KUDZ ZE KAYAH PROJECT

WASTE ROCK AND OVERBURDEN MANAGEMENT PLAN

REV 04

June 2026

BMC MINERALS LTD.

This Management Plan has been developed to meet the appropriate subject objectives based on existing regulatory requirements, current or planned site activities, existing and expected site conditions, and designed outcomes at the time of writing. Operational processes/practices for achievement of licence terms and conditions may be updated from time to time as appropriate due to changes to relevant legislation and regulations, changes to site activities or conditions, differences from expected objective outcomes, or improvement of management practices. All rates, capacities, dimensions, weights, volumes and durations in text or figures are based on current feasibility level designs and are subject to change based on final design, licence conditions or site conditions encountered. Updates will be resubmitted to government authorities and/or stakeholders as required.

LIST OF REVISIONS

Issue Date	Revision Number	Description of Revision
September 1, 2020	Rev 00	For Issue to Agencies
November 19, 2020	Rev 01	Updated with commitments and Final Screening Report Recommendations
July 18, 2022	Rev 02	Updated with: responses to Yukon Water Board Secretariat Information Requests; and edits from final BMC review
April 9, 2024	Rev 03	Updated with responses to Interventions on the Type A Water Licence Application and responses to Information Requests on the QML Application Phase 1 review
June 1, 2026	Rev 04	Administrative updates in response to EMR Completeness check, and minor updates to reflect the 2026 Decision Document.

SUMMARY OF REVISIONS

Information Request/Intervention	Document	Exhibit	Section	Revision
Rev 02				
YWBS IR-3.1	Waste Rock and Overburden Management Plan	1.14	1	Replaced Figure 1-1 with sealed drawing
YWBS IR-3.1	Waste Rock and Overburden Management Plan	1.14	1.1.2	Replaced Figure 1-2 with sealed drawing
YWBS IR-3.1	Waste Rock and Overburden Management Plan	1.14	1.1.2	Replaced Figure 1-3 with sealed drawing
YWBS IR-3.1	Waste Rock and Overburden Management Plan	1.14	1.1.3	Replaced Figure 1-4 with sealed drawing
YWBS IR-3.1	Waste Rock and Overburden Management Plan	1.14	1.1.3	Replaced Figure 1-5 with sealed drawing
YWBS IR-3.1	Waste Rock and Overburden Management Plan	1.14	1.1.4	Replaced Figure 1-6 with sealed drawing
YWBS IR-3.1	Waste Rock and Overburden Management Plan	1.14	1.1.4	Replaced Figure 1-7 with sealed drawing
YWBS IR-2.37	Waste Rock and Overburden Management Plan	1.14	1.3	Updated section for clarification regarding progressive rehabilitation
YWBS IR-3.1	Waste Rock and Overburden Management Plan	1.14	3.1	Replaced Figure 3-1 with sealed drawing
YWBS IR-3.1	Waste Rock and Overburden Management Plan	1.14	3.1	Replaced Figure 3-2 with sealed drawing
YWBS IR-3.1	Waste Rock and Overburden Management Plan	1.14	3.1	Replaced Figure 3-3 with sealed drawing

Information Request/Intervention	Document	Exhibit	Section	Revision
YWBS IR-2.37	Waste Rock and Overburden Management Plan	1.14	3.9	Updated section for clarification regarding progressive rehabilitation
YWBS IR-3.17	Waste Rock and Overburden Management Plan	1.14	3.9.5.1	Updated typo in first bullet
Rev 03				
YG Recommendation 7 and IR1-7 Use the Guidelines for Mine Waste Management Facilities to: a) Classify all mine waste management facilities; b) Determine the level of design detail for each facility based on the guide's hazard classification; and c) Compare the requested design detail in the guide with the submitted design packages to identify gaps that may exist.	Waste Rock and Overburden Management Plan	1.14	2.3 and Appendix A	Added consequence classifications in accordance with the Yukon Guidelines for Mine Waste Management Facilities.
YG Recommendation 9 and and IR1-9 Discuss how artesian conditions and possible effects are being considered and mitigated in the design and placement of mine infrastructure.	Waste Rock and Overburden Management Plan	1.14	3.2.1	Added details of management of potential artesian conditions during construction.
YG Recommendation 10 and and IR1-10 The applicant should re-evaluate the foundation drainage system design for applicable mine waste storage facilities and advance the design to account for site-specific topography. Designs should include consideration for both natural gully and slope features, but also the areas where anticipated excavations of frozen soils are anticipated.	Waste Rock and Overburden Management Plan	1.14	3.2.1	Added details of Class B Storage Facility foundation drainage system.
EMR IR1-15 Provide a dust monitoring, management and mitigation plan for the mine waste management facilities which demonstrates measures to control fugitive dust from the facilities. This plan should include. a) Monitoring plans for fugitive dust from all	Waste Rock and Overburden Management Plan	1.14	3.9.2	Added details of dust management procedures. Monitoring and adaptive management procedures are detailed in the Environmental Monitoring, Surveillance and Reporting Plan and the Adaptive Management Plan.

Information Request/Intervention	Document	Exhibit	Section	Revision
facilities, including Class A, B, C, and overburden. Mitigations to control dust from all facilities (Class A, B, C, and overburden) that can be employed if monitoring shows fugitive dust is escaping the facilities.				
EMR IR1-18 Develop sequencing for progressive reclamation of the Class A and B facilities to determine if progressive reclamation is in fact possible or practical for the facilities.	Waste Rock and Overburden Management Plan	1.14	3.9.3	Added details of progressive reclamation.

LIST OF ACRONYMS AND ABBREVIATIONS

ABA	Acid Based Accounting
AEG	Alexco Environmental Group Inc.
ARD/ML	Acid rock drainage and metal leaching
BMC	BMC Minerals Ltd.
$CaCO_3$/t	Calcium carbonate per tonne
DOC	Dissolved Organic Carbon
FOS	Factor of Safety
HDPE	High Density Polyethylene
ICP-MS	Inductively Coupled Plasma Mass Spectrometry
ICP-OES	Inductively Coupled Plasma Optical Emission Spectrometry
InSAR	Interferometric synthetic-aperture radar
Kaska	Kaska First Nation
kN/m^3	Kilonewtons per cubic metre
KP	Knight Piésold Ltd.
kPa	Kilopascal
KZK	Kudz Ze Kayah
L/s	Litre per second
L/s/m^2	Litres per second per metre squared
m	Metre
m^3	Cubic metre
masl	metres above sea level
Mbgs	Metres below ground surface
ML	Metal Leaching
mil	0.001 inch
mm	Millimetres
Mm^3	Million cubic metres
m^3/s	Cubic metres per second
Mt	Million Tonnes
MWRPRC	Mine Waste Rock Pile Research Committee
Non-PAG	Non-Potentially Acid Generating
NP	Neutralization Potential
NP/AP	Neutralization Potential/Acid Potential
OMS	Operation, Monitoring and Surveillance
PAG	Potentially Acid Generating
QA/QC	Quality Assurance and Quality Control
ROM	Run of Mine
SFE	Shake flask extraction
t/m^3	Tonnes per cubic metre
wt.%	Weight percent

GLOSSARY

Active Closure: Post mining removal of Water Management Ponds, Overburden Stockpile, water collection ponds, removal of pipeworks and structures, and the removal and re-grading of access roads, ditches and borrow areas not required during Closure phases.

Construction Phase: Project phase that will last approximately 2 years and includes Project site preparation and clearing and establishment of Project infrastructure.

Engineer of Record: Provides technical knowledge related to the safety of the facility and verifies whether or not the facility (and components thereof): has been designed in accordance with performance objectives and indicators, applicable guidelines, standards and regulatory requirements; and is being constructed or has been constructed and is performing, throughout the life of the facility, in accordance with the documented design intent and requirements.

Glacial Till: Unsorted glacial sediment that is derived from the erosion and entrainment of material by the moving ice of a glacier.

Growth Media: A combination of overburden and topsoil media demonstrated to facilitate growth.

Kaska (i.e., Kaska First Nations): A transboundary Nation involving Kaska people from the Ross River Dena Council and Liard First Nation in southeastern Yukon, and Daylu Dena Council, Dease River First Nation, and Kwadacha Nation in northern British Columbia.

Metal Leaching: Extraction of soluble metals by solvents. Leaching can be natural or induced in a laboratory procedure.

Neutralization Potential: The total acid material is capable of neutralizing. Measurements of Neutralization Potential (NP) are used in acid base accounting calculations to estimate future drainage pH and the potential for acidic drainage pH.

Operations Phase: Project phase that will last approximately 10 years and includes open pit ABM open pit and underground development, and ore processing.

Overburden: Rock or soil overlying bedrock or other underground feature.

Permafrost: Soil, rock or sediment that is frozen for more than two consecutive years. In areas not overlain by ice, it exists beneath a layer of soil, rock, or sediment, which freezes and thaws annually and is called the "active layer".

Permeability: The measure of the ability of a material to transmit water and air.

Phreatic Surface: The level below which the ground is saturated with groundwater.

Potentially Acid Generating: Acid rock drainage occurs naturally in some environments as part of the rock weathering process but may be accelerated by large-scale earth disturbances in rocks

containing an abundance of sulphide minerals. Rocks are assessed as to whether they may be potentially acid generating, if disturbed.

Project Area: Refers to the general Project location and surrounding area.

Transition Closure: The period when the ABM open pit is filling with water, and reclamation activities have been completed for the Class A, B and C Storage Facilities. A Constructed Wetland Treatment System will be constructed in Geona Creek and collection ponds will be removed.

Waste Storage Facilities: Engineered facilities to manage the waste rock and overburden produced from mining activities.

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1. INTRODUCTION

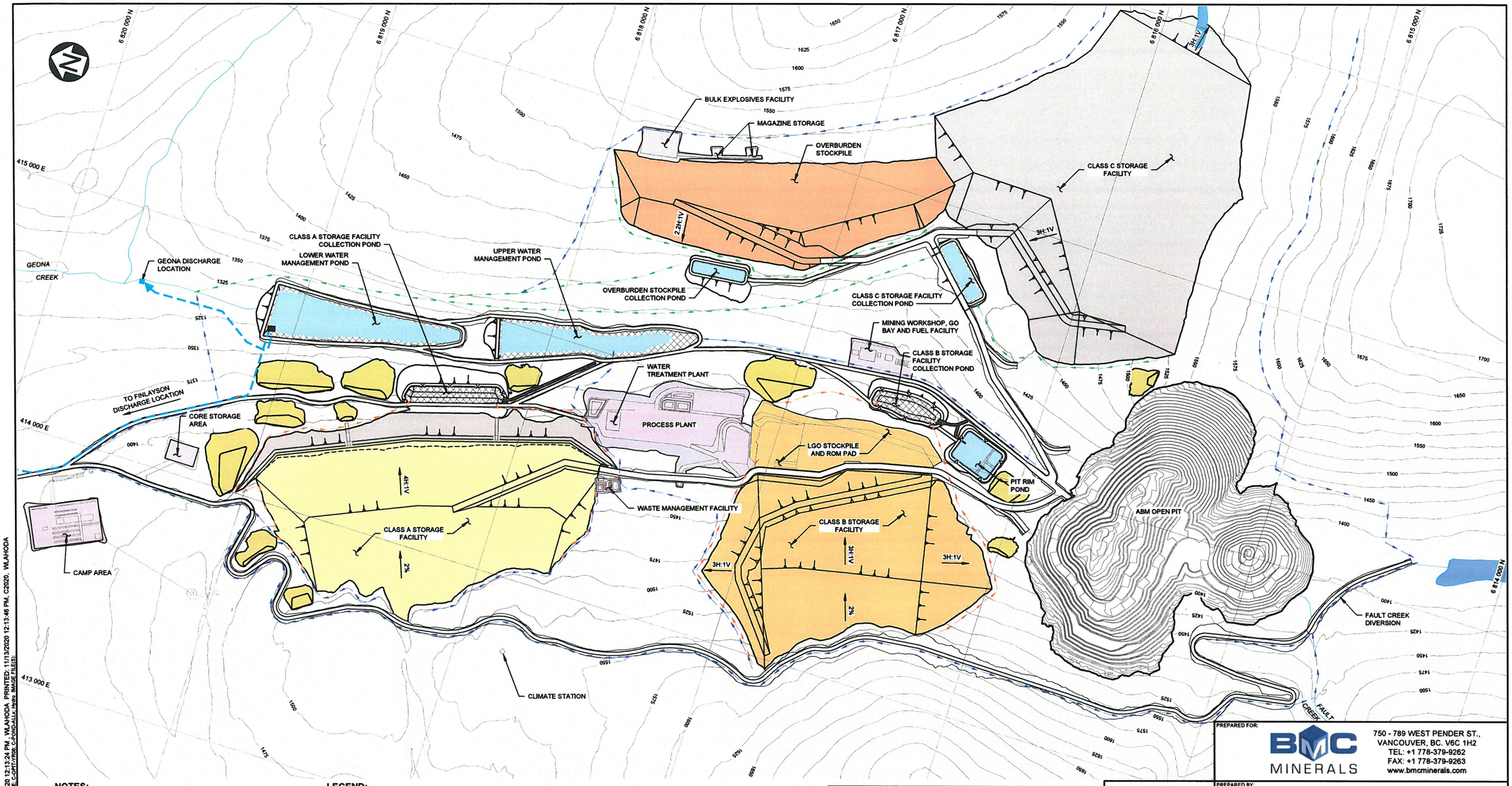
BMC Minerals Ltd. (BMC) is the owner of the Kudz Ze Kayah (KZK) Project (the Project). Since acquiring the project in 2015, BMC has actively engaged in assessing historical work, optimizing design, resource drilling, economic assessment, baseline environmental studies, and First Nations and community engagement as well as the successful completion of the Executive Committee Screening by the Yukon Environmental and Social-Economic Assessment Board.

Project development will include construction of the following tailings, waste rock and overburden storage facilities:

- Class A Storage Facility: Designed to manage approximately 8 million cubic metres (Mm^3) of strongly potentially acid generating (PAG) filtered tailings and approximately 7 Mm^3 of strongly PAG and metal leaching waste rock. The filtered tailings and waste rock will be co-disposed in this waste storage facility;
- Class B Storage Facility: Designed to manage approximately 25 Mm^3 of weakly PAG and metal leaching waste rock;
- Class C Storage Facility: Designed to manage approximately 34 Mm^3 of non potentially acid generating (non-PAG) with low potential for metal leaching waste rock; and
- Overburden Stockpile: Designed to manage approximately 9 Mm^3 of overburden excavated during construction of the Project Area infrastructure and ABM open pit stripping.

This Waste Rock and Overburden Management Plan describes the design, construction, and operation of the Class B Storage Facility, Class C Storage Facility, and Overburden Stockpile. The design, construction, and operation of the Class A Storage Facility is described in the Tailings Management Plan (BMC, 2026a). Locations of these facilities are shown in Figure 1-1.

The Waste Rock and Overburden Management Plan describes the types of overburden and rock that are expected to be encountered through development of the Project and how these materials will be characterized, segregated, and stored to ensure long-term chemical and physical stability. The principal objectives for the Waste Storage Facilities are to provide long term safe and secure containment of waste rock and overburden material, to protect groundwater and surface water during Operations and Closure, and to achieve effective reclamation.



NOTES:

1. COORDINATE GRID IS UTM NAD 83 9N.
2. TOPOGRAPHIC DETAIL PROVIDED OCTOBER, 2017.
3. PIT SHELLS PROVIDED BY BMC, APRIL 26, 2019.
4. CONTOUR INTERVAL IS 5 METRES.
5. ALL ELEVATIONS ARE IN METRES, UNLESS NOTED OTHERWISE.
6. PROGRESSIVE RECLAMATION NOT SHOWN.
7. THIS DRAWING REPRESENTS THE FEATURE/STRUCTURE TO DESIGN-LEVEL ACCURACY, AND IS SUBJECT TO MODIFICATIONS DURING CONSTRUCTION IN ACCORDANCE WITH EITHER A) INFORMATION GAINED FROM GEOTECHNICAL INVESTIGATIONS, OR B) AS A RESULT OF MODIFICATIONS MADE TO OTHER STRUCTURES/FEATURES THAT ARE CONNECTED.

LEGEND:

- WATER
- CLASS A MATERIAL
- CLASS B MATERIAL
- CLASS C MATERIAL
- OVERBURDEN
- TOPSOIL STOCKPILE AREA
- OPEN PIT
- MINE AND PROCESS SITE INFRASTRUCTURE
- LINER
- STREAM/DRAINAGE/WATERBODY
- ROAD
- DIVERSION DITCH (NON CONTACT)
- DIVERSION DITCH (CONTACT CLASS A & B)
- DIVERSION DITCH (CONTACT CLASS C & OVERBURDEN)
- OUTLINE OF PROPOSED INFRASTRUCTURE
- DISCHARGE FROM POND

DISCLAIMER:
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SCALE A 150 75 0 250 500 750 m

YUKON TERRITORY
MADELINE PEASE
Nov 16'20
ENGINEER

DRG. NO.	DESCRIPTION
REFERENCE DRAWINGS	

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED	APPROVED
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REV	DATE	DESCRIPTION	MAP	NSD/SC	REVIEWED	APPROVED
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REVISIONS						

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KUDZ ZE KAYAH PROJECT

GENERAL ARRANGEMENT END OF MINE OPERATIONS

P/A NO.	DRAWING NO.	REVISION
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1.1 OVERVIEW OF WASTE STORAGE FACILITIES

Ore generated from the ABM open pit will be hauled to the Process Plant, and waste rock and overburden will be hauled to and stored in the Class A, Class B and Class C Storage Facilities, and the Overburden Stockpile. The allocation of waste rock to the appropriate waste facility will be dependent upon its acid rock drainage and metal leaching (ARD/ML) potential. The waste storage facilities are located a short haul distance from the ABM open pit and will provide capacity for all waste rock and overburden produced over the life of the Mine.

1.1.1 Class A Storage Facility

The Class A Storage Facility is described in the Tailings Management Plan (BMC, 2026a).

1.1.2 Class B Storage Facility

The Class B Storage Facility is located on the western hillside of Geona Creek, south of the Process Plant area, as shown in Figure 1-1. The Run of Mine (ROM) Pad and Low-Grade Ore Stockpile are incorporated into the design of the Class B Storage Facility and are located at the downstream toe of that waste storage facility. Key design functions of the Class B Storage Facility include:

- Storage of Class B waste rock in an engineered waste storage facility;
- Diversion of non-contact water around the waste storage facility using berms and diversion channels;
- Construction of a composite glacial till and 80 mil textured high density polyethylene (HDPE) geomembrane liner system;
- Control and collection of runoff from the waste storage facility during Operations;
- Foundation drain system for conveyance of groundwater flow beneath the waste storage facility;
- Grading to convey seepage by gravity to the downgradient Class B Storage Facility Collection Pond during Operations, Active and Transition Closure;
- Construction of a final composite glacial till and 80 mil textured HDPE cover system during progressive reclamation and at Closure, for complete encapsulation of the waste storage facility at the end of mining; and
- Recontouring and a cover layer of growth media for revegetation during progressive reclamation and at Closure.

Class B waste rock is predicted to have ARD/ML potential over the longer term (after Operations phase) (Ensero, 2023). Class B material therefore requires encapsulation at closure to limit contact with oxygen and water. The waste storage facility includes a composite liner of glacial till and an 80 mil HDPE liner, as well as an underdrain system to control drainage during Operations. Construction of the Class B Storage Facility will begin during Construction and the liner will be completed during Operations. Progressive reclamation of the Class B Storage Facility will commence during Operations,

and the facility will be fully encapsulated during Active Closure with a similar composite liner system utilized for the foundation liner system.

A plan and section of the Class B Storage Facility are shown in Figure 1-2 and Figure 1-3.

LEGEND:

- WATER
- CLASS B MATERIAL
- TOPSOIL STOCKPILE AREA
- MINE AND PROCESS SITE INFRASTRUCTURE
- LINER
- STREAM/DRAINAGE/WATERBODY
- PROPOSED ROAD
- DIVERSION DITCH (NON CONTACT)
- DIVERSION DITCH (CONTACT CLASS A & B)

NOTES:

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2. TOPOGRAPHIC DETAIL BASED ON INFORMATION PROVIDED BY BMC (OCTOBER, 2017).
3. CONTOUR INTERVAL IS 5 METRES.
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5. PROGRESSIVE RECLAMATION NOT SHOWN.

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SCALE A 50 25 0 50 100 150 200 250 m

C2220	CLASS B STORAGE FACILITY - SECTION AND DETAIL
DRG. NO.	DESCRIPTION

REFERENCE DRAWINGS

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED	APPROVED

REVISIONS

REV	DATE	DESCRIPTION	MAP	NSD/SC		
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CLASS B STORAGE FACILITY PLAN

P/A NO.	DRAWING NO.	REVISION
VA101-640/11	C2200	0

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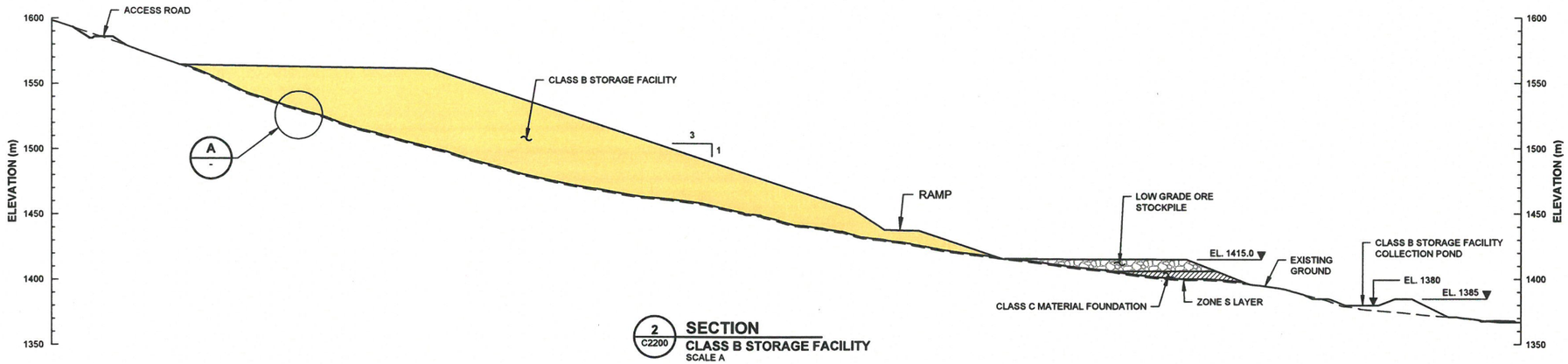

2 / C2200 **SECTION**
CLASS B STORAGE FACILITY
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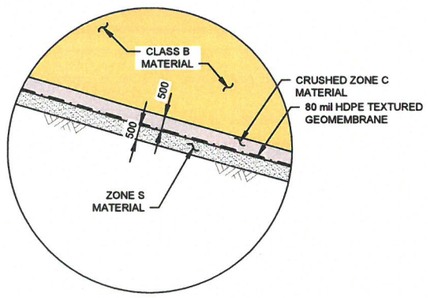

A / - **DETAIL**
NTS

LEGEND:

- CLASS B MATERIAL
- CLASS C MATERIAL
- ZONE D (DRAIN ROCK)
- ZONE S (BEDDING LAYER)
- CLASS C MATERIAL

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND ELEVATIONS ARE IN METRES, UNLESS NOTED OTHERWISE.
2. BENCHES NOT SHOWN.
3. THIS DRAWING REPRESENTS THE FEATURE/STRUCTURE TO DESIGN-LEVEL ACCURACY, AND IS SUBJECT TO MODIFICATIONS DURING CONSTRUCTION IN ACCORDANCE WITH EITHER A) INFORMATION GAINED FROM GEOTECHNICAL INVESTIGATIONS, OR B) AS A RESULT OF MODIFICATIONS MADE TO OTHER STRUCTURES/FEATURES THAT ARE CONNECTED.

40 20 0 40 80 120 160 200 m
SCALE A

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KUDZ ZE KAYAH PROJECT

CLASS B STORAGE FACILITY SECTION AND DETAIL

PROJECT NO.	DRAWING NO.	REVISION
VA101-640/11	C2220	0

REFERENCE DRAWINGS		
DRG. NO.	DESCRIPTION	
C2200	CLASS B STORAGE FACILITY - PLAN	

REVISIONS							
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REVISIONS							
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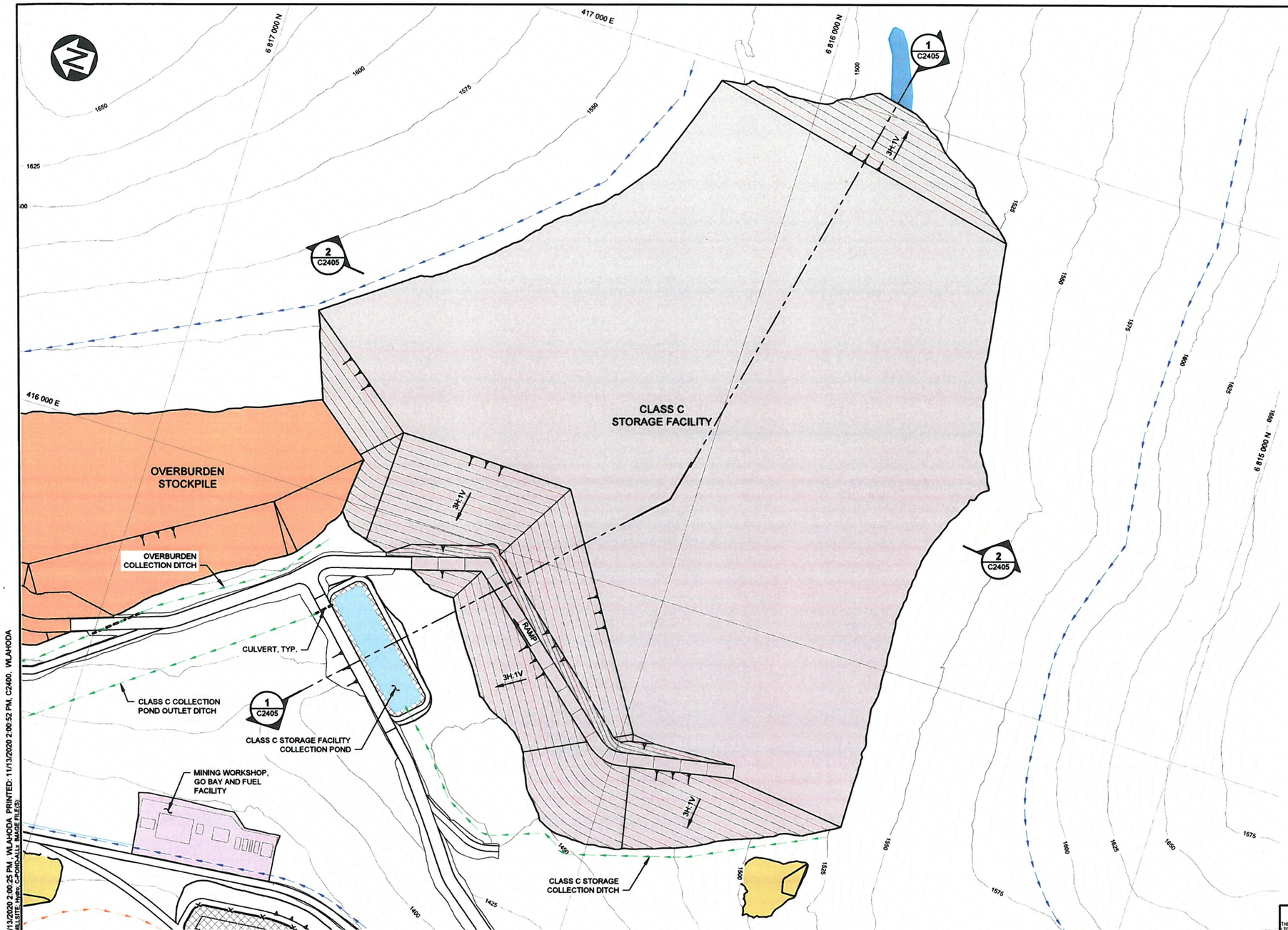
1.1.3 Class C Storage Facility

The Class C Storage Facility is located on the eastern hillside of Geona Creek, in a hanging valley northeast of the ABM open pit, as shown in Figure 1-1. Waste rock material planned for placement in the Class C Storage Facility is non-PAG and will have low metal leaching potential; therefore, specific ARD/ML management strategies are not required (Ensero, 2023).

The Class C Storage Facility includes the following key design functions:

- Storage of Class C waste rock in an engineered waste storage facility;
- Diversion of non-contact water around the waste storage facility with use of diversion channels;
- Control and collection of runoff and seepage from the waste storage facility during Operations and Active and Transition Closure; and
- Recontouring and a cover layer of growth media for revegetation at Closure.

The Class C material is considered chemically and geotechnically suitable for construction purposes for other mine waste and water management facilities as well as capping material for reclamation of the Class A and Class B Storage Facilities. Runoff and seepage from the Class C Storage Facility will be collected and conveyed via collection ditches and managed in the Class C Storage Facility Collection Pond located downgradient of the waste storage facility. A plan and section of the Class C Storage Facility are shown in Figure 1-4 and Figure 1-5.



PLAN
SCALE A

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LEGEND:
- WATER
- CLASS C MATERIAL
- OVERBURDEN STOCKPILE
- TOPSOIL STOCKPILE AREA
- MINE AND PROCESS SITE INFRASTRUCTURE
- LINER
- STREAM / DRAINAGE / WATERBODY
- PROPOSED ROAD
- DIVERSION DITCH (NON CONTACT)
- DIVERSION DITCH (CONTACT CLASS C & OVERBURDEN)

NOTES:
1. COORDINATE GRID IS UTM NAD 83 9N.
2. TOPOGRAPHIC DETAIL PROVIDED OCTOBER, 2017.
3. CONTOUR INTERVAL IS 5 METRES.
4. ALL ELEVATIONS ARE IN METRES, UNLESS NOTED OTHERWISE.

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SCALE A 80 40 0 100 200 300 400 m

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KUDZ ZE KAYAH PROJECT

CLASS C STORAGE FACILITY PLAN

PJT NO.	DRAWING NO.	REVISION
VA101-640/11	C2400	0

C2405	CLASS C STORAGE FACILITY - SECTIONS AND DETAILS
DRG. NO.	DESCRIPTION

REFERENCE DRAWINGS

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED	APPROVED

REVISIONS

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED	APPROVED
0	13NOV'20	ISSUED FOR INFORMATION	MAP	NSD/SC		

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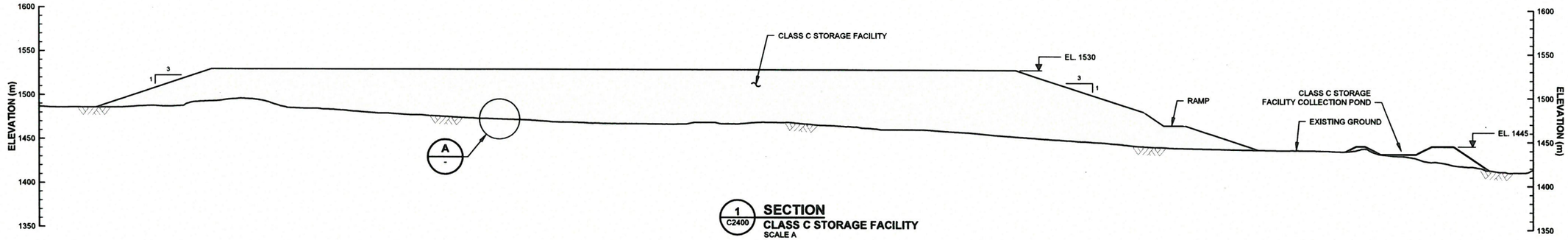
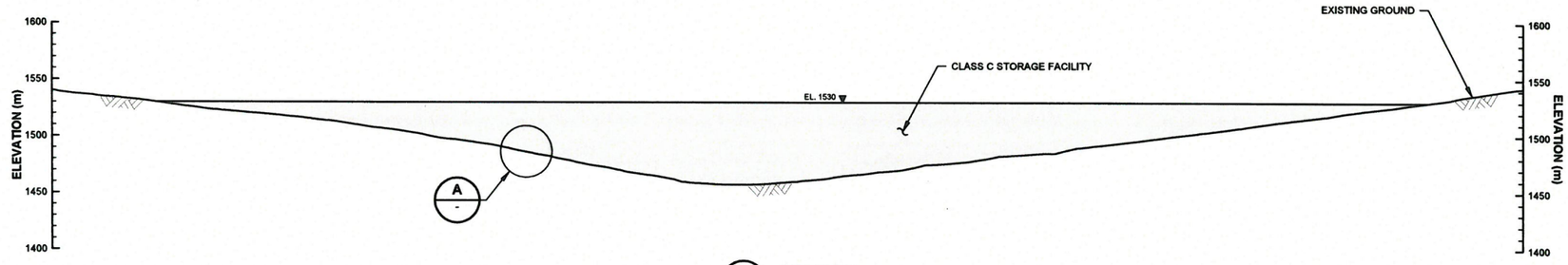
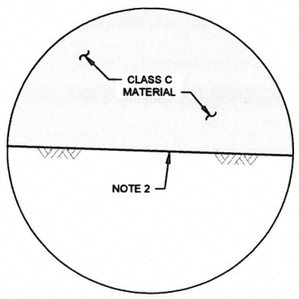


1 C2400 **SECTION**
CLASS C STORAGE FACILITY
SCALE A



2 C2400 **SECTION**
CLASS C STORAGE FACILITY
SCALE A



A - **DETAIL**
NTS

LEGEND:

CLASS C MATERIAL

NOTES:

1. ALL ELEVATIONS ARE IN METRES AND DIMENSIONS ARE IN MILLIMETRES, UNLESS NOTED OTHERWISE.
2. FOUNDATION PREPARATION TO BE CONFIRMED BY GEOTECHNICAL ENGINEER UPON COMPLETION OF CLEARING AND GRUBBING.

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SCALE A 50 25 0 50 100 150 200 250 m

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PROFESSIONAL ENGINEER
YUKON TERRITORY
MADELINE PEASE
Nov 16 2020

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KUDZ ZE KAYAH PROJECT

CLASS C STORAGE FACILITY SECTIONS AND DETAILS

P/A NO.	DRAWING NO.	REVISION
VA101-640/11	C2405	0

C2400	CLASS C STORAGE FACILITY - PLAN
DRG. NO.	DESCRIPTION

REFERENCE DRAWINGS

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED	APPROVED

REVISIONS

REV	DATE	DESCRIPTION	MAP	NSD/SC
0	13NOV'20	ISSUED FOR INFORMATION	DESIGNED	DRAWN

REVISIONS

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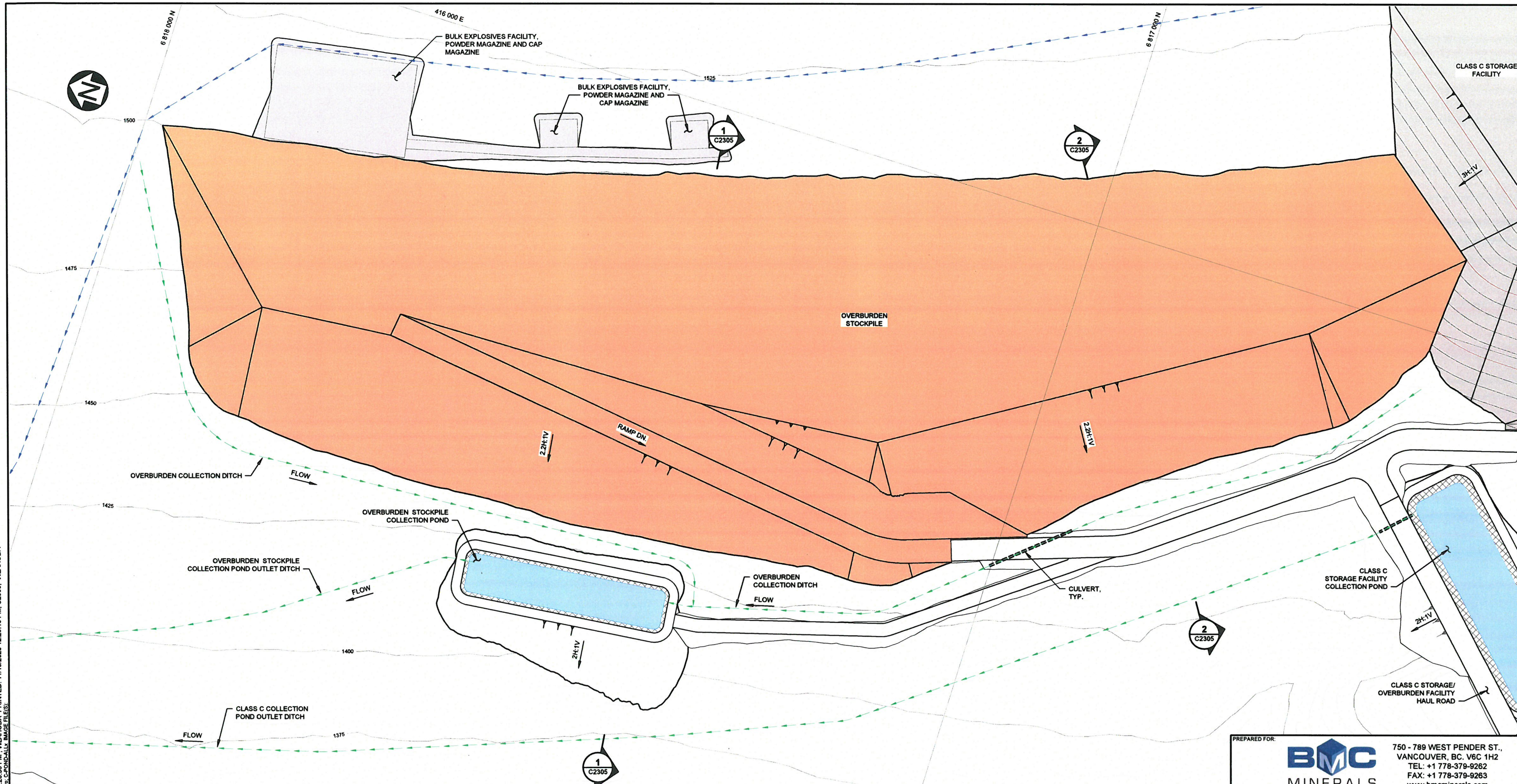
1.1.4 Overburden Stockpile

The Overburden Stockpile is located on the eastern hillside of Geona Creek, north of the Class C Storage Facility, as shown in Figure 1-1. The Overburden Stockpile is designed to manage overburden material excavated from the footprint of the ABM open pit during pre-stripping and from the footprint of Project infrastructure during Construction and Operations. Overburden material will be selectively managed and sourced from the stockpile and used during Operations as a construction material and in Closure for reclamation as a cover material for other facilities. The Overburden Stockpile will be progressively constructed during the Construction phase, when foundation areas for other facilities are stripped of overburden in preparation for their construction. Overburden will be selectively added or removed from the Stockpile as facilities are expanded or progressively reclaimed. Runoff and seepage from the Overburden Stockpile will be collected and conveyed via collection ditches and managed in the Overburden Stockpile Collection Pond located downgradient of the waste storage facility. A plan and section of the Overburden Stockpile are shown in Figure 1-6 and Figure 1-7.



LEGEND:

- WATER
- CLASS C STORAGE FACILITY
- OVERBURDEN STOCKPILE
- MINE AND PROCESS SITE INFRASTRUCTURE
- LINER
- STREAM/DRAINAGE/WATERBODY
- PROPOSED ROAD
- PROPOSED ACCESS ROAD
- DIVERSION DITCH (NON CONTACT)
- DIVERSION DITCH (CONTACT CLASS C & OVERBURDEN)

NOTES:

1. COORDINATE GRID IS UTM NAD 83 9N.
2. TOPOGRAPHIC PROVIDED OCTOBER, 2017.
3. CONTOUR INTERVAL IS 5 METRES.
4. ALL ELEVATIONS ARE IN METRES, UNLESS NOTED OTHERWISE.
5. PROGRESSIVE RECLAMATION NOT SHOWN.

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SCALE A 40 20 0 40 80 120 160 200 m

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KUDZ ZE KAYAH PROJECT

OVERBURDEN STOCKPILE PLAN

P/A NO.	DRAWING NO.	REVISION
VA101-640/11	C2300	0

DRG. NO.	DESCRIPTION
C2305	OVERBURDEN STOCKPILE - SECTIONS & DETAILS

REFERENCE DRAWINGS

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED	APPROVED

REVISIONS

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED	APPROVED
0	13NOV'20	ISSUED FOR INFORMATION	MAP	NSD/SC		

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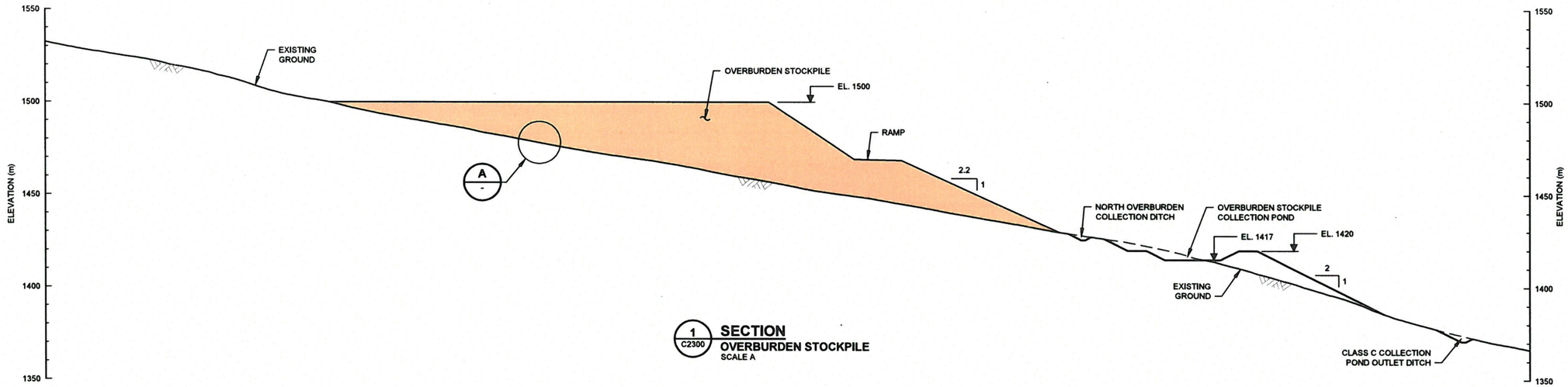
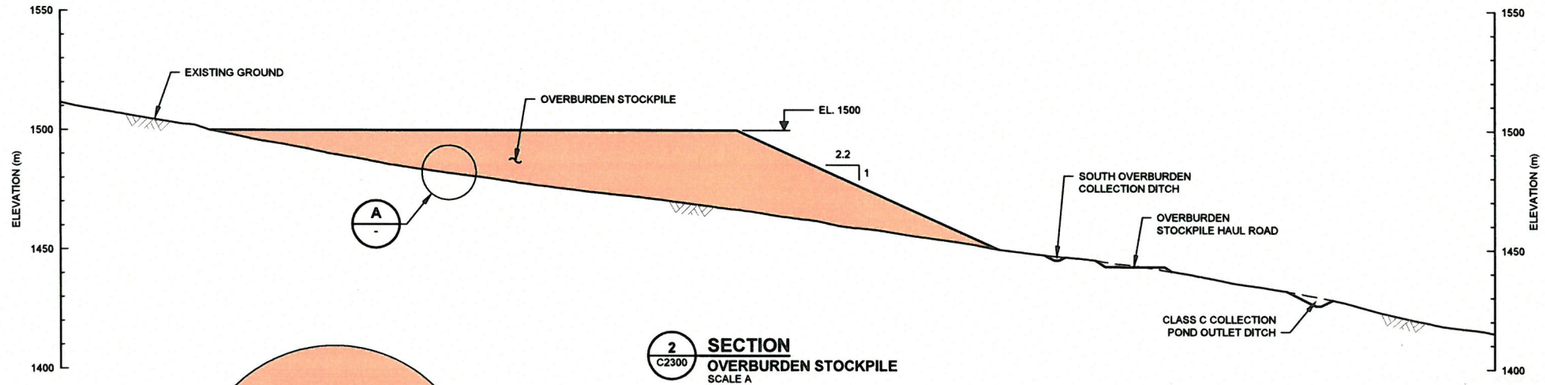
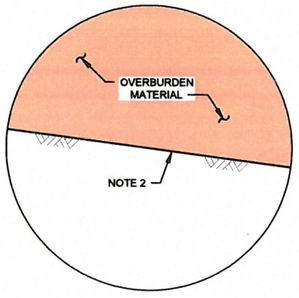


1 / C2300 **SECTION**
OVERBURDEN STOCKPILE
SCALE A



2 / C2300 **SECTION**
OVERBURDEN STOCKPILE
SCALE A



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LEGEND:

OVERBURDEN MATERIAL

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SCALE A 25 12.5 0 25 50 75 100 125 m

REFERENCE DRAWINGS	
C2300	OVERBURDEN STOCKPILE - PLAN
DRG. NO.	DESCRIPTION

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OVERBURDEN STOCKPILE SECTIONS AND DETAILS

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1.2 WATER MANAGEMENT INFRASTRUCTURE

A detailed description of surface water management for the Class B Storage Facility, Class C Storage Facility and the Overburden Stockpile can be found in the Water Management Plan (BMC, 2026b). The Reclamation and Closure Plan (BMC, 2026c) provides additional objectives and strategies for the management of the waste and water management facilities during the Closure phases of the Project, including Closure monitoring of the waste rock storage facilities.

Water will be managed to minimize erosion in areas disturbed by construction activities and to prevent the release of sediment laden water to the receiving environment. This includes the diversion of clean surface water runoff via diversion channels, and collection and management of contact surface runoff via a system of collection ditches, collection ponds and pumping systems. Surplus water will be stored on site in the Upper Water Management Pond and the Lower Water Management Pond and used for processing and dust control, with excess water released in a controlled manner to Geona Creek and Finlayson Creek. A Water Treatment Plant will be constructed at the Process Plant site to reduce constituents of potential interest associated with the project to acceptable levels and meet site water quality objectives (AEG and Minnow, 2020). All water in contact with the Mine facilities will be collected, treated as required (whether that is at the Water Treatment Plant or by allowing retention time for sediment control), and either re-used by the Mine or released to Finlayson Creek or Geona Creek.

Key water management infrastructure associated with the Class B Storage Facility, the Class C Storage Facility and the Overburden Stockpile includes:

- Diversion channels upgradient of each waste storage facility collecting and diverting non-contact water off site;
- Collection ditches conveying seepage and runoff from the Class B Storage Facility to the Class B Collection Pond, located downgradient of the facility, where it is temporarily held prior to being released to the Upper Water Management Pond (provided the water quality meets required limits for discharge);
- Collection ditches conveying seepage and runoff from the Class C Storage Facility to the Class C Collection Pond, located immediately downgradient of the waste storage facility to settle sediment prior to release downstream to Geona Creek via a pond outlet ditch;
- Collection ditches conveying seepage and runoff from the Overburden Stockpile to the Overburden Stockpile Collection Pond, located downgradient of the waste storage facility to settle sediment prior to release downstream to Geona Creek via a pond outlet ditch; and
- Collection of surface runoff from the ROM Pad and Low-Grade Ore Stockpile area in the ROM Pad Sump (located on the ROM pad and forming part of the Class B Storage Facility), which is pumped to the Water Treatment Plant for treatment.

1.3 WASTE ROCK AND OVERBURDEN FACILITY OPERATIONAL TIMELINES

All three facilities will be actively managed and monitored throughout Construction, Operations and Closure phases.

Clearing, grubbing and construction of the composite basin liner system for the Class B Storage Facility will be initiated during Construction, and will progressively advance to completion throughout Operations. Clearing and grubbing of the foundation area of the Overburden Stockpile will occur progressively during Construction and Operations, to provide storage for the overburden removed from infrastructure areas and the ABM open pit. Clearing and grubbing of the foundation area of the Class C Storage Facility will begin prior to Process Plant start up and progress through Construction and Operations to provide storage for Class C material being generated from the ABM open pit.

All three facilities will be operational until Active Closure. Re-grading of the completed composite cover system for the Class B Storage Facility will be conducted, if necessary, to fine tune the surface water runoff. The composite cover system of the Class B Storage Facility, for any remaining surface areas not progressively reclaimed, will be completed during Active Closure.

All of the Overburden Stockpile and some of the Class C material will be removed from their respective facilities during Active Closure, for use as a cover material for the other facilities. Re-grading (as necessary) and cover of the Class C Storage Facility will occur during Active Closure.

1.4 PLAN REVIEW AND EXECUTION

BMC has had extensive engagement with Ross River Dena Council (RRDC) including community meetings in Ross River, Elders Oversight Committee Meetings, meetings with Chief and Council and engagement with RRDC's wholly owned environmental consultancy, Dena Cho Environmental and Remediation Inc. (Dena Cho). As part of this ongoing engagement, prior to this Plan being finalized Dean Cho conducted a detailed independent review of the draft plan. Issues raised during the Dena Cho review were addressed collaboratively through a number of workshops and where appropriate this plan was amended and additional commitments added.

BMC and Ross River Dena Council (in its role as lead community for the Kaska Nations, including Liard First Nation) are parties to an existing Socio-Economic Participation Agreement (SEPA) for the KZK Project In 2019, BMC and RRDC (on behalf of all Kaska Nations) signed a Letter of Intent committing the parties to a modernization process for the existing SEPA. In March 2021, BMC tabled a proposed modernized SEPA with all Kaska leadership. The proposed SEPA includes provision for establishment of a Kaska/BMC Environmental Management Advisory Committee. Under the current proposal before Kaska, this committee will be tasked with, among other things, reviewing and providing input into environmental management plans, receiving and reviewing reports on implementation of those plans, reviewing monitoring plans/results, reviewing incident reports, and reporting back to Kaska members.

2. DESIGN CRITERIA

The design basis and operating criteria for the Class B and Class C Storage Facilities and the Overburden Stockpile are based on the latest available Project information and studies, which incorporates the relevant design standards (KP, 2019), and the estimated mine production schedule presented in the Mine Development and Operations Management Plan (BMC, 2026d).

Design standards are based on the relevant federal and provincial/territorial guidelines for the construction and operation of mines and waste storage facilities in Canada. The following regulations and guidelines were used to develop the design standards for the Project:

- Guidelines for Mine Waste Management Facilities (Yukon Government, 2023);
- *Federal Metal and Diamond Mining Effluent Regulations* under the *Fisheries Act* (Government of Canada, 2019);
- *BC Environmental Management Act* – Technical Guidance Document 7 – Assessing the Design, Size, and Operation of Sediment Ponds Used in Mining (BC MOE, 2015); and
- Mined Rock and Overburden Piles Investigation and Design Manual: Interim Guidelines (Ministry of Energy, Mines and Petroleum Resources Mine Waste Rock Pile Research Committee (BC MWRPRC), 1991).

Prior to construction of these facilities, a detailed design will be completed. The detailed design will reference any updated design standards and experience from other operations for consideration and incorporation as appropriate. The final design of the facilities will incorporate the following objectives:

- Safely receive approved waste material and overburden within the designed capacity constraints during the operational period of the mine;
- Contain all materials received so that potential environmental impacts from the operation of the facilities are in accordance with license conditions;
- Minimize water from entering from upgradient sources;
- Maintain water management system components as designed:
  - Control and direction of surface and groundwater; and
  - Control, treat and release facility interior waters to prevent offsite water quality impacts.
- Minimize fugitive dust impacts from operations to surrounding land;
- Staged construction and operation to minimize the operational area and promote progressive reclamation;
- Physical placement strategies to minimize water infiltration, ensure geotechnical stability, and meet operational scheduling constraints;
- Monitoring and maintenance of geotechnical stability;
- Progressive reclamation of the Class B Storage Facility to:

- Minimize water and oxygen infiltration; and
- Monitor and adapt reclamation cover design for inclusion in final reclamation design.

During Operations, geochemical monitoring will be incorporated into the geochemical and water quality modelling that will inform the ongoing design, construction, and progressive reclamation of the Class B Storage Facility.

2.1 WASTE ROCK AND OVERBURDEN QUANTITIES

Bulk densities used for determination of surface waste storage requirements were based on analysis of in-situ bulk densities KP (2019), and Cominco (1995).

The total quantity of Class B waste rock estimated to be produced during the life of mine is approximately 48 Mt. Considering a bulk density of 2 t/m^3 and a surplus allowance, the Class B Storage Facility has been designed to manage approximately 25 Mm^3 of Class B waste rock.

The total quantity of Class C waste rock estimated to be produced during the life of mine is approximately 64 Mt. Considering a bulk density of 2 t/m^3 and a surplus allowance, the Class C Storage Facility has been designed to manage approximately 34 Mm^3 of waste rock.

The total quantity of overburden material estimated to be produced during the life of mine is approximately 16 Mt. Considering a bulk density of 1.8 t/m^3 and a surplus allowance, the Overburden Stockpile has been designed to manage approximately 9 Mm^3 of overburden material.

While the total volume of Class A waste, Class B waste, Class C waste and overburden material is not expected to change materially, the proportion of each classification may change based on the operational waste rock testing results.

2.2 MATERIAL PROPERTIES

Class B waste rock is anticipated to be weakly PAG with metal leaching potential over the longer term (after cessation of mining activities). Class C waste rock and overburden are non-PAG and have low ML potential (Ensero, 2023).

Details of material strength characteristics are provided in Table 2-1. Material properties for foundation materials were determined through multiple site investigations, discussed in the Site Characterization Plan (BMC, 2026e). Frozen soil strength parameters were based on published geotechnical parameters for slope stability assessments in frozen soils (Nater et. al., 2008).

Shear strength of the Class B and C waste rock was defined using a lower bound Leps function that defines the variation with shear strength with normal stress. This strength function is based on published information on the shear strength properties of rockfill (Leps, 1970; Yamaguchi et al, 2008). The phreatic surface was defined in the overburden layer beneath the Class B and Class C Storage Facilities to simulate saturated overburden and bedrock conditions.

The 80 mil HDPE geomembrane liner, proposed to form the composite liner and cover system for the Class B Storage Facility, is a geosynthetic material. A typical value for the interface friction angle between the liner and glacial till was taken from available engineering literature (Koerner and Narejo, 2005).

The bedrock unit for the stability analyses was modelled using the generalized Hoek-Brown Strength Criteria.

Table 2-1: Material Strength Parameters

Foundation and Construction Materials					
Material	**Model**	**Unit Weight γ (kN/m³)**	**Peak Resistive Effective Friction Φ' (degrees)**	**Residual Effective Friction Φ' (degrees)**	**Effective Cohesion c' (kPa)**
In-Situ Storage Facility Overburden	Mohr -Coulomb	17.2	36	n/a	0
In-Situ Storage Facility Overburden (frozen)	Mohr -Coulomb	17.2	20	n/a	270
Glacial Till	Shear/Normal Function (Lade 2010)	19.6	$s = 0.73 \times 100(\frac{\sigma}{pa})^{0.96}$		
Class B and C Rockfill	Shear/Normal Function	23.0	n/a	n/a	n/a
Drainage Material	Mohr -Coulomb	21.0	36	n/a	0
HDPE-T / Granular Soil	Mohr -Coulomb	9.4	34	31	0
Bedrock Materials					
Material	**Model**	**Unit Weight γ (kN/m³)**	**Geological Strength Index**	**Uniaxial Compressive Strength (MPa)**	**Material Constant**
Mudstone/Volcanoclastic	Generalized Hoek-Brown	25.6	35	25	6

n/a = parameter is not applicable for material type.

2.3 CONSEQUENCE CLASSIFICATION

The consequence classifications of the Class B and Class C Storage Facilities and the Overburden Stockpile were assessed in accordance with Yukon (2023). These guidelines yield a classification of *Class II* for all of these waste management facilities, as discussed in KP (2024a), provided as an appendix to the Tailings Management Plan (BMC, 2026a). They were also assessed using the Investigation and Design Manual Interim Guidelines (BC MWRPRC, 1991), yielding a classification of *Class III, Moderate Hazard*.

2.4 GEOTECHNICAL CRITERIA

Investigation and Design Manual Interim Guidelines (BC MWRPRC, 1991) and standard industry practice specify the minimum acceptable Factor of Safety (FOS) for waste piles under static conditions are 1.5 for both short-term operating conditions and after reclamation and Closure. The minimum acceptable FOS for the Waste Rock and Overburden Storage Facilities under seismic conditions is 1.0. These minimum static and seismic FOS criteria align with those specified in Yukon (2023).

The Dump Stability Rating scheme outlined in the Investigation and Design Manual Interim Guidelines was used to assess the stability of the waste facilities. The waste rock storage facilities and Overburden Stockpile parameters are shown in Table 2-2.

Table 2-2: Waste Rock Storage Facility Parameters

Storage Facility	Overall Slope Angle	Bench Height (m)	Crest Elevation (masl)	Overburden Description	Permafrost Conditions	Depth to Bedrock (m)	Groundwater Level (mbgs)
Class B Storage Facility	3H:1V	15	1,570	Glaciofluvial, glaciolacustrine, and glacial moraine sediments with some glacial till. Typically compact to dense, varying from sand with some silt, to sandy gravel with some silt and trace cobbles.	Permafrost was identified in 2 test pits at 3.3 m and 1.7 m. 3 test pits reported ice lenses between 0.4 and 0.8 m deep.	0.1 to 10.5	Artesian to 12.2
Class C Storage Facility	3H:1V	15	1,530	Glaciofluvial and weathered colluvial sediments. Typically compact to dense.	Permafrost encountered in the northern portion of pile area, in excess of 3.1 m deep. Not observed in the southern portion.	3 to 18.5	2.5
Overburden Stockpile	2.2H:1V	Not applicable	1,500	Glaciofluvial and weathered colluvial sediments. Typically compact to dense gravelly, silty, sands with trace clay.	Permafrost encountered in excess of 0.6 m to 1.8 m deep.	3.6 to 4.5	10.0 to 19.0

Note:
1. Information sourced from KP (2018a) and KP (2018d).

2.5 HYDROLOGIC CRITERIA

The annual hydrograph is bimodal with the lowest flows occurring during the winter, and the peak flows occurring during the spring freshet due to snowmelt and during the summer due to rainfall. Detailed climate and hydrological data are presented in the Site Characterization Plan (BMC, 2026e). Design storm criteria and hydrometeorological design parameters for the water management

structures on site (including the Class B, Class C and Overburden Collection Ponds) is presented in detail in the Water Management Plan (BMC, 2026b).

2.5.1 Erosion and Sediment Control

Sediment and erosion control measures will be necessary to limit the effect on the surrounding environment and water sources due to stripping and excavating activities related to the construction of the facilities. Detailed sediment and erosion control measures can be found in the Sediment and Erosion Control Plan (BMC, 2026f). Construction activities that will require sediment and erosion control include:

- Vegetation clearing and topsoil stripping beneath all facilities;
- Stockpiling of topsoil and other overburden material not suitable for construction; and
- Foundation preparation, construction of the basin underdrain system, and liner system installation beneath the Class B Storage Facility.

Sediment mobilization and erosion will be minimized by:

- Installing sediment controls including water diversion structures prior to site disturbances;
- Limiting the disturbance to the minimum practicable extent;
- Reducing water velocity across the ground, particularly on exposed surfaces and in the areas where water concentrates;
- Progressively rehabilitating disturbed land and constructing drainage controls to improve the stability of rehabilitated land;
- Ripping of rehabilitation areas to promote infiltration;
- Protecting natural drainages and watercourses by constructing appropriate sediment control devices such as collection and diversion ditches, sediment traps and sediment basins;
- Restricting access to rehabilitated areas; and
- Constructing surface drainage controls to intercept the surface runoff.

2.6 MATERIAL STORAGE CONDITIONS

All waste rock and overburden material will be stored in an unsaturated state. Ice-rich material will be stored in the Frozen Material Storage Area of the Overburden Stockpile and allowed to drain. The Class B Storage Facility will be fully encapsulated during Active Closure with a composite basin and cover liner.

2.7 LINER CRITERIA

A layer of glacial till will be placed and compacted in lifts across the Class B Storage Facility basin to provide a low permeability seepage barrier beneath the waste storage facility. An 80 mil textured HDPE geomembrane liner will be installed above the compacted glacial till material to form a

composite liner. Leakage through the composite liner is estimated to range from 0.001 to 0.007 L/s (KP, 2018b). A description of the Class B Storage Facility seepage analysis is provided in Section 3.8. Additional information on seepage management from the Class B Storage Facility is described in the Water Management Plan (BMC, 2026b).

2.8 WATER QUALITY CRITERIA

Water quality modelling, completed by Ensero, indicates that runoff and seepage from the Class B Storage Facility, Class C Storage Facility and Overburden Stockpile will not require treatment at the Water Treatment Plant during Operations (Ensero, 2024). In Active and Transition Closure, water from the Class B Collection Pond is predicted to require treatment at the Water Treatment Plant until a time at which the composite cover has been fully constructed. Once constructed the water quality is predicted to meet acceptable limits for discharge directly to Geona Creek (Ensero, 2024). Water quality objectives (WQO) have been developed for a range of Contaminants of Potential Interest associated with the Project (Ensero, 2024).

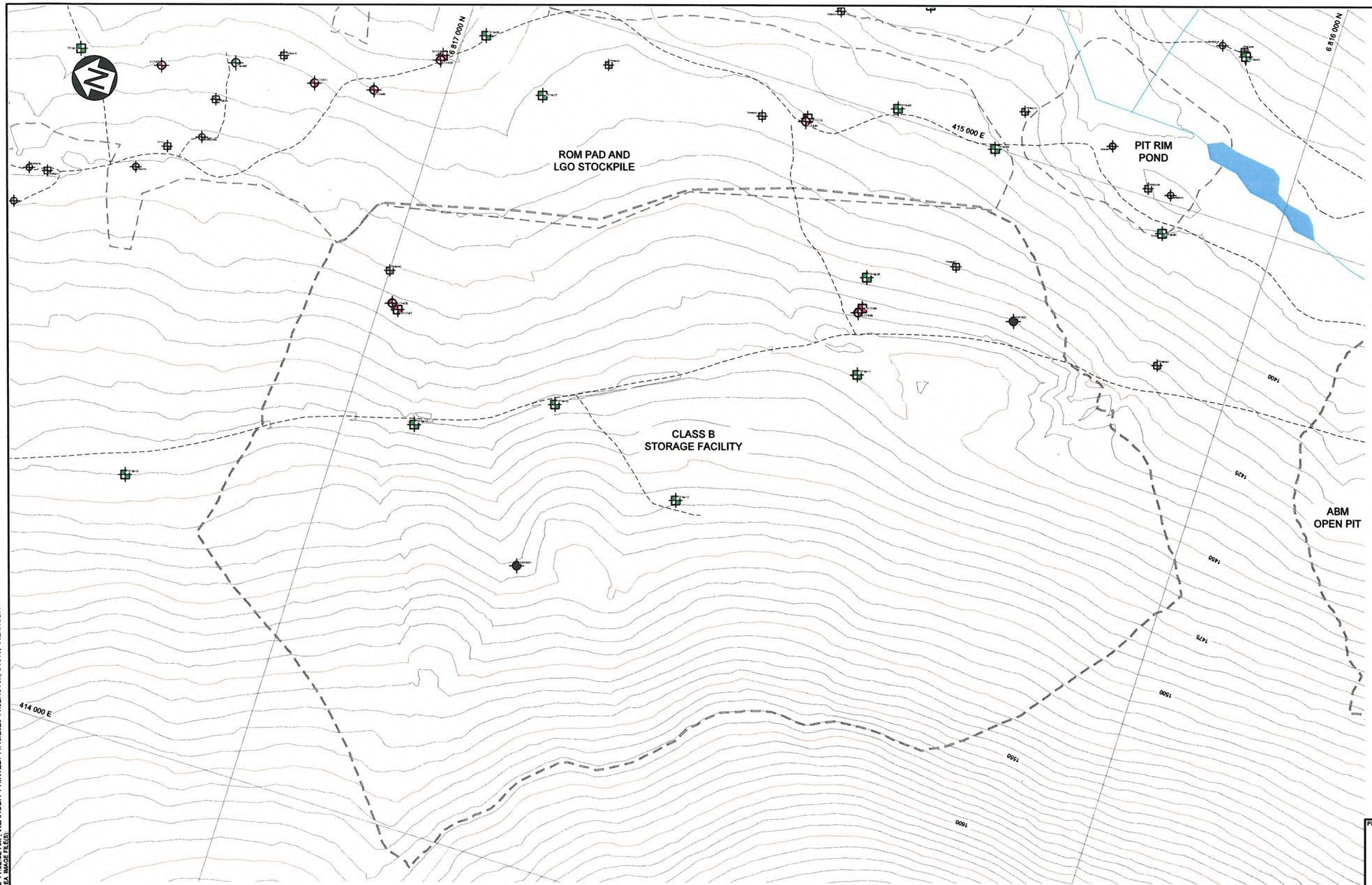
3. WASTE ROCK STORAGE FACILITY DESIGN AND CONSTRUCTION

Designs for the Waste Management Facilities and Overburden Stockpile included the following key elements:

- Location assessment for the Class B and Class C Storage Facilities, and the Overburden Stockpile;
- Geotechnical and hydrogeological characterization of foundation conditions at each location;
- Geotechnical characterization of waste rock and overburden materials;
- Failure hazard classification using the Dump Stability Rating Scheme (BC MWRPRC, 1991);
- Static and seismic (for a 1 in 2,475-year earthquake event) limit equilibrium stability analyses for each waste storage facility (KP, 2017 and KP, 2018c); and
- Assessment of slope creep or slope failure potential related to the influence of permafrost.

3.1 FOUNDATION CONDITIONS

KP (2018a) conducted geotechnical and hydrogeological site investigations in 2015, 2016, and 2017, which included 67 test pits and 40 geotechnical drill holes along with a suite of index and strength testing on the samples collected. A summary of all site investigations completed to date is presented in the Site Characterization Plan (BMC, 2026e). The locations of the geotechnical drill holes and test pits in relation to the Class B Storage Facility, Class C Storage Facility and Overburden Stockpile are shown in Figure 3-1, Figure 3-2, and Figure 3-3, respectively.



LEGEND:

- GROUNDWATER MONITORING WELL (TETRA TECH, 2015, 2016)
- GEOTECHNICAL DRILLHOLE (KNIGHT PIESOLD, 2017)
- TEST PIT (KNIGHT PIESOLD, 2017)
- TEST PIT (KNIGHT PIESOLD, 2016)
- PREVIOUS DRILLHOLE (GOLDER)
- PREVIOUS TEST PIT (GOLDER)
- FACILITY OUTLINE
- STREAM / DRAINAGE / WATERBODY
- EXISTING ACCESS ROAD / TRAIL

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KUDZ ZE KAYAH PROJECT

GEOTECHNICAL SITE INVESTIGATIONS CLASS B STORAGE FACILITY PLAN

P/A NO.	DRAWING NO.	REVISION
VA101-640/11	C1010	0

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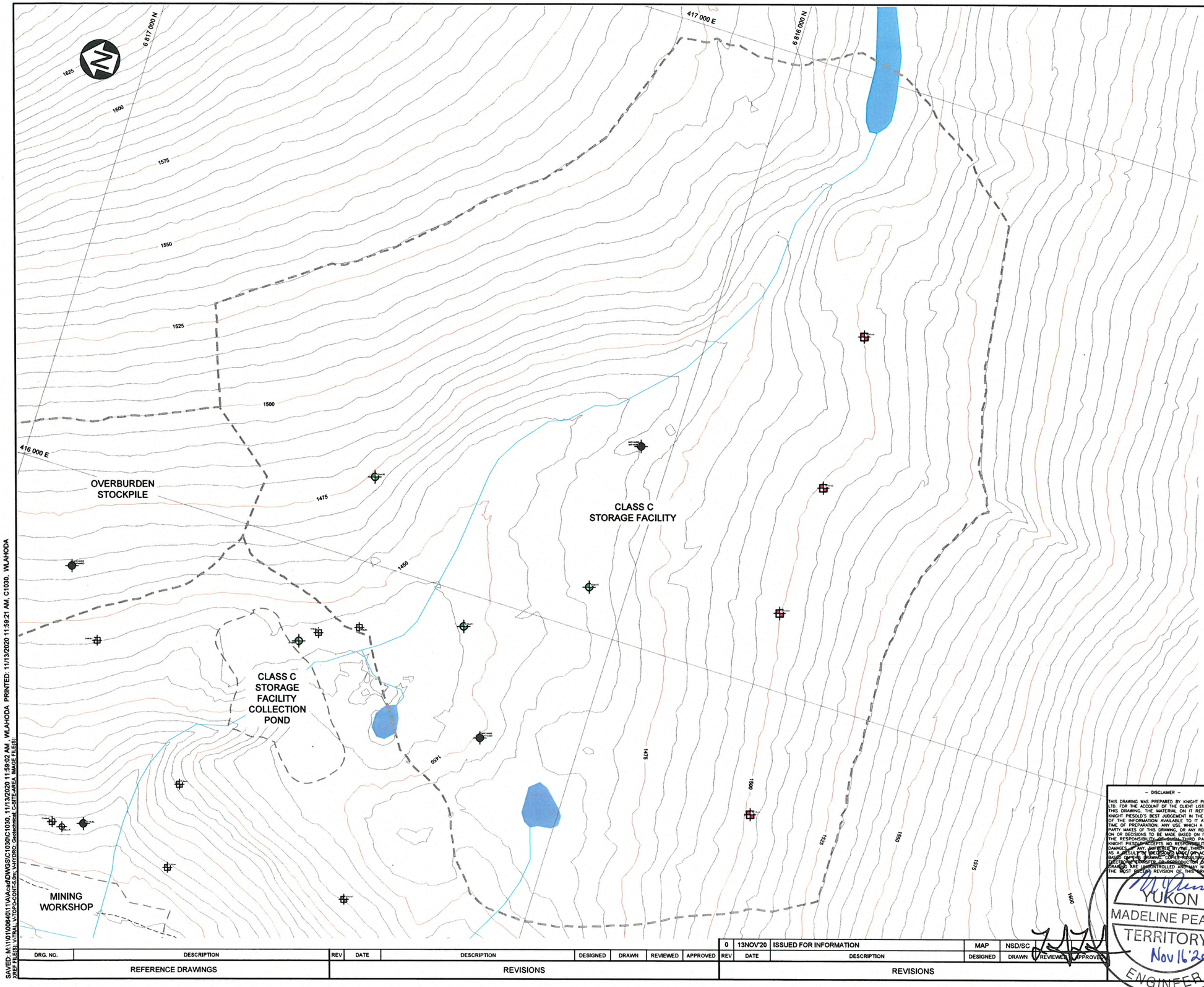

LEGEND:

- GROUNDWATER MONITORING WELL (TETRA TECH, 2015, 2016)
- TEST PIT (KNIGHT PIESOLD, 2017)
- GEOTECHNICAL DRILLHOLE (KNIGHT PIESOLD, 2016)
- PREVIOUS DRILLHOLE (GOLDER, 1995, 1996)
- PREVIOUS TEST PIT (GOLDER, 1995, 1996)
- FACILITY OUTLINE
- STREAM / DRAINAGE / WATERBODY
- EXISTING ACCESS ROAD / TRAIL

NOTES:

1. COORDINATE GRID IS UTM NAD 83 9N.
2. TOPOGRAPHIC DETAIL PROVIDED OCTOBER, 2017.
3. CONTOUR INTERVAL IS 5 METRES.
4. ALL ELEVATIONS ARE IN METRES, UNLESS NOTED OTHERWISE.

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YUKON
MADELINE PEASE
TERRITORY
Nov 16'20
ENGINEER

DRG. NO.	DESCRIPTION
REFERENCE DRAWINGS	

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED	APPROVED
REVISIONS						

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KUDZ ZE KAYAH PROJECT

GEOTECHNICAL SITE INVESTIGATIONS CLASS C STORAGE FACILITY PLAN

P/A NO.	DRAWING NO.	REVISION
VA101-640/11	C1030	0

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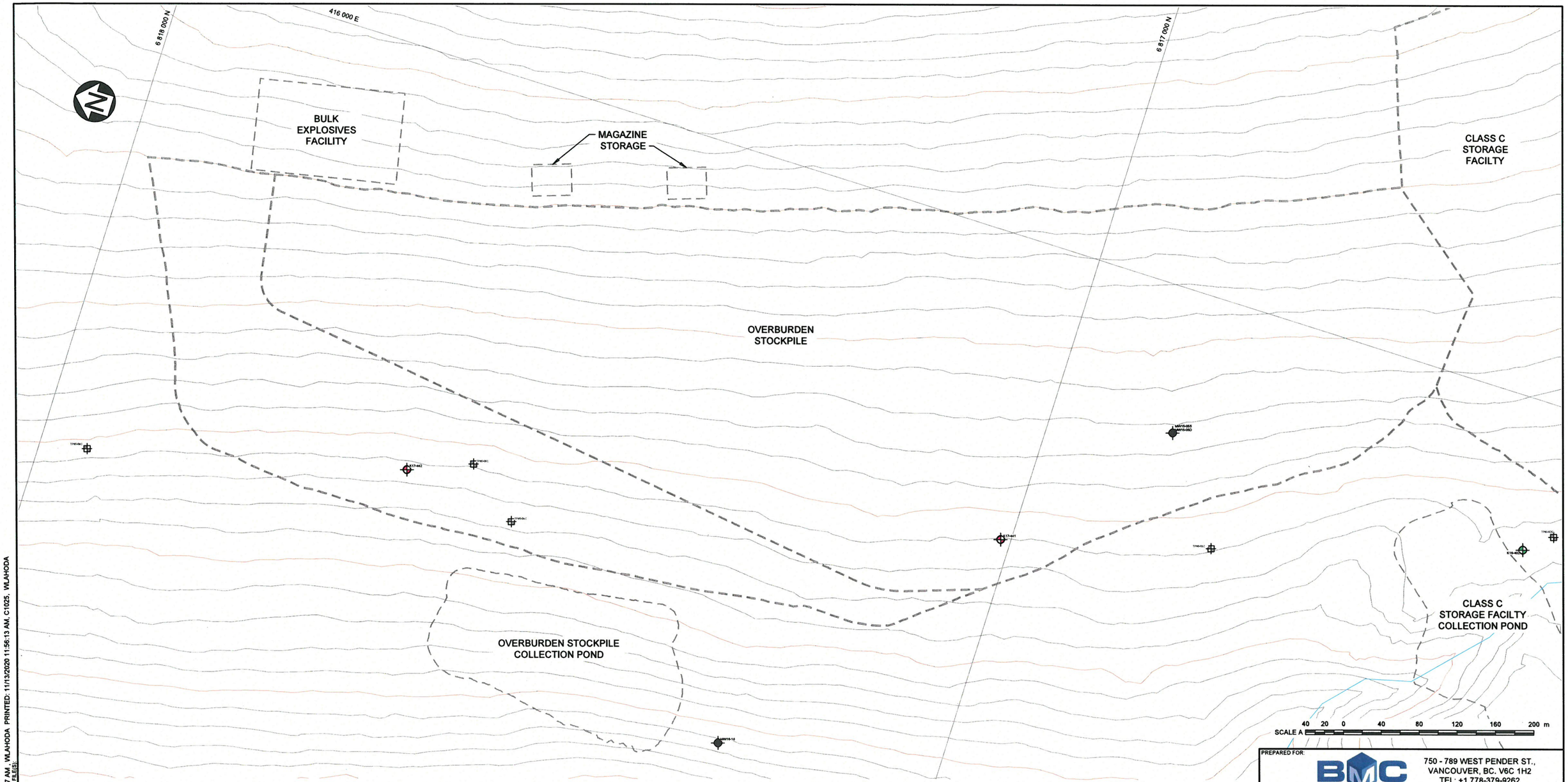

NOTES:

1. COORDINATE GRID IS UTM NAD 83 9N.
2. TOPOGRAPHIC DETAIL PROVIDED OCTOBER, 2017.
3. CONTOUR INTERVAL IS 5 METRES.
4. ALL ELEVATIONS ARE IN METRES, UNLESS NOTED OTHERWISE.

LEGEND:

- GROUNDWATER MONITORING WELL (TETRA TECH, 2015, 2016)
- GEOTECHNICAL DRILLHOLE (KNIGHT PIESOLD, 2017)
- GEOTECHNICAL DRILLHOLE (2016)
- PREVIOUS TEST PIT (GOLDER, 1995, 1996)
- FACILITY OUTLINE
- STREAM / DRAINAGE / WATERBODY

DISCLAIMER:

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YUKON TERRITORY
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Nov 16'20
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KUDZ ZE KAYAH PROJECT

GEOTECHNICAL SITE INVESTIGATIONS OVERBURDEN STOCKPILE PLAN

P/A NO.	DRAWING NO.	REVISION
VA101-640/11	C1025	0

DRG. NO.	DESCRIPTION
REFERENCE DRAWINGS	

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED	APPROVED
REVISIONS						

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Geotechnical parameters were defined for both frozen and unfrozen in situ overburden to assess stability of structures constructed on permafrost. Overburden strength parameters were estimated based on the standard penetration test data from the 2015, 2016, and 2017 Site Investigation Programs (KP, 2018a) and correlated with typical soil properties for compact gravelly silty sand (Carter and Bentley, 1991; Look, 2007). Frozen soil strength parameters were based on published geotechnical parameters for slope stability assessments in frozen soils (Nater et. al., 2008).

Overburden thickness at the Class B Storage Facility ranges from 0.1 m to 10 m, with the thickest overburden in topographical depressions located at the northeast end of the facility. Overburden at the Class C Storage Facility ranges from 1 m to 19 m, with the shallowest surficial deposits at higher elevations. Overburden thickness at the Overburden Stockpile area ranges from 2 m to 9 m.

Stability analyses determined that all the facilities meet or exceed the minimum target FOS of 1.5 for static and 1.0 for seismic conditions (described in Section 3.5). Analyses also indicate that shallow flow slope failure or slope creep caused by permafrost are not anticipated beneath any of the Waste Storage Facilities or the Overburden Stockpile (KP, 2019; KP, 2018a). It should be noted that the Class C Storage Facility is placed in a confined valley, limiting the potential for movement.

Logs of vertical sections that show the locations of drill holes, material sizing, material type, and permafrost are provided in the 2017 Geotechnical Site Investigation Data Report (KP, 2018d), and the Site Characterization Plan (BMC, 2026e).

3.2 DESIGN DETAILS

3.2.1 Class B Storage Facility

The Class B Storage Facility is designed to manage waste rock classified as weakly PAG and metal leaching over the long term and also incorporates the ROM Pad and Low-Grade Ore Stockpile. Class B waste requires encapsulation to limit contact with oxygen and water, and the facility includes the same composite liner and cover systems as described in the Tailings Management Plan for the Class A Storage Facility (BMC, 2026a).

A central basin liner underdrain will be excavated and constructed with a herringbone structure to route groundwater underneath and downgradient of the waste storage facility. Final drain alignments will be selected during construction based on stripped topography, the locations of observed groundwater seepage pathways and other factors. In the unlikely event that artesian conditions are encountered during foundation preparation, these flows will be managed using the foundation drainage system and the measures described in the Sediment and Erosion Control Plan (BMC, 2026f).

The Class B Storage Facility has been designed with an overall slope of 3H:1V for long-term physical stability and to support effective reclamation (KP, 2019).

3.2.2 Class C Storage Facility

The Class C Storage Facility is designed to manage waste rock classified as non-PAG with low potential for metal leaching and therefore specific ARD/ML management strategies are not required (Ensero, 2023).

The waste storage facility has been designed with an overall slope of 3H:1V for long-term physical stability and to support effective reclamation (KP, 2019).

3.2.3 Overburden Stockpile

The Overburden Stockpile is designed to manage overburden excavated from the ABM open pit area and from the foundation of site infrastructure. Stockpiled overburden will be selectively managed and sourced from the stockpile for construction material during Construction, Operations and Active Closure. Ice-rich overburden, if encountered, will be stored in the Frozen Material Storage Area of the stockpile and allowed to drain.

3.3 CLEARING, STRIPPING AND GRUBBING

The Wildlife Protection Plan (BMC, 2026g) includes the following specifications related to clearing for site preparation:

- Clearing will be kept to a minimum and will only include areas needed to safely construct and operate the Project;
- Clearing will be planned to minimize disturbance to bird nesting; and
- Nest surveys will be conducted as described below for any clearing during the nesting season (with involvement from Kaska First Nation representatives).

Land clearing will occur outside the migratory bird season (May 1 to August 15) as much as practicable. If land clearing is to be conducted during this timeframe, suitably qualified experts will conduct a bird nest sweep that consists of a focused investigation of bird breeding behaviour and searching for nests. If active songbird, waterfowl and/or raptor nests are found in the areas to be cleared, they will be buffered as outlined in the Wildlife Protection Plan (BMC, 2026g). This is required to ensure compliance with the *Migratory Birds Convention Act 1994* (Government of Canada, 1994), which prohibits the disturbance or destruction of migratory bird nests and eggs in Canada.

Following the implementation of the mitigation and management measures above, the footprints of the Class B Storage Facility, Class C Storage Facility, and Overburden Stockpile will be progressively cleared of trees and shrubs and topsoil will be stripped, exposing overburden and weathered bedrock (in some areas). Any unsuitable foundation materials including ice-rich permafrost or fine-grained material which could affect the long-term geotechnical stability of the facilities will be removed. Frozen material will be placed in the Frozen Material Storage Area (within the footprint of the Overburden Stockpile) for management until thawed and drained. Management of frozen material and the Frozen Material Storage Area is described in greater detail in the Mine Development and Operations Plan (BMC, 2026d).

The topsoil will be stripped and stockpiled in designated Topsoil Stockpile areas located strategically throughout the Project Area for use as a reclamation material. Cleared vegetation may be mixed with topsoil stockpiles for use in future reclamation works. The facilities will be graded to collect and convey flows to the respective collection ponds for water management and erosion control. To promote the most effective use of topsoil salvaged from Project development, BMC will adopt the following principles for topsoil management:

- Remove topsoil just prior to when excavation is required (to reduce potential for erosion);
- Reuse topsoil immediately in reclamation where possible (to limit rehandle and promote the preferential use of the most viable topsoil);
- Limit rehandling of topsoil where practicable, including when soil is too dry or too wet (to reduce dust and erosion and maintain soil viability);
- Limit the size of topsoil stockpiles (to reduce the impact of heating the pile and therefore maintain seed viability as much as possible);
- Where topsoil stockpiles are required to be maintained for a long period, apply seed to promote natural cover; and
- Reseed topsoil as soon as reasonably possible immediately after placement and contouring when completing reclamation works (to limit potential for erosion).

3.4 TRANSPORT AND DISPOSAL

All Class B and Class C waste rock and overburden will be transported from the ABM open pit to the respective storage facilities. Class B waste rock will be dumped on the prepared surface in select areas and the Class C Storage Facilities waste rock may be dumped and spread by dozers over the crest to allow for maximum segregation of the coarser material at the base of each bench. For overburden, end dumping short of the crest and dozing over may be required (KP, 2019).

3.5 STABILITY ANALYSIS

Stability analyses were completed for the Class B Storage Facility, Class C Storage Facility, and Overburden Stockpile (KP, 2017 and 2018c). The following geotechnical units were defined for the purpose of the stability analysis, as discussed in KP (2024b):

- Foundation glacial till (overburden);
- Bedrock;
- Glacial till (Overburden Stockpile material);
- Class B and Class C waste rock;
- Liner and cover drainage material consisting of sand and gravel; and
- 80 mil HDPE geomembrane.

Material strength characteristics used in the stability analyses are discussed in Section 2.2. The calculated FOS for each of the loading conditions considered in this study was found to meet the minimum required acceptance criteria for both static and seismic conditions. Results for each waste storage facility are summarized in Table 3-1.

Seismic analyses were completed using the 1 in 2,475 year earthquake event, detailed in KP (2024c).

Table 3-1: Limit Equilibrium Stability Analysis Results for Storage Facilities

Waste Storage Facility	Loading condition	Loading Condition	Factor of Safety	
			Minimum Required	Minimum Calculated
Class B Storage Facility	Overall Slip Surface	Static	1.5	2.1
		Seismic	1.0	1.4
	Forced Along Liner	Static	1.5	2.0
		Seismic	1.0	1.3
	Forced Along Cover	Static	1.5	1.5
		Seismic	1.0	1.0
Class C Storage Facility	Unfrozen	Static	1.5	2.3
		Seismic	1.0	1.6
	Frozen	Static	1.5	2.4
		Seismic	1.0	1.7
Overburden Stockpile	Unfrozen	Static	1.5	1.5
		Seismic	1.0	1.1
	Frozen	Static	1.5	1.6
		Seismic	1.0	1.2

3.6 QUALITY ASSURANCE/QUALITY CONTROL

A construction quality assurance and quality control (QA/QC) plan will be developed for the waste rock and overburden facilities prior to commissioning to ensure that the facilities will be constructed as intended. Elements that will be considered include:

- A suitably qualified environmental professional/technician to monitor Project construction activities;
- Application of QA/QC testing in accordance with the QA/QC plan to ensure the construction of the waste rock and overburden facilities are completed as per the technical specifications and design drawings;
- Monitoring of cut slopes and fill material;
- Salvaging and storing soil suitable for reclamation, evaluation of topsoil volumes, and based on soil stockpile dimensions, a determination of whether there is sufficient material for reclamation;
- Foundation preparation and approvals;
- Permafrost (and excess ice rich material) identification;
- Construction of berms, lifts, interceptor ditches and sediment basins;
- Implementation of construction constraints related to climate conditions;
- Photographic logs of the construction process at each stage of construction; and

- Preparation of construction record drawings signed and sealed by a Professional Engineer registered in Yukon, where appropriate.

Placement of the glacial till layer and 80 mil HDPE geomembrane liner and cover systems will follow a QA/QC program established prior to construction. The QA/QC program will include moisture and compaction requirements for placement of the compacted till layer and the condition of the till surface prior to placement of the geomembrane. Construction procedures will be adopted to limit the development of wrinkles at the time the geomembrane is covered.

3.7 SURFACE WATER MANAGEMENT

A detailed description of surface water management for the Waste Storage Facilities and Overburden Stockpile is provided in the Water Management Plan (BMC, 2026b).

The water management objectives during Construction are to safely convey water and/or detain the design storm event for the Waste Storage Facilities and Overburden Stockpile, while ensuring that the water quality objectives for the Project are met in the receiving environment.

To achieve the water management objective during Construction, runoff will be controlled to minimize erosion in areas disturbed by construction activities and prevent the release of sediment-laden water to the receiving environment. This includes the collection and diversion of clean surface water runoff away from construction activities, and the installation of sediment control ponds and pumping systems to manage water.

Site collection ditches and diversion channels have been designed to divert non-contact water, and to collect and control contact water. Non-contact water will be diverted around each waste rock and overburden storage facility to minimize the quantity of water flowing through them.

Surface water runoff in contact with the Waste Storage Facilities will be routed to the following ponds via appropriate grading and collection ditches:

- Class B Collection Pond: Located downgradient of the Class B Storage Facility, to collect seepage and run-off from the waste storage facility. Water from this pond will be conveyed to the Upper Water Management Pond;
- Class C Collection Pond: Located immediately downgradient of the Class C Storage Facility, to collect contact run-off and act as a sediment control pond. Retention time in the pond will allow sediment to settle to an appropriate level before routing the water by gravity to Geona Creek via a pond outlet ditch; and
- Overburden Collection Pond: Located immediately downgradient of the waste storage facility to collect contact run-off and act as a sediment control pond. Retention time in the pond will allow sediment to settle to an appropriate level before routing the water by gravity to Geona Creek via a pond outlet ditch.

3.8 LINER AND COVER SYSTEMS

The Class B Storage Facility will be lined with a layer of low permeability glacial till and compacted in lifts across the waste storage facility basin above the foundation drainage system. An 80 mil textured HDPE geomembrane, or equivalent, liner will be installed above the compacted glacial till to form a composite liner. The liner will provide a low permeability seepage barrier beneath the waste storage facility. The waste storage facility also includes construction of a final composite glacial till and 80 mil textured HDPE, or equivalent, cover system, for complete encapsulation of the waste storage facility.

The construction of the basin liner system will be staged during Construction and Operations. The surface composite cover system, for any remaining surface area of the Class B Storage Facility not progressively reclaimed, will be installed during the Active Closure Phase, upon completion of ABM open pit mining and active use of the Class B Storage Facility. Installation of the composite liner system will follow a construction QA/QC program established prior to construction, as discussed in Section 3.6.

A liner leakage analysis of the Class B Storage Facility was completed to support design of the waste storage facility (KP, 2018b). The following two empirical methods were used to estimate the leakage through the composite glacial till and 80 mil geomembrane liner and cover systems:

- Giroud and Bonaparte (1989) – Leakage estimate through a defect assuming excellent contact between the geomembrane and low permeability soil; and
- Giroud (1997) – Leakage estimate through a defect assuming good contact between the geomembrane and low permeability soil.

A third method was examined for comparison purposes only where no geomembrane liner is present, and the basin and cover liners each comprise a compacted glacial till layer only. A summary of the seepage results is shown in Table 3-2 and the detailed analysis is provided in Appendix B of the Tailings Management Plan (BMC, 2026a).

The Class C Storage Facility and Overburden Stockpile do not include geomembrane liner or cover systems.

Table 3-2: Class B Facility Seepage Analysis

Method	Defect in Composite Layer			Compacted Till Liner only (no geomembrane) Leakage (L/s)
	Leakage Flow/defect (m^3/s)	Leakage Flow/square meter ($L/s/m^2$)	Total Leakage through Liner (L/s)	
Excellent Contact	$9x10^{-9}$	$2x10^{-9}$	0.00131	-
Good Contact	$4x10^{-8}$	$1x10^{-8}$	0.007	-
Areal Recharge	-	-	-	2

3.9 WASTE GENERATION AND DISPOSAL OPERATIONS

3.9.1 Operation, Maintenance and Surveillance Plan

An Operation, Monitoring and Surveillance (OMS) Manual will be prepared for the Class B Storage Facility, Class C Storage Facility and Overburden Stockpile prior to Operations. The OMS Manual will be a live document that will be reviewed and updated on a regular basis throughout Operations. The OMS Manual will outline key personnel and responsibilities, and the monitoring, inspection and reporting requirements for the Waste Storage Facilities and associated infrastructure, including the monitoring of instrumentation installed during Construction, with linkages to the Environmental Monitoring, Surveillance, and Reporting Plan (BMC, 2026h) and the Adaptive Management Plan (BMC, 2026i).

The development of the OMS Manual will follow the most recent guidance document produced by the Mining Association of Canada (2019). As indicated in this guidance document, the operator is best positioned to develop an OMS Manual, with appropriate input from the Engineer of Record for the waste storage facility/facilities. The OMS Manual requires consideration and inclusion of construction record drawings, the operational structure of the mine, and the responsible parties in relation to the Waste Storage Facilities (MAC, 2019).

An outline of the key headings and a brief description of what will be included in the OMS Manual includes:

- Governance;
    - Roles, Responsibilities, and Authority (a list of roles, responsibilities and associated authority for each individual involved in managing tailings will be developed, ensuring the lines of communication are clearly outlined);
    - Communications (development of training activities for key personnel will result in effective communication; furthermore, any break downs in communication are investigated to determine the cause and an action plan developed to prevent a recurrence);
    - Tracking of OMS Activities (a system to track the implementation of activities of the OMS Manual will include who dacides if an activity is required, who is responsible to perform the activity, what is the schedule to perform it and how/when is the activity reported to the responsible person);
    - Quality Management (a quality management plan will include both Quality Assurance (QA) and Quality Control (QC) for OMS activities);
    - Reporting (reporting relationships between individuals and business units will be described, as will reporting requirements for surveillance results when there is an indication of conditions not anticipated);
    - Training and Competence (individuals engaged in the management of tailings will require regular training; additionally, each individual will need to meet minimum competency requirements);

- Succession Planning (as key individuals change over time risk is inserted due to loss of institutional knowledge; a clear succession plan will be developed to minimize such risk);
- Resources and Scheduling (a system to identify, secure and regularly review adequacy of human resources, suitability and condition of equipment, financial resources and schedules of OMS activities);
- Occupational Health and Safety (given that some activities related to waste rock management have unique risks, all activities must conform to the legal health and safety standards and those developed by the owner); and
- Waste Storage Facility Description (factors that could affect the performance and risk profile of a waste rock storage facility that will be considered include: site conditions, communities of interest perspectives, legal requirements and commitments, waste storage facility characteristics and performance, Record Drawings, and future plans and how they may impact the waste storage facility).

- Operation;
  - Quantifiable Performance Objectives will include instrumentation trigger threshold levels and associated response plans based on the waste storage facility design intent, environmental requirements, risk assessment and acceptable level of risk, and the Closure plan;
  - Operating Procedures (Standard Operating Procedures will address all aspects of operating the waste storage facility, including transport and placement of waste rock, ongoing construction of the waste storage facility, and water management); and
  - Site Access (controlled access to the waste storage facility will be described, including identification of hazards or safety restrictions).
- Maintenance;
  - Description of Maintenance Activities (each maintenance activity will be described and will fall into three general categories: Preventative, Predictive, and Corrective); and
  - Documentation Associated with Maintenance (a clear documentation record is necessary for all maintenance activities, including: equipment logs, work history, frequency and cause of problems, component reliability, quality control records, communications and activity records, photographic and/or video summaries, inventory of spares, materials, tools and equipment, and change orders).

- Surveillance;
    - Design Considerations for a Surveillance Program (as an example, such a program should address what needs to be known, who needs to know it, and what will the information inform); and
    - Surveillance Activities (will include site observation and inspections, instrumentation monitoring, analysis of surveillance results, communications, and decision-making).

Also as indicated in the MAC guidance (MAC, 2019), there will be established linkages in the OMS Manual to the Emergency Response and Health and Safety Plan.

3.9.2 Air Quality and Dust Control

The following management practices for fugitive dust control will be implemented:

- Watering of the facility, or application of other common environmentally acceptable dust suppressants (if necessary);
- Construction of windbreaks (if necessary);
- Visual inspections to identify and address potential dust emissions; and
- Timely maintenance of engineered dust control measures.

As described in the Environmental Monitoring, Surveillance and Reporting Plan (BMC, 2026h), multiple air quality sampling stations will be installed at the site. Concentrations of total suspended particulate, coarse particulate matter (particulate matter less than 10 micrometers in diameter; PM_{10}), fine particulate matter (particulate matter less than 2.5 micrometers; $PM_{2.5}$), and metal concentrations will be monitored during Construction, Operations and Closure of the Project. The Adaptive Management Plan (BMC, 2026i) provides details of air quality trigger values and associated adaptive management responses in the event that these trigger values are reached or are predicted to be reached based on a trend analysis of the monitoring results.

3.9.3 Progressive Reclamation

As far as practicable, the majority of the Class B Storage Facility will be progressively covered and reclaimed during Operations with a composite cover system, constructed using compacted glacial till and an HDPE geomembrane, as discussed in Section 3.8. The cover will be overlain by a layer of Class C waste rock as a frost protection layer. Growth media will be placed over the Class C material to allow surface revegetation. Additional details of the cover system and Project restoration are provided in the Reclamation and Closure Plan (2026c).

Detailed design of the progressive reclamation of the Class B Storage Facility will be developed prior to Construction, and will be revised as appropriate during Operations. The general sequence will include:

- Regular operations will aim to construct the facility face at the specified closure slope, including benches at regular intervals;

- The sequence and timing of areas for reclaim will be determined as part of operational planning, considering factors such as material and equipment availability, construction progress, weather and facility performance. The operation will aim to reclaim material on the facility face within 2 years of placement;

- Prior to commencing reclamation of a given area, the area will be surveyed and regraded as necessary to achieve the specified closure slope and bench placement, as well as back-cuts, trenches or other engineered slope breaks to ensure that the material overlying the HDPE will not be susceptible to downslope displacement;

- Zone S material will be transported to the area, placed, spread and compacted;

- The HDPE will be placed over the Zone S material using standard methods (e.g., USBR, 2018; MEND, 2012) for design and construction including key trenches, placement, seaming, QA/QC, repairs and testing, and techniques observed to be successful for progressive reclamation at other mines;

- Zone F material will be transported to the area, placed, spread and compacted using standard methods (e.g., USBR, 2018; MEND, 2012) to avoid damage to the HDPE;

- Zone C material and growth media will be transported to the area, placed, spread and compacted; and

- Vegetation will be planted using the techniques determined to be effective during preceding vegetation trials.

Performance of reclaimed areas will be monitoring as described in the Environmental Monitoring, Surveillance and Reporting Plan (BMC, 2026h). Repairs or improvements to reclaimed areas will be made as necessary, and reclamation methods will be revised as appropriate based on the performance of preceding areas.

3.9.4 Waste Rock Classification

The potential for ARD/ML at the Project is not restricted to a particular primary host rock lithology, although some lithologies have high prevalence of PAG rock in comparison with others. The potential is mainly a function of total sulphur, carbonate, and metal contents. Generally, massive and disseminated sulphide ore and highly mineralized lithologies will be acid generating, the weakly mineralized halo around the ore zones will be weakly acid generating and all other waste rock will be non-acid generating. ML potential is anticipated to have a similar relationship, as metals are primarily present as sulphide minerals, the exception being a mafic intrusive unit (logged as CA CL MAF in ARD field studies) that has elevated arsenic and antimony contents interpreted to be contained within a carbonate mineral component.

Based on the results of geochemical characterization work conducted by Ensero (2023) and Cominco (1996), three major waste rock management classes (in addition to the overburden) have been identified (Table 3-3). These classes are:

- Class A waste rock: Strongly PAG waste rock, with an associated high potential for metal leaching in the near term (i.e., during operations). This class consists of the mainly sulphide rich rock of the mineralization envelope surrounding the massive sulphide ore;
- Class B waste rock: Weakly PAG waste rock with a metal leaching potential that is lower than that of Class A. Drainage from this material is expected to become acidic in the longer term, but unlikely during the timing of currently proposed operations. This waste rock class also include the footwall CA CL MAF lithology on the basis of an elevated potential for arsenic and antimony release without potential for significant acid generation;
- Class C waste rock: Non-PAG waste rock with low potential for metal leaching. This comprises the majority of rocks associated with ankerite (general formula $Ca(Fe,Mg,Mn)(CO_3)_2$) rich rhyolite and mudstone; and
- Overburden and topsoil.

Table 3-3: Waste Rock Classes and Screening Criteria

Waste Rock Management Class	ARD/ML Potential	Classification Criteria
Class A	Strongly PAG with high ML potential	Total Sulphur > 2.9 wt.% or neutralization potential (NP) < 10 kg $CaCO_3$/t
Class B	Weakly PAG with ML potential, non-PAG with ML potential	Total Sulphur < 2.9 wt.%, NP > 10 kg $CaCO_3$/t and NP/Acid Potential < 1.9
Class C	Non-PAG and low ML potential	Total Sulphur < 2.9 wt.%, NP > 10 kg $CaCO_3$/t and NP/Acid Potential > 1.9
Overburden	Non-PAG and low ML potential	none

3.9.5 Operational Identification and Segregation Protocol

Ore will be hauled to the Process Plant for processing, where it will become either a mineral concentrate or filtered tailings. Waste rock will be classified according to its ARD/ML potential and disposed of in either the Class A, Class B or Class C Storage Facility. These waste rock classes will be identified in the field during Operations through waste rock definition procedures. Overburden will be transported directly to the Overburden Stockpile for storage.

Because of the uncertainty in visually identifying and segregating PAG and ML rock from non-PAG and low ML waste rock based on their lithological characteristics, a waste rock geological model based on the results of ARD/ML test work and logged sulphide content was created to identify the location of the various waste rock classes (Figure 3-4). This model will be used as a general guide to the expected distribution of the ARD/ML classes and will be modified as mining progresses based on assays from operational samples.

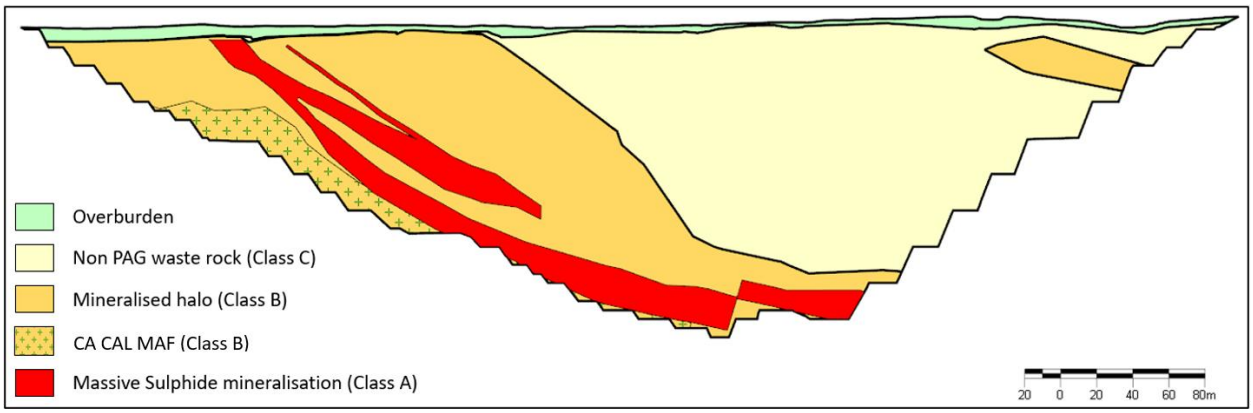

Figure 3-4: Interpreted Cross-Section Showing the Location of the Different Waste Rock Classes

ARD/ML test work carried out to date using static, leach and laboratory and field kinetic testing (Ensero, 2023) shows that elemental total sulphur and calcium determined by inductively coupled plasma mass spectrometry (ICP-MS) provides a reliable proxy for the calculation of the NP/AP ratio for waste rock classification. This finding was used to develop the screening criteria listed in Table 3-3 to allow for rapid verification of laboratory-based classification during active mining operations. Therefore, an operational geochemical monitoring program is proposed for implementation during Operations to:

- Conduct an ongoing characterization program for waste rock and overburden;
- Verify the waste rock classification from the baseline geochemical characterization work;
- Refine the water quality predictions and reduce potential impacts from the Project on the environment; and
- Improve the delineation of PAG and ML rock for adequate management and better grade control.

To facilitate the implementation of the program, an onsite laboratory equipped with standard assay and sample preparation capabilities will be constructed. This will be supported by a Canadian Association for Laboratory Accreditation (CALA) accredited off site laboratory with more advanced geochemical analytical capabilities.

Representative samples will be collected from the waste rock and overburden during Operations that will be analysed in the site laboratory to determine sulphide sulphur (S) and calcium (Ca) contents for the purpose of adequately characterizing and segregating the waste rock. Site based analysis will be complemented with confirmatory off site laboratory acid-base accounting (ABA) and shake flask extraction tests (SFE) on a subset of samples to ensure that the NP and AP results generated on site through the use of surrogate analytes are consistent with the ABA results. The protocol for operational ARD/ML identification and management of the waste rock classes and overburden will also include visual inspection of blasted rocks for the presence of sulphides where possible. This protocol will be continuously reviewed, improved, and refined to ensure adequate classification and management of the solid wastes.

3.9.5.1 ABM Open Pit Waste Rock Geochemical Monitoring

The operational geochemical monitoring of ABM open pit waste rock is summarized as follows:

- The Waste Rock boundaries will primarily be defined through the grade control drilling programme. Analysis of grade control samples will include S and Ca to enable assessment of waste rock classification;
- Where necessary, Waste Rock boundaries will be further defined through sampling and assaying of blasthole drill cuttings;
- The currently planned site laboratory analytical techniques are:
  - Ca – aqua regia digest and ICP-AES (also called ICP-OES); and
  - S (sulphide sulphur) –CS analyser (e.g. Leco).
- The results of the analysis will be used to calculate surrogate AP, NP and the NP/AP ratio values, which will then be utilised to classify the waste rock into one of the three waste rock classes according to the classification criteria listed in Table 3-3;
- Visual examination will complement the laboratory analysis to adequately segregate visually distinctive rock types such as the mafic volcanic unit CA CL MAF rocks. The latter will most likely be able to be mapped visually in the open pit and automatically allocated to the Class B Facility due to its ML potential;
- In the ABM open pit, the different classes of waste rock will be used by the excavator operator and site geologists to inform truck drivers as to the required destination for each load of waste. The blasted waste rock will be marked using appropriate visual markers, to represent the boundaries of different waste classes;
- Waste rock will be excavated, loaded and hauled to the appropriate waste storage facility based on the ARD classification represented by the defined polygons;
- As part of the laboratory quality control and assurance program, confirmatory off site analytical testing will also be conducted.; and
- Composite samples from the pulps remaining from site laboratory samples will be prepared for off site laboratory ABA and SFE analysis.

3.9.5.2 Underground Waste Rock Geochemical Monitoring

Waste rock geochemical monitoring for the underground mine will be added to future revisions of this Plan in preparation for commencement of underground mining activities.

3.9.5.3 Overburden Geochemical Monitoring

Overburden stripped from the ABM open pit and various surface infrastructure areas is required for construction and Closure activities. Overburden not required for initial construction will be placed in the Overburden Stockpile, located along the valleys eastern slope, north of the Class C Storage Facility. The geochemical characterization program has shown that the overburden has low ARD/ML

potential due to its low sulphide sulphur and metal content (Ensero, 2023). Considering that the overburden will be used for various construction purposes, and during Closure, a regular geochemical monitoring of excavated overburden will be undertaken to confirm the results of the predictive assessment. The proposed monitoring will consist of:

- Visual inspection of excavated overburden for the presence of elevated sulphide minerals; and
- Collection of grab samples from excavated overburden to create composite samples for analysis in the site laboratory.

3.9.5.4 Waste Storage Facility Characterization

A sampling and analysis program will be maintained during the Operations phase to monitor the geochemical composition of waste rock and tailings placed within each waste storage facility as an input to ongoing water quality modelling.

A representative subset of on-site laboratory sample pulps will be selected and dispatched to an off-site laboratory.

Each sample pulp will be subsampled and analyzed utilizing an aqua regia digest and ICP-MS and/or ICP-AES to achieve the following detection limits: Ag (0.01 ppm), Al (0.01 %), As (0.1 ppm), Au (0.005 ppm), B (10 ppm), Ba (10 ppm), Be (0.05 ppm), Bi (0.01 ppm), Ca (0.01 %), Cd (0.01 ppm), Ce (0.02 ppm), Co (0.1 ppm), Cr (1 ppm), Cs (0.05 ppm), Cu (0.2 ppm), Fe (0.01 %), Ga (0.05 ppm), Ge (0.05 ppm), Hf (0.02 ppm), Hg (0.01 ppm), In (0.005 ppm), K (0.01 %), La (0.2 ppm), Li (0.1 ppm), Mg (0.01 %), Mn (5 ppm), Mo (0.05 ppm), Na (0.01%), Nb (0.05 ppm), Ni (0.2 ppm), P (10 ppm), Pb (0.2 ppm), Rb (0.1 ppm), Re (0.001 ppm), S (0.01 %), Sb (0.05 ppm), Sb (0.05 ppm), Sc (0.1 ppm), Se (0.2 ppm), Sn (0.2 ppm), Sr (0.2 ppm), Ta (0.01 ppm), Te (0.01 ppm), Th (0.2 ppm), Ti (0.005 %), Tl (0.02 ppm), U (0.05 ppm), V (1 ppm), W (0.05 ppm), Y (0.05 ppm), Zn (2 ppm), Zr (0.5 ppm)

While the full suite of elements will initially be analyzed, it is planned that as mining progresses the element suite will be refined to the constituents of potential interest only. Representative pulp sample composites will also be submitted for ABA and SFE analysis.

3.9.6 Geochemical Monitoring Program

The results of geochemical monitoring will be compiled into a database for annual reporting as part of the Water Licence and Quartz Mining License requirements. This may include a refinement of the management protocols and implementation of corrective actions if required. The monitoring program may change over time as the prediction and mapping of the distribution of the waste rock classes increase in accuracy and as the ABM open pit develops. These changes may include, but are not limited to:

- Modifying the sample density. If, for example, the field analytical results support the geological model outlined above it may be possible to reduce the frequency of samples in the non-PAG waste rock. It will still be a requirement that areas of sulphide identified in blast

hole logging or pit mapping in the Class C waste rock domain in the model will be routinely sampled to determine the NP/AP ratio;

- Using a different analytical method. Trials are currently underway to determine whether methods such as hyperspectral scanning, or X-ray fluorescence scanning may be able to provide reliable data for the calculation of NP/AP ratio. These methods have the benefit of being much quicker than the analysis proposed in Section 3.9.3; and
- Reducing the number of ABA analyses. The frequency of ABA testing may be decreased if it can be shown that it is not required (i.e., similar NP/AP with surrogate NP/AP), but will still be used as part of the QA/QC process.

3.9.7 Waste Disposal Schedule

The Class B and Class C Waste Rock Storage Facilities will be expanded during Operations as per the Mine schedule outlined in the Mine Development and Operations Plan (BMC, 2026d). The Overburden Stockpile will provide material used for reclamation during Operations and Active Closure.

3.9.8 Monitoring Program

Detailed descriptions of environmental and geotechnical monitoring and adaptive management procedures for the Class B and Class C Storage Facilities and the Overburden Stockpile are provided in the Environmental Monitoring, Surveillance and Reporting Plan (BMC, 2026h) and the Adaptive Management Plan (BMC, 2026i). This includes submission to Yukon Government of a third-party engineering audit for the Class B and Class C Storage Facilities and the Overburden Stockpile, and performance audit reports on the actual performance of these facilities relative to approved and expected performance. These audits and reports will by funded by BMC and will:

- Be prepared by an independent engineer or engineering firm acceptable to EMR;
- assess whether facilities have been constructed in accordance with approved designs, permits, and specifications;
- assess the readiness of facilities to operate safely and effectively within design parameters; and
- identify any deficiencies, departures from approved designs.

The first third-party engineering audit will be submitted prior to the commencement of Operations. Where an audit identifies deficiencies or conditions requiring corrective action, BMC will address those deficiencies to the satisfaction of YG prior to commencing or continuing Operations.

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APPENDIX A:
TABLE OF CONCORDANCE

Reference No.	Proponent Commitment / Mitigation	Where addressed
YESAB R5	Unsuitable/permafrost material encountered during construction of the Class A and B Waste Storage Facilities will be removed, therefore creep deformation due to permafrost conditions is not considered to be an issue for stability. Any additional potential for creep will be addressed during detailed design for the facilities where foundation preparation does not include removal of all overburden materials.	Section 3.3 and 3.5 of the Waste Rock and Overburden Management Plan
YESAB R37	The Class A and B Storage Facilities will be progressively reclaimed throughout operations, and if issues are identified during facility construction it will be possible to adapt the closure design to remedy these issues. An Adaptive Management Plan will be advanced during the detailed design of these facilities and will include defined triggers to identify when actions such as a cover replacement or redesign must be undertaken.	Section 3.9.3 of the Waste Rock and Overburden Management Plan
RRDC Review of Draft Management Plan	BMC will include Dena Cho in the process of developing the Operations Maintenance and Surveillance manuals.	Section 3.9.1 of the Waste Rock and Overburden Management Plan
Project Proposal Chapter 6 (BMC, 2017a)	Minimize land clearing activities (i.e. waste storage facilities will be cleared progressively through the Project construction and operations phase).	Chapter 1 and Section 3.3 of Waste Rock and Overburden Management Plan
Project Proposal Chapter 6 (BMC, 2017a)	Re-vegetate waste rock storage areas final surfaces early where practicable.	Section 3.9.3 of the Waste Rock and Overburden Management Plan
Project Proposal Chapter 11 (BMC, 2017a) Response Report #1 (BMC, 2017b) BMC Response on Draft Screening Report (BMC, 2020)	Several approaches will be used to mitigate potential effects of the Project on terrain stability. Many of them are related to mine design to help eliminate risks and include approaches such as: o Remove all unsuitable (from a geotechnical perspective) soils overlying bedrock from Project facilities; o Progressive construction of a low permeability liner system below the Class A and B Storage Facilities with collection conveyance systems constructed below the liners; o Grading waste storage facilities to collect and convey water away from each facility; o Assessing the volume of material on waste rock storage facilities to not affect stability; o Construction of storage facilities with nominal final design slopes of 3H:1V (Class B and Class C Storage Facilities) for long-term physical stability and to allow for recontouring for closure reclamation; o Planning of progressive reclamation to help ensure slope stability; o Reduction of catchment areas by decreasing the lateral extents of each facility along the valley slopes; o Containment of Class C waste rock volume in the side-valley northeast of the ABM open pit, confining the pile along the northeast and south slopes; o Utilizing the guidelines for the Dump Stability Rating scheme, a semi-quantitative method for assessing the relative potential pile stability and recommending the appropriate level of pile investigation and design; and o Cover systems on waste storage facilities such to promote stability and prevent erosion. Construction and operational approaches may also include: o Identification of temporary run-off and erosion controls for construction (such as run-off collection channels, settlement ponds, and sediment control devices such as silt fences); and o Trial sections in the field during the initial stages of development to monitor rock fill pile stability and foundation performance.	Chapter 2 and 3 of the Waste Rock and Overburden Management Plan

Reference No.	Proponent Commitment / Mitigation	Where addressed
Project Proposal Chapter 11 (BMC, 2017a)	Minimize land clearing to the areas necessary for Project Footprint.	Chapter 1 and Section 3.3 of the Waste Rock and Overburden Management Plan
Project Proposal Chapter 18 (BMC, 2017a)	Clearing of the Overburden Stockpile, Class A, B, and C Facilities will be progressive, to minimize total area of disturbance at any given time.	Chapter 1 and Section 3.3 of Waste Rock and Overburden Management Plan
Decision Document Condition #7	The Proponent shall conduct ongoing investigations into waste rock storage area (WRSA) liners and cover systems to ensure that the expected liner and cover performance is achieved during all Project phases.	Section 3.8 of the of Waste Rock and Overburden Management Plan
Decision Document Condition #44	The Proponent shall submit, to the Government of Yukon, a performance audit report on the actual performance of mine components relative to approved design or expected performance. The Proponent shall provide RRDC and LFN with a copy of any performance audit report submitted to the Government of Yukon under this term subject to the redaction of confidential material. a. The report must be of sufficient detail to enable an understanding of current performance and to identify trends that could materially affect mine outcomes. The timing and frequency of reporting shall be indicated by the Government of Yukon regulator.	Section 3.9.8 of the Waste Rock and Overburden Management Plan
Decision Document Condition #45	Prior to the commencement of operations of an Engineered Structure, and at any time or frequency indicated by the Government of Yukon, the Proponent shall submit a third-party engineering audit for that facility. The Proponent shall provide RRDC and LFN with a copy of any third-party engineering audit report submitted to the Government of Yukon under this term subject to the redaction of confidential material. The audit must be sufficiently detailed to provide an independent assessment of whether the facility has been constructed and is capable of operating in accordance with approved designs, specifications, and operating plans. Each engineering audit must: a. be prepared by a qualified independent professional engineer or engineering firm acceptable to the Government of Yukon; b. be funded by the Licensee; c. assess whether the Engineered Structure has been constructed in accordance with approved designs, permits, and specifications; d. assess the readiness of the facility to operate safely and effectively within its design parameters; e. identify any deficiencies, departures from approved designs, commissioning issues, or conditions that may affect operational performance, environmental protection, or closure obligations, and; f. satisfy any scope requirements identified by the Government of Yukon. Where an engineering audit identifies deficiencies or conditions requiring corrective action, the proponent must address those deficiencies to the satisfaction of the Government of Yukon prior to commencing or continuing operation.	Section 3.9.8 of the Waste Rock and Overburden Management Plan