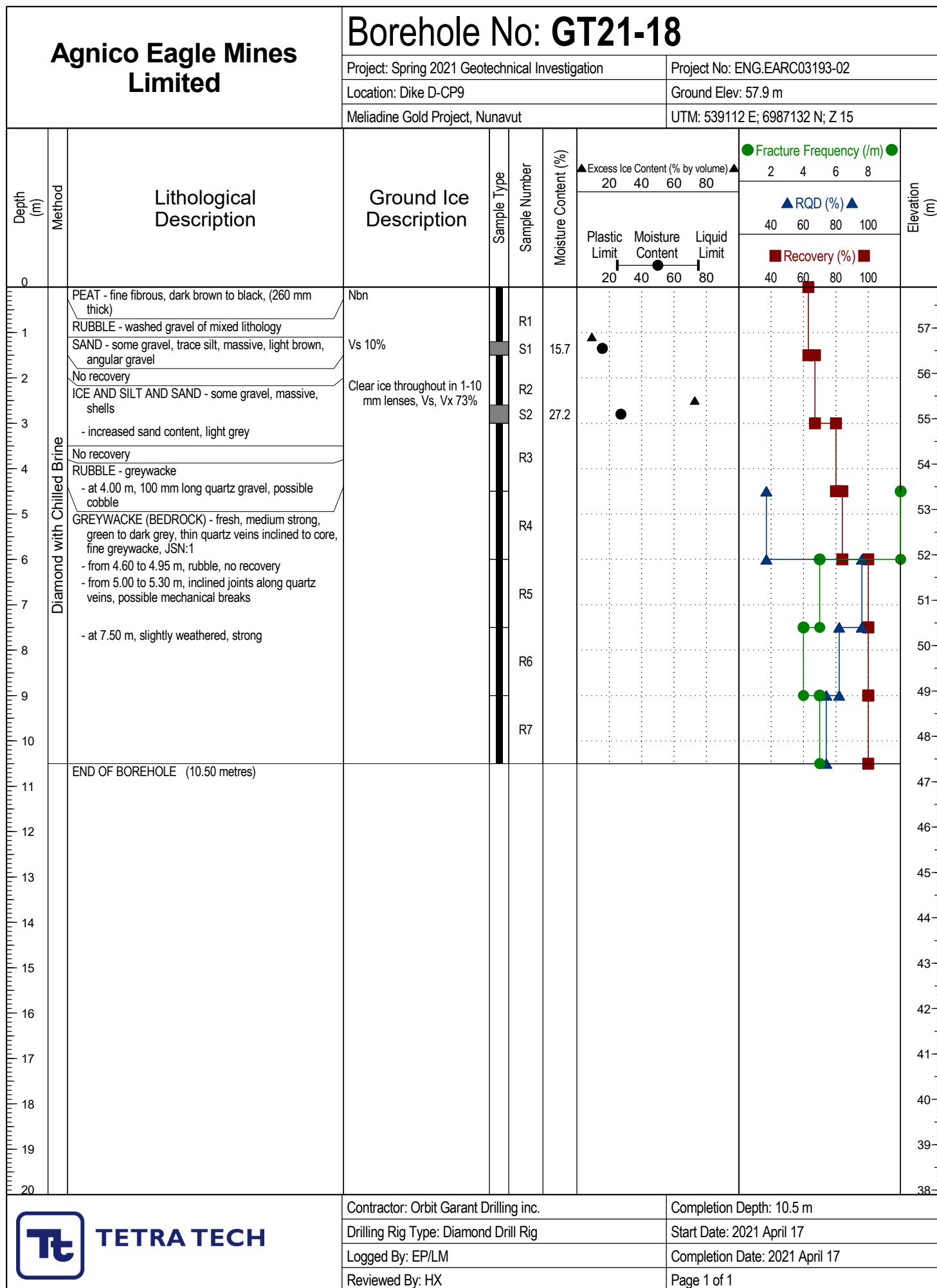
BOREHOLES DRILLED NEAR CP9

PROJECT NO.	DWN	CKD	REV
ENG.EARC03140-40	DS	HX	A
OFFICE	DATE		
EDM	OCTOBER, 2024		

FIGURE 3

APPENDIX A

BOREHOLE LOGS FROM 2021/2024 DRILLING PROGRAM



Agnico Eagle Mines Limited

Borehole No: GT21-19

Project: Spring 2021 Geotechnical Investigation

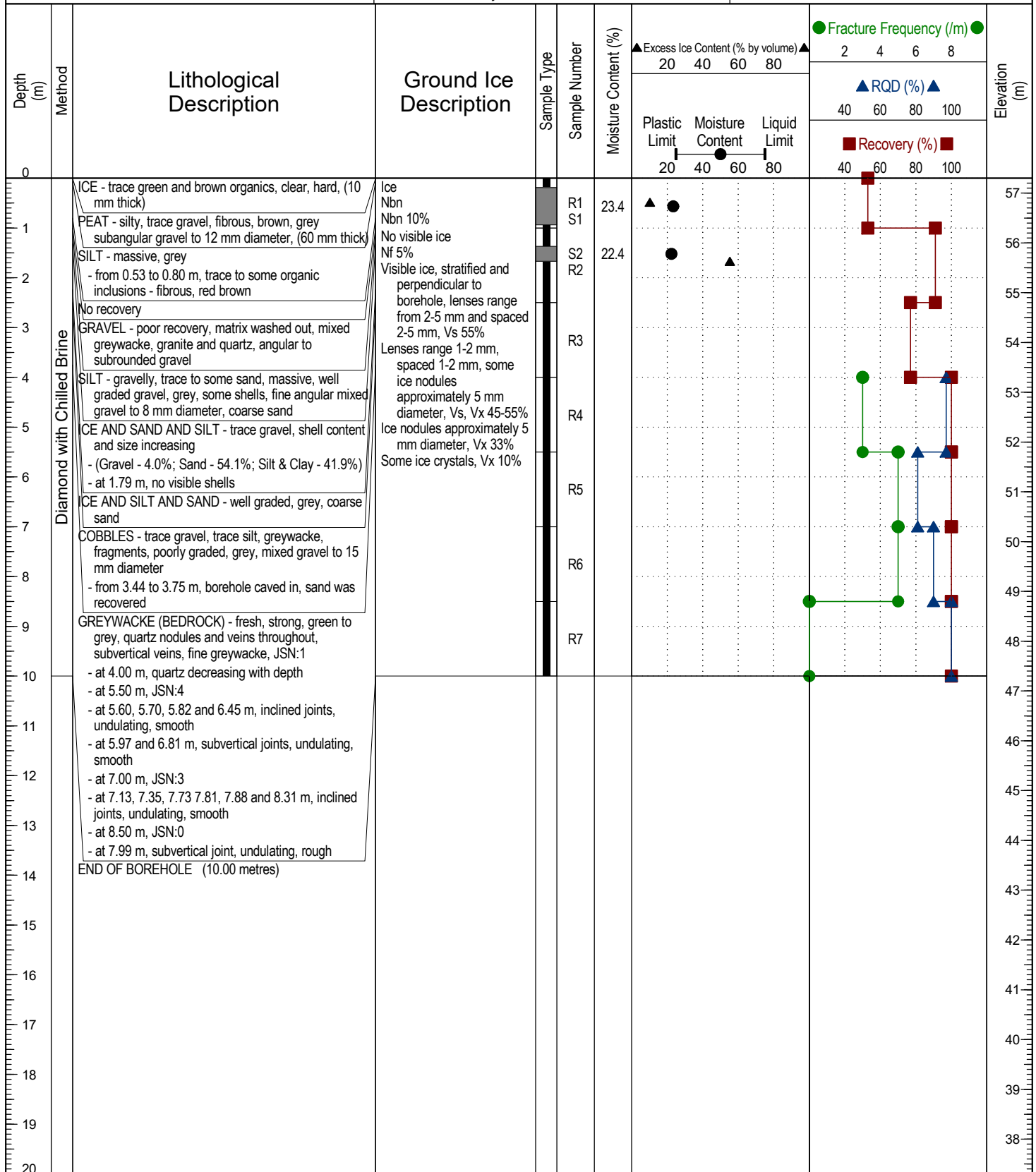
Project No: ENG.EARC03193-02

Location: Dike D-CP9

Ground Elev: 57.3 m

Meliadine Gold Project, Nunavut

UTM: 539131 E; 6987038 N; Z 15



TETRA TECH

Contractor: Orbit Garant Drilling inc.

Completion Depth: 10 m

Drilling Rig Type: Diamond Drill Rig

Start Date: 2021 April 17

Logged By: LM

Completion Date: 2021 April 17

Reviewed By: HX

Page 1 of 1

Agnico Eagle Mines Limited

Borehole No: GT21-20

Project: Spring 2021 Geotechnical Investigation

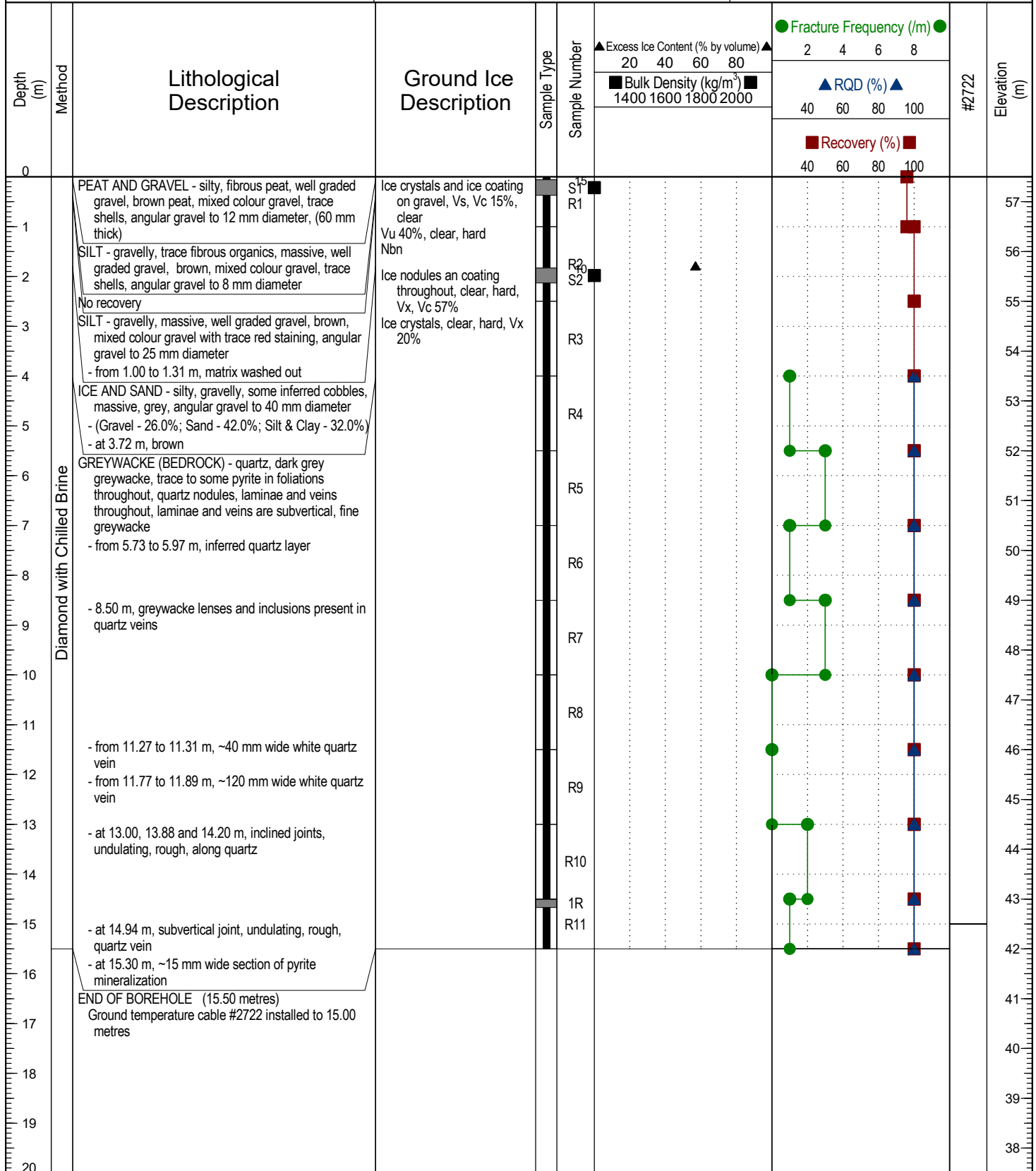
Project No: ENG.EARC03193-02

Location: Dike D-CP9

Ground Elev: 57.5 m

Meliadine Gold Project, Nunavut

UTM: 539154 E; 6986948 N; Z 15



TETRA TECH

Contractor: Orbit Garant Drilling inc.

Completion Depth: 15.5 m

Drilling Rig Type: Diamond Drill Rig

Start Date: 2021 April 18

Logged By: LM

Completion Date: 2021 April 19

Reviewed By: HX

Page 1 of 1

Agnico Eagle Mines Limited

Borehole No: GT21-21

Project: Spring 2021 Geotechnical Investigation

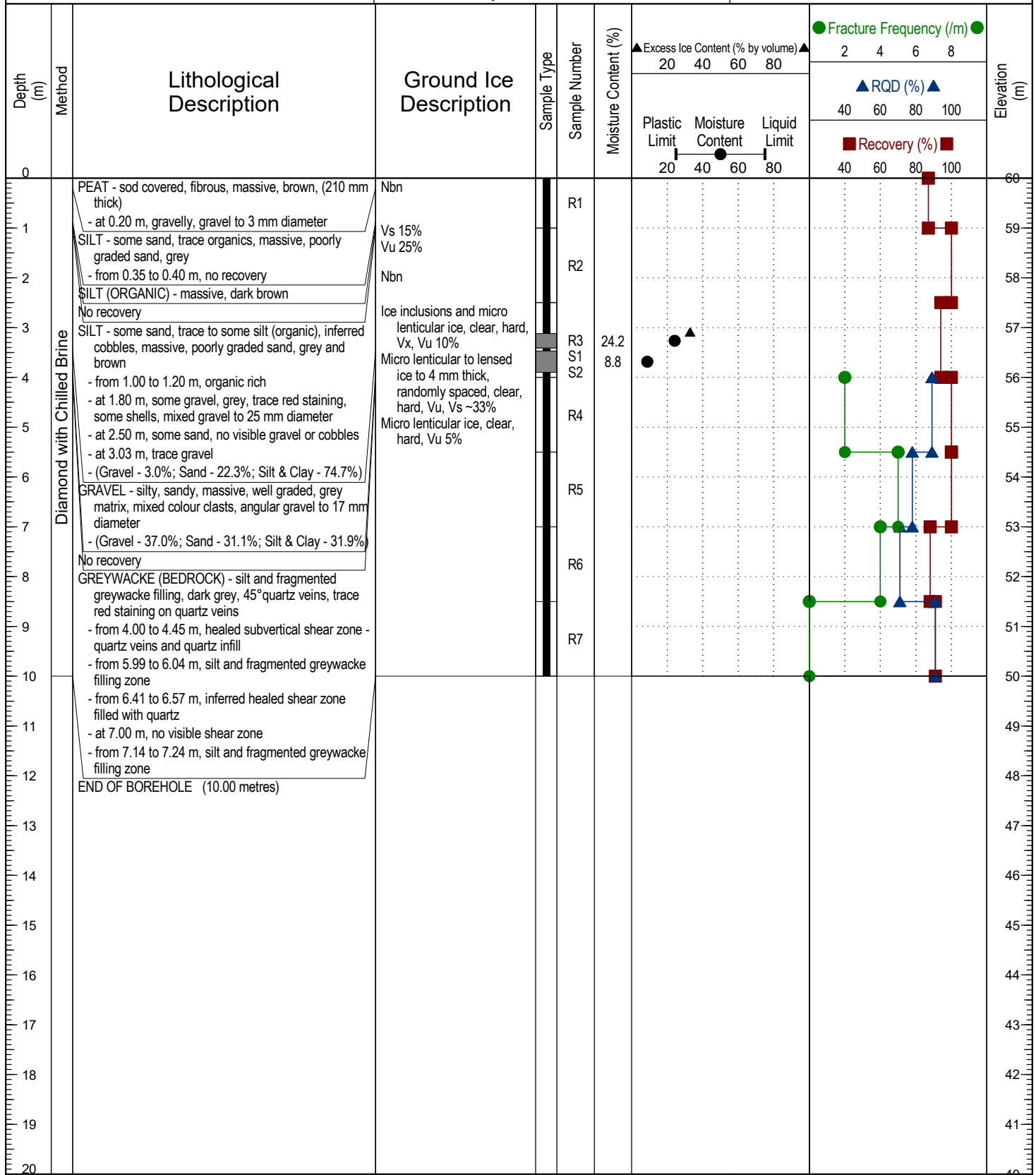
Project No: ENG.EARC03193-02

Location: Dike D-CP9

Ground Elev: 60 m

Meliadine Gold Project, Nunavut

UTM: 539172 E; 6986851 N; Z 15



TETRA TECH

Contractor: Orbit Garant Drilling inc.

Completion Depth: 10 m

Drilling Rig Type: Diamond Drill Rig

Start Date: 2021 April 19

Logged By: LM

Completion Date: 2021 April 20

Reviewed By: HX

Page 1 of 1

Agnico Eagle Mines Limited

Borehole No: GT21-26

Project: Spring 2021 Geotechnical Investigation

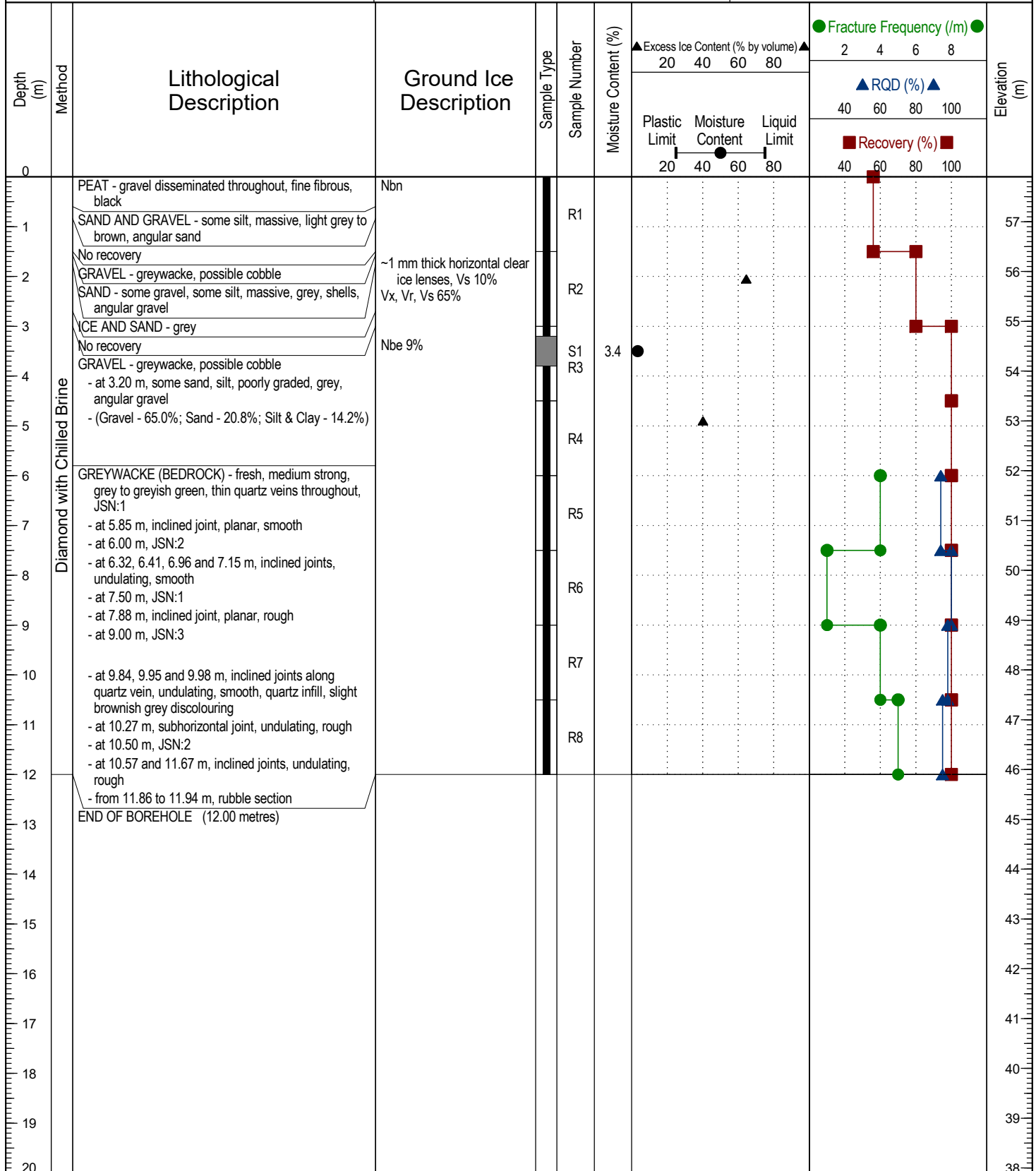
Project No: ENG.EARC03193-02

Location: Dike D-CP9

Ground Elev: 57.9 m

Meliadine Gold Project, Nunavut

UTM: 539188 E; 6986764 N; Z 15



TETRA TECH

Contractor: Orbit Garant Drilling inc.

Completion Depth: 12 m

Drilling Rig Type: Diamond Drill Rig

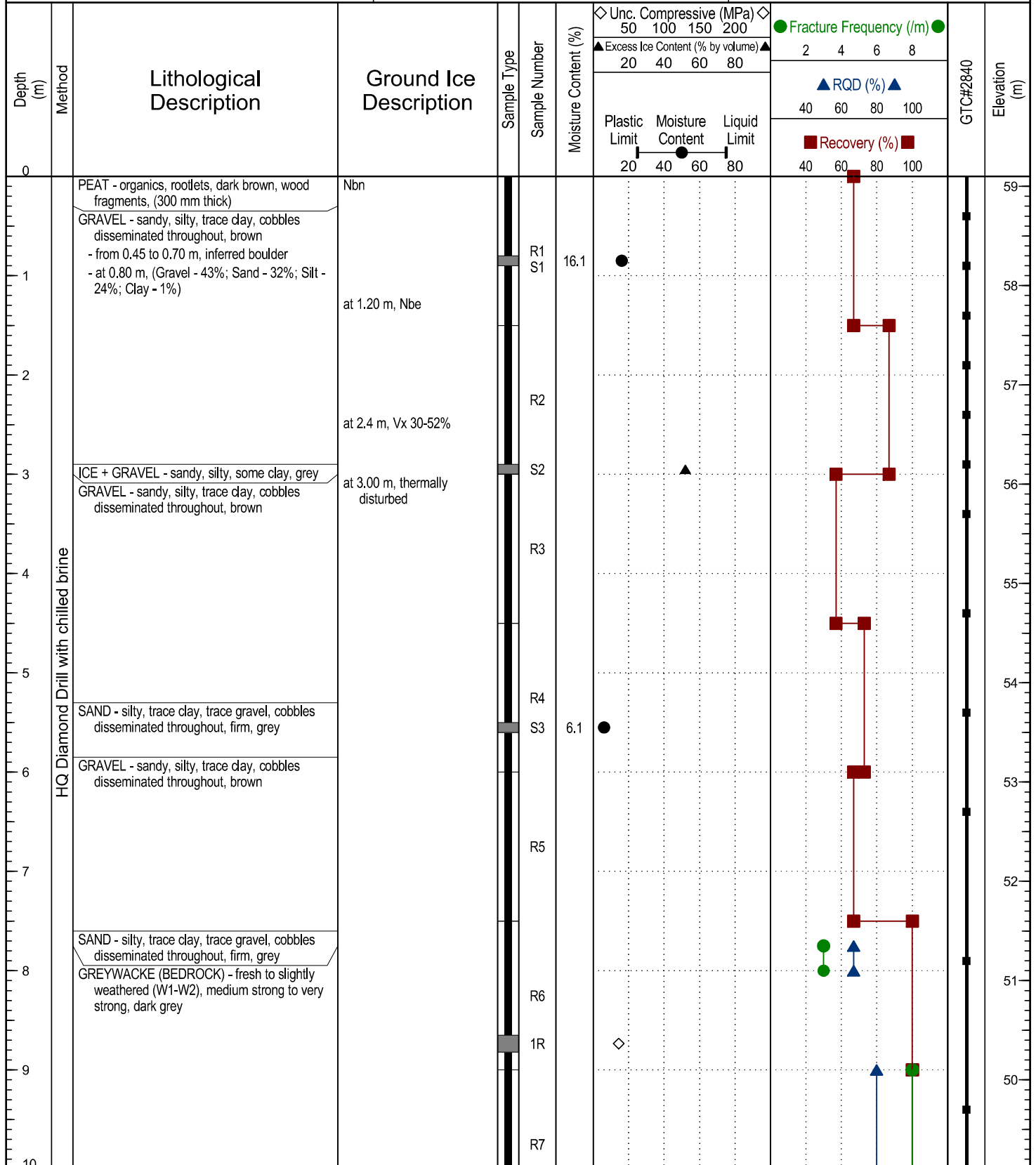
Start Date: 2021 April 20

Logged By: EP

Completion Date: 2021 April 20

Reviewed By: HX

Page 1 of 1



Borehole No: GT24-30

Project: Geotechnical Investigation for WRSF6

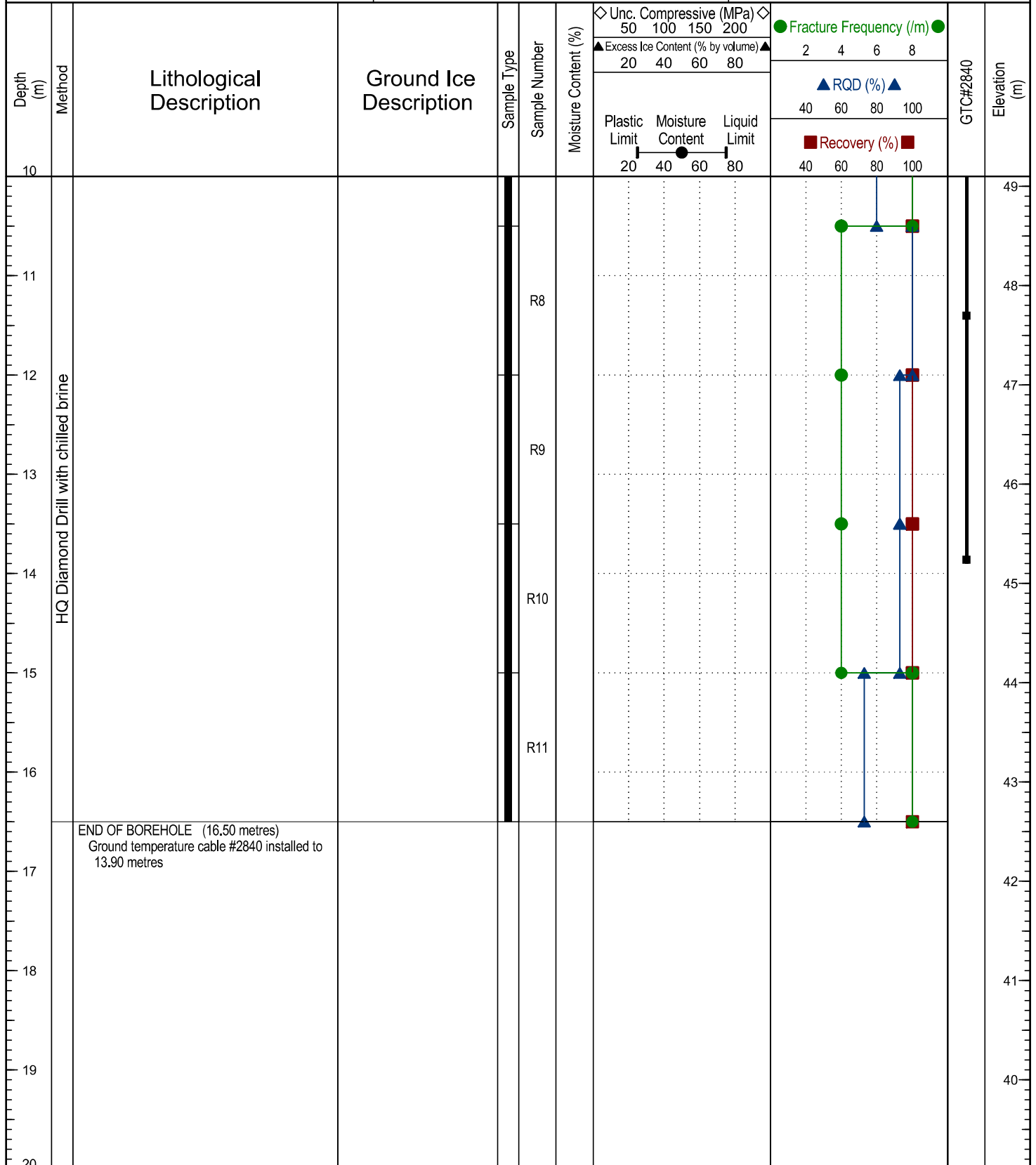
Project No: ENG.EARC03140-37

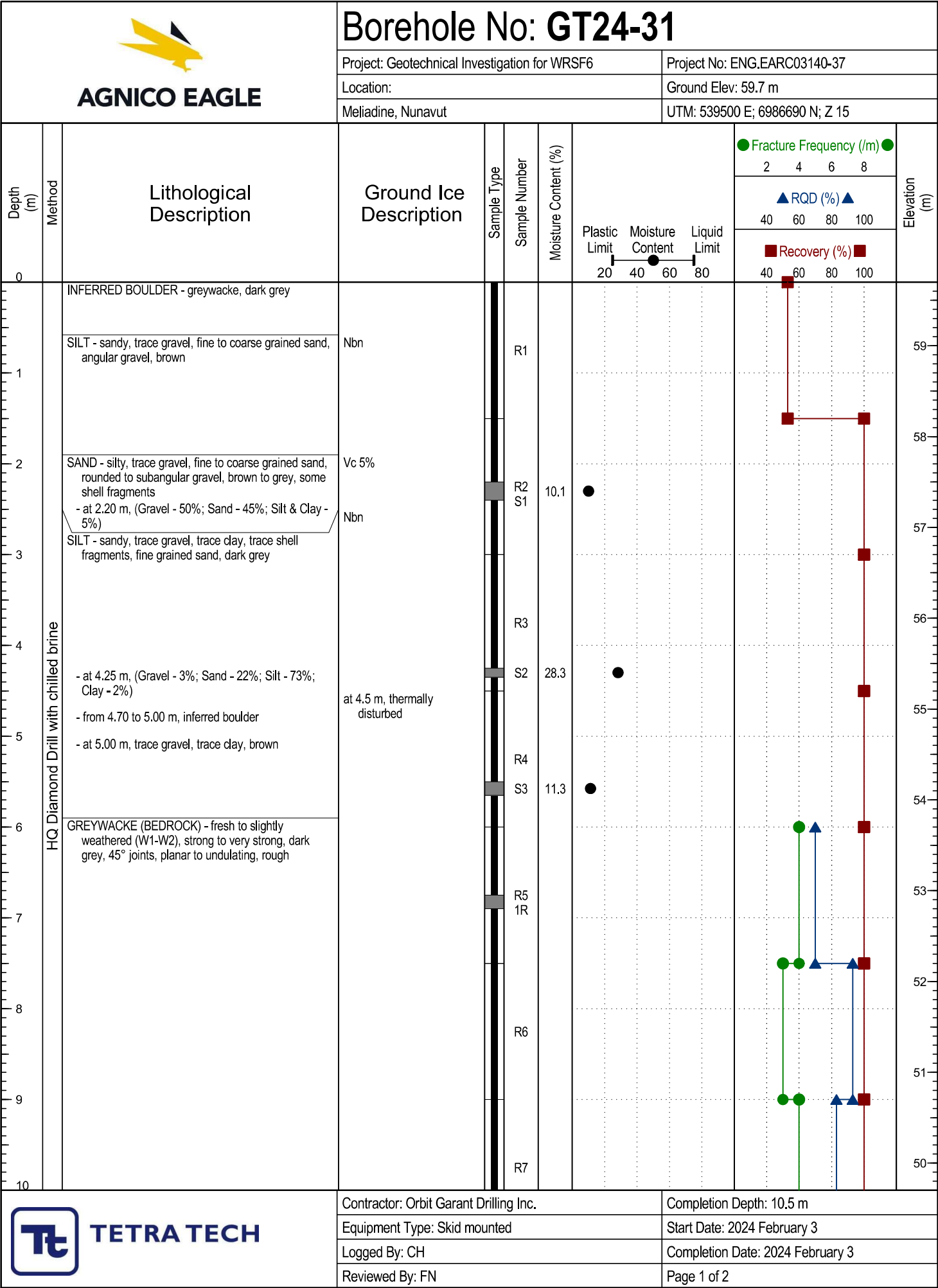
Location:


Ground Elev: 59.1 m

Meliadine, Nunavut

UTM: 539341 E; 6986719 N; Z 15





<div></div> <div>AGNICO EAGLE</div>			Borehole No: GT24-31											
			Project: Geotechnical Investigation for WRSF6					Project No: ENG.EARC03140-37						
			Location:					Ground Elev: 59.7 m						
			Meliadine, Nunavut					UTM: 539500 E; 6986690 N; Z 15						
Depth (m)	Method	Lithological Description	Ground Ice Description	Sample Type	Sample Number	Moisture Content (%)	<div>Plastic Limit Moisture Content Liquid Limit</div> <div>20 40 60 80</div>			● Fracture Frequency (/m) ●				Elevation (m)
										2 4 6 8				
										▲ RQD (%) ▲				
										40 60 80 100				
10					2R					■ Recovery (%) ■				
										40 60 80 100				
11 12 13 14 15 16 17 18 19 20		END OF BOREHOLE (10,50 metres)								● Fracture Frequency (/m) ●				49 48 47 46 45 44 43 42 41 40
			Contractor: Orbit Garant Drilling Inc.					Completion Depth: 10.5 m						
			Equipment Type: Skid mounted					Start Date: 2024 February 3						
			Logged By: CH					Completion Date: 2024 February 3						
			Reviewed By: FN					Page 2 of 2						

Borehole No: GT24-32

Project: Geotechnical Investigation for WRSF6

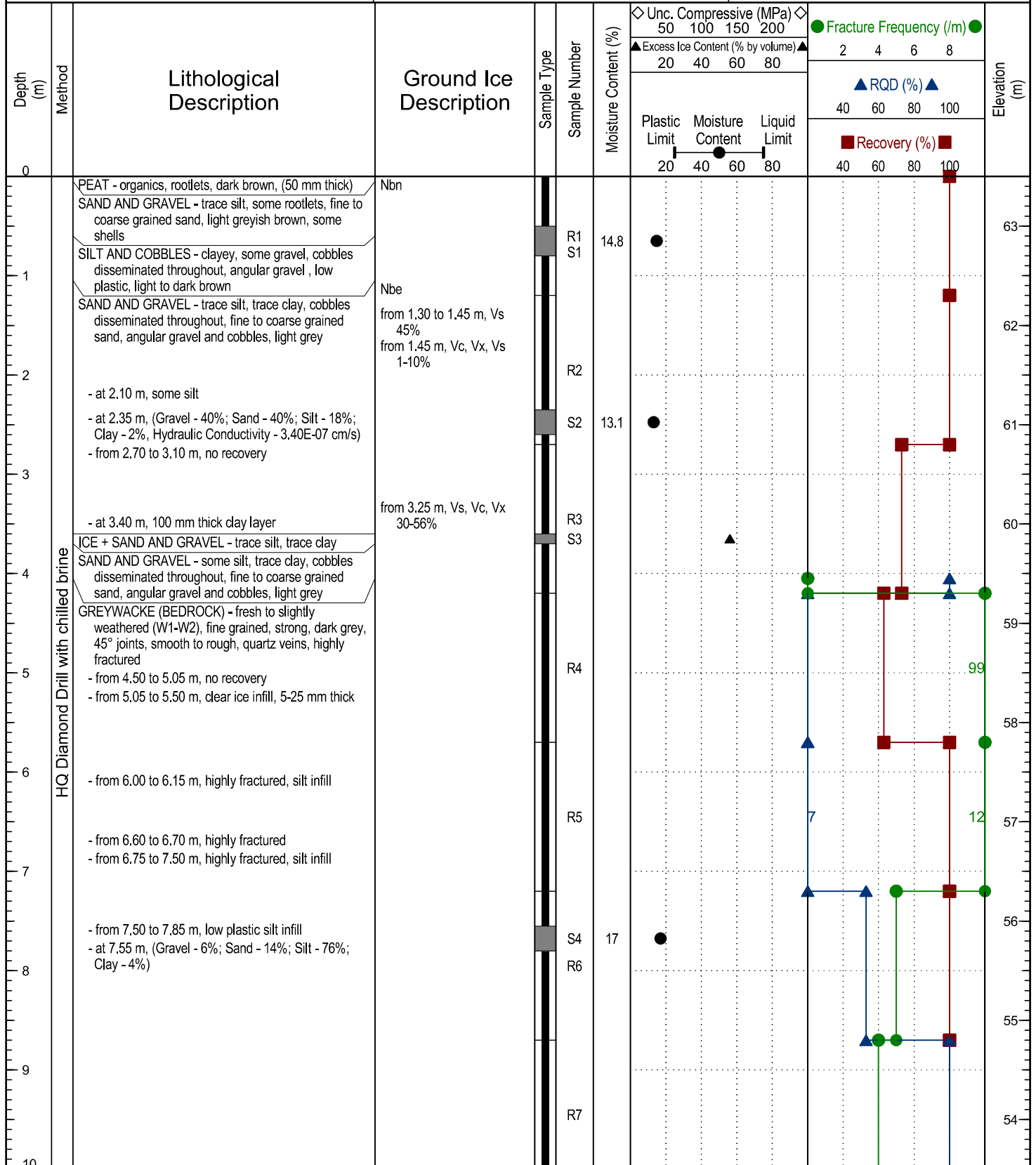
Project No: ENG.EARC03140-37

Location:

Ground Elev: 63.5 m

Meliadine, Nunavut

UTM: 539663 E; 6986615 N; Z 15



Contractor: Orbit Garant Drilling Inc.

Completion Depth: 11.7 m

Equipment Type: Skid mounted


Start Date: 2024 February 2

Logged By: SE

Completion Date: 2024 February 3

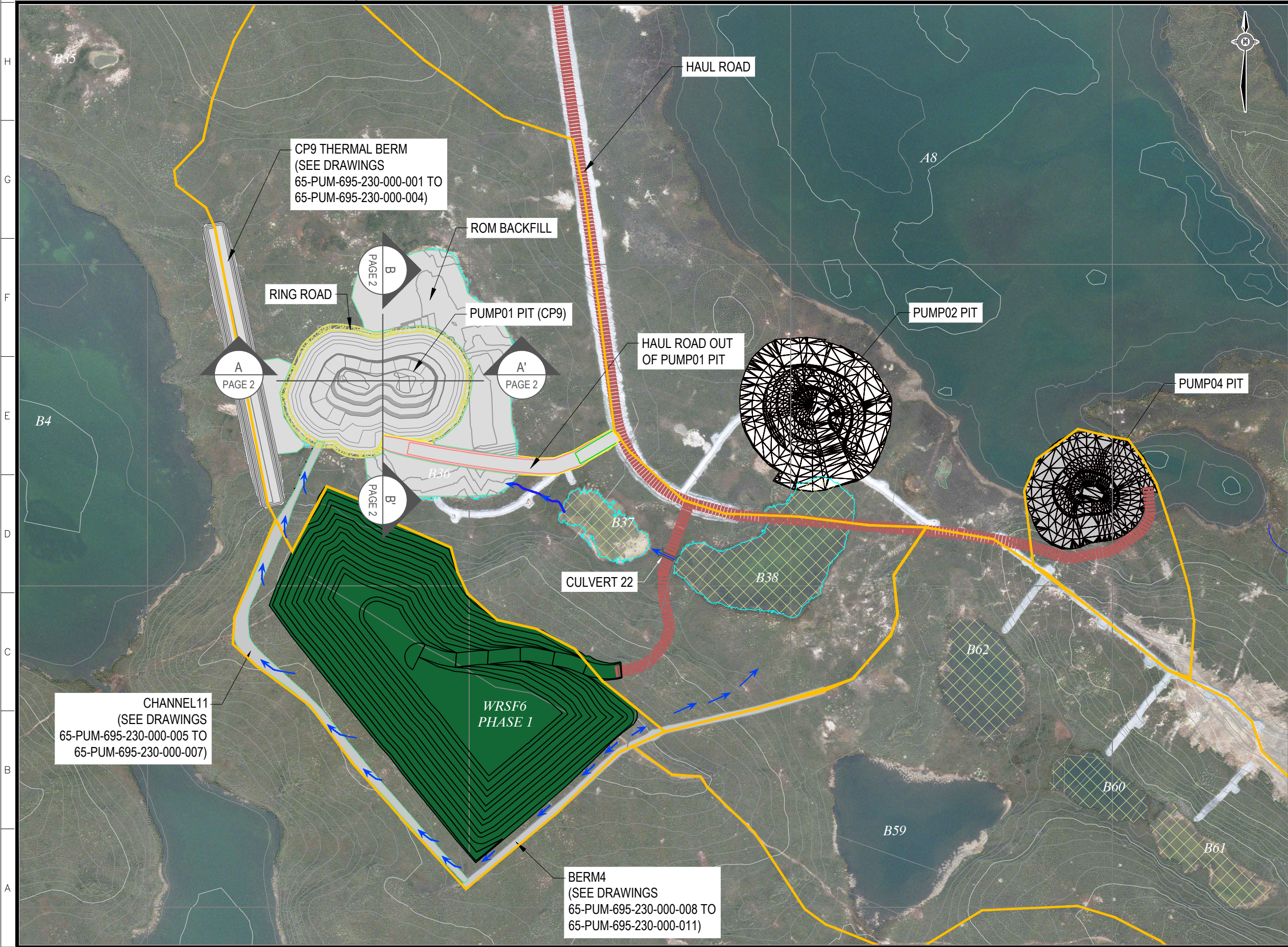
Reviewed By: FN

Page 1 of 2

<div></div> <div>AGNICO EAGLE</div>			Borehole No: GT24-32					
			Project: Geotechnical Investigation for WRSF6			Project No: ENG.EARC03140-37		
			Location:			Ground Elev: 63.5 m		
			Meliadine, Nunavut			UTM: 539663 E; 6986615 N; Z 15		
Depth (m)	Method	Lithological Description	Ground Ice Description	Sample Type	Sample Number	Moisture Content (%) ◇ Unc. Compressive (MPa) ◇ 50 100 150 200 ▲ Excess Ice Content (% by volume) ▲ 20 40 60 80 Plastic Limit Moisture Content Liquid Limit 20 40 60 80	● Fracture Frequency (/m) ● 2 4 6 8 ▲ RQD (%) ▲ 40 60 80 100 ■ Recovery (%) ■ 40 60 80 100	Elevation (m)
10								
11					R8 1R			53
12		END OF BOREHOLE (11.70 metres)						52
13								51
14								50
15								49
16								48
17								47
18								46
19								45
20								44
			Contractor: Orbit Garant Drilling Inc.			Completion Depth: 11.7 m		
			Equipment Type: Skid mounted			Start Date: 2024 February 2		
			Logged By: SE			Completion Date: 2024 February 3		
			Reviewed By: FN			Page 2 of 2		

APPENDIX B

ISSUED FOR CONSTRUCTION DRAWINGS FOR CP9



LEGEND

- CATCHMENT BOUNDARY
- HAUL ROAD
- WATER FLOW
- DRAINED LAKE AREA
- WASTE ROCK STORAGE FACILITY

PERMIT TO PRACTICE
TETRA TECH CANADA INC.

Signature _____

Date _____

PERMIT NUMBER: P 018

NT/NU Association of Professional
Engineers and Geoscientists



AGNICO EAGLE



TETRA TECH

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TITRE / TITLE	# DWG

DESSINS EN RÉFÉRENCE/REFERENCE DRAWINGS

A	ISSUED FOR CONSTRUCTION	6-22-2025	HX
REV	DESCRIPTION	DATE	PAR BY

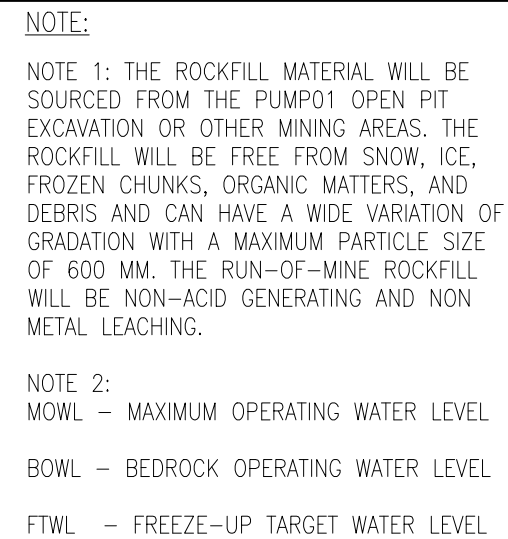
REVISIONS

DESSINÉ PAR DRAWN BY	HX	DATE	2025-01-15
VÉRIFIÉ PAR CHECKED BY	HX	2015-01-15	
APPROUVÉ PAR APPROVED BY			
No. PROJET PROJECT NO.	ENG.EARC03247-10		

DATE

TITRE / TITLE
AGNICO EAGLE — MELIADINE GOLD MINE
CP9 PLAN VIEW AND SITE LAYOUT AT PUMP

ÉCHELLE/ SCALE	1:6000	FICHIER FILE	.DWG
No. DESSIN/ DRAWING NO.	65-695-230-029		REVISION
		FEUILLE/SHT	1 / 2



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TITRE / TITLE	# DWG

DESSINS EN RÉFÉRENCE/REFERENCE DRAWINGS

0	ISSUED FOR CONSTRUCTION	06-22-2025	HX
REV	DESCRIPTION	DATE	PAR RY

REVISIONS

DESSINÉ PAR DRAWN BY	HX	DATE	2025-01-15
VÉRIFIÉ PAR CHECKED BY	HX		2015-01-15
APPROUVÉ PAR APPROVED BY			

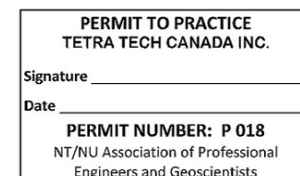
No. PROJ
PROJECT NO. ENG.EARC03247-10

DATE _____

TITRE / TITLE
AGNICO EAGLE – MELIADINE GOLD MINE

SECTION A-A' AND SECTION B-B'
PUMP01 OPEN PIT (CP9)

ÉCHELLE/ SCALE AS SHOWN		FICHER FILE .DWG	
No. DESSIN/ DRAWING NO. 65-695-230-030		REVISION	FEUILLE/SHT 2 / 2



SECTION B-B' – PUMP01 PIT (CP9)

SCALE: H-1:1000 V-1:500

APPENDIX C

TETRA TECH'S LIMITATIONS ON USE OF THIS DOCUMENT

LIMITATIONS ON USE OF THIS DOCUMENT

GEOTECHNICAL

1.1 USE OF DOCUMENT AND OWNERSHIP

This document pertains to a specific site, a specific development, and a specific scope of work. The document may include plans, drawings, profiles and other supporting documents that collectively constitute the document (the "Professional Document").

The Professional Document is intended for the sole use of TETRA TECH's Client (the "Client") as specifically identified in the TETRA TECH Services Agreement or other Contractual Agreement entered into with the Client (either of which is termed the "Contract" herein). TETRA TECH does not accept any responsibility for the accuracy of any of the data, analyses, recommendations or other contents of the Professional Document when it is used or relied upon by any party other than the Client, unless authorized in writing by TETRA TECH.

Any unauthorized use of the Professional Document is at the sole risk of the user. TETRA TECH accepts no responsibility whatsoever for any loss or damage where such loss or damage is alleged to be or, in fact, caused by the unauthorized use of the Professional Document.

Where TETRA TECH has expressly authorized the use of the Professional Document by a third party (an "Authorized Party"), consideration for such authorization is the Authorized Party's acceptance of these Limitations on Use of this Document as well as any limitations on liability contained in the Contract with the Client (all of which is collectively termed the "Limitations on Liability"). The Authorized Party should carefully review both these Limitations on Use of this Document and the Contract prior to making any use of the Professional Document. Any use made of the Professional Document by an Authorized Party constitutes the Authorized Party's express acceptance of, and agreement to, the Limitations on Liability.

The Professional Document and any other form or type of data or documents generated by TETRA TECH during the performance of the work are TETRA TECH's professional work product and shall remain the copyright property of TETRA TECH.

The Professional Document is subject to copyright and shall not be reproduced either wholly or in part without the prior, written permission of TETRA TECH. Additional copies of the Document, if required, may be obtained upon request.

1.2 ALTERNATIVE DOCUMENT FORMAT

Where TETRA TECH submits electronic file and/or hard copy versions of the Professional Document or any drawings or other project-related documents and deliverables (collectively termed TETRA TECH's "Instruments of Professional Service"), only the signed and/or sealed versions shall be considered final. The original signed and/or sealed electronic file and/or hard copy version archived by TETRA TECH shall be deemed to be the original. TETRA TECH will archive a protected digital copy of the original signed and/or sealed version for a period of 10 years.

Both electronic file and/or hard copy versions of TETRA TECH's Instruments of Professional Service shall not, under any circumstances, be altered by any party except TETRA TECH. TETRA TECH's Instruments of Professional Service will be used only and exactly as submitted by TETRA TECH.

Electronic files submitted by TETRA TECH have been prepared and submitted using specific software and hardware systems. TETRA TECH makes no representation about the compatibility of these files with the Client's current or future software and hardware systems.

1.3 STANDARD OF CARE

Services performed by TETRA TECH for the Professional Document have been conducted in accordance with the Contract, in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions in the jurisdiction in which the services are provided. Professional judgment has been applied in developing the conclusions and/or recommendations provided in this Professional Document. No warranty or guarantee, express or implied, is made concerning the test results, comments, recommendations, or any other portion of the Professional Document.

If any error or omission is detected by the Client or an Authorized Party, the error or omission must be immediately brought to the attention of TETRA TECH.

1.4 DISCLOSURE OF INFORMATION BY CLIENT

The Client acknowledges that it has fully cooperated with TETRA TECH with respect to the provision of all available information on the past, present, and proposed conditions on the site, including historical information respecting the use of the site. The Client further acknowledges that in order for TETRA TECH to properly provide the services contracted for in the Contract, TETRA TECH has relied upon the Client with respect to both the full disclosure and accuracy of any such information.

1.5 INFORMATION PROVIDED TO TETRA TECH BY OTHERS

During the performance of the work and the preparation of this Professional Document, TETRA TECH may have relied on information provided by persons other than the Client.

While TETRA TECH endeavours to verify the accuracy of such information, TETRA TECH accepts no responsibility for the accuracy or the reliability of such information even where inaccurate or unreliable information impacts any recommendations, design or other deliverables and causes the Client or an Authorized Party loss or damage.

1.6 GENERAL LIMITATIONS OF DOCUMENT

This Professional Document is based solely on the conditions presented and the data available to TETRA TECH at the time the data were collected in the field or gathered from available databases.

The Client, and any Authorized Party, acknowledges that the Professional Document is based on limited data and that the conclusions, opinions, and recommendations contained in the Professional Document are the result of the application of professional judgment to such limited data.

The Professional Document is not applicable to any other sites, nor should it be relied upon for types of development other than those to which it refers. Any variation from the site conditions present, or variation in assumed conditions which might form the basis of design or recommendations as outlined in this report, at or on the development proposed as of the date of the Professional Document requires a supplementary investigation and assessment.

TETRA TECH is neither qualified to, nor is it making, any recommendations with respect to the purchase, sale, investment or development of the property, the decisions on which are the sole responsibility of the Client.

1.7 ENVIRONMENTAL AND REGULATORY ISSUES

Unless stipulated in the report, TETRA TECH has not been retained to investigate, address or consider and has not investigated, addressed or considered any environmental or regulatory issues associated with development on the subject site.

1.8 NATURE AND EXACTNESS OF SOIL AND ROCK DESCRIPTIONS

Classification and identification of soils and rocks are based upon commonly accepted systems and methods employed in professional geotechnical practice. This report contains descriptions of the systems and methods used. Where deviations from the system or method prevail, they are specifically mentioned.

Classification and identification of geological units are judgmental in nature as to both type and condition. TETRA TECH does not warrant conditions represented herein as exact, but infers accuracy only to the extent that is common in practice.

Where subsurface conditions encountered during development are different from those described in this report, qualified geotechnical personnel should revisit the site and review recommendations in light of the actual conditions encountered.

1.9 LOGS OF TESTHOLES

The testhole logs are a compilation of conditions and classification of soils and rocks as obtained from field observations and laboratory testing of selected samples. Soil and rock zones have been interpreted. Change from one geological zone to the other, indicated on the logs as a distinct line, can be, in fact, transitional. The extent of transition is interpretive. Any circumstance which requires precise definition of soil or rock zone transition elevations may require further investigation and review.

1.10 STRATIGRAPHIC AND GEOLOGICAL INFORMATION

The stratigraphic and geological information indicated on drawings contained in this report are inferred from logs of test holes and/or soil/rock exposures. Stratigraphy is known only at the locations of the test hole or exposure. Actual geology and stratigraphy between test holes and/or exposures may vary from that shown on these drawings. Natural variations in geological conditions are inherent and are a function of the historic environment. TETRA TECH does not represent the conditions illustrated as exact but recognizes that variations will exist. Where knowledge of more precise locations of geological units is necessary, additional investigation and review may be necessary.

1.11 PROTECTION OF EXPOSED GROUND

Excavation and construction operations expose geological materials to climatic elements (freeze/thaw, wet/dry) and/or mechanical disturbance which can cause severe deterioration. Unless otherwise specifically indicated in this report, the walls and floors of excavations must be protected from the elements, particularly moisture, desiccation, frost action and construction traffic.

1.12 SUPPORT OF ADJACENT GROUND AND STRUCTURES

Unless otherwise specifically advised, support of ground and structures adjacent to the anticipated construction and preservation of adjacent ground and structures from the adverse impact of construction activity is required.

1.13 INFLUENCE OF CONSTRUCTION ACTIVITY

There is a direct correlation between construction activity and structural performance of adjacent buildings and other installations. The influence of all anticipated construction activities should be considered by the contractor, owner, architect and prime engineer in consultation with a geotechnical engineer when the final design and construction techniques are known.

1.14 OBSERVATIONS DURING CONSTRUCTION

Because of the nature of geological deposits, the judgmental nature of geotechnical engineering, as well as the potential of adverse circumstances arising from construction activity, observations during site preparation, excavation and construction should be carried out by a geotechnical engineer. These observations may then serve as the basis for confirmation and/or alteration of geotechnical recommendations or design guidelines presented herein.

1.15 DRAINAGE SYSTEMS

Where temporary or permanent drainage systems are installed within or around a structure, the systems which will be installed must protect the structure from loss of ground due to internal erosion and must be designed so as to assure continued performance of the drains. Specific design detail of such systems should be developed or reviewed by the geotechnical engineer. Unless otherwise specified, it is a condition of this report that effective temporary and permanent drainage systems are required and that they must be considered in relation to project purpose and function.

1.16 BEARING CAPACITY

Design bearing capacities, loads and allowable stresses quoted in this report relate to a specific soil or rock type and condition. Construction activity and environmental circumstances can materially change the condition of soil or rock. The elevation at which a soil or rock type occurs is variable. It is a requirement of this report that structural elements be founded in and/or upon geological materials of the type and in the condition assumed. Sufficient observations should be made by qualified geotechnical personnel during construction to assure that the soil and/or rock conditions assumed in this report in fact exist at the site.

1.17 SAMPLES

TETRA TECH will retain all soil and rock samples for 30 days after this report is issued. Further storage or transfer of samples can be made at the Client's expense upon written request, otherwise samples will be discarded.