New Polaris Gold Mine Environmental Assessment Certificate Application

Section 7.4 - Water Resources

March 31, 2026

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7.4 Water Resources

7.4.1 Introduction

As specified in Section 5 of the Application Information Requirements (AIR), Groundwater and Surface Water have been identified as valued components (VC) to be assessed for the Project. The purpose of this section is to describe the existing environment and to assess the effects from the New Polaris Gold Mine Project (the Project) on Groundwater and Surface Water during all Project phases. The assessment also considers potential cumulative effects arising from past, present, and anticipated future developments and activities.

This document has been prepared to meet the requirements of Schedule C – Application Information Requirements dated January 2025.

7.4.1.1 Related Valued Component Effects Assessment Chapters

Water resources within the Project are governed by the continuous interactions between surface water and groundwater systems. The project requires an integrated understanding of both surface and groundwater due to the inherent physical and hydrological connectivity observed at the proposed Project site. These systems interact dynamically through processes such as recharge, discharge, infiltration, and baseflow contributions. These processes influence water quantity, water quality, and ecosystem health within the proposed Project area. Recognizing this connection is essential for accurately characterizing baseline conditions and assessing potential project related effects on the water resource VCs. While these systems are closely related, the assessments of each VC require distinct methods, datasets, and analytical approaches. **Sections 7.4.1** and **7.4.2** further detail each VC in the proposed Project area.

Groundwater and surface water are interconnected in the following ways:

- Groundwater provides baseflow to rivers, streams, and wetlands, especially during low-flow periods.
- Both groundwater and surface water influence water quality through nutrient and contaminant transport
- Both groundwater and surface water influence water recharge/discharge pattern disruption.
- Hydraulic connectivity is present between aquifers and surface water bodies identified at the Site.

While Groundwater and Surface Water are interconnected, they are also connected to other VCs as part of the larger environment. Components of this assessment inform and integrate information from the following sections: vegetation, land and resource use, human health, culture, First Nations, and summary of biophysical factors that support ecosystem function. **Table 7.4-1** describes the potential interactions each of these VC has with the groundwater and surface water VC.

Table 7.4-1 Summary of Related Valued Components

Value Component	Section	Potential Interactions with Groundwater
Soil and Vegetation	7.6	• Groundwater supplies moisture to riparian and potentially groundwater dependent systems. • Supports deep rooted vegetation during dry periods. • Maintenance of soil moisture regimes necessary for plant and wetland communities. • Potential influence over vegetation distribution, vegetation stress, mortality, or community shifts. • Potential to support rare or sensitive plant species, if present.
Land and Resource Use	7.10	• Potential to support potable and non-potable water a variety of uses including but not limited to domestic wells, agriculture and livestock use, forestry use, and industrial and commercial usage. • Potential to influence land development feasibility through soil stability, drainage conditions, and flood risk. • Groundwater may be affected by land clearing, compaction, contamination, or changes to the recharge patterns. • Interactions with cumulative effects from regional land use activities.
Human Health	7.8	• Potential source of potable water for rural and remote communities. • Potential influence of exposure to naturally occurring contaminants or anthropogenic contaminants. • Changes in groundwater quantity and/ or quality may impact potable water security or food production systems. • Requires monitoring and potential treatment to meet provincial and federal regulations for drinking water standards.
Culture	7.12	• Potential interactions with water features that may hold cultural or spiritual significance. • Potential to influence culturally significant ecosystems • Potential influence on traditional land use activities including but not limited to fishing, plant gathering, harvesting, etc.

7.4.1.2 Relevant Statutes, Policies and Frameworks

Water is subject to several statutes, policies and frameworks. These are identified in the AIR for the Project. The Groundwater effects assessment follows the guidelines, policies, and legislated requirements pursuant to the *BC Environmental Assessment Act,* S.B.C. 2018, c.51 to consider the environmental, economic, social, heritage, and health effects of a reviewable project. Management of Groundwater will be coordinated in line applicable legislation, policy and regulations listed in **Table 7.4-2** below.

Table 7.4-2 Key Legislation, Policy, and Regulatory Guidance Documents for Water

Legislation, Policy or Guiding Document	Summary
Federal	
Impact Assessment Act (IAA; Government of Canada 2019)	The *IAA* was enacted to establish to ensure that projects are assessed for their potential significant adverse effects on the environment, public health, and indigenous rights. The project thresh holds that could trigger a federal impact assessment for water to be completed are ore output exceeding 5,000 tonnes/day and mine and for mines affecting fish-bearing waters.
Fisheries Act (Government of Canada 1985)	The *Fisheries Act* was established to ensure the protection of fish and fish habitat. Sections 35 and 36 of the *Fisheries Act* specify the details on the types of work and points of discharge that is are prohibited in accordance with the act. Water that discharges into fish-bearing streams is legally protected and contaminated water that enters into surface water could be considered a violation of the act.
Canadian Environmental Protection Act (Government of Canada 1999)	*CEPA* was established for pollution prevention and protection of the environment and human health. The act outlines the management practices for toxic substances, pollutants, hazardous wastes, and regulates emissions and discharges. Inorganic arsenic compounds are listed as toxic substances on Schedule 1 of *CEPA* and release of arsenic due to mining activities could be subject to federal risk management and reporting requirements. *CEPA* could influence federal conditions if a federal impact assessment is required.
Metal and Diamond Mining Effluent Regulations (MDMER; Government of Canada 2002)	MDMER was established as a regulation under the *Fisheries Act* that controls the discharge of mine effluent into waters that support fish habitat. The primary goal is the protection of fish and fish habitat from the potentially harmful substances released as a biproduct of mining activities. Compliance under this regulation would be achieved through adherence to discharge limits for mining effluent, ensuring dewatering effluent is treated as necessary before it is discharged to the environment, and setting up best management practices including but not limited to monitoring wells near sensitive receptors.
Guidance for Evaluating Human Health Impacts in Environmental Assessment Drinking and Recreational Water Quality (Health Canada 2023)	The purpose of this guidance is to support the federal EA process by outlining the evaluation criteria for potential human health effects as it relates to drinking water quality and recreational water usage in impact assessments of major projects. Currently, there are no registered water users in the LAA, and while surface water may be occasionally consumed it is unlikely that groundwater is being used for human consumption.
Guidelines for Canadian Drinking Water Quality (GCDWQ; Health Canada 2022);	The GCDWQ provides a science-based guidance for safe drinking water in Canada and is used to protect human health from waterborne contaminants. It is used by the private and public sector as a reference but is not legally enforceable, unlike provincial standards. Currently, there are no registered water users in the LAA, and while surface water may be occasionally consumed it is unlikely that groundwater is being used for human consumption.
Canadian Groundwater Quality Guidelines for Use at Contaminated Sites (CCME 2015)	The Canadian Groundwater Quality Guidelines for Use at Contaminated Sites is a science-based benchmark used for screening and evaluating contaminated groundwater at sites where contamination has occurred.
Provincial	
BC Environmental Assessment Act (BCEAA; Government of BC 2020)	The *BCEAA* provides provincial framework for EA of major projects and ensures that any potential environmental, social, economic, and health effects are identified, assessed, and mitigated before project approval. The *BCEAA* determines whether a project may proceed and the conditions it may proceed under.
Water Sustainability Act (WSA; Government of BC 2026)	The *WSA* regulates all of the water usage in the province of British Columbia, including surface and groundwater. It was established to ensure the protection of water quantity, quality, and environmental flows and ensures a balance of water allocation between users, ecosystem protection, and indigenous rights.
Environmental Management Act (EMA; Government of BC 2026)	The *EMA* is considered the main environmental protection law in the Province of British Columbia. It was established to regulate pollution and waste management for the protection of human health and the environment. For water the *EMA* is the primary pollution control statute.
Mines Act (Government of BC 1996)	The *Mines Act* pertains to the regulation of mining activities in the Province of British Columbia. The *Mines Act* regulates how the mine is designed, constructed, operated, and reclaimed. The *Mines Act* is pertinent to water in several major ways including but not limited to water protection design through mine permit requirements, health, safety and reclamation code, reclamation and closure planning, and monitoring and adaptive management.
Government Actions Regulation under the Forest & Range Practices Act (*GAR, FRPA;* Government of BC 2023)	The *GARFRPA* pertains mainly regulatory framework governing forest and range values in the province of British Columbia. Though it is regularly applied to the forest and range tenure holders it is important to consider the established government recognized environmental values that pertain to mining projects in BC. It is relevant to surface water and groundwater when groundwater sustains surface water features, aquifers withing the assessment area support fisheries or wetlands, baseflow contributes to sensitive watersheds, or springs or seepage areas support wildlife habitats.
Drinking Water Protection Act (*DWPA;* Government of BC 2001)	The *DWPA* was established to provide legal framework to protect human health through the protection of potable water. The *DWPA* prohibits the introduction of contaminants into drinking water sources and authorizes Drinking Water Officers to require monitoring, mitigation measures, and corrective action where potential for health hazards exist. Water within or downgradient of the LAA has the potential to be used as a potable source by land users within the area and *DWPA* safeguard is considered when evaluating current site conditions and future activities proposed at the site.
Water and Air Baseline Monitoring Guidance Document for Mine Proponents and Operators (BC MOE 2016)	The guidance document established technical expectations for baseline data collection for both water and air environments before a proposed mining project begins operations. It was established to support impact assessment, permitting, and regulatory review under the *BCEAA* and is intended for the use of mine proponents and operators who are preparing baseline studies for project review and evaluation and for establishing future monitoring planning.
Policy for Metal Leaching and Acid Rock Drainage at Mine Sites in British Columbia (ML/ARD; BC Ministry of Energy and Mines & ENV, 1998)	Metal leaching and acid rock drainage (ML/ARD) is a naturally occurring geochemical process that can release acidity and metals from disturbed rock into the surrounding environment during the mining process. The ML/ARD policy provides high level framework to ensure that potential seepage is addressed during mine planning, operation, and closure phases to ensure protection of the environment in the project area.

Legislation, Policy or Guiding Document	Summary
Technology Readiness Assessment – Interim Technical Guidance (Ministry of Energy, Mines and Low Carbon Innovation & ENV, 2022).	The purpose of the Technology Readiness Assessment – Interim Technical Guidance document is to provide a framework for evaluating the maturity of emerging technology to help proponents demonstrate that proposed technologies are reliable. For water specifically, the technologies relate to water management, source controls, and treatment systems that aim to control or treat effluent discharges. This guidance document relates to the *Mines Act, EMA,* and *BCEAA*.
BC Water Quality Guidelines (British Columbia Ministry of Environment and Climate Change Strategy 2026)	The BC Water Quality Guidelines (WQGs) are provincially accepted and science-based benchmarks developed to help assess and manage the quality of fresh and marine waters in the province of British Columbia. They represent the recommended concentrations or conditions of physical, chemical, and biological parameters that are protective of the respective water use. The water in the LAA has been compared to the long-term BC WQGs for protection of freshwater aquatic life (FAL) as it was the most conservative approach to describing site conditions. Where BC WQGs FAL were absent or less conservative, the CCME FAL long term guidelines were applied.
BC Field Sampling Manual: Part E2 (BCFSM; Province of BC 2013, 2021)	The BCFSM Part E2 is a technical guidance document that sets out standardized sampling procedures, protocols, quality practices for water sample collection. This is considered the key reference in regulatory sampling and is used by regulators, permittees, consultants, and practitioners when collecting environmental data required under provincial authorizations.
Manual of Standard Operating Procedures for Hydrometric Surveys in British Columbia (ENV 1998)	The hydrometric survey standard operating procedure establishing clear field procedures, calculation methods, and documentation requirements for obtaining hydrometric data. It was established to create consistent, accurate, and suitable collection methods for resource management, project planning, and regulatory decision making.
BC Contaminated Sites Regulation (CSR, Government of BC 2025)	Framework for addressing contaminated sites, investigation, and remediation to protect human health and the environment, including groundwater and surface water linkages
Occupational Health and Safety Regulation (OHSR) – BC (Government of BC 2025)	Sets requirements for handling and storage of hazardous materials to minimize risk of accidental releases that could affect water quality.
First Nations	
Wóoshtin wudidaa Atlin Taku Land Use Plan (TRTFN and BC 2011);	The Wóoshtin wudidaa Atlin Taku Land Use Plan is a land use planning agreement between the Taku River Tlingit First Nation (TRTFN) and the Government of BC. The Wóoshtin wudidaa Atlin Taku Land Use Plan is a strategic and collaborative land use planning framework that covers 3.1 million hectares of northwestern BC, including the Atlin Lake and T'aakú Héeni watersheds. The area is considered to be high in cultural, ecological, and economic value. The plan established long-term guidance for sustainable land use and resource management that reflects TRTFN cultural values, ecological objectives, and economic opportunities. It is grounded in ecosystem-based management principles and aims to integrate cultural, ecological, and economic interest to the area.

7.4.1.3 Influence of Consultation and Engagement

The development of the AIR and this assessment was influenced by the Project's consultation with the government agencies, First Nations, stakeholders, and community members. This section describes the information and concerns related to Groundwater shared through consultation.

Chapters 3 and 4 of this Application describe Canagold Resources Ltd. (Canagold)'s ongoing and proposed public, stakeholder and local government engagement activities regarding the Project and during the development of the Application. This engagement was informed by the Assessment Plan issued by the EAO.

Chapter 11 provides a summary of engagement with Taku River Tlingit First Nation (TRTFN). This section also includes information on the alignment of the use of knowledge shared by TRTFN including their respective policies and protocols, and views regarding the characterization of Traditional Knowledge (TK) within the Application. Chapters 12 and 13 provide similar information regarding The Teslin Tlingit Council (TTC) and Alaskan Tribes, respectively.

Table 7.4-3 summarizes key information, TK and concerns identified during the consultation process related to Groundwater and describes how these items influenced the assessment.

Table 7.4-3 Summary of Key Information, Traditional Knowledge, and Concerns for the Project Related to Groundwater.

Topic	Key Information and Concerns	Influence on the Assessment
Environment and traditional livelihoods	TRT, TTC, and other Atlin residents, which include preserving water quality, protecting salmon habitat, and addressing potential impacts on traditional livelihoods.	Numerous environmental management plans: e.g., Spill Prevention and Contingency Plan for the Minesite and River Transport, Construction Environmental Management Plan, Soil Management Plan, Metal Leaching/Acid Rock Drainage Management Plan, Water Management Plan (including mine site water management and discharge management), Aquatic Effects Monitoring Plan (updates to current protocols), and Vegetation Management Plan (DPD p. 49)
Locations of Cultural Significance	Both TRT and TTC identified changes to water quality in important gathering places as an impact to their culture and heritage (specific important gathering places were not provided)	Engagement is a priority for development of the mining project. Identification of areas of cultural significance inform project planning and the development of work plans to ensure that impacts from mining activities are mitigated. Chapters 11 and 12 go into further detail on the areas of cultural significance and the impact to and from the proposed project.
Food, Social, and Ceremonial (FCS) Fisheries	TRT identified that changes in water quality result in diminished confidence in the safety of consuming fish.	Environmental monitoring and sampling events have been completed semi annually to quarterly since 2021. The information has been used to establish background conditions at the site to inform expansion of the monitoring well network and subsequent work plans. The establishment of existing site conditions for groundwater has provided information on how historical mining activities has potentially influenced the surrounding ecosystem and has informed mitigation models to likely improve existing conditions and protect from further contaminants.
Environment and traditional livelihoods	TRT identified existing impacts to water quality and flow patterns from industrial activity (baseline conditions)	
Environment and traditional livelihoods	TRT proposed a mitigation of developing and implementing water quality monitoring programs	
Food, Social, and Ceremonial (FCS) Fisheries	TTC has identified that changes to fish and fish habitat through changes in water quality could impact the confidence in consuming fish and has the potential for loss of TK due to the disruption in fishing activities.	
Environment and traditional livelihoods	TTC has identified the decrease in water quality in the T'aakú Héeni (Taku River) has the potential to decrease the quality of drinking water.	
Locations of Cultural Significance	TTC has identified several potential changes to cultural values and uses including: • Decreased ability to continue subsistence, spiritual and ecological practices; • Disrupted access to sites or locations central to TTC cultural continuity such as trails, village sites, harvest areas, and cultural and spiritual sites, ceremonial, or sacred sites; • Changes to land experience due to increased human presence; • Changes in the ability to continue traditional land-based and water-based practices; • Reduced visitation to or avoidance of the project area (and potentially culturally important sites) for aesthetic enjoyment;	Engagement is a priority for development of the Project. Identification of areas of cultural significance inform project planning and the development of work plans to ensure that impacts from mining activities are mitigated. Chapters 11 and 12 go into further detail on the areas of cultural significance and the impact to and from the proposed project.

7.4.1.4 Assessment Boundaries

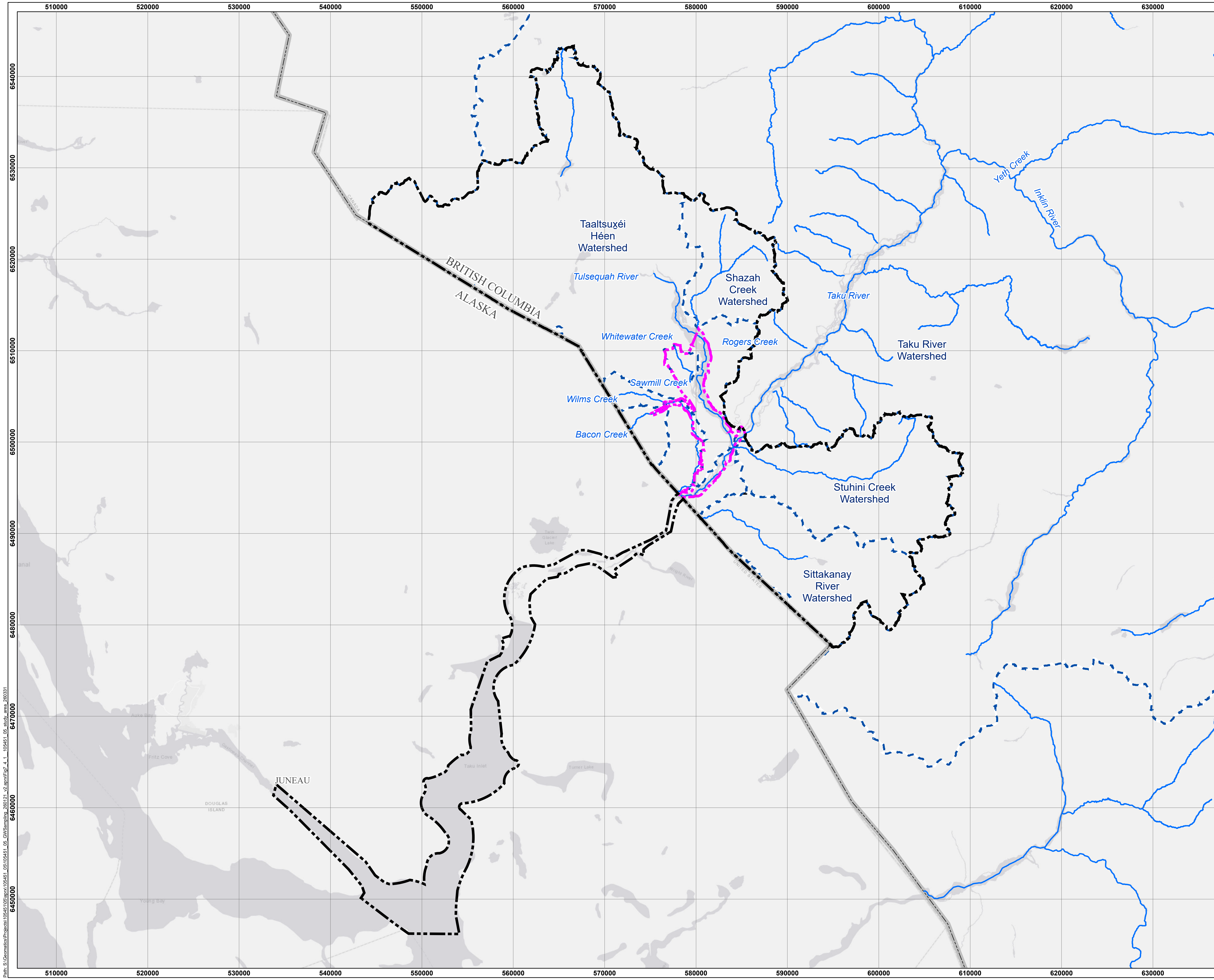
The assessment boundary is defined as a conservative area that extends beyond the Project footprint that is used to frame and focus the study of the effects of the proposed project on the groundwater VC. The assessment boundaries are further subdivided into four categories spatial boundaries, temporal boundaries, administrative boundaries, and technical boundaries. The spatial, temporal, administrative, and technical boundaries for Groundwater are described below.

Spatial Boundaries

Spatial boundaries for the effect assessment considered the geographic extent over which Project activities may affect Groundwater. The LAA and RAA are defined in **Table 7.4-4** and presented in **Figure 7.4-1** and **Figure 7.4-2**.

Table 7.4-4 Spatial Assessment Boundaries – Groundwater

Spatial Boundary	Component	Extent
Local Assessment Area	Project Footprint – All Project Components	The LAA consists of Whitewater Creek drainages that overlap the small unnamed tributaries and Sawmill Creek. Most surface water draining the existing mine site flows within Whitewater Creek. Whitewater Creek flows through the existing mine site, along the airstrip to its confluence with the Taaltsuxéi Héen (Tulsequah River) approximately 3 km downstream. Sawmill Creek, a small tributary to Whitewater Creek, also flows through the local assessment area, entering Whitewater Creek immediately south of the existing mine site. A small side channel of the Taaltsuxéi Héen also flows into Whitewater Creek about 1 km south of the existing mine site during periods of high flow. The LAA also includes creeks draining from the area of the CSF, some of which drain directly into the Taaltsuxéi Héen upstream of Whitewater Creek and the Flannigan Slough/Taaltsuxéi Héen areas impacted by transportation infrastructure.
Regional Assessment Area	Project Footprint – Taaltsuxéi Héen Drainage	Taaltsuxéi Héen drainage encompasses drainages that overlap or are immediately adjacent to the LAA including the Taaltsuxéi Héen and associated tributaries Bacon Creek, Moosetrap Creek, Nofault Creek, Rogers Creek, Shaana'x Tlein H'eeni in, Whitewater Creek, Sawmill Creek, and Shazah Creek.
	T’aakú Héeni drainage	The T’aakú Héeni where it overlaps or is immediately adjacent to the LAA, and drainages that flow into that same portion of the T’aakú Héeni from the confluence with the Taaltsuxéi Héen and downstream, including Kwashona Creek, Shushtahini Creek, Stuhini Creek and Zohini Creek.



New Polaris Project
British Columbia, Canada

Regional and Local Assessment Areas

Legend

- International Border
- Named Watercourse
- Local Assessment Area
- Regional Assessment Area
- Watershed Boundary

Notes

1. Hydroelectric components pending
2. All mapped features are approximate and should be used for discussion purposes only.
3. This map is not intended to be a "stand-alone" document, but a visual aid of the information contained within the referenced Report. It is intended to be used in conjunction with the scope of services and limitations described therein.

Sources

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- Basemap: ESRI Light Gray Canvas Base
- Inset Basemap: ESRI Human Geography Base

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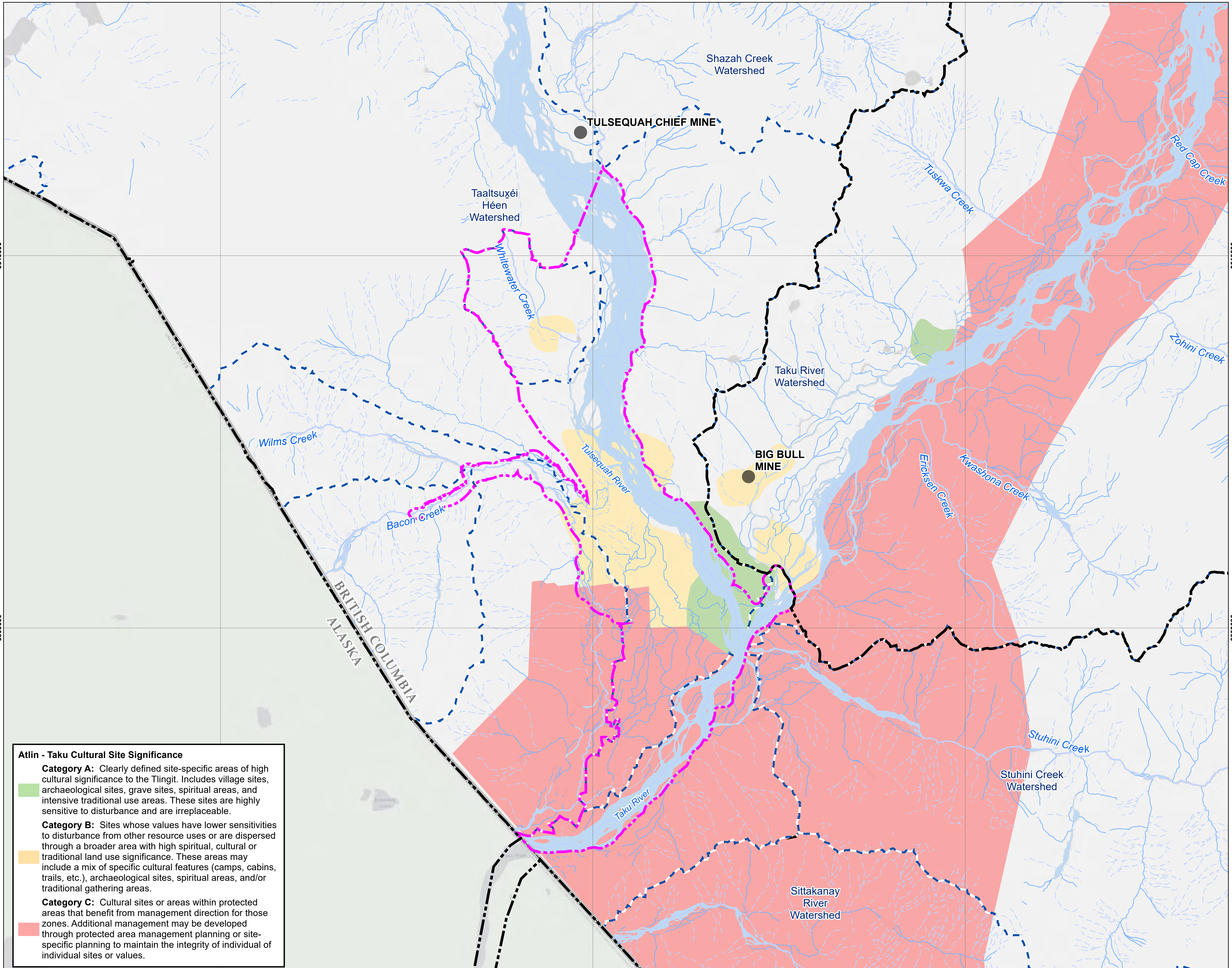
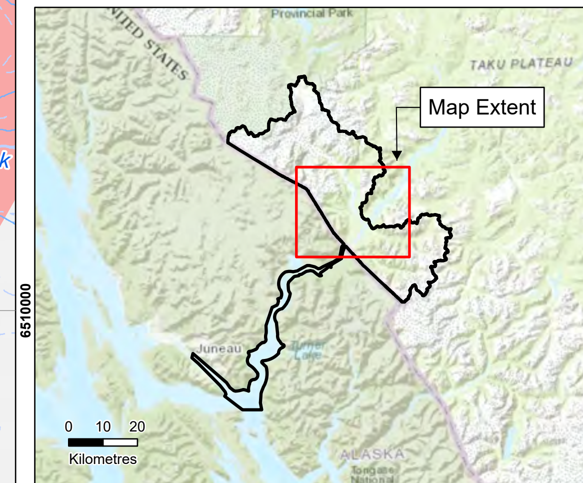


New Polaris Project
British Columbia, Canada

Surface Water
Local Assessment Area



Legend

- Point of Interest
- International Border
- Intermittent Watercourse
- Watercourse
- Local Assessment Area
- Regional Assessment Area
- Watershed Boundary

Notes

1. Hydroelectric components pending
2. All mapped features are approximate and should be used for discussion purposes only.
3. This map is not intended to be a "stand-alone" document, but a visual aid of the information contained within the referenced Report. It is intended to be used in conjunction with the scope of services and limitations described therein.

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- Inset Basemap: ESRI Topographic Map

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Temporal Boundaries

The Project will consist of four (4) distinct phases: Site Preparation and Construction, Operation, Reclamation and Closure, and Post Closure. The anticipated duration for each Project phase is as follows:

- Site Preparation and Construction Phase – An initial one-year period includes general site preparation and clearing of both previously developed areas and new footprints for the required project infrastructure. During this period access to the project will be constructed including the tote road to the marine vessel landing area and equipment and structures from historic mining activities will be removed. Afterwards, there will be a second one-year period to mobilize and store equipment, re-activate and construct tote roads, general earthworks for infrastructure, the construction of buildings and storage facilities for fuel and explosives. Utilities will be installed including potable water and sewage infrastructure and powerlines for communications and electricity. Water management systems will be constructed to handle drainage and storage, and mine services will be completed. The process plant facility will be commissioned, and the combined storage facility will be built. The existing underground workings will be dewatered during the construction phase.
- Operation Phase – The 10-year phase will cover mining of the New Polaris deposit, including drilling, blasting, and excavation activities as well as transportation of ore to the on-site processing facility and milling processes. This phase covers the air, water and sewer discharges and the handling of tailings and waste rock. The construction phase includes activities to transport employees, materials and supplies for camp operations including the transportation of concentrate in small aircraft. During construction surface mobile equipment and underground equipment will be used and routine maintenance of Project facilities will occur. Reclamation planning and reporting will start and required environmental monitoring of implemented management plans will occur. Dewatering of the existing mine workings will continue in tandem with dewatering of the advancing new mine workings.
- Reclamation and Closure Phase –The two-year period includes the demolition and removal of processing and support facilities and the deactivation of site roads, pipelines, and powerlines. Access will be ensured for monitoring purposes if necessary and sampling and remediation of any contaminated soils will occur. Disturbed areas will be managed, and the CSF will be covered. Water treatment facilities and any other required management structures will be maintained. Environmental monitoring will be carried out as per the Reclamation and Closure Plans. Dewatering of the existing and new mine workings will cease allowing the underground workings to flood.
- Post Closure Phase – The phase which begins after Closure, when treated mine contact water is discharged to the environment and during which water treatment, maintenance, and monitoring of the Project Site occurs. The phase ends when water treatment is no longer needed, remaining Project facilities and infrastructure are decommissioned and/or removed, final reclamation activities are complete and ongoing monitoring is no longer required for reclamation and/or water quality. Groundwater will pass through the flooded mine workings following flooding.

Additional information on the Project phases is available in Chapter 1 of this Application.

Administrative and Technical Boundaries

Administrative boundaries refer to the limitations imposed on an EA by political, economic, or social constraints which may include specific legal objectives outlined in regional land use plans overlapped by the Project footprint. Administrative boundaries did not apply to the groundwater VC.

The primary administrative boundary for the LAA and RAA is the British Columbia-Alaskan international border on the T'aakú Héeni approximately 10 km downstream from the confluence with the Taaltsuxéi Héen. The Project is also within the TRTFN-BC Tlatsini Planning Project Land Use Area, which includes all of the catchments and watersheds that interact with the Project's LAA and RAA.

Technical boundaries that limited the ability to predict potential effects on the groundwater VC for the EA include:

- Baseline monitoring technical issues (e.g., equipment freezing, malfunctioning)
- Soils stratigraphic information for deep overburden
- The limitations of the analytical modelling
- Limited baseflow and elevation data for Whitewater Creek
- Limited groundwater quality data for bedrock
- Limited monitoring well locations to assess groundwater flow directions.

7.4.2 Groundwater

7.4.2.1 Existing Conditions

This section provides a characterization of current baseline conditions within the spatial boundaries defined in **Section 7.4.1.4**. This includes an overview of regional and historical activities on the VC, leading to the existing conditions. Understanding these conditions is key for adequately predicting the potential Project effects.

Information Sources

Table 7.4-5 below summarizes the hydrogeology work conducted at Site and the resulting reports. The reports indicate that field studies at the Project have been intermittently conducted from 1997 – 2025, with hydrogeological work generally completed in tandem with the hydrology program. For further information refer to the New Polaris - Hydrogeology Baseline Study Report (Ausenco 2026a; **Appendix 7.4-6**) and the 2025 Water Quality Baseline Report (Ausenco 2026b, **Appendix 7.4-4**).

Table 7.4-5 Summary of Historical Hydrogeology Studies Conducted at Site

Title	Summary of Relevant Work Completed	Reference
Preliminary Assessment of Groundwater Quality Results	• Preliminary testing carried out in April 1997 indicated that groundwater beneath existing tailings areas were impacted. • Groundwater in tailings areas differs in geochemistry when compared to groundwater where tailings was absent. The tailings areas were further subdivided into two sections area 1 and area 2. • Shallow groundwater had elevated electrical conductivity, sulphates, dissolved metals (Al, Cu, Fe, Mn, and Zn) and depressed pH and alkalinity. • Analyzed parameters for deep groundwater indicated that deeper groundwater is likely unaffected by tailings although Fe and Mn were elevated.	Gartner Lee Ltd. 1997
Regulatory Risk Management and Gap Analysis Report for the New Polaris Project	• Identified several gaps in knowledge to help bridge the relationship between geologic structure, mine development, and ground and surface water resources. The recommended approach was: ▫ Collect site-wide information on groundwater levels and quantity; ▫ Collect site wide information on groundwater quality in shallow and deep (saline) systems; ▫ Conduct permeability testing of important geological features; ▫ Collect groundwater and surface water flows/levels to evaluate groundwater and surface water interactions along Whitewater Creek; ▫ Assess groundwater quality beneath old tailings piles; ▫ Hydrogeologic characterization of potential tailings facility locations; and ▫ Identify potential process makeup water sources.	Gartner Lee Ltd. 2007a
New Polaris Technical Report	• The purpose of the 2007 hydrogeological investigation was to collect baseline environmental data to support an environmental assessment of the New Polaris Mine. • Three site visits were conducted between February and August 2007. ▫ During the visits 15 of the 21 original monitoring wells were recovered and rehabilitated, ▫ eight mini piezometers were installed in shallow sediment within Whitewater Creek, ▫ four groundwater seepage meters were temporarily installed along portions of Whitewater Creek to measure groundwater discharge, and ▫ four vibrating wire piezometers were installed to measure groundwater levels in bedrock surrounding the mine • The results of the monitoring well reconnaissance and rehabilitation provided details where gaps in the monitoring well network may be and proposed additional wells be added in further work at the Site. • Groundwater discharge to Whitewater Creek was measured on two separate occasions in 2007.	Gartner Lee Ltd. 2007b
Phase 2 Geochemical Assessment, Vein Sample Static Tests, New Polaris Project Atlin Mining Division, British Columbia	• Findings from geochemical assessment of 15 C-Vein drill core samples concluded that: ▫ C-Vein rocks were considered to be possibly non-acid generating or likely non-acid generating; however, localized areas of C-Vein may contain small volumes of materials that are likely acid generating. ▫ The C-Vein samples contained concentrations of arsenic, antimony, cadmium, chromium, nickel, thallium, and uranium at levels more than three times typical concentration found in basalt. ▫ C-Vein rocks have high potential to leach metals, in particular arsenic and antimony due to the presence of arsenic and antimony-bearing sulphide minerals arsenopyrite and stibnite.	URS 2007
New Polaris Mine – Project Description	• In May 2015, groundwater levels were collected from the wells remaining from the 2007 program and Solinst Leveloggers were installed in the shallow and deep monitoring wells at two well nest locations (four well in total) to collect groundwater level measurements on an hourly basis. These locations were selected to further characterize groundwater levels and flow within the shallow bedrock and overburden aquifer, and to understand groundwater-surface water interactions within Whitewater Creek	Palmer Environmental Consulting Group 2015
New Polaris Project – Hydrogeology Baseline	• The purpose of the baseline study was to characterize the groundwater resource in the vicinity of the proposed mining operations in terms of groundwater flow, aquifer extent, chemical quality and interactions with surface water. • Two distinct hydrostratigraphic zones identified at the site included overburden and bedrock. • Conceptually, groundwater at the mine site flows from upland areas located to the west through bedrock and overburden soils to the site. • Hydraulic conductivity testing in overburden and bedrock was also conducted during the baseline studies (**Table 7.4-19**) • Water quality analysis was performed during this program and several parameters exceeded the CCME FAL guidelines including total suspended solids (TSS), Al, As, Cd, Cr, Cu, Fe, Pb, Mn, Ag, Th, and Zn	Ausenco 2023
New Polaris Project – Hydrogeology Baseline	• The purpose of the hydrogeological study from 2023 to 2025 was to expand on the existing conditions presented in the 2023 baseline study. • Parameters of concern were evaluated and trends were described. Further information is available in **Section 5.0 in Appendix 7.4-6**	Ausenco 2026a; **Appendix 7.4-6**
Numerical Hydrogeological Model Report	• The results of the hydrogeological baseline study conducted from 2020 to 2025, including a conceptual model of the groundwater flow regime, formed the basis of the numerical groundwater model. • The objective of the numerical modelling was to construct a three-dimensional hydrogeological model to simulate steady-state, long-term groundwater flow conditions and to simulate mine dewatering, solute migration and Project effects	Ausenco 2026c; **Appendix 7.4-7**

Regional Overview and Historical Activities

The sections below provide a description of the RAA and LAA and how the natural and anthropogenic trends affect groundwater irrespective of the changes that may be caused by the Project or other projects and activities in the local area.

Regional Overview

The regional overview described below represents much of the conditions applicable to both Groundwater and Surface Water VC. For this reason, the overview is elaborate in this section regarding groundwater and is truncated in Section 7.4.3 regarding groundwater.

Climate

The Project site is in the Coastal Western Hemlock (CWH) biogeoclimatic zone and the Köppen climate regime is subarctic (Dfc), characterized by warm to cool summers, cold winters, and little seasonal variation in precipitation (Natural Resources Canada 2020). Because of the proximity to the Pacific Ocean, and the steep mountainous terrain on both sides of the T'aakú Héeni and Taaltsuxéi Héen river valleys, the climate in the Project area is moist with heavy rainfall in the late summer/autumn months and heavy snowfall with rain throughout the winter.

Monthly average precipitation based on on-site measurements are shown in **Table 2-1 in Appendix 7.4-6**. The historical average monthly precipitation ranged from 53.34 mm (May) to 226.74 mm (October).

Monthly temperature variations based on on-site measurements are illustrated in **Figure 2-2 in Appendix 7.4-6**. On-site temperatures range from a daily maximum of 27.2 °C in the summer to a daily minimum of -25.6°C in the winter (NCEI 2025).

Climate Change

Historical data alone cannot fully characterize existing conditions for the Project site because climate change has created constantly evolving conditions. Forward-looking data for operational and closure timelines has been developed for the site. Additional information can be found in the Project’s Climate Change Technical Memo (Ausenco 2025; Appendix 10.0-1) which describes the methodology and selection of scenarios for use under each timeline.

Topography

Extensive glaciation during the late Pleistocene epoch was the dominant factor in topographic development for the assessment area. The Taaltsuxéi Héen and T’aakú Héeni are the most prominent topographic features: broad valleys bounded by steep mountains. Numerous tributary streams flow from valleys filled with glaciers. Most of the glaciers are fingers branching from the extensive Muir ice cap, lying to the northwest of the T’aakú Héeni. The Taaltsuxéi glacier, which terminates in the Taaltsuxéi valley about 16 km north of the New Polaris mine site, is one of the largest glaciers in the immediate area. It forms a dam causing a large lake in a tributary valley that breaks through the ice barrier (this glacial outburst is called a jökulhlaup) during the spring thaw every year, flooding the Taaltsuxéi Héen and T’aakú Héeni valleys below for several days.

The New Polaris mine site is located at an elevation of approximately 27 to 40 metres above sea level. Regional topography increases steeply to the west of the mine and decreases towards the low-lying banks of the Taaltsuxéi Héen.

Hydrology

The Project is located within the watershed of the Taaltsuxéi Héen and T'aakú Héeni which contain glaciers and permanent ice coverage, characterised by the following seasonal hydrological regimes:

- Winter: low streamflow due to low temperatures but controlled by the range of altitudes in the watershed.
- Spring: high flows due to snowmelt during freshet.
- Summer: moderate to high flows for non-glacierized catchments. Peak flows are typically due to extreme rainfall events rather than snowmelt.
- Fall: Moderate to low flows (base-flow), accompanied by rainfall-driven flows. These events can generate higher flows than observed during freshet season.

Local hydrology is dominated by the Taaltsuxéi Héen system. The Taaltsuxéi Héen originates from several glaciers located approximately 10 km upstream of the existing mine site. The Taaltsuxéi Héen flows south to a confluence with the T'aakú Héeni , approximately 10 km downstream of the existing mine site. The T'aakú Héeni is a transboundary river, flowing west into Alaska, and into the Pacific Ocean, 25 km downstream of the Canada-United States border. Most of the surface water draining the existing mine site flows to Whitewater Creek. Whitewater Creek is a significant tributary to the Taaltsuxéi Héen, with a catchment area of approximately 250 square kilometers. Whitewater Creek traverses through the current mine site, passing by the airstrip, and finally converges with the Taaltsuxéi Héen about 3 km downstream. Additionally, Sawmill Creek, a minor tributary of Whitewater Creek, courses through the local study area, joining Whitewater Creek immediately south of the mine site. A small channel stemming from the Taaltsuxéi Héen also feeds into Whitewater Creek, situated around 1 km south of the current mine site.

Geology

Overburden at the site consists of unconsolidated sands, gravels and cobbles varying in thickness from less than 2 m near the valley wall to the west, to greater than 150 m in the vicinity of the Taaltsuxéi Héen. The overburden soils were deposited by glaciers and the Taaltsuxéi Héen and generally display relatively high hydraulic conductivities. Along the slope of the valley wall, overburden generally consists of colluvium and glacially deposited silts, sands, gravels, and cobbles. The colluvium is the result of debris from upslope or possibly from morainal material deposited by glaciers (Rescan 1997).

Bedrock within the study area consists of mafic volcanic rocks (basalt and andesite altered to greenschist metamorphic facies), sedimentary rocks (limestone), marble and intrusive rocks (granodiorite). The northwestern portion of the study area is underlain by schistose metamorphic rocks. **Figure 2-3** in **Appendix 7.4-6** shows the bedrock geology of the hydrogeological study area.

Numerous faults are found within the assessment area. As shown on **Figure 2-4 in Appendix 7.4-6,** the South Llewellyn fault is offset to the west by an east-west fault (101 fault) north of Whitewater Creek. It continues to the southeast within a discontinuous limestone/marble horizon and is referred to as the Limestone Fault. Three other faults are known to be at the site but are not shown on drawings available to Ausenco and were not included in the three-dimensional LeapFrog model. The No.1 and No.5 faults strike northwest to southeast with a 45° dip to the northeast. An unnamed fault is sub-parallel to the No.1 and No.5 faults and dips steeply to the southwest.

Non-Project Groundwater Users

A preliminary search was conducted using the BC Groundwater Well and Aquifer database (Province of British Columbia 2025). The search results indicated that there are no current groundwater well users registered within the assessment area. The closest registered water well user (well tag number 85441) is located approximately 100 km north of the assessment area boundary.

Historical Activities

The section below describes the historical activities performed at the site including historical mining operations, historical groundwater field investigations, and current and preexisting infrastructure.

Historical Operations

The Site is the location of historic mine works, including the Polaris Taku Mine that operated as a gold mine from 1933 to 1951, with the exception of a period of closure during World War II. The Polaris Taku Mine (owned by Cominco Ltd.) leased the site's mill to process ores mined from nearby Big Bull mine (1952 to 1955) and Tulsequah Chief mine (1952 to 1957), both across the Taaltsuxéi Héen. Exploration resumed in 1988 and an investigation from 1991 to 1995 estimated 3,197,000 tons at 0.362 ounces Au/ton were possible at the mining site (Gartner Lee 2007a). The mine has transferred ownership several times and Canagold Resource Corp. now owns the property.

Past mining activities have affected the groundwater VC through historical mine discharges and waste rock, tailings deposits and general waste on the ground surface. Water from the historical mine seeps from the Polaris Portal and flows overland to Whitewater Creek, likely percolating into the soil and groundwater along its flow path. As well, water from the historical mine seeps from the mine through rock fractures and potentially through exploration boreholes that intersect historical mine workings.

Historical Studies

The LAA has been further subdivided into three areas: Townsite, CSF, and the Airstrip and River Transport Landing area. Borehole logs and intrusive work information is available in the New Polaris - Hydrogeology Baseline Study (Ausenco 2026a, **Appendix 7.4-6**).

Townsite

Drilling and monitoring well installation were initially completed in the Townsite area in 1997. Twenty-one groundwater monitoring wells were installed at 12 locations across the Site to assess groundwater flow, quality, and level for an initial baseline study. When the work was re-started, an effort was made to find and repair any of the existing wells from the 1997 program, 15 wells of the original 21 were recovered and repaired in 2007.

Site reconnaissance was conducted in 2020 to find and rehabilitate any existing monitoring wells from the historical monitoring well network. Nine of the original 21 wells were discovered and repaired, as needed. It is likely that historical wells that were not located were destroyed by local wildlife or during grating or snow removal over the years. In 2021, two more wells were added to the existing monitoring well network in the townsite area, MW21-01 and MW21-02.

Co-Storage Facility Area

The Co-storage facility (CSF) area is a proposed combined storage facility for process tailings and mine waste rock. In September 2023, three monitoring wells were advanced in the CSF area.

Airstrip and River Transport Landing Area

During the original Polaris/Taku Mine operations, a river transport landing site and an airstrip were constructed to support mine access and for transportation of supplies and ore. The original airstrip has not been upgraded since the mine closed in 1951, with parts being reclaimed by vegetation. Upgrades to the Airstrip and Landing area have been proposed to facilitate larger aircraft and an updated landing area proposed on the T'aakú Héeni. In June 2024, drivepoint piezometers were installed in the proposed airstrip and landing area to collect baseline groundwater quality data for the area.

Existing Monitoring Well Network

There are 19 monitoring wells present at the Site. Monitoring wells BH1-S through MW21-01, a total of 11 wells, are present in the Townsite area, five wells (GW1, GW2, GW3, GW4 and GW5) are present in the Airstrip and River Transport Landing area, and three monitoring wells (MW-2023-CDSF-02D, MW-2023-CDSF-02S and MW-2023-CDSF-03) are located in the CSF area. **Figure 7.4-3** and **Figure 7.4-4** show the locations of the monitoring wells present in each of the three areas at the Site. Information regarding the intrusive work programs and borehole logs are available in the New Polaris - Hydrogeology Baseline Study (Ausenco 2026a, **Appendix 7.4-6**).

New Polaris Project

Groundwater Monitoring Well Locations

Legend

- Exploration Drillholes / 2021 Groundwater Monitoring Well
- 2021 Groundwater Monitoring Well
- Historical Groundwater Monitoring Well
- Historical Building
- Historical Site Feature
- Contour (20 m interval)
- Road
- Watercourse

Notes

1. All mapped features are approximate and should be used for discussion purposes only.
2. This map is not intended to be a "stand-alone" document, but a visual aid of the information contained within the referenced Report. It is intended to be used in conjunction with the scope of services and limitations described therein.

Sources

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- Basemap: ESRI World Imagery

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Metres

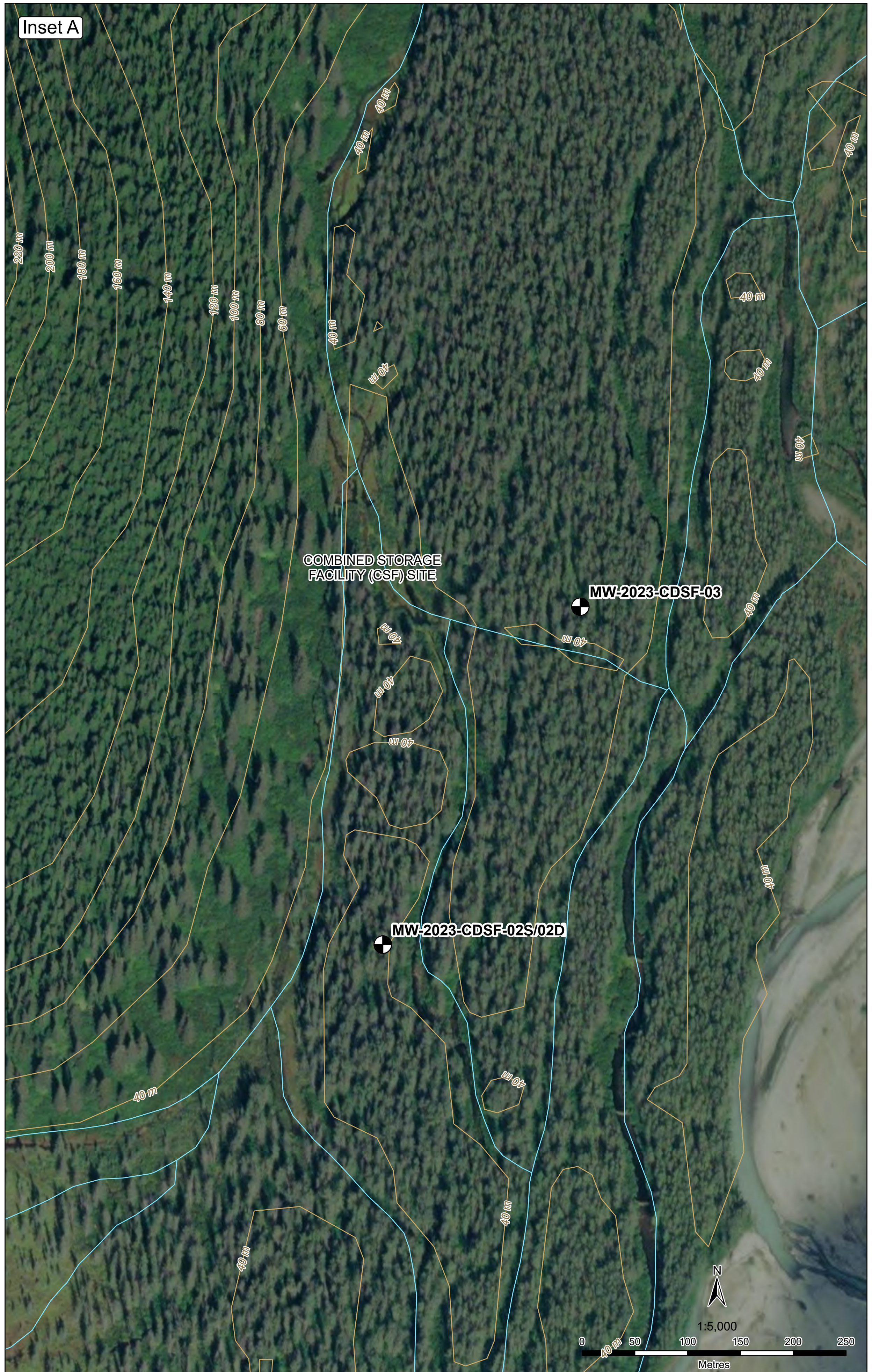
NAD 1983 UTM Zone 8N

Page Size: 11" x 17"

10545-01	Production Date: Apr 13, 2023	Figure 3-1

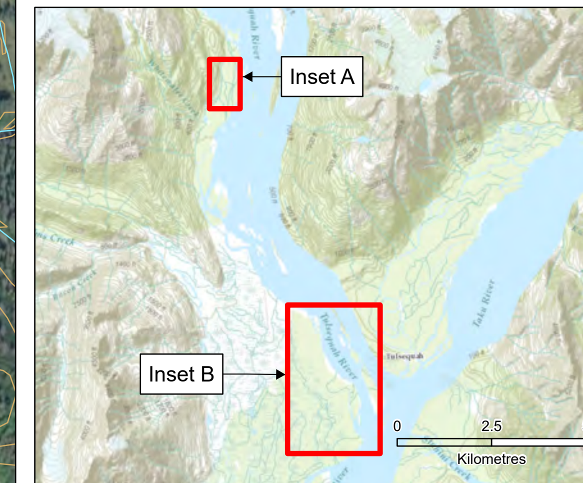
Ausenco

Canagold Resources Ltd



New Polaris Project
British Columbia, Canada

Groundwater Station Locations
(Combined Storage Facility and Airstrip)



Legend

- Monitoring Well Location
  - GWx Series (Ausenco, 2024)
  - MW-2023-CDSF-x Series (Ausenco, 2023)
- Contour (20 m interval)
- Watercourse

Notes

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- Basemap: ESRI World Imagery
- Inset Basemap: ESRI World Topographic Map

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105451-05	Production Date: Jan 19, 2026	Figure 3-2

Ausenco CANAGOLD

Methods

Groundwater Monitoring and Sampling Methods

All work programs have been completed in accordance with the British Columbia Field Sampling Manual, Part E2 – Groundwater (BC MOE 2024). For further review of the methodology used during the field programs please refer to the New Polaris - Hydrogeology Baseline Study Report (Ausenco 2026a, **Appendix 7.4-6**) and the 2025 Water Quality Baseline Report (Ausenco 2026b, **Appendix 7.4-4**).

Table 7.4-6 Summary of Methodology – Groundwater Monitoring, Sampling, and Intrusive Work

Methodology Section	Comment
Groundwater Sampling and Handling	Groundwater samples were collected using low flow technique, with the associated low-density polyethylene (LDPE) and Masterflex tubing disposed of between wells. Prior to collection of groundwater samples, purged water was monitored for stabilization of pH, temperature, and conductivity for three consecutive readings. Alconox spray was used to clean equipment between wells and new nitrile gloves were used at each sampling location to reduce cross contamination.
Field Parameters	A YSI Pro DSS was used in the field to record the in-situ water quality field parameters, including temperature (°C), pH (pH units), dissolved oxygen (% saturation and mg/L), electrical conductivity (µS/cm), turbidity (NTU), and oxidation-reduction potential (mV). Prior to the site visits, the Ausenco field team calibrated the probes (pH, conductivity, oxidation-reduction potential, turbidity, and dissolved oxygen).
Sample Analysis	All samples were shipped to Bureau Veritas (BV) Laboratory in Burnaby, a facility accredited by the Canadian Association for Laboratory Accreditation (CALA), for analysis. The groundwater samples were analyzed for general chemistry (pH, alkalinity, colour, turbidity, total dissolved solids), nutrients (sulphate, total nitrogen, total organic carbon, ammonia), total suspended solids, total metals, and dissolved metals.
Quality Assurance and Quality Control	As part of the quality assurance/quality control (QA/QC) program, field duplicates of groundwater samples were collected at a rate of one duplicate per ten samples. Field blanks, consisting of sample containers filled in the field with laboratory provided de-ionized water, were submitted for each sampling event from February 2022 onward. Trip blanks, which are sample containers filled with de-ionized water in the laboratory and then placed in the cooler used for collected samples, were also included in the QA/QC program from February 2022 onward.
Applicable Guideline Determination	The groundwater chemistry data were interpreted in part through comparison with BC Water Quality Guidelines for the Protection of Aquatic (Freshwater) Life (BC WQG-FAL), generally based on thresholds of effects concentrations reflective of longer term (chronic) exposures in the receiving environment, e.g. for periods of more than a week to months or more. Comparison of water quality data to BC WQG-FAL is a useful initial step in evaluating whether mining-related discharges or anthropogenically influenced receiving environment substance concentrations have the potential for toxicological effects to various types of aquatic life. The BC WQG-FAL are science-based benchmarks of receiving water concentrations of various substances, below which effects to aquatic life are highly improbable.

Groundwater Monitoring and Sampling Frequency

As shown in **Table 7.4-7,** groundwater monitoring and sampling was conducted generally quarterly with occasional monthly sampling events required in 2024 and 2025.

Table 7.4-7 Summary of Groundwater Monitoring and Sampling Frequency

Location ID	Sampling Frequency				
	2021	2022	2023	2024	2025
BH1-S	Q2, Q3, Q4	Q2, Q3	Q1, Q4	Q1, Q3, Q4	Q1, Q4
BH2	Q2, Q3, Q4	Q1, Q2, Q3	-	Q2, Q3, Q4	Q1, Q3, Q4
BH7-S	Q2, Q3, Q4	Q1, Q2, Q3	Q4	Q3, Q4	Q1
BH7-D	Q2, Q3, Q4	Q1, Q2, Q3	Q4	Q3, Q4	Q1
BH9-S	Q2, Q3, Q4	Q1, Q2, Q3	Q1, Q3, Q4	Q1, Q3, Q4	Q2, Q4
BH9-D	Q2, Q3, Q4	Q1, Q2, Q3	Q3	Q1, Q3, Q4	Q1, Q2, Q4
BH10-D	Q2, Q3, Q4	Q1, Q2, Q3	-	Q3, Q4	Q1, Q4
BH11-S	-	Q3, Q4	Q1, Q3	Q3, Q4	Q1, Q4
BH11-D	-	Q3, Q4	Q1, Q3	Q2, Q3, Q4	Q1, Q2, Q4
MW21-01	Q4	Q1, Q2, Q3, Q4	Q1	Q2, Q3, Q4	Q2
MW21-02	Q4	Q2, Q3, Q4	-	Q2, Q3, Q4	Q1, Q2
GW1	-	-	-	Q2^{m}, Q3^{m}	Q1, Q2, Q3^{m}, Q4
GW2	-	-	-	Q2^{m}, Q3^{m}	Q1, Q2, Q3^{m}, Q4
GW3	-	-	-	Q2^{m}, Q3^{m}	Q1, Q2, Q3^{m}, Q4
GW4	-	-	-	Q2^{m}, Q3^{m}	Q2, Q3^{m}, Q4
GW5	-	-	-	Q2^{m}, Q3^{m}, Q4^{m}	Q1, Q2, Q3^{m}, Q4
DP1	-	-	-	-	Q1, Q2
DP2	-	-	-	-	Q1, Q2
MW-2023-CDSF-02D	-	-	-	Q2, Q3, Q4	Q1, Q2, Q3, Q4
MW-2023-CDSF-02S	-	-	-	Q2, Q3, Q4	Q1, Q2, Q3, Q4
MW-2023-CDSF-03	-	-	-	Q2, Q3, Q4	Q1, Q2, Q3, Q4
QA/QC	Q4 (dup^{sw})	Q1 (dup), Q2(TB, FB), Q3 (TB, FB), Q4 (dup, TB, FB)	Q1 (dup, TB, FB), Q3 (TB, FB), Q4 (TB, FB)	Q1 (dup, TB, FB), Q2 (dups, TB, FB), Q3 (dup^{sw}, FB), Q4 (dups, TB, FB)	Q1 (dups), Q2 (dups), Q3 (dup), Q4 (dups)
Total samples	Q2(7), Q3(7), Q4(10)	Q1(8), Q2(12), Q3(14), Q4(5)	Q1(8), Q2(0), Q3(6), Q4(6)	Q1(6), Q2(16), Q3(27), Q4(19)	Q1(20), Q2(17), Q3(10), Q4(17)

Notes: Dup = Duplicate Sample Collected

^{SW} = Surface water duplicate
FB = Field Blank Included
Q1 = Sampling event within January – March
Q3 = Sampling event within July – September
(#) = number of samples taken during sampling event

^{m} = monthly sampling occurred in during the Quarter.
TB = Trip Blank Included
Q2 = Sampling event within April - June
Q4 = Sampling event within October – December

Hydraulic Conductivity Testing

As part of the baseline study, estimates of hydraulic conductivity of overburden and bedrock were required to develop the conceptual hydrogeological model and as inputs to the planned three-dimensional numerical groundwater model. Rising and falling head tests (slug tests) were conducted at monitoring wells screened in overburden. Packer testing was conducted at select intervals in geotechnical diamond drillholes. Hydraulic conductivity testing was conducted in accordance with the British Columbia Field Sampling Manual Part E2 (Province of BC 2021). The test data recorded during the slug testing, along with well construction and water level data, was input into Aqtesolv version 4.5, an industry standard pumping and slug test analysis software program (HydroSOLVE 2025). Hydraulic Conductivity calculations are available in **Appendix C** of the New Polaris - Hydrogeology Baseline Study (Ausenco 2026a, **Appendix 7.4-6**).

Drilling, Sampling, and Monitoring Well Installation – Soil and Bedrock

Soil characteristics were described using a modified Unified Soil Classification System (ASTM 1985). Stratigraphic logging included major and minor constituents, colour, texture, structure, moisture content, and evidence of disturbance or potential contamination. Sample depth intervals and field screening results were recorded. Borehole logs are available in **Appendices A and B** of the New Polaris - Hydrogeology Baseline Study (Ausenco 2026a; **Appendix 7.4-6**).

Lithology encountered during the drilling program was described by a qualified geologist based on continuous visual inspection of drill cuttings and/or recovered core. The lithology was classified using the Unified Soil Classification System (ASTM 1985) for unconsolidated soil and standard geological nomenclature for bedrock. Descriptions of the lithology included colour, grain size, texture, composition, weathering, and any observable structures such as alteration, bedding, or fracturing. If core samples were recovered rock quality designation and fracture frequency were recorded.

Monitoring wells MW21-01 and MW21-02 were installed in 2021 with screens between 3.9 and 7.0 m below ground surface (BGS) and 4.0 and 7.0 m BGS, respectively in overburden. The monitoring wells were completed using 2-inch PVC pipe and machine slotted screen, with a clean 10/20 silica sand filter pack placed across the screened interval and hydrated bentonite installed above the sand pack to provide an annular seal.

Regulatory Framework

Groundwater analytical parameters are generally compared to the Approved British Columbia Water Quality (BC WQ) guidelines for protection of freshwater aquatic life (FAL); however, some parameters were compared to the Canadian Council of Ministers of the Environment (CCME) guidelines where either the BC WQ FAL guidelines were absent or the CCME guidelines were more conservative.

Existing Data and Primary Research

Table 7.4-8 summarizes the existing data that has been provided on this project and the primary research that has been completed to establish existing conditions at the site. The data provided has shaped the work plans and assisted in characterizing the site hydrogeology. If available, new information will be used to inform planning, operations, mitigation, and closure.

Table 7.4-8 Summary of Available Existing Data

Report Title	Summary
Preliminary Assessment of Groundwater Quality Results (Gartner Lee 1997)	• Preliminary groundwater assessment, groundwater in tailings areas at Townsite was subdivided into two areas (area 1 and Area 2). • Preliminary groundwater assessment results indicated that shallow groundwater at the site in tailings was impacted while deeper groundwater was likely not impacted by tailings. • Groundwater in tailings areas were chemically different than groundwater that was not in tailings areas.
Regulatory Risk Management and Gap Analysis Report for the New Polaris Project (Gartner Lee 2007a)	• The 2007 Regulatory Risk Management and Gap Analysis Report recommended additional groundwater sampling and water level measurements at the existing monitoring locations to understand seasonal fluctuations within the shallow overburden aquifer, and the nature and extent of groundwater-surface water interaction at the site, particularly in Whitewater Creek.
New Polaris Technical Report (Gartner Lee 2007b)	• Hydrogeological investigations were conducted in 2006 and 2007 to collect baseline environmental data to support an environmental assessment of the mine. Fifteen groundwater monitoring wells and eight mini piezometers were established or re-established, in and around the mine site during these years. 21 wells had originally been drilled in 1997, but only 15 were located and rehabilitated. A groundwater monitoring program was initiated in 2007 to characterize groundwater quality and groundwater levels and included sampling and laboratory analysis. A targeted groundwater monitoring program was conducted during mine shaft dewatering (which took place in 2007) to understand the potential effects on groundwater flow, groundwater levels, and baseflow to Whitewater Creek, from historical mine operations.
Phase 2 Geochemical Assessment, Vein Sample Static Tests, New Polaris Project Atlin Mining Division, British Columbia (URS 2007)	• Geochemical testing of waste rock on the New Polaris site has been conducted indicating generally low sulphide concentrations and adequate amounts of available neutralizing minerals to offset potential acid generation. Arsenic and copper have been observed in elevated solids concentrations in the waste rock, where leach testing suggests that a very small percentage of arsenic is available under nonoxidizing conditions. Existing tailings identified at the New Polaris site will need to be characterized further.
New Polaris Mine – Project Description (Palmer Environmental Consulting Group 2015)	• In 2015, Solinst Leveloggers were installed in the shallow and deep monitoring wells at two well nest locations (four well in total) to collect groundwater level measurements on an hourly basis. These locations were selected to further characterize groundwater levels and flow within the shallow bedrock and overburden aquifer, and to understand groundwater-surface water interactions within Whitewater Creek
New Polaris Baseline Study (Ausenco 2023)	• The New Polaris Hydrogeology Baseline Study (Ausenco 2023) is a summary of the work performed at the site from 2020 to 2022. ▫ In 2020, site visits were conducted to locate the existing monitoring well network. Water level and groundwater samples were obtained to help establish existing site conditions and establish a work plan. ▫ In 2021, nine historical monitoring wells at six locations were located and repaired and two additional monitoring wells were installed by Canagold under the supervision of Ausenco personnel. Quarterly groundwater monitoring was conducted to establish water quality, hydraulic gradient, hydraulic conductivity, and water level. Two drill holes were also advanced to establish hydraulic conductivity (packer testing) estimations in the bedrock aquifer. ▫ In 2022, quarterly groundwater monitoring and sampling was conducted at 11 locations across the Site to assess the groundwater conditions and assess the temporal and spatial trends of the contaminants of concern identified at Site.
New Polaris Baseline Study (Ausenco 2026a)	• The New Polaris Hydrogeology Baseline Study (Ausenco 2026a; **Appendix 7.4-6**) is a summary of the work performed at the site from 2023 to 2025. ▫ In 2023, three monitoring wells were advanced in the CSF area of the Site. Quarterly groundwater monitoring and sampling was conducted at nine locations across the Site to assess the groundwater conditions and assess the temporal and spatial trends of the contaminants of concern identified at Site. ▫ In 2024, five drivepoint piezometers were installed in the airstrip and river transport landing area to assess groundwater quality. Quarterly groundwater monitoring and sampling was conducted at 19 locations across the Site to assess the groundwater conditions and assess the temporal and spatial trends of the contaminants of concern identified at Site. ▫ In 2025, Quarterly groundwater monitoring and sampling was conducted at 21 locations across the Site to assess groundwater conditions and assess the temporal and spatial trends of the contaminants of concern identified at Site.

Existing Conditions Characterization

Groundwater System Conceptual Model

The groundwater system conceptual model is a simplified description used for communication and understanding of the interconnectivity of groundwater systems within the LAA. The conceptual model is based on current and historical groundwater monitoring and analytical data obtained during field studies conducted at the Site. This section summarises the groundwater system conceptual site model. Further information is provided in the New Polaris - Hydrogeology Baseline Study (Ausenco 2026a; **Appendix 7.4-6**).

Hydrostratigraphic Units

The hydrostratigraphic units (HSUs) within the LAA have been identified in two distinct units, overburden and bedrock. **Table 7.4-9** summarises the HSUs and characteristics from each unit.

Table 7.4-9 Summary of the Hydrostratigraphic Units within the LAA

HSU	Unit Description	Geometric Mean of Hydraulic Conductivity
Overburden	Course Alluvium	1.1×10^{-4} m/s
	Colluvium	5.0×10^{-6} m/s
Bedrock	Mafic Tuff	6.4×10^{-9} m/s
	Mudstone	1.4×10^{-8} m/s
	Aplite	1.1×10^{-7} m/s

It is expected that structures in the bedrock will influence groundwater flow in the bedrock. Fractures and a quartz-carbonate vein in mafic tuff displayed hydraulic conductivities ranging from 9.3×10^{-9} m/s to 3.4×10^{-7} m/s, or approximately an order of magnitude higher than competent mafic tuff. A fracture zone in the aplite had an estimated conductivity of 6.1×10^{-6} m/s while a vein in the mudstone had a conductivity of 5.4×10^{-6} m/s. The gold deposit is hosted within the mafic volcanic rocks which are characteristic of the flooded mine workings.

Recharge

Groundwater recharge occurs when precipitation or surface water enters the ground. The rate of infiltration from precipitation is likely much higher at the lower levels of the site where the terrain is relatively flat, and the soils are unconsolidated compared to the steeply sloping mountainous terrain to the west. Groundwater in the bedrock is recharged by precipitation and snow melt to the west. Groundwater in the overburden in the flatter lowlands is recharged by precipitation, overland flow from the steeply sloping terrain to the west, and upward seepage of groundwater from bedrock. Based on the above observations and a review of available data, it is assumed that surface water run-off and overland flow, as compared to groundwater seepage, has greater influence most times of the year on water discharge to river systems in the study area.

Groundwater Flow

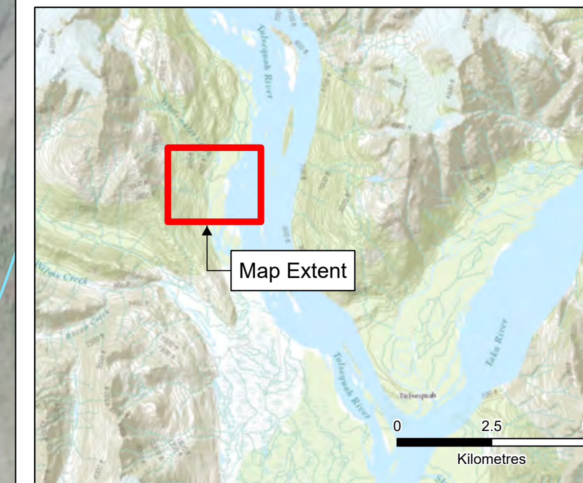
Conceptually, groundwater at the mine site flows from upland areas located to the west through bedrock and overburden soils to the site. Piezometric surfaces constructed for groundwater elevations measured in June 2024 indicate that shallow groundwater discharges to Whitewater Creek and to channels of the Taaltsuxéi Héen. Whitewater Creek flows from highlands to the west of the site to wetlands north of the site and then southward where it discharges into a secondary channel tributary to the Taaltsuxéi Héen. The Whitewater Creek catchment includes surface water flows from Kitchen Slough north of the site and shallow groundwater flow from the west of the creek and up to 300 m to the east of the creek. Deeper groundwater may flow beneath Whitewater Creek and discharge to the Taaltsuxéi Héen.

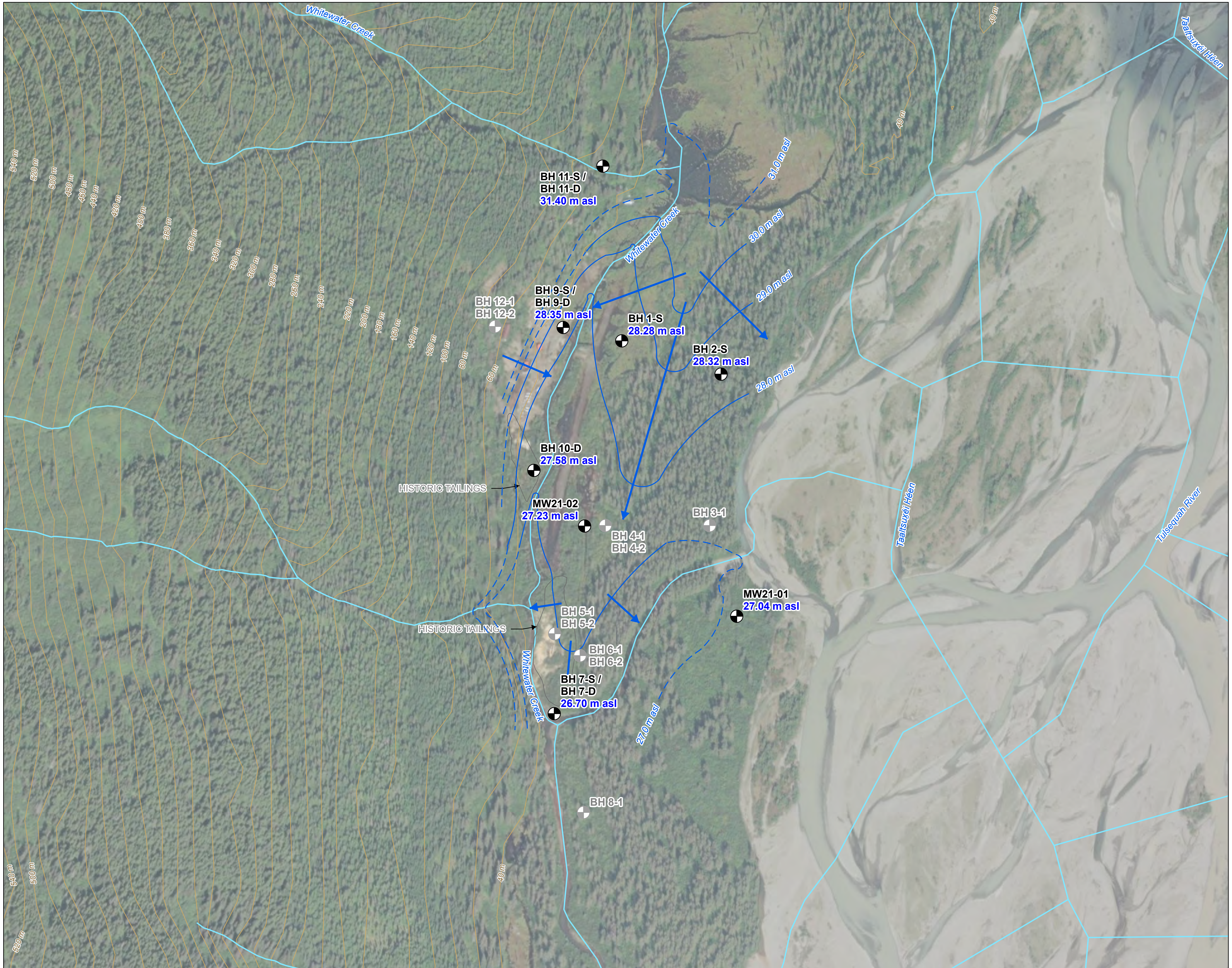
The flow through the bedrock is expected to be controlled by structures in the bedrock such as faults and fracture zones. Structures can act as flow barriers or as preferential flow paths. Hydraulic testing of veins and one fracture zone indicated higher hydraulic conductivities compared to their host rock units, suggesting that they are preferential pathways. Artesian flow from monitoring well BH11-D and during packer test #2 of a fracture zone in drillhole 21 1635E1 suggest potential for substantial groundwater flows from bedrock to overburden.

Figure 7.4-5 shows the groundwater flow direction of the Townsite wells, located in the LAA, measured in June 2024.

New Polaris Project
British Columbia, Canada

Groundwater Elevation Contours in Overburden - June 2024





Legend

- Groundwater Monitoring Well Location (Ausenco, 2021)
- Historical Groundwater Monitoring Well Location
- Estimated Groundwater Elevation Contour
- Inferred Groundwater Elevation Contour
- Estimated Flow Direction
- *123* Groundwater Elevation (m asl)
- Watercourse
- Contour (20 m interval)

Notes

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2. This map is not intended to be a "stand-alone" document, but a visual aid of the information contained within the referenced Report. It is intended to be used in conjunction with the scope of services and limitations described therein.

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Ausenco CANAGOLD

Discharge from Historical Mine Portal

Flow has been observed from the Polaris Portal of the historical mine workings at the site. The mine workings are located in the hard rock aquifer and bedrock fractures contribute to the flow. **Table 7.4-10** shows the flow rate data collected on the corresponding dates.

Table 7.4-10 Flow Rate from the Polaris Portal

Date	Flow Rate
June 24, 2021	6.9 L/s
Jun 23, 2021	6.9 L/s
August 30, 2021	6.2 L/s
February 22, 2023	6.1 L/s
May 2025	8.0 L/s
August 2025	10.0 L/s
October 2025	9.0 L/s

Based on discussions with Canagold, flow from the Polaris Portal represents a combination of groundwater seepage from the historical mine workings and surface water infiltration into the historical mine workings in the upper mine area above the portal elevation. The relative contribution from surface infiltration is currently unknown. The increased flows observed in 2025 may be due to the difference in measurement methods, increased groundwater discharge from bedrock into the historical mine workings, or increased surface water infiltration. This may be investigated in subsequent phases of the project.

Groundwater Quantity

The assessment of groundwater quantity is a critical component for assessing the potential effects of a project. The groundwater quantity establishes the baseline aquifer conditions, supports the evaluation of project related changes to water availability and flow regimes, and informs the protection of ecological receptors, water users, and interconnections with surface water in the project area.

Groundwater Level, Gradients, and Flow Direction

Groundwater levels at the Townsite area have historically been within 2.0 m of ground surface and varied generally less than 0.5 m in elevation over the course of the monitoring period. Due to proximity, monitoring wells MW21-01 and BH2-S are likely influenced by the water surface elevation of the Taaltsuxéi Héen which fluctuates several meters over the course of a year while the rest of the monitoring wells are likely influenced by Whitewater Creek which has less pronounced water surface fluctuation over the course of a monitoring season as compared to the Taaltsuxéi Héen.

Monitoring wells MW-2023-CDSF-02S/D and -03 in the Co-Storage Facility (CSF) area showed modest variation of less than 1.0 m over the monitoring period. Peak groundwater elevations usually occur in late summer to fall, which is consistent with historical precipitation trends at site.

Drivepoint piezometers GW1 through GW5 installed in the airstrip and river transport landing area near the confluence of the Taaltsuxéi and T'aakú Héeni provided additional shallow groundwater quality data for the study but were not included in the level survey and have not been used to assess groundwater levels or flow directions.

Hydraulic Conductivity

Groundwater flow velocities were calculated at three locations at the site near including the area immediately east of Whitewater Creek (BH1 to BH7-S/D), the area immediately west of the Taaltsuxéi Héen (BH2-S), and to the immediate west of Whitewater Creek (BH9-S and BH11-S). The calculated groundwater flow velocities ranged from 0.20 m/d to 0.34 m/d, 0.86 m/d to 1.43 m/d, and 0.17 m/d to 0.34 m/d, respectively. Vertical groundwater gradients calculated at monitoring well pairs indicated gradients ranging from 0.004 m/m downward to 0.35 m/m upward flow.

Table 4-1 in Appendix 7.4-6 summarizes the results of hydraulic conductivity testing in overburden (slug tests) and bedrock (packer tests). The slug test analysis output from Aqtesolv and the packer test analyses are presented in the New Polaris - Hydrogeology Baseline Study (Ausenco 2026a; **Appendix 7.4-6**).

Groundwater Quality

In terms of groundwater quality, two groundwater regimes have been identified at the site: groundwater in bedrock and groundwater in overburden. All available monitoring wells at the site, except for monitoring well BH11----D, are screened in overburden. Monitoring well BH11-D is screened in shallow bedrock and represents the only location where samples of groundwater from bedrock can be obtained. However, the seepage from the historical mine workings portal originates, in part, from bedrock groundwater that seeps into the mine workings, in effect providing samples of bedrock groundwater. The laboratory analytical results for samples of seepage from the portal are therefore used to assess the baseline condition of bedrock groundwater.

Groundwater analytical parameters are generally compared to the Approved British Columbia Water Quality (BC WQ) guidelines for protection of freshwater aquatic life (FAL); however, some parameters were compared to the Canadian Council of Ministers of the Environment (CCME) guidelines where either the BC WQ FAL guidelines were absent or the CCME guidelines were more conservative. **Appendix 7.4-6** further details the guideline determination for groundwater quality at the site.

Reported baseline groundwater quality results, from overburden monitoring wells, display total and/or dissolved concentrations that exceed the referenced freshwater aquatic life guidelines for the following parameters:

- Aluminum
- Antimony
- Arsenic
- Ammonia (N)
- Barium
- Beryllium
- Cadmium
- Chromium
- Cobalt
- Copper
- Iron
- Lead
- Manganese
- Mercury
- Nickel
- pH
- Phosphorus
- Selenium
- Silver
- Strontium
- Sulphate
- Thallium
- Zinc

Appendix 7.4-6 provides details of the freshwater aquatic life guidelines in terms of exceedances of specific parameters at specific monitoring wells. As well, potential sources of the exceedances are discussed.

Ammonia exceedances were observed mainly at the Townsite monitoring wells and likely originate from legacy blasting residues associated with waste rock, tailings and possibly explosive storage and handling methods at the time.

Groundwater quality from bedrock monitoring well BH11-D and Polaris Portal seepage reported total and/or dissolved arsenic concentrations that exceed the BC WQ FAL guidelines in all samples analyzed. The groundwater quality results and exceedances are thought to be largely the result of contact of groundwater with legacy mining wastes such as waste rock, tailings, metal debris, and the historical mine workings, with some exceedances originating from natural bedrock geochemical conditions.

In **Appendix 7.4-6, Table 5-3 to Table 5-4** summarise the potential contaminants of concern in the three study areas of the LAA. In **Appendix 7.4-6, Figure 6-2 and 6-3** show the locations of the parameters that exceeded the BC WQGs FAL and **Figure 6-4 and 6-5** show the locations where arsenic concentrations exceeded the BC WQGs FAL in the LAA.

7.4.2.2 Potential Project Effects

Project effects can be direct or indirect. Direct effects are the result of a Project activity that has a direct effect on a VC. An indirect effect is a result of a more complex effect pathway that is not direct but rather has steps or activities a step or more away from a Project activity. Project effects can beneficial and desirable and therefore considered ‘positive’ or adverse and undesirable and therefore considered ‘negative’. The assessment takes into consideration potential direct and indirect effects that can be either positive or negative effects, during the different phases of the Project.

This section aims to:

- Describe Project phases and associated activities, identify potential Project-VC interactions for each Project phase and activity, and determine associated potential effects to be assessed.
- Identify and evaluate mitigations and enhancement measures to effectively manage potential Project effects

Methods

The evaluation of Project effects on Groundwater takes into consideration the interactions that occur across the landscape, information from regional, provincial, and federal regulators, Indigenous nations, stakeholders, and local communities.

Key Project-related interactions with Groundwater and associated subcomponents were determined through a screening evaluation of proposed Project components and activities within the LAA. Key Project-related interactions and the likelihood of interactions were determined by assessing the field investigation results and the results of numerical hydrogeological modelling.

The primary potential effects identified for the groundwater VC are:

- Shallow groundwater drawdown due to mine dewatering during the Construction Phase and Operations Phase.
- Potential groundwater baseflow losses in water bodies including Whitewater Creek, Kitchen Slough and Taaltsuxéi Héen within the mine dewatering drawdown area of influence. These surface water bodies potentially act as lateral recharge sources and are potential sources of water gain and loss. **Appendices 7.4-6 and 7.4-7** describe the connection between surface water and groundwater.
- Potential groundwater quality effects due to solute transport from the CSF during post-closure and the flooded existing and new mines during post-closure.

To study the potential effects of the Project on groundwater quality and quantity, numerical modelling of the mine site was conducted. Due to the interconnectivity between the surface and groundwater systems, the groundwater modelling results were used in the surface water quality model and the site-wide water balance model (**Appendices 7.4-3 and 7.4-5)**.

The surface water quality modelling is described in detail in Surface Water Quality Modelling Report presented in **Appendix 7.4-3.** The groundwater numerical modelling report (Numerical Hydrogeological Modelling Report) is provided in **Appendix 7.4-7** and is summarized in the following sections.

Numerical Hydrogeological Model Development

The development of the numerical model was based on the conceptualization of the site as described in Section 7.5.6.4 as well as a 3D geological model. The geological model is an approximation of the geometry of the underground environment, with some uncertainty regarding areas where detailed geological information is unavailable. The 3D geological model was constructed using Leapfrog Works software, version 2024.1.1. The numerical model was developed using FEFLOW (Version 7.3)

The numerical hydrogeological model was developed for three conditions:

- Current conditions (steady-state)
- Operations (fully developed mine) (steady-state), and
- Post Closure (steady-state).

Development of the numerical hydrogeological model included the following tasks:

- Construction of the numerical model
- Calibration of the model under steady-state conditions
- Conducting a sensitivity analysis to assess the sensitivity of the numerical model to changes in hydraulic conductivity and recharge
- Simulation of mine dewatering
- Configuration of the numerical model for the simulation of solute transport, and
- Simulations of solute transport.

Model Calibration

The numerical model was calibrated to groundwater elevations measured at 13 monitoring wells between June 3 and June 7, 2024. The monitoring wells are screened in shallow overburden and as such, the computed heads were matched to observed heads by adjusting overburden hydraulic conductivities and recharge.

Table 7.4-11 Summary of Model Calibration

N#	Code	Coordinates		Observed Hydraulic Head (m)	Simulated Hydraulic Head (m)	Residual
		East	**North**			
1	BH1-S	579519	6507350	28.3	28.1	0.10
2	BH2-S	579719	6507283	28.3	28.7	-0.30
3	BH7-S	579383	6506599	26.7	26.5	-0.19
4	BH9-S	579401	6507377	28.3	28.2	-0.17
5	BH10-D	579342	6507089	27.6	27.4	-0.15
6	MW21-01	579751	6506795	27.0	27.6	0.57
7	MW21-02	579444	6506977	27.2	26.8	-0.41
8	BH7-D	579383	6506599	26.6	26.5	-0.13
9	BH9-D	579401	6507377	27.9	28.2	0.28
10	BH11-S	579481	6507702	31.4	31.1	-0.26
11	MW-2023-CDSF-02a (Deep)	580088	6508427	32.9	32.4	-0.45
12	MW-2023-CDSF-02N (Shallow)	580088	6508428	33.0	32.4	-0.56
13	MW-2023-CDSF-03	580266	6508754	34.1	34.0	-0.07
Residual mean					-0.13	
Residual absolute mean					0.28	
Residual standard deviation					0.31	
Residual quadratic sum					1.36	
Root mean square (RMS) error					0.32	
Minimum residual					-0.56	
Maximum residual					0.57	
Number of observations					13.00	
Range of observations					7.40	
NRMS (%)					4.38	

Source: Ausenco, 2026.

Mine water discharge from the Polaris Portal, an outlet of the historical mine workings, was measured on several occasions from 2022 to 2025. It is assumed that approximately half of the discharge is groundwater seeping from bedrock into the mine workings while half is surface water infiltration into the portal. Bedrock hydraulic conductivity was adjusted to approximate the observed flows. The resulting computed discharge flow rate from the Polaris Portal in the calibrated model is 2.6 lps.

Groundwater baseflows to Whitewater Creek are not available; however, for the reach running through the Townsite area of the mine, it was assumed that baseflow was between 10 and 20 lps. Baseflow to the Townsite reach of Whitewater Creek was computed as 14.9 lps for the calibrated model.

Mine Phase Assumptions

For each mine phase, Project activities have effects on groundwater quantity and quality. To conduct simulations, the calibrated model was adjusted to represent conditions for each phase. The following assumptions were made regarding the mine phases simulated:

Existing Conditions:

The calibrated model was prepared as the Existing Conditions model. The model included the existing mine workings flooded to the elevation of the Polaris Portal. The Existing Conditions model was used to simulate solute transport from the mine workings and the steady-state groundwater solute plume. The results were used as part of the calibration of the surface water quality model as there is assumed connectivity between groundwater and Whitewater Creek.

Construction Phase:

During the Construction Phase of the mine, the primary condition simulated was dewatering of the existing mine workings. No other changes of the Existing Conditions model were required. The simulation was required to estimate dewatering rates for the existing mine which is scheduled to be dewatered during the Construction Phase of the Project. The simulations provided indications of the effects of dewatering on flows in Whitewater Creek and Kitchen Slough. Solute that migration from the existing mine to the bedrock and overlying overburden aquifers under existing conditions will cease which may improve groundwater quality. The results were used as inputs to the surface water quality modelling.

Operations Phase:

To assess dewatering rates for the combined existing mine workings and the proposed new mine workings, the fully developed proposed mine workings, representing Year 9 conditions, were imported into the numerical model. A steady-state simulation was run of complete dewatering of both mine workings. No other changes to the Existing Conditions model were required. During operations, it is assumed that groundwater quality will generally improve due to the cessation of existing migration of solutes from the existing mine. Due to an assumed hydraulic connection between groundwater and surface water, the potential depression of the water table due to dewatering of the mines may reduce groundwater baseflow to Kitchen Slough and Whitewater Creek.

Post-Closure Phase:

At mine closure, the existing mine and the new mine will be allowed to flood. Backfilling of the new mine will take place prior to flooding with portals and other openings blocked. It is expected that groundwater elevations across the LAA will generally recover to current elevations after the mine workings have flooded. The CSF will be completed and covered with an estimated leakage rate of 1 m^3/Ha/d. The post-closure simulations focused on solute transport effects of the combined existing and new mines and the CSF. Due to the hydraulic connection between groundwater and surface water at Kitchen Slough, the Taaltsuxéi Héen and Whitewater Creek, the results were used as inputs to the surface water quality modelling.

Model Limitations

The developed numerical hydrogeological model is a regional-scale model whose main objective is to represent the general behavior of the groundwater system and evaluate the effects of existing and planned underground works on the subsurface environment. The hydrogeological numerical model is technically limited in its ability to predict effects to groundwater due to factors including:

- The numerical model has limitations in representing in detail the geometry and hydraulic behavior of each of the tunnels and stopes of the underground workings.
- The lithologies present in the numerical model are extrapolated from a relatively small area of exploration and the geological distribution of the bedrock at depth is not known with certainty.
- The model was run under steady-state conditions which neglects storage and hence may under-estimate groundwater inflows.
- The type of structured mesh and the spatial discretization used (horizontal and vertical) allows adequate reproduction of the regional hydraulic gradients and those of the main water components such as the Tulsequah River and the creeks; however, its resolution does not allow for the explicit representation of smaller structures and local flows at smaller scales.
- Limited information on water levels and hydraulic tests outside the mine area creates uncertainty regarding simulated levels and gradients. Similarly, information is limited at depth.

Valued Components, Effect Interactions, and Measurable Parameters

Project Interactions

The interactions of components and activities for all Phases of the Project with Groundwater quality and quantity are summarized in **Table 7.4-12**. The identification of possible interactions was completed using the following information:

- Technical characteristics of the Project provided by the engineering team
- Groundwater baseline data
- Professional experience from similar projects.

Construction activities will interact with groundwater through:

- Excavations and earthworks can potentially alter flow patterns and infiltration for groundwater recharge with the removal/exposing of subsurface materials and the compaction of soils.

- Dewatering of the existing mine workings have the potential to create a cone of depression in the local groundwater table which in turn has the potential to affect hydraulically connected surface water bodies.
- Disturbing tailings and waste rock from historic mine operations, and spills of chemical contaminants used during construction and dust suppression have the potential to leach into shallow groundwater.
- Dewatering of the existing mine will reduce the migration of solutes from the mine, potentially improving groundwater quality. Due to the connectivity between groundwater and surface water, surface water quality may improve.
- Chemical spills due to operation activities may impact groundwater quality. This is further assessed in Chapter 9 Malfunctions and Accidents.

Operations activities will interact with Groundwater through:

- Dewatering of the proposed new mine workings has the potential to alter local groundwater levels and flow regimes. Water levels may be affected in local aquifers surface water bodies. The magnitude of influence is dependant on the pumping rates and duration of pumping.
- Tailings and waste rock management has the potential for effects on groundwater quality, including increases in dissolved metals and salts. Precipitation and surface water flow through tailings and waste rock piles can cause the mobilization of contaminants into shallow groundwater.
- Potential for the reduction of groundwater recharge areas due to the increase in surface structures (such as roads, buildings, compacted pads). This may also alter groundwater flow patterns and lower groundwater levels.
- Chemical spills due to operation activities may impact groundwater quality. This is further assessed in Chapter 9 Malfunctions and Accidents.

Closure activities will interact with Groundwater through:

- Cessation of dewatering and reduced infrastructure will likely lead to a rebound in local groundwater levels and re-establishment of pre-activity flow paths.
- As the CSF is capped over the closure period, seepage from the CSF will decline until it reaches the long-term rate expected during post-closure.
- Potential for mobilization of dissolved metals and salts into bedrock and overburden groundwater after underground mine workings are flooded
- Chemical spills due to operation activities may impact groundwater quality. This is further assessed in Chapter 9 Malfunctions and Accidents.

Post Closure activities will interact with Groundwater through:

- Groundwater levels will reach a new equilibrium, which may differ than pre-project conditions based on the earthworks and excavation activities performed during the life of the mine
- Re-establishment of groundwater seepage through the mines after flooding is complete can mobilize solutes from the mine to the bedrock and overburden aquifers.
- Potential for seepage of contact water from the CSF to groundwater

Table 7.4-12 Summary of interactions of components and activities for all Phases of the Project with Groundwater

Project Phase and Activity	Groundwater		Interaction Mechanism	Potential Effects	Indicators
	Quality	Quantity			
Construction (1-Year)					
Clean up and disposal of remnants from historic operations.	🔴	🔴	Disturbance of legacy contaminated soils and historic workings	• Mobilization of metals and legacy contaminants • Minor localized dewatering if excavations intercept shallow groundwater.	• Increased concentrations of solutes in groundwater and surface water • Drawdown in nearby monitoring wells • Reduction in flow of hydraulically connected surface water bodies
Construction of new airstrip	🔴	🔴	Land clearing, grading, compaction and surface drainage	• Reduced infiltration – minor alteration of recharge • Mobilization of fine sediment into groundwater supply • Potential fuel spills from construction vehicles and generators	• Changes to groundwater levels and flow patterns • Changes to groundwater chemistry including hydrocarbons if spills occur
Construction of culverts at water crossings during road development.	🟡	🟡	Excavations below water table, altered groundwater flow	• Altered shallow groundwater flow paths • Increased fine sediments in groundwater due to construction runoff seepage	• Changes to groundwater levels at nearby monitoring wells. • Changes to groundwater chemistry
Site preparation and development of Tailings and Waste Rock Co-Storage Facility (CSF).	🔴	🔴	Excavations, liner installation, and potential leakage of contact water	• Contact water leaching into groundwater • Groundwater flow changes due to channelling and diversions	• Changes to groundwater chemistry • Changes to groundwater levels and flow patterns
Construction of river transport landing site (~10 km from mine site), including a small office trailer, genset, diesel fuel tank, temporary storage area of supplies and container handler.	🟡	🟡	Land clearing, grading, and compaction, Fuel Storage, shoreline disturbance	• Changes to groundwater flow paths • Increased sedimentation from construction debris and potential hydrocarbon contamination from fuel spills	• Changes to groundwater levels and recharge rates • Changes to groundwater chemistry including physical parameters and hydrocarbons
Construction of new ramp for access to underground mine, starting at the existing New Polaris portal.	🔴	🔴	Dewatering activities and rock excavation	• Watertable drawdown – cone of depression may form locally • Decrease in surface water flow • Decreased flow of mine water to overburden aquifer and surface water bodies	• Drawdown in nearby monitoring wells • Reduced creek flow • Changes to groundwater and surface water chemistry
Site preparation and development of fuel storage site.	🟡	🟢	Storage tank installation, spill risk	• Hydrocarbon contamination from accidental spills or leaks	• Changes to groundwater chemistry
Site preparation and construction of settling ponds and water treatment plant.	🟡	🟡	Excavation, seepage from ponds	• Reduction recharge area • Seepage or leaks from liners could alter groundwater chemistry	• Changes to groundwater chemistry • Changes to groundwater levels and flow patterns
Waste management and monitoring activities.	🟡	🟡	Leachate seepage	• Potential for nutrients and metal contaminations in groundwater • Potential for mounding of the watertable and changes in flow patterns	• Changes to groundwater chemistry including nutrients • Changes in groundwater elevations
Site preparation and construction of hydropower facility.	🟢	🟢	None	None	None
Land clearing and site preparation for transmission line from hydropower facility to mine site.	🟢	🟢	None	None	None
Marine traffic control for materials and supply transportation.	🟡	🟢	Fuel storage and handling	• Potential for fuel leaks or spills	• Changes to groundwater chemistry including hydrocarbons
Installation of wells and potable water supply and storage facilities.	🟡	🔴	Water extraction from Aquifers	• Reduction in groundwater levels and flow patterns	• Changes to groundwater levels and flow patterns • Reduction in flow of hydraulically connected creeks
Installation of culverts to convey surface drainage around CSF.	🟡	🔴	Changes to gradient and slope and changes to infiltration pathways	• Increased sedimentation of aquifers • Perched water tables due to pathway obstruction and introduction of barriers	• Changes to groundwater levels • Increased sedimentation of aquifers and changes to water chemistry

Project Phase and Activity	Groundwater		Interaction Mechanism	Potential Effects	Indicators
	Quality	Quantity			
Construction of water management system.	🟡	🟡	Storage pond excavation and piping	• Potential leakage of contact water to aquifer	• Changes to groundwater chemistry • Changes to groundwater levels and flow patterns
Construction of domestic waste disposal facility (including incinerators) for the disposal of domestic, sanitary, and other waste generated by the camp and other site facilities during operations.	🟡	🟢	Leachate infiltration	• Potential leakage of pathogens and nutrients to aquifers	• Changes to groundwater chemistry
Continuing activities for re-opening of previous mine works (e.g., dewatering underground workings, treating and disposing of contact water, management and removal of old equipment or facilities and, legacy tailings).	🔴	🔴	Dewatering of historic mine workings and disturbance of legacy contaminated soils	• Mobilization of metals and legacy contaminants • Watertable drawdown – cone of depression may form locally • Decrease in surface water flow • Decreased flow of mine water to overburden aquifer and surface water bodies	• Changes to groundwater levels and flow gradients. • Changes to groundwater chemistry.
Construction and installation of transmission line from hydropower facility to mine site.	🟢	🟢	None	None	None
• Operations (10-Years)					
Storage of ore stockpiles.	🟡	🟢	Precipitation infiltration through ore	• Potential for precipitation to cause leachate to generate and seep into aquifers • Potential for increased nitrates, sulphates, dissolved metals in groundwater	• Changes to groundwater chemistry.
Maintenance and monitoring of explosive storage facility.	🟡	🟢	Accidental nitrate leaching	• Localized contaminations from the elevation of nitrates and ammonia	• Changes to groundwater chemistry.
Maintenance and monitoring of fuel storage and handling facility.	🟡	🟢	Fuel spills and leakage	• Potential for fuel leaks or spills	• Changes to groundwater chemistry.
Operation and maintenance of hydropower facility.	🟢	🟢	None	None	None
Marine traffic control for materials and supply transportation.	🟡	🟢	Fuel spills and leakage	• Potential for fuel leaks or spills, localized hydrocarbon exceedances	• Changes to groundwater chemistry.
Dewatering activities during advancement of new ramp.	🔴	🔴	Continuous pumping and groundwater abstraction, drawdown cone formation	• Watertable drawdown – cone of depression may form locally • Decrease in surface water flow • Decreased flow of mine water to overburden aquifer and surface water bodies	• Drawdown in nearby monitoring wells • Reduced creek flow • Changes to groundwater and surface water chemistry
Deposition and compaction of tailings at CSF.	🔴	🔴	Seepage of contact water from CSF	• Reduced infiltration • Potential to cause leachate to generate and seep into aquifer	• Changes to groundwater levels and flow patterns • Changes to groundwater chemistry.
Transportation of thickened tailing underground placed in mined out voids (stopes) for ground support.	🟡	🟡	Mine workings are groundwater sinks during Operations, filling in stopes reduces open void space, potentially decreasing groundwater flow into the mine	• Potential changes to groundwater inflow • Potential changes to dewatering discharge quality	• Changes to dewatering rates • Changes to dewatering discharge quality
Waste management and monitoring activities.	🟡	🟢	Leachate seepage	• Potential for nutrients and metals release to groundwater	• Changes to groundwater chemistry.
Water intake and use	🟢	🔴	Groundwater abstraction	• Potential for reduced groundwater levels and flow patterns	• Changes to groundwater levels and flow patterns • Reduced creek flows
Operation of water management system (including sedimentation ponds).	🟡	🟡	Seepage from ponds and infiltration	• Potential for localized increased TSS, TDS, and Turbidity, metals, and nutrients in groundwater	• Changes to groundwater chemistry.

Project Phase and Activity	Groundwater		Interaction Mechanism	Potential Effects	Indicators
	Quality	Quantity			
Treatment and discharge of process water and wastewater.	🟠	🟠	Infiltration from discharge areas and potential for treatment failure	• Potential for elevated contaminants and salinity in groundwater	• Changes to groundwater chemistry.
• Reclamation and Closure (2-Years)					
Waste management and monitoring activities.	🟠	🟢	Leachate seepage	• Potential for nutrients and metal contaminations in Groundwater	• Changes to groundwater chemistry
Disposal of contaminated soil and materials to hazardous waste facility.	🔴	🟢	Infiltration if spilling occurs and any of the following stages handling, loading, or temporary staging	• Release of contact water to aquifer	• Changes to groundwater chemistry
Water treatment and discharge from settling ponds.	🟠	🟢	Infiltration of treated effluent, potential water treatment failure	• Elevated metals and salinity concentrations	• Changes to groundwater chemistry
Decommissioning of river transport landing site.	🟠	🟢	Infrastructure removal may cause sediment disturbances; disturbance of any fuel impacted soils	• Increased fine sediments in runoff may seep into shallow groundwater. • Localized hydrocarbon exceedances	• Changes to groundwater chemistry
Placement of geotechnical and topsoil cover for CSF to encapsulate the tailings and waste.	🔴	🟠	Low permeability cover placement reduces infiltration, and improper placement may allow for preferential flow	• Potential for the long-term reduction of leachate. If failure occurs there may be potential for continued metals/ contaminant leaching from the tailings. • Potential for reduced recharge to shallow groundwater	• Changes to groundwater chemistry • Changes to groundwater flow patterns
• Post Closure					
Water treatment monitoring.	🟢	🟢	Continued monitoring of passive or active treatment systems.	• Verification of the effluent quality and hydraulic performance would be helpful for early detection of contaminants of concern identified in earlier stages of the mine life cycle. • Confirmation of treatment effectiveness	• Changes to groundwater chemistry
Decommissioning and dismantling of settling ponds and water treatment plant and Post-closure monitoring	🟠	🟢	Removal of infrastructure, potential to disturb any accumulated sediments, potential for infiltration during earthworks and Groundwater recovery and plume stability monitoring	• Potential for the short-term increase in turbidity and other physical parameters in groundwater. • Localized contamination if accumulated sediment is not properly managed • Likely long-term reduction in contamination after source removal • Groundwater levels gradually rebound to a new equilibrium	• Changes to groundwater chemistry • Changes to water levels and flows

Activities and their potential interactions with VCs have been characterized as follows and described in Section 6.5.1 of Chapter 6:

- Green circle (🟢) – little to no interaction expected; no further consideration warranted.
- Orange circle (🟠) – potential interaction requiring further consideration
- Red circle (🔴) – key interaction that is likely or certain.

Description of Potential Effects

Groundwater Quantity

Project-related effects on groundwater quantity will occur primarily in the CSF, Townsite, and Airstrip and River Transport Landing areas during the construction and operational phase of the project. Key effects were assessed for the construction, operation and post-closure phases of the project.

During construction, operations, and post-closure phases, without implementation of mitigation measures, the Project effects noted in **Table 7.4-12** can alter groundwater quantity through changes in groundwater levels, hydraulic gradient, reduction and recharge area. Reductions in groundwater levels may reduce groundwater baseflow to surface water bodies.

The main Project effect on groundwater quantity will occur during the construction and operations phases due to dewatering of the existing mine workings and the proposed new mine workings. During both phases, the underground workings will be dewatered with groundwater inflow brought to surface for treatment and ultimate release to a surface watercourse. Significant flow reductions due to the CSF are not anticipated during the construction and operations phases. Dewatering activities are predicted to lower groundwater levels, and in turn reduce groundwater baseflow to surface water features and affect natural flow regime in the receiving watercourse.

The numerical modelling results (see **Appendix 7.4-7**) indicate an estimated total flow rate of 26.0 lps to dewater the existing mine workings during the Construction Phase and 83.8 lps to dewater the combined existing and new mine workings during Year 9 of the Operations Phase of the project. The numerical modelling predicts a resulting loss of baseflow in Whitewater Creek within the Townsite area of 7.8 lps during the construction phase and 14.5 lps during the operations phase of the Project. Additionally, dewatering is predicted to reduce flow in Kitchen Slough by 2.7 lps and 4.8 lps in the construction and operations phases, respectively. Since Kitchen Slough flows into Whitewater Creek, the total losses of baseflow, and hence total flow in the creek, is predicted to be 10.5 lps during construction and 19.3 lps during operations. Note that the losses in flow are based on a steady-state simulation of the dewatering of the fully developed mine in Year 9 of the Project and hence, the losses are not expected to occur throughout the entire life of the Project.

The numerical model predicts groundwater flow losses to the Taaltsuxéi Héen of 3.3 lps during the construction phase and 13.4 lps during the operations phase compared to existing conditions. However, the losses are relatively insignificant compared to the flow of the Taaltsuxéi Héen and would not likely be measurable. Furthermore, dewatering discharge from the existing and new mines is expected to be treated and discharged to the Taaltsuxéi Héen in volumes likely greater than the groundwater flow losses.

Construction, operation and closure of the CSF may reduce recharge in the footprint of the CSF. However, the relative loss is not expected to be enough to affect groundwater flow patterns significantly.

Groundwater Quality

Project effects on groundwater quality will occur primarily within the LAA during construction, operations and post-closure phases of the Project, as a result of historic and new mine dewatering and mine backfilling.

During the construction and operations phases, dewatering of the existing and new mine workings will prevent mine contact water from migrating to the overburden aquifer and in turn, surface water bodies. Because the existing mine workings have historically been of poor chemical quality, the elimination of flow from the mine to the overburden aquifer will likely cause an improvement in water quality.

During the post-closure phase of the Project, the existing and new mine workings will refill. Once groundwater flow patterns are re-established, solute plumes from the combined mine workings will migrate to the overburden aquifer, degrading groundwater quality.

In addition to solute migration from the combined existing and new underground workings, leakage of contact water from the CSF represents a potential Project effect on groundwater quality. During the post-closure phase of the Project, the CSF will be capped with surface water diversions around it. However, precipitation that infiltrates the CSF cap can contact the combined tailings and waste rock. The design of the CSF includes a bottom liner and an interior capture system that includes drain rock and perforated piping (overdrain) to drain standing water within the CSF to the external contact water pond. Bypass of the overdrain system within the CSF is assumed with a leakage rate calculated to be 4.4 litres per hectare per day (L/Ha/d). The contact water is expected to seep into the underlying aquifer at the calculated rate. As a result, a solute plume can form and migrate to the south and south-east of the CSF.

7.4.2.3 Effects Management

Defining appropriate mitigation or enhancement measures is a critical part of the EA process. This section describes effects management approaches for Groundwater, the effectiveness and uncertainty of these approaches, and the description of mitigation measures. Potential residual effects are characterized following the application of proposed mitigation and/or enhancement measures which are designed to effectively manage potential project-related effects.

Best management practices (BMPs) are practical proven methods or techniques used to prevent or reduce project impacts on the environment. The mitigation hierarchy framework is used to manage or reduce impacts to the environment. The mitigation hierarchy is structured to manage and reduce project impacts in order from best to least options and include the following steps: avoidance, minimization, restoration/ reclamation, and offset/compensation.

Environmental Design Features

The best practices and related design features of the Project to reduce the potential effects to groundwater quantity are described in **Table 7.4-13**..

Table 7.4-13 Summary of Best Management Practices and Design Features for Groundwater Quantity

Activity	Best Practice	Mitigation Hierarchy
Construction	• Minimization of Project Footprint-to preserve native vegetation and maintain groundwater recharge capacity. This best management practice will help maintain natural recharge rates.	• The site selection and project design would minimize the disturbance to groundwater sensitive or high-recharge areas.
Construction	• Routine monitoring of construction areas to verify culverts, pond inlet/outs are functioning and rectify any deficiencies or issues.	• Routine monitoring and maintenance of water management structures will be conducted to ensure proper function and minimize alterations to natural drainage and groundwater recharge.
Construction, Operations, Reclamation and Closure, and Post Closure	• Maintain site roads to reduce erosion, improve water flow and manage vegetation growth within the ditches.	• The best management practice prevents erosion, protects natural infiltration areas, and supports groundwater recharge.
Construction, Operations, Reclamation and Closure, and Post Closure	• Contact water settling ponds are designed to accommodate runoff from major storm events with sufficient retention time and freeboard to allow settling of suspended solids and associated contaminants prior to treatment or release.	• Contact water settling ponds will be sited and designed to minimize impacts to groundwater quantity by maintaining infiltration, flow patterns, and adaptive water management measures.
Closure and Post-Closure	• Restore and revegetate areas where non-permanent Project features have been removed (i.e. camp area and process area) to restore pre-mining drainage patterns through re-establishing natural infiltration and groundwater recharge processes.	• The best management practice restores the natural area by rebuilding drainage, soils, and native vegetation communities after disturbance.

The best practices and design features of the Project to reduce potential effects to groundwater quality are described in **Table 7.4-14**.

Table 7.4-14 Summary of Best Management Practices and Design Features for Groundwater Quality

Activity	Best Practice	Avoidance Measures
Construction	• Minimization of Project Footprint-to preserve native vegetation and maintain groundwater recharge capacity. This best management practice will help maintain soil and vegetation to filter and protect groundwater from surface contamination.	• The site selection and project design would minimize the disturbance to groundwater sensitive areas and existing vegetation thereby preventing contamination and protecting natural filtration processes.
Construction	• Routine monitoring of construction areas to verify culverts, pond inlet/outs are functioning and rectify any deficiencies or issues.	• Routine monitoring and maintenance of water management structures will be conducted to ensure proper function and minimizes the risk of contamination reaching groundwater.
Construction, Operations, Reclamation and Closure, and Post Closure	• Maintain site roads to reduce erosion, improve water flow and manage vegetation growth within the ditches.	• The best management practice prevents sediment transport and potentially prevents contamination before it occurs.
Construction, Operations, Reclamation and Closure, and Post Closure	• Canagold will develop and implement a ML/ARD management Plan to reduce and limit the known and potential risk of ML associated with the Project, thereby reducing potential effect to water quality	• An implemented ML/ARD management plan will identify and control potentially reactive materials, manage contact water, and monitor water quality. This will minimize or reduce the potential effects on groundwater quality.
Construction, Operations, Reclamation and Closure, and Post Closure	• Contact water settling ponds are designed to accommodate runoff from major storm events with sufficient retention time and freeboard to allow settling of suspended solids and associated contaminants prior to treatment or release.	• Contact water settling ponds will be sited and designed to avoid sensitive groundwater areas and prevents or reduces the concentration of contaminants of concern from entering aquifers.
Closure and Post-Closure	• Restore and revegetate areas where non-permanent Project features have been removed (i.e. camp area and process area) to restore pre-mining drainage patterns through re-establishing natural infiltration and groundwater recharge processes.	• The best management practice restores the natural area by rebuilding drainage, soils, and native vegetation communities after disturbance which will improve natural filtration, improve infiltration, and restores groundwater recharge and quality.

Mitigation Approach

Mitigation measures for the Project are based on the review and consideration of BMPs, regulatory and guidance documents, and mitigation measures successfully employed for similar projects. The selection of mitigation options appropriate to the Project was assisted through consideration of the "Procedures for Mitigating Impacts on Environmental Values" (Environmental Mitigation Procedures; ENV, 2014a).

Mitigation Measures for Groundwater Quantity

Groundwater quantity mitigation measures were developed using several sources including existing site conditions, regional conditions, best management practices, industry standards, reliable technologies, and professional experience. Assessments were made based on the current conditions at the site and the anticipated effects on groundwater quantity. The sources listed above were then used to determine the best mitigation measure to minimize or remove potential impacts to groundwater at the site

The primary effects of the Project on groundwater quantity are due to existing mine dewatering during the construction phase and dewatering of the proposed new mine during the operations phase. Measurable groundwater quantity effects due to the construction and operation of the CSF are not expected. The dewatering effects of the project are predicted to reduce baseflow to Kitchen Slough and Whitewater Creek. Minimum flow rates required will be based on fish and habitat needs, further discussed in Section 7.5.

As a result of groundwater (and surface water) modelling and design iterations, the following mitigations have been incorporated into the design of the project and/or are proposed to avoid or reduce the Project related effects on groundwater quantity:

- Diversion of Taaltsuxéi Héen-bound creeks in the CSF area to Kitchen Slough
- Restrict withdrawal of water from Whitewater Creek and Kitchen Slough for process makeup water by acquiring water from the Taaltsuxéi Héen, and
- Staged dewatering of the existing mine to moderate withdrawal rates over time, delaying effects and minimizing the period of time the effects on groundwater quantity are induced.

Mitigation Measures for Groundwater Quality

Groundwater quality mitigation measures were developed using several sources including existing site conditions, regional conditions, best management practices, industry standards, reliable technologies, and professional experience. Assessments were made based on the current conditions at the site and the anticipated effects on groundwater quality. The sources listed above were then used to determine the best mitigation measures for potential effects to groundwater at the site.

BMP and design features to protect groundwater quality were developed to address the primary potential effects identified in **Section 7.4.1.7** including:

- Seepage of contact water from the CSF.
- Seepage of contact water from the new mine waste rock stockpiles.
- Sediment mobilization and contaminant runoff from land clearing and ground disturbance during construction.
- Migration of solutes from the existing mine and the new mine.
- Mobilization of solutes from legacy tailings and waste rock.

As a result of several groundwater (and surface water) modelling iterations, the following mitigation have been incorporated into the design of the project and/or are proposed to avoid or reduce Project related effects on groundwater quality:

- Contact water from the CSF will be captured by collection ditches, an overdrain within the facility to collect infiltrating precipitation, and settling ponds
- Capping of the CSF at closure with a liner to reduce infiltration and the resulting contact water leakage from within the CSF to groundwater
- Installation of a composite liner under the CSF to reduce seepage of contact water into the groundwater system
- Canagold will decommission proposed mine portals and any infrastructure / boreholes linking the mine to the surface during operation and closure to minimize post-closure seepage from the proposed new mine.
- The historically mined-out crown pillar openings (MOCPOs) up slope will be sealed to reduce percolation into the historical mine.
- Canagold will plug new vent raises upon decommissioning of the proposed project.
- Contact water from waste rock stockpiles will be captured by collection ditches and settling ponds for treatment
- An Erosion and Sedimentation Control (ESC) Plan will be developed and implemented
- Spill management systems will be developed and implemented.

Effectiveness and Uncertainty for Mitigation

Effectiveness of mitigation measures is categorized by the following criteria:

- Low: measure unlikely to result in effect reduction
- Medium: measure has a proven track record of partially reducing effects
- High: measure has documented success (e.g., industry standard; use in similar projects) in substantial effect reduction or elimination.

Uncertainty is identified for each mitigation measure and will categorize the likelihood of success when the mitigation measure is applied. Uncertainty will be categorized according to the following criteria:

- Low: proposed measure has been successfully applied in similar situations
- Medium: proposed measure has been successfully implemented, but perhaps not in a directly comparable situation
- High: proposed measure is experimental or has not been applied in similar circumstances.

The anticipated effectiveness of mitigation measures to minimize the potential for effects to Groundwater has been evaluated and classified according to the methods described in Chapter 6. Mitigation measures are categorized for effectiveness in eliminating or reducing potential effects. If a mitigation measure will eliminate a potential effect and no potential residual effect is identified, then the effect is not carried forward for further analysis. If a mitigation measure is not expected to eliminate an effect, a residual effect is identified and carried forward for further analysis (i.e., characterization of the negative effect).

Table 7.4-15 summarizes the proposed mitigation measures and the effectiveness, uncertainty, and any residual effects that may occur if they are implemented.

Mitigation Measures Description

The description of mitigation measures and their anticipated effectiveness is summarized in **Table 7.4-15**.

Table 7.4-15 Proposed Mitigation Measures and Their Effectiveness – Groundwater

Project Phase	Valued Component/ Subcomponent	Project Effects	Mitigation Measure	Effectiveness	Uncertainty	Residual Effect
Site Preparation and Construction	Groundwater Quantity	• Drawdown in nearby monitoring wells • Decrease in baseflow to surface water bodies • Alterations to recharge • Alterations to hydraulic gradient	Diversion of Taaltsuxéi Héen-bound creeks in the CSF area to Kitchen Slough	Medium to High	Low - Medium	Yes
			Staged dewatering of the existing mine to delay dewatering effects for as long as practical	Low to Medium	Medium	Yes
			Restrict abstraction of water from Whitewater Creek and Kitchen Slough for purposes such as process makeup or potable water supply by acquiring other sources such as the Taaltsuxéi Héen	High	Low	Yes
			Staged dewatering of the existing mine to delay dewatering effects for as long as practical	Low to Medium	Medium	Yes
	Groundwater Quality	• Alterations to groundwater chemistry	Containment of construction runoff	High	Low	No
Operations	Groundwater Quantity	• Drawdown in nearby monitoring wells • Decrease in baseflow to surface water bodies • Alterations to recharge • Alterations to hydraulic gradient	Staged dewatering of the existing mine to delay dewatering effects for as long as practical	Low to Medium	Medium	Yes
			Diversion of Taaltsuxéi Héen-bound creeks in the CSF area to Kitchen Slough	Medium to High	Low to Medium	Yes
	Groundwater Quality	• Alterations to groundwater chemistry	Contact water from waste rock stockpiles will be captured by collection ditches and settling ponds for treatment	High	Low to Medium	No
			Contact water from the CSF will be captured by collection ditches, an overdrain within the facility to collect infiltrating precipitation, and settling ponds	High	Medium	No
			Active water treatment and clean water diversion	High	Low	No

Project Phase	Valued Component/ Subcomponent	Project Effects	Mitigation Measure	Effectiveness	Uncertainty	Residual Effect
Reclamation and Closure	Groundwater Quantity	• Alterations to baseflow patterns to surface water bodies • Alterations to recharge • Alterations to hydraulic gradient	Gradual dewatering cessation	Medium	Medium	Yes
			Natural drainage patterns restoration through riparian re-vegetation	Medium	Medium	No
	Groundwater Quality	• Alterations to groundwater chemistry	Capping of the CSF with a liner	High	Low	Yes
			Canagold will install a composite liner system for the CSF, which will reduce leachate during operation and post-closure to acceptable concentrations. As water modelling work progresses to support detailed design of the CSF, Canagold will revisit the liner system to ensure it is sufficient to protect the encapsulated tailings from harming the environment throughout the project life cycle.	High	Low	Yes
			Construction of passive treatment systems and use, if needed	Medium to High	Medium	No
			Contact water from the CSF will be captured by collection ditches, an overdrain within the facility to collect infiltrating precipitation, and settling ponds	High	Low	Yes
			Canagold will decommission proposed mine portals and any infrastructure / boreholes linking the mine to the surface during operation and closure.	Medium	Medium	Yes
			Canagold will plug new vent raises upon decommissioning of the proposed project.	Medium	Medium	Yes
			The historically mined-out crown pillar openings (MOCPOs) up slope will be sealed to reduce percolation into the historical mine	Medium	Medium	Yes
Post Closure	Groundwater Quantity	• None	--	--	--	--
	Groundwater Quality	• Alterations to groundwater chemistry	Capping of the CSF with a liner	High	Low	Yes
			Composite bottom liner for the CSF	High	Low	Yes
			Contact water from the CSF will be captured by collection ditches, an overdrain within the facility to collect infiltrating precipitation, and settling ponds	High	Low	Yes

7.4.2.4 Positive Effects Assessment

As described in **Appendices 7.4-6** and **7.4-4**, groundwater seeping from the existing mine through the Polaris Portal has concentrations of total and dissolved arsenic, antimony, and nickel, and dissolved copper that exceed the BC Water Quality guidelines. It is understood that mine water from the existing mine flows out of the mine and into the overlying overburden aquifer and ultimately to surface water bodies through the Polaris Portal, legacy drillholes and bedrock fractures. The predicted positive effect within the Construction phase of the Project is the cessation of flows from the existing mine due to dewatering. Discharge from the Polaris Portal, currently discharging via overland flow to Whitewater Creek, will cease. As well, artesian flows from suspected exploration drillholes will be reduced as the water level in the existing mine declines over the construction period and groundwater in bedrock is increasingly captured by the drawdown of the mine dewatering. With the decline in flow of mine water, groundwater quality will potentially improve and in turn, surface water quality in Whitewater Creek will also potentially improve.

During the Operations Phase of the Project, the positive effects to groundwater quality as a result of dewatering will continue. This positive effect will continue until the combined existing and new mines refill to an elevation similar to natural groundwater elevations in the vicinity of Whitewater Creek at closure. During post-closure, after the existing and new mines have flooded and existing groundwater flow patterns are generally re-established, mine water will resume seepage into the overburden aquifer. The mass-flux of solutes during post-closure will likely be higher than baseline mass-flux due to the increased mine volume, however, the effect of plugging of shafts and drillholes that intersect the mines may decrease this effect.

During the Construction and Closure phases of the Project, legacy tailings and waste rock will be managed. As a result, metal leaching from legacy tailings and waste rock at the Site will likely be reduced. This will potentially result in an improvement in groundwater quality at the Site.

7.4.2.5 Negative Residual Effects Assessment

Summary of Residual Effects

The application of mitigation measures is anticipated to reduce but not eliminate effects to Groundwater from the Project. The residual effects for Groundwater after application of mitigation measures are:

- Reduction of groundwater recharge smaller infiltration area.
- Elevation of solute concentrations in groundwater following flooding of the existing and new mines during post-closure.
- Mobilization of legacy contaminants into groundwater due to disturbance of legacy tailings and waste rock during construction and removal.
- Seepage of contact water from the CSF during post-closure.
- Potential for groundwater drawdown and a resulting decrease in groundwater baseflows to Kitchen Slough and Whitewater Creek during the construction and operations phases of the Project.

Methods

Potential residual effects to groundwater quantity were identified using:

- Numerical groundwater modelling to identify groundwater drawdown and baseflow losses during the construction and operations phases of the Project

Potential residual effects to groundwater quality were identified using:

- Numerical groundwater modelling to identify the post-closure migration of contact water leakage from the CSF and the migration of solutes from the flooded existing and new mines
- Baseline groundwater quality data from the LAA and RAA as well as solute transport modelling results from the numerical groundwater model were used as inputs to the surface water quality modelling to identify residual effects of the Project to surface water quality

Residual Effects Criteria

The characterization of potential residual effects was based on several criteria including direction, magnitude, geographic extent, duration, reversibility, frequency, and risk and uncertainty (likelihood and consequence). These criteria are defined for Groundwater in **Table 7.4-16**.

Table 7.4-16 Residual Effects Criteria Groundwater

Criteria	Characterization
Direction	**Positive** – a residual effect that moves measurable parameters in a direction beneficial to communities relative to baseline. **Adverse** – a residual effect that moves measurable parameters in a direction detrimental to communities relative to baseline. **Neutral** – no net change in measurable parameters for the communities relative to existing conditions.
Context	**Low** – Low vulnerability (i.e. high resiliency) of affected population(s) or ecological system to anthropogenic change from an environmental, economic, social, cultural and/or human health perspective. Project effects at a local level are unlikely to destabilize the affected population(s) or ecological system at the regional scale. **Neutral** – Moderate vulnerability (i.e. somewhat resilient) of affected population(s) or ecological system to anthropogenic change from an environmental, economic, social, cultural and/or human health perspective. Project effects at a local level are unlikely to destabilize the affected population(s) or ecological system at the regional scale. **High** – High vulnerability (i.e. low resiliency) of affected population(s) or ecological system to anthropogenic change from an environmental, economic, social, cultural and/or human health perspective. Project effects at a local level may destabilize the affected population(s) or ecological system at the regional scale.
Magnitude	**Negligible** - no detectable change from existing conditions. **Low** - the potential residual effect will slightly alter or change the VC without changing its role or function. **Medium** - the potential residual effect will alter or change the nature, role, or function of a VC but will not affect its integrity. **High** - the potential residual effect will substantially alter or change the nature, role, or function of a VC and may jeopardize the VC's integrity.
Extent	**Limited** – residual effects are restricted to the Project Footprint. **Local** – residual effects extend into the LAA. **Regional** – residual effects extend into the RAA. **Beyond Regional** – residual effects extend beyond the RAA.
Duration	**Short-term** – the residual effect will be felt temporarily during the Project's construction or closure stages only. Also applies to any effect that will occur for less than two years in operations. **Medium-term** – the residual effect will be felt for a limited period of time greater than two years, generally corresponding to the operations phase and closure phase. **Long-term** – the residual effect extends beyond Project closure.

Criteria	Characterization
Frequency	**Once** – occurs once. **Irregular** – occurs at sporadic intervals. **Regular** – occurs at regular intervals. **Continuous** – occurs constantly.
Reversibility	**Reversible** – the VC is likely to return to its pre-Project state after activity completion and reclamation. **Irreversible** – the VC is unlikely to return to its pre-Project state.
Importance	**Low** – Predicted project effect on the valued component or subcomponent has not been identified as being of interest/priority to affected stakeholders. **Moderate -** Predicted project effect on the valued component or subcomponent has been identified as being of interest to affected stakeholders, with special consideration for Indigenous nations, but not stated as top interest. **High -** Predicted project effect on the valued component or subcomponent has been identified repeatedly as a top interest to affected stakeholders, with special consideration to affected Indigenous nations.

Risk and Uncertainty

For the purposes of this assessment, the likelihood and consequences of a potential residual effect occurring are described as risk. Likelihood is the probability of an event occurring and can be influenced by many factors. For the purposes of this assessment, likelihood is rated as low, moderate or high, using the rating definitions provided in Section 7.5.10.1. Consequence can be assessed as minor, moderate, or major (Chapter 6, Table 6-3) based on the combination of magnitude and extent of the residual effect.

Confidence

Many types of uncertainty are relevant to assessing whether an effect will occur and the implications of the effect. Uncertainty in the assessment is to be expected, particularly when predicting outcomes in complex physical, biological, and human systems. The assessment includes a characterization of uncertainty and level of confidence in the predicted potential residual effects. Confidence is a measure of how well potential residual effects are understood and the quality of the input data. It considers the level of uncertainty associated with the residual effects assessment. The following are considered in the determination of confidence in the residual effects assessment for vegetation:

- Reliability of data inputs and analytical methods used to predict Project effects
- Confidence regarding the effectiveness of mitigation measures
- Certainty of the predicted outcome
- Confidence ratings and definitions as described in **Section 7.4.1.3**.

Potential Residual Effects

Groundwater Quantity Changes

Residual Effect Analysis

Residual effects to groundwater quantity may occur through:

- Temporary or permanent changes to land cover which may change infiltration patterns and affect recharge
- Temporary or permanent changes to surface water drainage patterns that may affect groundwater levels, and
- Dewatering of the existing and new mines during construction and operations phases may reduce groundwater baseflows to Kitchen Slough and Whitewater Creek.

Residual Effect Characterization

The residual effect to groundwater quantity is characterized in **Table 7.4-17** below

Table 7.4-17 Residual Effect Characterization for Groundwater Quantity

Criteria	Characterization	Rationale
Direction	Adverse	Groundwater quantity changes may occur relative to baseline conditions due to dewatering of the existing and new mines. The primary result is a potential loss of groundwater baseflow to surface water bodies.
Context	Moderate	Groundwater is regionally important. Groundwater is also predicted to be somewhat resilient to the anticipated anthropogenic activities and levels have the potential to return to baseline conditions following site closure if mitigation plans are implemented.
Magnitude	Moderate	Changes to groundwater quantity may be measurable in terms of groundwater baseflows to surface water bodies and groundwater elevations, but should not pose serious risk to mine activities.
Geographic Extent	Local	Effects limited to LAA.
Duration	Medium-term	Effects will occur primarily during construction and operations when mine dewatering occurs. Effects will diminish following dewatering cessation at closure and are generally expected to return to baseline during post-closure.
Frequency	Continuous	Effects associated with mine dewatering and will occur increasingly until cessation of dewatering.
Reversibility	Reversible	Groundwater levels and baseflows to surface water bodies are generally expected to return to baseline following cessation of mine dewatering.
Importance	Moderate	Groundwater in the LAA is a valued component primarily due to its interconnection with surface water bodies, but also to human health if it is used for drinking water.

Likelihood, Risk, Uncertainty and Confidence

The assessment of the likelihood for groundwater quantity changes is presented in **Table 7.4-18** below.

Table 7.4-18 Likelihood, Risk and Uncertainty Characterization for Groundwater Quantity

Criteria	Characterization	Rationale
Likelihood	High	Mitigation measures may reduce effects to acceptable levels during critical periods, particularly groundwater baseflow to surface water body effects during seasonal low flow periods. However, the effect is likely to be measurable during operations until after dewatering ceases.
Consequence	Minor	As the loss of groundwater quantity is of medium magnitude and local extent, the consequence is rated as minor.
Risk	Low	Based on the risk matrix (Table 6-4), High likelihood and Minor consequence correspond to Low risk.
Confidence	Low to Moderate	The numerical modelling suggests a high likelihood of dewatering effects on groundwater levels and baseflows to surface water bodies, however, due to the nature of the steady-state modelling completed, the extent of the effects during the construction and operations phases of the Project are uncertain.

Groundwater Quality Changes

Residual Effect Analysis

Residual effects to groundwater quality may occur through:

- Potential for seepage of contact water from the CSF to occur during post-closure, and
- Potential for plume migration from the existing mine and proposed new mine.

Mitigation measures include:

- Low permeability cover on the CSF
- Backfilling of the proposed new mine with plugs in the shafts, and
- Routine monitoring, trigger-levels and response plans.

Residual Effect Characterization

The residual effect to groundwater quality is characterized in **Table 7.4-19** below

Table 7.4-19 Residual Effect Characterization for Groundwater Quality

Criteria	Characterization	Rationale
Direction	Adverse	Groundwater quality changes may occur relative to baseline conditions during post-closure due to migration of solutes from the CSF and the flooded mines. The elevation of contaminants of concern may cause negative effects to sensitive ecological receptors discussed in Section 7.5.
Context	Moderate	Groundwater is currently affected by legacy mining effects from the existing mine and legacy waste rock and tailings at the Site. During post-closure, additional effects may be present from the new mine in addition to the existing mine. Seepage of contact water from the CSF may also elevate chemical parameters in groundwater.
Magnitude	Low	It is expected that the Project will affect groundwater quality during post-closure. The resulting effects to surface water bodies are discussed in Section 7.4.2 Surface Water.
Geographic Extent	Local	Effects limited to the LAA, specifically Whitewater Creek and Kitchen Slough.
Duration	Long-term	The primary negative residual effect to groundwater quality will occur during post-closure.
Frequency	Continuous	Effects due to contact water leakage form the CSF and migration of solutes from the existing and new mines during post-closure.
Reversibility	Partially reversible	Groundwater quality effects will occur during post-closure due to seepage of contact water from the CSF and the migration of solutes from the flooded existing and new mines. Long-term, the source concentrations in the new mine and the CSF may decline and groundwater quality may return to baseline conditions.
Importance	Moderate	Groundwater quality is important to ecological receptors in surface water and potentially human health if used for drinking water supply.

Likelihood, Risk, Uncertainty and Confidence

The assessment of the likelihood, risk and uncertainty for groundwater quality is presented in **Table 7.4-20** below.

Table 7.4-20 Likelihood, Risk and Uncertainty Characterization for Groundwater Quality

Criteria	Characterization	Rationale
Likelihood	Medium to High	Migration of solutes from the flooded mines and leakage of contact water from the CSF are expected. Mitigations such as plugging of shafts and boreholes may reduce seepage of mine from the existing mine in post-closure, which may decrease the effect.
Consequence	Minor	The effect is local and of low magnitude.
Risk	Low	The effect is of medium to high likelihood and minor consequence.
Confidence	Low to Moderate	The effectiveness of plugging of shafts and drillholes intersecting the existing mine is uncertain. The effect of backfilling of the new mine on groundwater flow through the new mine is also uncertain.

Importance of Groundwater

The mitigation of residual effects to groundwater quantity and quality are important because water is legally protected under the *WSA* (Government of BC 2026). It is required to protect water resources and the groundwater users. The protection of groundwater also has effects on surface water bodies as the groundwater in the LAA is hydraulically connected to the Taaltsuxéi Héen' and its tributaries. Drawdown can potentially reduce baseflows to hydraulically connected surface water bodies. The alteration of groundwater chemistry can directly impact human health and ecological sustainability.

Groundwater has the potential to be used as drinking water and support traditional harvesting areas, wetlands, and fish-bearing water. The protection of groundwater resources is integral to supporting First Nation rights to land access and resource use and the health of the communities that may use groundwater sources in the future.

7.4.2.6 Cumulative Effects

Project residual effects described in Section 9 that are likely to interact cumulatively with residual effects from past, present, or reasonably foreseeable projects are identified in this section, and the resulting cumulative effects are assessed. This is followed by an analysis of the Project contribution to residual cumulative effects.

Cumulative effects for the groundwater valued component consider potential interactions between residual effects from the Project and those from past, present, and reasonably foreseeable future projects and activities. This assessment identifies potential overlapping effects on groundwater quantity and quality, evaluates the spatial and temporal scope of those interactions, and describe the Project's contribution to any cumulative effects under existing and future condition.

Cumulative Effects Assessment Boundaries

Cumulative effects assessment boundaries are defined as the maximum spatial and temporal scales over which there is a potential for residual Project effects to the Groundwater VC to interact with residual effects of other past, present reasonably foreseeable future projects and activities.

The spatial boundaries for Groundwater cumulative effects assessment consists of the RAA defined for the Groundwater Project-specific effects assessment (**Figure 7.4-1**).

Temporal boundaries considered for the cumulative effects assessment of the Project include:

- Present and Ongoing: initiated prior to 2025 but anticipated to carry on beyond the construction start date, and
- Planned/Reasonably Foreseeable Future: planned to start during mine life (construction – post-closure).

Project Interactions with Past, Present, and Reasonably Anticipated Future Projects

Table 7.4-21 List of Projects and Activities with Potential to Interact with Groundwater Residual Effects

Project/Activity	Temporal	Location	Proponent
Tulsequah Chief Mine Clean Up	Reasonably Foreseeable Future	6 km NE of Mine Site	Chieftain Metals
Canadian Commercial Fisheries on the Lower T'aakú Héeni (Taku River)	Past, Present, Future	RAA	Canadian Commercial Fisheries
US Commercial Fisheries on the Lower T'aakú Héeni (Taku River) (transboundary)	Present (certain)	RAA	US Commercial Fisheries
Recreational use	Present (certain)	RAA	Land users and private businesses within the RAA

Of those listed in **Table 7.4-21** as projects and activities with potential to interact with groundwater residual effects in the RAA, those listed in **Table 7.4-23** can potentially overlap with the Project residual effects. The rationale for exclusion of potential residual effects in the CEA is provided.

Table 7.4-22 Interactions with Effects of Past, Present, and Anticipated Future Projects and Activities for Groundwater Residual Effects

Project Phase and Activity	Changes to groundwater quantity	Changes to groundwater quality	Comments
Tulsequah Chief Mine	No	Yes	Potential positive effects to groundwater quality and quantity through the legacy mine site clean up project.
Commercial Fisheries	No	Yes	Potential for the indirect disruption of fish spawning or migration conditions from Kitchen Slough or Whitewater Creek due potential for toxicity to fish and aquatic vertebrates through contaminant mobilization.
Recreational Use	No	Yes	Potential effects to groundwater quality through increased anthropogenic presence and activity.

Existing Conditions

As the Cumulative Effect Assessment Area is identical to the Groundwater RAA, there are no differences for existing conditions for cumulative effects compared to the Existing Conditions section.

Potential Positive Cumulative Effects

The interaction with the Tulsequah Chief Mine Clean Up Project has potentially positive effects to groundwater quality and quantity in the RAA. This historical mining impact clean-up project is a collaborative effort involving the Province of British Columbia, the Taku River Tlingit First Nation, and Teck Resources. The cleanup is anticipated to result in a positive effect on water quality in the RAA because it currently represents a credible plan to address the most severe pollution from historical mining activity in the Taku Watershed. It is considered a positive effect as it includes the following components:

- Enforcement of environmental mining requirements: The Province has issued advisories and warnings to the site owners, Chieftain Metals Inc., to ensure compliance with environmental standards.
- Developing a conceptual plan for clean-up: this plan outlines options for how to address the contaminated water entering the Taaltsuxéi Héen.
- Monitoring water quality and aquatic ecosystems: comprehensive monitoring is conducted to assess the extent of environmental impacts and track conditions over time.
- Identifying locations for plugs to prevent future discharge: This step is part of the long-term solution for managing the acid-mine drainage. The timeline for remedial completion is expected to be within the next decade, contingent on the implementation of the cleanup plan.

Potential Adverse Cumulative Effects

Potential adverse cumulative effects are potential negative effects that are observable or measurable changes to the groundwater systems within the RAA. These changes can be caused directly or indirectly by compounding activities in the RAA. Potential adverse cumulative effects to groundwater quality are assessed below.

Groundwater Quality

Potential effects during post-closure are due to seepage of contact water from the CSF and the migration of solutes from the flooded existing and new mines. Potential cumulative effects include:

- Increased regional metal loading
- ARD risk accumulation
- Elevated salinity or total dissolved solids
- Contaminant migration along preferential pathways
- Increased chances of metal contaminant mobilization under changing redox conditions
- Reduced dilution capacity under climate-driven low recharge.

The cumulative effects on groundwater quality result from the collective impact of industrial and natural processes, which can lead to increased regional metal loading and an increased risk of ARD accumulation. These stressors often cause increased concentrations of total dissolved solids, in the aquifer. Groundwater constituents can migrate rapidly through preferential pathways, while shifting environmental factors—such as fluctuating water levels—can trigger the mobilization of metals by altering sensitive redox conditions. Furthermore, climate-driven low recharge reduces the system's natural dilution capacity, making the groundwater more vulnerable to contaminants over time.

The cumulative effects to surface water are discussed in Section 7.4.3 and the indirect cumulative effects to fish and aquatic vertebrates are assessed in Section 7.5 Aquatic and Marine Resources.

Mitigation Measures

Effective mitigation of cumulative groundwater impacts necessitates an integrated approach combining hydrogeological engineering and vegetation management to curtail the spatial extent and intensity of regional changes to water quality. Central to this is the execution of a comprehensive Water Management Plan that utilizes hydraulic diversions to isolate contact water from disturbed areas, routing it to sedimentation basins while restoring natural drainage via riparian bio-reclamation. Active operations must be supported by high-frequency groundwater monitoring and adaptive management protocols to provide real-time feedback loops for impact mitigation. Long-term stabilization is achieved through stringent source-control engineering, specifically the application of low-permeability liners for facility capping and the installation of mechanical plugs in shafts to eliminate post-closure seepage. Furthermore, the containment of construction-phase runoff is critical to prevent fine-sediment infiltration, while the treatment of both contact and legacy-impacted water reduces the regional mobilization of contaminants of concern. The most effective mitigation strategies to reduce cumulative effects on Groundwater include:

- Remediation of legacy contamination: The cleanup of abandoned sites, is a primary mitigation goal to stop the ongoing discharge of Acid Mine Drainage (AMD) and heavy metals into the Taaltsuxéi Héen and T'aakú Héeni.
- Land Use Zoning & Protected Areas: The Wóoshtin wudidaa Atlin Taku Land Use Plan and the T'akú Indigenous Protected and Conserved Area (IPCA) aim to protect 60% of the watershed. By prohibiting extractive development in critical salmon sub-watersheds, these plans preserve natural recharge zones and prevent new cumulative stressors.
- Enhanced Monitoring Networks: Collaborative programs between the Taku River Tlingit First Nation (TRTFN), British Columbia, and Alaska utilize hydrometric stations and water quality sampling to track long-term trends in metal loading (e.g., arsenic, selenium) and climate-driven changes in baseflow.

Characterization of Residual Cumulative Effects

Groundwater Quality Changes

The residual cumulative effect to Groundwater Quality Changes is characterized in **Table 7.4-23** below

Table 7.4-23 Residual Cumulative Effect Characterization for Groundwater Quality

Criteria	Characterization	Rationale
Direction	Adverse	Residual effects to groundwater qualitycan occur from multiple anthropogenic activities.
Context	Moderate	The RAA includes other activities affecting groundwater quality, but ecological systems have resilience and capacity to dissipate these effects.
Magnitude	Low	Cumulative activities have the potential to represent a measurable change to groundwater quality.
Geographic Extent	Local	Cumulative effects would occur within portions of the RAA.
Duration	Long-term	Effects may persist into post-closure.
Frequency	Continuous	Effects are expected to occur constantly.
Reversibility	Partially Reversible	The cumulative effects to groundwater quality are are expected to improve by addressing of historical mining impacts at the Polaris-Taku mine site, and over time with as a result of the TCM cleanup.
Importance	Moderate	Groundwater quality is a valued environmental component with ecological, cultural, and regulatory significance; cumulative incremental changes, even if limited, warrant careful management.

Likelihood, Risk, Confidence and Uncertainty of Adverse Cumulative Effects

The assessment of the likelihood, risk and uncertainty for Groundwater Quality Changes is presented in **Table 7.4-24** below.

Table 7.4-24 Likelihood, Risk and Uncertainty Characterization for Cumulative Effects to Groundwater Quality

Criteria	Characterization	Rationale
Likelihood	Moderate	Based on overlap between project residual effects and other regional activities.
Consequence	Minor	Combined activities could influence groundwater quality but not beyond regulatory thresholds.
Risk	Low	Based on the likelihood and consequences of combined effects.
Confidence	Low-Moderate	Based on available data and understanding; uncertainty exists due to existing conditions and Project design assumptions. The effectiveness of plugging shafts and drillholes intersecting the existing mine is uncertain. The effect of backfilling of the new mine on groundwater flow through the new mine is also uncertain. The TCM cleanup is assumed to proceed and be successful.

7.4.2.7 Monitoring and Follow-Up

A comprehensive Groundwater Quantity and Quality Monitoring and Sampling Program will be implemented to evaluate the effectiveness of mitigation measures described in this section, verify the accuracy of the predictions made in the effects and cumulative effects assessments, and support adaptive management throughout the life of the Project.

The objective of the monitoring and follow up program is to:

- Confirm that groundwater quality is consistent with predicted conditions following implementation of mitigation measures.
- Assess whether mitigation measures are achieving their intended performance in reducing or eliminating adverse effects.
- Detect any unexpected changes in groundwater quality in a timely manner; and
- Provide data to support adaptive management, updates to mitigation plans, and regulatory compliance reporting.

The monitoring program will include the following key components:

Groundwater Quantity and Quality Monitoring

Monitoring activities will consist of routine and event-based sampling of the Townsite, CSF, and Airstrip and River Transport Landing Area.

Groundwater quantity monitoring will include:

- Groundwater levels
- Monitoring of groundwater baseflow to Whitewater Creek and Kitchen Slough.

Groundwater quality monitoring will include:

- **Field indicators**: temperature, pH, conductivity, dissolved oxygen, turbidity, and suspended solids
- **Chemical Indicators**: major ions, nutrients (e.g., nitrate, phosphorus), and metals (total and dissolved), including those identified as COIs in the effects assessment.

Monitoring will be conducted in accordance with the applicable regulatory requirements and best available scientific methods, including relevant provincial and federal guidelines.

Verification of Predictions and Mitigation Effectiveness

Data collected through the monitoring program will be compared to baseline conditions, model predictions, and regulatory standards to verify the accuracy of effects predictions.

The program will specifically assess:

- Whether constituent concentrations in groundwater are consistent with modelling predictions and site-specific regulatory requirements
- Whether mitigation measures such as surface water diversions to mitigate flow losses are performing as intended, and
- If groundwater level drawdown exceeds modelling predictions.

Adaptive Management and Plan Updating

The monitoring and follow-up program will incorporate an adaptive management framework whereby:

- Monitoring results trigger evaluations of mitigation performance
- Action levels and response triggers are established for key water chemistry concentrations and groundwater levels
- Mitigation plans and monitoring frequencies are updated based on observed trends, new scientific methods, changes in regulatory requirements, and best management practices, and
- Improvements in data quality, analytical methods, or predictive understanding are incorporated into ongoing assessment and management.

The adaptive process will help ensure the monitoring program remains responsive and effective throughout all Project phases, from construction through post-closure.

Consultation and Engagement

Ongoing consultation and involvement with interested parties will be integral to the monitoring and follow-up program and will include:

- Engagement with Indigenous Nations to guide monitoring design, interpretation, and reporting
- Communication of monitoring results to regulators, local governments, and other stakeholders, and
- Opportunities for community participation in monitoring program review and annual reporting.

TK and community inputs will be considered in the refinement of monitoring locations, indicators, and adaptive responses. The monitoring and follow-up program will be described in detail in a Groundwater Monitoring Plan prepared in consultation with regulators and Indigenous partners prior to Project initiation.

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Section 7.4 – Water Resources

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Appendices

7.4.2 Surface Water

7.4.2.1 Existing Conditions

This section provides a characterization of current baseline conditions within the spatial boundaries defined in Section 7.4.1.4. This includes an overview of regional and historical activities on the VC, leading to the existing conditions. Understanding these conditions is key for adequately predicting the potential Project effects.

Information Sources

Table 7.4.2-1 summarizes the surface water work conducted at Site and the resulting reports. The reports indicate that field studies at the Project have been intermittently conducted from 1997 – 2025, historically surface water sampling and flow monitoring was completed in tandem and in collaboration with the hydrogeology field program. For further information refer to the New Polaris – Surface Water Existing Conditions Report (Ausenco 2026) and the 2025 Water Quality Baseline Report (Ausenco 2026).

Table 7.4.2-1 Summary of Historical Surface Water Studies Conducted at Site

Title	Summary of Relevant Work Completed	Reference
New Polaris Technical Report	• Initial water level and discharge (flow) monitoring within Whitewater Creek was conducted by Gartner Lee	Gartner Lee Ltd. 2007
New Polaris Project – Surface Water Existing Conditions Report	• The purpose of the baseline study was to characterize the surface water resource in the vicinity of the proposed mining operations in terms of surface water flow. • Nine monitoring locations, three of which were established with loggers to monitoring stage. Site visits were conducted between May 2021 and June 2022. • The monitoring program was extended from September 2023 onward and additional monitoring was added for the proposed hydro electric facility.	Ausenco 2026
Water Quality Existing Conditions Report	• The purpose of the baseline study was to characterize water quality in the vicinity of the proposed Project through quarterly monitoring of a series of surface and groundwater locations beginning in 2021 and continuing to present.	Ausenco 2026
Legacy Mine Waste Geochemistry Assessment	• The purpose of the study was to evaluate the metal leaching and acid generating potential of historical mine wastes including tailings and waste rock.	Ausenco 2026

Regional Overview and Historical Activities

Regional Overview

Regional water quality data indicate that, like many glacial-fed systems, natural watershed processes influence constituents in both the Taaltsuxéi Héen and T'aakú Héeni. Historical studies have documented median and maximum concentration of dissolved and total metals, and studies downstream of the legacy mines such as Tulsequah Chief Mine have identified elevated metal concentrations relative to background conditions in portions of the Taaltsuxéi Héen and, to a lesser extent, in downstream reaches of the T'aakú Héeni.

Within the RAA, surface water quality is influenced by variable geologic substrates, glacial and snowmelt inputs, seasonal flow regimes, and historic mining and land uses. Although mining and other land uses have historically contributed to localized water quality influences, broad monitoring efforts indicate that many regional river reaches maintain circumneutral pH and conductivity ranges typical of northern pacified drainages, and constituent levels that vary with hydrologic conditions and watershed inputs. Monitoring data from RAA stations upstream and downstream of key tributaries provide regional context for background water quality and help assess the potential reach of Project effects relative to broader watershed conditions.

Historical Activities

The New Polaris project site (the 'Site') incorporates the historic Polaris-Taku underground mine, which was operational from 1937 to 1941, and from 1947 to 1951 and produced gold. Currently the mine workings are flooded with drainage occurring through a system of adits. Residual mine rock and tailings are located across the site. At the end of operations, the Polaris-Taku mill was used for processing copper-lead-zinc-gold ore from the nearby Tulsequah Chief mine.

The RAA also contains legacy mining sites, including the Tulsequah Chief Mine and the Big Bull Mine which operated between 1951 and 1957.

Methods and Existing Data

Given the historical underground mining methods and limited production duration, the quantity of legacy wastes located at the site are limited. The legacy waste geochemistry assessment targeted all known wastes (i.e. tailings, waste rock, ore) and addressed multiple areas of the site (e.g. plant site pad, former crusher area, former airstrip and mine roads). Sampling was carried out using test pits to access sub-surface materials.

Prior data and information on the metal leaching / acid rock drainage (ML/ARD) risk from legacy mine wastes was lacking. Hence, a total of 16 composite waste rock samples were collected for laboratory analysis. Thirteen legacy tailings samples were sourced from stored samples left over from Canagold's 2024 legacy tailings field investigation. All legacy waste rock and tailings samples contained relatively low sulphur and were classified as Non-Potentially Acid Generating (NPAG) (Ausenco 2023, **Appendix 7.4-8**).

Three out of five legacy mine rock samples collected in 2021 were predicted to be potentially acid generating (PAG) and susceptible to leaching arsenic, antimony, cadmium, copper, lead and zinc based on static and kinetic test results (Ausenco, 2023, Appendix 7.4-8). Subsequently it was concluded that these samples were likely residual ore from the Tulsequah Chief mine i.e. not representative of future mine rock from the Project.

A geochemical characterization program was carried out to evaluate the ML/ARD risk associated with mined rock and tailings generated by the Project. This work included collection of 15 drill core samples from the C-Vein, 17 low-grade ore samples, 25 drill core waste rock samples, five historic mine rock samples and one flotation tailings sample. Samples were submitted for a range of static and kinetic tests (Ausenco, 2023, **Appendix 7.4-8**).

Existing Conditions Characterization

ML/ARD Risk from Legacy Mine Wastes

Legacy wastes were found to be at risk of leaching selected metals, which is consistent with the results of baseline water quality monitoring. The solid phase lead, copper and zinc content in legacy materials and the observed short-term leaching risk suggested the presence of tailings and ore materials on site from nearby Tulsequah Chief mine. This would be consistent with the Polaris-Taku mill historically being used to process ore from Tulsequah Chief.

Antimony was found to rapidly leach from fresh waste rock (drill core) during laboratory testing. An elevated risk of antimony leaching from legacy waste rock and tailings was not observed after several decades of weathering on site. This suggests that the potential risk of antimony leaching from mine wastes is more of a short to medium-term issue with respect to mine closure timelines.

The presence of elevated arsenic, copper and zinc in surface waters downstream of the site may be indicative of ongoing impacts from legacy mine wastes present at the site. This conclusion may be tempered by the possibility of groundwater inputs to surface waters, since groundwater also displays mine impact signatures that may be associated with the flooded underground.

ML/ARD Risk from Mine Rock and Tailings

All low-grade ore and waste rock drill core samples were classified as NPAG. All tailings and mine rock samples contained elevated solid-phase arsenic and antimony concentrations, with a risk of leaching under circum-neutral pH conditions. This conclusion is supported by the presence of elevated arsenic, and to a lesser extent antimony, in portal water samples. Humidity cell testing conducted on flotation tailings indicated leaching of arsenic, antimony, molybdenum, cadmium, cobalt, copper, nickel, and zinc.

Surface Water Quality Conditions

Baseline surface water quality in the Project area was characterized to describe current conditions upstream and downstream of the historical Polaris mine site and to support subsequent effects assessment. Data from systematic sampling conducted between December 2020 and October 2025 were accessed in the context of historical monitoring records from 2006-2007 and 2015, using the same monitoring stations, to evaluate long-term trends and the influence of historical mining activities on water quality.

Surface water quality was accessed in Whitewater Creek, tributaries including Sawmill Creek, Canyon Creek, Kitchen Slough, and Unnamed Creek, as well as in the Taaltsuxéi Héen and downstream of the T'aakú Héeni. Monitoring locations were selected to represent reference (upstream) conditions, near-field receiving environments, and downstream conditions influenced by mine related sources.

Key Findings:

- Several water quality parameters exceed applicable BC Water Quality Guidelines for the Protection of Freshwater Aquatic Life (BC-WQG-FAL) in portions of the watershed.
- Upstream of the historic mine site and within Whitewater Creek, reference monitoring indicates that naturally elevated concentrations of some constituents (e.g., dissolved copper) occur, likely reflecting background geological conditions.

- Downstream of the historical mine area, elevated concentrations of total arsenic, dissolved zinc, and dissolved copper relative to BC-WQG-FAL were observed. These exceedances are generally most pronounced immediately downstream of historic mine operations and legacy waste deposits.
- Long-term trend analysis suggests that total arsenic concentration may be increasing, whereas dissolved zinc and dissolved copper exhibit variable trends across monitoring years, with some downstream locations showing decreasing concentrations while others remain above guideline values.
- Surface water in the Taaltsuxéi Héen downstream of the Whitewater creek exhibits mixed patterns for metal concentrations. While some parameters decrease with distance downstream, others remain elevated compared to reference upstream sites. Indicating a possible combination of dilution and persistence of legacy influences.
- At more distal locations, including the T'aakú Héeni confluence with the Taaltsuxéi Héen, constituent concentrations are generally lower and within guideline ranges, though episodic exceedances can still occur depending on hydrologic conditions and seasonal variability.

Interpretation of Existing Conditions

Existing surface water quality in the LAA is influenced by a combination of natural geochemical backgrounds, hydrological variability, and legacy mining impacts. Elevated concentrations of metals such as arsenic, copper, and zinc at downstream sites highlight the potential for water quality to vary spatially and temporally across the watershed. These observed baseline conditions underscore the importance of continued data collection to refine understanding of ambient water quality, inform selection of Constituents of Interest (COIs), and establish a robust basis for comparison with future conditions in the effects assessment. While certain metals exceed conservative screening benchmarks at some locations, available information does not indicate widespread impacts to aquatic receptors such as fish, and exceedances are generally localized.

The baseline dataset provides an integrated perspective of surface water quality prior to commencement of new mining activities associated with the Project. By linking historical and recent monitoring results, the baseline characterization supports identification of key constituents of concern, contextualizes observed exceedances relative to natural background and historic influences, and inform subsequent sections of this Assessment regarding potential Project related changes.

7.4.2.2 Potential Project Effects

Project effects can be direct or indirect. Direct effects are the result of a Project activity that has a direct effect on a VC. An indirect effect is a result of a more complex effect pathway that is not direct but rather has steps or activities a step or more away from a Project activity. Project effects can be beneficial and desirable and therefore considered ‘positive’ or adverse and undesirable and therefore considered ‘negative’. The assessment takes into consideration potential direct and indirect effects that can be either positive or negative effects, during the different phases of the Project.

This section aims to:

- Describe Project phases and associated activities, identify potential Project-VC interactions for each Project phase and activity, and determine associated potential effects to be assessed.
- Identify and evaluate mitigations and enhancement measures to effectively manage potential Project effects

Methods

Standard operating procedures were used in the collection of surface water quantity and quality data according to:

- Manual of British Columbia Hydrometric Standards (Resources Information Standards Committee [RISC], 2018b)
- Manual of Standard Operation Procedures for Hydrometric Surveys in British Columbia (RISC, 1998)
- British Columbia Field Sampling manual – Part E1: Surface Water (Province of British Columbia, 2024)
- British Columbia Field Sampling manual – QA/QC, Field methods & Documentation (Province of British Columbia, 2024)
- ISO 5667 – 1:2023 – Water quality – Sampling – Part 1: Guidance on the design of sampling programmes and sampling techniques (International organization for Standardization, 2023)
- ISO 5667 – 3:2018 – Water quality – Sampling – Part 3: Guidance on preservation and handling of water samples (International organization for Standardization, 2018).

Surface Water Quality Baseline and Regional Data Integration

Baseline surface water quality data (collected from 2020 through 2025) were analyzed to characterize existing conditions, constituent concentrations, spatial variability, and long-term trends in relation to historic data (2006-2007 and 2015). This provided a context for identifying key Constituents of Potential Concern (COPCs) and informed the selection of parameters used in subsequent effects assessment.

Regional monitoring data, historic datasets, and available literature were also reviewed to place site -specific conditions with a broader watershed context and understand natural variability (see Surface Water Quality Baseline Report, Appendix 7.4-2).

Surface Water Quality Predictive Modelling

Water quality modelling results were used to assess potential future effects under different Project scenarios (construction, operations, closure, post-closure) and climate conditions (see Surface Water Quality Modelling Report, Appendix 7.4-2). Model outputs were evaluated using maximum monthly averages to screen for constituent changes relative to baseline and applicable guidelines.

The modelling carried forward conservative scenarios, including untreated discharge conditions and upper geochemical cases, to provide bounds-of-effect analysis, including predicted concentrations of key water quality parameters and their comparison to applicable guidelines to evaluate the magnitude and extent of potential effects.

Effects Criteria and Guidelines

Assessment of potential effects were benchmarked against applicable water quality guidelines, including British Columbia Water Quality Guidelines for freshwater aquatic life (BC-WQG-FAL) and other standards where appropriate, and were interpreted in the context of available fisheries baseline information (see Fish and Fish Habitat Baseline Report, Appendix 7.5-1). This facilitated identification of thresholds and criteria exceedances that could indicate meaningful change.

Relevant metrics (e.g., TSS, major ions, dissolved metals, nutrients) were based on baseline observations and screening outcomes.

Valued Components, Effect Interactions and Measurable Parameters

The interactions of components and activities for all Phases of the Project with Surface Water and associated subcomponents are summarized in **Table 7.4.2-2**. The identification of possible interactions was completed using the following information:

- Technical characteristics of the Project provided by the engineering team
- Surface Water baseline data
- Professional experience from similar projects.

Site Preparation and Construction activities will interact with Surface Water through:

- alterations of drainage paths,
- collection/attenuation of runoff,
- runoff due to changes in land coverage,
- potential increase in erosion.

Operation activities will interact with Surface Water through:

- collection and attenuation of onsite runoff
- alterations of drainage paths.

Reclamation and Closure, and Post Closure activities will interact with Surface Water through alterations of drainage paths.

Table 7.4.2-2 Potential Project Interactions: Project Interactions with Surface Water

Project Phase	Project component or activity	Potential Interactions with Surface Water Subcomponent		Potential Effects	Indicators
		Surface Water Quantity	Surface Water Quality		
Site Preparation and Construction	Clearing of previously developed ground and overgrowth	🟢	🟢	<u>Surface Water Quantity</u> • Increased erosion and sedimentation • Alterations to drainage pathways and runoff • Temporal changes to runoff via stormwater pond attenuation <u>Surface Water Quality</u> • Increased sediment runoff; short-term increases in turbidity • Increased erosion potential; sediment transport to nearby watercourses; short-term changes in water quality	<u>Surface Water Quantity</u> • stage height, flow velocity of watercourses and diversions • pumping rates of dewatering • effluent discharge rates • water collection pond depth <u>Surface Water Quality</u> • Major ions (calcium, magnesium, sodium, potassium, chloride, sulphate) total dissolved solids (TDS) • Nitrate, ammonia, total phosphorus, dissolved phosphorus • Total metals including aluminium, arsenic, antimony, barium, cadmium, cobalt, copper, chromium, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, thallium, uranium, vanadium, and zinc Dissolved metals including aluminium, arsenic, antimony, barium, cadmium, cobalt, copper, chromium, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, thallium, uranium, vanadium, and zinc
	Initial clean up and temporary stockpiling of legacy tailings	🔴	🔴		
	Construction of new airstrip	🟡	🟡		
	Construction of new roads and upgrades to existing roads	🟡	🟡		
	Construction of culverts at water crossing during road development	🟡	🟡		
	Road use during construction (equipment, workers and goods transportation)	🟢	🟢		
	Excavation of borrow pits for aggregate supply sourcing	🟡	🟢		
	Site preparation and development of Tailings and Waste Rock Combined Storage Facility (CSF)	🔴	🔴		
	Construction of barge landing site (~10 km from mine site), including a small office trailer, genset, diesel fuel tank, temporary storage area of supplies and container handler	🟢	🟢		
	Construction of new ramp for access to underground mine	🟢	🟡		
	Initiate dewatering for mine development with associated water treatment and water infrastructure	🔴	🔴		
	Construction of mine ventilation, water and electrical services, pumps, geotechnical ground support machinery, haulage equipment, compressed air, mine lighting, and refuge stations	🟢	🟡		
	Construction of processing plant	🟢	🟡		
	Site preparation and development of fuel storage area	🟡	🔴		
	Site preparation and development of explosive storage facility	🟡	🟡		
	Stripping of topsoil and overburden stockpiling	🟢	🟢		
	Site grading, excavations, including blasting and fill to support infrastructure (e.g., housing, administration office, mine dry, assay building, maintenance building and warehouses) and utilities and services (e.g., communications facility, waste disposal facility, compressed-air plant)	🟢	🟡		
	Site preparation and construction of settling ponds and water treatment plant	🔴	🔴		
Operations	Dewatering activities during advancement of new ramp	🔴	🔴	<u>Surface Water Quantity</u> • Increased erosion and sedimentation <u>Surface Water Quality</u> • Changes to surface water flow regimes; discharge of treated mine contact water; potential changes in surface water chemistry • Potential seepage or runoff affecting surface water quality; controlled discharge through water management systems • Sediment generation from traffic; runoff carrying suspended solids to surface water	<u>Surface Water Quantity</u> • stage height, flow velocity of watercourses and diversions • pumping rates of dewatering • effluent discharge rates • water collection pond depth <u>Surface Water Quality</u> • Major ions (calcium, magnesium, sodium, potassium, chloride, sulphate) total dissolved solids (TDS) • Nitrate, ammonia, total phosphorus, dissolved phosphorus • Total metals including aluminium, arsenic, antimony, barium, cadmium, cobalt, copper, chromium, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, thallium, uranium, vanadium, and zinc Dissolved metals including aluminium, arsenic, antimony, barium, cadmium, cobalt, copper, chromium, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, thallium, uranium, vanadium, and zinc
	Deposition and compaction of tailings at CSF	🔴	🔴		
	Overburden and soil stockpile area maintenance	🟡	🟢		
	Disposal of temporarily stored legacy tailings to the CSF	🟢	🔴		
	Mining sequencing and waste placement CSF and underground backfill	🟢	🔴		
	Operational water management, water balance, surface water run-off, dewatering, water treatment, discharge management	🔴	🔴		
	Concentrate transport from processing plant	🟢	🔴		
	Road use and maintenance during operation (equipment, workers and goods transportation)	🟢	🟡		

Project Phase	Project component or activity	Potential Interactions with Surface Water Subcomponent		Potential Effects	Indicators
		Surface Water Quantity	Surface Water Quality		
Reclamation and Closure	Dismantling and removal of buildings and infrastructure from mine site	🟢	🟠	<u>Surface Water Quantity</u> • Increased erosion and sedimentation • Alterations to drainage pathways and runoff • Temporal changes to runoff via stormwater pond attenuation <u>Surface Water Quality</u> • Potential release of residual contaminants; managed through decontamination and waste handling • Reduced runoff and erosion over time; short-term sediment mobilization during earthworks	<u>Surface Water Quantity</u> • stage height, flow velocity of watercourses and diversions • pumping rates of dewatering • effluent discharge rates • water collection pond depth <u>Surface Water Quality</u> • Major ions (calcium, magnesium, sodium, potassium, chloride, sulphate) total dissolved solids (TDS) • Nitrate, ammonia, total phosphorus, dissolved phosphorus • Total metals including aluminium, arsenic, antimony, barium, cadmium, cobalt, copper, chromium, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, thallium, uranium, vanadium, and zinc Dissolved metals including aluminium, arsenic, antimony, barium, cadmium, cobalt, copper, chromium, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, thallium, uranium, vanadium, and zinc
	Disposal of contaminated soil CSF and or backfill	🟢	🔴		
	Road use and maintenance during closure (equipment, workers and goods transportation)	🟢	🟠		
	Decommission dewatering system, decommission portal and install passive treatment to address potential decant	🟠	🟠		
	Water treatment and discharge from settling ponds	🟠	🔴		
	Decommissioning of processing plant	🟢	🟢		
	Decommissioning and reclamation of roads not in use	🟢	🟠		
	Decommissioning of barge landing site	🟢	🔴		
	Decommissioning of CSF (cover completion, recontouring and revegetation)	🔴	🔴		
	Mining sequencing and waste placement CSF and underground backfill	🟠	🟠		
	Reclamation monitoring	🟢	🟢		
Post Closure	Passive Water treatment monitoring	🟢	🟢	<u>Surface Water Quantity</u> • Alterations to drainage pathways and runoff <u>Surface Water Quality</u> • Verification of long-term water quality protection • Confirmation of stable surface water quality trends	<u>Surface Water Quantity</u> • stage height, flow velocity of watercourses and diversions • pumping rates of dewatering • effluent discharge rates • water collection pond depth <u>Surface Water Quality</u> • Major ions (calcium, magnesium, sodium, potassium, chloride, sulphate) total dissolved solids (TDS) • Nitrate, ammonia, total phosphorus, dissolved phosphorus • Total metals including aluminium, arsenic, antimony, barium, cadmium, cobalt, copper, chromium, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, thallium, uranium, vanadium, and zinc Dissolved metals including aluminium, arsenic, antimony, barium, cadmium, cobalt, copper, chromium, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, thallium, uranium, vanadium, and zinc
	Post-closure monitoring	🟢	🟢		

Activities and their potential interactions with VCs have been characterized as follows:

Green circle (🟢) – little to no interaction expected; no further consideration warranted.

Orange circle (🟠) – potential interaction requiring further consideration

Red circle (🔴) – key interaction that is likely or certain.

Description of Potential Effects

Surface Water Quantity

Project-related effects on water quantity will occur primarily during mine dewatering, at the CSF, Process and Camp areas during the Site Preparation and Construction and Operations phase of the Project. Additional effects are anticipated at the new airstrip. Key effects on were assessed relative to the construction, operations, and closure phases of the project.

During construction without implementation of mitigation measures, the Project activities (**Table 7.4.2-2**) may alter surface water quantity through changes in runoff, evapotranspiration, evaporation, infiltration characteristics, changes in watershed area, point source discharge, and changes to natural drainage patterns. Project activities that could result in a residual effect on surface water quantity in the LSA during the construction and operations phase include:

- *Increase in Surface Water Quantity (runoff)* - development of Project infrastructure will have the potential to result in reduced surface permeability and increased surface run-off. If not managed, this increased runoff could affect the natural flow regime in the receiving watercourse.
- *Alterations to drainage pathways* - development of Project infrastructure, particularly the CSF, will require diversions which may not follow the natural drainage pathways and may alter the ultimate discharge location of the intercepted runoff. This could affect the natural flow regime in the receiving watercourse. The CSF will overprint small watercourses, and wetland features further altering local drainage patterns

Groundwater within the underground workings will be dewatered and brought to surface for treatment and ultimately released to a surface watercourse. Dewatering activities has the potential to temporarily lower groundwater levels (**Section 7.4.2.1**), which could change groundwater discharge to surface water features. and affect natural flow regime in the receiving watercourse.

Surface Water Quality

Historical mining activities within the Whitewater Creek watershed have already resulted in localized surface water quality effects associated with legacy mine wastes and disturbed areas. The proposed Project includes construction, engineering, and management measures intended to stabilize these legacy sources and limit the potential for cumulative water quality effects.

Project effects on surface water quality will occur primarily within the Local Assessment Area (LAA) – Whitewater Creek watershed and its tributaries during construction and operation phases of the Project, as a result of earthworks, contact water generation, stormwater runoff, and changes in surface drainage pathways associated with mine infrastructure. Additional effects could occur during the closure, reclamation, and post-closure phases within both the LAA and extending into the Regional Assessment Area (RAA) due to potential mobilization of legacy and project-related constituents during rehabilitation activities, episodic runoff events, long-term changes in water routing or seasonal discharge patterns. Project activities that could result in a residual effect on surface water quality in the Local Assessment Area (LAA) during construction and operations, and in both the LAA and Regional Assessment Area (RAA) during closure, reclamation, and post-closure phases include:

Changes in Surface Water Quality due to Erosion and Sediment Mobilization

Project activities that involve vegetation clearing, grading, excavation, road construction, culvert installation, and development of mine infrastructure have the potential to increase erosion and sediment transport to adjacent watercourses during the site preparation and construction.

Disturbance of soils and exposure of unconsolidated materials may increase suspended sediment concentration in runoff if erosion and sediment control measures are not implemented or maintained. Increased sediment can degrade surface water quality through elevated turbidity and associated transport of particle-bound metals.

Changes in Surface Water Chemistry from Mine Contact Water

During operations, mine development, underground dewatering, processing and management of tailings and waste rock at the Combined Storage Facility (CSF) will generate mine contact water. This water may contain elevated concentrations of dissolved metals and other constituents of potential interest identified through baseline characterization and predictive modelling.

Potential pathways to surface water quality include:

- Discharge of treated mine contact water and dewatering water to the receiving environment
- Seepage from tailings and waste rock facilities
- Runoff from active mine areas
- Mobilization of metals under changing geochemical conditions.

Predictive water quality modelling (**Appendix 7.4-3**) indicates that, under conservative assumptions (no treatment), certain metals may increase relative to baseline conditions at select downstream locations. These constituents include arsenic, antimony, cadmium, cobalt, copper, chromium, iron, lead, manganese, mercury, molybdenum, nickel, selenium, and zinc.

A summary of predicted changes across key receptors indicates that the Project is not expected to result in measurable adverse effects on surface water quality at a regional scale, with most parameters remaining within applicable water quality guidelines for the protection of aquatic life. Potential effects are spatially variable, with the greatest responses predicted in near-field environments (i.e., Whitewater Creek), and progressive attenuation downstream through dilution and mixing, resulting in negligible effects in the T'aakú Héeni.

In Whitewater Creek, select metals (e.g., cadmium, copper, arsenic, antimony, and nickel) may increase under certain scenarios, primarily during construction/dewatering and closure/post-closure phases, with increases generally in the order of 10-25% above existing conditions. In the Taaltsuxéi Héen, effects are predicted to be relatively minor, with only a limited number of parameters (e.g., TDS, chromium, arsenic, and copper) identified as constituents of interest under conservative assumptions. No measurable changes are predicted in Kitchen Slough, while concentration in the T'aakú Héeni remain comparable to baseline conditions due to dilution.

Changes in Metal Concentration During Closure and Post-Closure

During reclamation and closure, decommissioning of infrastructure and recontouring of the CSF may temporarily increase sediment mobilization during earthworks. Controlled water management, water treatment and progressive stabilization will minimize any sediment-related effects.

In the post-closure phase, potential effects to surface water quality would primarily relate to long-term seepage from the CSF and residual underground workings. Modelling indicates that certain metals may remain elevated relative to baseline conditions in the absence of treatment; therefore, continued water treatment or passive management systems may be required until water quality objectives are achieved.

7.4.2.3 Effects Management

Defining appropriate mitigation or enhancement measures is a critical part of the EA process. This section describes effects management approaches for Surface Water, the effectiveness and uncertainty of these approaches, and the description of mitigation measures. Potential residual effects are characterized following the application of proposed mitigation and/or enhancement measures which are designed to effectively manage potential project-related effects.

Best management practices (BMPs) are practical, proven methods or techniques used to prevent or reduce project impacts on the environment. The mitigation hierarchy framework is used to manage or reduce impacts to the environment. The mitigation hierarchy is structured to manage and reduce project impacts in order from best to least options and include the following steps: avoidance, minimization, restoration/ reclamation, and offset/compensation.

Environmental Design Features

Several Project-specific features have been incorporated into the design of the Project and/or are proposed to avoid or reduce Project related effects on Surface Water. Additional mitigation measures were developed through iterative process that considered the key interaction pathways, including construction disturbance, contact water generation, and potential changes in water chemistry.

Canagold will stabilise legacy waste materials through a combination of excavation, controlled stockpiling, and incorporation into the CFS or as engineered backfill. Where feasible, these materials will be isolated and managed to minimize exposure to precipitation and surface runoff, thereby reducing contact water generation and potential leachate migration to nearby watercourses. Canagold will limit the construction footprint to the extent possible to limit the disturbed area as much as possible. Canagold will take a risk assessment approach to identify which portions of legacy tailings must be excavated to protect human health and protect the terrestrial and aquatic ecosystems. This may include leaving a portion of these wastes in place where they are not currently posing a risk to environmental or human receptors and agitating them risks remobilizing toxic metal constituents.

The Project is designed with key water management infrastructure and strategies to limit the potential for effects that require active mitigation during the Project life-cycle. The following design features are or will be included in the Project plans so that effects management mitigations can be tailored to address potential effects to surface water quantity and quality during each Phase of the Project:

- Minimize Disturbance Footprint: The Project layout and sequencing have been designed to limit the extent and duration of disturbance within the surface water catchments, thereby reducing the potential for erosion and sediment transport.

- Erosion and Sediment Control (ESC): Comprehensive ESC will be implemented across all disturbed areas. These will include graded diversion channels, perimeter ditches, sediment traps, silt fences, and sedimentation ponds sized to manage runoffs from design storm events.
- Contact and Non-Contact Water Separation: Site grading and drainage controls will segregate non-contact runoff from contact water on the mine site, camp area, and process facilities to ensure that only designated contact water is directed to collection and treatment systems.
- Water Collection and Treatment: Mine contact water, seepage from the Combined Storage facility (CSF), and other potentially impacted waters will be captured in engineered collection systems and routed to water treatment infrastructure prior to discharge. Treated water will be managed to meet applicable water quality standard before release to the receiving environments.
- Hydrocarbon Containment: Secondary containment, emergency spill kits, and maintenance of equipment and fuel storage areas will minimize the potential for hydrocarbon or other accidental releases to surface water.
- Progressive Stabilization: Active areas will be progressively stabilized with permanent cover and revegetation where practicable, to limit long-term erosion and sediment contribution.

In addition to general ESC measures, the following site-specific measures will be implemented:

- Ditching and Diversion Controls: Runoff from airstrip and other potentially contaminated locations will be intercepted via perimeter ditches or grading to sumps and managed through collection and treatment.
- CSF seepage Control: The CSF design includes an underlain system (wrapped in geotextile where appropriate) to capture seepage and excess groundwater near the facility footprint, minimizing uncontrolled discharge.
- Pond Design for Settling: Contact water settling ponds are designed to accommodate runoff from major storm events with sufficient retention time and freeboard to allow settling of suspended solids and associated contaminants prior to treatment or release.
- Buffer Zones: Natural buffer areas around receiving waters will be maintained wherever feasible to provide filtration and attenuation of surface water flows.
- Stormwater Management: Sites will be graded to direct overland flow towards collection infrastructure and away from sensitive watercourses, minimizing direct discharge of untreated stormwater.

Surface water runoff from the non-contact areas such as from the Airstrip and River Transport Landing areas will be intercepted via perimeter drainage or grading to sumps. Stormwater ponds have been used extensively in North America to manage runoff from developed area. They are effective at attenuating and reducing peak flows reporting to the receiving watercourse. The ponds for the Project have been sized for a large storm event, assuming zero discharge, thereby allowing the full storm volume to be captured and stored within the pond. The control release rate can be adjusted to meet flow requirements in the receiving environment. The added storage allows more time for sediment and associated contaminants to settle out as water is gradually released to the environment. A permanent pool storage volume, active storage volume, length-to-width ratio, have been designed in accordance with Technical Guidance 7 Environmental Management Act Assessing the Design, Size, and Operation of Sediment Ponds Used in Mining. Water meeting discharge requirements will be release to their pre-mining watershed. The following sections describe the water management infrastructure specific to the process and camp area and the CSF area.

Process and Camp Area

Collection ditches or local site grading will convey contact runoff from the process area and camp are to settling ponds. Collected water will be treated for sediment within the ponds and discharged to the environment (if effluent meets discharge quality criteria) or sent to treatment. Settling ponds were sized to retain runoff from a 1/200 year, 24-hours storm without discharge, with a minimum freeboard of 0.5 m along with a permanent pool to aid in sediment settling.

Diversion channels are required to divert non-contact runoff away from the facilities and to minimize the amount of contact runoff to be collected and managed. Road channel/ditching will intercept hillside runoff near the AJ Portal area and direct flow towards sawmill creek. Runoff upstream of the Plant site will be re-directed via a diversion toward Whitewater Creek. This diversion will be integrated into the grading of the process plant area. The overall water management strategy for the process area and camp site is illustrated in **Figure 7.4.2-1**.

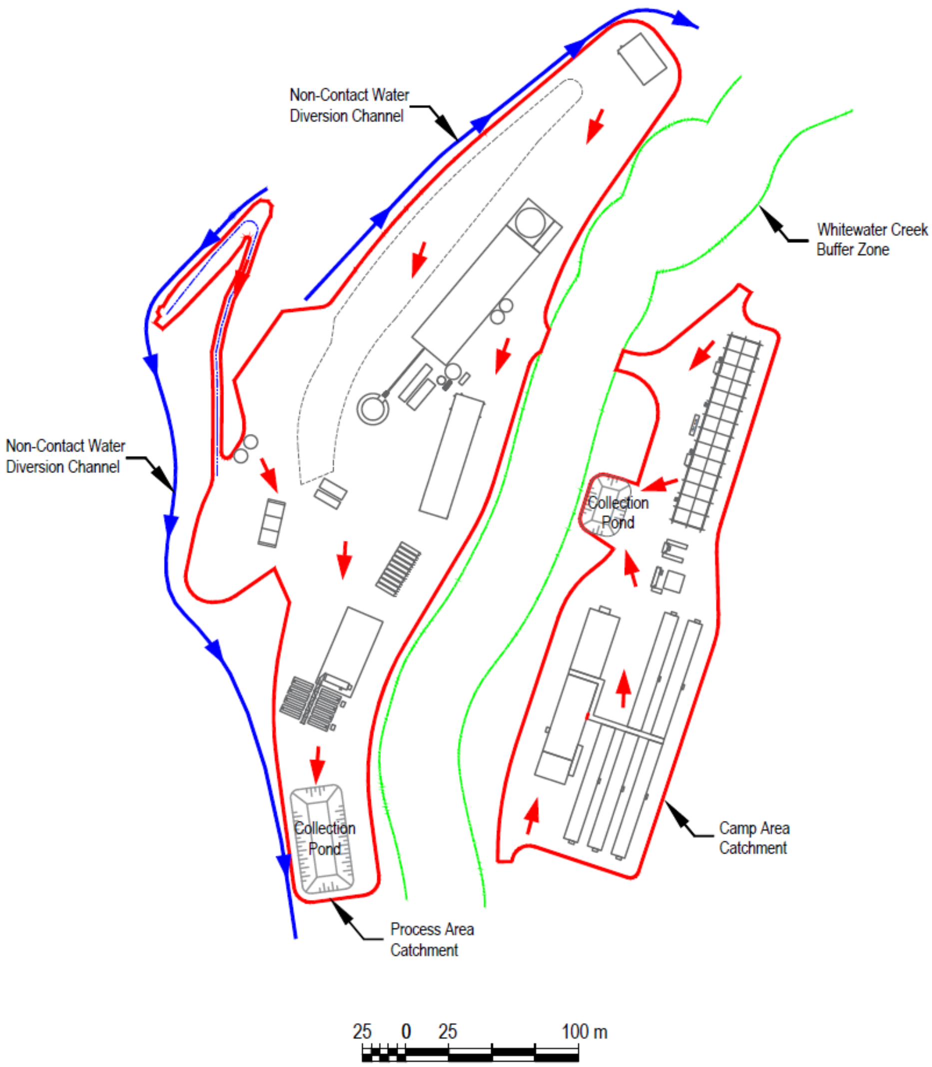

Figure 7.4.2-1 Process Area and Camp Area Water Management Schematic

Combined Storage Facility

The diversion channels will collect non-contact surface runoff from the natural areas surrounding the CSF and convey it to drainage areas outside the CSF footprint. The diversion channels will collect non-contact surface runoff from the natural areas surrounding the CSF and convey it to drainage areas outside the CSF footprint. The CSF surface water collection system is designed to collect contact surface runoff during operations and direct it to the collection pond. Following closure, these collection systems will function as non-contact water collection ditches. Contact water, expected to contain only sediment from the facility, will be routed to the collection pond before being discharged to the environment. Water quality monitoring will be conducted regularly to ensure that discharged water meets applicable standards. If the water does not meet these standards, it will be treated prior to discharge.

Temporary and permanent channels were designed to convey runoff from the 1/200-year storm events. The underdrain water management system will consist of HDPE dual wall pipe and drainage gravel wrapped in a non-woven geotextile to capture near-surface groundwater and seepage from the tailings; capturing these water sources will minimize build-up of the phreatic surface in the base of the CSF. In addition, the underdrain system will be utilized to drain surface runoff that is blocked by the CSF from following its original path. A ring-dyke filter system will be placed around the underdrain inlet to prevent solids from entering and potentially plugging the system. The overall surface water management strategy for the CSF is illustrated in **Figure 7.4.2-2**.

- Non-contact water which will be diverted by channels around the CSF.
- Contact water from the CSF in diversion channels that run on the surface along the toe of the facility.
- Seepage water in the foundations of the CSF that will be captured using an underdrain system. The underdrain for the CSF has been designed to capture decant water (free water) from the tailings along with seepage from precipitation.

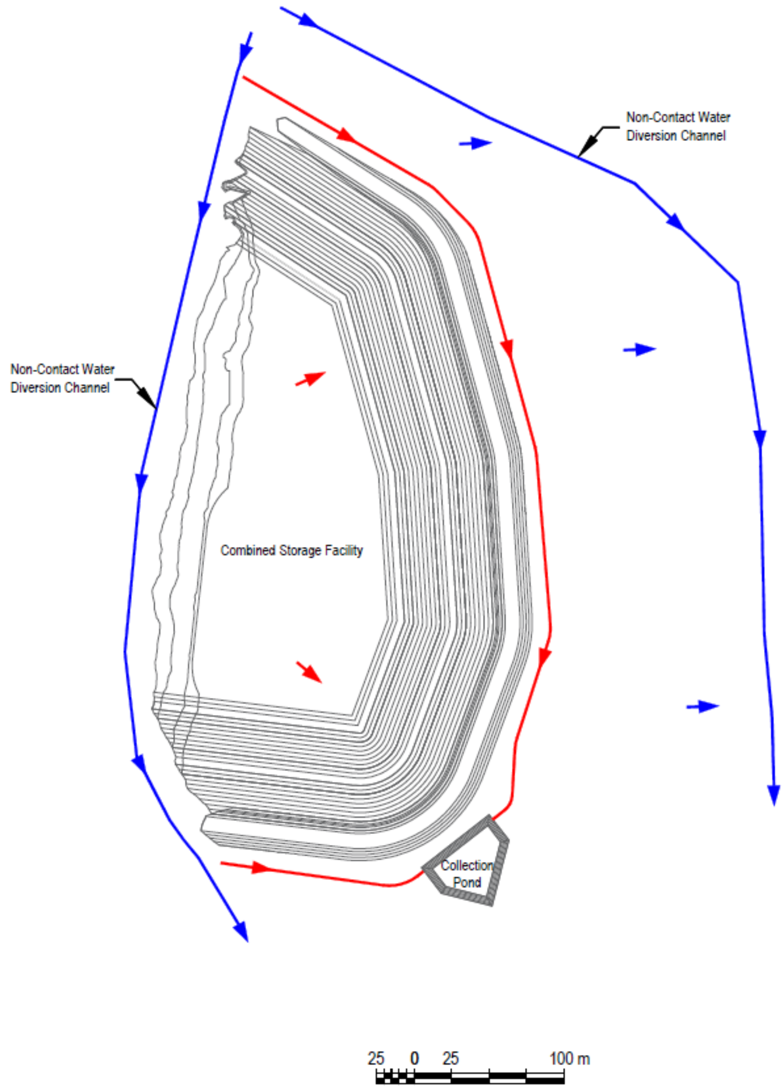

Figure 7.4.2-2 Combined Storage Facility Water Management Schematic

Management Plans

A central principle of management plans for the Project is the implementation of a reliable, actionable, and enforceable Environmental Management System (EMS) (Appendix 16.3). Surface water management is one of the primary components of the EMS, and Canagold will utilize it to develop and implement the following management and monitoring plans to aid in managing effects to surface water:

- Water Management Plan
- ML/ARD management Plan
- Erosion and Sedimentation Control (ESC) Plan, and
- Aquatic Effects Monitoring Plan

Surface Water management plans will predominately focuses on monitoring during all phase of the Project to verify designs have been implemented and are functioning as intended, and to apply trigger action response and adaptive management to meet environmental performance criteria and protect water quality and fish habitat.

A Site-Wide Water Management Plan and an Operations, Maintenance and Surveillance program (OMS) will be developed specific to water management to monitor the effectiveness of mitigation / management measures. It is envisioned that the OMS will include flow monitoring locations and frequency for both outlets as well as key locations along Whitewater Creek. The Management and Monitoring Plan will include:

- Monitoring of dewatering volumes, pH and EC to detect water stratification and inform water treatment planning
- Routine monitoring of construction areas to verify culverts, pond inlet/outs are functioning and rectify any deficiencies or issues.
- Maintain site roads in good condition to reduce erosion, improve water flow and manage vegetation growth within the ditches.
- Routine monitoring of the CSF, including leak detection.
- Canagold will monitor water effluent and treat as needed prior to discharge to the receiving environment. Monthly sampling of discharge water qualities.
- Monitor flow within the Kitchen Slough and Whitewater Creek. It is envisioned minimum flow rates will be developed based on fish and habitat needs, further discussed in Section 7.5.

For the proposed hydro electric facility, management and monitoring strategies include:

- Monitoring the diverted flow rate to ensure minimum flow is maintained in the diverted reach of the river. It is envisioned minimum flow rates will be developed based on fish and habitat needs, further discussed in Section 7.5.
- Ramping rates (start-up and shut-down) shall be developed and monitored to prevent fish stranding, drying out stretches of riverbeds and destroying riparian habitats.

Mitigation Approach

Mitigation measures for the Project are based on the review and consideration of pre-existing best management practices (BMPs), regulatory and guidance documents, and mitigation measures successfully employed for similar projects. The selection of mitigation options appropriate to the Project was assisted through consideration of the "Procedures for Mitigating Impacts on Environmental Values" (Environmental Mitigation Procedures; ENV, 2014a).

Mitigation Measures for Surface Water Quantity

Surface water quantity mitigation measures were developed using several sources including existing site conditions, regional conditions, best management practices, industry standards, reliable technologies, and professional experience. Assessments were made based on the current conditions at the site and the anticipated effects on surface water quantity. The sources listed above were then used to determine the best mitigation measure to minimize or remove potential impacts to surface water at the site

The potential effects of the Project on surface water quantity are due to existing mine dewatering during the construction phase and dewatering of the proposed new mine during the operations phase. Given the BMP and design features, measurable surface water quantity effects due to the construction and operation of the CSF are not expected. The dewatering effects of the Project are predicted to reduce baseflow to Kitchen Slough and Whitewater Creek. Minimum surface flow rates required will be based on fish and habitat needs, further discussed in Section 7.5.

As a result of surface water (and groundwater) modelling and design iterations, the following mitigation measures have been incorporated into the design of the project and/or are proposed to avoid or reduce Project related effects on surface water quantity and flow:

- Diversion of Taaltsuxéi Héen-bound creeks in the CSF area to Kitchen Slough;
- Restrict withdrawal of water from Whitewater Creek and Kitchen Slough for process makeup water by acquiring water from the Taaltsuxéi Héen
- Staged dewatering of the existing mine to moderate withdrawal rates over time, delaying effects and minimizing the period of time the effects on groundwater quantity are induced.
- Discharge treated water to the extent feasible to maintain watercourse flows to Kitchen Slough and/or Whitewater Creek.

Mitigation Measures for Surface Water Quality

Surface water quantity mitigation measures were developed using several sources including existing site conditions, regional conditions, best management practices, industry standards, reliable technologies, and professional experience. Assessments were made based on the current conditions at the site and the anticipated effects on surface water quality. The sources listed above were then used to determine the best mitigation measures for potential effects to surface water quality at the site

The primary effects of the Project on surface water quality are due to :

- Increased sedimentation and during construction
- Potential changes in metal concentrations
- Contact water generation from mine workings and the CSF
- Potential changes in receiving water chemistry during operations and closure.

Mitigation measures for surface water quality are designed to integrate with the broader Project water management strategy (including runoff, seepage, contact water collection, and treatment systems) to ensure that Project-related surface water quality effects are minimized throughout all phases of development.

Mitigation measures have been integrated into Project design where feasible and are summarized in **Table 7.4.2-3**. Detailed Project design criteria and additional water quality mitigation specifications are provided in the Water Management Planned supporting engineering reports (Feasibility Study and Water Balance Report, Appendix XX). These documents outline system capacities, design storm criteria, construction timing consideration, and monitoring thresholds to ensure effectiveness.

Effectiveness and Uncertainty for Mitigation

Effectiveness of mitigation measures is categorized by the following criteria:

- *Low: measure unlikely to result in effect reduction*
- *Medium: measure has a proven track record of partially reducing effects*
- *High: measure has documented success (e.g., industry standard; use in similar projects) in substantial effect reduction or elimination.*

Uncertainty is identified for each mitigation measure and will categorize the likelihood of success when the mitigation measure is applied. Uncertainty will be categorized according to the following criteria:

- *Low: proposed measure has been successfully applied in similar situations*
- *Medium: proposed measure has been successfully implemented, but perhaps not in a directly comparable situation*
- *High: proposed measure is experimental or has not been applied in similar circumstances*

The anticipated effectiveness of mitigation measures to minimize the potential for effects to Surface Water has been evaluated and classified according to the methods described in Chapter 6. Mitigation measures are categorized for effectiveness in eliminating or reducing potential effects. If a mitigation measure will eliminate a potential effect and no potential residual effect is identified, then the effect is not carried forward for further analysis. If a mitigation measure is not expected to eliminate an effect, a residual effect is identified and carried forward for further analysis (i.e., characterization of the negative effect).

The majority of proposed mitigation measures are considered to have high effectiveness and low uncertainty, given their successful application in similar situations, and documented success in substantial effect reduction and elimination.

Mitigation Measures Description

The description of mitigation measures and their anticipated effectiveness is summarized in **Table 7.4.2-3**..

Table 7.4.2-3 Proposed Mitigation Measures and Their Effectiveness – Surface Water

Project Phase	Valued Component/ Subcomponent	Project Effects	Mitigation Measures	Effectiveness	Uncertainty	Residual Effect
Site Preparation and Construction	Water Quantity	Increase in Surface Water Quantity (runoff)	• Footprint of Project was minimized to reduce amount of vegetation needed to be cleared. • Contact water runoff (e.g., from areas with vegetation removal and ground disturbance) will be directed within the site water management system • Best management practices will be followed to minimize alteration in stream flows during in water works such as bridge construction or culvert installation. • Infrastructure will be sized to safely convey or manage the surface runoff reporting from annual jökulhlaups and a 1/200-year, 24-hour storm event.	High	Low	No
		Changes to Drainage Patterns	• Non-contact diversion will intercept hillside runoff and redirect around mine infrastructure. Discharge locations will be engineered to have minimal impact on flow changes. • Infrastructure will be sized to safely convey or manage the surface runoff reporting from annual jökulhlaups and a 1/200-year, 24-hour storm event. • Routine inspection and maintenance of containment and conveyance structures (i.e., roadside ditches and culverts) to limit the risk of road wash-out or sediment release to the environment • Proposed diversions will be engineered to maintain existing drainage paths, particularly in the CSF to maintain flows to the Kitchen Slough. • Water-related infrastructure related to these roads will be limited to localized flow-through stream crossings (e.g., culverts), which will result in negligible changes to streamflow.	Medium	Low	Yes
	Water Quality	Increased sedimentation and turbidity from clearing, excavation, road building	• Implementation of Erosion and Sediment Control Plan (ESC measures, silt fences, diversion ditches, sediment ponds); progressive stabilization and revegetation; limiting disturbance footprint; scheduling earthworks outside high-flow periods • Footprint of Project was minimized to reduce amount of vegetation needed to be cleared. • Vegetation clearing, soil stripping, grubbing, and grading for construction, temporary workspace, or storage areas, will be limited to within the approved Project boundaries and minimized to the extent practical. • Limit steepness and length of slopes of disturbed areas to less than 200m and 3H:1V and stockpiled soils to a maximum height of 5 m with slope gradients not steeper than 3H:1V. • Contact water runoff (e.g., from areas with vegetation removal and ground disturbance) will be directed within the site water management system • Best management practices will be followed to minimize alteration in stream flows during in water works such as bridge construction or culvert installation. • Legacy waste excavated and stockpiled under membrane to reduce contact water • Dewatering of mine – water treatment	High	Medium	Yes. Minor, temporary increases in TSS during storm events
Operations	Water Quantity	Changes to Drainage Patterns	• Treated mine effluent will be released to White Water Creek to maintain flows as required based on fisheries requirements. Effluent quality will be monitored to confirm effluent meets effluent quality limits and is not acutely lethal to fish populations • Treated mine effluent from the CSF will be release to the Kitchen Slough, as required, to maintain flows as required based on fisheries requirements. Effluent quality will be monitored to confirm effluent meets effluent quality limits and is not acutely lethal to fish populations • Water withdrawal volumes will be set at permitted or approved limits, to minimize effects to aquatic environments (i.e., minimum instream flow needs will be maintained).	Medium	Medium	Yes
	Water Quality	Potential increase in metal concentrations from mine water and CSF seepage; contact water discharge	• Segregation of contact/non-contact water; collection of mine water; lined CSF; seepage collection system; active water treatment plant prior to discharge; discharge monitoring to permit limits • Dealing with historical waste • Mine dewatering • Progressive reclamation as opportunity arises to reduce sedimentation and surface runoff	High	Low	No. No significant residual effect anticipated where discharge meets permit limits

Project Phase	Valued Component/ Subcomponent	Project Effects	Mitigation Measures	Effectiveness	Uncertainty	Residual Effect
Reclamation and Closure	Water Quantity	Changes to Drainage Patterns	• Restore and revegetate areas where non-permanent Project features have been removed (i.e. camp area and process area). Re-instate pre-mining drainage patterns. • Install engineered cover on the CSF and contour to reinstate pre-mining drainage paths as much as possible.	Medium	Low	Yes
	Water Quality	Release of stored contact water; changes in drainage patterns; sediment mobilization during decommissioning	• Controlled treatment and discharge of remaining contact water; progressive regrading and drainage control; stabilization and revegetation; monitoring of receiving water	High	Medium	Yes. Short-term, localized water quality variability possible during decommissioning
Post Closure	Water Quality	Long-term changes in seepage chemistry; potential residual metal loading	• Passive water treatment long-term monitoring; adaptive management triggers; maintenance of containment systems; closure water management plan	Medium to High	Medium	No. Residual effects unlikely if passive treatment maintained; monitored through post closure program

7.4.2.4 Positive Effects Assessment

A potential positive effect to Surface Water can result from the stabilization of historical mine waste. The existing brownfield portions of the Project are currently disturbed with limited vegetation and have a higher runoff than its surround natural environment. This potentially generates elevated runoff during storm events than would be naturally occurring, potentially mobilizing sediment into Whitewater Creek and scouring within the creek. This may also influence water quality through the transport of sediments-associated constituents. By managing runoff and reducing sediment mobilization during construction and operations, the Project is expected to reduce these inputs, resulting in improved surface water quality conditions relative to the current baseline. The project would aim to manage these flows during construction and operations. At closure, this area would be restored to a more natural state than currently exists.

Overall, positive effects are anticipated to be localized and incremental but contribute to improved long-term watershed management within the Local Assessment Area (LAA). Monitoring programs implemented during operations and post-closure will verify performance of mitigation measures and allow for adaptive management should performance objectives not be met.

7.4.2.5 Negative Residual Effects Assessment

Summary of Residual Effects

The application of mitigation measures is anticipated to reduce, but not eliminate effects to Surface Water from the Project. After additional mitigations are applied, adverse effects to water quantity and quality are anticipated, as described in this section.

Methods

Water Quantity

Potential residual effects to Surface Water Quantity were identified using:

- Review of baseline water quality data from the LAA and RAA.
- Professional judgement based on similar mining projects.
- Conceptual water management planning.

Flows under pre-development conditions were used as the baseline against which Project-related changes during construction, operations, closure and post-closure phases were assessed. Baseline hydrological conditions were assessed on the local and regional scale and are presented in the Hydrological Modelling Report (**Appendix 7.4-7**) and Surface Water Existing Conditions Report (**Appendix 7.4-4**). Placement of infrastructure was designed for improved water management and to maintain existing drainage paths to the extent feasible.

A monthly site-wide water balance model was developed in Goldsim ™ to simulate existing conditions, construction, operations, closure, and post closure phases of the project. To account for potential globally driven changes in climate, climate effects were integrated into the development of future climate conditions and scaled based on the available regional hydrological data available. The water balance is driven by monthly average precipitation and monthly average temperature data representing the selected climate scenario and timeline (current, 2040, and 2070). These climate inputs are applied uniformly across the site and form the basis for all hydrologic calculations within the model. Existing conditions parameters were calibrated based on overlapping meteorological data and hydrometric monitoring within Whitewater Creek.

A regional assessment was carried out for areas of interest within the RAA, to identify potential changes in surface water quantity further downstream of the Project.

Potential residual effects to Surface Water Quality were identified using:

- Review of baseline water quality data from the LAA and RAA.
- Professional judgement based on similar mining projects.
- Conceptual water management planning.
- Assessment of erosion and sediment transport pathways.
- Consideration of conservative assumptions regarding runoff, contact water generation, and meteorological conditions.

Analytical assumptions include:

- Proper implementation of ESC measures and water management infrastructure.
- Compliance with applicable provincial and federal water quality guidelines.
- Operation of water management system as designed.
- Timely implementation of adaptive management if monitoring indicates exceedances.

Uncertainty is addressed through conservative design criteria, monitoring commitments, and contingency measures.

Residual Effects Criteria

The characterization of potential residual effects was based on several criteria including direction, magnitude, geographic extent, duration, reversibility, frequency, and risk and uncertainty (likelihood and consequence). These criteria are defined for Surface Water in **Table 7.4.2-4**.

Table 7.4.2-4 Residual Effects Criteria Surface Water

Criteria	Characterization
Direction	**Positive** – a residual effect that moves measurable parameters in a direction beneficial to surface water relative to baseline. **Adverse** – a residual effect that moves measurable parameters in a direction detrimental to surface water relative to baseline. **Neutral** – no net change in measurable parameters for surface water relative to existing conditions.
Context	**Low** – Low vulnerability (i.e. high resiliency) of aquatic ecosystem to anthropogenic change from an environmental and/or human health perspective. Project effects at a local level are unlikely to destabilize the aquatic ecosystem at the regional scale. **Moderate** – Moderate vulnerability (i.e. somewhat resilient) of aquatic ecosystem to anthropogenic change from an environmental and/or human health perspective. Project effects at a local level are unlikely to destabilize the aquatic ecosystem at the regional scale. **High** – High vulnerability (i.e. low resiliency) aquatic ecosystem to anthropogenic change from an environmental and/or human health perspective. Project effects at a local level may destabilize the aquatic ecosystem at the regional scale.
Magnitude	**Negligible** – No measurable change from existing conditions; concentrations remain well below applicable water quality guideline (e.g., BC WQG) **Low** – Measurable change, but concentrations remain within applicable water quality guideline (e.g., BC WQG) and within natural variability. **Moderate** – Measurable change with concentrations approaching or intermittently exceeding applicable water quality guideline (e.g., BC WQG) but not expected to result in sustained adverse effects to aquatic life or drinking water. **High** – Measurable change with concentrations exceeding applicable water quality guideline (e.g., BC WQG), and likely to pose risk to aquatic life or drinking water.
Extent	**Limited** – Residual effects are restricted to the Project Footprint. **Local** – Residual effects extend into the LAA. **Regional** – Residual effects extend into the RAA. **Beyond Regional** – Residual effects extend beyond the RAA.
Duration	**Short-term** – The residual effect will be felt temporarily during the Project's construction or closure stages only. Also applies to any effect that will occur for less than two years in operations. **Medium-term** – The residual effect will be felt for a limited period of time greater than two years, generally corresponding to the operations phase and closure phase. **Long-term** – The residual effect extends beyond Project closure.
Frequency	**Once** – Occurs once. **Irregular** – Occurs at sporadic intervals. **Regular** – Occurs at regular intervals. **Continuous** – Occurs constantly.
Reversibility	**Reversible** – the VC is likely to return to its pre-Project state after activity completion and reclamation. **Irreversible** – the VC is unlikely to return to its pre-Project state.

Criteria	Characterization
Importance	**Low** – Predicted project effect on the valued component or subcomponent has not been identified as being of interest/priority to affected stakeholders. **Moderate -** Predicted project effect on the valued component or subcomponent has been identified as being of interest to affected stakeholders, with special consideration for Indigenous nations, but not stated as top interest. **High -** Predicted project effect on the valued component or subcomponent has been identified repeatedly as a top interest to affected stakeholders, with special consideration to affected Indigenous nations.

Risk and Uncertainty

For the purposes of this assessment, the likelihood and consequences of a potential residual effect occurring are described as risk. Likelihood is the probability of an event occurring and can be influenced by many factors. For the purposes of this assessment, likelihood is rated as low, moderate or high, using the rating definitions provided in Section XX. Consequence can be assessed as minor, moderate, or major (Chapter 6, Table XX) based on the combination of magnitude and extent of the residual effect.

Confidence

Many types of uncertainty are relevant to assessing whether an effect will occur and the implications of the effect. Uncertainty in the assessment is to be expected, particularly when predicting outcomes in complex physical, biological, and human systems. The assessment includes a characterization of uncertainty and level of confidence in the predicted potential residual effects. Confidence is a measure of how well potential residual effects are understood and the quality of the input data. It considers the level of uncertainty associated with the residual effects assessment. The following are considered in the determination of confidence in the residual effects assessment for Surface Water:

- Reliability of data inputs and analytical methods used to predict Project effects
- Confidence regarding the effectiveness of mitigation measures
- Certainty of the predicted outcome
- Confidence ratings and definitions as described in **Section 7.4.2.3**.

Potential Residual Effects

Surface Water Quantity Changes

Residual effects to water quantity may occur due to:

- changes to drainage patterns and runoff discharge locations
- alterations to the land cover, resulting in increase runoff.

The Project will result in negligible changes in flows to the Taaltsuxéi Héen and T'aakú Héeni due to mining activities (construction, operations and closure/post-closure). The development of the Project will lead to an increase in disturbed area and change the land cover within a small portion of the LAA. It is predicted that this change will represent <3 % decrease in runoff during construction and operations compared to existing conditions. This change is not predicted to have a noticeable effect on surface water quantity in the LAA.

Surface water flow to Kitchen Slough and Whitewater Creek are predicted to decrease due to the diversion of a portion of the upstream CSF catchment (as discussed in **Section 7.4.2.3**). This reduction in catchment will reduce flows reporting to the Kitchen Slough and Whitewater Creek. There will be as much as 12% reduction in surface water flow to the total of Kitchen Slough resulting mainly from the CSF footprint. This change is not predicted to have a noticeable effect on surface water quantity in the LAA. The potential effects to fish and habitat because of the potential effects to surface flow of Whitewater Creek are discussed in Section 7.5.

For the proposed hydro electric facility, a reduction in the diverted reach of Bacon Creek is anticipated. The extent of flow reduction is uncertain at this time; however, minimum flow rates will be developed based on fish and habitat needs, further discussed in Section 7.5. A residual effect on the surface water quantity within the LAA is not anticipated from the proposed hydro electric facility.

Residual Effect Characterization

The residual effect to Surface Water Quantity is characterized in **Table 7.4.2-5**.

Table 7.4.2-5 Residual Effect Characterization for Surface Water Quantity

Criteria	Characterization	Rationale
Direction	Adverse	Minor measurable changes may occur relative to baseline conditions.
Context	Moderate	Kitchen Slough and Whitewater Creek are regionally important but exhibit natural variability and resilience.
Affected Populations	Localized	Effects would be greatest the CSF and attenuate downstream; the effect is therefore localized, with no disproportionate effects anticipated beyond the immediate downstream area
Magnitude	Low	Changes expected to remain within applicable natural variability ranges, based on modelling results and anticipate design and mitigation effectiveness.
Geographic Extent	Local	Effects limited to LAA downstream of the CSF
Duration	Long-term	Effects can extend beyond closure.
Frequency	Irregular	Effects most likely occur during low runoff events.
Reversibility	Irreversible	Conditions are not expected to return to baseline following stabilization and reclamation.
Importance	Moderate	Surface water is a valued component for ecological and cultural reasons.

Likelihood, Risk, Uncertainty and Confidence

The assessment of the likelihood, risk and uncertainty for Surface Water Quantity changes is presented in **Table 7.4.2-6**.

Table 7.4.2-6 Likelihood, Risk and Uncertainty Characterization for Surface Water Quantity Changes

Criteria	Characterization	Rationale
Likelihood	Medium	Mitigation measures are expected to reduce the probability of noticeable change, based on standard design controls and modelling results.
Consequence	Minor	Effects are predicted to remain within natural variation and be localized, based on modelling results and anticipated mitigation effectiveness
Risk	Low	Combination of low magnitude and minor consequence.
Confidence	Moderate	Based on baseline data and proven mitigation techniques.

Surface Water Quality Changes

Residual Effect Analysis

Residual effect may occur due to:

- Mobilization of sediments during construction
- Runoff from disturbed areas
- Contact water discharge (if applicable)
- Accidental spills or incidental releases (see Chapter 9 Malfunctions and Accidents).

With mitigation, residual effects are expected to be localized, low magnitude, and within regulatory limits.

Residual Effect Characterization

The residual effect to Surface Water Quality is characterized in **Table 7.4.2-7** below

Table 7.4.2-7 Residual Effect Characterization for Surface Water Quality

Criteria	Characterization	Rationale
Direction	Adverse	Minor measurable changes may occur relative to baseline conditions.
Context	Moderate	Receiving waters are regionally important but exhibit natural variability and resilience.
Affected Populations	Localized	Effects would be greatest near source and attenuate downstream within receiving waters; exposure is therefore localized, with no disproportionate effects anticipated beyond the immediate downstream area
Magnitude	Low	Changes expected to remain within applicable water quality guideline (BC WQG) and within natural variability ranges, based on modelling results and anticipate mitigation effectiveness
Geographic Extent	Local	Effects limited to LAA downstream of the Project footprint

Criteria	Characterization	Rationale
Duration	Short-to-medium-term	Primarily during construction and operations; not expected to extend beyond closure.
Frequency	Irregular	Effects associated with high runoff events or specific activities.
Reversibility	Reversible	Conditions expected to return to baseline following stabilization and reclamation.
Importance	Moderate	Surface water is a valued component for ecological and cultural reasons.

Likelihood, Risk, Uncertainty and Confidence

The assessment of the likelihood, risk and uncertainty for Surface Water Quality changes is presented in **Table 7.4.2-8**.

Table 7.4.2-8 Likelihood, Risk and Uncertainty Characterization for Surface Water Quality Changes

Criteria	Characterization	Rationale
Likelihood	Low to Moderate	Mitigation measures are expected to reduce the probability of measurable exceedances, based on standard design controls and modelling results.
Consequence	Minor	Effects are predicted to remain within applicable water quality guidelines and be localized, based on modelling results and anticipated mitigation effectiveness
Risk	Low	Combination of low magnitude and limited extent.
Confidence	Moderate to High	Based on baseline data and proven mitigation techniques.

7.4.2.6 Cumulative Effects

Cumulative effects for the Surface Water Quality and Quantity valued component consider potential interactions between residual effects from the Project and those from past, present, and reasonably foreseeable future projects and activities. This assessment identifies potential overlapping effects on surface water quality, evaluates the spatial and temporal scope of those interactions, and describe the Project’s contribution to any cumulative effects under existing and future condition, including climate change considerations.

Methods used to determine potential cumulative effects include:

- Review of residual effects identified for the Project (**Section 7.4.2.5**)
- Identification of overlapping spatial and temporal effects from past and present activities
- Comparison of current and future conditions scenarios, including consideration of climate change impacts
- Professional judgement based on regional trends and historic data.

Cumulative Effects Assessment Boundaries

Cumulative effects assessment boundaries are defined as the maximum spatial and temporal scales over which there is a potential for residual Project effects to the Surface Water to interact with residual effects of other past, present reasonably foreseeable future projects and activities.

The spatial boundaries for Surface Water cumulative effects assessment consists of the RAA defined for the Surface Water Project-specific effects assessment.

Temporal boundaries considered for the cumulative effects assessment of the Project include:

- Present and Ongoing: initiated prior 2025 but anticipated to carry on beyond the construction start date.
- Planned/Reasonably Foreseeable Future: planned to start during mine life (construction – post-closure).

Project Interactions with Past, Present, and Reasonably Anticipated Future Projects

Table 7.4.2-9 List of Projects and Activities with Potential to Interact with Surface Water Residual Effects in the Regional Assessment Area

Project/Activity	Temporal	Location	Proponent
Canadian Commercial Fisheries on the Lower T'aakú Héeni	Present (certain)	T'aakú Héeni from US/Canada border to 18 km upstream	Various Operators
Recreation use	Present (certain)	Regional	Various land users and business operators
Tulsequah Chief Mine Clean Up	Reasonably Foreseeable Future	6 km NE from Mine Site	Teck Resources
US Commercial Fisheries on the Lower T'aakú Héeni (Taku River) (transboundary)	Present (certain)	RAA	US Commercial Fisheries

Of those listed in **Table 7.4.2-10** as projects and activities with potential to interact with surface water residual effects in the RAA, those listed in **Table 7.4.2-10** can potentially overlap with the Project residual effects. The rationale for exclusion of potential residual effects in the CEA is provided.

Table 7.4.2-10 Interactions with Effects of Past, Present, and Anticipated Future Projects and Activities for Surface Water Residual Effects

Project/Activity	Changes to Surface Water Quantity	Changes to Surface Water Quality	Comments
Commercial Fisheries	No	No	Potential to affect fish spawning or migration conditions from Kitchen Slough and Whitewater Creek, and therefore have consequences to fisheries.
Recreational use	No	Yes	Potential effects to surface water through increased anthropogenic presence and activity.
Tulsequah Chief Mine Clean Up	No	Yes	Potential positive effects to surface water through the legacy mine site clean up project.

Existing Conditions

As the Cumulative Effect Assessment Area is identical to the Surface Water RAA, there are no differences for existing conditions for cumulative effects compared to the Existing Conditions section.

Potential Positive Cumulative Effects

The interaction with the Tulsequah Chief Mine Clean Up Project has potentially positive effects to surface water quality and quantity in the RAA. This historical mining impact clean-up project is a collaborative effort involving the Province of British Columbia, the Taku River Tlingit First Nation, and Teck Resources. The cleanup is anticipated to result in a positive effect on water quality in the RAA because it currently represents a credible plan to address the most severe pollution from historical mining activity in the Taku Watershed. It is considered a positive effect as it includes the following components:

- Enforcement of environmental mining requirements: The Province has issued advisories and warnings to the site owners, Chieftain Metals Inc., to ensure compliance with environmental standards.
- Developing a conceptual plan for clean-up: this plan outlines options for how to address the contaminated water entering the Taaltsuxéi Héen.
- Monitoring water quality and aquatic ecosystems: comprehensive monitoring is conducted to assess the extent of environmental impacts and track conditions over time.
- Identifying locations for plugs to prevent future discharge: This step is part of the long-term solution for managing the acid-mine drainage. The timeline for remedial completion is expected to be within the next decade, contingent on the implementation of the cleanup plan.

Potential Adverse Cumulative Effects

Potential adverse cumulative effects are potential negative effects that are observable or measurable negative changes to the groundwater systems within the RAA. These changes can be caused directly or indirectly by compounding activities in the RAA. Potential adverse cumulative effects to surface water quality are assessed below.

Surface Water Quality

Potential adverse cumulative effects to surface water quality in the RAA are predicted to result in a change in water chemistry resulting from altered flow regimes due to landscape changes affecting surface water transport and dilution capacity.

Interaction with climate change influences, such as changes in precipitation patterns and hydrologic extremes may increase the overall contribution of the Project on the cumulative effects in the RAA. Conversely, changing precipitation patterns, retreat of the Tulsequah Glacier (and gradual attenuation of jökulhlaups severity) could potentially buffer Project-influenced surface water chemistry changes. Irrespective, it is anticipated that the natural background levels of metals and other quality-related constituents in surface water are subject to change in the RAA as climatic conditions shift into the future.

The cumulative effects to groundwater are discussed in Section 7.4.2 and indirect cumulative effects to fish and aquatic invertebrates are assessed in Section 7.5 Aquatic and Marine Resources.

Mitigation Measures

The following measures support management of cumulative effects on Surface Water Quality at a regional scale:

- Participation in Regional Aquatic Effects Management and Monitoring Programming to support detection, evaluation, and adaptive management of cumulative effect in the lower Taku watershed.
- Collaboration with Provincial Regulators, Indigenous Rightsholders, and other proponents to support coordinated management of cumulative effects at the watershed scale.
- Integration of the New Polaris Project with on-going Land Use Planning in to affirm Canagold's role in, and responsibility for, environmental stewardship in the lower Taku watershed.

Together, these measures are designed to complement project-specific mitigation (**Section 7.4.2.7**) and provide a practical, watershed-focused approach to limiting the overall magnitude and likelihood of cumulative surface water quality effects in the long-term.

Characterization of Residual Cumulative Effects

Changes to Surface Water Quality

The residual cumulative effect to Surface Water Quality is characterized in **Table 7.4.2-11**.

Table 7.4.2-11 Residual Cumulative Effect Characterization for Surface Water Quality

Criteria	Characterization	Rationale
Direction	Adverse	Residual effects to surface water quality can occur from multiple anthropogenic activities.
Context	Moderate	The RAA includes other activities adversely affecting water quality, but surface water also has resilience and the capacity to dissipate these effects downstream of the source.
Magnitude	Low	Cumulative activities have the potential to represent a measurable change to the surface water quality, but are expected to remain within applicable water quality guideline (BC WQG) and within natural variability ranges.
Geographic Extent	Regional	Potential cumulative effects would occur within portions of the RAA.
Duration	Long-Term	Effects are anticipated to persist through operations, closure, and into post-closure.
Frequency	Irregular	Effects may occur intermittently during runoff events or operational activities; however, controlled water management and treatment will limit the frequency of measurable adverse effects.
Reversibility	Reversible	The cumulative water quality conditions are expected to improve over time with ongoing mitigation of the TCM cleanup, and the addressing of historical mining impacts at the Polaris-Taku mine site.
Importance	High	Surface water quality is a valued environmental component with ecological, cultural, and regulatory significance; cumulative incremental changes, even if limited, warrant careful management.

Likelihood, Risk, Confidence and Uncertainty of Adverse Cumulative Effects

The assessment of the likelihood, risk and uncertainty for Surface Water Quality Changes is presented in **Table 7.4.2-12** below.

Table 7.4.2-12 Likelihood, Risk and Uncertainty Characterization for Cumulative Effects to Surface Water Quality

Criteria	Characterization	Rationale
Likelihood	Medium	Based on overlap between project residual effects and other regional activities.
Consequence	Minor	Combined activities could result in detectable changes to water quality on the lower Taaltsuxéi Héen but would dissipate to within the range of natural variability and below regulatory thresholds in the lower T'aakú Héeni.
Risk	Moderate	Based on the likelihood and consequences of combined effects.
Confidence	Moderate	Based on available data and understanding; uncertainty exists due to existing conditions, Project design assumptions and climate variability. The TCM cleanup is assumed to proceed and be successful.

7.4.2.7 Monitoring and Follow-Up

A comprehensive Surface Water Quality and Quantity Monitoring and Follow-Up Program will be implemented to evaluate the effectiveness of mitigation measures described in this section, verify the accuracy of the predictions made in the effects and cumulative effects predictions made in the effects and cumulative effects assessments, and support adaptive management throughout the life of the Project.

The objective of the monitoring and follow up program is to:

- Confirm that water quality in receiving environment is consistent with predicted conditions following implementation of mitigation measures.
- Assess whether mitigation measures are achieving their intended performance in reducing or eliminating adverse effects.
- Detect any unexpected changes in surface water quality in a timely manner.
- Provide data to support adaptive management, updates to mitigation plans, and regulatory compliance reporting.

The monitoring program will include the following key components:

Surface Water Quality Monitoring

Monitoring activities will consist of routine and event-based sampling at representative locations upstream and downstream of the Project footprint, including key nodes in Whitewater Creek, the Taaltsuxéi Héen, and the T'aakú Héeni.

Parameters will include:

- **Field indicators**: temperature, pH, conductivity, dissolved oxygen, turbidity, and suspended solids.
- **Chemical Indicators**: major ions, nutrients (e.g., nitrate, phosphorus), and metals (total and dissolved), including those identified as COIs in the effects assessment.
- Continuous or periodic flow and stage measurements to conceptualize water quality data.

Monitoring will be conducted in accordance with the applicable regulatory requirements and best available scientific methods, including relevant provincial and federal guidelines.

Verification of Predictions and Mitigation Effectiveness

Data collected through the monitoring program will be compared to baseline conditions, model predictions, and regulatory standards to verify the accuracy of effects predictions.

The program will specifically assess:

- Whether treated discharge meets effluent limits at compliance points.
- Whether mitigation measures (such as erosion and sediment controls, water treatment, and contact water management) are performing as intended.
- Trends in constituent concentrations over time and their relationship to seasonal and hydrological variability.

Adaptive Management and Plan Updating

The monitoring and follow-up program will incorporate an adaptive management framework whereby:

- Monitoring results trigger evaluations of mitigation performance.
- Action levels and response triggers are established for key constituents.
- Mitigation plans and monitoring frequencies are updated based on observed trends, new scientific methods, changes in regulatory requirements, and best management practices.
- Improvements in data quality, analytical methods, or predictive understanding are incorporated into ongoing assessment and management.

The adaptive process will help ensure the monitoring program remains responsive and effective throughout all Project phases, from construction through post-closure.

Consultation and Engagement

Ongoing consultation and involvement with interested parties will be integral to the monitoring and follow-up program. This will include:

- Engagement with Indigenous Nations to guide monitoring design, interpretation, and reporting.
- Communication of monitoring results to regulators, local governments, and other stakeholders.
- Opportunities for community participation in monitoring program review and annual reporting.

Indigenous knowledge and community inputs will be considered in the refinement of monitoring locations, indicators, and adaptive responses. The monitoring and follow-up program will be described in detail in a Surface Water Quality Monitoring Plan prepared in consultation with regulators and Participating Indigenous Nations prior to Project initiation.

7.4.2.8 References

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International Organization of Standardization. (2023). ISO 5667 – 1:2023 – Water quality – Sampling – Part 1: Guidance on the design of sampling programmed and sampling techniques. Geneva, Switzerland: ISO.

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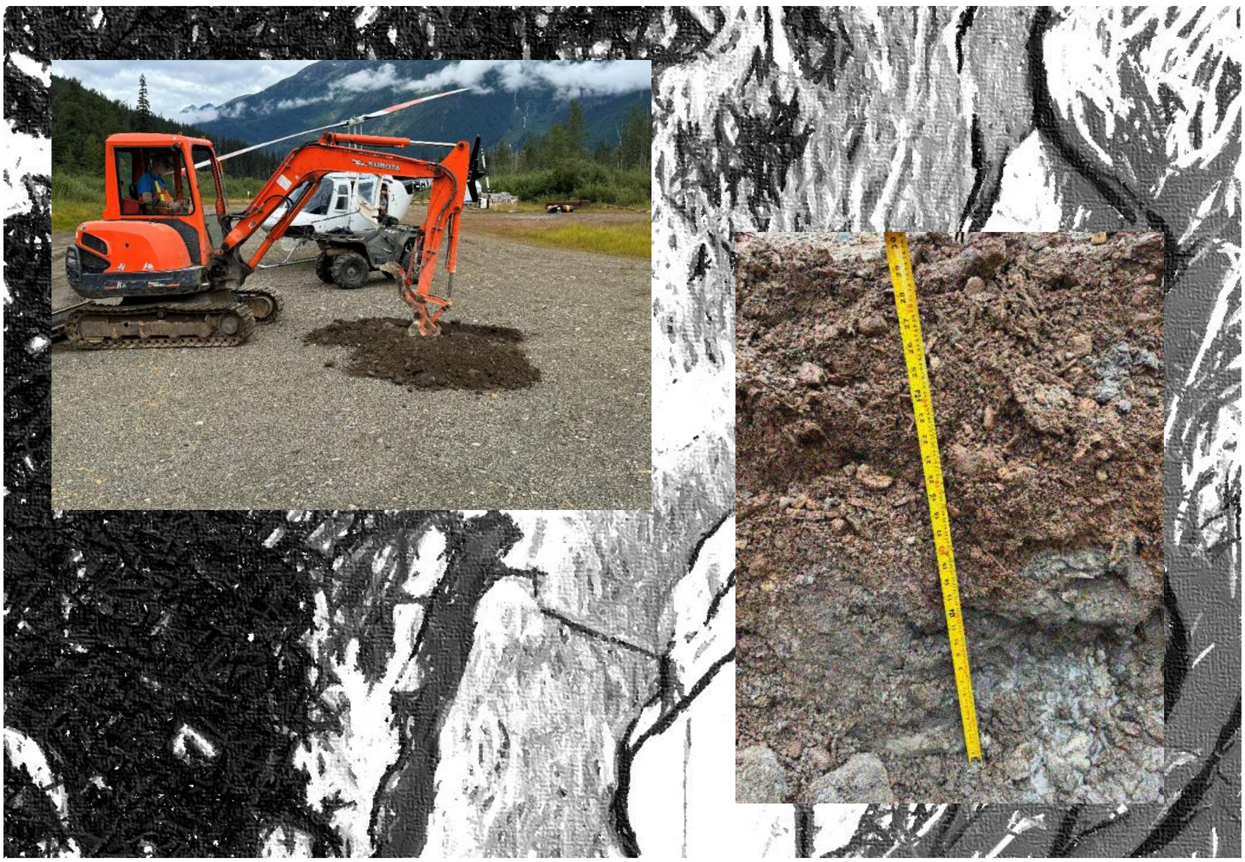
Appendix 7.4-1

Legacy Wastes Geochem Report

Draft Report

New Polaris Project:
Legacy Mine Waste Geochemistry Assessment



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Executive Summary

Canagold Resources Ltd. (Canagold) is advancing its New Polaris gold project located in northwestern BC. Ausenco Sustainability ULC. (Ausenco) carried out a Phase 1 baseline geochemistry program (Ausenco, 2023). Subsequently Ausenco completed a geochemistry program for legacy mine wastes located at the site, as reported herein.

The New Polaris project site (the 'Site') incorporates the historic Polaris-Taku underground mine which generated gold, silver and copper. Currently the mine workings are flooded with drainage occurring through a system of adits. Residual mine rock and tailings are located across the site. At the end of operations, the Polaris-Taku mill was used for processing copper-lead-zinc-gold ore from the nearby Tulsequah Chief mine.

Methods used for sampling and results interpretation were consistent with the requirements outlined in Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials (MEND, 2009). Sample collection was carried out with the welcome assistance of Canagold. A total of 10 test pits in mine rock were advanced to refusal. A total of 16 composite waste rock samples were collected for laboratory analysis. Thirteen legacy tailings samples were sourced from stored samples left over from Canagold's 2024 legacy tailings field investigation. Samples were sent to Global ARD lab in BC for static geochemistry testing.

All legacy waste samples were classified as non-potentially acid generating (NPAG). Legacy wastes were found to be at risk of residual leaching of selected metals, which is consistent with the results of baseline water quality monitoring. The solid phase lead, copper and zinc content in legacy materials and the observed short-term leaching risk suggested the presence of tailings and ore materials on site from nearby Tulsequah Chief mine. This would be consistent with the Polaris-Taku mill being used to process ore from Tulsequah Chief historically.

Antimony was found to rapidly leach from fresh waste rock (drill core) during laboratory testing. An elevated risk of antimony leaching from legacy mine wastes was not observed after several decades of weathering on site. This suggests that the potential risk of antimony leaching from mine wastes is more of a short to medium-term issue with respect to mine closure timelines.

The presence of elevated arsenic, copper and zinc in surface waters downstream of the site may be indicative of ongoing impacts from legacy mine wastes present at the site. This conclusion may be tempered by the possibility of groundwater inputs to surface waters, since groundwater also displays mine impact signatures that may be associated with the flooded underground.

The presence of legacy mine wastes at the site poses a residual metal leaching risk which, in our opinion, requires addressing in closure planning for the New Polaris project. Mitigation options would include rehabilitation in-place using low-permeability cover materials; alternatively, legacy mine wastes could be relocated for secure onsite storage in the Co-disposal facility. Depending on exact location, the benefits of disturbing the legacy wastes and potentially aggravating the shorter term metal leaching risk by exposing fresh surface areas to oxidation (especially for tailings) needs to be balanced with the longer-term benefits of hydraulically isolating the materials.

A ballpark volume of legacy mine rock would be around 50,000 m^3 (100,000 tonnes[1]). The volume of legacy tailings at site was estimated by Canagold in 2024 at 59,000 m^3 (82,000 tonnes).

Disclaimer

This work was performed in accordance with the Professional Services Agreement between Ausenco Sustainability Inc. and Canagold Resources Ltd (Client), dated November 17, 2020 (Contract). This report has been prepared by Ausenco, based on fieldwork conducted by Ausenco, for sole benefit and use by Canagold Resources Ltd. In performing this work, Ausenco has relied in good faith on information provided by others and has assumed that the information provided by those individuals is both complete and accurate. This work was performed to current industry standard practice for similar environmental work, within the relevant jurisdiction and same locale. The findings presented, herein, should be considered within the context of the scope of work and project terms of reference; further, the findings are time sensitive and are considered valid only at the time the report was produced. The conclusions and recommendations contained in this report are based upon the applicable guidelines, regulations, and legislation existing at the time the report was produced; any changes in the regulatory regime may alter the conclusions and/or recommendations.

1 Assuming density of 2t/m^3.

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List of Acronyms and Abbreviations

Acronym / Abbreviation	Definition
ARD / ML	Acid Rock Drainage / Metal Leaching
Ausenco	Ausenco Sustainability Inc.
BC	British Columbia
BC WQG	British Columbia Water Quality Guidelines
CCME	Canadian Council of Ministers of the Environment
Canagold	Canagold Resources Ltd.
EA	Environmental Assessment
FAL	Freshwater Aquatic Life
MEND	Mining Environment Neutral Drainage
NPAG	Non-Potentially Acid Generating
PAG	Potentially Acid Generating

List of Symbols and Units of Measure

Symbol / Unit of Measure	Definition
%	percent
%wt.	percent by weight
cm	centimetre
°C	degrees Celsius
h	hour
ha	hectare
km	kilometre
L/s	litres per second
m	metre
mg/kg	milligrams per kilogram
mg/L	milligrams per litre
tpd	tonnes per day
tpy	tonnes per year
$tCaCO_3$/1,000t	tonnes calcium carbonate equivalent per 1,000 tonnes

1.0 Introduction

Canagold Resources Ltd. (Canagold) is advancing its New Polaris gold project located in northwestern BC (**Figure 2-1**). Ausenco Sustainability Inc. (Ausenco) carried out a Phase 1 baseline geochemistry program in 2021 (Ausenco, 2023). This work focused on assessing the metal leaching / acid rock drainage (ML/ARD) risk associated with future development waste rock, ore and tailings through the analysis of drill core samples, along with several samples of legacy mine rock collected from site.

Ausenco is now assisting Canagold with navigating the project through the Environmental Assessment (EA) process. As part of this work, an ML/ARD assessment was carried out for legacy mine wastes located at the site. This report provides a summary of the methods, results and conclusions / recommendations from the completion of this work.

1.1 Background

The New Polaris project site (the ‘Site’) incorporates the historic Polaris-Taku underground mine, which was operational from 1937 to 1941, and from 1947 to 1951. Total ore production was 683,337 tonnes which generated gold, silver and copper (in decreasing order of yield).

Currently the mine workings are flooded with drainage occurring through a system of adits. Distinct large volume legacy waste rock piles are absent. Residual mine rock is located across the site and was likely used for construction of, for example, the plant site pad, former airstrip, mine roads etc.

Ore was milled on site during operations. There is no distinct storage facility for legacy tailings at the New Polaris site. Rather, it appears that historically, tailings were placed across the site downstream of the former mill. At the end of operations, the Polaris-Taku mill was used for processing copper-lead-zinc-gold ore from the nearby Tulsequah Chief mine. It is understood that acid generating mine wastes are present at the Tulsequah Chief mine site.

2.0 Methods

2.1 Historic Sampling and Analysis

Ausenco collected three samples of legacy tailings and five samples of legacy mine rock in 2021 (Ausenco, 2023). At this time, it was understood that all legacy mine rock originated from mining at Taku-Polaris.

2.2 Regulatory Requirements

Methods used for sampling and results interpretation were consistent with the requirements outlined in *Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials* (MEND, 2009). This guidance document is consistent with the ML/ARD management requirements of the *Health, Safety and Reclamation Code for Mines in British Columbia* (2024).

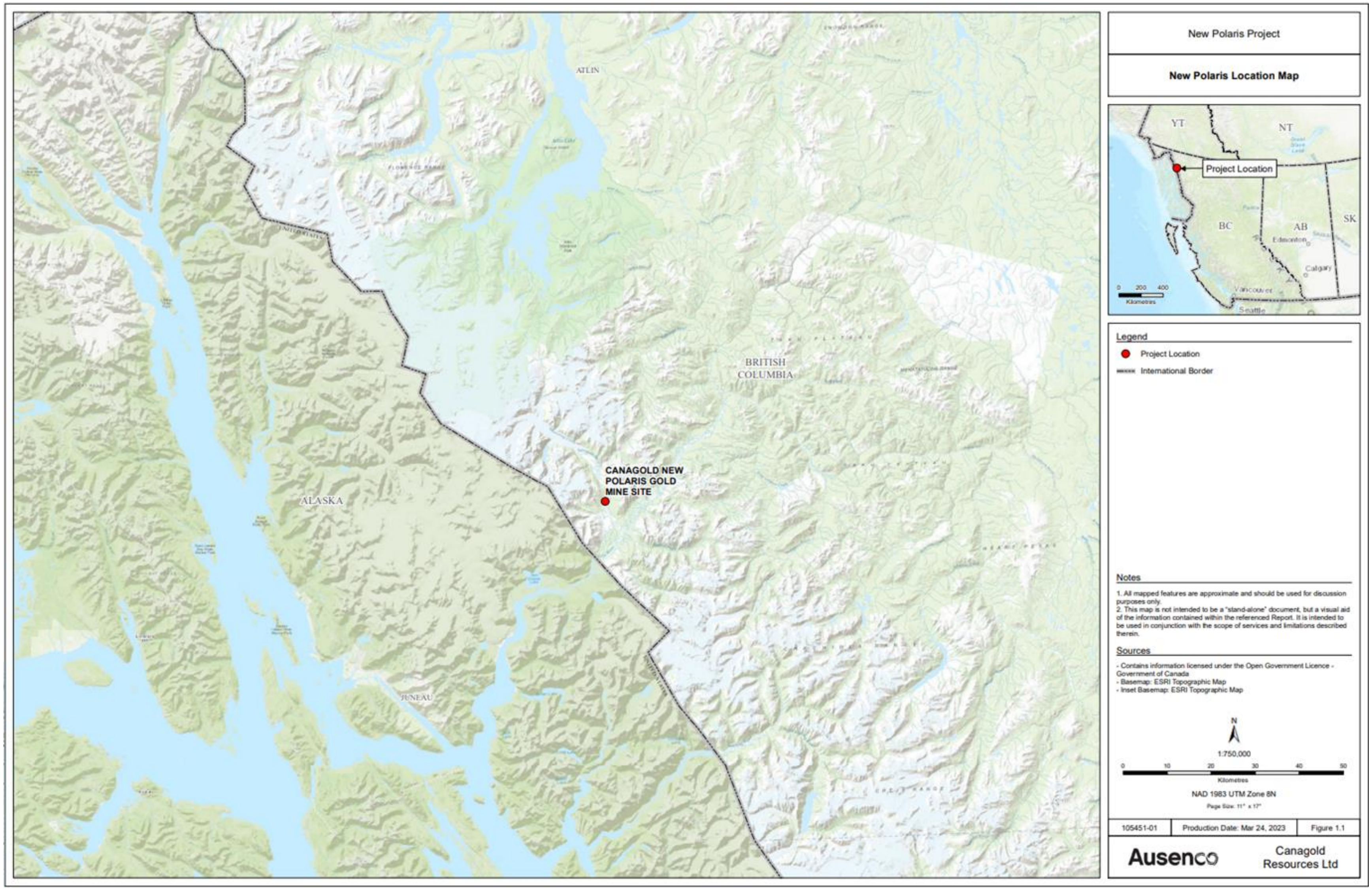


Figure 2-1 Project Location

2.3 Sampling and Analysis Plan

2.3.1 Sample Collection

Sample collection was carried out in August, 2025 with the welcome assistance of Canagold which provided and operated a mini excavator for advancing test pits for mine rock sample collection. A total of 10 test pits were advanced in areas where it was apparent that rockfill had been placed historically, which included the plant site pad area, mine roads, the former airstrip, and rock accumulated adjacent to the mine portal. Test pits were advanced to refusal (i.e. limited to around 1.0 to 1.5 m.b.g.s. using the mini-excavator). Test pit locations are shown in **Figure 2-2** with proposed plant site infrastructure footprints. Test pit details are provided in **Table 2-1**.

Each test pit sample comprised two to three grab samples collected from different locations / depths within the excavation. These grab samples were then combined to produce a single composite sample per test pit. A total of 12 legacy tailings samples were sourced from stored samples left over from Canagold's legacy tailings field investigation carried out in August, 2024. Details on legacy tailings samples are provided in **Table 2-2**, with sampling locations shown in **Figure 2-3**. Photos of test pits are provided in Appendix A.

2.3.2 Sample Analysis

Mine rock and tailings samples were submitted under chain of custody to the Global ARD analytical laboratory in Burnaby, BC for analysis for the following parameters:

- Elemental analysis (aqua regia digestion)
- Acid base accounting (ABA)
- Shake flask extraction (SFE) – deionised water, 3:1 liquid to solid ratio.

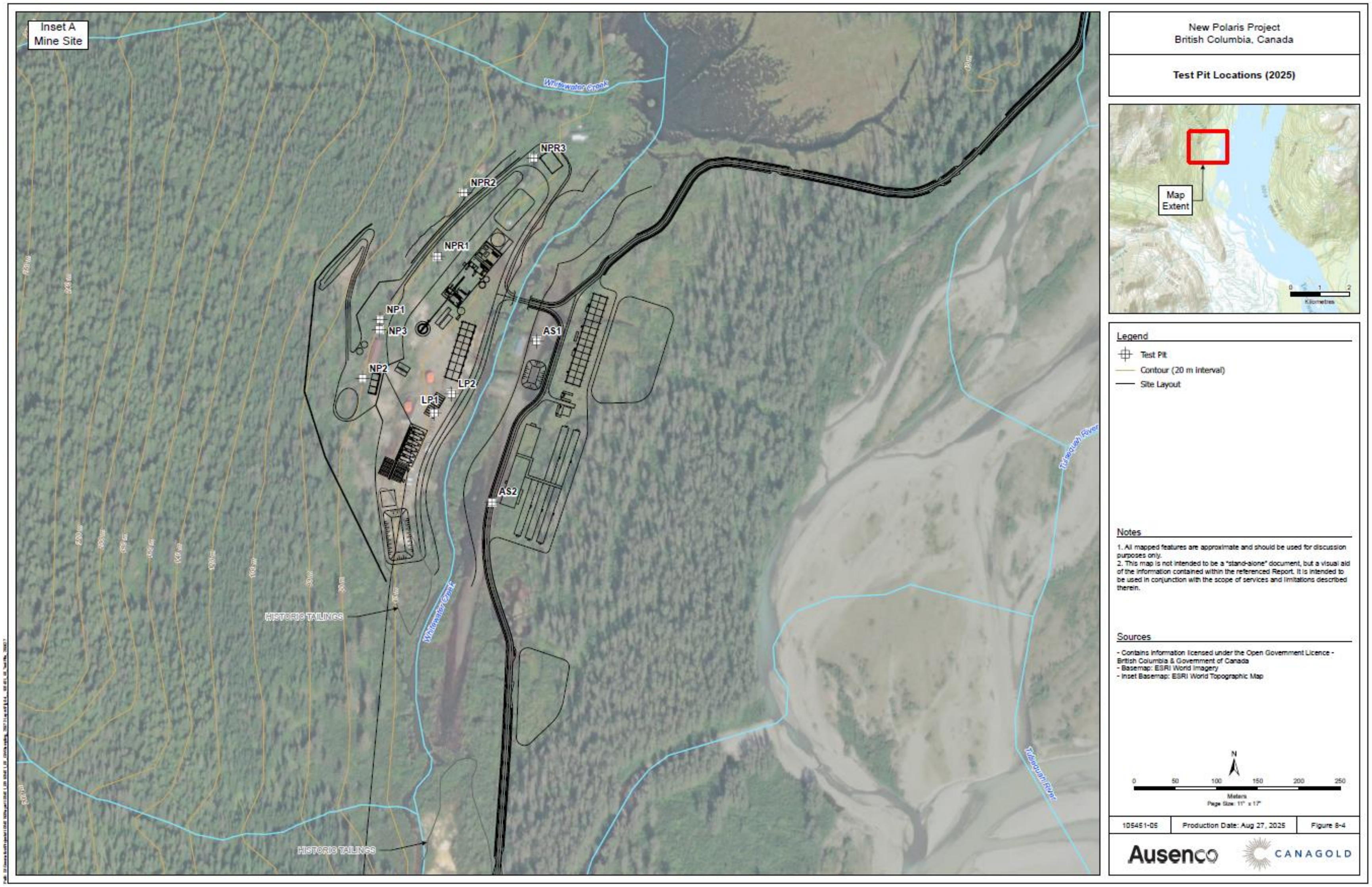


Figure 2-2 **Test Pit Locations for Mine Rock Sampling**

Table 2-1 Test Pit Details

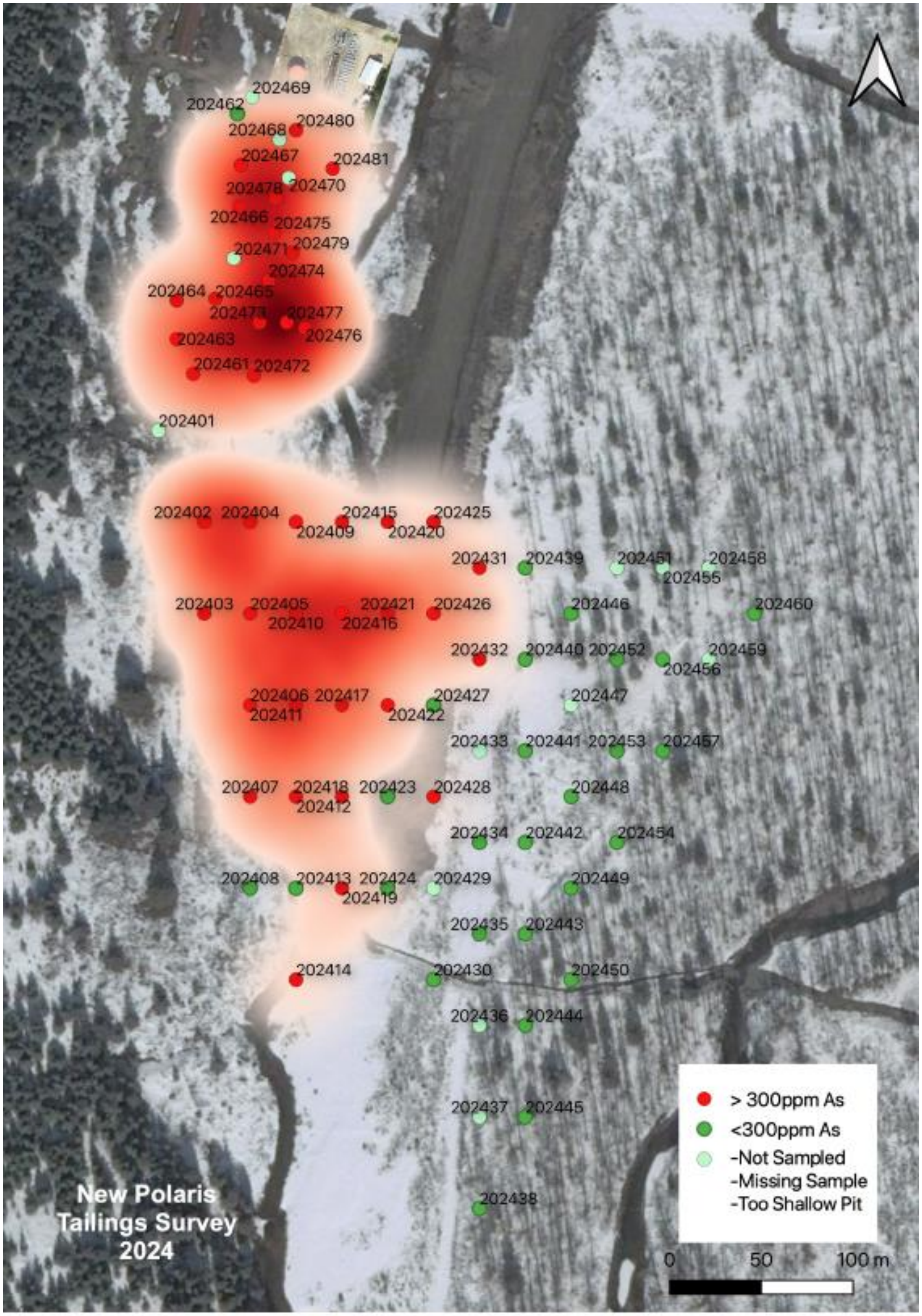
Test Pit ID	Location	UTM (East)	UTM (North)	Sample ID	Sample Depth (m.b.g.s.)	Test Pit Depth (m.b.g.s.)	Description
AS1	Former airstrip	579481	6507382	AS1-0.1	0.1	0.0 – 0.4	Moist grey-bwn. Fin.-med. sand, tr. silt, some gravel
				AS1-0.4	0.4	0.4 – 0.7	Moist bwn. silty sand, tr. subangular gravel
				AS1-0.8	0.8	0.7 – 1.0	Moist-wet, drk. Blue-grey, coarse, med., silty sand, hydrocarbon sheen / odour. Wet at 0.9m.b.g.s.
AS2	Former airstrip	579427	6507187	AS2-0.1	0.1	0.0 - 0.5	Dry bwn. fin.-med sand, tr. silt, tr. Wood debris, some angular gravel
				AS2-0.5	0.5	0.5 – 0.7	Lumber (fallen tree)
				AS2-1.0	1.0	0.7 – 1.0	Drk blue-grey med. to silty sand, some subangular gravel, tr. Wood debris, hydrocarbon sheen / odour
LP1	Lower pad (former crusher)	579357	6507295	LP1-0.2	0.2	0.0 – 0.3	Damp, bwn. Med to coarse, silty sand, tr. subangular gravel, Wood debris. Black lens at 0.2m.b.g.s.
				LP1-0.5	0.5	0.3 – 0.6	Grey, fin. to med. sand, tr. coarse subangular gravel, wood debris. Saturated from 0.5m.b.g.s. downwards
				LP1-1.1	1.1	0.6 – 1.1	Wet, grey, fine sand, soft, dense, plastic (clay-like), tailings
LP2	Lower pad (former crusher)	579378	6507318	LP2-0.1	0.1	0.0 – 0.3	Wet, grey med. to coarse sand, some silt, subrounded gravel
				LP2-0.4	0.4	0.3 – 0.7	Wet red, coarse-med. Sand, some silt, tr. subrounded gravel
				LP2-1.2	*No sample*	0.7 – 1.2	Wet, grey-beige clay-like, tailings
NP1	Taku-Polaris mine rock (portal)	579291	6507408	NP1-0.2	0.2	0.0 – 0.25	Damp, grey-bwn., fin. to med. sand, some coarse gravel, wood debris / roots
				NP1-0.6	0.6	0.25 – 0.8	Damp, red-bwn., coarse sand, some coarse gravel, wood debris
				NP1-1.0	1.0	0.8 – 1.0	Damp, large sub-angular boulders / gravel, tr. silt, coarse red-bwn. sand

Test Pit ID	Location	UTM (East)	UTM (North)	Sample ID	Sample Depth (m.b.g.s.)	Test Pit Depth (m.b.g.s.)	Description
NP2	Taku-Polaris mine rock (portal)	579270	6507337	NP2-0.1	0.1	0.0 – 0.3	Damp, bwn.-grey, med.-coarse sand, tr. silt, coarse gravel, tr. boulders
				NP2-0.6	0.6	0.3 – 1.0	Damp, red-grey. coarse gravel, some coarse sand, angular & sub-angular boulders (blasted material)
				NP2-1.0	1.0		As above
NP3	Taku-Polaris mine rock (portal)	579478	6507604	NP3-0.2	0.2	0.0 – 0.4	Moist, bwn.-gry, silty-med. sand, wood debris, cobbles, tr. angular gravel
				NP3-0.6	0.6	0.4 – 1.2	Gravel-sand, silt, tr. cobbles, angular-subangular gravel
NPR1	Mine road	-	-	NPR1-0.3	0.3	0 – 0.6	Moist, grey-bwn., fin.-med. Sand, tr. silt, tr. subangular gravel (red-bwn., incr. Angular gravel at 0.3m.b.g.s.)
NPR2	Mine road	579393	6507562	NPR2-0.3	0.3	0 – 0.6	Moist, bwn, silty sand, tr. subrounded cobbles, tr. gravel
NPR3	Mine road	579478	6507604	NPR3-0.3	0.3	0 - 0.3	Dry, med. – coarse sand, some gravel, tr. grey silt
				-	-	0.3 – 0.6	Incr. dry, bwn.-grey silt, Wood debris, tr. angular gravel

Table 2-2 Legacy Tailings Sample Details

Hole ID	Location		Tailings Interval Thickness (m)	Sample ID	Interval (m)	Colour
	Easting (NAD 83)	Northing (NAD 83)				
202414	579353	6506844	0.2 – 0.5	678704	0.0 – 0.2	Orange-brown sand
					0.2 – 0.4	Orange-brown clay
					0.4 – 0.5	grey / orange clay
202463	579288	6507194	0.5 – 2.0	678739	0.0 – 0.5	Orange – red cobbles & gravel
					0.5 – 2.0	Grey silty sand
202407	579328	6506944	0.1 – 0.7	678737	0.0 – 0.1	Organics
					0.1 – 0.6	Orange-brown silty sand
					0.6 – 0.7	Grey clay
202409	579353	6507094	0.0 – 0.6	678707	0.0 – 0.2	Orange sand
					0.2 – 0.5	Grey-green silt
					0.5 – 0.6	Grey clay
202477	579348	6507203	0.0 – 0.8	678766	0.0 – 0.8	Orange – beige silt
202478	579342	6507271	1.0 – 1.4	678770	0.0 – 0.3	Grey gravel fill
					0.3 – 1.0	Grey waste rock
					1.0 – 1.4	Grey tailings
					1.4 – 1.9	Black organics
202480	579353	6507308	0.6 – 2.2	678771	0.0 – 0.6	Grey gravel
					0.6 – 0.9	Beige tailings (Tulsequah Chief?)
					0.9 – 2.2	Grey tailings (Taku-Polaris?)
					2.2 – 2.3	Black organics

Hole ID	Location		Tailings Interval Thickness (m)	Sample ID	Interval (m)	Colour
	Easting (NAD 83)	Northing (NAD 83)				
202419	579341	6506894	0.1 – 0.8	678727	0.0 – 0.1	Brown organics
					0.1 – 0.3	Orange-bwn. sand
					0.3 – 0.5	Beige silt
					0.5 – 0.8	Grey sand
					0.8 -	Grey gravel
202410	579353	6507044	0.1 – 0.4	678720	0.0 – 0.1	Brown organics
					0.1 – 0.4	Grey sand
					0.4 -	Grey gravel
202472	579330	6507174	0.14 – 0.19	678756	0 – 0.3	Grey gravel fill
					0.3 – 0.6	Grey gravel, sand
					0.6 – 1.4	Beige sand
					1.4 – 1.9	Grey sand
					1.9 – 2.2	Black organics
202405	579328	6507044	0.0 – 0.7	678710	0 – 0.5	Orange silty-sand
					0.5 – 0.7	Grey silty sand
202461	579297	6507175	0.0 – 2.0	678712	0.0 – 2.0	Grey – Orange-brown tailings



(Figure used courtesy of Canagold)

Figure 2-3 Legacy Tailings Sample Borehole Locations

3.0 Results

3.1 Origin of Legacy Samples

Based on discussions with Canagold, legacy mine rock at the site is understood to be primarily development waste rock with possibly residual ore from Taku-Polaris operations (especially in the vicinity of the portals). The identification of some PAG rock in the 2021 sampling program was probably indicative of residual ore left over from milling of ore from Tulsequah Chief mine. Legacy tailings are assumed to be either originate from milling of ore from Taku-Polaris and Tulsequah Chief mines.

Ternary plots can be a useful tool for visualizing relationships between geochemical parameters that may indicate a common or dissimilar source material. A series of ternary plots were prepared for legacy mine rock and tailings to see if the origins of the materials could be determined (i.e. from Taku-Polaris or Tulsequah Chief).

Figure 3-1 shows an example of a ternary plot for magnesium, aluminum and iron and illustrates how to interpret the plotted data for a single sample. The plot indicates that by mass, the sample is composed of 40% aluminum, 20% iron and 40% magnesium.

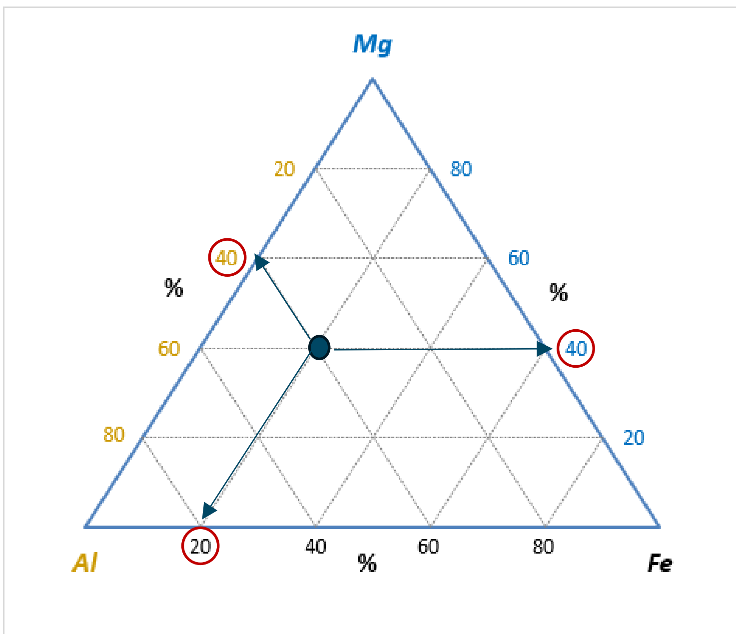


Figure 3-1 Ternary Plot Example

Key metal concentrations for samples collected by Ausenco in 2021 (New Polaris drill core and legacy rock) and 2025 (legacy rock and tailings) were plotted in a series of ternary plots to try and illuminate chemical signatures that indicate sample origins (**Figure 3-2** and **Figure 3-3**). This exercise has limitations, for example, legacy rock may be less enriched in key parameters after decades of weathering in the field versus fresher core material.

Generally, in comparison to New Polaris waste rock / low-grade ore samples, legacy mine rock samples showed:

- Lead and zinc enrichment which was particularly elevated. Arsenic also showed enrichment
- Lower enrichment in sulphur
- Lower copper and magnesium enrichment.

Generally, in comparison to New Polaris tailings, legacy tailings showed:

- Zinc, copper, lead and iron enrichment
- Sulphur depletion.

Both legacy tailings and mine rock was sulphur-depleted compared to New Polaris drill core samples which is consistent with decades of on-site weathering. The lead and zinc signature observed in mine rock samples appears to be more consistent with the target metals present in ore from Tulsequah Chief. Similarly, zinc and copper enrichment in legacy tailings appears to be more consistent with what might be expected for tailings derived from milling of ore from Tulsequah Chief which was a producer of copper, lead, zinc and gold.

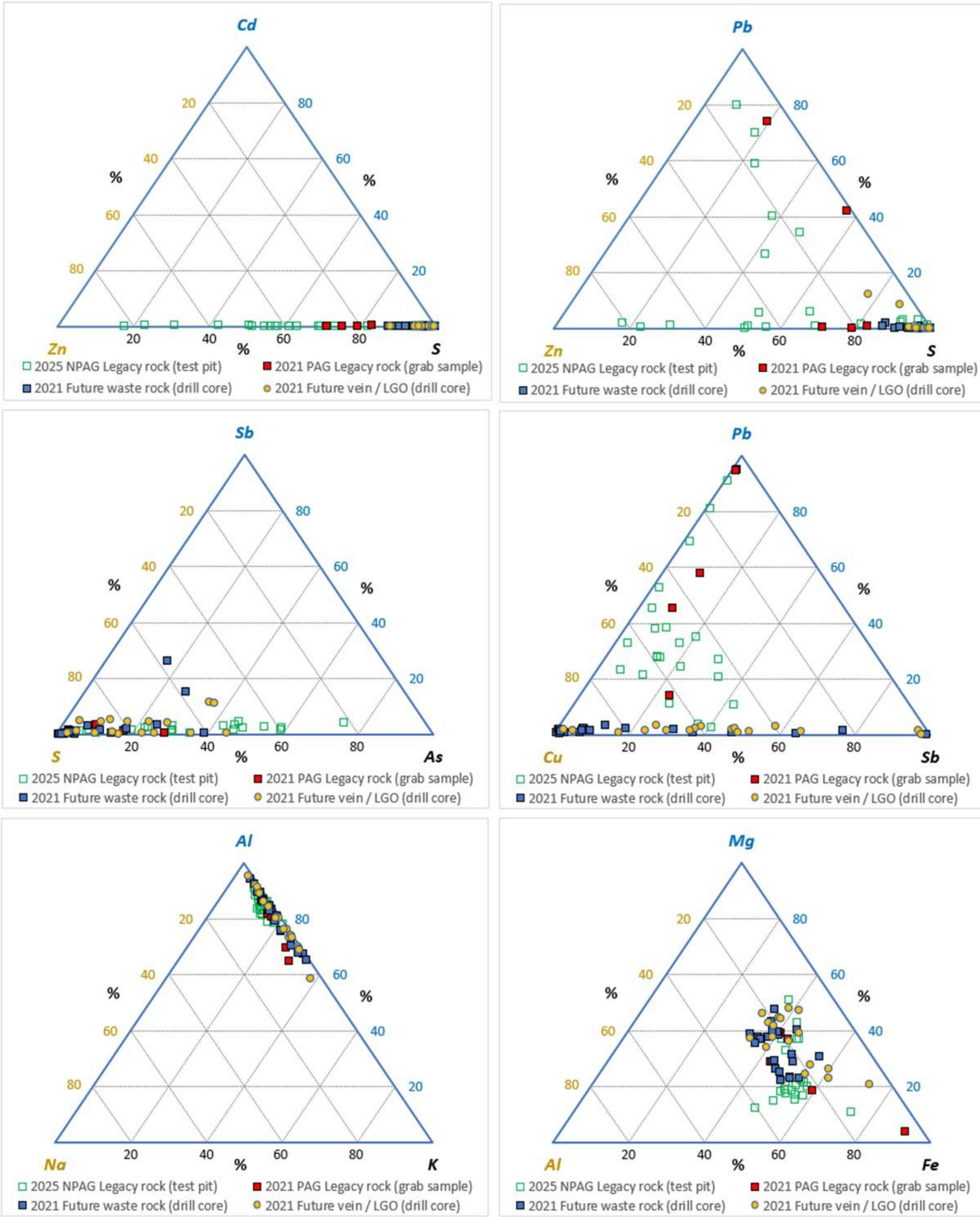


Figure 3-2 Legacy Mine Rock Sample Ternary Plots

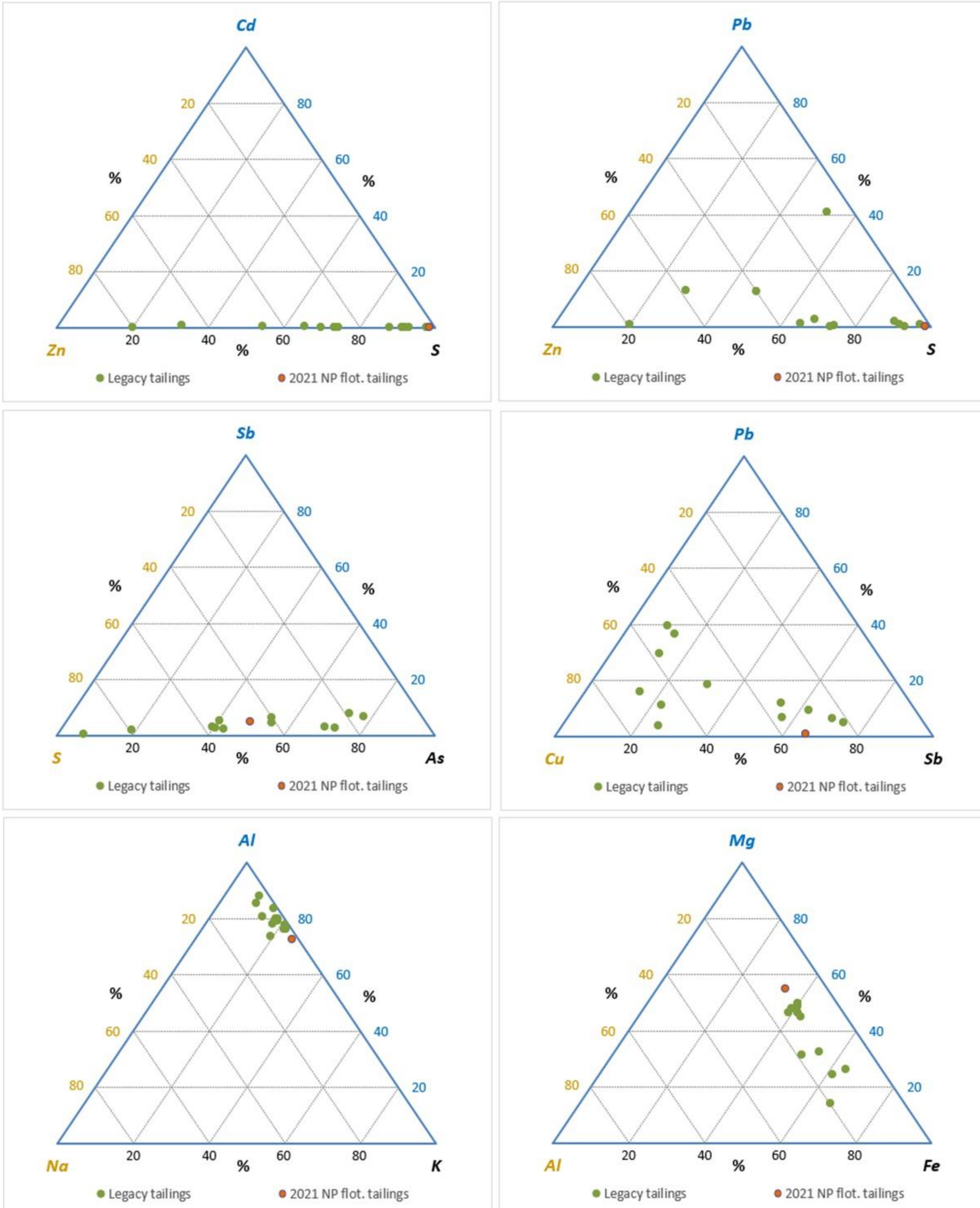


Figure 3-3 Legacy Tailings Sample Ternary Plots

3.2 Risk of Acid Generation

3.2.1 Acid Base Accounting

ARD classification criteria used to predict the ARD risk from legacy wastes are listed in **Table 3-1**.

Table 3-1 ARD Risk Classification Criteria

Sample Classification	Initial Screening Criteria	Comments
Potentially acid generating (PAG)	NP/AP <1	Possible errors which may affect prediction accuracy include: ▫ At very low rates of sulphide oxidation, NP from silicates may be underestimated by conventional NP analysis. ▫ Sulphide containing minerals are not dominated by pyrite. ▫ Preferential exposure of minerals contributing to AP in samples, which does not occur with materials stored on site.
Uncertain risk of acid generation	1<NP/AP<2	Further assessment of geochemical data required to estimate maximum NPR value still capable of generating ARD.
Non-potentially acid generating (NPAG)	NP/AP >2	Possible errors which may affect prediction accuracy include: ▫ NP consumption by meteoric water. ▫ NP contributing mineral is not dominated by calcite. ▫ Sulphide containing minerals are not dominated by pyrite. ▫ Preferential exposure of minerals contributing to AP or NP in samples, which does not occur with materials stored on site.

Notes
NP: Neutralisation potential ($tCaCO_3$/1000t).
AP: Acid potential ($tCaCO_3$/1000t).
Based on MEND, 2009.

Tabulated ABA results are presented in **Appendix B**, with copies of laboratory analytical results included in Appendix C. Plots of key ABA parameters are shown in **Figure 3-4** to **Figure 3-7**.

Sulphide-sulphur is a key ARD parameter, since sulphide mineral (e.g. pyrite) oxidation is responsible for generating acidity. Sulphide-sulphur concentrations were determined in two different ways: i) by direct measurement, and ii) Calculated by subtracting total sulphur minus sulphate-sulphur concentrations. Sulphate concentrations were negligible, hence when calculating sulphide-sulphur by difference, the total sulphur concentration was essentially equal to sulphide-sulphur (**Figure 3-3**, **Figure 3-4**).

The field logs (**Table 2-1** and **Table 2-2**) and test pit photos (**Appendix A**) indicate the presence of wood debris, plant roots in most test pits. Wood debris contains naturally occurring organic sulphur, hence, every effort was made to exclude wood debris from the mine rock samples. However, the apparent under-reporting of sulphide-sulphur using direct measurement (**Figure 3-3**) is likely due to organic sulphur present in the fine particles of wood debris / root material mixed in with the samples. This organic sulphur would not be detected using the sulphide-sulphur direct measurement method (sulphuric / nitric acid leach) but would be detected in the induction furnace method used to analyse for total sulphur. Hence, sulphide-sulphur data obtained from direct measurement was considered to be the more reliable dataset for the legacy samples.

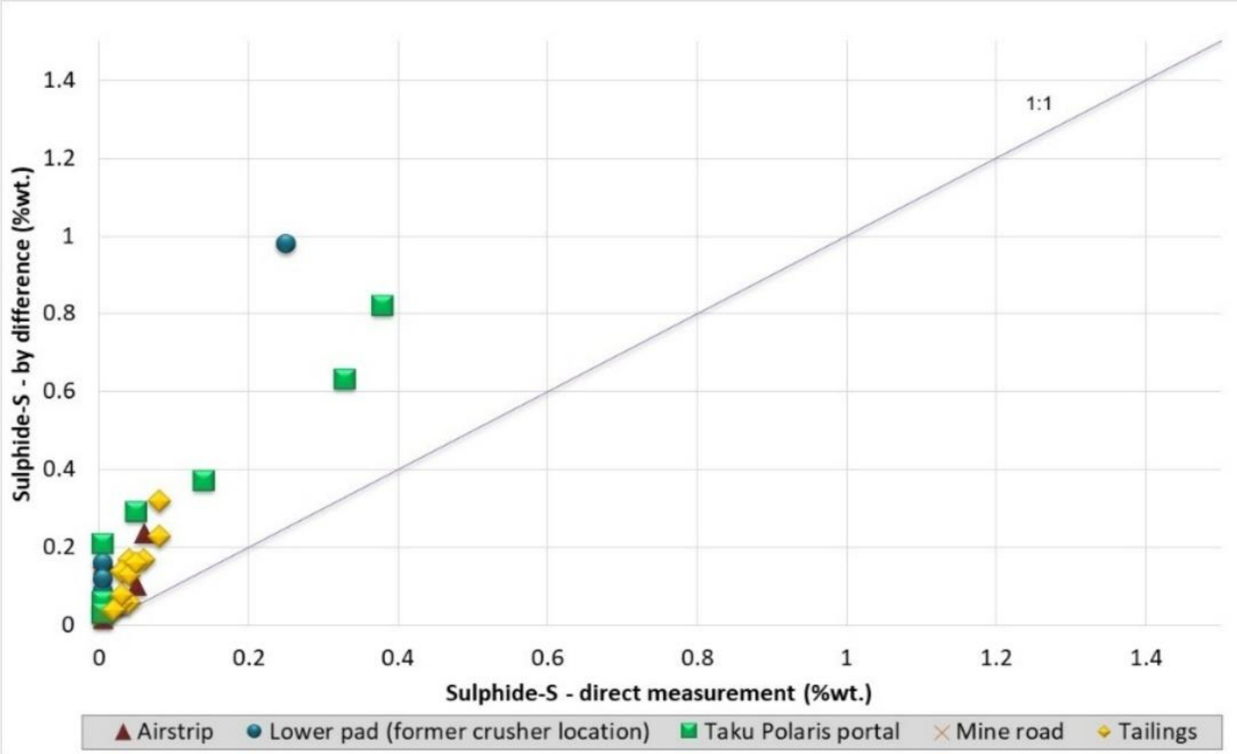


Figure 3-4 **Sulphide-Sulphur**

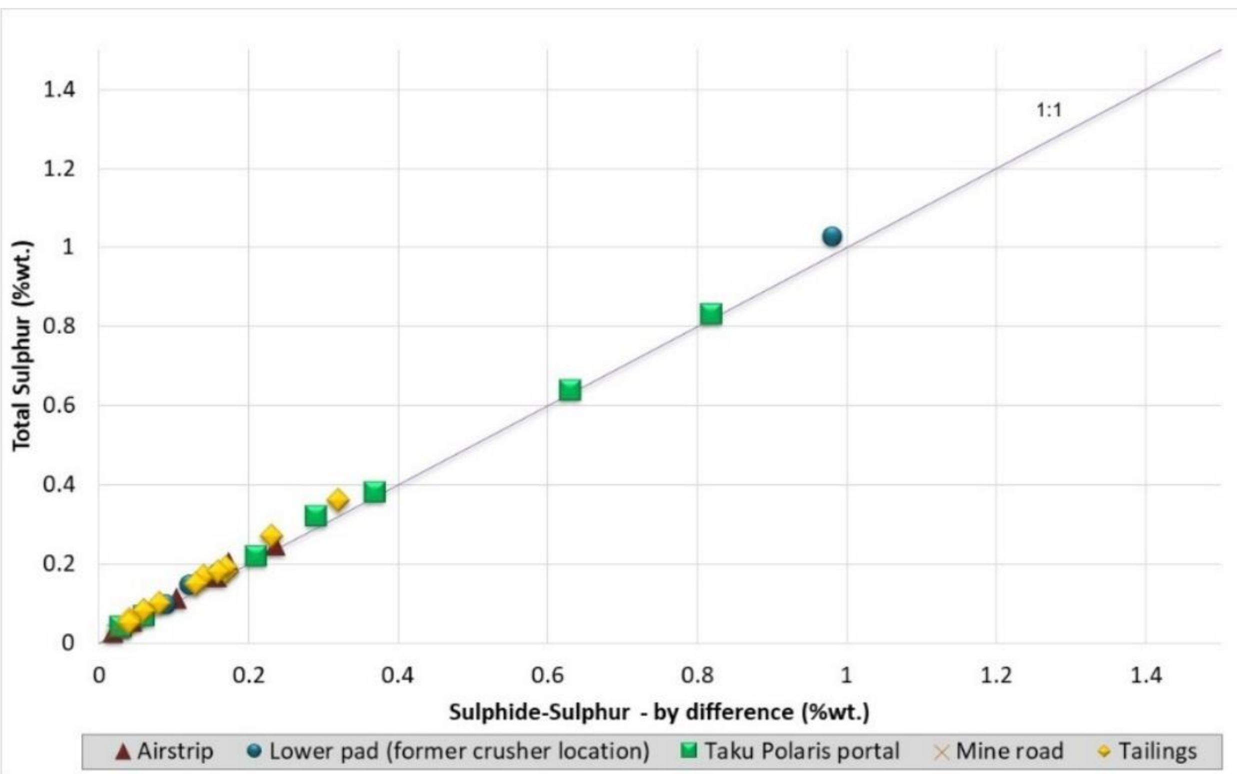


Figure 3-5 **Total Sulphur vs. Sulphide-Sulphur**

Figure 3-6 illustrates the ARD risk from legacy wastes. All samples were classified as NPAG based on Neutralisation Potential Ratio (NPR) values or low sulphide-sulphur content[2]. NPR values were calculated using measured sulphide-sulphur concentrations to determine the Acid Potential (AP) values. This approach is less conservative than using AP values derived from sulphide-sulphur concentrations calculated by difference. Due to the presence of organic sulphur (discussed above) the use of the measured sulphide-sulphur dataset (by acid leach) is, in our opinion, merited in this instance. It should be noted that if the more conservative approach is used to determine sulphide-sulphur concentrations, then the impact upon the overall ARD classification was negligible (see Table B-2, **Appendix B**).

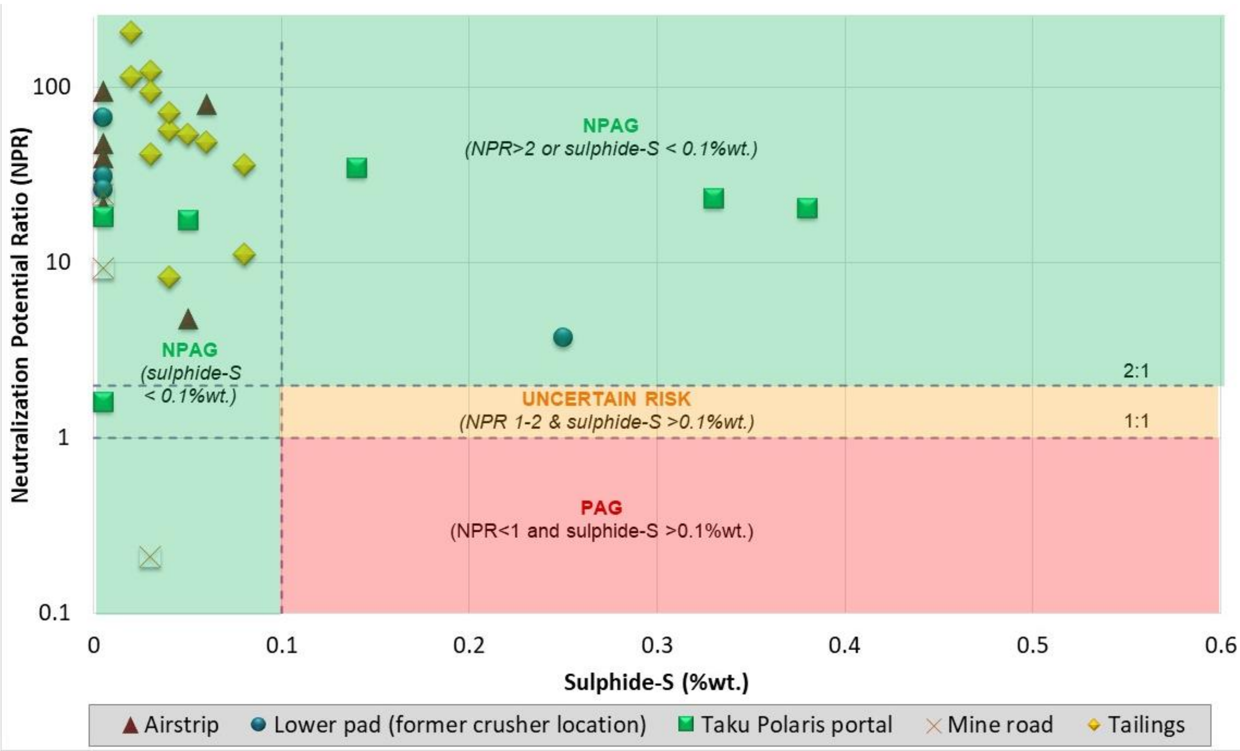


Figure 3-6 **Sulphide-Sulphur vs. Neutralisation Potential Ratio**

Figure 3-7 Shows the relationship between Carbonate Neutralisation Potential (CaNP) and Neutralisation Potential (NP) values. CaNP is a calculated parameter which represents the theoretical NP attributable to dissolution of carbonate minerals only. NP is a measured parameter which represents the total acid neutralisation capacity of a sample attributable to dissolution of reactive carbonate minerals and less reactive silicates. Hence, NP values are always greater than CaNP values unless e.g. iron or manganese carbonates are present which in practice provide no net-acid neutralisation due to the subsequent acidity released when dissolved iron or manganese ions undergo hydrolysis.

It can be seen from **Figure 3-7** that especially for legacy tailings, CaNP values exceeded NP values indicating the likely presence of iron or manganese carbonates. This does not materially affect the ARD risk prediction shown in Figure 3-6 which used the more conservative NP values for calculating NPR.

2 Sulphide-sulphur content <0.1%wt. regarded as indicating NPAG classification regardless of NPR value because acidity loads will be negligible and sufficient acid generation capacity will exist from silicates / carbonates.

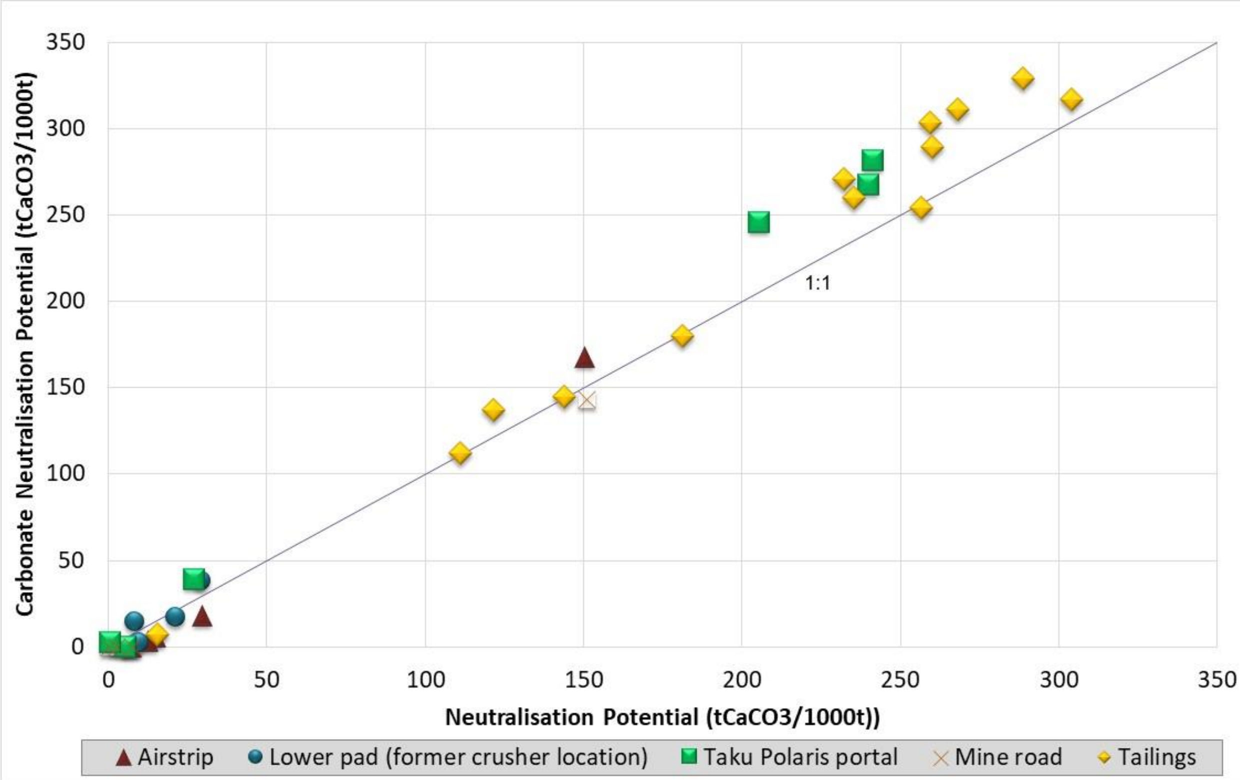


Figure 3-7 Carbonate Neutralisation Potential vs. Neutralisation Potential

3.3 Risk of Metal Leaching

3.3.1 Elemental Abundance

Tabulated elemental analysis results are presented in Appendix B, with copies of laboratory analytical results included in Appendix C.

Plots of normalised elemental concentrations are shown in **Figure 3-8** to **Figure 3-12**. The data points in the plots represent the ratio of the elemental concentration divided by a screening criterion equal to ten times the average background concentration (Price, 1997). The ten times factor is used to denote enrichment. So, a normalised concentration of one indicates the parameter concentration was equal to the screening criterion i.e. parameter not enriched or depleted. Data points located above the dashed line indicates enrichment, and a possible increased risk of leaching. Data points located beneath the dashed line indicate depletion with respect to crustal background concentrations which may denote a lower risk of leaching.

Based on average (geomean) solid phase concentrations, all samples were enriched in arsenic and antimony. Mine rock samples from the lower pad (former crusher area), (**Figure 3-9**) also showed enrichment with lead, silver, bismuth, cadmium and zinc. This may be indicative of the presence of residual crushed ore from Tulsequah Chief. These results were consistent with the solid phase elemental abundance data from legacy mine rock samples collected by Ausenco in 2021 (Ausenco, 2023).

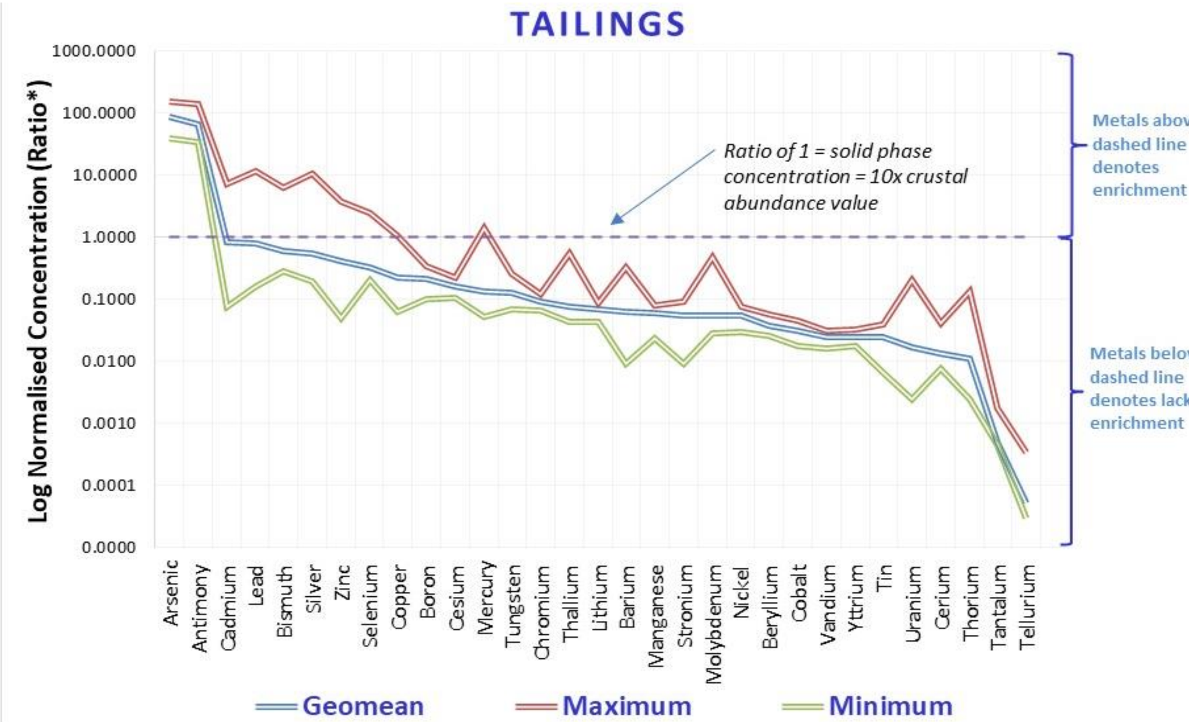


Figure 3-8 **Elemental Enrichment for Tailings Samples**

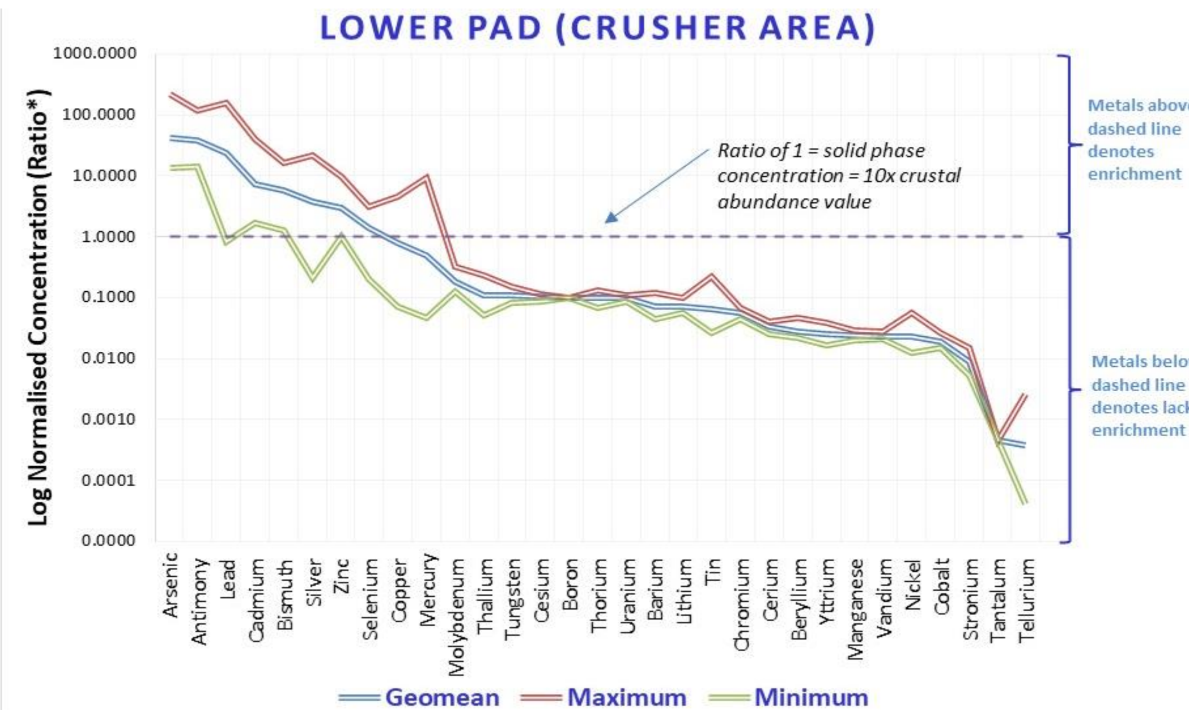


Figure 3-9 **Elemental Enrichment for Lower Pad (crusher area) Mine Rock Samples**

* Ratio = solid-phase concentration ÷ 10 x crustal abundance concentration.

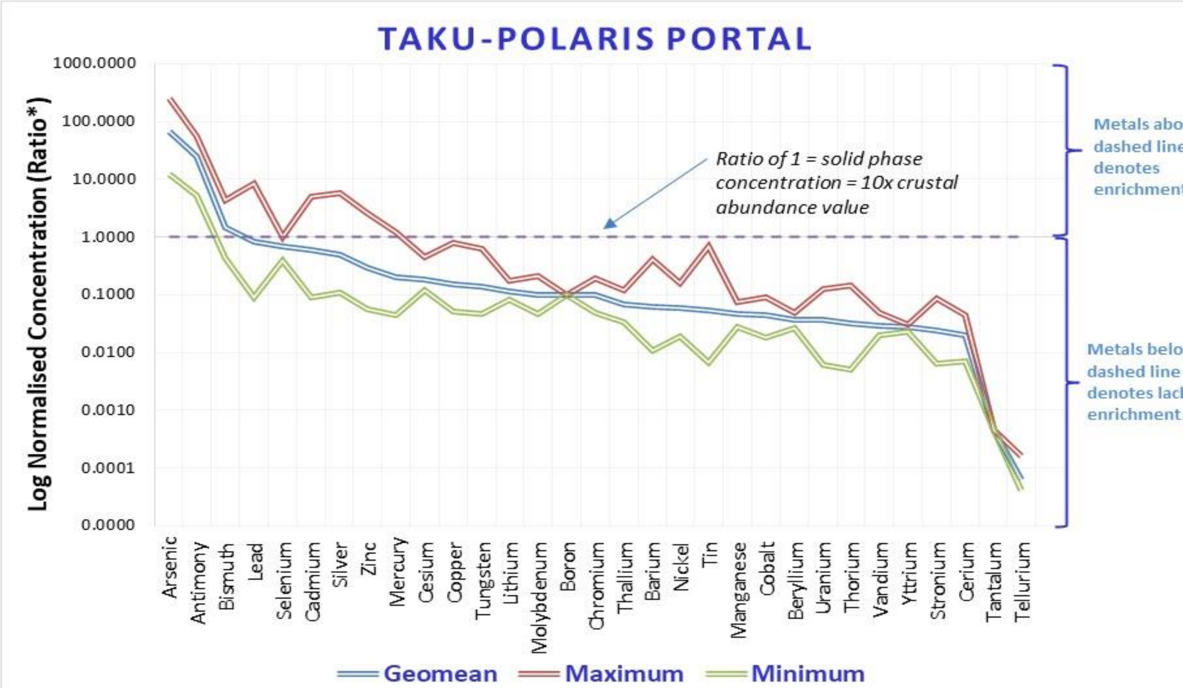


Figure 3-10 Elemental Enrichment for Taku-Polaris Mine Rock Samples

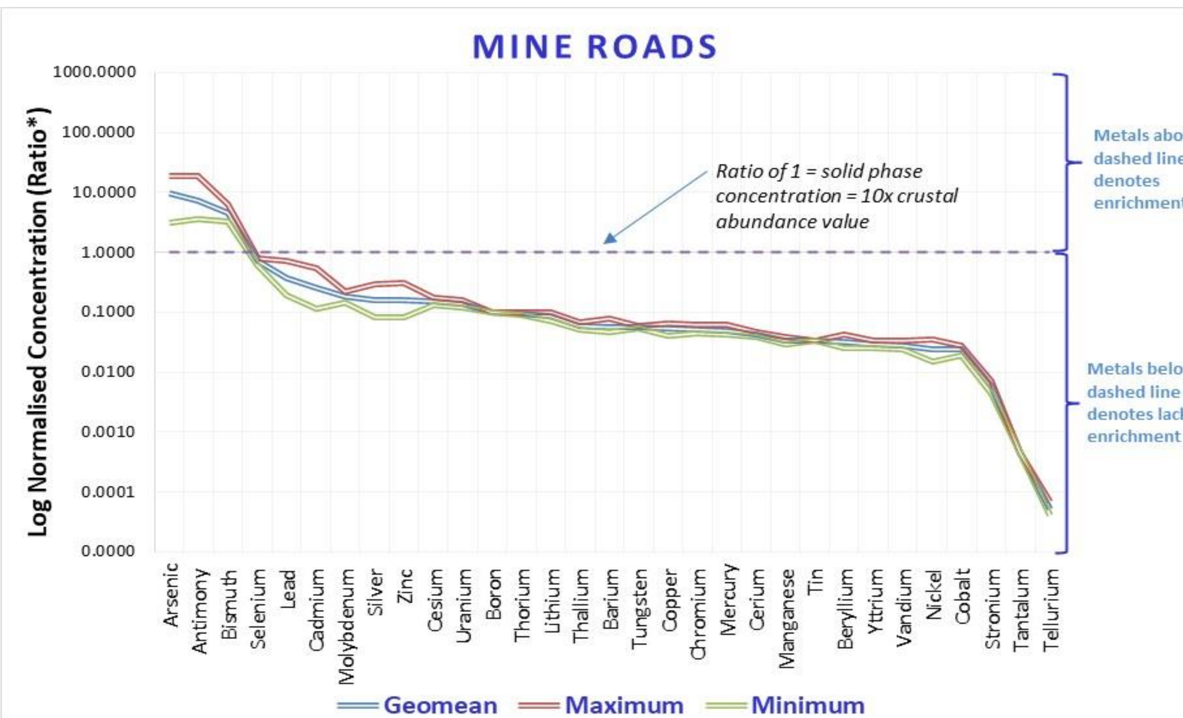


Figure 3-11 Elemental Enrichment for Mine Road Samples

* Ratio = solid-phase concentration ÷ 10 x crustal abundance concentration.

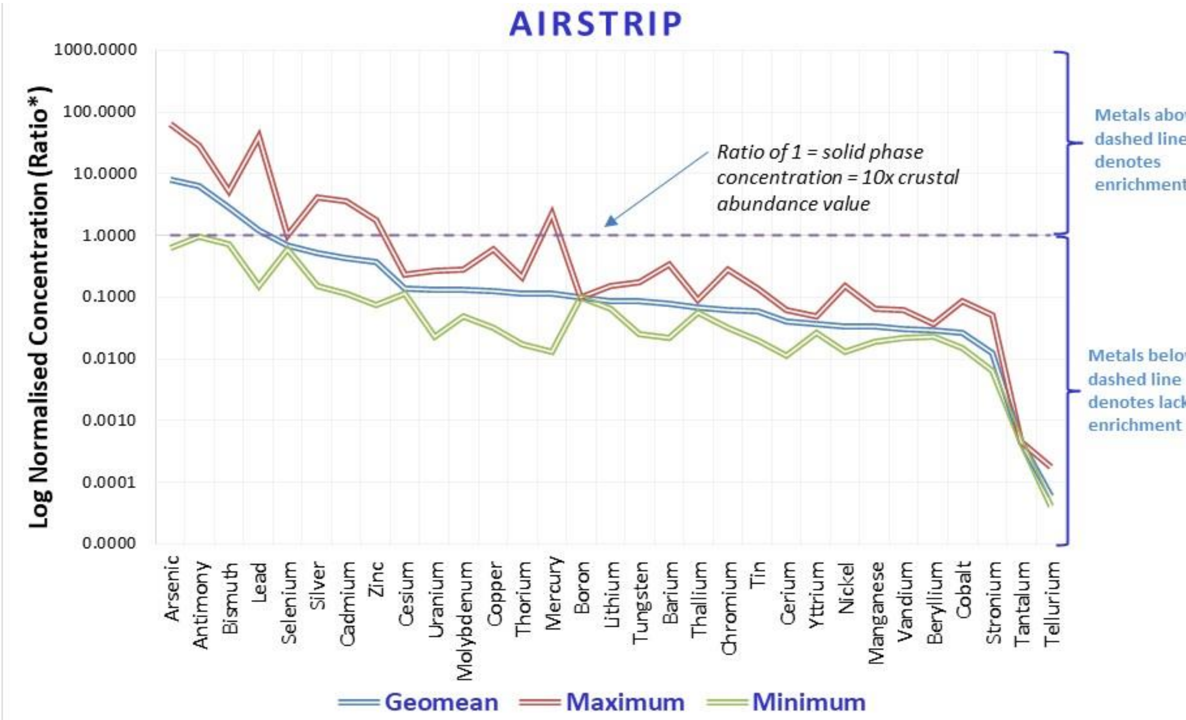


Figure 3-12 Elemental Enrichment for Airstrip Samples

3.3.2 Shake Flask Extraction

Tabulated shake-flask (SFE) results are presented in Appendix B, with copies of laboratory analytical results included in Appendix C. SFE leachate dissolved concentrations were screened against BCFAL water quality guidelines to identify parameters that may be at increased risk of leaching in the field. This comparison was used for indicative purposes only, since the concentrations observed in the SFE tests are unlikely to mimic concentrations in the field due differing conditions between laboratory and field (e.g. temperature, solid to liquid ratios etc.).

Table 3-2 summarises those parameters that were identified as at risk of leaching from the SFE test results. pH values were frequently only slightly below the lower BCFAL value of 6.5. The lowest pH value was 5.8 for a mine rock sample collected from the former airstrip.

Table 3-2 Parameters at Potential Risk of Leaching

Legacy Waste	No. Samples	Parameters Exceeding Screening Criteria
Tailings	13	pH (low), As, Sb, Cd, Cu, Hg (1 sample), Ni (1 sample), Ag (1 sample), Tl, Zn
Mine Rock		
Lower pad (former crusher area)	4	pH (low), As, Cd, Cu, Pb, Hg, Ag (1 sample), Tl, Zn
Taku-Polaris portal	8	pH (low), As, Cd, Cu, Pb, Tl, Zn
Mine road	2	pH (low), As, Cu, Zn
Airstrip	2	pH (low), As, Cd, Cu, Tl, Zn

4.0 Discussion

4.1 Geochemistry

Overall, the results were generally consistent with what was observed for New Polaris drill core and tailings samples. All legacy samples were classified as NPAG, but with some risk of neutral pH metal leaching. This phenomenon is associated with the oxidation of sulphide minerals (releases acidity), but there are sufficient reactive carbonates / silicates present to neutralize the acidity and maintain circum-neutral pH conditions. However, the sulphide mineral oxidation process releases metals[5] which are soluble under circum-neutral pH conditions e.g. antimony, arsenic, zinc etc.

The SFE test is more suited to weathered samples, as it is not designed to mobilize metals from e.g. unweathered drill core. The lower risk of antimony leaching and greater risk of lead and zinc leaching in legacy mine rock samples does seem more appropriate for mine rock originating from Tulsequah Chief, rather than from Taku-Polaris.

In the case of antimony, the results of kinetic tests on New Polaris drill core samples indicated rapid onset of antimony release and generally low sulphate concentrations (Ausenco, 2023). This may indicate that peak antimony leaching from legacy mine rock is now in the past, given the materials significant sand / gravel content (i.e. large relative surface area) and its exposure to climatic weathering over several decades.

The results of the legacy mine waste geochemistry assessment were consistent with the baseline surface water quality record. Parameters that were identified at elevated concentrations in surface waters in the baseline monitoring were primarily limited to copper, arsenic and zinc (Ausenco, 2026a); while a broader suite of metals were identified at elevated concentrations in shallow groundwater at the site (Ausenco, 2026b).

4.2 Legacy Waste Quantities

Due to the presence of gravel and sand in the mine rock samples it was difficult to visually discern between what might be non-mine 'clean fill', versus crushed development waste rock. Given the mine was developed in the 1930's, and its remote location, its possible that the majority of the plant site area was constructed on crushed development waste rock from underground. Alternatively, given the proximity to the Tulsequah River, it is also possible that riverine sands and gravels could have been extracted from there. Sample descriptions (**Table 2-1**) indicated the presence of both 'sub-angular' and sub-rounded' rock fragments. Speculatively this may indicate the presence of weathered blasted rock (sub-angular) and riverine materials (sub-rounded), but its ultimately unclear. It's also possible that tailings and mine rock were co-mixed in some of the test pit samples as a result of tailings migration over time.

All samples of tailings and mine rock were enriched with arsenic and antimony compared to average crustal abundance values. So, regardless of origin, we can say with some confidence that areas of fill across the plant site down to a depth of at least a metre in places are mine wastes. Canagold's 2024 investigation indicated tailings present on either side of Whitewater Creek down to a depth of two meters or so.

[5] Metals may be present in primary mineral form e.g. antimony in stibnite or may be present substituted in pyrite (e.g. arsenic).

The area of mine rock at site was estimated at around 10ha based on the mine rock test pit locations. Assuming an average mine rock depth of 0.5 m across the site, then a ballpark volume of legacy mine rock would be around 50,000 m^3 (100,000 tonnes[6]). The volume of legacy tailings at site was estimated by Canagold in 2024 at 59,000 m^3 (82,000 tonnes).

5.0 Conclusions and Recommendations

5.1 Conclusions

All legacy waste samples were classified as NPAG. Legacy wastes were found to be at risk of leaching selected metals, which is consistent with the results of baseline water quality monitoring.

The solid phase lead, copper and zinc content in legacy materials and the observed short-term leaching risk suggested the presence of tailings and ore materials on site from nearby Tulsequah Chief mine. This would be consistent with the Polaris-Taku mill being used to process ore from Tulsequah Chief historically.

Antimony was found to rapidly leach from fresh waste rock (drill core) during laboratory testing (Ausenco, 2023). An elevated risk of antimony leaching from legacy mine wastes was not observed after several decades of weathering on site. This suggests that the potential risk of antimony leaching from mine wastes is more of a short to medium-term issue with respect to mine closure timelines.

The presence of elevated arsenic, copper and zinc in surface waters downstream of the site may be indicative of ongoing impacts from legacy mine wastes present at the site. This conclusion may be tempered by the possibility of groundwater inputs to surface waters, since groundwater also displays mine impact signatures that may be associated with the flooded underground.

A ballpark volume of legacy mine rock would be around 50,000 m^3 (100,000 tonnes[6]). The volume of legacy tailings at site was estimated by Canagold in 2024 at 59,000 m^3 (82,000 tonnes).

5.2 Recommendations

The presence of legacy mine wastes at the site poses a residual metal leaching risk which, in our opinion, requires addressing in closure planning for the New Polaris project. Mitigation options would include rehabilitation in-place using low-permeability cover materials; alternatively, legacy mine wastes could be relocated for secure onsite storage in the Co-disposal facility. Depending on exact location, the benefits of disturbing the legacy wastes and potentially aggravating the shorter term metal leaching risk by exposing fresh surface areas to oxidation (especially for tailings) needs to be balanced with the longer-term benefits of hydraulically isolating the materials.

[6] Assuming density of 2t/m^3.

6.0 Closure

This report has been prepared by Ausenco, based on fieldwork conducted by Ausenco, for sole benefit and use by Canagold Resources Ltd. In performing this work, Ausenco has relied in good faith on information provided by others and has assumed that the information provided by those individuals is both complete and accurate. This work was performed to current industry standard practice for similar environmental work, within the relevant jurisdiction and same locale. The findings presented herein should be considered within the context of the scope of work and project terms of reference; further, the findings are time sensitive and are considered valid only at the time the report was produced. The conclusions and recommendations contained in this report are based upon the applicable guidelines, regulations, and legislation existing at the time the report was produced; any changes in the regulatory regime may alter the conclusions and/or recommendations.

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7.0 References

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Appendix A
Test Pit Photos

Photo 1 Test Pit AS1 - Former Airstrip

Photo 2 Test Pit AS2 - Former Airstrip

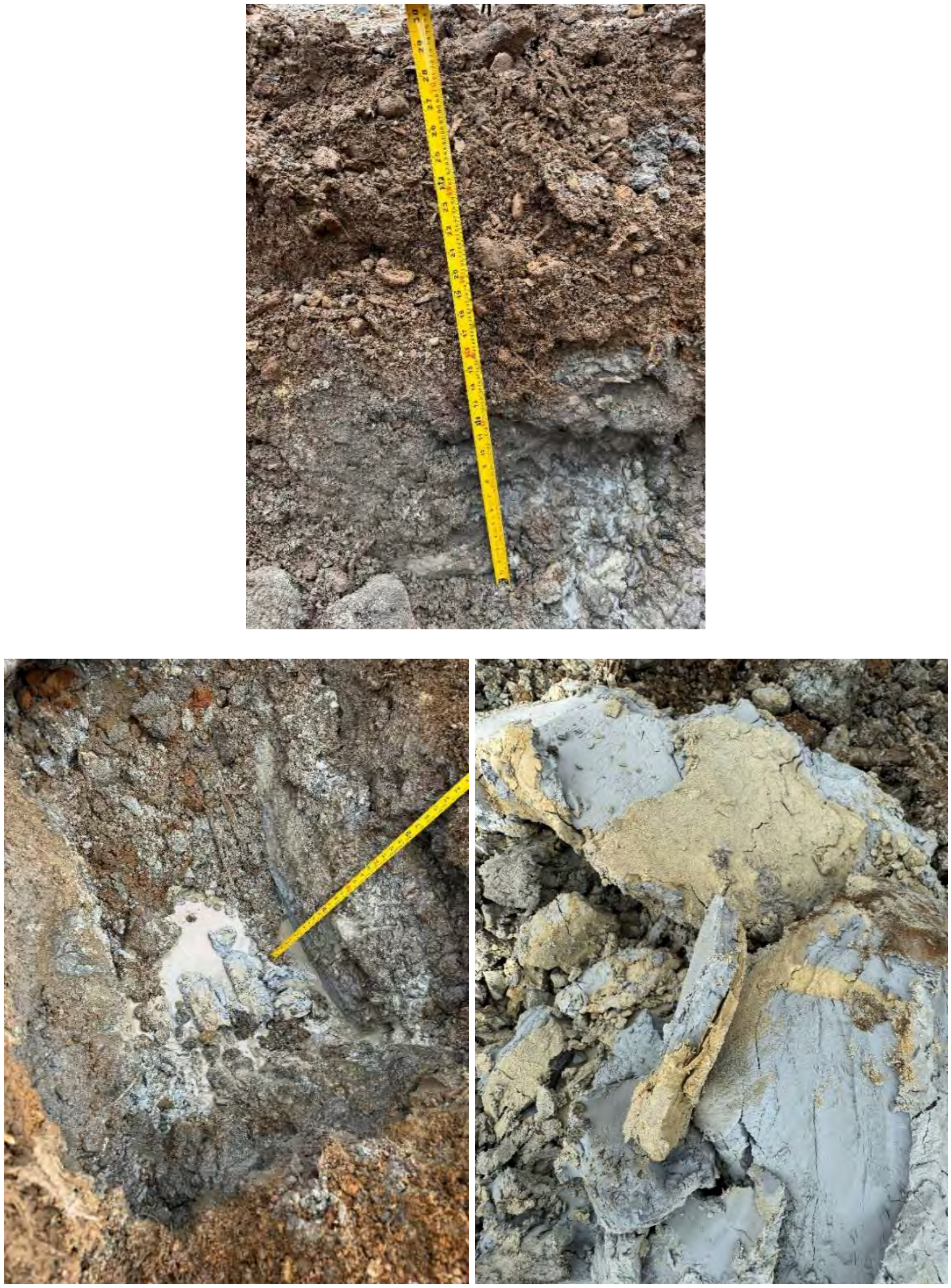

Photo 3 Test Pit LP1 - Lower Portal

Photo 4 Test Pit LP2 - Lower Portal

Photo 5 Test Pit NP1 - New Polaris

Photo 6 Test Pit NP2 - New Polaris

Photo 7 Test Pit NP3 - New Polaris

Photo 8 Test Pit NPR1 - New Polaris Road

Photo 9 Test Pit NPR2 - New Polaris Road

Photo 10 Test Pit NPR3 - New Polaris Road

Appendix B

Tables of Analytical Results

Appendix B-1 Tables of Analytical Results - Metals

Sample ID	Sample Type	Location	Sample Depth (m)	Test Pit / Auger Hole ID	Sample Coordinates (NAD 83)		Ag	Cd	Na	K	Pb	Cu	Sb	As	S	Au
					Easting	Northing	ppm	ppm	%	%	ppm	ppm	ppm	ppm	%	ppm
					Enrichment criteria:	***10x average values***	***1.1***	***2.2***	***18***	***8.3***	***60***	***870***	***2***	***20***	***0.3***	***0.04***
						100x average values	***11***	***22***	***180***	***83***	***600***	***8700***	***20***	***200***	***3***	***0.4***
AS1-0.1	Legacy mine rock	Airstrip	0.1	AS1	579481	6507382	4.47	7.85	0.07	0.21	2361.4	518	36.8	435.4	0.2	0.3077
AS1-0.4	Legacy mine rock	Airstrip	0.4	AS1	579481	6507382	0.24	0.25	0.02	0.46	26.1	146.6	58.8	1258.5	0.29	1.0356
AS1-0.8	Legacy mine rock	Airstrip	0.8	AS1	579481	6507382	0.17	0.36	0.06	0.19	18.4	35.8	1.9	25.9	0.12	0.016
AS2-0.1	Legacy mine rock	Airstrip	0.1	AS2	579427	6507187	0.4	0.76	0.06	0.21	38.4	84.1	34.0	448.3	0.05	0.2452
AS2-0.5	Legacy mine rock	Airstrip	0.5	AS2	579427	6507187	1.9	4.29	0.08	0.27	355.4	305.2	11.8	218.8	0.19	0.052
AS2-1.0	Legacy mine rock	Airstrip	1	AS2	579427	6507187	0.23	0.29	0.06	0.2	9.3	28.1	2.6	12.4	0.02	0.0092
LP1-0.2	Legacy mine rock	Lower pad (former crusher location)	0.2	LP1	579357	6507295	23.92	86.41	0.05	0.17	1918.1	2143.4	153.1	909.5	1.03	0.4612
LP1-0.5	Legacy mine rock	Lower pad (former crusher location)	0.5	LP1	579357	6507295	0.23	12.04	0.07	0.2	48.9	61.9	28.5	269.4	0.09	0.1257
LP2-0.1	Legacy mine rock	Lower pad (former crusher location)	0.1	LP2	579378	6507318	8.5	3.7	0.07	0.27	4749.9	424.8	36.2	440.2	0.18	0.1472
LP2-0.4	Legacy mine rock	Lower pad (former crusher location)	0.4	LP2	579378	6507318	6.53	17.51	0.04	0.28	9493.7	3960.1	237.6	4467.1	0.13	0.9258
NP1-0.2	Legacy mine rock	New Polaris portal	0.2	NP1	579291	6507408	0.4	2.86	0.05	0.22	57.5	121.9	28.6	749.6	0.05	0.4919
NP1-0.6	Legacy mine rock	New Polaris portal	0.6	NP1	579291	6507408	0.12	0.34	0.04	0.17	21.5	44.6	10.4	443.0	0.03	0.082
NP1-1.0	Legacy mine rock	New Polaris portal	1	NP1	579291	6507408	0.2	0.48	0.04	0.19	22.7	47.4	12.0	248.6	0.02	0.0742
NP2-0.1	Legacy mine rock	New Polaris portal	0.1	NP2	579270	6507337	0.47	0.76	0.02	0.2	96.5	152	108.5	2360.7	0.24	1.8388
NP2-0.6	Legacy mine rock	New Polaris portal	0.6	NP2	579270	6507337	0.3	1.79	0.02	0.37	28.3	121.5	110.5	2846.0	0.64	2.5708
NP2-1.1	Legacy mine rock	New Polaris portal	1.1	NP2	579270	6507337	0.47	0.2	0.02	0.51	5.4	111.8	80.5	5176.5	0.94	4.4983
NP3-0.2	Legacy mine rock	New Polaris portal	0.2	NP3	579290	6507396	6.48	7.57	0.08	0.2	494.9	697.3	104.2	1086.5	0.25	0.9069
NP3-0.6	Legacy mine rock	New Polaris portal	0.6	NP3	579290	6507396	1.66	11.19	0.03	0.36	200.4	304.8	105.7	3397.0	0.38	3.505
NPR1-0.3	Legacy mine rock	Mine road	0.3	NPR1	-	-	0.19	1.21	0.04	0.2	22.7	50.1	36.9	373.9	0.04	0.1473
NPR2-0.3	Legacy mine rock	Mine road	0.3	NPR2	579393	6507562	0.32	0.56	0.04	0.16	42.8	56.7	12.5	311.6	0.07	0.1611
NPR3-0.3	Legacy mine rock	Mine road	0.3	NPR3	579478	6507604	0.09	0.25	0.04	0.19	11.6	35.5	7.1	62.3	0.02	0.0253
LP1-1.1	Legacy tailings	Lower pad (former crusher location)	1.1	LP1	579357	6507295	0.21	0.26	0.01	0.3	9.6	158.2	97.2	1422.9	0.18	1.6806
678704	Legacy tailings	2024 test pit program	0.2 to 0.5	202414	579353	6506844	0.67	5.19	0.05	0.18	97.6	423.6	89.4	1070.8	0.08	1.3141
678707	Legacy tailings	2024 test pit program	0 to 0.6	202409	579353	6507094	0.25	0.19	0.03	0.25	16.1	72	250.8	2992.3	0.06	2.518
678710	Legacy tailings	2024 test pit program	0 to 0.7	202405	579328	6507044	0.26	0.47	0.03	0.23	11.9	63.4	98.3	2584.7	0.09	2.721
678712	Legacy tailings	2024 test pit program	0 to 2	202461	579297	6507175	11.32	15.64	0.02	0.19	709.5	908.3	181.8	2228.3	2.96	2.6506
678720	Legacy tailings	2024 test pit program	0.1 to 0.4	202410	579353	6507044	0.6	16.21	0.09	0.23	42.2	787.1	284.6	2417.5	0.18	2.0718
678727	Legacy tailings	2024 test pit program	0.1 to 0.8	202419	579378	6506894	0.6	11.62	0.02	0.28	471.6	926.7	209.0	1969.1	0.05	1.8954
678737	Legacy tailings	2024 test pit program	0.1 to 0.7	202407	579328	6506944	1.8	6.92	0.08	0.16	224.2	306	82.3	788.2	0.33	1.1174
678739	Legacy tailings	2024 test pit program	0.5 to 2	202463	579288	6507194	0.48	0.17	0.02	0.28	18.1	66.2	196.7	1562.1	0.21	1.6254
678756	Legacy tailings	2024 test pit program	1.4 to 1.9	202472	579330	6507174	0.4	0.32	0.09	0.26	18.1	54.1	120.3	2129.4	0.27	2.3562
678766	Legacy tailings	2024 test pit program	0 to 0.8	202477	579348	6507203	0.41	2.49	0.06	0.25	23.4	67.4	106.4	2528.3	0.1	2.4143
678770	Legacy tailings	2024 test pit program	1 to 1.4	202478	579342	6507271	0.39	2.75	0.02	0.41	33	200.3	68.9	1074.5	0.15	1.2618
678771	Legacy tailings	2024 test pit program	0.6 to 2.2	202480	579353	6507308	0.68	2.65	0.03	0.36	61.1	167.9	103.8	1311.2	0.19	1.4196

Notes:
Enrichment criteria = 10 x crustal abundance values for basalt, Price, 1997.
Legacy mine rock samples collected by Canagold.
Legacy mine rock samples collected by Ausenco.
For Ausenco sample desctiptions see field logs, Appendix XXX.
= concentration >100x average conc. in earths crust.
= concentration >10x average conc. in earths crust.

Appendix B-1 Tables of Analytical Results - Metals

Sample ID	Sample Type	Location	Sample Depth (m)	Test Pit / Auger Hole ID	Sample Coordinates (NAD 83) Easting	Northing	B	Ba	Be	Bi	Ca	Ce	Co	Cr	Cs	Ga	Ge
							ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
					Enrichment criteria:	***10x average values***	***50***	***3300***	***10***	***0.07***	***76***	***480***	***480***	***1700***	***11***	***170***	***13***
						100x average values	***500***	***33000***	***100***	***0.7***	***760***	***4800***	***4800***	***17000***	***110***	***1700***	***130***
AS1-0.1	Legacy mine rock	Airstrip	0.1	AS1	579481	6507382	<10	1104	0.23	0.33	1.24	15.84	10.4	107	1.24	5.26	0.06
AS1-0.4	Legacy mine rock	Airstrip	0.4	AS1	579481	6507382	<10	73	0.37	0.05	4.46	5.43	41.1	489	2.54	8.94	0.09
AS1-0.8	Legacy mine rock	Airstrip	0.8	AS1	579481	6507382	<10	165	0.29	0.25	0.68	28.92	9.6	55	1.45	5.56	<0.05
AS2-0.1	Legacy mine rock	Airstrip	0.1	AS2	579427	6507187	<10	294	0.26	0.2	0.8	24.15	11.9	112	1.46	5.94	<0.05
AS2-0.5	Legacy mine rock	Airstrip	0.5	AS2	579427	6507187	<10	565	0.36	0.36	0.86	28.87	13.6	80	1.71	6.81	0.05
AS2-1.0	Legacy mine rock	Airstrip	1	AS2	579427	6507187	<10	138	0.25	0.23	0.53	29.5	7.2	55	1.24	5.19	<0.05
LP1-0.2	Legacy mine rock	Lower pad (former crusher location)	0.2	LP1	579357	6507295	<10	359	0.46	0.79	1.32	17.55	12.8	116	1.15	7.78	0.05
LP1-0.5	Legacy mine rock	Lower pad (former crusher location)	0.5	LP1	579357	6507295	<10	157	0.22	0.09	0.83	15.47	9.6	93	0.95	4.38	<0.05
LP2-0.1	Legacy mine rock	Lower pad (former crusher location)	0.1	LP2	579378	6507318	<10	403	0.26	1.14	0.58	19.25	7.3	77	1.18	5.18	<0.05
LP2-0.4	Legacy mine rock	Lower pad (former crusher location)	0.4	LP2	579378	6507318	<10	147	0.23	0.32	0.45	11.92	7.6	94	1.26	4.88	<0.05
NP1-0.2	Legacy mine rock	New Polaris portal	0.2	NP1	579291	6507408	<10	305	0.27	0.18	0.42	19	12	98	1.55	5.79	<0.05
NP1-0.6	Legacy mine rock	New Polaris portal	0.6	NP1	579291	6507408	<10	149	0.37	0.16	0.39	21.23	8.7	87	1.34	5.2	<0.05
NP1-1.0	Legacy mine rock	New Polaris portal	1	NP1	579291	6507408	<10	126	0.3	0.2	0.35	21.55	10.9	85	1.43	4.85	<0.05
NP2-0.1	Legacy mine rock	New Polaris portal	0.1	NP2	579270	6507337	<10	183	0.34	0.06	4.81	5.4	42.1	265	1.9	4.19	<0.05
NP2-0.6	Legacy mine rock	New Polaris portal	0.6	NP2	579270	6507337	<10	90	0.48	0.05	5.57	4.35	38.3	290	3.45	4.96	<0.05
NP2-1.1	Legacy mine rock	New Polaris portal	1.1	NP2	579270	6507337	<10	36	0.47	0.03	5.99	3.37	36.8	269	4.99	5.45	<0.05
NP3-0.2	Legacy mine rock	New Polaris portal	0.2	NP3	579290	6507396	<10	1350	0.38	0.31	0.94	17.36	14.6	133	1.5	4.99	<0.05
NP3-0.6	Legacy mine rock	New Polaris portal	0.6	NP3	579290	6507396	<10	590	0.45	0.08	3.88	5.49	42.8	320	2.31	7.06	<0.05
NPR1-0.3	Legacy mine rock	Mine road	0.3	NPR1	-	-	<10	159	0.31	0.44	0.56	18.87	11.9	106	1.92	7.14	<0.05
NPR2-0.3	Legacy mine rock	Mine road	0.3	NPR2	579393	6507562	<10	256	0.25	0.31	0.35	19.38	9.3	77	1.43	5.92	<0.05
NPR3-0.3	Legacy mine rock	Mine road	0.3	NPR3	579478	6507604	<10	151	0.43	0.23	0.53	22.65	13.1	82	1.82	7.8	<0.05
LP1-1.1	Legacy tailings	Lower pad (former crusher location)	1.1	LP1	579357	6507295	<10	41	0.51	0.02	6.95	5.04	12.6	120	2.5	2.42	<0.05
678704	Legacy tailings	2024 test pit program	0.2 to 0.5	202414	579353	6506844	12	275	0.38	0.17	0.75	19.74	8.7	137	1.73	5.39	0.06
678707	Legacy tailings	2024 test pit program	0 to 0.6	202409	579353	6507094	17	237	0.36	0.02	5.76	5.45	22.1	167	1.75	2.43	<0.05
678710	Legacy tailings	2024 test pit program	0 to 0.7	202405	579328	6507044	16	193	0.38	0.02	5.61	5.28	17.8	168	1.79	2.37	<0.05
678712	Legacy tailings	2024 test pit program	0 to 2	202461	579297	6507175	11	31	0.26	0.43	2.93	3.64	13	113	1.16	1.88	<0.05
678720	Legacy tailings	2024 test pit program	0.1 to 0.4	202410	579353	6507044	11	1095	0.43	0.06	4	9.44	17.8	170	1.79	3.12	<0.05
678727	Legacy tailings	2024 test pit program	0.1 to 0.8	202419	579378	6506894	10	145	0.57	0.02	3.29	9.49	15.2	169	1.99	2.49	<0.05
678737	Legacy tailings	2024 test pit program	0.1 to 0.7	202407	579328	6506944	<10	805	0.28	0.11	2.46	13.36	15	112	1.16	4.81	<0.05
678739	Legacy tailings	2024 test pit program	0.5 to 2	202463	579288	6507194	11	42	0.31	0.02	6.84	3.59	17.3	161	1.59	2	<0.05
678756	Legacy tailings	2024 test pit program	1.4 to 1.9	202472	579330	6507174	11	1089	0.3	0.04	6.41	5.18	14.5	150	1.86	2.34	<0.05
678766	Legacy tailings	2024 test pit program	0 to 0.8	202477	579348	6507203	11	703	0.34	0.02	5.58	5.32	17.1	169	2.02	2.4	<0.05
678770	Legacy tailings	2024 test pit program	1 to 1.4	202478	579342	6507271	12	107	0.47	0.03	6.9	5.36	13.3	203	2.45	3.15	<0.05
678771	Legacy tailings	2024 test pit program	0.6 to 2.2	202480	579353	6507308	14	179	0.39	0.04	6.71	6.05	15.2	190	1.97	2.79	<0.05

Notes:
Enrichment criteria = 10 x crustal abundance values for basalt, Price, 1997.
Legacy mine rock samples collected by Canagold.
Legacy mine rock samples collected by Ausenco.
For Ausenco sample desctiptions see field logs, Appendix XXX.
= concentration >100x average conc. in earths crust.
= concentration >10x average conc. in earths crust.

Sample ID	Sample Type	Location	Sample Depth (m)	Test Pit / Auger Hole ID	Sample Coordinates (NAD 83)		Hf	Hg	In	La	Li	Mg	Al	Fe	Mn	Mo
					Easting	Northing	ppm	ppm	ppm	ppm	ppm	%	%	%	ppm	ppm
				Enrichment criteria:		10x average values	20	0.9	2.2	150	170	46	78	86.5	15000	15
						100x average values	200	9	22	1500	1700	460	780	865	150000	150
AS1-0.1	Legacy mine rock	Airstrip	0.1	AS1	579481	6507382	0.09	1.978	0.093	8.1	11.2	1.28	1.35	3.17	460	2.41
AS1-0.4	Legacy mine rock	Airstrip	0.4	AS1	579481	6507382	0.06	0.088	0.031	2.4	26	5.27	3.01	6.03	982	0.75
AS1-0.8	Legacy mine rock	Airstrip	0.8	AS1	579481	6507382	0.04	0.029	0.02	14.7	13.3	0.92	1.36	2.7	419	2.1
AS2-0.1	Legacy mine rock	Airstrip	0.1	AS2	579427	6507187	0.06	0.051	0.024	12.3	16.6	1.3	1.46	2.92	408	4.27
AS2-0.5	Legacy mine rock	Airstrip	0.5	AS2	579427	6507187	0.1	0.34	0.068	14.6	15.4	1.38	1.74	3.71	630	2.26
AS2-1.0	Legacy mine rock	Airstrip	1	AS2	579427	6507187	0.09	0.012	0.018	15.3	11.6	0.74	1.15	2.06	291	1.45
LP1-0.2	Legacy mine rock	Lower pad (former crusher location)	0.2	LP1	579357	6507295	0.17	8.326	0.982	8.6	17	1.62	1.71	4.22	435	4.96
LP1-0.5	Legacy mine rock	Lower pad (former crusher location)	0.5	LP1	579357	6507295	0.06	0.042	0.027	8.1	12.1	0.96	1.23	2.28	328	1.92
LP2-0.1	Legacy mine rock	Lower pad (former crusher location)	0.1	LP2	579378	6507318	0.07	0.561	0.084	9.9	11.5	0.83	1.26	2.87	414	2.55
LP2-0.4	Legacy mine rock	Lower pad (former crusher location)	0.4	LP2	579378	6507318	0.05	0.209	0.506	6.1	9.5	0.82	1.18	5.55	298	2.46
NP1-0.2	Legacy mine rock	New Polaris portal	0.2	NP1	579291	6507408	0.02	0.1	0.03	9.6	15.6	0.93	1.5	3.04	564	2.51
NP1-0.6	Legacy mine rock	New Polaris portal	0.6	NP1	579291	6507408	0.03	0.041	0.029	10.5	15.1	0.66	2.17	2.56	417	3.21
NP1-1.0	Legacy mine rock	New Polaris portal	1	NP1	579291	6507408	0.03	0.076	0.023	10.4	17.3	0.72	1.67	2.5	425	3.13
NP2-0.1	Legacy mine rock	New Polaris portal	0.1	NP2	579270	6507337	0.05	0.306	0.041	2.3	21.5	5.55	1.81	5.64	984	0.77
NP2-0.6	Legacy mine rock	New Polaris portal	0.6	NP2	579270	6507337	0.05	0.232	0.031	1.9	23.7	4.58	2.02	5.78	1067	0.7
NP2-1.1	Legacy mine rock	New Polaris portal	1.1	NP2	579270	6507337	0.03	0.191	0.029	1.4	29.5	4.85	2.22	6.1	1123	0.91
NP3-0.2	Legacy mine rock	New Polaris portal	0.2	NP3	579290	6507396	0.05	1.095	0.108	8.7	14.3	1.28	1.44	3.66	531	2.85
NP3-0.6	Legacy mine rock	New Polaris portal	0.6	NP3	579290	6507396	0.05	0.294	0.047	2.5	25.4	4.05	2.69	5.61	1045	0.77
NPR1-0.3	Legacy mine rock	Mine road	0.3	NPR1	-	-	<0.02	0.039	0.021	9.1	14.4	1.03	1.75	3.15	574	3.35
NPR2-0.3	Legacy mine rock	Mine road	0.3	NPR2	579393	6507562	<0.02	0.057	0.022	9.7	12.3	0.71	1.34	2.66	441	2.94
NPR3-0.3	Legacy mine rock	Mine road	0.3	NPR3	579478	6507604	0.02	0.04	0.028	11.4	17.1	1.28	2.14	3.6	533	2.22
LP1-1.1	Legacy tailings	Lower pad (former crusher location)	1.1	LP1	579357	6507295	0.02	0.047	0.029	2.2	12.1	4.68	1.1	3.43	1183	0.44
678704	Legacy tailings	2024 test pit program	0.2 to 0.5	202414	579353	6506844	0.03	0.048	0.281	9.6	15.1	1.22	1.71	5.81	355	1.45
678707	Legacy tailings	2024 test pit program	0 to 0.6	202409	579353	6507094	<0.02	0.058	0.028	2.3	11.7	4.13	1.07	3.7	1033	0.59
678710	Legacy tailings	2024 test pit program	0 to 0.7	202405	579328	6507044	<0.02	0.063	0.029	2.2	12.2	4.08	1.05	3.62	1063	0.48
678712	Legacy tailings	2024 test pit program	0 to 2	202461	579297	6507175	0.09	1.257	0.148	1.3	7.2	2.28	0.84	5.61	637	7.05
678720	Legacy tailings	2024 test pit program	0.1 to 0.4	202410	579353	6507044	0.02	0.098	0.1	4.6	11.7	3.22	1.33	5.36	942	1.03
678727	Legacy tailings	2024 test pit program	0.1 to 0.8	202419	579378	6506894	<0.02	0.053	0.21	4.3	9.4	2.74	1.55	6.94	865	0.77
678737	Legacy tailings	2024 test pit program	0.1 to 0.7	202407	579328	6506944	0.06	0.336	0.059	6.3	14.6	2.37	1.41	3.8	648	1.53
678739	Legacy tailings	2024 test pit program	0.5 to 2	202463	579288	6507194	<0.02	0.074	0.025	1.5	10	4.54	0.96	3.65	1096	0.59
678756	Legacy tailings	2024 test pit program	1.4 to 1.9	202472	579330	6507174	<0.02	0.098	0.033	2.3	11.4	4.28	0.98	3.55	984	0.69
678766	Legacy tailings	2024 test pit program	0 to 0.8	202477	579348	6507203	<0.02	0.124	0.035	2.2	11.6	4.07	1.1	3.9	1067	0.54
678770	Legacy tailings	2024 test pit program	1 to 1.4	202478	579342	6507271	0.02	0.302	0.069	2.2	14.1	4.81	1.5	4.05	1090	0.43
678771	Legacy tailings	2024 test pit program	0.6 to 2.2	202480	579353	6507308	0.02	0.276	0.05	2.6	11.4	4.68	1.27	3.81	1058	0.5

Notes:
Enrichment criteria = 10 x crustal abundance values for basalt, Price, 1997.
Legacy mine rock samples collected by Canagold.
Legacy mine rock samples collected by Ausenco.
For Ausenco sample desctiptions see field logs, Appendix XXX.
= concentration >100x average conc. in earths crust.
= concentration >10x average conc. in earths crust.

Sample ID	Sample Type	Location	Sample Depth (m)	Test Pit / Auger Hole ID	Sample Coordinates (NAD 83)		Nb	Ni	P	Rb	Re	Sc	Se	Sn	Sr
					Easting	Northing	ppm	ppm	%	ppm		ppm	ppm	ppm	ppm
				Enrichment criteria:		10x average values	190	1300	11000	300	-	300	0.5	15	4650
						100x average values	1900	13000	110000	3000	0	3000	5	150	46500
AS1-0.1	Legacy mine rock	Airstrip	0.1	AS1	579481	6507382	0.54	39.4	802	12.7	<0.001	5.4	0.5	1.7	63.7
AS1-0.4	Legacy mine rock	Airstrip	0.4	AS1	579481	6507382	<0.05	200.3	940	18.6	<0.001	20.1	0.3	0.3	241.4
AS1-0.8	Legacy mine rock	Airstrip	0.8	AS1	579481	6507382	1.59	26	954	17	<0.001	5.1	0.3	2.1	33.9
AS2-0.1	Legacy mine rock	Airstrip	0.1	AS2	579427	6507187	1.02	45.1	822	17.6	<0.001	5.7	0.3	0.8	46.4
AS2-0.5	Legacy mine rock	Airstrip	0.5	AS2	579427	6507187	1.51	44	1103	20.2	<0.001	7	0.4	1.1	46.7
AS2-1.0	Legacy mine rock	Airstrip	1	AS2	579427	6507187	1.12	17.3	936	16.1	<0.001	4.8	0.3	0.5	29.2
LP1-0.2	Legacy mine rock	Lower pad (former crusher location)	0.2	LP1	579357	6507295	0.77	73.8	765	10.3	0.002	7.4	1.2	0.9	69.6
LP1-0.5	Legacy mine rock	Lower pad (former crusher location)	0.5	LP1	579357	6507295	0.29	28.4	562	12.5	<0.001	4	<0.2	3.3	47.6
LP2-0.1	Legacy mine rock	Lower pad (former crusher location)	0.1	LP2	579378	6507318	0.88	16.5	680	16.2	<0.001	3.9	1.3	0.7	34.3
LP2-0.4	Legacy mine rock	Lower pad (former crusher location)	0.4	LP2	579378	6507318	0.47	22.9	650	14.9	<0.001	5.4	1.6	0.4	24.2
NP1-0.2	Legacy mine rock	New Polaris portal	0.2	NP1	579291	6507408	1.11	42.7	706	15.3	<0.001	4.9	0.2	1.4	30.2
NP1-0.6	Legacy mine rock	New Polaris portal	0.6	NP1	579291	6507408	1.58	24.3	531	14.2	<0.001	4.4	0.5	0.5	38.1
NP1-1.0	Legacy mine rock	New Polaris portal	1	NP1	579291	6507408	1.3	29.3	586	14.6	<0.001	4	0.4	0.5	29.2
NP2-0.1	Legacy mine rock	New Polaris portal	0.1	NP2	579270	6507337	0.05	208	851	9.2	<0.001	16.1	0.2	1.1	405.2
NP2-0.6	Legacy mine rock	New Polaris portal	0.6	NP2	579270	6507337	<0.05	164.6	901	15.9	<0.001	18.6	0.3	0.2	368.4
NP2-1.1	Legacy mine rock	New Polaris portal	1.1	NP2	579270	6507337	<0.05	145.9	774	23.2	<0.001	17.4	0.4	<0.2	381.6
NP3-0.2	Legacy mine rock	New Polaris portal	0.2	NP3	579290	6507396	1.03	52.2	638	12.4	<0.001	5.9	0.4	10.2	69.8
NP3-0.6	Legacy mine rock	New Polaris portal	0.6	NP3	579290	6507396	<0.05	151	973	15.1	<0.001	16.1	0.5	2.6	220.1
NPR1-0.3	Legacy mine rock	Mine road	0.3	NPR1	-	-	1.3	34.5	669	16.1	<0.001	5.7	0.4	0.5	32.3
NPR2-0.3	Legacy mine rock	Mine road	0.3	NPR2	579393	6507562	1.32	19.5	613	13.5	<0.001	4.1	0.4	0.5	20.5
NPR3-0.3	Legacy mine rock	Mine road	0.3	NPR3	579478	6507604	1.2	45.8	935	17.4	<0.001	6.7	0.3	0.5	30.8
LP1-1.1	Legacy tailings	Lower pad (former crusher location)	1.1	LP1	579357	6507295	<0.05	62.5	595	12.3	<0.001	19	<0.2	0.5	373.9
678704	Legacy tailings	2024 test pit program	0.2 to 0.5	202414	579353	6506844	1.19	38.2	981	10.9	<0.001	19.1	0.7	0.6	43.5
678707	Legacy tailings	2024 test pit program	0 to 0.6	202409	579353	6507094	<0.05	100.5	617	11.6	<0.001	19.1	<0.2	0.4	347.2
678710	Legacy tailings	2024 test pit program	0 to 0.7	202405	579328	6507044	<0.05	79.1	662	10.6	<0.001	19.3	<0.2	0.3	333.9
678712	Legacy tailings	2024 test pit program	0 to 2	202461	579297	6507175	<0.05	55.2	394	6.7	0.004	13	1.2	0.4	197.9
678720	Legacy tailings	2024 test pit program	0.1 to 0.4	202410	579353	6507044	0.21	71.6	723	10.8	0.001	19.4	0.2	0.4	246.8
678727	Legacy tailings	2024 test pit program	0.1 to 0.8	202419	579378	6506894	<0.05	69.1	766	11.9	<0.001	26.8	<0.2	0.5	193.7
678737	Legacy tailings	2024 test pit program	0.1 to 0.7	202407	579328	6506944	0.76	44.4	684	7.6	0.001	11.3	0.3	0.5	146.4
678739	Legacy tailings	2024 test pit program	0.5 to 2	202463	579288	6507194	<0.05	95.5	654	9.7	<0.001	16.3	<0.2	<0.2	419.9
678756	Legacy tailings	2024 test pit program	1.4 to 1.9	202472	579330	6507174	<0.05	75.6	592	9.9	<0.001	16.5	<0.2	0.2	374.4
678766	Legacy tailings	2024 test pit program	0 to 0.8	202477	579348	6507203	<0.05	79.6	638	10.1	<0.001	18.9	<0.2	0.3	333.3
678770	Legacy tailings	2024 test pit program	1 to 1.4	202478	579342	6507271	<0.05	76.8	660	13.5	<0.001	19.9	<0.2	0.6	389.7
678771	Legacy tailings	2024 test pit program	0.6 to 2.2	202480	579353	6507308	<0.05	93.4	678	12.2	<0.001	18.6	<0.2	0.4	401.2

Notes:

Enrichment criteria = 10 x crustal abundance values for basalt, Price, 1997.
Legacy mine rock samples collected by Canagold.
Legacy mine rock samples collected by Ausenco.
For Ausenco sample desctiptions see field logs, Appendix XXX.
= concentration >100x average conc. in earths crust.
= concentration >10x average conc. in earths crust.

Sample ID	Sample Type	Location	Sample Depth (m)	Test Pit / Auger Hole ID	Sample Coordinates (NAD 83) Easting	Northing	Ta	Te	Th	Ti	Tl	U	V	W	Y	Zn	Zr
							ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
					Enrichment criteria:	*10x average values*	*11*	*-*	*40*	*13.8*	*2.1*	*10*	*2500*	*7*	*210*	*1050*	*1400*
						100x average values	*110*	*0*	*400*	*138*	*21*	*100*	*25000*	*70*	*2100*	*10500*	*14000*
AS1-0.1	Legacy mine rock	Airstrip	0.1	AS1	579481	6507382	<0.01	0.18	4.5	0.095	0.18	1.31	69	0.57	6.12	1881	2.8
AS1-0.4	Legacy mine rock	Airstrip	0.4	AS1	579481	6507382	<0.01	0.04	0.7	0.08	0.13	0.23	158	0.18	5.55	88	1
AS1-0.8	Legacy mine rock	Airstrip	0.8	AS1	579481	6507382	<0.01	0.04	7.4	0.117	0.13	2.17	62	0.75	8.6	80	1.5
AS2-0.1	Legacy mine rock	Airstrip	0.1	AS2	579427	6507187	<0.01	0.04	6.8	0.106	0.13	1.46	67	0.65	7.85	182	1.8
AS2-0.5	Legacy mine rock	Airstrip	0.5	AS2	579427	6507187	<0.01	0.09	7.5	0.149	0.19	2.28	79	1.21	10.29	1477	3.8
AS2-1.0	Legacy mine rock	Airstrip	1	AS2	579427	6507187	<0.01	0.04	8.3	0.113	0.12	2.65	56	0.74	8.97	937	2.3
LP1-0.2	Legacy mine rock	Lower pad (former crusher location)	0.2	LP1	579357	6507295	<0.01	0.56	2.7	0.102	0.3	1.07	70	1.06	8.05	>10000	6.5
LP1-0.5	Legacy mine rock	Lower pad (former crusher location)	0.5	LP1	579357	6507295	<0.01	0.04	4.6	0.067	0.11	1.02	52	0.76	4.71	3025	1.5
LP2-0.1	Legacy mine rock	Lower pad (former crusher location)	0.1	LP2	579378	6507318	<0.01	0.36	5.4	0.094	0.18	0.97	60	0.69	5.71	1042	2
LP2-0.4	Legacy mine rock	Lower pad (former crusher location)	0.4	LP2	579378	6507318	<0.01	2.65	3.5	0.055	0.49	0.86	53	0.59	3.53	2921	1.2
NP1-0.2	Legacy mine rock	New Polaris portal	0.2	NP1	579291	6507408	<0.01	0.04	4.6	0.091	0.15	1.21	61	0.56	6.06	674	0.9
NP1-0.6	Legacy mine rock	New Polaris portal	0.6	NP1	579291	6507408	<0.01	0.05	5.7	0.088	0.11	1.27	49	0.33	6.38	134	1.1
NP1-1.0	Legacy mine rock	New Polaris portal	1	NP1	579291	6507408	<0.01	0.06	5.6	0.081	0.12	1.2	50	0.75	5.86	146	1.3
NP2-0.1	Legacy mine rock	New Polaris portal	0.1	NP2	579270	6507337	<0.01	0.04	0.5	0.025	0.07	0.14	73	0.64	4.79	184	1
NP2-0.6	Legacy mine rock	New Polaris portal	0.6	NP2	579270	6507337	<0.01	0.05	0.3	0.036	0.13	0.1	100	0.77	5.78	126	0.8
NP2-1.1	Legacy mine rock	New Polaris portal	1.1	NP2	579270	6507337	<0.01	0.05	0.2	0.046	0.23	0.06	102	1.76	5.67	58	<0.5
NP3-0.2	Legacy mine rock	New Polaris portal	0.2	NP3	579290	6507396	<0.01	0.16	3.5	0.083	0.25	1.2	61	4.37	5.93	1590	1.5
NP3-0.6	Legacy mine rock	New Polaris portal	0.6	NP3	579290	6507396	<0.01	0.12	0.4	0.074	0.17	0.16	122	1.29	5.64	2741	1
NPR1-0.3	Legacy mine rock	Mine road	0.3	NPR1	-	-	<0.01	0.07	3.8	0.115	0.14	1.57	73	0.41	6.07	331	<0.5
NPR2-0.3	Legacy mine rock	Mine road	0.3	NPR2	579393	6507562	<0.01	0.05	3.9	0.099	0.11	1.32	60	0.38	5.2	155	<0.5
NPR3-0.3	Legacy mine rock	Mine road	0.3	NPR3	579478	6507604	<0.01	0.04	3.7	0.117	0.13	1.23	82	0.37	7.02	88	0.9
LP1-1.1	Legacy tailings	Lower pad (former crusher location)	1.1	LP1	579357	6507295	<0.01	0.03	0.3	0.006	0.11	0.08	52	0.94	5.16	76	<0.5
678704	Legacy tailings	2024 test pit program	0.2 to 0.5	202414	579353	6506844	0.02	0.16	5.4	0.071	0.15	2.03	70	0.87	6.79	420	0.9
678707	Legacy tailings	2024 test pit program	0 to 0.6	202409	579353	6507094	<0.01	0.03	0.2	0.011	0.12	0.06	61	0.92	4.56	59	<0.5
678710	Legacy tailings	2024 test pit program	0 to 0.7	202405	579328	6507044	<0.01	0.03	<0.2	0.013	0.12	<0.05	62	0.83	4.8	123	<0.5
678712	Legacy tailings	2024 test pit program	0 to 2	202461	579297	6507175	<0.01	0.34	<0.2	0.01	1.16	0.24	41	1.82	3.7	2171	2.2
678720	Legacy tailings	2024 test pit program	0.1 to 0.4	202410	579353	6507044	<0.01	0.09	1.4	0.022	0.16	0.59	65	1.05	6.6	1510	0.7
678727	Legacy tailings	2024 test pit program	0.1 to 0.8	202419	579378	6506894	<0.01	0.03	1.7	0.011	0.24	0.6	70	1.26	6.18	1012	<0.5
678737	Legacy tailings	2024 test pit program	0.1 to 0.7	202407	579328	6506944	<0.01	0.09	3.3	0.035	0.17	1.45	69	0.8	5.91	1137	2.2
678739	Legacy tailings	2024 test pit program	0.5 to 2	202463	579288	6507194	<0.01	0.04	<0.2	0.014	0.09	0.07	59	0.48	4.48	53	<0.5
678756	Legacy tailings	2024 test pit program	1.4 to 1.9	202472	579330	6507174	<0.01	0.03	0.4	0.015	0.17	0.09	59	0.95	4.72	233	<0.5
678766	Legacy tailings	2024 test pit program	0 to 0.8	202477	579348	6507203	<0.01	0.03	0.3	0.016	0.12	0.07	66	0.78	4.63	3958	<0.5
678770	Legacy tailings	2024 test pit program	1 to 1.4	202478	579342	6507271	<0.01	0.04	0.2	0.016	0.12	0.08	79	0.65	4.94	649	<0.5
678771	Legacy tailings	2024 test pit program	0.6 to 2.2	202480	579353	6507308	<0.01	0.04	0.4	0.019	0.11	0.11	70	0.65	5.01	691	0.6

Notes:
Enrichment criteria = 10 x crustal abundance values for basalt, Price, 1997.
Legacy mine rock samples collected by Canagold.
Legacy mine rock samples collected by Ausenco.
For Ausenco sample desctiptions see field logs, Appendix XXX.
= concentration >100x average conc. in earths crust.
= concentration >10x average conc. in earths crust.

Sample ID	Sample Type	Location	Sample Depth (m)	Test Pit / Auger Hole ID	Sample Coordinates (NAD 83)		ARD Classification (HCl leach for S=)	ARD Classification (S= by diff.)	Surface Rinse pH	Paste pH	Fizz Rating	Total Carbon	Total Organic Carbon	Total Inorganic Carbon
					Easting	Northing			pH Units	pH Units		wt %	wt %	wt %
AS1-0.1	Legacy mine rock	Airstrip	0.1	AS1	579481	6507382	NPAG	NPAG	6.34	7.25	Slight	0.95	0.74	0.21
AS1-0.4	Legacy mine rock	Airstrip	0.4	AS1	579481	6507382	NPAG	NPAG	7.05	7.93	Moderate	2.25	0.24	2.01
AS1-0.8	Legacy mine rock	Airstrip	0.8	AS1	579481	6507382	NPAG	NPAG	5.30	5.85	None	2.97	2.97	<0.02
AS2-0.1	Legacy mine rock	Airstrip	0.1	AS2	579427	6507187	NPAG	NPAG	6.72	7.16	None	0.92	0.85	0.07
AS2-0.5	Legacy mine rock	Airstrip	0.5	AS2	579427	6507187	NPAG	NPAG	5.83	6.32	None	1.57	1.53	0.04
AS2-1.0	Legacy mine rock	Airstrip	1	AS2	579427	6507187	NPAG	NPAG	5.82	6.32	None	0.36	0.36	<0.02
LP1-0.2	Legacy mine rock	Lower pad (former crusher location)	0.2	LP1	579357	6507295	NPAG	UNCERTAIN	5.98	6.50	Slight	1.40	0.94	0.46
LP1-0.5	Legacy mine rock	Lower pad (former crusher location)	0.5	LP1	579357	6507295	NPAG	NPAG	6.44	7.69	Slight	0.40	0.19	0.21
LP2-0.1	Legacy mine rock	Lower pad (former crusher location)	0.1	LP2	579378	6507318	NPAG	UNCERTAIN	6.31	6.99	None	0.52	0.49	0.03
LP2-0.4	Legacy mine rock	Lower pad (former crusher location)	0.4	LP2	579378	6507318	NPAG	NPAG	6.42	6.74	None	0.37	0.19	0.18
NP1-0.2	Legacy mine rock	New Polaris portal	0.2	NP1	579291	6507408	NPAG	NPAG	5.85	6.34	None	0.76	0.76	<0.02
NP1-0.6	Legacy mine rock	New Polaris portal	0.6	NP1	579291	6507408	NPAG (low S)	NPAG (low S)	6.11	6.18	None	1.43	1.43	<0.02
NP1-1.0	Legacy mine rock	New Polaris portal	1	NP1	579291	6507408	NPAG (low S)	NPAG (low S)	6.53	6.39	None	0.79	0.76	0.03
NP2-0.1	Legacy mine rock	New Polaris portal	0.1	NP2	579270	6507337	NPAG	NPAG	7.55	7.76	Moderate	3.98	1.03	2.95
NP2-0.6	Legacy mine rock	New Polaris portal	0.6	NP2	579270	6507337	NPAG	NPAG	7.64	8.08	Strong	3.71	0.50	3.21
NP2-1.1	Legacy mine rock	New Polaris portal	1.1	NP2	579270	6507337	NPAG	NPAG	7.83	8.12	Moderate	3.92	0.54	3.38
NP3-0.2	Legacy mine rock	New Polaris portal	0.2	NP3	579290	6507396	NPAG	NPAG	6.55	6.89	Slight	1.48	1.01	0.47
NP3-0.6	Legacy mine rock	New Polaris portal	0.6	NP3	579290	6507396	NPAG	NPAG	7.19	7.63	Strong	2.26	0.54	1.72
NPR1-0.3	Legacy mine rock	Mine road	0.3	NPR1	-	-	NPAG	NPAG	6.13	6.28	None	1.86	1.86	<0.02
NPR2-0.3	Legacy mine rock	Mine road	0.3	NPR2	579393	6507562	NPAG (low S)	NPAG (low S)	5.17	5.29	None	2.03	2.03	<0.02
NPR3-0.3	Legacy mine rock	Mine road	0.3	NPR3	579478	6507604	NPAG	NPAG	5.09	5.10	None	1.52	1.52	<0.02
LP1-1.1	Legacy tailings	Lower pad (former crusher location)	1.1	LP1	579357	6507295	NPAG	NPAG	7.77	7.58	Strong	4.88	1.08	3.80
678704	Legacy tailings	2024 test pit program	0.2 to 0.5	202414	579353	6506844	NPAG	NPAG	6.48	6.64	None	1.80	1.71	0.09
678707	Legacy tailings	2024 test pit program	0 to 0.6	202409	579353	6507094	NPAG	NPAG	7.19	7.57	Slight	4.10	1.05	3.05
678710	Legacy tailings	2024 test pit program	0 to 0.7	202405	579328	6507044	NPAG	NPAG	7.11	7.63	Slight	4.13	0.88	3.25
678712	Legacy tailings	2024 test pit program	0 to 2	202461	579297	6507175	UNCERTAIN	PAG	6.56	7.09	Slight	1.87	0.23	1.64
678720	Legacy tailings	2024 test pit program	0.1 to 0.4	202410	579353	6507044	NPAG	NPAG	7.09	7.38	Slight	3.07	0.91	2.16
678727	Legacy tailings	2024 test pit program	0.1 to 0.8	202419	579378	6506894	NPAG	NPAG	7.03	7.36	Moderate	2.46	0.72	1.74
678737	Legacy tailings	2024 test pit program	0.1 to 0.7	202407	579328	6506944	NPAG	NPAG	6.56	7.19	Slight	2.47	1.13	1.34
678739	Legacy tailings	2024 test pit program	0.5 to 2	202463	579288	6507194	NPAG	NPAG	7.34	8.02	Slight	4.47	0.83	3.64
678756	Legacy tailings	2024 test pit program	1.4 to 1.9	202472	579330	6507174	NPAG	NPAG	7.35	7.98	Slight	4.28	0.81	3.47
678766	Legacy tailings	2024 test pit program	0 to 0.8	202477	579348	6507203	NPAG	NPAG	7.07	7.71	Moderate	3.82	0.70	3.12
678770	Legacy tailings	2024 test pit program	1 to 1.4	202478	579342	6507271	NPAG	NPAG	7.61	7.82	Moderate	4.55	0.60	3.95
678771	Legacy tailings	2024 test pit program	0.6 to 2.2	202480	579353	6507308	NPAG	NPAG	7.69	7.94	Moderate	4.37	0.64	3.73

Sample ID	Sample Type	Location	Sample Depth (m)	Test Pit / Auger Hole ID	Sample Coordinates (NAD 83)		Total Sulphur	Sulphate Sulphur	Sulphide Sulphur (HCl / HNO3 leach)	Sulphide Sulphur (by diff.)	Non-Extractable Sulphur
					Easting	Northing					
							wt %	wt %	wt %		wt %
AS1-0.1	Legacy mine rock	Airstrip	0.1	AS1	579481	6507382	0.20	0.03	<0.01	0.17	0.17
AS1-0.4	Legacy mine rock	Airstrip	0.4	AS1	579481	6507382	0.25	<0.01	0.06	0.24	0.19
AS1-0.8	Legacy mine rock	Airstrip	0.8	AS1	579481	6507382	0.11	<0.01	0.05	0.10	0.06
AS2-0.1	Legacy mine rock	Airstrip	0.1	AS2	579427	6507187	0.05	<0.01	<0.01	0.04	0.05
AS2-0.5	Legacy mine rock	Airstrip	0.5	AS2	579427	6507187	0.17	<0.01	<0.01	0.16	0.17
AS2-1.0	Legacy mine rock	Airstrip	1	AS2	579427	6507187	0.03	0.01	<0.01	0.02	0.02
LP1-0.2	Legacy mine rock	Lower pad (former crusher location)	0.2	LP1	579357	6507295	1.03	0.05	0.25	0.98	0.73
LP1-0.5	Legacy mine rock	Lower pad (former crusher location)	0.5	LP1	579357	6507295	0.10	<0.01	<0.01	0.09	0.10
LP2-0.1	Legacy mine rock	Lower pad (former crusher location)	0.1	LP2	579378	6507318	0.18	0.02	<0.01	0.16	0.16
LP2-0.4	Legacy mine rock	Lower pad (former crusher location)	0.4	LP2	579378	6507318	0.15	0.03	<0.01	0.12	0.12
NP1-0.2	Legacy mine rock	New Polaris portal	0.2	NP1	579291	6507408	0.07	<0.01	<0.01	0.06	0.07
NP1-0.6	Legacy mine rock	New Polaris portal	0.6	NP1	579291	6507408	0.04	<0.01	<0.01	0.03	0.04
NP1-1.0	Legacy mine rock	New Polaris portal	1	NP1	579291	6507408	0.04	<0.01	<0.01	0.03	0.04
NP2-0.1	Legacy mine rock	New Polaris portal	0.1	NP2	579270	6507337	0.22	<0.01	<0.01	0.21	0.22
NP2-0.6	Legacy mine rock	New Polaris portal	0.6	NP2	579270	6507337	0.64	<0.01	0.33	0.63	0.31
NP2-1.1	Legacy mine rock	New Polaris portal	1.1	NP2	579270	6507337	0.83	<0.01	0.38	0.82	0.45
NP3-0.2	Legacy mine rock	New Polaris portal	0.2	NP3	579290	6507396	0.32	0.03	0.05	0.29	0.24
NP3-0.6	Legacy mine rock	New Polaris portal	0.6	NP3	579290	6507396	0.38	0.01	0.14	0.37	0.23
NPR1-0.3	Legacy mine rock	Mine road	0.3	NPR1	-	-	0.04	<0.01	<0.01	0.03	0.04
NPR2-0.3	Legacy mine rock	Mine road	0.3	NPR2	579393	6507562	0.06	<0.01	0.03	0.05	0.03
NPR3-0.3	Legacy mine rock	Mine road	0.3	NPR3	579478	6507604	0.03	<0.01	<0.01	0.02	0.03
LP1-1.1	Legacy tailings	Lower pad (former crusher location)	1.1	LP1	579357	6507295	0.18	<0.01	0.04	0.17	0.14
678704	Legacy tailings	2024 test pit program	0.2 to 0.5	202414	579353	6506844	0.08	0.02	0.04	0.06	0.02
678707	Legacy tailings	2024 test pit program	0 to 0.6	202409	579353	6507094	0.06	0.02	0.02	0.04	0.02
678710	Legacy tailings	2024 test pit program	0 to 0.7	202405	579328	6507044	0.08	0.02	0.03	0.06	0.03
678712	Legacy tailings	2024 test pit program	0 to 2	202461	579297	6507175	5.99	0.19	2.20	5.80	3.60
678720	Legacy tailings	2024 test pit program	0.1 to 0.4	202410	579353	6507044	0.17	0.03	0.03	0.14	0.11
678727	Legacy tailings	2024 test pit program	0.1 to 0.8	202419	579378	6506894	0.05	<0.01	0.02	0.04	0.03
678737	Legacy tailings	2024 test pit program	0.1 to 0.7	202407	579328	6506944	0.36	0.04	0.08	0.32	0.24
678739	Legacy tailings	2024 test pit program	0.5 to 2	202463	579288	6507194	0.19	0.02	0.06	0.17	0.11
678756	Legacy tailings	2024 test pit program	1.4 to 1.9	202472	579330	6507174	0.27	0.04	0.08	0.23	0.15
678766	Legacy tailings	2024 test pit program	0 to 0.8	202477	579348	6507203	0.10	0.02	0.03	0.08	0.05
678770	Legacy tailings	2024 test pit program	1 to 1.4	202478	579342	6507271	0.15	0.02	0.04	0.13	0.09
678771	Legacy tailings	2024 test pit program	0.6 to 2.2	202480	579353	6507308	0.18	0.02	0.05	0.16	0.11

Sample ID	Sample Type	Location	Sample Depth (m)	Test Pit / Auger Hole ID	Sample Coordinates (NAD 83)		AP (HCl leach for S=)	AP (S= by diff.)	Modified ABA NP	CaNP	NNP	NPR (HCl leach for S=)	NPR (S= by diff.)
					Easting	Northing	kg $CaCO_3$/tonne						
AS1-0.1	Legacy mine rock	Airstrip	0.1	AS1	579481	6507382	0.3	5.4	29.7	17.5	29.7	95.0	5.5
AS1-0.4	Legacy mine rock	Airstrip	0.4	AS1	579481	6507382	1.9	7.4	150.3	167.5	148.4	80.0	20.4
AS1-0.8	Legacy mine rock	Airstrip	0.8	AS1	579481	6507382	1.6	3.2	7.4	<1.7	5.8	4.7	2.3
AS2-0.1	Legacy mine rock	Airstrip	0.1	AS2	579427	6507187	0.3	1.4	14.8	5.8	14.8	47.4	10.7
AS2-0.5	Legacy mine rock	Airstrip	0.5	AS2	579427	6507187	0.3	4.9	12.4	3.3	12.4	39.7	2.5
AS2-1.0	Legacy mine rock	Airstrip	1	AS2	579427	6507187	0.3	0.6	6.5	<1.7	6.5	20.8	11.2
LP1-0.2	Legacy mine rock	Lower pad (former crusher location)	0.2	LP1	579357	6507295	7.8	30.6	29.2	38.3	21.4	3.7	1.0
LP1-0.5	Legacy mine rock	Lower pad (former crusher location)	0.5	LP1	579357	6507295	0.3	2.8	21.2	17.5	21.2	67.8	7.5
LP2-0.1	Legacy mine rock	Lower pad (former crusher location)	0.1	LP2	579378	6507318	0.3	5.0	9.7	2.5	9.7	31.0	1.9
LP2-0.4	Legacy mine rock	Lower pad (former crusher location)	0.4	LP2	579378	6507318	0.3	3.8	8.2	15.0	8.2	26.2	2.2
NP1-0.2	Legacy mine rock	New Polaris portal	0.2	NP1	579291	6507408	0.3	1.9	5.7	<1.7	5.7	18.2	3.0
NP1-0.6	Legacy mine rock	New Polaris portal	0.6	NP1	579291	6507408	0.3	0.9	-1.3	<1.7	-1.3	-4.2	-1.4
NP1-1.0	Legacy mine rock	New Polaris portal	1	NP1	579291	6507408	0.3	0.9	0.5	2.5	0.5	1.6	0.5
NP2-0.1	Legacy mine rock	New Polaris portal	0.1	NP2	579270	6507337	0.3	6.6	205.4	245.8	205.4	657.3	31.3
NP2-0.6	Legacy mine rock	New Polaris portal	0.6	NP2	579270	6507337	10.3	19.7	239.9	267.5	229.6	23.3	12.2
NP2-1.1	Legacy mine rock	New Polaris portal	1.1	NP2	579270	6507337	11.9	25.6	241.5	281.7	229.6	20.3	9.4
NP3-0.2	Legacy mine rock	New Polaris portal	0.2	NP3	579290	6507396	1.6	9.1	27.3	39.2	25.7	17.5	3.0
NP3-0.6	Legacy mine rock	New Polaris portal	0.6	NP3	579290	6507396	4.4	11.6	151.2	143.3	146.8	34.5	13.1
NPR1-0.3	Legacy mine rock	Mine road	0.3	NPR1	-	-	0.3	0.9	7.7	<1.7	7.7	24.6	8.4
NPR2-0.3	Legacy mine rock	Mine road	0.3	NPR2	579393	6507562	0.9	1.6	0.2	<1.7	-0.7	0.2	0.1
NPR3-0.3	Legacy mine rock	Mine road	0.3	NPR3	579478	6507604	0.3	0.6	2.9	<1.7	2.9	9.3	4.5
LP1-1.1	Legacy tailings	Lower pad (former crusher location)	1.1	LP1	579357	6507295	1.3	5.3	304.0	316.7	302.8	243.2	57.2
678704	Legacy tailings	2024 test pit program	0.2 to 0.5	202414	579353	6506844	1.3	1.9	15.5	7.5	14.3	12.4	8.3
678707	Legacy tailings	2024 test pit program	0 to 0.6	202409	579353	6507094	0.6	1.3	256.6	254.2	256.0	407.3	205.3
678710	Legacy tailings	2024 test pit program	0 to 0.7	202405	579328	6507044	0.9	1.9	232.1	270.8	231.2	246.9	123.8
678712	Legacy tailings	2024 test pit program	0 to 2	202461	579297	6507175	68.8	181.3	121.5	137.0	52.8	1.8	0.7
678720	Legacy tailings	2024 test pit program	0.1 to 0.4	202410	579353	6507044	0.9	4.4	181.2	180.2	180.3	192.8	41.4
678727	Legacy tailings	2024 test pit program	0.1 to 0.8	202419	579378	6506894	0.6	1.3	144.0	145.0	143.4	228.6	115.2
678737	Legacy tailings	2024 test pit program	0.1 to 0.7	202407	579328	6506944	2.5	10.0	111.1	112.0	108.6	44.4	11.1
678739	Legacy tailings	2024 test pit program	0.5 to 2	202463	579288	6507194	1.9	5.3	259.4	303.3	257.5	138.0	48.8
678756	Legacy tailings	2024 test pit program	1.4 to 1.9	202472	579330	6507174	2.5	7.2	260.2	289.2	257.7	104.1	36.2
678766	Legacy tailings	2024 test pit program	0 to 0.8	202477	579348	6507203	0.9	2.5	235.3	260.0	234.4	250.3	94.1
678770	Legacy tailings	2024 test pit program	1 to 1.4	202478	579342	6507271	1.3	4.1	288.8	329.2	287.6	231.0	71.1
678771	Legacy tailings	2024 test pit program	0.6 to 2.2	202480	579353	6507308	1.6	5.0	268.1	310.8	266.5	171.9	53.6

Parameter	Units	BCFAL Screening Criteria i)			AS1-0.4	AS2-1.0	NPR1-0.3	NPR3-0.3	LP1-0.2	LP1-0.5	LP2-0.1	LP2-0.4	NP1-0.2	NP1-0.6
Sample Type		**Working**	**Approved**		Legacy mine rock	Legacy mine rock	Legacy mine rock	Legacy mine rock	Legacy mine rock	Legacy mine rock	Legacy mine rock	Legacy mine rock	Legacy mine rock	Legacy mine rock
Location					Airstrip	Airstrip	Mine road	Mine road	Lower pad (former crusher location)	Lower pad (former crusher location)	Lower pad (former crusher location)	Lower pad (former crusher location)	Taku-Polaris portal	Taku-Polaris portal
Sample Depth (m)					0.4	0.1	0.3	0.3	0.2	0.5	0.1	0.4	0.2	0.6
Test Pit / Auger Hole ID					AS1	AS2	NPR1	NPR3	LP1	LP1	LP2	LP2	NP1	NP1
Sample Coordinates (NAD 83)	**Easting**				579481	579427	-	579478	579357	579357	579378	579378	579291	579291
	Northing				6507382	6507187	-	6507604	6507295	6507295	6507318	6507318	6507408	6507408
ARD Classification					NPAG	NPAG	NPAG	NPAG	NPAG	NPAG	NPAG	NPAG	NPAG	NPAG (low S)
	Total S				0.25	0.03	0.04	0.03	1.03	0.10	0.18	0.15	0.07	0.04
	Sulphide-S				0.06	<0.01	<0.01	<0.01	0.25	<0.01	<0.01	<0.01	<0.01	<0.01
Weight of dry sample used	g				250	250	250	250	250	250	250	250	250	250
Volume of DI water used	mL				750	750	750	750	750	750	750	750	750	750
pH	pH units		6.5 to 9.0		6.4	5.8	6.3	6.2	5.9	6.3	6.1	6.2	6.2	6.3
EC	µS/cm				61	107	31	26	166	47	38	52	14	17
Acidity (to pH 8.3)	mg $CaCO_3$/L				23.5	24.3	15.1	11.9	37.8	17.4	16.6	18.0	8.6	11.3
Alkalinity (to pH 4.5)	mg $CaCO_3$/L				31.9	5.5	12.7	8.7	10.3	14.6	10.7	9.0	6.3	7.6
Sulphate	mg/L		218	ii)	3.64	45.6	6.94	7.1	90.7	9.19	6.84	14.8	2.61	2.19
Chloride	mg/L				0.45	0.81	0.18	0.11	<0.10	<0.10	0.35	0.11	<0.10	0.15
Fluoride	mg/L				<0.10	<0.10	<0.10	<0.10	<0.10	0.10	0.14	0.10	<0.10	0.10
Nitrate + Nitrite as N	mg/L				0.108	0.056	0.501	0.621	0.010	0.058	0.103	0.072	0.139	0.019
Dissolved Hardness (CaCO3)	mg/L				32.4	42.4	15.6	13.7	85.9	23.3	18.5	25.0	6.7	9.1
Aluminum Dissolved	mg/L				0.0946	0.0352	0.0756	0.15	0.0062	0.0118	0.015	0.006	0.0463	0.106
Antimony Dissolved	mg/L		0.25		0.133	0.00871	0.0777	0.0133	0.0365	0.00768	0.0145	0.0589	0.0277	0.0377
Arsenic Dissolved	mg/L		0.005		1.1	0.00784	0.0283	0.00621	0.0292	0.0769	0.0197	0.107	0.123	0.0327
Barium Dissolved	mg/L	1			0.0105	0.0581	0.0114	0.00899	0.0923	0.139	0.0912	0.0261	0.0488	0.0107
Beryllium Dissolved	mg/L	0.13			<0.000010	<0.000010	<0.000010	0.000011	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Bismuth Dissolved	mg/L				<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Boron Dissolved	mg/L				0.0043	0.0073	0.0039	0.0041	0.0027	0.0031	0.0029	0.0035	0.0028	0.0055
Cadmium Dissolved	mg/L		0.00029	iii)	0.000004	0.000639	0.000109	0.0000152	0.0423	0.0162	0.00416	0.00326	0.000319	0.0000283
Calcium Dissolved	mg/L				10.9	13.6	4.30	3.93	28.2	7.24	5.06	7.40	1.86	2.52
Chromium Dissolved	mg/L	0.0089			<0.00050	0.0007	<0.00050	0.0007	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.0007
Cobalt Dissolved	mg/L				0.0000649	0.00528	0.0000977	0.000135	0.00414	0.000419	0.000138	0.000104	0.0000762	0.000111
Copper Dissolved	mg/L		0.0038	iv)	0.00202	0.00548	0.0082	0.00484	0.0143	0.00192	0.00723	0.0149	0.0146	0.00481
Iron Dissolved	mg/L		0.35		0.0137	0.0475	0.0466	0.11	0.0074	0.0052	0.0108	0.0024	0.0331	0.0493
Lead Dissolved	mg/L		0.0034	ii)	0.000064	0.00013	0.000103	0.000106	0.107	0.00013	0.145	0.00981	0.000321	0.00364
Lithium Dissolved	mg/L				0.0005	0.0016	<0.000050	<0.000050	0.0010	0.0007	0.0006	0.0009	0.0005	0.0001
Magnesium Dissolved	mg/L				1.22	2.01	1.17	0.93	3.71	1.26	1.43	1.58	0.50	0.7
Manganese Dissolved	mg/L		1.09		0.00512	0.35	0.00434	0.00505	0.109	0.0437	0.0132	0.0116	0.00611	0.00431
Mercury Dissolved	mg/L		0.00001	v)	<0.000020	<0.000020	<0.000020	<0.000020	0.000225	<0.000020	0.000028	<0.000020	<0.000020	<0.000020
Molybdenum Dissolved	mg/L		46		0.000826	0.00112	0.00146	0.0013	0.00123	0.000334	0.000457	0.000624	0.000259	0.000692
Nickel Dissolved	mg/L		0.0155	iv)	0.00093	0.00542	0.000954	0.00063	0.012	0.000817	0.000364	0.000498	0.00232	0.000773
Phosphorus Dissolved	mg/L				<0.010	<0.010	0.06	0.056	<0.010	<0.010	<0.010	<0.010	0.012	<0.010
Potassium Dissolved	mg/L				2.39	1.96	0.972	0.769	1.24	0.979	1.03	1.39	0.459	0.442
Selenium Dissolved	mg/L		0.002		0.00046	0.00107	0.00021	0.00023	0.00054	<0.00010	0.00026	0.00035	0.00013	0.00022
Silicon Dissolved	mg/L				0.47	0.53	0.47	0.81	0.67	0.68	0.71	0.93	0.66	1.04
Silver Dissolved	mg/L		0.00012	ii)	0.000028	<0.000010	0.000047	0.000019	0.000206	<0.000010	0.000078	0.000015	0.000031	<0.000010
Sodium Dissolved	mg/L				0.477	0.848	0.228	0.347	0.335	0.317	0.267	0.412	0.145	0.252
Strontium Dissolved	mg/L				0.0399	0.047	0.0202	0.0158	0.15	0.049	0.0259	0.039	0.0192	0.0244
Sulphur Dissolved	mg/L				1.57	18.1	1.85	1.47	35.0	4.1	3.2	6.3	<1.00	<1.00
Tellurium Dissolved	mg/L				<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Thallium Dissolved	mg/L	0.00003			0.0000147	0.0000612	0.0000257	0.0000079	0.000166	0.0000398	0.000048	0.000143	0.0000135	0.000009
Thorium Dissolved	mg/L				<0.000010	0.000114	0.000062	0.000141	<0.000010	<0.000010	<0.000010	<0.000010	0.000029	0.000096
Tin Dissolved	mg/L				<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Titanium Dissolved	mg/L				0.00033	0.00075	0.001	0.00464	<0.00020	0.00026	0.00043	<0.00020	0.00046	0.00058
Tungsten Dissolved	mg/L				0.00037	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Uranium Dissolved	mg/L	0.0075			0.0000598	0.000285	0.0000725	0.0000924	0.0000109	<0.0000010	0.0000033	0.0000012	0.0000349	0.0000635
Vanadium Dissolved	mg/L				0.0011	0.00895	<0.00100	0.00119	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Zinc Dissolved	mg/L		0.006		<0.0010	3.21	0.0136	0.0021	13.2	1.0100	0.283	0.4080	0.0619	0.0082
Zirconium Dissolved	mg/L				<0.000020	0.00007	0.00007	0.00040	<0.000020	<0.000020	<0.000020	<0.000020	0.00004	0.00007

Notes:
i) BC Freshwater Aquatic Life Guidelines
ii) Long-term chronic.
iii) Asumes hardness @ 50mg/L
iv) Est values from BC summary table
Concentration above screening criteria

Parameter	Units	BCFAL Screening Criteria i)			NP1-1.0	NP2-0.1	NP2-0.6	NP2-1.1	NP3-0.2	NP3-0.6	LP1-1.1	678704	678707	678710
Sample Type		Working	Approved		Legacy mine rock	Legacy mine rock	Legacy mine rock	Legacy mine rock	Legacy mine rock	Legacy mine rock	Legacy tailings	Legacy tailings	Legacy tailings	Legacy tailings
Location					Taku-Polaris portal	Taku-Polaris portal	Taku-Polaris portal	Taku-Polaris portal	Taku-Polaris portal	Taku-Polaris portal	Lower pad (former crusher location)	2024 test pit program	2024 test pit program	2024 test pit program
Sample Depth (m)					1	0.1	0.6	1.1	0.2	0.6	1.1	0.2 to 0.5	0 to 0.6	0 to 0.7
Test Pit / Auger Hole ID					NP1	NP2	NP2	NP2	NP3	NP3	LP1	202414	202409	202405
Sample Coordinates (NAD 83)	Easting				579291	579270	579270	579270	579290	579290	579357	579353	579353	579328
	Northing				6507408	6507337	6507337	6507337	6507396	6507396	6507295	6506844	6507094	6507044
ARD Classification					NPAG (low S)	NPAG	NPAG	NPAG	NPAG	NPAG	NPAG	NPAG	NPAG	NPAG
	Total S				0.04	0.22	0.64	0.83	0.32	0.38	0.18	0.08	0.06	0.08
	Sulphide-S				<0.01	<0.01	0.33	0.38	0.05	0.14	0.04	0.04	0.02	0.03
Weight of dry sample used	g				250	250	250	250	250	250	250	100	100	100
Volume of DI water used	mL				750	750	750	750	750	750	750	300	300	300
pH	pH units		6.5 to 9.0		6.4	6.5	6.5	6.7	6.2	6.5	6.3	6.3	6.7	6.5
EC	µS/cm				18	55	74	81	37	72	252	97	72	109
Acidity (to pH 8.3)	mg $CaCO_3$/L				11.9	21.1	23.8	24.2	15.0	23.4	33.4	21.1	18.5	21.3
Alkalinity (to pH 4.5)	mg $CaCO_3$/L				10.6	25.4	34.8	38.0	9.2	33.7	45.3	22.0	24.5	32.0
Sulphate	mg/L		218	ii)	2.65	6.26	9.47	7.36	8.80	7.60	119.2	19.2	7.9	13.8
Chloride	mg/L				<0.10	0.20	0.12	0.54	0.13	0.11	<0.10	2.16	1.86	1.88
Fluoride	mg/L				<0.10	<0.10	<0.10	0.11	<0.10	<0.10	<0.10	0.12	<0.10	<0.10
Nitrate + Nitrite as N	mg/L				0.010	0.183	0.064	0.142	0.067	0.125	0.035	2.19	1.91	2.77
Dissolved Hardness (CaCO3)	mg/L				10.0	30.6	42.2	41.7	19.2	42.3	164.0	48.6	36.5	57.9
Aluminum Dissolved	mg/L				0.0765	0.0527	0.113	0.117	0.0272	0.0262	0.0294	0.0187	0.123	0.0175
Antimony Dissolved	mg/L		0.25		0.0455	0.0777	0.184	0.185	0.0375	0.0754	0.547	0.012	0.345	0.0762
Arsenic Dissolved	mg/L		0.005		0.0286	0.654	1.74	1.82	0.0393	0.414	0.339	0.00615	2.91	1.14
Barium Dissolved	mg/L	1			0.0139	0.0242	0.00911	0.00165	0.0974	0.11	0.0105	0.0883	0.00764	0.0311
Beryllium Dissolved	mg/L	0.13			<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000020	<0.000010
Bismuth Dissolved	mg/L				<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000020	<0.000010
Boron Dissolved	mg/L				0.0058	0.0046	0.0046	0.0111	0.0033	0.0038	0.0076	0.0153	0.0132	0.0116
Cadmium Dissolved	mg/L		0.00029	iii)	0.0000451	0.0000096	0.0000432	<0.0000020	0.000565	0.000358	0.0000129	0.000179	<0.0000040	0.000006
Calcium Dissolved	mg/L				2.73	9.35	11.6	10.4	5.21	13.2	47.6	9.7	7.6	12.1
Chromium Dissolved	mg/L	0.0089			<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.0013	<0.00050
Cobalt Dissolved	mg/L				0.0000886	0.000162	0.000106	0.000186	0.000085	0.0000888	0.000275	0.0000424	0.000178	0.000134
Copper Dissolved	mg/L		0.0038	iv)	0.00524	0.00594	0.00135	0.00144	0.034	0.00879	0.00363	0.0047	0.00829	0.00735
Iron Dissolved	mg/L		0.35		0.0314	0.0206	0.0071	0.0148	0.0242	0.0125	<0.0020	0.0562	0.126	0.0256
Lead Dissolved	mg/L		0.0034	ii)	0.00045	0.000208	<0.000050	<0.000050	0.00801	0.000669	<0.000050	0.000144	0.000542	0.000174
Lithium Dissolved	mg/L				0.0002	0.0007	0.0010	0.0016	0.0002	0.0006	0.0012	0.0002	0.0005	0.0005
Magnesium Dissolved	mg/L				0.77	1.76	3.2	3.79	1.50	2.3	10.90	5.91	4.23	6.72
Manganese Dissolved	mg/L		1.09		0.005	0.00345	0.00362	0.00554	0.0075	0.0113	0.0473	0.00739	0.00243	0.00392
Mercury Dissolved	mg/L		0.00001	v)	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000040	<0.000020
Molybdenum Dissolved	mg/L		46		0.00073	0.000602	0.000727	0.000894	0.000702	0.000794	0.00302	0.000188	0.000716	0.000512
Nickel Dissolved	mg/L		0.0155	iv)	0.000741	0.00278	0.00161	0.00299	0.000573	0.000835	0.0025	0.000394	0.00574	0.00382
Phosphorus Dissolved	mg/L				<0.010	0.056	<0.010	<0.010	0.013	<0.010	<0.010	<0.010	<0.020	<0.010
Potassium Dissolved	mg/L				0.439	1.36	3.14	5.35	0.88	1.86	7.48	1.08	1.46	1.85
Selenium Dissolved	mg/L		0.002		0.00014	0.00025	0.00032	0.00017	0.00012	<0.00010	0.00066	0.00015	<0.00020	<0.00010
Silicon Dissolved	mg/L				0.61	0.43	0.62	0.81	0.51	0.5	0.78	0.82	0.44	0.44
Silver Dissolved	mg/L		0.00012	ii)	0.000012	0.000022	<0.000010	0.00001	0.000046	0.000025	0.000023	0.000028	0.00034	0.000056
Sodium Dissolved	mg/L				0.218	0.281	0.323	0.387	0.193	0.289	0.514	0.762	0.453	0.504
Strontium Dissolved	mg/L				0.0264	0.0413	0.0508	0.0447	0.0383	0.0839	0.174	0.0574	0.0469	0.0702
Sulphur Dissolved	mg/L				<1.00	2.8	3.7	3.6	3.5	4.1	53.3	6.0	<2.00	6.1
Tellurium Dissolved	mg/L				<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000100	<0.000050
Thallium Dissolved	mg/L	0.00003			0.0000075	0.0000061	0.0000105	0.0000128	0.0000359	0.0000371	0.000055	0.0000128	0.0000088	0.0000098
Thorium Dissolved	mg/L				0.000083	<0.000010	<0.000010	<0.000010	0.00003	<0.000010	<0.000010	<0.000010	<0.000020	<0.000010
Tin Dissolved	mg/L				<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	0.000138	0.000307	<0.000100
Titanium Dissolved	mg/L				0.00068	0.00028	0.00024	0.0003	0.00041	0.00022	<0.00020	0.00042	0.00216	0.00028
Tungsten Dissolved	mg/L				<0.00020	0.00055	0.00057	0.00081	0.00063	0.00086	0.00138	<0.00020	0.00084	0.00044
Uranium Dissolved	mg/L	0.0075			0.0000554	0.000013	0.0000401	0.0000268	0.0000363	0.0000317	0.000176	0.0000087	0.0000058	0.0000029
Vanadium Dissolved	mg/L				<0.00100	<0.00100	0.0021	0.00181	<0.00100	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100
Zinc Dissolved	mg/L		0.006		0.0089	0.0011	0.0029	<0.0010	0.0710	0.0451	0.0012	0.003	<0.0020	0.002
Zirconium Dissolved	mg/L				0.00006	<0.000020	<0.000020	<0.000020	0.00003	0.00003	<0.000020	<0.000020	<0.000040	<0.000020

Notes:
i) BC Freshwater Aquatic Life Guidelines
ii) Long-term chronic.
iii) Asumes hardness @ 50mg/L
iv) Est values from BC summary table
Concentration above screening criteria

Parameter	Units	BCFAL Screening Criteria i)			678712	678720	678727	678737	678739	678756	678766	678770	678771
Sample Type		**Working**	**Approved**		Legacy tailings	Legacy tailings	Legacy tailings	Legacy tailings	Legacy tailings	Legacy tailings	Legacy tailings	Legacy tailings	Legacy tailings
Location					2024 test pit program	2024 test pit program	2024 test pit program	2024 test pit program	2024 test pit program	2024 test pit program	2024 test pit program	2024 test pit program	2024 test pit program
Sample Depth (m)					0 to 2	0.1 to 0.4	0.1 to 0.8	0.1 to 0.7	0.5 to 2	1.4 to 1.9	0 to 0.8	1 to 1.4	0.6 to 2.2
Test Pit / Auger Hole ID					202461	202410	202419	202407	202463	202472	202477	202478	202480
Sample Coordinates (NAD 83)	**Easting**				579297	579353	579378	579328	579288	579330	579348	579342	579353
	Northing				6507175	6507044	6506894	6506944	6507194	6507174	6507203	6507271	6507308
ARD Classification					UNCERTAIN	NPAG	NPAG	NPAG	NPAG	NPAG	NPAG	NPAG	NPAG
	Total S				5.99	0.17	0.05	0.36	0.19	0.27	0.10	0.15	0.18
	Sulphide-S				2.20	0.03	0.02	0.08	0.06	0.08	0.03	0.04	0.05
Weight of dry sample used	g				250	100	250	100	100	100	100	100	100
Volume of DI water used	mL				750	300	750	300	300	300	300	300	300
pH	pH units		6.5 to 9.0		6.2	6.5	6.6	6.3	6.4	6.5	6.6	6.5	6.4
EC	µS/cm				463	139	69	347	286	243	74	435	444
Acidity (to pH 8.3)	mg $CaCO_3$/L				21.9	23.7	19.3	22.3	24.2	23.0	21.1	30.0	28.4
Alkalinity (to pH 4.5)	mg $CaCO_3$/L				13.4	36.2	33.1	20.3	27.2	29.3	32.4	46.1	38.1
Sulphate	mg/L		218	ii)	323.3	29.4	6.1	228.4	181.2	122.8	10.0	291.0	290.1
Chloride	mg/L				0.45	0.30	0.41	1.47	0.45	0.46	0.75	0.37	0.18
Fluoride	mg/L				0.12	0.11	0.37	0.15	0.15	<0.10	0.30	0.22	0.21
Nitrate + Nitrite as N	mg/L				0.89	4.54	0.85	0.08	0.06	0.40	0.40	1.07	0.16
Dissolved Hardness (CaCO3)	mg/L				356.0	81.9	39.7	261.0	182.0	152.0	41.1	291.0	303.0
Aluminum Dissolved	mg/L				0.0016	0.0131	0.019	0.0096	0.0133	0.0109	0.0068	0.0403	0.0277
Antimony Dissolved	mg/L		0.25		0.0467	0.1	0.0409	0.28	1.18	0.766	0.0223	0.254	0.485
Arsenic Dissolved	mg/L		0.005		0.0073	0.0461	0.0318	0.0513	0.199	0.348	0.121	0.218	0.231
Barium Dissolved	mg/L	1			0.0291	0.0784	0.0178	0.0641	0.0252	0.0268	0.0726	0.0246	0.0348
Beryllium Dissolved	mg/L	0.13			<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Bismuth Dissolved	mg/L				<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Boron Dissolved	mg/L				0.0027	0.0032	0.0037	0.0094	0.0073	0.0095	0.0063	0.0171	0.0172
Cadmium Dissolved	mg/L		0.00029	iii)	0.00753	0.000637	0.000235	0.00209	0.0000179	0.0000187	0.000135	0.000114	0.0000831
Calcium Dissolved	mg/L				68.4	16.4	8.8	53.0	52.3	37.7	9.7	72.3	74.4
Chromium Dissolved	mg/L	0.0089			<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt Dissolved	mg/L				0.00122	0.0000553	0.0000236	0.00569	0.00183	0.000416	0.0000337	0.000426	0.000649
Copper Dissolved	mg/L		0.0038	iv)	0.0124	0.0144	0.0174	0.0112	0.00293	0.00208	0.00357	0.00382	0.00389
Iron Dissolved	mg/L		0.35		<0.0020	0.0089	0.004	0.0052	<0.0020	<0.0020	0.0145	0.016	0.0118
Lead Dissolved	mg/L		0.0034	ii)	0.00311	0.000071	<0.000050	0.000722	<0.000050	<0.000050	0.000087	0.000056	0.000075
Lithium Dissolved	mg/L				0.0015	0.0006	0.0002	0.0009	0.0023	0.0012	0.0005	0.0035	0.0022
Magnesium Dissolved	mg/L				44.90	9.93	4.28	31.20	12.40	14.00	4.06	26.7	28.4
Manganese Dissolved	mg/L		1.09		0.247	0.011	0.00331	0.201	0.313	0.0262	0.00362	0.0521	0.0755
Mercury Dissolved	mg/L		0.00001	v)	0.000057	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Molybdenum Dissolved	mg/L		46		0.000403	0.000934	0.000849	0.00406	0.00436	0.00129	0.000753	0.00459	0.00373
Nickel Dissolved	mg/L		0.0155	iv)	0.00801	0.000565	0.000098	0.0118	0.0203	0.00648	0.000591	0.00285	0.0063
Phosphorus Dissolved	mg/L				<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Potassium Dissolved	mg/L				2.64	1.59	0.787	3.03	11.3	7.24	1.35	18.6	18.9
Selenium Dissolved	mg/L		0.002		0.00085	0.00013	<0.00010	0.00057	0.00045	0.00053	0.00013	0.00054	0.00055
Silicon Dissolved	mg/L				1.5	0.91	0.59	0.57	0.45	0.69	1.11	1.09	0.89
Silver Dissolved	mg/L		0.00012	ii)	<0.000010	0.000074	<0.000010	0.000014	0.000016	0.000032	0.000073	0.000063	0.000023
Sodium Dissolved	mg/L				0.365	0.372	0.226	0.763	0.633	0.723	0.711	0.938	0.945
Strontium Dissolved	mg/L				0.272	0.0915	0.0526	0.154	0.14	0.134	0.0633	0.389	0.342
Sulphur Dissolved	mg/L				116.0	10.5	1.6	85.9	59.3	44.8	3.5	91.6	98.8
Tellurium Dissolved	mg/L				<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Thallium Dissolved	mg/L	0.00003			0.000268	0.0000254	0.0000219	0.00012	0.0000554	0.0000477	0.0000165	0.0000592	0.0000732
Thorium Dissolved	mg/L				<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Tin Dissolved	mg/L				<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	0.000102	0.000314	0.000106	<0.000100
Titanium Dissolved	mg/L				<0.00020	0.00022	<0.00020	<0.00020	<0.00020	<0.00020	0.00021	0.00072	0.00032
Tungsten Dissolved	mg/L				<0.00020	0.00026	<0.00020	<0.00020	0.00089	0.00112	0.00105	0.00145	0.00144
Uranium Dissolved	mg/L	0.0075			0.0000064	0.0000104	0.0000108	0.0000424	0.0000768	0.0000414	0.000005	0.000143	0.000175
Vanadium Dissolved	mg/L				<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Zinc Dissolved	mg/L		0.006		0.329	0.025	0.002	0.232	0.002	0.004	0.291	0.010	0.009
Zirconium Dissolved	mg/L				<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	0.000

Notes:
i) BC Freshwater Aquatic Life Guidelines
ii) Long-term chronic.
iii) Asumes hardness @ 50mg/L
iv) Est values from BC summary table
Concentration above screening criteria

Appendix C

Copies of Laboratory Analytical Certificates

CERTIFICATE OF ANALYSIS ▪ COVER PAGE

Global ARD Testing Services Inc.

CLIENT INFORMATION	
Client:	Canagold Resources Ltd.
Project Manager:	Garry Biles
Mailing Address	Suite 810-625 Howe Street
	Vancouver, B.C., Canada, V6C 2T6
Contact No:	(604) 685-9700

COMPANY INFORMATION	
Legal Name:	Global ARD Testing Services Inc.
Mailing Address:	6891 Antrim Avenue
	Burnaby, BC
	V5J 4M5
Contact No:	Main: (604) 428-2730
	Alternate: (604) 603-1359

PROJECT INFORMATION	
Project Name:	New Polaris
Project Number:	105451-05

REPORTING	
Global Project No:	2559 (B1)
Report Version:	1
Pages (Including Cover):	6
Report Title:	COA (B1) x 12 New Polaris Samples (rec'd 18-Aug25)
Analysis Reviewed By:	Prab Bhatia (Pbhatia@globalARDtesting.com)
Position:	Project Manager
Report Certified By:	Prab Bhatia
Signature:	Prab Bhatia

RESULTS		
Reported To:	**1**	Garry Biles (garry@canagoldresources.com)
	2	Quentin Hamilton (quentin.hamilton@ausenco.com)
	3	
	4	
Date Reported:		
	Version-1:	Friday, September 19, 2025

INVOICE		
Submitted To:	**1**	Canagold Resources Ltd. ()
	2	
	3	
	4	
Client PO No:		
Global Invoice No:		ARD2559-0925A
Date Submitted:		September 23, 2025

NOTES
All samples and pulps are stored at no charge for 90 days past reporting date.
Please contact the lab if you would like to continue storage past 90 days.
Storage charges will apply.
VERSIONS:
Version-1: Full Report

CERTIFICATE OF ANALYSIS ▪ SAMPLE DETAILS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559 (B1)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

SAMPLE RECEIPT INFO	
Date Samples Received:	Monday, August 18, 2025
No of Samples Received:	12
Samples Received By:	Said Zeinab

ANALYTICAL INSTRUCTIONS	
From:	
	as per email Confirmation
Date:	Wednesday, August 20, 2025

S. No.	Sample ID	Sample Description	Condition (Wet/Dry)	Wt. of Sample Rec'd (g)	Global Notes (if any)
1	678704	Tailing	Wet	650.00	
2	678707	Tailing	Wet	545.00	
3	678710	Tailing	Wet	590.00	
4	678712	Tailing	Wet	750.00	
5	678720	Tailing	Wet	545.00	
6	678727	Tailing	Wet	890.00	
7	678737	Tailing	Wet	465.00	
8	678739	Tailing	Wet	525.00	
9	678756	Tailing	Wet	430.00	
10	678766	Tailing	Wet	460.00	
11	678770	Tailing	Wet	475.00	
12	678771	Tailing	Wet	525.00	

Total wt of sample rec'd (kg): **6.85**

ANALYTICAL INSTRUCTIONS (SFE ADDON)	
From:	
	as per email Confirmation
Date:	Friday, August 29, 2025

Global ARD Testing Services Inc.

CERTIFICATE OF ANALYSIS ▪ ABA RESULTS

GLOBAL PROJECT NO: 2559 (B1)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

S. No.	Sample ID	Surface Rinse pH	Paste pH	Fizz Rating	Total Carbon	Total Organic Carbon	Total Inorganic Carbon	$CaCO_3$ Equivalents*1	Total Sulphur	Sequential Leach: Sulphate Sulphur	Sequential Leach: Sulphide Sulphur	Sequential Leach: Non-Extractable Sulphur*2	AP*3	Modified ABA NP	NNP*4	NPR*5
	Units:	pH Units	pH Units		wt %	wt %	wt %	kg $CaCO_3$/tonne	wt %	wt %	wt %	wt %	kg $CaCO_3$/tonne			
	Reported Detection Limit:	*0.1*	*0.1*		*0.01*	*0.02*	*0.02*	*1.7*	*0.01*	*0.01*	*0.01*	*0.01*	0.3	*0.5*		
1	678704	6.48	6.64	None	1.80	1.71	0.09	7.5	0.08	0.02	0.04	0.02	1.3	15.5	14.3	12.4
2	678707	7.19	7.57	Slight	4.10	1.05	3.05	254.2	0.06	0.02	0.02	0.02	0.6	256.6	256.0	407.3
3	678710	7.11	7.63	Slight	4.13	0.88	3.25	270.8	0.08	0.02	0.03	0.03	0.9	232.1	231.2	246.9
4	678712	6.56	7.09	Slight	1.87	0.23	1.64	137.0	5.99	0.19	2.20	3.60	68.8	121.5	52.8	1.8
5	678720	7.09	7.38	Slight	3.07	0.91	2.16	180.2	0.17	0.03	0.03	0.11	0.9	181.2	180.3	192.8
6	678727	7.03	7.36	Moderate	2.46	0.72	1.74	145.0	0.05	<0.01	0.02	0.03	0.6	144.0	143.4	228.6
7	678737	6.56	7.19	Slight	2.47	1.13	1.34	112.0	0.36	0.04	0.08	0.24	2.5	111.1	108.6	44.4
8	678739	7.34	8.02	Slight	4.47	0.83	3.64	303.3	0.19	0.02	0.06	0.11	1.9	259.4	257.5	138.0
9	678756	7.35	7.98	Slight	4.28	0.81	3.47	289.2	0.27	0.04	0.08	0.15	2.5	260.2	257.7	104.1
10	678766	7.07	7.71	Moderate	3.82	0.70	3.12	260.0	0.10	0.02	0.03	0.05	0.9	235.3	234.4	250.3
11	678770	7.61	7.82	Moderate	4.55	0.60	3.95	329.2	0.15	0.02	0.04	0.09	1.3	288.8	287.6	231.0
12	678771	7.69	7.94	Moderate	4.37	0.64	3.73	310.8	0.18	0.02	0.05	0.11	1.6	268.1	266.5	171.9
	QUALITY ASSURANCE / QUALITY CONTROL															
Pulp Replicates:																
10	678766	7.07	7.71	Moderate	3.82	0.70	3.12	260.0	0.1	0.02	0.03			235.3		
10R	678766 (Rep)	7.11	7.71	Moderate	3.84	0.61	3.23	269.2	0.1	0.02	0.02			247.4		
	%RPD	-1%	0%		-1%		-3%		0%	0%	40%			-5%		
Reference Material Analysis:																
Reference Material					OREAS 279		KZK-1		OREAS 279	RTS-3a	KZK-1			2) KZK-1 (Moderate)		
Ref. Material Certified Value					**1.13**		**0.92**		**1.27**	**1.10**	**0.36**			**1) 58.9** **2) 61.6**		
Reference Material Results					1.12		0.88		1.25	1.02	0.34			1) 55.8 2) N/A		
Acceptance Range:					***90% - 110%***		***80% - 120%***		***90% - 110%***	***90% - 110%***	***90% - 110%***			***90% - 110%***		
Method Blank Analysis:																
Method Blank Results					<0.01		<0.02		<0.01	<0.01	<0.01					
GLOBAL SOP NO./METHOD:			*ARD-005*	*ARD-005*	*LECO*	*Calc.*	*$HClO_4$ Leach CO_2 Coulometer*	*Calc.*	*LECO*	*ARD-013 (Seq. HCl/HNO3 leach)*		*Calc.*	*Calc.*	*ARD-005*	*Calc.*	*Calc.*

NOTES:
Job No: 20250821

Date of Analysis (24 h): August 28-29, 2025
pH of DI water used (pH units): 5.44
EC of DI water used (µS/cm): 1.32

METHODS:
Total Sulphur by LECO.
Total Inorganic Carbon (TIC): $HClO_4$ leach, evolved CO_2 analysed by CO_2 Coulometer.

ABBREVIATIONS:
R = Rep = Replicate (a replicate is a sub-sample scooped from a single pulp sample bag produced per client sample)
D = Dup = Duplicate (a duplicate is 2nd sub-pulp sample bag produced by processing a 2nd split of the client sample. A duplicate pulp sample is prepared only at client request.
EC = Electric Conductivity
NP = Neutralization Potential
Calc. = Calculation
IND = Indeterminate
COA = Certificate Of Analysis
N/A = Not Applicable
NR = Not Reported

CALCULATIONS:
*1 $CaCO_3$ Equivalents: Is based on TIC (Total Inorganic Carbon)
*2 Non-Extractable Sulphur: Total sulphur - (sulphate sulphur + sulphide sulphur)
*3 AP (Acid Potential): Sulphide-sulphur x 31.25
*4 NNP (Net Neutralization Potential): NP - AP
*5 NPR (Neutralization Potential Ratio): NP/AP

REFERENCES:
Sample Preparation: ASTM E877-08; MEND Report 1.20.1, Version 0 (2009)
ABA: Air-dried, jaw-crushed, split by riffling and pulverized to 85% passing 200 mesh (75 µm).
Surface Rinse-pH: MEND Report 1.20.1, Version 0 (2009).
Modified ABA (Sobek) NP: MEND Acid Rock Drainage Prediction Manual, MEND Project 1.16.1b (pages 6.2-11 to 17), March 1991.
STD Sobek NP / Paste pH / Fizz Rating: Sobek, A.A., Schuller, W.A., Freeman, J.R. and Smith, R.M.; US EPA-600/2-78-054 (1978).
Paste pH / Fizz Rating: Sobek, A.A., Schuller, W.A., Freeman, J.R. and Smith, R.M.; US EPA-600/2-78-054 (1978).
Sulphate Sulphur: Based on MEND method using HCl leach. The S extracted is determined by analysing the extract for SO_4 using UV-Vis Spectrophotometer (STD Method 4500-SO42- E).
Sulphur Speciation: Sequential HCl and HNO_3 leach. The S extracted is determined by analysing the extract for SO_4 using UV-Vis Spectrophotometer (STD Method 4500-SO42- E).

CERTIFICATE OF ANALYSIS ▪ METALS RESULTS BY AQUA REGIA DIGEST & ICP-MS ANALYSIS ON SOLIDS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559 (B1)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

S. No.	Sample ID	Method / Analyte / Unit / MDL / Sample Type	Silver (Ag)	Aluminum (Al)	Arsenic (As)	Gold (Au)	Boron (B)	Barium (Ba)	Beryllium (Be)	Bismuth (Bi)	Calcium (Ca)	Cadmium (Cd)	Cerium (Ce)	Cobalt (Co)	Chromium (Cr)	Cesium (Cs)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Hafnium (Hf)	Mercury (Hg)	Indium (In)	Potassium (K)	Lanthanum (La)	Lithium (Li)	Magnesium (Mg)	Manganese (Mn)
		Unit	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
		MDL	0.01	0.01	0.1	0.0005	10	10	0.05	0.01	0.01	0.01	0.02	0.1	1	0.05	0.2	0.01	0.05	0.05	0.02	0.005	0.005	0.01	0.2	0.1	0.01	5
1	678704	Pulp	0.67	1.71	1070.8	1.3141	12	275	0.38	0.17	0.75	5.19	19.74	8.7	137	1.73	423.6	5.81	5.39	0.06	0.03	0.05	0.281	0.18	9.6	15.1	1.22	355
2	678707	Pulp	0.25	1.07	2992.3	2.5180	17	237	0.36	0.02	5.76	0.19	5.45	22.1	167	1.75	72.0	3.70	2.43	<0.05	<0.02	0.06	0.028	0.25	2.3	11.7	4.13	1033
3	678710	Pulp	0.26	1.05	2584.7	2.7210	16	193	0.38	0.02	5.61	0.47	5.28	17.8	168	1.79	63.4	3.62	2.37	<0.05	<0.02	0.06	0.029	0.23	2.2	12.2	4.08	1063
4	678712	Pulp	11.32	0.84	2228.3	2.6506	11	31	0.26	0.43	2.93	15.64	3.64	13.0	113	1.16	908.3	5.61	1.88	<0.05	0.09	1.26	0.148	0.19	1.3	7.2	2.28	637
5	678720	Pulp	0.60	1.33	2417.5	2.0718	11	1095	0.43	0.06	4.00	16.21	9.44	17.8	170	1.79	787.1	5.36	3.12	<0.05	0.02	0.10	0.100	0.23	4.6	11.7	3.22	942
6	678727	Pulp	0.60	1.55	1969.1	1.8954	10	145	0.57	0.02	3.29	11.62	9.49	15.2	169	1.99	926.7	6.94	2.49	<0.05	<0.02	0.05	0.210	0.28	4.3	9.4	2.74	865
7	678737	Pulp	1.80	1.41	788.2	1.1174	<10	805	0.28	0.11	2.46	6.92	13.36	15.0	112	1.16	306.0	3.80	4.81	<0.05	0.06	0.34	0.059	0.16	6.3	14.6	2.37	648
8	678739	Pulp	0.48	0.96	1562.1	1.6254	11	42	0.31	0.02	6.84	0.17	3.59	17.3	161	1.59	66.2	3.65	2.00	<0.05	<0.02	0.07	0.025	0.28	1.5	10.0	4.54	1096
9	678756	Pulp	0.40	0.98	2129.4	2.3562	11	1089	0.30	0.04	6.41	0.32	5.18	14.5	150	1.86	54.1	3.55	2.34	<0.05	<0.02	0.10	0.033	0.26	2.3	11.4	4.28	984
10	678766	Pulp	0.41	1.10	2528.3	2.4143	11	703	0.34	0.02	5.58	2.49	5.32	17.1	169	2.02	67.4	3.90	2.40	<0.05	<0.02	0.12	0.035	0.25	2.2	11.6	4.07	1067
11	678770	Pulp	0.39	1.50	1074.5	1.2618	12	107	0.47	0.03	6.90	2.75	5.36	13.3	203	2.45	200.3	4.05	3.15	<0.05	0.02	0.30	0.069	0.41	2.2	14.1	4.81	1090
12	678771	Pulp	0.68	1.27	1311.2	1.4196	14	179	0.39	0.04	6.71	2.65	6.05	15.2	190	1.97	167.9	3.81	2.79	<0.05	0.02	0.28	0.050	0.36	2.6	11.4	4.68	1058
QUALITY ASSURANCE / QUALITY CONTROL																												
Pulp Replicates																												
		%RPD																										
Reference Material																												
STD OREAS 601C			50.68	0.710	376.5	0.995	<10	283	0.59	21.39	0.78	2.72	34.8	4.30	15.0	1.33	1173.3	1.89	3.87	0.09	0.97	0.216	0.498	0.260	17.3	7.60	0.090	214
True Value STD OREAS 601C			**50.41**	**0.663**	**378.2**		**< 10**		**0.59**	**21.32**	**0.78**	**2.70**	**34.7**	**4.27**	**14.7**	**1.32**	**1157.6**	**1.84**	**3.86**	**0.08**	**0.97**	**0.216**	**0.497**	**0.254**	**17.3**	**7.56**	**0.084**	**213**
% Difference			1%	7%	0%				0%	0%	0%	1%	0%	1%	2%	1%	1%	3%	0%	8%	0%	0%	0%	3%	0%	1%	7%	1%
Method Blank:																												
Method Blank			<0.01	<0.01	<0.1	<0.0005	<10	<10	<0.05	<0.01	<0.01	<0.01	<0.02	<0.1	<1	<0.05	<0.2	<0.01	<0.05	<0.05	<0.02	<0.005	<0.005	<0.01	<0.2	<0.1	<0.01	<5

Notes:

Job No: YVR2510905

Analytical Methods (IMS-130):

A 0.5 g of pulp sample is leached in hot (95°C) 3:1 aqua regia digestion followed by ICP Mass Spec analysis.
Gold determinations by this method are semi-quantitative due to the small sample weight used (0.5 g).
Refractory and graphitic samples can limit Au solubility.

Abbreviations:

R / Rep = Replicate (a replicate is a sub-sample scooped from a single sample bag produced per client sample)
D / Dup = Duplicate (a duplicate is 2nd sub-sample bag produced by processing a second split of the original client sample received)
MDL = Measurable Detection Limit
COA: Certificate Of Analysis.
IND = Indeterminate
NR: Not reported in COA

On Cerfified Reference Material and Tolerance:

Any one element in a run reporting outside tolerance limits does not constitute failure of the standard.
As per Certificate of Analysis (COA): All values indicated are Certified. Values indicated in green are indicative only.
NR = Not Reported (in the Certificate Of Analysis).

CERTIFICATE OF ANALYSIS ▪ METALS RESULTS BY AQUA REGIA DIGEST & ICP-MS ANALYSIS ON SOLIDS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559 (B1)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

S. No.	Sample ID	Method / Analyte	Molybdenum (Mo)	Sodium (Na)	Niobium (Nb)	Nickel (Ni)	Phosphorous (P)	Lead (Pb)	Rubidium (Rb)	Rhenium (Re)	Sulphur (S)	Antimony (Sb)	Scandium (Sc)	Selenium (Se)	Tin (Sn)	Stronium (Sr)	Tantalum (Ta)	Tellurium (Te)	Thorium (Th)	Titanium (Ti)	Thallium (Tl)	Uranium (U)	Vandium (V)	Tungsten (W)	Yttrium (Y)	Zinc (Zn)	Zirconium (Zr)
		Unit	**ppm**	**%**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**%**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**%**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**
		MDL	**0.05**	**0.01**	**0.05**	**0.2**	**10**	**0.2**	**0.1**	**0.001**	**0.01**	**0.05**	**0.1**	**0.2**	**0.2**	**0.2**	**0.01**	**0.01**	**0.2**	**0.005**	**0.02**	**0.05**	**1**	**0.05**	**0.05**	**1**	**0.5**
		Sample Typ																									
1	678704	Pulp	1.45	0.05	1.19	38.2	981	97.6	10.9	<0.001	0.08	89.43	19.1	0.7	0.6	43.5	0.02	0.16	5.4	0.071	0.15	2.03	70	0.87	6.79	420	0.9
2	678707	Pulp	0.59	0.03	<0.05	100.5	617	16.1	11.6	<0.001	0.06	250.84	19.1	<0.2	0.4	347.2	<0.01	0.03	0.2	0.011	0.12	0.06	61	0.92	4.56	59	<0.5
3	678710	Pulp	0.48	0.03	<0.05	79.1	662	11.9	10.6	<0.001	0.09	98.28	19.3	<0.2	0.3	333.9	<0.01	0.03	<0.2	0.013	0.12	<0.05	62	0.83	4.80	123	<0.5
4	678712	Pulp	7.05	0.02	<0.05	55.2	394	709.5	6.7	0.004	2.96	181.76	13.0	1.2	0.4	197.9	<0.01	0.34	<0.2	0.01	1.16	0.24	41	1.82	3.70	2171	2.2
5	678720	Pulp	1.03	0.09	0.21	71.6	723	42.2	10.8	0.001	0.18	284.55	19.4	0.2	0.4	246.8	<0.01	0.09	1.4	0.022	0.16	0.59	65	1.05	6.60	1510	0.7
6	678727	Pulp	0.77	0.02	<0.05	69.1	766	471.6	11.9	<0.001	0.05	208.96	26.8	<0.2	0.5	193.7	<0.01	0.03	1.7	0.011	0.24	0.60	70	1.26	6.18	1012	<0.5
7	678737	Pulp	1.53	0.08	0.76	44.4	684	224.2	7.6	0.001	0.33	82.31	11.3	0.3	0.5	146.4	<0.01	0.09	3.3	0.035	0.17	1.45	69	0.8	5.91	1137	2.2
8	678739	Pulp	0.59	0.02	<0.05	95.5	654	18.1	9.7	<0.001	0.21	196.69	16.3	<0.2	<0.2	419.9	<0.01	0.04	<0.2	0.014	0.09	0.07	59	0.48	4.48	53	<0.5
9	678756	Pulp	0.69	0.09	<0.05	75.6	592	18.1	9.9	<0.001	0.27	120.27	16.5	<0.2	0.2	374.4	<0.01	0.03	0.4	0.015	0.17	0.09	59	0.95	4.72	233	<0.5
10	678766	Pulp	0.54	0.06	<0.05	79.6	638	23.4	10.1	<0.001	0.10	106.38	18.9	<0.2	0.3	333.3	<0.01	0.03	0.3	0.016	0.12	0.07	66	0.78	4.63	3958	<0.5
11	678770	Pulp	0.43	0.02	<0.05	76.8	660	33.0	13.5	<0.001	0.15	68.85	19.9	<0.2	0.6	389.7	<0.01	0.04	0.2	0.016	0.12	0.08	79	0.65	4.94	649	<0.5
12	678771	Pulp	0.50	0.03	<0.05	93.4	678	61.1	12.2	<0.001	0.19	103.84	18.6	<0.2	0.4	401.2	<0.01	0.04	0.4	0.019	0.11	0.11	70	0.65	5.01	691	0.6
QUALITY ASSURANCE / QUALITY CONT																											
Pulp Replicates																											
		%RPD																									
Reference Material																											
STD OREAS 601C			3.35	0.08	0.40	6.0	248	251.3	12.5	<0.001	0.91	29.91	1.00	8.0	1.60	36.1	<0.01	7.24	6.1	0.012	1.19	2.03	5.00	1.17	5.13	380	33.5
True Value STD OREAS 601C			**3.35**	**0.05**	**<1**	**6.0**	**243**	**248.1**	**12.4**	**< 0.001**	**0.91**	**29.73**	**1.03**	**8.0**	**1.587**	**36.3**	**< 0.05**	**7.22**	**6.1**	**0.010**	**1.20**	**2.04**	**4.75**	**1.16**	**5.10**	**380.6**	**33.5**
% Difference			0%	51%		0%	2%	1%	1%		0%	1%	-3%	0%	1%	0%		0%	0%	26%	0%	-1%	5%	0%	1%	0%	0%
Method Blank:																											
Method Blank			<0.05	<0.01	<0.05	<0.2	<10	<0.2	<0.1	<0.001	<0.01	<0.05	<0.1	<0.2	<0.2	<0.2	<0.01	<0.01	<0.2	<0.005	<0.02	<0.05	<1	<0.05	<0.05	<1	<0.5

CERTIFICATE OF ANALYSIS ▪ MEND SHAKE FLASK EXTRACTION RESULTS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559 (B1)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

Parameter	Method	Unit	RDL	1 678704	2 678707	3 678710	4 678712	5 678720	6 678727	7 678737	8 678739	9 678756	10 678766	11 678770	12 678771	Method Blank
Weight of dry sample used	Weighing Scale	g	0.01	100	100	100	250	100	250	100	100	100	100	100	100	N/A
Volume of DI water used	Graduated Cylinder	mL	0.50	300	300	300	750	300	750	300	300	300	300	300	300	750
On filtered samples (using 0.45 µm filter paper):																
pH	Meter	pH units	0.01	6.3	6.7	6.5	6.2	6.5	6.6	6.3	6.4	6.5	6.6	6.5	6.4	6.1
EC	Meter	µS/cm	1	97	72	109	463	139	69	347	286	243	74	435	444	1.07
Acidity (to pH 8.3)	Titration	mg $CaCO_3$/L	0.5	21.1	18.5	21.3	21.9	23.7	19.3	22.3	24.2	23.0	21.1	30.0	28.4	4.1
Alkalinity (to pH 4.5)	Titration	mg $CaCO_3$/L	0.5	22.0	24.5	32.0	13.4	36.2	33.1	20.3	27.2	29.3	32.4	46.1	38.1	1.2
Sulphate	Turbidimetric	mg/L	0.5	19.2	7.9	13.8	323.3	29.4	6.1	228.4	181.2	122.8	10.0	291.0	290.1	
Chloride	IC	mg/L	0.1	2.16	1.86	1.88	0.45	0.30	0.41	1.47	0.45	0.46	0.75	0.37	0.18	
Fluoride	ISE	mg/L	0.1	0.12	<0.10	<0.10	0.12	0.11	0.37	0.15	0.15	<0.10	0.30	0.22	0.21	
Nitrate + Nitrite as N	IC	mg/L	0.01	2.19	1.91	2.77	0.89	4.54	0.85	0.08	0.06	0.40	0.40	1.07	0.16	
Dissolved Metals Analysis by ICP-MS:																
Dissolved Hardness (CaCO3)	ICP-MS	mg/L	0.125	48.6	36.5	57.9	356.0	81.9	39.7	261.0	182.0	152.0	41.1	291.0	303.0	<0.125
Aluminum Dissolved	ICP-MS	mg/L	0.001	0.0187	0.123	0.0175	0.0016	0.0131	0.019	0.0096	0.0133	0.0109	0.0068	0.0403	0.0277	<0.0010
Antimony Dissolved	ICP-MS	mg/L	0.00005	0.012	0.345	0.0762	0.0467	0.1	0.0409	0.28	1.18	0.766	0.0223	0.254	0.485	<0.000050
Arsenic Dissolved	ICP-MS	mg/L	0.00005	0.00615	2.91	1.14	0.0073	0.0461	0.0318	0.0513	0.199	0.348	0.121	0.218	0.231	<0.000050
Barium Dissolved	ICP-MS	mg/L	0.0001	0.0883	0.00764	0.0311	0.0291	0.0784	0.0178	0.0641	0.0252	0.0268	0.0726	0.0246	0.0348	<0.00010
Beryllium Dissolved	ICP-MS	mg/L	0.00001	<0.000010	<0.000020	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Bismuth Dissolved	ICP-MS	mg/L	0.00001	<0.000010	<0.000020	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Boron Dissolved	ICP-MS	mg/L	0.002	0.0153	0.0132	0.0116	0.0027	0.0032	0.0037	0.0094	0.0073	0.0095	0.0063	0.0171	0.0172	<0.0020
Cadmium Dissolved	ICP-MS	mg/L	0.000002	0.000179	<0.0000040	0.000006	0.00753	0.000637	0.000235	0.00209	0.0000179	0.0000187	0.000135	0.000114	0.0000831	<0.0000020
Calcium Dissolved	ICP-MS	mg/L	0.05	9.7	7.6	12.1	68.4	16.4	8.8	53.0	52.3	37.7	9.7	72.3	74.4	<0.050
Chromium Dissolved	ICP-MS	mg/L	0.001	<0.00050	0.0013	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt Dissolved	ICP-MS	mg/L	0.000005	0.0000424	0.000178	0.000134	0.00122	0.0000553	0.0000236	0.00569	0.00183	0.000416	0.0000337	0.000426	0.000649	<0.0000050
Copper Dissolved	ICP-MS	mg/L	0.0001	0.0047	0.00829	0.00735	0.0124	0.0144	0.0174	0.0112	0.00293	0.00208	0.00357	0.00382	0.00389	<0.00010
Iron Dissolved	ICP-MS	mg/L	0.002	0.0562	0.126	0.0256	<0.0020	0.0089	0.004	0.0052	<0.0020	<0.0020	0.0145	0.016	0.0118	<0.0020
Lead Dissolved	ICP-MS	mg/L	0.00005	0.000144	0.000542	0.000174	0.00311	0.000071	<0.000050	0.000722	<0.000050	<0.000050	0.000087	0.000056	0.000075	<0.000050
Lithium Dissolved	ICP-MS	mg/L	0.000	0.0002	0.0005	0.0005	0.0015	0.0006	0.0002	0.0009	0.0023	0.0012	0.0005	0.0035	0.0022	<0.000050
Magnesium Dissolved	ICP-MS	mg/L	0.005	5.91	4.23	6.72	44.90	9.93	4.28	31.20	12.40	14.00	4.06	26.7	28.4	<0.0050
Manganese Dissolved	ICP-MS	mg/L	0.00005	0.00739	0.00243	0.00392	0.247	0.011	0.00331	0.201	0.313	0.0262	0.00362	0.0521	0.0755	<0.000050
Mercury Dissolved	ICP-MS	mg/L	0.00002	<0.000020	<0.000040	<0.000020	0.000057	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Molybdenum Dissolved	ICP-MS	mg/L	0.00001	0.000188	0.000716	0.000512	0.000403	0.000934	0.000849	0.00406	0.00436	0.00129	0.000753	0.00459	0.00373	<0.000010
Nickel Dissolved	ICP-MS	mg/L	0.00004	0.000394	0.00574	0.00382	0.00801	0.000565	0.000098	0.0118	0.0203	0.00648	0.000591	0.00285	0.0063	<0.000040
Phosphorus Dissolved	ICP-MS	mg/L	0.01	<0.010	<0.020	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Potassium Dissolved	ICP-MS	mg/L	0.02	1.08	1.46	1.85	2.64	1.59	0.787	3.03	11.3	7.24	1.35	18.6	18.9	<0.020
Selenium Dissolved	ICP-MS	mg/L	0.0001	0.00015	<0.00020	<0.00010	0.00085	0.00013	<0.00010	0.00057	0.00045	0.00053	0.00013	0.00054	0.00055	<0.00010
Silicon Dissolved	ICP-MS	mg/L	0.1	0.82	0.44	0.44	1.5	0.91	0.59	0.57	0.45	0.69	1.11	1.09	0.89	<0.10
Silver Dissolved	ICP-MS	mg/L	0.00001	0.000028	0.00034	0.000056	<0.000010	0.000074	<0.000010	0.000014	0.000016	0.000032	0.000073	0.000063	0.000023	0.000022
Sodium Dissolved	ICP-MS	mg/L	0.02	0.762	0.453	0.504	0.365	0.372	0.226	0.763	0.633	0.723	0.711	0.938	0.945	<0.020
Strontium Dissolved	ICP-MS	mg/L	0.0001	0.0574	0.0469	0.0702	0.272	0.0915	0.0526	0.154	0.14	0.134	0.0633	0.389	0.342	<0.00010
Sulphur Dissolved	ICP-MS	mg/L	1.00000	6.0	<2.00	6.1	116.0	10.5	1.6	85.9	59.3	44.8	3.5	91.6	98.8	<1.00
Tellurium Dissolved	ICP-MS	mg/L	0.00005	<0.000050	<0.000100	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Thallium Dissolved	ICP-MS	mg/L	0.000004	0.0000128	0.0000088	0.0000098	0.000268	0.0000254	0.0000219	0.00012	0.0000554	0.0000477	0.0000165	0.0000592	0.0000732	<0.0000040
Thorium Dissolved	ICP-MS	mg/L	0.00001	<0.000010	<0.000020	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Tin Dissolved	ICP-MS	mg/L	0.0001	0.000138	0.000307	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	0.000102	0.000314	0.000106	<0.000100	<0.000100
Titanium Dissolved	ICP-MS	mg/L	0.0002	0.00042	0.00216	0.00028	<0.00020	0.00022	<0.00020	<0.00020	<0.00020	<0.00020	0.00021	0.00072	0.00032	<0.00020
Tungsten Dissolved	ICP-MS	mg/L	0.0002	<0.00020	0.00084	0.00044	<0.00020	0.00026	<0.00020	<0.00020	0.00089	0.00112	0.00105	0.00145	0.00144	<0.00020
Uranium Dissolved	ICP-MS	mg/L	0.000001	0.0000087	0.0000058	0.0000029	0.0000064	0.0000104	0.0000108	0.0000424	0.0000768	0.0000414	0.000005	0.000143	0.000175	<0.0000010
Vanadium Dissolved	ICP-MS	mg/L	0.001	<0.00100	<0.00200	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Zinc Dissolved	ICP-MS	mg/L	0.00	0.003	<0.0020	0.002	0.329	0.025	0.002	0.232	0.002	0.004	0.291	0.010	0.009	<0.0010
Zirconium Dissolved	ICP-MS	mg/L	0.000	<0.000020	<0.000040	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	0.000	<0.000020
Ion Balance:																
Major Anions	Calc.	meq/L		0.91	0.71	0.98	7.02	1.35	0.82	5.21	4.34	3.16	0.89	7.01	6.82	
Major Cations	Calc.	meq/L		1.04	0.93	1.28	7.22	1.70	0.83	5.35	3.97	3.27	0.91	6.35	6.60	
Difference	Calc.	meq/L		0.14	0.22	0.30	0.20	0.35	0.01	0.14	-0.37	0.12	0.01	-0.66	-0.22	
Balance (%)	Calc.	%		7.1%	13.4%	13.3%	1.4%	11.5%	0.6%	1.3%	-4.4%	1.8%	0.7%	-4.9%	-1.6%	
			Shake Flask Extract ID:	*25I0673-01*	*25I0673-02*	*25I0673-03*	*25I0673-04*	*25I0673-05*	*25I0673-06*	*25I0673-07*	*25I0673-08*	*25I0673-09*	*25I0673-10*	*25I0673-11*	*25I0673-12*	*25I0584-03*

NOTES:
Job No: 25I0673
Date of Analysis (24 h): September 1-2, 2025
pH of DI water used (pH Units): 5.42
EC of DI water used (µS/cm): 1.24

ABBREVIATIONS:
R / Rep = Replicate (which involves the analysis of the same Shake Flask Extract aliquot).
D / Dup = Duplicate (which involves the analysis of a separate SF extract, produced by processing a secopnd split of the original client sample received).
Calc. = Calculation
EC = Electrical Conductivity
IC = Ion Chromatography
NA = Not Applicable.
NR = Not Reported.
mg/L = Milligrams per Litre

REFERENCE:
Prediction Manual for Drainage Chemistry from Sulphidic Geologic Material, MEND Report 1.20.1; Version 0 - Dec. 2009. Section 11.5; P 11 (8-9).
Extraction Method used: Using gyratory shaker for 24 h (± 2 h; gentle agitation).
Liquid: Solid ratio used: 3: 1; L: S; 750 mL DI H_2O: 250 g of crushed sample (85% passing 1/4 inch - i.e. 6.3 mm)

CERTIFICATE OF ANALYSIS ▪ MEND-SFE QA/QC RESULTS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559 (B1)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

Sulphate:

Certified Reference Material:	Parameter: Sulphate	% Recovery	Matrix Spike %	Units	QC Limits
STD Mineral Water (34.78 mg/L)	37.84	108.8%		%	80 - 120
Spiked Blank (19.61 mg/L)	19.94		101.7%	%	80 - 120

Dissolved Metals by ICP-MS:

Sample Code	Parameter	Result	Result Units	Total or Filtered	Method Type	Method Name	Date Analyzed	EQL	EQL Units	UCL	LCL
25I0673_B5I2418-BLK1	Chloride	<0.10	mg/L	T	REG	SM 4110 B (2020)	'05 Sep 2025	0.1	mg/L		
25I0673_B5I2418-BLK1	Fluoride	<0.10	mg/L	T	REG	SM 4110 B (2020)	'05 Sep 2025	0.1	mg/L		
25I0673_B5I2418-BLK1	Nitrate (as N)	<0.010	mg/L	T	REG	SM 4110 B (2020)	'05 Sep 2025	0.01	mg/L		
25I0673_B5I2418-BLK1	Nitrite (as N)	<0.010	mg/L	T	REG	SM 4110 B (2020)	'05 Sep 2025	0.01	mg/L		
25I0673_B5I2418-BLK2	Chloride	<0.10	mg/L	T	REG	SM 4110 B (2020)	'05 Sep 2025	0.1	mg/L		
25I0673_B5I2418-BLK2	Fluoride	<0.10	mg/L	T	REG	SM 4110 B (2020)	'05 Sep 2025	0.1	mg/L		
25I0673_B5I2418-BLK2	Nitrate (as N)	<0.010	mg/L	T	REG	SM 4110 B (2020)	'05 Sep 2025	0.01	mg/L		
25I0673_B5I2418-BLK2	Nitrite (as N)	<0.010	mg/L	T	REG	SM 4110 B (2020)	'05 Sep 2025	0.01	mg/L		
25I0673_B5I2418-BS1	Chloride	96	%	T	SC	SM 4110 B (2020)	'05 Sep 2025	1	%	115	85
25I0673_B5I2418-BS1	Fluoride	99	%	T	SC	SM 4110 B (2020)	'05 Sep 2025	1	%	115	85
25I0673_B5I2418-BS1	Nitrate (as N)	102	%	T	SC	SM 4110 B (2020)	'05 Sep 2025	1	%	115	85
25I0673_B5I2418-BS1	Nitrite (as N)	98	%	T	SC	SM 4110 B (2020)	'05 Sep 2025	1	%	115	85
25I0673_B5I2418-BS2	Chloride	97	%	T	SC	SM 4110 B (2020)	'06 Sep 2025	1	%	115	85
25I0673_B5I2418-BS2	Fluoride	102	%	T	SC	SM 4110 B (2020)	'06 Sep 2025	1	%	115	85
25I0673_B5I2418-BS2	Nitrate (as N)	107	%	T	SC	SM 4110 B (2020)	'06 Sep 2025	1	%	115	85
25I0673_B5I2418-BS2	Nitrite (as N)	102	%	T	SC	SM 4110 B (2020)	'06 Sep 2025	1	%	115	85
25I0673_B5I2496-BLK1	Aluminum dissolved	<0.0010	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.001	mg/L		
25I0673_B5I2496-BLK1	Antimony dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.00005	mg/L		
25I0673_B5I2496-BLK1	Arsenic dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.00005	mg/L		
25I0673_B5I2496-BLK1	Barium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.0001	mg/L		
25I0673_B5I2496-BLK1	Beryllium dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.00001	mg/L		
25I0673_B5I2496-BLK1	Bismuth dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.00001	mg/L		
25I0673_B5I2496-BLK1	Boron dissolved	<0.0020	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.002	mg/L		
25I0673_B5I2496-BLK1	Cadmium dissolved	<0.0000020	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.000002	mg/L		
25I0673_B5I2496-BLK1	Calcium dissolved	<0.050	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.05	mg/L		
25I0673_B5I2496-BLK1	Chromium dissolved	<0.00050	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.0005	mg/L		
25I0673_B5I2496-BLK1	Cobalt dissolved	<0.0000050	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.000005	mg/L		
25I0673_B5I2496-BLK1	Copper dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.0001	mg/L		
25I0673_B5I2496-BLK1	Iron dissolved	<0.0020	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.002	mg/L		
25I0673_B5I2496-BLK1	Lead dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.00005	mg/L		
25I0673_B5I2496-BLK1	Lithium dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.00005	mg/L		
25I0673_B5I2496-BLK1	Magnesium dissolved	<0.0050	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.005	mg/L		
25I0673_B5I2496-BLK1	Manganese dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.00005	mg/L		
25I0673_B5I2496-BLK1	Mercury dissolved	<0.000020	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.00002	mg/L		
25I0673_B5I2496-BLK1	Molybdenum dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.00001	mg/L		
25I0673_B5I2496-BLK1	Nickel dissolved	<0.000040	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.00004	mg/L		
25I0673_B5I2496-BLK1	Phosphorus dissolved	<0.010	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.01	mg/L		
25I0673_B5I2496-BLK1	Potassium dissolved	<0.020	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.02	mg/L		
25I0673_B5I2496-BLK1	Selenium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.0001	mg/L		
25I0673_B5I2496-BLK1	Silicon dissolved	<0.10	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.1	mg/L		
25I0673_B5I2496-BLK1	Silver dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.00001	mg/L		
25I0673_B5I2496-BLK1	Sodium dissolved	<0.020	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.02	mg/L		
25I0673_B5I2496-BLK1	Strontium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.0001	mg/L		
25I0673_B5I2496-BLK1	Sulfur dissolved	<1.00	mg/L	F	REG	EPA 6020B	'06 Sep 2025	1	mg/L		
25I0673_B5I2496-BLK1	Tellurium dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.00005	mg/L		
25I0673_B5I2496-BLK1	Thallium dissolved	<0.0000040	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.000004	mg/L		
25I0673_B5I2496-BLK1	Thorium dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.00001	mg/L		
25I0673_B5I2496-BLK1	Tin dissolved	<0.000100	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.0001	mg/L		
25I0673_B5I2496-BLK1	Titanium dissolved	<0.00020	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.0002	mg/L		
25I0673_B5I2496-BLK1	Tungsten dissolved	<0.00020	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.0002	mg/L		
25I0673_B5I2496-BLK1	Uranium dissolved	<0.0000010	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.000001	mg/L		
25I0673_B5I2496-BLK1	Vanadium dissolved	<0.00100	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.001	mg/L		
25I0673_B5I2496-BLK1	Zinc dissolved	<0.0010	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.001	mg/L		
25I0673_B5I2496-BLK1	Zirconium dissolved	<0.000020	mg/L	F	REG	EPA 6020B	'06 Sep 2025	0.00002	mg/L		
25I0673_B5I2496-BS1	Aluminum dissolved	96	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Antimony dissolved	98	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Arsenic dissolved	93	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Barium dissolved	102	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Beryllium dissolved	96	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Bismuth dissolved	97	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Boron dissolved	98	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Cadmium dissolved	98	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Calcium dissolved	94	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Chromium dissolved	93	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Cobalt dissolved	93	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Copper dissolved	93	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Iron dissolved	95	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Lead dissolved	98	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Lithium dissolved	95	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Magnesium dissolved	96	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Manganese dissolved	94	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Mercury dissolved	98	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Molybdenum dissolved	96	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80

CERTIFICATE OF ANALYSIS ▪ MEND-SFE QA/QC RESULTS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559 (B1)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

Sulphate:

Certified Reference Material:	Parameter: Sulphate	% Recovery	Matrix Spike %	Units	QC Limits
STD Mineral Water (34.78 mg/L)	37.84	108.8%		%	80 - 120
Spiked Blank (19.61 mg/L)	19.94		101.7%	%	80 - 120

Dissolved Metals by ICP-MS:

Sample Code	Parameter	Result	Result Units	Total or Filtered	Method Type	Method Name	Date Analyzed	EQL	EQL Units	UCL	LCL
25I0673_B5I2496-BS1	Nickel dissolved	95	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Phosphorus dissolved	95	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Potassium dissolved	97	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Selenium dissolved	91	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Silicon dissolved	89	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Silver dissolved	95	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Sodium dissolved	95	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Strontium dissolved	95	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Sulfur dissolved	94	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Tellurium dissolved	98	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Thallium dissolved	98	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Thorium dissolved	97	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Tin dissolved	100	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Titanium dissolved	94	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Tungsten dissolved	96	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Uranium dissolved	98	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Vanadium dissolved	92	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Zinc dissolved	93	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2496-BS1	Zirconium dissolved	96	%	F	SC	EPA 6020B	'06 Sep 2025	1	%	120	80
25I0673_B5I2507-BLK1	Aluminum dissolved	<0.0010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.001	mg/L		
25I0673_B5I2507-BLK1	Antimony dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00005	mg/L		
25I0673_B5I2507-BLK1	Arsenic dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00005	mg/L		
25I0673_B5I2507-BLK1	Barium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.0001	mg/L		
25I0673_B5I2507-BLK1	Beryllium dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00001	mg/L		
25I0673_B5I2507-BLK1	Bismuth dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00001	mg/L		
25I0673_B5I2507-BLK1	Boron dissolved	<0.0020	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.002	mg/L		
25I0673_B5I2507-BLK1	Cadmium dissolved	<0.0000020	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.000002	mg/L		
25I0673_B5I2507-BLK1	Calcium dissolved	<0.050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.05	mg/L		
25I0673_B5I2507-BLK1	Chromium dissolved	<0.00050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.0005	mg/L		
25I0673_B5I2507-BLK1	Cobalt dissolved	<0.0000050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.000005	mg/L		
25I0673_B5I2507-BLK1	Copper dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.0001	mg/L		
25I0673_B5I2507-BLK1	Iron dissolved	<0.0020	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.002	mg/L		
25I0673_B5I2507-BLK1	Lead dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00005	mg/L		
25I0673_B5I2507-BLK1	Lithium dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00005	mg/L		
25I0673_B5I2507-BLK1	Magnesium dissolved	<0.0050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.005	mg/L		
25I0673_B5I2507-BLK1	Manganese dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00005	mg/L		
25I0673_B5I2507-BLK1	Mercury dissolved	<0.000020	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00002	mg/L		
25I0673_B5I2507-BLK1	Molybdenum dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00001	mg/L		
25I0673_B5I2507-BLK1	Nickel dissolved	<0.000040	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00004	mg/L		
25I0673_B5I2507-BLK1	Phosphorus dissolved	<0.010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.01	mg/L		
25I0673_B5I2507-BLK1	Potassium dissolved	<0.020	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.02	mg/L		
25I0673_B5I2507-BLK1	Selenium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.0001	mg/L		
25I0673_B5I2507-BLK1	Silicon dissolved	<0.10	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.1	mg/L		
25I0673_B5I2507-BLK1	Silver dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00001	mg/L		
25I0673_B5I2507-BLK1	Sodium dissolved	<0.020	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.02	mg/L		
25I0673_B5I2507-BLK1	Strontium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.0001	mg/L		
25I0673_B5I2507-BLK1	Sulfur dissolved	<1.00	mg/L	F	REG	EPA 6020B	'07 Sep 2025	1	mg/L		
25I0673_B5I2507-BLK1	Tellurium dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00005	mg/L		
25I0673_B5I2507-BLK1	Thallium dissolved	<0.0000040	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.000004	mg/L		
25I0673_B5I2507-BLK1	Thorium dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00001	mg/L		
25I0673_B5I2507-BLK1	Tin dissolved	<0.000100	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.0001	mg/L		
25I0673_B5I2507-BLK1	Titanium dissolved	<0.00020	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.0002	mg/L		
25I0673_B5I2507-BLK1	Tungsten dissolved	<0.00020	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.0002	mg/L		
25I0673_B5I2507-BLK1	Uranium dissolved	<0.0000010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.000001	mg/L		
25I0673_B5I2507-BLK1	Vanadium dissolved	<0.00100	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.001	mg/L		
25I0673_B5I2507-BLK1	Zinc dissolved	<0.0010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.001	mg/L		
25I0673_B5I2507-BLK1	Zirconium dissolved	<0.000020	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00002	mg/L		
25I0673_B5I2507-BS1	Aluminum dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Antimony dissolved	105	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Arsenic dissolved	103	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Barium dissolved	104	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Beryllium dissolved	105	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Bismuth dissolved	103	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Boron dissolved	104	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Cadmium dissolved	103	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Calcium dissolved	100	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Chromium dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Cobalt dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Copper dissolved	103	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Iron dissolved	103	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Lead dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Lithium dissolved	106	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Magnesium dissolved	104	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Manganese dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80

CERTIFICATE OF ANALYSIS ▪ MEND-SFE QA/QC RESULTS

Global
ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559 (B1)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

Sulphate:

Certified Reference Material:	Parameter: Sulphate	% Recovery	Matrix Spike %	Units	QC Limits
STD Mineral Water (34.78 mg/L)	37.84	108.8%		%	80 - 120
Spiked Blank (19.61 mg/L)	19.94		101.7%	%	80 - 120

Dissolved Metals by ICP-MS:

Sample Code	Parameter	Result	Result Units	Total or Filtered	Method Type	Method Name	Date Analyzed	EQL	EQL Units	UCL	LCL
25I0673_B5I2507-BS1	Mercury dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Molybdenum dissolved	103	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Nickel dissolved	103	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Phosphorus dissolved	103	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Potassium dissolved	105	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Selenium dissolved	101	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Silicon dissolved	101	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Silver dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Sodium dissolved	101	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Strontium dissolved	101	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Sulfur dissolved	100	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Tellurium dissolved	106	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Thallium dissolved	110	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Thorium dissolved	103	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Tin dissolved	104	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Titanium dissolved	101	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Tungsten dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Uranium dissolved	104	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Vanadium dissolved	104	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Zinc dissolved	103	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2507-BS1	Zirconium dissolved	104	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BLK1	Aluminum dissolved	<0.0010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.001	mg/L		
25I0673_B5I2578-BLK1	Antimony dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00005	mg/L		
25I0673_B5I2578-BLK1	Arsenic dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00005	mg/L		
25I0673_B5I2578-BLK1	Barium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.0001	mg/L		
25I0673_B5I2578-BLK1	Beryllium dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00001	mg/L		
25I0673_B5I2578-BLK1	Bismuth dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00001	mg/L		
25I0673_B5I2578-BLK1	Boron dissolved	<0.0020	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.002	mg/L		
25I0673_B5I2578-BLK1	Cadmium dissolved	<0.0000020	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.000002	mg/L		
25I0673_B5I2578-BLK1	Calcium dissolved	<0.050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.05	mg/L		
25I0673_B5I2578-BLK1	Chromium dissolved	<0.00050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.0005	mg/L		
25I0673_B5I2578-BLK1	Cobalt dissolved	<0.0000050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.000005	mg/L		
25I0673_B5I2578-BLK1	Copper dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.0001	mg/L		
25I0673_B5I2578-BLK1	Iron dissolved	<0.0020	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.002	mg/L		
25I0673_B5I2578-BLK1	Lead dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00005	mg/L		
25I0673_B5I2578-BLK1	Lithium dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00005	mg/L		
25I0673_B5I2578-BLK1	Magnesium dissolved	<0.0050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.005	mg/L		
25I0673_B5I2578-BLK1	Manganese dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00005	mg/L		
25I0673_B5I2578-BLK1	Mercury dissolved	0.000023	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00002	mg/L		
25I0673_B5I2578-BLK1	Molybdenum dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00001	mg/L		
25I0673_B5I2578-BLK1	Nickel dissolved	<0.000040	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00004	mg/L		
25I0673_B5I2578-BLK1	Phosphorus dissolved	<0.010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.01	mg/L		
25I0673_B5I2578-BLK1	Potassium dissolved	<0.020	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.02	mg/L		
25I0673_B5I2578-BLK1	Selenium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.0001	mg/L		
25I0673_B5I2578-BLK1	Silicon dissolved	<0.10	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.1	mg/L		
25I0673_B5I2578-BLK1	Silver dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00001	mg/L		
25I0673_B5I2578-BLK1	Sodium dissolved	<0.020	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.02	mg/L		
25I0673_B5I2578-BLK1	Strontium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.0001	mg/L		
25I0673_B5I2578-BLK1	Sulfur dissolved	<1.00	mg/L	F	REG	EPA 6020B	'07 Sep 2025	1	mg/L		
25I0673_B5I2578-BLK1	Tellurium dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00005	mg/L		
25I0673_B5I2578-BLK1	Thallium dissolved	<0.0000040	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.000004	mg/L		
25I0673_B5I2578-BLK1	Thorium dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00001	mg/L		
25I0673_B5I2578-BLK1	Tin dissolved	<0.000100	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.0001	mg/L		
25I0673_B5I2578-BLK1	Titanium dissolved	<0.00020	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.0002	mg/L		
25I0673_B5I2578-BLK1	Tungsten dissolved	<0.00020	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.0002	mg/L		
25I0673_B5I2578-BLK1	Uranium dissolved	<0.0000010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.000001	mg/L		
25I0673_B5I2578-BLK1	Vanadium dissolved	<0.00100	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.001	mg/L		
25I0673_B5I2578-BLK1	Zinc dissolved	<0.0010	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.001	mg/L		
25I0673_B5I2578-BLK1	Zirconium dissolved	<0.000020	mg/L	F	REG	EPA 6020B	'07 Sep 2025	0.00002	mg/L		
25I0673_B5I2578-BS1	Aluminum dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Antimony dissolved	101	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Arsenic dissolved	101	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Barium dissolved	101	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Beryllium dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Bismuth dissolved	98	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Boron dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Cadmium dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Calcium dissolved	101	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Chromium dissolved	101	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Cobalt dissolved	101	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Copper dissolved	100	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Iron dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Lead dissolved	98	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Lithium dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80

CERTIFICATE OF ANALYSIS ▪ MEND-SFE QA/QC RESULTS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559 (B1)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

Sulphate:

Certified Reference Material:	Parameter: Sulphate	% Recovery	Matrix Spike %	Units	QC Limits
STD Mineral Water (34.78 mg/L)	37.84	108.8%		%	80 - 120
Spiked Blank (19.61 mg/L)	19.94		101.7%	%	80 - 120

Dissolved Metals by ICP-MS:

Sample Code	Parameter	Result	Result Units	Total or Filtered	Method Type	Method Name	Date Analyzed	EQL	EQL Units	UCL	LCL
25I0673_B5I2578-BS1	Magnesium dissolved	101	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Manganese dissolved	101	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Mercury dissolved	100	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Molybdenum dissolved	101	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Nickel dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Phosphorus dissolved	100	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Potassium dissolved	101	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Selenium dissolved	100	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Silicon dissolved	100	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Silver dissolved	100	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Sodium dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Strontium dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Sulfur dissolved	101	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Tellurium dissolved	99	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Thallium dissolved	101	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Thorium dissolved	99	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Tin dissolved	103	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Titanium dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Tungsten dissolved	98	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Uranium dissolved	100	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Vanadium dissolved	100	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Zinc dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80
25I0673_B5I2578-BS1	Zirconium dissolved	102	%	F	SC	EPA 6020B	'07 Sep 2025	1	%	120	80

NOTES:
Job No: 25I0673

Abbreviations & Descriptions:
Method Blank (Blk): A blank sample that undergoes sample processing identical to that carried out for the test samples.
Method Blank results are used to assess contamination from the laboratory environment and reagents.

Duplicate (Dup): An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process.
Duplicates provide a measure of the analytical method's precision (reproducibility).

Blank Spike (BS): A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS).
Blank spikes provide a measure of the analytical method's accuracy.

Matrix Spike (MS): A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process.
Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.

Standard Reference Material (SRM): A homogenous material of similar matrix to the samples, certified for the parameter(s) listed.
Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples.

For all types of QC, specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

EQL = Estimated Quantitation Limits
PQL = Practical Quantitation Limits
UCL = Upper Control Limit
LCL = Lower Control Limit
BLK = Blank
BS = Blank Spike
MS = Matrix Spike
DUP = Duplicate

CERTIFICATE OF ANALYSIS ▪ COVER PAGE

Global ARD Testing Services Inc.

CLIENT INFORMATION	
Client:	Canagold Resources Ltd.
Project Manager:	Garry Biles
Mailing Address	Suite 810-625 Howe Street
	Vancouver, B.C., Canada, V6C 2T6
Contact No:	(604) 685-9700

COMPANY INFORMATION	
Legal Name:	Global ARD Testing Services Inc.
Mailing Address:	6891 Antrim Avenue
	Burnaby, BC
	V5J 4M5
Contact No:	Main: (604) 428-2730
	Alternate: (604) 603-1359

PROJECT INFORMATION	
Project Name:	New Polaris
Project Number:	105451-05

REPORTING	
Global Project No:	2559 (B2)
Report Version:	1
Pages (Including Cover):	6
Report Title:	COA (B2) x 13 New Polaris Samples (rec'd 28-Aug25)
Analysis Reviewed By:	Prab Bhatia (Pbhatia@globalARDtesting.com)
Position:	Project Manager
Report Certified By:	Prab Bhatia
Signature:	Prab Bhatia

RESULTS		
Reported To:	**1**	Garry Biles (garry@canagoldresources.com)
	2	Quentin Hamilton (quentin.hamilton@ausenco.com)
	3	
	4	
Date Reported:		
	Version-1:	Monday, September 29, 2025

INVOICE		
Submitted To:	**1**	Canagold Resources Ltd. ()
	2	
	3	
	4	
Client PO No:		
Global Invoice No:		ARD2559-0925B
Date Submitted:		October 10, 2025

NOTES
All samples and pulps are stored at no charge for 90 days past reporting date.
Please contact the lab if you would like to continue storage past 90 days.
Storage charges will apply.
VERSIONS:
Version-1: Full Report

CERTIFICATE OF ANALYSIS ▪ SAMPLE DETAILS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559 (B2)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

SAMPLE RECEIPT INFO	
Date Samples Received:	Thursday, August 28, 2025
No of Samples Received:	14
Samples Received By:	Said Zeinab

ANALYTICAL INSTRUCTIONS	
From:	
	as per email Confirmation
Date:	Friday, August 29, 2025

S. No.	Sample ID	Sample Description	Condition (Wet/Dry)	Wt. of Sample Rec'd (g)	Global Notes (if any)
1	LP1-1.1	Sludge	Wet	1.15	
2	NP2-1.1	Sludge	Wet	2.70	
3	NP2-0.1	Sludge	Wet	1.30	
4	NP1-0.2	Sludge	Wet	2.05	
5	LP2-0.1	Sludge	Wet	1.50	
6	LP1-0.2	Sludge	Wet	1.60	
7	NP1-1.0	Sludge	Wet	1.70	
8	NP3-0.2	Sludge	Wet	1.45	
9	LP2-0.4	Sludge	Wet	1.35	
10	LP1-0.5	Sludge	Wet	1.30	
11	NP1-0.6	Sludge	Wet	2.30	
12	NP2-0.6	Sludge	Wet	2.10	
13	NP3-0.6	Sludge	Wet	1.50	
14	- NO NAME -	Sludge	Wet	1.35	

Total wt of sample rec'd (kg): **0.02**

Global ARD Testing Services Inc.

CERTIFICATE OF ANALYSIS ▪ ABA RESULTS

GLOBAL PROJECT NO: 2559 (B2)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

S. No.	Sample ID	Surface Rinse pH	Paste pH	Fizz Rating	Total Carbon	Total Organic Carbon	Total Inorganic Carbon	$CaCO_3$ Equivalents[*1]	Total Sulphur	Sequential Leach: Sulphate Sulphur	Sequential Leach: Sulphide Sulphur	Sequential Leach: Non-Extractable Sulphur[*2]	AP[*3]	Modified ABA NP	NNP[*4]	NPR[*5]
	Units:	pH Units	pH Units		wt %	wt %	wt %	kg $CaCO_3$/tonne	wt %	wt %	wt %	wt %	kg $CaCO_3$/tonne			
	Reported Detection Limit:	*0.1*	*0.1*		*0.01*	*0.02*	*0.02*	*1.7*	*0.01*	*0.01*	*0.01*	*0.01*	0.3	*0.5*		
1	LP1-1.1	7.77	7.58	Strong	4.88	1.08	3.80	316.7	0.18	<0.01	0.04	0.14	1.3	304.0	302.8	243.2
2	NP2-1.1	7.83	8.12	Moderate	3.92	0.54	3.38	281.7	0.83	<0.01	0.38	0.45	11.9	241.5	229.6	20.3
3	NP2-0.1	7.55	7.76	Moderate	3.98	1.03	2.95	245.8	0.22	<0.01	<0.01	0.22	<0.3	205.4	205.4	N/A
4	NP1-0.2	5.85	6.34	None	0.76	0.76	<0.02	<1.7	0.07	<0.01	<0.01	0.07	<0.3	5.7	5.7	N/A
5	LP2-0.1	6.31	6.99	None	0.52	0.49	0.03	2.5	0.18	0.02	<0.01	0.16	<0.3	9.7	9.7	N/A
6	LP1-0.2	5.98	6.50	Slight	1.40	0.94	0.46	38.3	1.03	0.05	0.25	0.73	7.8	29.2	21.4	3.7
7	NP1-1.0	6.53	6.39	None	0.79	0.76	0.03	2.5	0.04	<0.01	<0.01	0.04	<0.3	0.5	0.5	N/A
8	NP3-0.2	6.55	6.89	Slight	1.48	1.01	0.47	39.2	0.32	0.03	0.05	0.24	1.6	27.3	25.7	17.5
9	LP2-0.4	6.42	6.74	None	0.37	0.19	0.18	15.0	0.15	0.03	<0.01	0.12	<0.3	8.2	8.2	N/A
10	LP1-0.5	6.44	7.69	Slight	0.40	0.19	0.21	17.5	0.10	<0.01	<0.01	0.10	<0.3	21.2	21.2	N/A
11	NP1-0.6	6.11	6.18	None	1.43	1.43	<0.02	<1.7	0.04	<0.01	<0.01	0.04	<0.3	-1.3	-1.3	N/A
12	NP2-0.6	7.64	8.08	Strong	3.71	0.50	3.21	267.5	0.64	<0.01	0.33	0.31	10.3	239.9	229.6	23.3
13	NP3-0.6	7.19	7.63	Strong	2.26	0.54	1.72	143.3	0.38	0.01	0.14	0.23	4.4	151.2	146.8	34.5
QUALITY ASSURANCE / QUALITY CONTROL																
Pulp Replicates:																
10	LP1-0.5	6.44	7.69	Slight	0.40		0.21		0.10	<0.01	<0.01			21.2		
10R	LP1-0.5 R	6.46	7.70	Slight	0.41		0.19		0.10	<0.01	<0.01			20.1		
	%RPD	0%	0%		-2%		10%		0%					5%		
Reference Material Analysis:																
Reference Material					OREAS 279		KZK-1		OREAS 279	RTS-3a	KZK-1			2) KZK-1 (Moderate)		
Ref. Material Certified Value					**1.13**		**0.92**		**1.27**	**1.10**	**0.36**			**1) 58.9** **2) 61.6**		
Reference Material Results					1.12		0.84/0.87/0.88		1.27	1.02	0.37			1) 2) N/A		
Acceptance Range:					***90% - 110%***		***80% - 120%***		***90% - 110%***	***90% - 110%***	***90% - 110%***			***90% - 110%***		
Method Blank Analysis:																
Method Blank Results					<0.01		<0.02		<0.01	<0.01	<0.01					
GLOBAL SOP NO./METHOD:			*ARD-005*	*ARD-005*	*LECO*	*Calc.*	*$HClO_4$ Leach CO_2 Coulometer*	*Calc.*	*LECO*	*ARD-013 (Seq. HCl/HNO3 leach)*		*Calc.*	*Calc.*	*ARD-005*	*Calc.*	*Calc.*

NOTES:
Job No: 20250911

Date of Analysis (24 h): September 9-10, 2025
pH of DI water used (pH units): 5.48
EC of DI water used (μS/cm): 1.09

METHODS:
Total Sulphur by LECO.
Total Inorganic Carbon (TIC): $HClO_4$ leach, evolved CO_2 analysed by CO_2 Coulometer.

ABBREVIATIONS:
R = Rep = Replicate (a replicate is a sub-sample scooped from a single pulp sample bag produced per client sample)
D = Dup = Duplicate (a duplicate is 2nd sub-pulp sample bag produced by processing a 2nd split of the client sample. A duplicate pulp sample is prepared only at client request.
EC = Electric Conductivity
NP = Neutralization Potential
Calc. = Calculation
IND = Indeterminate
COA = Certificate Of Analysis
N/A = Not Applicable
NR = Not Reported

CALCULATIONS:
- [*1] $CaCO_3$ Equivalents: Is based on TIC (Total Inorganic Carbon)
- [*2] Non-Extractable Sulphur: Total sulphur - (sulphate sulphur + sulphide sulphur)
- [*3] AP (Acid Potential): Sulphide-sulphur x 31.25
- [*4] NNP (Net Neutralization Potential): NP - AP
- [*5] NPR (Neutralization Potential Ratio): NP/AP

REFERENCES:
Sample Preparation: ASTM E877-08; MEND Report 1.20.1, Version 0 (2009)
ABA: Air-dried, jaw-crushed, split by riffling and pulverized to 85% passing 200 mesh (75 µm).
Surface Rinse-pH: MEND Report 1.20.1, Version 0 (2009).
Modified ABA (Sobek) NP: MEND Acid Rock Drainage Prediction Manual, MEND Project 1.16.1b (pages 6.2-11 to 17), March 1991.
STD Sobek NP / Paste pH / Fizz Rating: Sobek, A.A., Schuller, W.A., Freeman, J.R. and Smith, R.M.; US EPA-600/2-78-054 (1978).
Paste pH / Fizz Rating: Sobek, A.A., Schuller, W.A., Freeman, J.R. and Smith, R.M.; US EPA-600/2-78-054 (1978).
Sulphate Sulphur: Based on MEND method using HCl leach. The S extracted is determined by analysing the extract for SO_4 using UV-Vis Spectrophotometer (STD Method 4500-SO42- E).
Sulphur Speciation: Sequential HCl and HNO_3 leach. The S extracted is determined by analysing the extract for SO_4 using UV-Vis Spectrophotometer (STD Method 4500-SO42- E).

CERTIFICATE OF ANALYSIS ▪ METALS RESULTS BY AQUA REGIA DIGEST & ICP-MS ANALYSIS ON SOLIDS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559 (B2)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

S. No.	Sample ID	Analyte	Silver (Ag)	Aluminum (Al)	Arsenic (As)	Gold (Au)	Boron (B)	Barium (Ba)	Beryllium (Be)	Bismuth (Bi)	Calcium (Ca)	Cadmium (Cd)	Cerium (Ce)	Cobalt (Co)	Chromium (Cr)	Cesium (Cs)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Hafnium (Hf)	Mercury (Hg)	Indium (In)	Potassium (K)	Lanthanum (La)	Lithium (Li)	Magnesium (Mg)	Manganese (Mn)
		Method																										
		Unit	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm
		MDL	0.01	0.01	0.1	0.0005	10	10	0.05	0.01	0.01	0.01	0.02	0.1	1	0.05	0.2	0.01	0.05	0.05	0.02	0.005	0.005	0.01	0.2	0.1	0.01	5
		Sample Type																										
1	LP1-1.1	Pulp	0.21	1.10	1422.9	1.6806	<10	41	0.51	0.02	6.95	0.26	5.04	12.6	120	2.50	158.2	3.43	2.42	<0.05	0.02	0.05	0.029	0.30	2.2	12.1	4.68	1183
2	NP2-1.1	Pulp	0.47	2.22	5176.5	4.4983	<10	36	0.47	0.03	5.99	0.20	3.37	36.8	269	4.99	111.8	6.10	5.45	<0.05	0.03	0.19	0.029	0.51	1.4	29.5	4.85	1123
3	NP2-0.1	Pulp	0.47	1.81	2360.7	1.8388	<10	183	0.34	0.06	4.81	0.76	5.40	42.1	265	1.90	152.0	5.64	4.19	<0.05	0.05	0.31	0.041	0.20	2.3	21.5	5.55	984
4	NP1-0.2	Pulp	0.40	1.50	749.6	0.4919	<10	305	0.27	0.18	0.42	2.86	19.00	12.0	98	1.55	121.9	3.04	5.79	<0.05	0.02	0.10	0.030	0.22	9.6	15.6	0.93	564
5	LP2-0.1	Pulp	8.50	1.26	440.2	0.1472	<10	403	0.26	1.14	0.58	3.70	19.25	7.3	77	1.18	424.8	2.87	5.18	<0.05	0.07	0.56	0.084	0.27	9.9	11.5	0.83	414
6	LP1-0.2	Pulp	23.92	1.71	909.5	0.4612	<10	359	0.46	0.79	1.32	86.41	17.55	12.8	116	1.15	2143.4	4.22	7.78	0.05	0.17	8.33	0.982	0.17	8.6	17.0	1.62	435
7	NP1-1.0	Pulp	0.20	1.67	248.6	0.0742	<10	126	0.30	0.20	0.35	0.48	21.55	10.9	85	1.43	47.4	2.50	4.85	<0.05	0.03	0.08	0.023	0.19	10.4	17.3	0.72	425
8	NP3-0.2	Pulp	6.48	1.44	1086.5	0.9069	<10	1350	0.38	0.31	0.94	7.57	17.36	14.6	133	1.50	697.3	3.66	4.99	<0.05	0.05	1.10	0.108	0.20	8.7	14.3	1.28	531
9	LP2-0.4	Pulp	6.53	1.18	4467.1	0.9258	<10	147	0.23	0.32	0.45	17.51	11.92	7.6	94	1.26	3960.1	5.55	4.88	<0.05	0.05	0.21	0.506	0.28	6.1	9.5	0.82	298
10	LP1-0.5	Pulp	0.23	1.23	269.4	0.1257	<10	157	0.22	0.09	0.83	12.04	15.47	9.6	93	0.95	61.9	2.28	4.38	<0.05	0.06	0.04	0.027	0.20	8.1	12.1	0.96	328
11	NP1-0.6	Pulp	0.12	2.17	443.0	0.0820	<10	149	0.37	0.16	0.39	0.34	21.23	8.7	87	1.34	44.6	2.56	5.20	<0.05	0.03	0.04	0.029	0.17	10.5	15.1	0.66	417
12	NP2-0.6	Pulp	0.30	2.02	2846.0	2.5708	<10	90	0.48	0.05	5.57	1.79	4.35	38.3	290	3.45	121.5	5.78	4.96	<0.05	0.05	0.23	0.031	0.37	1.9	23.7	4.58	1067
13	NP3-0.6	Pulp	1.66	2.69	3397.0	3.5050	<10	590	0.45	0.08	3.88	11.19	5.49	42.8	320	2.31	304.8	5.61	7.06	<0.05	0.05	0.29	0.047	0.36	2.5	25.4	4.05	1045
QUALITY ASSURANCE / QUALITY CONTROL																												
Pulp Replicates																												
		%RPD																										
Reference Material																												
STD OREAS 601C			50.76	0.670	374.8	0.998	<10	486	0.64	21.23	0.77	2.72	34.9	4.40	14.0	1.33	1150.3	1.83	3.96	0.06	0.98	0.215	0.495	0.250	17.4	8.10	0.080	212
True Value STD OREAS 601C			**50.41**	**0.663**	**378.2**		**< 10**		**0.59**	**21.32**	**0.78**	**2.70**	**34.7**	**4.27**	**14.7**	**1.32**	**1157.6**	**1.84**	**3.86**	**0.08**	**0.97**	**0.216**	**0.497**	**0.254**	**17.3**	**7.56**	**0.084**	**213**
% Difference			1%	1%	-1%				9%	0%	-1%	1%	0%	3%	-5%	1%	-1%	0%	3%	-28%	1%	0%	0%	-1%	1%	7%	-5%	0%
Method Blank:																												
Method Blank			<0.01	<0.01	<0.1	<0.0005	<10	<10	<0.05	<0.01	<0.01	<0.01	<0.02	<0.1	<1	<0.05	<0.2	<0.01	<0.05	<0.05	<0.02	<0.005	<0.005	<0.01	<0.2	<0.1	<0.01	<5

Notes:

Job No: YVR2510948

Analytical Methods (IMS-130):

A 0.5 g of pulp sample is leached in hot (95°C) 3:1 aqua regia digestion followed by ICP Mass Spec analysis.
Gold determinations by this method are semi-quantitative due to the small sample weight used (0.5 g).
Refractory and graphitic samples can limit Au solubility.

Abbreviations:

R / Rep = Replicate (a replicate is a sub-sample scooped from a single sample bag produced per client sample)
D / Dup = Duplicate (a duplicate is 2nd sub-sample bag produced by processing a second split of the original client sample received)
MDL = Measurable Detection Limit
COA: Certificate Of Analysis.
IND = Indeterminate
NR: Not reported in COA

On Cerfified Reference Material and Tolerance:

Any one element in a run reporting outside tolerance limits does not constitute failure of the standard.
As per Certificate of Analysis (COA): All values indicated are Certified. Values indicated in green are indicative only.
NR = Not Reported (in the Certificate Of Analysis).

CERTIFICATE OF ANALYSIS ▪ METALS RESULTS BY AQUA REGIA DIGEST & ICP-MS ANALYSIS ON SOLIDS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559 (B2)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

S. No.	Sample ID	Analyte	Molybdenum (Mo)	Sodium (Na)	Niobium (Nb)	Nickel (Ni)	Phosphorous (P)	Lead (Pb)	Rubidium (Rb)	Rhenium (Re)	Sulphur (S)	Antimony (Sb)	Scandium (Sc)	Selenium (Se)	Tin (Sn)	Stronium (Sr)	Tantalum (Ta)	Tellurium (Te)	Thorium (Th)	Titanium (Ti)	Thallium (Tl)	Uranium (U)	Vandium (V)	Tungsten (W)	Yttrium (Y)	Zinc (Zn)	Zirconium (Zr)
		Method																									
		Unit	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		MDL	0.05	0.01	0.05	0.2	10	0.2	0.1	0.001	0.01	0.05	0.1	0.2	0.2	0.2	0.01	0.01	0.2	0.005	0.02	0.05	1	0.05	0.05	1	0.5
		Sample Typ																									
1	LP1-1.1	Pulp	0.44	0.01	<0.05	62.5	595	9.6	12.3	<0.001	0.18	97.22	19.0	<0.2	0.5	373.9	<0.01	0.03	0.3	0.006	0.11	0.08	52	0.94	5.16	76	<0.5
2	NP2-1.1	Pulp	0.91	0.02	<0.05	145.9	774	5.4	23.2	<0.001	0.94	80.49	17.4	0.4	<0.2	381.6	<0.01	0.05	0.2	0.046	0.23	0.06	102	1.76	5.67	58	<0.5
3	NP2-0.1	Pulp	0.77	0.02	0.05	208.0	851	96.5	9.2	<0.001	0.24	108.53	16.1	0.2	1.1	405.2	<0.01	0.04	0.5	0.025	0.07	0.14	73	0.64	4.79	184	1
4	NP1-0.2	Pulp	2.51	0.05	1.11	42.7	706	57.5	15.3	<0.001	0.05	28.63	4.9	0.2	1.4	30.2	<0.01	0.04	4.6	0.091	0.15	1.21	61	0.56	6.06	674	0.9
5	LP2-0.1	Pulp	2.55	0.07	0.88	16.5	680	4749.9	16.2	<0.001	0.18	36.16	3.9	1.3	0.7	34.3	<0.01	0.36	5.4	0.094	0.18	0.97	60	0.69	5.71	1042	2
6	LP1-0.2	Pulp	4.96	0.05	0.77	73.8	765	1918.1	10.3	0.002	1.03	153.08	7.4	1.2	0.9	69.6	<0.01	0.56	2.7	0.102	0.3	1.07	70	1.06	8.05	>10000	6.5
7	NP1-1.0	Pulp	3.13	0.04	1.30	29.3	586	22.7	14.6	<0.001	0.02	12	4.0	0.4	0.5	29.2	<0.01	0.06	5.6	0.081	0.12	1.20	50	0.75	5.86	146	1.3
8	NP3-0.2	Pulp	2.85	0.08	1.03	52.2	638	494.9	12.4	<0.001	0.25	104.16	5.9	0.4	10.2	69.8	<0.01	0.16	3.5	0.083	0.25	1.20	61	4.37	5.93	1590	1.5
9	LP2-0.4	Pulp	2.46	0.04	0.47	22.9	650	9493.7	14.9	<0.001	0.13	237.55	5.4	1.6	0.4	24.2	<0.01	2.65	3.5	0.055	0.49	0.86	53	0.59	3.53	2921	1.2
10	LP1-0.5	Pulp	1.92	0.07	0.29	28.4	562	48.9	12.5	<0.001	0.09	28.53	4.0	<0.2	3.3	47.6	<0.01	0.04	4.6	0.067	0.11	1.02	52	0.76	4.71	3025	1.5
11	NP1-0.6	Pulp	3.21	0.04	1.58	24.3	531	21.5	14.2	<0.001	0.03	10.42	4.4	0.5	0.5	38.1	<0.01	0.05	5.7	0.088	0.11	1.27	49	0.33	6.38	134	1.1
12	NP2-0.6	Pulp	0.70	0.02	<0.05	164.6	901	28.3	15.9	<0.001	0.64	110.45	18.6	0.3	0.2	368.4	<0.01	0.05	0.3	0.036	0.13	0.10	100	0.77	5.78	126	0.8
13	NP3-0.6	Pulp	0.77	0.03	<0.05	151.0	973	200.4	15.1	<0.001	0.38	105.72	16.1	0.5	2.6	220.1	<0.01	0.12	0.4	0.074	0.17	0.16	122	1.29	5.64	2741	1
QUALITY ASSURANCE / QUALITY CONT																											
Pulp Replicates																											
		%RPD																									
Reference Material																											
STD OREAS 601C			3.40	0.07	0.27	6.1	241	246.8	12.8	<0.001	0.90	29.67	0.90	8.1	1.60	37.0	<0.01	7.17	6.3	0.008	1.20	2.07	4.00	1.17	5.13	382	34.3
True Value STD OREAS 601C			**3.35**	**0.05**	**<1**	**6.0**	**243**	**248.1**	**12.4**	**< 0.001**	**0.91**	**29.73**	**1.03**	**8.0**	**1.587**	**36.3**	**< 0.05**	**7.22**	**6.1**	**0.010**	**1.20**	**2.04**	**4.75**	**1.16**	**5.10**	**380.6**	**33.5**
% Difference			1%	32%		2%	-1%	-1%	3%		-1%	0%	-12%	1%	1%	2%		-1%	3%	-16%	0%	1%	-16%	0%	1%	0%	2%
Method Blank:																											
Method Blank			<0.05	<0.01	<0.05	<0.2	<10	<0.2	<0.1	<0.001	<0.01	<0.05	<0.1	<0.2	<0.2	<0.2	<0.01	<0.01	<0.2	<0.005	<0.02	<0.05	<1	<0.05	<0.05	<1	<0.5

CERTIFICATE OF ANALYSIS ▪ MEND SHAKE FLASK EXTRACTION RESULTS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559 (B2)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

Parameter	Method	Unit	RDL	1	2	3	4	5	6	6R	7	8	9	10	11	12	13	Method Blank
				LP1-1.1	NP2-1.1	NP2-0.1	NP1-0.2	LP2-0.1	LP1-0.2	LP1-0.2 R	NP1-1.0	NP3-0.2	LP2-0.4	LP1-0.5	NP1-0.6	NP2-0.6	NP3-0.6	
Weight of dry sample used	Weighing Scale	g	0.01	250	250	250	250	250	250		250	250	250	250	250	250	250	N/A
Volume of DI water used	Graduated Cylinder	mL	0.50	750	750	750	750	750	750		750	750	750	750	750	750	750	750
On filtered samples (using 0.45 µm filter paper):																		
pH	Meter	pH units	0.01	6.3	6.7	6.5	6.2	6.1	5.9		6.4	6.2	6.2	6.3	6.3	6.5	6.5	6.2
EC	Meter	µS/cm	1	252	81	55	14	38	166		18	37	52	47	17	74	72	1.14
Acidity (to pH 8.3)	Titration	mg $CaCO_3$/L	0.5	33.4	24.2	21.1	8.6	16.6	37.8		11.9	15.0	18.0	17.4	11.3	23.8	23.4	4.6
Alkalinity (to pH 4.5)	Titration	mg $CaCO_3$/L	0.5	45.3	38.0	25.4	6.3	10.7	10.3		10.6	9.2	9.0	14.6	7.6	34.8	33.7	3.7
Sulphate	Turbidimetric	mg/L	0.5	119.2	7.36	6.26	2.61	6.84	90.7	88.7	2.65	8.80	14.8	9.19	2.19	9.47	7.60	
Chloride	IC	mg/L	0.1	<0.10	0.54	0.20	<0.10	0.35	<0.10		<0.10	0.13	0.11	<0.10	0.15	0.12	0.11	
Fluoride	ISE	mg/L	0.1	<0.10	0.11	<0.10	<0.10	0.14	<0.10		<0.10	<0.10	0.10	0.10	0.10	<0.10	<0.10	
Nitrate + Nitrite as N	IC	mg/L	0.01	0.035	0.142	0.183	0.139	0.103	0.010		0.010	0.067	0.072	0.058	0.019	0.064	0.125	
Dissolved Metals Analysis by ICP-MS:																		
Dissolved Hardness (CaCO3)	ICP-MS	mg/L	0.125	164.0	41.7	30.6	6.7	18.5	85.9		10.0	19.2	25.0	23.3	9.1	42.2	42.3	<0.125
Aluminum Dissolved	ICP-MS	mg/L	0.001	0.0294	0.117	0.0527	0.0463	0.015	0.0062	0.0057	0.0765	0.0272	0.006	0.0118	0.106	0.113	0.0262	<0.0010
Antimony Dissolved	ICP-MS	mg/L	0.00005	0.547	0.185	0.0777	0.0277	0.0145	0.0365	0.0364	0.0455	0.0375	0.0589	0.00768	0.0377	0.184	0.0754	<0.000050
Arsenic Dissolved	ICP-MS	mg/L	0.00005	0.339	1.82	0.654	0.123	0.0197	0.0292	0.0287	0.0286	0.0393	0.107	0.0769	0.0327	1.74	0.414	<0.000050
Barium Dissolved	ICP-MS	mg/L	0.0001	0.0105	0.00165	0.0242	0.0488	0.0912	0.0923	0.0925	0.0139	0.0974	0.0261	0.139	0.0107	0.00911	0.11	<0.00010
Beryllium Dissolved	ICP-MS	mg/L	0.00001	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Bismuth Dissolved	ICP-MS	mg/L	0.00001	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Boron Dissolved	ICP-MS	mg/L	0.002	0.0076	0.0111	0.0046	0.0028	0.0029	0.0027	0.0028	0.0058	0.0033	0.0035	0.0031	0.0055	0.0046	0.0038	<0.0020
Cadmium Dissolved	ICP-MS	mg/L	0.000002	0.0000129	<0.0000020	0.0000096	0.000319	0.00416	0.0423	0.0422	0.0000451	0.000565	0.00326	0.0162	0.0000283	0.0000432	0.000358	<0.0000020
Calcium Dissolved	ICP-MS	mg/L	0.05	47.6	10.4	9.35	1.86	5.06	28.2	28.4	2.73	5.21	7.40	7.24	2.52	11.6	13.2	<0.050
Chromium Dissolved	ICP-MS	mg/L	0.001	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.0007	<0.00050	<0.00050	<0.00050
Cobalt Dissolved	ICP-MS	mg/L	0.000005	0.000275	0.000186	0.000162	0.0000762	0.000138	0.00414	0.00411	0.0000886	0.000085	0.000104	0.000419	0.000111	0.000106	0.0000888	<0.0000050
Copper Dissolved	ICP-MS	mg/L	0.0001	0.00363	0.00144	0.00594	0.0146	0.00723	0.0143	0.0142	0.00524	0.034	0.0149	0.00192	0.00481	0.00135	0.00879	<0.00010
Iron Dissolved	ICP-MS	mg/L	0.002	<0.0020	0.0148	0.0206	0.0331	0.0108	0.0074	0.0074	0.0314	0.0242	0.0024	0.0052	0.0493	0.0071	0.0125	<0.0020
Lead Dissolved	ICP-MS	mg/L	0.00005	<0.000050	<0.000050	0.000208	0.000321	0.145	0.107	0.108	0.00045	0.00801	0.00981	0.00013	0.00364	<0.000050	0.000669	<0.000050
Lithium Dissolved	ICP-MS	mg/L	0.000	0.0012	0.0016	0.0007	0.0005	0.0006	0.0010	0.0010	0.0002	0.0002	0.0009	0.0007	0.0001	0.0010	0.0006	<0.000050
Magnesium Dissolved	ICP-MS	mg/L	0.005	10.90	3.79	1.76	0.50	1.43	3.71	3.66	0.77	1.50	1.58	1.26	0.7	3.2	2.3	<0.0050
Manganese Dissolved	ICP-MS	mg/L	0.00005	0.0473	0.00554	0.00345	0.00611	0.0132	0.109	0.108	0.005	0.0075	0.0116	0.0437	0.00431	0.00362	0.0113	<0.000050
Mercury Dissolved	ICP-MS	mg/L	0.00002	<0.000020	<0.000020	<0.000020	<0.000020	0.000028	0.000225	0.000218	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Molybdenum Dissolved	ICP-MS	mg/L	0.00001	0.00302	0.000894	0.000602	0.000259	0.000457	0.00123	0.00124	0.00073	0.000702	0.000624	0.000334	0.000692	0.000727	0.000794	<0.000010
Nickel Dissolved	ICP-MS	mg/L	0.00004	0.0025	0.00299	0.00278	0.00232	0.000364	0.012	0.0118	0.000741	0.000573	0.000498	0.000817	0.000773	0.00161	0.000835	<0.000040
Phosphorus Dissolved	ICP-MS	mg/L	0.01	<0.010	<0.010	0.056	0.012	<0.010	<0.010	<0.010	<0.010	0.013	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Potassium Dissolved	ICP-MS	mg/L	0.02	7.48	5.35	1.36	0.459	1.03	1.24	1.23	0.439	0.88	1.39	0.979	0.442	3.14	1.86	<0.020
Selenium Dissolved	ICP-MS	mg/L	0.0001	0.00066	0.00017	0.00025	0.00013	0.00026	0.00054	0.00054	0.00014	0.00012	0.00035	<0.00010	0.00022	0.00032	<0.00010	<0.00010
Silicon Dissolved	ICP-MS	mg/L	0.1	0.78	0.81	0.43	0.66	0.71	0.67	0.67	0.61	0.51	0.93	0.68	1.04	0.62	0.5	<0.10
Silver Dissolved	ICP-MS	mg/L	0.00001	0.000023	0.00001	0.000022	0.000031	0.000078	0.000206	0.000203	0.000012	0.000046	0.000015	<0.000010	<0.000010	<0.000010	0.000025	0.000025
Sodium Dissolved	ICP-MS	mg/L	0.02	0.514	0.387	0.281	0.145	0.267	0.335	0.327	0.218	0.193	0.412	0.317	0.252	0.323	0.289	<0.020
Strontium Dissolved	ICP-MS	mg/L	0.0001	0.174	0.0447	0.0413	0.0192	0.0259	0.15	0.148	0.0264	0.0383	0.039	0.049	0.0244	0.0508	0.0839	<0.00010
Sulphur Dissolved	ICP-MS	mg/L	1	53.3	3.6	2.8	<1.00	3.2	35.0	35.3	<1.00	3.5	6.3	4.1	<1.00	3.7	4.1	<1.00
Tellurium Dissolved	ICP-MS	mg/L	0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Thallium Dissolved	ICP-MS	mg/L	0.000004	0.000055	0.0000128	0.0000061	0.0000135	0.000048	0.000166	0.000166	0.0000075	0.0000359	0.000143	0.0000398	0.000009	0.0000105	0.0000371	<0.0000040
Thorium Dissolved	ICP-MS	mg/L	0.00001	<0.000010	<0.000010	<0.000010	0.000029	<0.000010	<0.000010	<0.000010	0.000083	0.00003	<0.000010	<0.000010	0.000096	<0.000010	<0.000010	<0.000010
Tin Dissolved	ICP-MS	mg/L	0.0001	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Titanium Dissolved	ICP-MS	mg/L	0.0002	<0.00020	0.0003	0.00028	0.00046	0.00043	<0.00020	<0.00020	0.00068	0.00041	<0.00020	0.00026	0.00058	0.00024	0.00022	<0.00020
Tungsten Dissolved	ICP-MS	mg/L	0.0002	0.00138	0.00081	0.00055	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00063	<0.00020	<0.00020	<0.00020	0.00057	0.00086	<0.00020
Uranium Dissolved	ICP-MS	mg/L	0.000001	0.000176	0.0000268	0.000013	0.0000349	0.0000033	0.0000109	0.0000119	0.0000554	0.0000363	0.0000012	<0.0000010	0.0000635	0.0000401	0.0000317	<0.0000010
Vanadium Dissolved	ICP-MS	mg/L	0.001	<0.00100	0.00181	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.0021	<0.00100	<0.00100
Zinc Dissolved	ICP-MS	mg/L	0.001	0.0012	<0.0010	0.0011	0.0619	0.283	13.2	13.0	0.0089	0.0710	0.4080	1.0100	0.0082	0.0029	0.0451	<0.0010
Zirconium Dissolved	ICP-MS	mg/L	0.00002	<0.000020	<0.000020	<0.000020	0.00004	<0.000020	<0.000020	<0.000020	0.00006	0.00003	<0.000020	<0.000020	0.00007	<0.000020	0.00003	<0.000020
Ion Balance:																		
Major Anions	Calc.	meq/L		3.39	0.93	0.64	0.18	0.37	2.10	1.85	0.27	0.37	0.50	0.49	0.21	0.90	0.83	
Major Cations	Calc.	meq/L		3.51	1.08	0.69	0.17	0.42	2.18	2.18	0.23	0.43	0.57	0.55	0.22	1.02	0.93	
Difference	Calc.	meq/L		0.12	0.14	0.05	-0.01	0.05	0.08	0.33	-0.03	0.06	0.08	0.06	0.02	0.13	0.10	
Balance (%)	Calc.	%		1.8%	7.1%	3.7%	-3.7%	6.2%	1.9%	8.1%	-6.5%	7.1%	7.2%	5.5%	3.7%	6.7%	5.5%	
			Shake Flask Extract ID:	*25I1517-01*	*25I1517-02*	*25I1517-03*	*25I1517-04*	*25I1517-05*	*25I1517-06*	*25I1517-06*	*25I1517-07*	*25I1517-08*	*25I1517-09*	*25I1517-10*	*25I1517-11*	*25I1517-12*	*25I1517-13*	*25I1510-04*

NOTES:
Job No: 25I1517
Date of Analysis (24 h): September 8-9, 2025
pH of DI water used (pH Units): 5.42
EC of DI water used (µS/cm): 1.23

ABBREVIATIONS:
R / Rep = Replicate (which involves the analysis of the same Shake Flask Extract aliquot).
D / Dup = Duplicate (which involves the analysis of a separate SF extract, produced by processing a secopnd split of the original client sample received).
Calc. = Calculation
EC = Electrical Conductivity
IC = Ion Chromatography
NA = Not Applicable.
NR = Not Reported.
mg/L = Milligrams per Litre

REFERENCE:
Prediction Manual for Drainage Chemistry from Sulphidic Geologic Material, MEND Report 1.20.1; Version 0 - Dec. 2009. Section 11.5; P 11 (8-9).
Extraction Method used: Using gyratory shaker for 24 h (± 2 h; gentle agitation).
Liquid: Solid ratio used: 3: 1; L: S; 750 mL DI H_2O: 250 g of crushed sample (85% passing 1/4 inch - i.e. 6.3 mm)

CERTIFICATE OF ANALYSIS ▪ MEND-SFE QA/QC RESULTS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559 (B2)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

Sulphate:

Certified Reference Material:	Parameter: Sulphate	% Recovery	Matrix Spike %	Units	QC Limits
STD Mineral Water (34.78 mg/L)	35.79	102.9%		%	80 - 120
Spiked Blank (19.61 mg/L)	18.29		93.3%	%	80 - 120

Dissolved Metals by ICP-MS:

Sample Code	Parameter	Result	Result Units	Total or Filtered	Method Type	Method Name	Date Analyzed	EQL	EQL Units	UCL	LCL
25I1517_B5I3258-BLK1	Aluminum dissolved	<0.0010	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.001	mg/L		
25I1517_B5I3258-BLK1	Antimony dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00005	mg/L		
25I1517_B5I3258-BLK1	Arsenic dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00005	mg/L		
25I1517_B5I3258-BLK1	Barium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.0001	mg/L		
25I1517_B5I3258-BLK1	Beryllium dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00001	mg/L		
25I1517_B5I3258-BLK1	Bismuth dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00001	mg/L		
25I1517_B5I3258-BLK1	Boron dissolved	<0.0020	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.002	mg/L		
25I1517_B5I3258-BLK1	Cadmium dissolved	<0.0000020	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.000002	mg/L		
25I1517_B5I3258-BLK1	Calcium dissolved	<0.050	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.05	mg/L		
25I1517_B5I3258-BLK1	Chromium dissolved	<0.00050	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.0005	mg/L		
25I1517_B5I3258-BLK1	Cobalt dissolved	<0.0000050	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.000005	mg/L		
25I1517_B5I3258-BLK1	Copper dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.0001	mg/L		
25I1517_B5I3258-BLK1	Iron dissolved	<0.0020	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.002	mg/L		
25I1517_B5I3258-BLK1	Lead dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00005	mg/L		
25I1517_B5I3258-BLK1	Lithium dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00005	mg/L		
25I1517_B5I3258-BLK1	Magnesium dissolved	<0.0050	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.005	mg/L		
25I1517_B5I3258-BLK1	Manganese dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00005	mg/L		
25I1517_B5I3258-BLK1	Mercury dissolved	<0.000020	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00002	mg/L		
25I1517_B5I3258-BLK1	Molybdenum dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00001	mg/L		
25I1517_B5I3258-BLK1	Nickel dissolved	<0.000040	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00004	mg/L		
25I1517_B5I3258-BLK1	Phosphorus dissolved	<0.010	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.01	mg/L		
25I1517_B5I3258-BLK1	Potassium dissolved	<0.020	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.02	mg/L		
25I1517_B5I3258-BLK1	Selenium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.0001	mg/L		
25I1517_B5I3258-BLK1	Silicon dissolved	<0.10	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.1	mg/L		
25I1517_B5I3258-BLK1	Silver dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00001	mg/L		
25I1517_B5I3258-BLK1	Sodium dissolved	<0.020	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.02	mg/L		
25I1517_B5I3258-BLK1	Strontium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.0001	mg/L		
25I1517_B5I3258-BLK1	Sulfur dissolved	<1.00	mg/L	F	REG	EPA 6020B	'12 Sep 2025	1	mg/L		
25I1517_B5I3258-BLK1	Tellurium dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00005	mg/L		
25I1517_B5I3258-BLK1	Thallium dissolved	<0.0000040	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.000004	mg/L		
25I1517_B5I3258-BLK1	Thorium dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00001	mg/L		
25I1517_B5I3258-BLK1	Tin dissolved	<0.000100	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.0001	mg/L		
25I1517_B5I3258-BLK1	Titanium dissolved	<0.00020	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.0002	mg/L		
25I1517_B5I3258-BLK1	Tungsten dissolved	<0.00020	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.0002	mg/L		
25I1517_B5I3258-BLK1	Uranium dissolved	<0.0000010	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.000001	mg/L		
25I1517_B5I3258-BLK1	Vanadium dissolved	<0.00100	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.001	mg/L		
25I1517_B5I3258-BLK1	Zinc dissolved	<0.0010	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.001	mg/L		
25I1517_B5I3258-BLK1	Zirconium dissolved	<0.000020	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00002	mg/L		
25I1517_B5I3258-BS1	Aluminum dissolved	100	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Antimony dissolved	100	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Arsenic dissolved	99	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Barium dissolved	101	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Beryllium dissolved	101	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Bismuth dissolved	101	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Boron dissolved	99	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Cadmium dissolved	100	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Calcium dissolved	101	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Chromium dissolved	100	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Cobalt dissolved	100	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Copper dissolved	99	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Iron dissolved	100	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Lead dissolved	101	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Lithium dissolved	102	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Magnesium dissolved	101	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Manganese dissolved	101	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Mercury dissolved	101	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Molybdenum dissolved	100	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Nickel dissolved	100	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Phosphorus dissolved	100	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Potassium dissolved	100	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Selenium dissolved	98	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Silicon dissolved	101	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Silver dissolved	99	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Sodium dissolved	100	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Strontium dissolved	100	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Sulfur dissolved	100	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Tellurium dissolved	98	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Thallium dissolved	102	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Thorium dissolved	100	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Tin dissolved	102	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Titanium dissolved	99	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Tungsten dissolved	98	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Uranium dissolved	101	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Vanadium dissolved	98	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-BS1	Zinc dissolved	100	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80

CERTIFICATE OF ANALYSIS ▪ MEND-SFE QA/QC RESULTS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559 (B2)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

Sulphate:

Certified Reference Material:	Parameter: Sulphate	% Recovery	Matrix Spike %	Units	QC Limits
STD Mineral Water (34.78 mg/L)	35.79	102.9%		%	80 - 120
Spiked Blank (19.61 mg/L)	18.29		93.3%	%	80 - 120

Dissolved Metals by ICP-MS:

Sample Code	Parameter	Result	Result Units	Total or Filtered	Method Type	Method Name	Date Analyzed	EQL	EQL Units	UCL	LCL
25I1517_B5I3258-BS1	Zirconium dissolved	99	%	F	SC	EPA 6020B	'12 Sep 2025	1	%	120	80
25I1517_B5I3258-MS1	Aluminum dissolved	4.24	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.001	mg/L	130	70
25I1517_B5I3258-MS1	Antimony dissolved	0.0981	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00005	mg/L	130	70
25I1517_B5I3258-MS1	Arsenic dissolved	0.517	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00005	mg/L	130	70
25I1517_B5I3258-MS1	Barium dissolved	0.0689	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.0001	mg/L	130	70
25I1517_B5I3258-MS1	Beryllium dissolved	0.0426	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00001	mg/L	130	70
25I1517_B5I3258-MS1	Bismuth dissolved	0.0408	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00001	mg/L	130	70
25I1517_B5I3258-MS1	Boron dissolved	0.409	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.002	mg/L	130	70
25I1517_B5I3258-MS1	Cadmium dissolved	0.0456	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.000002	mg/L	130	70
25I1517_B5I3258-MS1	Calcium dissolved	11.3	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.05	mg/L	130	70
25I1517_B5I3258-MS1	Chromium dissolved	0.0414	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.0005	mg/L	130	70
25I1517_B5I3258-MS1	Cobalt dissolved	0.0409	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.000005	mg/L	130	70
25I1517_B5I3258-MS1	Copper dissolved	0.0549	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.0001	mg/L	130	70
25I1517_B5I3258-MS1	Iron dissolved	4.1	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.002	mg/L	130	70
25I1517_B5I3258-MS1	Lead dissolved	0.0541	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00005	mg/L	130	70
25I1517_B5I3258-MS1	Lithium dissolved	0.0452	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00005	mg/L	130	70
25I1517_B5I3258-MS1	Magnesium dissolved	5.87	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.005	mg/L	130	70
25I1517_B5I3258-MS1	Manganese dissolved	0.0529	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00005	mg/L	130	70
25I1517_B5I3258-MS1	Mercury dissolved	0.00367	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00002	mg/L	130	70
25I1517_B5I3258-MS1	Molybdenum dissolved	0.0397	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00001	mg/L	130	70
25I1517_B5I3258-MS1	Nickel dissolved	0.0414	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00004	mg/L	130	70
25I1517_B5I3258-MS1	Phosphorus dissolved	4.32	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.01	mg/L	130	70
25I1517_B5I3258-MS1	Potassium dissolved	5.62	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.02	mg/L	130	70
25I1517_B5I3258-MS1	Selenium dissolved	0.416	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.0001	mg/L	130	70
25I1517_B5I3258-MS1	Silicon dissolved	4.89	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.1	mg/L	130	70
25I1517_B5I3258-MS1	Silver dissolved	0.0383	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00001	mg/L	130	70
25I1517_B5I3258-MS1	Sodium dissolved	4.62	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.02	mg/L	130	70
25I1517_B5I3258-MS1	Strontium dissolved	0.0795	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.0001	mg/L	130	70
25I1517_B5I3258-MS1	Sulfur dissolved	50.5	mg/L	F	REG	EPA 6020B	'12 Sep 2025	1	mg/L	130	70
25I1517_B5I3258-MS1	Tellurium dissolved	0.0404	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00005	mg/L	130	70
25I1517_B5I3258-MS1	Thallium dissolved	0.0438	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.000004	mg/L	130	70
25I1517_B5I3258-MS1	Thorium dissolved	0.0422	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00001	mg/L	130	70
25I1517_B5I3258-MS1	Tin dissolved	0.0405	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.0001	mg/L	130	70
25I1517_B5I3258-MS1	Titanium dissolved	0.0393	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.0002	mg/L	130	70
25I1517_B5I3258-MS1	Tungsten dissolved	0.0389	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.0002	mg/L	130	70
25I1517_B5I3258-MS1	Uranium dissolved	0.0419	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.000001	mg/L	130	70
25I1517_B5I3258-MS1	Vanadium dissolved	0.0411	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.001	mg/L	130	70
25I1517_B5I3258-MS1	Zinc dissolved	0.817	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.001	mg/L	130	70
25I1517_B5I3258-MS1	Zirconium dissolved	0.0395	mg/L	F	REG	EPA 6020B	'12 Sep 2025	0.00002	mg/L	130	70
25I1517_B5I3560-BLK1	Chloride	<0.10	mg/L	T	REG	SM 4110 B (2020)	'16 Sep 2025	0.1	mg/L		
25I1517_B5I3560-BLK1	Fluoride	<0.10	mg/L	T	REG	SM 4110 B (2020)	'16 Sep 2025	0.1	mg/L		
25I1517_B5I3560-BLK1	Nitrate (as N)	<0.010	mg/L	T	REG	SM 4110 B (2020)	'16 Sep 2025	0.01	mg/L		
25I1517_B5I3560-BLK1	Nitrite (as N)	<0.010	mg/L	T	REG	SM 4110 B (2020)	'16 Sep 2025	0.01	mg/L		
25I1517_B5I3560-BLK2	Chloride	<0.10	mg/L	T	REG	SM 4110 B (2020)	'16 Sep 2025	0.1	mg/L		
25I1517_B5I3560-BLK2	Fluoride	<0.10	mg/L	T	REG	SM 4110 B (2020)	'16 Sep 2025	0.1	mg/L		
25I1517_B5I3560-BLK2	Nitrate (as N)	<0.010	mg/L	T	REG	SM 4110 B (2020)	'16 Sep 2025	0.01	mg/L		
25I1517_B5I3560-BLK2	Nitrite (as N)	<0.010	mg/L	T	REG	SM 4110 B (2020)	'16 Sep 2025	0.01	mg/L		
25I1517_B5I3560-BS1	Chloride	100	%	T	SC	SM 4110 B (2020)	'16 Sep 2025	1	%	110	90
25I1517_B5I3560-BS1	Fluoride	101	%	T	SC	SM 4110 B (2020)	'16 Sep 2025	1	%	108	88
25I1517_B5I3560-BS1	Nitrate (as N)	99	%	T	SC	SM 4110 B (2020)	'16 Sep 2025	1	%	110	90
25I1517_B5I3560-BS1	Nitrite (as N)	99	%	T	SC	SM 4110 B (2020)	'16 Sep 2025	1	%	115	85
25I1517_B5I3560-BS2	Chloride	98	%	T	SC	SM 4110 B (2020)	'16 Sep 2025	1	%	110	90
25I1517_B5I3560-BS2	Fluoride	102	%	T	SC	SM 4110 B (2020)	'16 Sep 2025	1	%	108	88
25I1517_B5I3560-BS2	Nitrate (as N)	101	%	T	SC	SM 4110 B (2020)	'16 Sep 2025	1	%	110	90
25I1517_B5I3560-BS2	Nitrite (as N)	100	%	T	SC	SM 4110 B (2020)	'16 Sep 2025	1	%	115	85

NOTES:
Job No: 25I1517

Abbreviations & Descriptions:
Method Blank (Blk): A blank sample that undergoes sample processing identical to that carried out for the test samples.
Method Blank results are used to assess contamination from the laboratory environment and reagents.

Duplicate (Dup): An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process.
Duplicates provide a measure of the analytical method's precision (reproducibility).

Blank Spike (BS): A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS).
Blank spikes provide a measure of the analytical method's accuracy.

Matrix Spike (MS): A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process.
Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.

Standard Reference Material (SRM): A homogenous material of similar matrix to the samples, certified for the parameter(s) listed.

CERTIFICATE OF ANALYSIS ▪ MEND-SFE QA/QC RESULTS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559 (B2)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

Sulphate:

Certified Reference Material:	Parameter: Sulphate	% Recovery	Matrix Spike %	Units	QC Limits
STD Mineral Water (34.78 mg/L)	35.79	102.9%		%	80 - 120
Spiked Blank (19.61 mg/L)	18.29		93.3%	%	80 - 120

Dissolved Metals by ICP-MS:

Sample Code	Parameter	Result	Result Units	Total or Filtered	Method Type	Method Name	Date Analyzed	EQL	EQL Units	UCL	LCL

Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples.

For all types of QC, specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

EQL = Estimated Quantitation Limits
PQL = Practical Quantitation Limits
UCL = Upper Control Limit
LCL = Lower Control Limit
BLK = Blank
BS = Blank Spike
MS = Matrix Spike
DUP = Duplicate

CERTIFICATE OF ANALYSIS ▪ COVER PAGE

Global ARD Testing Services Inc.

CLIENT INFORMATION	
Client:	Canagold Resources Ltd.
Project Manager:	Garry Biles
Mailing Address	Suite 810-625 Howe Street
	Vancouver, B.C., Canada, V6C 2T6
Contact No:	(604) 685-9700

COMPANY INFORMATION	
Legal Name:	Global ARD Testing Services Inc.
Mailing Address:	6891 Antrim Avenue
	Burnaby, BC
	V5J 4M5
Contact No:	Main: (604) 428-2730
	Alternate: (604) 603-1359

PROJECT INFORMATION	
Project Name:	New Polaris
Project Number:	105451-05

REPORTING	
Global Project No:	2559(B3)
Report Version:	1
Pages (Including Cover):	6
Report Title:	COA (B2) x 13 New Polaris Samples (rec'd 28-Aug25)
Analysis Reviewed By:	Prab Bhatia (Pbhatia@globalARDtesting.com)
Position:	Project Manager
Report Certified By:	Prab Bhatia
Signature:	Prab Bhatia

RESULTS		
Reported To:	**1**	Garry Biles (garry@canagoldresources.com)
	2	Quentin Hamilton (quentin.hamilton@ausenco.com)
	3	
	4	
Date Reported:		
	Version-1:	Wednesday, October 15, 2025

INVOICE		
Submitted To:	**1**	Canagold Resources Ltd.
	2	Garry Biles (garry@canagoldresources.com)
	3	
	4	
Client PO No:		
Global Invoice No:		ARD2559-1025A
Date Submitted:		October 23, 2025

NOTES
All samples and pulps are stored at no charge for 90 days past reporting date.
Please contact the lab if you would like to continue storage past 90 days.
Storage charges will apply.
VERSIONS:
Version-1: Full Report

CERTIFICATE OF ANALYSIS ▪ SAMPLE DETAILS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559(B3)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

SAMPLE RECEIPT INFO	
Date Samples Received:	Thursday, August 28, 2025
No of Samples Received:	9
Samples Received By:	Said Zeinab

ANALYTICAL INSTRUCTIONS	
From:	
	as per email Confirmation
Date:	Wednesday, September 10, 2025

S. No.	Sample ID	Sample Description	Condition (Wet/Dry)	Wt. of Sample Rec'd (g)	Global Notes (if any)
1	AS1-0.1	Sludge	Wet	1.05	
2	AS1-0.4	Sludge	Wet	1.00	
3	AS1-0.8	Sludge	Wet	1.05	
4	AS2-0.1	Sludge	Wet	1.05	
5	AS2-0.5	Sludge	Wet	1.15	
6	AS2-1.0	Sludge	Wet	1.55	
7	NPR1-0.3	Sludge	Wet	1.20	
8	NPR2-0.3	Sludge	Wet	1.20	
9	NPR3-0.3	Sludge	Wet	1.45	

Total wt of sample rec'd (kg): **0.01**

CERTIFICATE OF ANALYSIS ▪ ABA RESULTS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559(B3)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

										Sequential Leach						
S. No.	**Sample ID**	**Surface Rinse pH**	**Paste pH**	**Fizz Rating**	**Total Carbon**	**Total Organic Carbon**	**Total Inorganic Carbon**	**$CaCO_3$ Equivalents*1**	**Total Sulphur**	**Sulphate Sulphur**	**Sulphide Sulphur**	**Non-Extractable Sulphur*2**	**AP*3**	**Modified ABA NP**	**NNP*4**	**NPR*5**
	Units:	**pH Units**	**pH Units**		**wt %**	**wt %**	**wt %**	**kg $CaCO_3$/tonne**	**wt %**	**wt %**	**wt %**	**wt %**	**kg $CaCO_3$/tonne**			
	Reported Detection Limit:	***0.1***	***0.1***		***0.01***	***0.02***	***0.02***	***1.7***	***0.01***	***0.01***	***0.01***	***0.01***	**0.3**	**0.5**		
1	AS1-0.1	6.34	7.25	Slight	0.95	0.74	0.21	17.5	0.20	0.03	<0.01	0.17	<0.3	29.7	29.7	N/A
2	AS1-0.4	7.05	7.93	Moderate	2.25	0.24	2.01	167.5	0.25	<0.01	0.06	0.19	1.9	150.3	148.4	80.0
3	AS1-0.8	5.30	5.85	None	2.97	2.97	<0.02	<1.7	0.11	<0.01	0.05	0.06	1.6	7.4	5.8	4.7
4	AS2-0.1	6.72	7.16	None	0.92	0.85	0.07	5.8	0.05	<0.01	<0.01	0.05	<0.3	14.8	14.8	N/A
5	AS2-0.5	5.83	6.32	None	1.57	1.53	0.04	3.3	0.17	<0.01	<0.01	0.17	<0.3	12.4	12.4	N/A
6	AS2-1.0	5.82	6.32	None	0.36	0.36	<0.02	<1.7	0.03	0.01	<0.01	0.02	<0.3	6.5	6.5	N/A
7	NPR1-0.3	6.13	6.28	None	1.86	1.86	<0.02	<1.7	0.04	<0.01	<0.01	0.04	<0.3	7.7	7.7	N/A
8	NPR2-0.3	5.17	5.29	None	2.03	2.03	<0.02	<1.7	0.06	<0.01	0.03	0.03	0.9	0.2	-0.7	0.2
9	NPR3-0.3	5.09	5.10	None	1.52	1.52	<0.02	<1.7	0.03	<0.01	<0.01	0.03	<0.3	2.9	2.9	N/A
QUALITY ASSURANCE / QUALITY CONTROL																
Pulp Replicates:																
%RPD																
Reference Material Analysis:																
Reference Material					OREAS 279		KZK-1		OREAS 279	RTS-3a	KZK-1			1) KZK-1 (Slight) 2) KZK-1 (Moderate)		
Ref. Material Certified Value					**1.13**		**0.92**		**1.27**	**1.10**	**0.36**			**1) 58.9** **2) 61.6**		
Reference Material Results					1.12		0.84/0.87/0.88		1.27	1.02	0.37			1) 57.2 2) N/A		
Acceptance Range:					***90% - 110%***		***80% - 120%***		***90% - 110%***	***90% - 110%***	***90% - 110%***			***90% - 110%***		
Method Blank Analysis:																
Method Blank Results					<0.01		<0.02		<0.01	<0.01	<0.01					
GLOBAL SOP NO./METHOD:			*ARD-005*	*ARD-005*	*LECO*	*Calc.*	*$HClO_4$ Leach CO_2 Coulometer*	*Calc.*	*LECO*	*ARD-013 (Seq. HCl/HNO3 leach)*		*Calc.*	*Calc.*	*ARD-005*	*Calc.*	*Calc.*

NOTES:
Job No: 20250918

Date of Analysis (24 h): October 6-7, 2025
pH of DI water used (pH units): 5.28
EC of DI water used (µS/cm): 1.18

METHODS:
Total Sulphur by LECO.
Total Inorganic Carbon (TIC): $HClO_4$ leach, evolved CO_2 analysed by CO_2 Coulometer.

ABBREVIATIONS:
R = Rep = Replicate (a replicate is a sub-sample scooped from a single pulp sample bag produced per client sample)
D = Dup = Duplicate (a duplicate is 2nd sub-pulp sample bag produced by processing a 2nd split of the client sample. A duplicate pulp sample is prepared only at client request.
EC = Electric Conductivity
NP = Neutralization Potential
Calc. = Calculation
IND = Indeterminate
COA = Certificate Of Analysis
N/A = Not Applicable
NR = Not Reported

CALCULATIONS:
*1 $CaCO_3$ Equivalents: Is based on TIC (Total Inorganic Carbon)
*2 Non-Extractable Sulphur: Total sulphur - (sulphate sulphur + sulphide sulphur)
*3 AP (Acid Potential): Sulphide-sulphur x 31.25
*4 NNP (Net Neutralization Potential): NP - AP
*5 NPR (Neutralization Potential Ratio): NP/AP

REFERENCES:
Sample Preparation: ASTM E877-08; MEND Report 1.20.1, Version 0 (2009)
ABA: Air-dried, jaw-crushed, split by riffling and pulverized to 85% passing 200 mesh (75 µm).
Surface Rinse-pH: MEND Report 1.20.1, Version 0 (2009).
Modified ABA (Sobek) NP: MEND Acid Rock Drainage Prediction Manual, MEND Project 1.16.1b (pages 6.2-11 to 17), March 1991.
STD Sobek NP / Paste pH / Fizz Rating: Sobek, A.A., Schuller, W.A., Freeman, J.R. and Smith, R.M.; US EPA-600/2-78-054 (1978).
Paste pH / Fizz Rating: Sobek, A.A., Schuller, W.A., Freeman, J.R. and Smith, R.M.; US EPA-600/2-78-054 (1978).
Sulphate Sulphur: Based on MEND method using HCl leach. The S extracted is determined by analysing the extract for SO_4 using UV-Vis Spectrophotometer (STD Method 4500-SO42- E).
Sulphur Speciation: Sequential HCl and HNO_3 leach. The S extracted is determined by analysing the extract for SO_4 using UV-Vis Spectrophotometer (STD Method 4500-SO42- E).

CERTIFICATE OF ANALYSIS ▪ METALS RESULTS BY AQUA REGIA DIGEST & ICP-MS ANALYSIS ON SOLIDS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559(B3)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

S. No.	Sample ID	Method / Analyte	Silver (Ag)	Aluminum (Al)	Arsenic (As)	Gold (Au)	Boron (B)	Barium (Ba)	Beryllium (Be)	Bismuth (Bi)	Calcium (Ca)	Cadmium (Cd)	Cerium (Ce)	Cobalt (Co)	Chromium (Cr)	Cesium (Cs)	Copper (Cu)	Iron (Fe)	Gallium (Ga)	Germanium (Ge)	Hafnium (Hf)	Mercury (Hg)	Indium (In)	Potassium (K)	Lanthanum (La)	Lithium (Li)	Magnesium (Mg)	Manganese (Mn)
		Unit	**ppm**	**%**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**%**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**%**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**%**	**ppm**	**ppm**	**%**	**ppm**
		MDL	**0.01**	**0.01**	**0.1**	**0.0005**	**10**	**10**	**0.05**	**0.01**	**0.01**	**0.01**	**0.02**	**0.1**	**1**	**0.05**	**0.2**	**0.01**	**0.05**	**0.05**	**0.02**	**0.005**	**0.005**	**0.01**	**0.2**	**0.1**	**0.01**	**5**
		Sample Type																										
1	AS1-0.1	Pulp	4.47	1.35	435.4	0.3077	<10	1104	0.23	0.33	1.24	7.85	15.84	10.4	107	1.24	518.0	3.17	5.26	0.06	0.09	1.98	0.093	0.21	8.1	11.2	1.28	460
2	AS1-0.4	Pulp	0.24	3.01	1258.5	1.0356	<10	73	0.37	0.05	4.46	0.25	5.43	41.1	489	2.54	146.6	6.03	8.94	0.09	0.06	0.09	0.031	0.46	2.4	26.0	5.27	982
3	AS1-0.8	Pulp	0.17	1.36	25.9	0.0160	<10	165	0.29	0.25	0.68	0.36	28.92	9.6	55	1.45	35.8	2.70	5.56	<0.05	0.04	0.03	0.020	0.19	14.7	13.3	0.92	419
4	AS2-0.1	Pulp	0.40	1.46	448.3	0.2452	<10	294	0.26	0.20	0.80	0.76	24.15	11.9	112	1.46	84.1	2.92	5.94	<0.05	0.06	0.05	0.024	0.21	12.3	16.6	1.30	408
5	AS2-0.5	Pulp	1.90	1.74	218.8	0.0520	<10	565	0.36	0.36	0.86	4.29	28.87	13.6	80	1.71	305.2	3.71	6.81	0.05	0.10	0.34	0.068	0.27	14.6	15.4	1.38	630
6	AS2-1.0	Pulp	0.23	1.15	12.4	0.0092	<10	138	0.25	0.23	0.53	0.29	29.50	7.2	55	1.24	28.1	2.06	5.19	<0.05	0.09	0.01	0.018	0.20	15.3	11.6	0.74	291
7	NPR1-0.3	Pulp	0.19	1.75	373.9	0.1473	<10	159	0.31	0.44	0.56	1.21	18.87	11.9	106	1.92	50.1	3.15	7.14	<0.05	<0.02	0.04	0.021	0.20	9.1	14.4	1.03	574
8	NPR2-0.3	Pulp	0.32	1.34	311.6	0.1611	<10	256	0.25	0.31	0.35	0.56	19.38	9.3	77	1.43	56.7	2.66	5.92	<0.05	<0.02	0.06	0.022	0.16	9.7	12.3	0.71	441
9	NPR3-0.3	Pulp	0.09	2.14	62.3	0.0253	<10	151	0.43	0.23	0.53	0.25	22.65	13.1	82	1.82	35.5	3.60	7.80	<0.05	0.02	0.04	0.028	0.19	11.4	17.1	1.28	533
QUALITY ASSURANCE / QUALITY CONTROL																												
Pulp Replicates																												
		%RPD																										
Reference Material																												
STD OREAS 601C			47.88	0.600	378.9	0.983	<10	413	0.56	21.06	0.78	2.67	33.9	4.20	14.0	1.29	1132.7	1.84	3.69	0.08	0.95	0.215	0.498	0.230	16.9	7.60	0.080	213
True Value STD OREAS 601C			**50.41**	**0.663**	**378.2**		**< 10**		**0.59**	**21.32**	**0.78**	**2.70**	**34.7**	**4.27**	**14.7**	**1.32**	**1157.6**	**1.84**	**3.86**	**0.08**	**0.97**	**0.216**	**0.497**	**0.254**	**17.3**	**7.56**	**0.084**	**213**
% Difference			-5%	-10%	0%				-5%	-1%	0%	-1%	-2%	-2%	-5%	-2%	-2%	0%	-4%	-4%	-2%	0%	0%	-9%	-2%	1%	-5%	0%
Method Blank:																												
Method Blank			<0.01	<0.01	<0.1	<0.0005	<10	<10	<0.05	<0.01	<0.01	<0.01	<0.02	<0.1	<1	<0.05	<0.2	<0.01	<0.05	<0.05	<0.02	<0.005	<0.005	<0.01	<0.2	<0.1	<0.01	<5

Notes:

Job No: YVR2510974

Analytical Methods (IMS-130):

A 0.5 g of pulp sample is leached in hot (95°C) 3:1 aqua regia digestion followed by ICP Mass Spec analysis.
Gold determinations by this method are semi-quantitative due to the small sample weight used (0.5 g).
Refractory and graphitic samples can limit Au solubility.

Abbreviations:

R / Rep = Replicate (a replicate is a sub-sample scooped from a single sample bag produced per client sample)
D / Dup = Duplicate (a duplicate is 2nd sub-sample bag produced by processing a second split of the original client sample received)
MDL = Measurable Detection Limit
COA: Certificate Of Analysis.
IND = Indeterminate
NR: Not reported in COA

On Cerfified Reference Material and Tolerance:

Any one element in a run reporting outside tolerance limits does not constitute failure of the standard.
As per Certificate of Analysis (COA): All values indicated are Certified. Values indicated in green are indicative only.
NR = Not Reported (in the Certificate Of Analysis).

CERTIFICATE OF ANALYSIS ▪ METALS RESULTS BY AQUA REGIA DIGEST & ICP-MS ANALYSIS ON SOLIDS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559(B3)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

S. No.	Sample ID	Method / Analyte	Molybdenum (Mo)	Sodium (Na)	Niobium (Nb)	Nickel (Ni)	Phosphorous (P)	Lead (Pb)	Rubidium (Rb)	Rhenium (Re)	Sulphur (S)	Antimony (Sb)	Scandium (Sc)	Selenium (Se)	Tin (Sn)	Stronium (Sr)	Tantalum (Ta)	Tellurium (Te)	Thorium (Th)	Titanium (Ti)	Thallium (Tl)	Uranium (U)	Vandium (V)	Tungsten (W)	Yttrium (Y)	Zinc (Zn)	Zirconium (Zr)
		Unit	**ppm**	**%**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**%**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**%**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**	**ppm**
		MDL	**0.05**	**0.01**	**0.05**	**0.2**	**10**	**0.2**	**0.1**	**0.001**	**0.01**	**0.05**	**0.1**	**0.2**	**0.2**	**0.2**	**0.01**	**0.01**	**0.2**	**0.005**	**0.02**	**0.05**	**1**	**0.05**	**0.05**	**1**	**0.5**
		Sample Typ																									
1	AS1-0.1	Pulp	2.41	0.07	0.54	39.4	802	2361.4	12.7	<0.001	0.20	36.83	5.4	0.5	1.7	63.7	<0.01	0.18	4.5	0.095	0.18	1.31	69	0.57	6.12	1881	2.8
2	AS1-0.4	Pulp	0.75	0.02	<0.05	200.3	940	26.1	18.6	<0.001	0.29	58.76	20.1	0.3	0.3	241.4	<0.01	0.04	0.7	0.08	0.13	0.23	158	0.18	5.55	88	1
3	AS1-0.8	Pulp	2.10	0.06	1.59	26.0	954	18.4	17.0	<0.001	0.12	1.92	5.1	0.3	2.1	33.9	<0.01	0.04	7.4	0.117	0.13	2.17	62	0.75	8.60	80	1.5
4	AS2-0.1	Pulp	4.27	0.06	1.02	45.1	822	38.4	17.6	<0.001	0.05	34	5.7	0.3	0.8	46.4	<0.01	0.04	6.8	0.106	0.13	1.46	67	0.65	7.85	182	1.8
5	AS2-0.5	Pulp	2.26	0.08	1.51	44.0	1103	355.4	20.2	<0.001	0.19	11.76	7.0	0.4	1.1	46.7	<0.01	0.09	7.5	0.149	0.19	2.28	79	1.21	10.29	1477	3.8
6	AS2-1.0	Pulp	1.45	0.06	1.12	17.3	936	9.3	16.1	<0.001	0.02	2.56	4.8	0.3	0.5	29.2	<0.01	0.04	8.3	0.113	0.12	2.65	56	0.74	8.97	937	2.3
7	NPR1-0.3	Pulp	3.35	0.04	1.30	34.5	669	22.7	16.1	<0.001	0.04	36.92	5.7	0.4	0.5	32.3	<0.01	0.07	3.8	0.115	0.14	1.57	73	0.41	6.07	331	<0.5
8	NPR2-0.3	Pulp	2.94	0.04	1.32	19.5	613	42.8	13.5	<0.001	0.07	12.48	4.1	0.4	0.5	20.5	<0.01	0.05	3.9	0.099	0.11	1.32	60	0.38	5.20	155	<0.5
9	NPR3-0.3	Pulp	2.22	0.04	1.20	45.8	935	11.6	17.4	<0.001	0.02	7.1	6.7	0.3	0.5	30.8	<0.01	0.04	3.7	0.117	0.13	1.23	82	0.37	7.02	88	0.9
QUALITY ASSURANCE / QUALITY CONT																											
Pulp Replicates																											
		%RPD																									
Reference Material																											
STD OREAS 601C			3.34	0.06	0.21	6.0	242	248.7	11.9	<0.001	0.91	29.59	1.00	8.0	1.50	36.1	0.01	7.19	6.1	0.008	1.21	2.06	4.00	1.16	5.13	381	32.9
True Value STD OREAS 601C			**3.35**	**0.05**	**<1**	**6.0**	**243**	**248.1**	**12.4**	**< 0.001**	**0.91**	**29.73**	**1.03**	**8.0**	**1.587**	**36.3**	**< 0.05**	**7.22**	**6.1**	**0.010**	**1.20**	**2.04**	**4.75**	**1.16**	**5.10**	**380.6**	**33.5**
% Difference			0%	14%		0%	-1%	0%	-4%		0%	0%	-3%	0%	-5%	0%		0%	0%	-16%	1%	1%	-16%	0%	1%	0%	-2%
Method Blank:																											
Method Blank			<0.05	<0.01	<0.05	<0.2	<10	<0.2	<0.1	<0.001	<0.01	<0.05	<0.1	<0.2	<0.2	<0.2	<0.01	<0.01	<0.2	<0.005	<0.02	<0.05	<1	<0.05	<0.05	<1	<0.5

CERTIFICATE OF ANALYSIS ▪ MEND SHAKE FLASK EXTRACTION RESULTS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559(B3)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

Parameter	Method	Unit	RDL	2	2R	6	7	9	Method Blank
				AS1-0.4	AS1-0.4 (Rep)	AS2-1.0	NPR1-0.3	NPR3-0.3	
Weight of dry sample used	Weighing Scale	g	0.01	250		250	250	250	N/A
Volume of DI water used	Graduated Cylinder	mL	0.50	750		750	750	750	750
On filtered samples (using 0.45 µm filter paper):									
pH	Meter	pH units	0.01	6.4	6.5	5.8	6.3	6.2	6.0
EC	Meter	µS/cm	1	61	62	107	31	26	1.07
Acidity (to pH 8.3)	Titration	mg $CaCO_3$/L	0.5	23.5	23.8	24.3	15.1	11.9	4.6
Alkalinity (to pH 4.5)	Titration	mg $CaCO_3$/L	0.5	31.9	32.8	5.5	12.7	8.7	3.1
Sulphate	Turbidimetric	mg/L	0.5	3.64		45.6	6.94	7.1	
Chloride	IC	mg/L	0.1	0.45		0.81	0.18	0.11	
Fluoride	ISE	mg/L	0.1	<0.10		<0.10	<0.10	<0.10	
Nitrate + Nitrite as N	IC	mg/L	0.01	0.108		0.056	0.501	0.621	
Dissolved Metals Analysis by ICP-MS:									
Dissolved Hardness (CaCO3)	ICP-MS	mg/L	0.125	32.4		42.4	15.6	13.7	<0.125
Aluminum Dissolved	ICP-MS	mg/L	0.001	0.0946	0.0935	0.0352	0.0756	0.15	<0.0010
Antimony Dissolved	ICP-MS	mg/L	0.00005	0.133	0.134	0.00871	0.0777	0.0133	<0.000050
Arsenic Dissolved	ICP-MS	mg/L	0.00005	1.1	1.1	0.00784	0.0283	0.00621	<0.000050
Barium Dissolved	ICP-MS	mg/L	0.0001	0.0105	0.00999	0.0581	0.0114	0.00899	0.00018
Beryllium Dissolved	ICP-MS	mg/L	0.00001	<0.000010	<0.000010	<0.000010	<0.000010	0.000011	<0.000010
Bismuth Dissolved	ICP-MS	mg/L	0.00001	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Boron Dissolved	ICP-MS	mg/L	0.002	0.0043	0.0042	0.0073	0.0039	0.0041	<0.0020
Cadmium Dissolved	ICP-MS	mg/L	0.000002	0.000004	0.000003	0.000639	0.000109	0.0000152	<0.0000020
Calcium Dissolved	ICP-MS	mg/L	0.05	10.9	10.9	13.6	4.30	3.93	<0.050
Chromium Dissolved	ICP-MS	mg/L	0.001	<0.00050	0.0003	0.0007	<0.00050	0.0007	<0.00050
Cobalt Dissolved	ICP-MS	mg/L	0.000005	0.0000649	0.000064	0.00528	0.0000977	0.000135	<0.0000050
Copper Dissolved	ICP-MS	mg/L	0.0001	0.00202	0.00206	0.00548	0.0082	0.00484	0.0001
Iron Dissolved	ICP-MS	mg/L	0.002	0.0137	0.0135	0.0475	0.0466	0.11	<0.0020
Lead Dissolved	ICP-MS	mg/L	0.00005	0.000064	0.000059	0.00013	0.000103	0.000106	<0.000050
Lithium Dissolved	ICP-MS	mg/L	0.000	0.0005	0.0005	0.0016	<0.000050	<0.000050	<0.000050
Magnesium Dissolved	ICP-MS	mg/L	0.005	1.22	1.24	2.01	1.17	0.93	<0.0050
Manganese Dissolved	ICP-MS	mg/L	0.00005	0.00512	0.00519	0.35	0.00434	0.00505	0.000055
Mercury Dissolved	ICP-MS	mg/L	0.00002	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Molybdenum Dissolved	ICP-MS	mg/L	0.00001	0.000826	0.000819	0.00112	0.00146	0.0013	<0.000010
Nickel Dissolved	ICP-MS	mg/L	0.00004	0.00093	0.000945	0.00542	0.000954	0.00063	<0.000040
Phosphorus Dissolved	ICP-MS	mg/L	0.01	<0.010	<0.010	<0.010	0.06	0.056	<0.010
Potassium Dissolved	ICP-MS	mg/L	0.02	2.39	2.4	1.96	0.972	0.769	<0.020
Selenium Dissolved	ICP-MS	mg/L	0.0001	0.00046	0.00046	0.00107	0.00021	0.00023	<0.00010
Silicon Dissolved	ICP-MS	mg/L	0.1	0.47	0.48	0.53	0.47	0.81	<0.10
Silver Dissolved	ICP-MS	mg/L	0.00001	0.000028	0.000025	<0.000010	0.000047	0.000019	<0.000010
Sodium Dissolved	ICP-MS	mg/L	0.02	0.477	0.478	0.848	0.228	0.347	<0.020
Strontium Dissolved	ICP-MS	mg/L	0.0001	0.0399	0.0396	0.047	0.0202	0.0158	<0.00010
Sulphur Dissolved	ICP-MS	mg/L	1	1.57	1.53	18.1	1.85	1.47	<1.00
Tellurium Dissolved	ICP-MS	mg/L	0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Thallium Dissolved	ICP-MS	mg/L	0.000004	0.0000147	0.0000137	0.0000612	0.0000257	0.0000079	<0.0000040
Thorium Dissolved	ICP-MS	mg/L	0.00001	<0.000010	<0.000010	0.000114	0.000062	0.000141	<0.000010
Tin Dissolved	ICP-MS	mg/L	0.0001	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Titanium Dissolved	ICP-MS	mg/L	0.0002	0.00033	0.00029	0.00075	0.001	0.00464	<0.00020
Tungsten Dissolved	ICP-MS	mg/L	0.0002	0.00037	0.00039	<0.00020	<0.00020	<0.00020	<0.00020
Uranium Dissolved	ICP-MS	mg/L	0.000001	0.0000598	0.000059	0.000285	0.0000725	0.0000924	<0.0000010
Vanadium Dissolved	ICP-MS	mg/L	0.001	0.0011	0.00114	0.00895	<0.00100	0.00119	<0.00100
Zinc Dissolved	ICP-MS	mg/L	0.001	<0.0010	<0.0010	3.21	0.0136	0.0021	<0.0010
Zirconium Dissolved	ICP-MS	mg/L	0.00002	<0.000020	<0.000020	0.00007	0.00007	0.00040	<0.000020
Ion Balance:									
Major Anions	Calc.	meq/L		0.73	0.66	1.08	0.40	0.33	
Major Cations	Calc.	meq/L		0.78	0.79	1.05	0.36	0.33	
Difference	Calc.	meq/L		0.06	0.13	-0.03	-0.04	0.01	
Balance (%)	Calc.	%		3.8%	9.1%	-1.4%	-5.7%	1.0%	
			Shake Flask Extract ID:	*25I2669-01*	*25I2669-01*	*25I2669-02*	*25I2669-03*	*25I2669-04*	*25I2669-05*

NOTES:
Job No: 25I2669
Date of Analysis (24 h): September 15-16, 2025
pH of DI water used (pH Units): 5.45
EC of DI water used (µS/cm): 1.23

ABBREVIATIONS:
R / Rep = Replicate (which involves the analysis of the same Shake Flask Extract aliquot).
D / Dup = Duplicate (which involves the analysis of a separate SF extract, produced by processing a secopnd split of the original client sample received).
Calc. = Calculation
EC = Electrical Conductivity
IC = Ion Chromatography
NA = Not Applicable.
NR = Not Reported.
mg/L = Milligrams per Litre

REFERENCE:
Prediction Manual for Drainage Chemistry from Sulphidic Geologic Material, MEND Report 1.20.1; Version 0 - Dec. 2009. Section 11.5; P 11 (8-9).
Extraction Method used: Using gyratory shaker for 24 h (± 2 h; gentle agitation).
Liquid: Solid ratio used: 3: 1; L: S; 750 mL DI H_2O: 250 g of crushed sample (85% passing 1/4 inch - i.e. 6.3 mm)

CERTIFICATE OF ANALYSIS ▪ MEND-SFE QA/QC RESULTS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559(B3)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

Sulphate:

Certified Reference Material:	Parameter: Sulphate	% Recovery	Matrix Spike %	Units	QC Limits
STD Mineral Water (34.78 mg/L)	34.14	98.2%		%	80 - 120
Spiked Blank (19.61 mg/L)	18.69		95.3%	%	80 - 120

Dissolved Metals by ICP-MS:

Sample Code	Parameter	Result	Result Units	Total or Filtered	Method Type	Method Name	Date Analyzed	EQL	EQL Units	UCL	LCL
25I2669_B5I3954-BLK1	Aluminum dissolved	<0.0010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.001	mg/L		
25I2669_B5I3954-BLK1	Antimony dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L		
25I2669_B5I3954-BLK1	Arsenic dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L		
25I2669_B5I3954-BLK1	Barium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0001	mg/L		
25I2669_B5I3954-BLK1	Beryllium dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00001	mg/L		
25I2669_B5I3954-BLK1	Bismuth dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00001	mg/L		
25I2669_B5I3954-BLK1	Boron dissolved	<0.0020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.002	mg/L		
25I2669_B5I3954-BLK1	Cadmium dissolved	<0.0000020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.000002	mg/L		
25I2669_B5I3954-BLK1	Calcium dissolved	<0.050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.05	mg/L		
25I2669_B5I3954-BLK1	Chromium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0001	mg/L		
25I2669_B5I3954-BLK1	Cobalt dissolved	<0.0000050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.000005	mg/L		
25I2669_B5I3954-BLK1	Copper dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0001	mg/L		
25I2669_B5I3954-BLK1	Iron dissolved	<0.0020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.002	mg/L		
25I2669_B5I3954-BLK1	Lead dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L		
25I2669_B5I3954-BLK1	Lithium dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L		
25I2669_B5I3954-BLK1	Magnesium dissolved	<0.0050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.005	mg/L		
25I2669_B5I3954-BLK1	Manganese dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L		
25I2669_B5I3954-BLK1	Mercury dissolved	<0.000020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00002	mg/L		
25I2669_B5I3954-BLK1	Molybdenum dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00001	mg/L		
25I2669_B5I3954-BLK1	Nickel dissolved	<0.000040	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00004	mg/L		
25I2669_B5I3954-BLK1	Phosphorus dissolved	<0.010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.01	mg/L		
25I2669_B5I3954-BLK1	Potassium dissolved	<0.020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.02	mg/L		
25I2669_B5I3954-BLK1	Selenium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0001	mg/L		
25I2669_B5I3954-BLK1	Silicon dissolved	<0.10	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.1	mg/L		
25I2669_B5I3954-BLK1	Silver dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00001	mg/L		
25I2669_B5I3954-BLK1	Sodium dissolved	<0.020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.02	mg/L		
25I2669_B5I3954-BLK1	Strontium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0001	mg/L		
25I2669_B5I3954-BLK1	Sulfur dissolved	<1.00	mg/L	F	REG	EPA 6020B	'20 Sep 2025	1	mg/L		
25I2669_B5I3954-BLK1	Tellurium dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L		
25I2669_B5I3954-BLK1	Thallium dissolved	<0.0000040	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.000004	mg/L		
25I2669_B5I3954-BLK1	Thorium dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00001	mg/L		
25I2669_B5I3954-BLK1	Tin dissolved	<0.000100	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0001	mg/L		
25I2669_B5I3954-BLK1	Titanium dissolved	<0.00020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0002	mg/L		
25I2669_B5I3954-BLK1	Tungsten dissolved	<0.00020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0002	mg/L		
25I2669_B5I3954-BLK1	Uranium dissolved	<0.0000010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.000001	mg/L		
25I2669_B5I3954-BLK1	Vanadium dissolved	<0.00100	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.001	mg/L		
25I2669_B5I3954-BLK1	Zinc dissolved	<0.0010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.001	mg/L		
25I2669_B5I3954-BLK1	Zirconium dissolved	<0.000020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00002	mg/L		
25I2669_B5I3954-BS1	Aluminum dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Antimony dissolved	99	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Arsenic dissolved	99	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Barium dissolved	102	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Beryllium dissolved	103	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Bismuth dissolved	98	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Boron dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Cadmium dissolved	100	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Calcium dissolved	104	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Chromium dissolved	95	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Cobalt dissolved	99	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Copper dissolved	99	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Iron dissolved	100	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Lead dissolved	98	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Lithium dissolved	103	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Magnesium dissolved	102	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Manganese dissolved	99	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Mercury dissolved	98	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Molybdenum dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Nickel dissolved	97	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Phosphorus dissolved	100	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Potassium dissolved	100	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Selenium dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Silicon dissolved	103	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Silver dissolved	97	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Sodium dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Strontium dissolved	98	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Sulfur dissolved	113	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Tellurium dissolved	102	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Thallium dissolved	102	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Thorium dissolved	98	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Tin dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Titanium dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Tungsten dissolved	98	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Uranium dissolved	99	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Vanadium dissolved	98	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-BS1	Zinc dissolved	99	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80

CERTIFICATE OF ANALYSIS ▪ MEND-SFE QA/QC RESULTS

Global
ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559(B3)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

Sulphate:

Certified Reference Material:	Parameter: Sulphate	% Recovery	Matrix Spike %	Units	QC Limits
STD Mineral Water (34.78 mg/L)	34.14	98.2%		%	80 - 120
Spiked Blank (19.61 mg/L)	18.69		95.3%	%	80 - 120

Dissolved Metals by ICP-MS:

Sample Code	Parameter	Result	Result Units	Total or Filtered	Method Type	Method Name	Date Analyzed	EQL	EQL Units	UCL	LCL
25I2669_B5I3954-BS1	Zirconium dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3954-MS1	Aluminum dissolved	4.1	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.001	mg/L	130	70
25I2669_B5I3954-MS1	Antimony dissolved	0.0508	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L	130	70
25I2669_B5I3954-MS1	Arsenic dissolved	0.402	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L	130	70
25I2669_B5I3954-MS1	Barium dissolved	0.0488	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0001	mg/L	130	70
25I2669_B5I3954-MS1	Beryllium dissolved	0.0405	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00001	mg/L	130	70
25I2669_B5I3954-MS1	Bismuth dissolved	0.0405	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00001	mg/L	130	70
25I2669_B5I3954-MS1	Boron dissolved	0.4	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.002	mg/L	130	70
25I2669_B5I3954-MS1	Cadmium dissolved	0.0402	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.000002	mg/L	130	70
25I2669_B5I3954-MS1	Calcium dissolved	7.54	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.05	mg/L	130	70
25I2669_B5I3954-MS1	Chromium dissolved	0.0391	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0001	mg/L	117	85
25I2669_B5I3954-MS1	Cobalt dissolved	0.0389	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.000005	mg/L	130	70
25I2669_B5I3954-MS1	Copper dissolved	0.0435	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0001	mg/L	113	88
25I2669_B5I3954-MS1	Iron dissolved	4.07	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.002	mg/L	115	80
25I2669_B5I3954-MS1	Lead dissolved	0.0402	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L	121	84
25I2669_B5I3954-MS1	Lithium dissolved	0.0399	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L	130	70
25I2669_B5I3954-MS1	Magnesium dissolved	4.8	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.005	mg/L	130	70
25I2669_B5I3954-MS1	Manganese dissolved	0.0441	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L	130	70
25I2669_B5I3954-MS1	Mercury dissolved	0.00414	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00002	mg/L	120	80
25I2669_B5I3954-MS1	Molybdenum dissolved	0.0405	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00001	mg/L	130	70
25I2669_B5I3954-MS1	Nickel dissolved	0.0392	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00004	mg/L	121	83
25I2669_B5I3954-MS1	Phosphorus dissolved	4.12	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.01	mg/L	130	70
25I2669_B5I3954-MS1	Potassium dissolved	4.71	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.02	mg/L	130	70
25I2669_B5I3954-MS1	Selenium dissolved	0.397	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0001	mg/L	122	91
25I2669_B5I3954-MS1	Silicon dissolved	4.73	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.1	mg/L	130	70
25I2669_B5I3954-MS1	Silver dissolved	0.0336	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00001	mg/L	120	74
25I2669_B5I3954-MS1	Sodium dissolved	4.22	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.02	mg/L	130	70
25I2669_B5I3954-MS1	Strontium dissolved	0.0543	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0001	mg/L	130	70
25I2669_B5I3954-MS1	Sulfur dissolved	43.2	mg/L	F	REG	EPA 6020B	'20 Sep 2025	1	mg/L	130	70
25I2669_B5I3954-MS1	Tellurium dissolved	0.0404	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L	130	70
25I2669_B5I3954-MS1	Thallium dissolved	0.041	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.000004	mg/L	119	79
25I2669_B5I3954-MS1	Thorium dissolved	0.0402	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00001	mg/L	130	70
25I2669_B5I3954-MS1	Tin dissolved	0.0396	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0001	mg/L	130	70
25I2669_B5I3954-MS1	Titanium dissolved	0.0452	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0002	mg/L	130	70
25I2669_B5I3954-MS1	Tungsten dissolved	0.0402	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0002	mg/L	130	70
25I2669_B5I3954-MS1	Uranium dissolved	0.0408	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.000001	mg/L	130	70
25I2669_B5I3954-MS1	Vanadium dissolved	0.0404	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.001	mg/L	115	80
25I2669_B5I3954-MS1	Zinc dissolved	0.41	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.001	mg/L	123	89
25I2669_B5I3954-MS1	Zirconium dissolved	0.0404	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00002	mg/L	130	70
25I2669_B5I3955-BLK1	Aluminum dissolved	<0.0010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.001	mg/L		
25I2669_B5I3955-BLK1	Antimony dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L		
25I2669_B5I3955-BLK1	Arsenic dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L		
25I2669_B5I3955-BLK1	Barium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0001	mg/L		
25I2669_B5I3955-BLK1	Beryllium dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00001	mg/L		
25I2669_B5I3955-BLK1	Bismuth dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00001	mg/L		
25I2669_B5I3955-BLK1	Boron dissolved	<0.0020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.002	mg/L		
25I2669_B5I3955-BLK1	Cadmium dissolved	<0.0000020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.000002	mg/L		
25I2669_B5I3955-BLK1	Calcium dissolved	<0.050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.05	mg/L		
25I2669_B5I3955-BLK1	Chromium dissolved	<0.00050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0005	mg/L		
25I2669_B5I3955-BLK1	Cobalt dissolved	<0.0000050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.000005	mg/L		
25I2669_B5I3955-BLK1	Copper dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0001	mg/L		
25I2669_B5I3955-BLK1	Iron dissolved	<0.0020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.002	mg/L		
25I2669_B5I3955-BLK1	Lead dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L		
25I2669_B5I3955-BLK1	Lithium dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L		
25I2669_B5I3955-BLK1	Magnesium dissolved	<0.0050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.005	mg/L		
25I2669_B5I3955-BLK1	Manganese dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L		
25I2669_B5I3955-BLK1	Mercury dissolved	<0.000020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00002	mg/L		
25I2669_B5I3955-BLK1	Molybdenum dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00001	mg/L		
25I2669_B5I3955-BLK1	Nickel dissolved	<0.000040	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00004	mg/L		
25I2669_B5I3955-BLK1	Phosphorus dissolved	<0.010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.01	mg/L		
25I2669_B5I3955-BLK1	Potassium dissolved	<0.020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.02	mg/L		
25I2669_B5I3955-BLK1	Selenium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0001	mg/L		
25I2669_B5I3955-BLK1	Silicon dissolved	<0.10	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.1	mg/L		
25I2669_B5I3955-BLK1	Silver dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00001	mg/L		
25I2669_B5I3955-BLK1	Sodium dissolved	<0.020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.02	mg/L		
25I2669_B5I3955-BLK1	Strontium dissolved	<0.00010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0001	mg/L		
25I2669_B5I3955-BLK1	Sulfur dissolved	<1.00	mg/L	F	REG	EPA 6020B	'20 Sep 2025	1	mg/L		
25I2669_B5I3955-BLK1	Tellurium dissolved	<0.000050	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00005	mg/L		
25I2669_B5I3955-BLK1	Thallium dissolved	<0.0000040	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.000004	mg/L		
25I2669_B5I3955-BLK1	Thorium dissolved	<0.000010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00001	mg/L		
25I2669_B5I3955-BLK1	Tin dissolved	<0.000100	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0001	mg/L		
25I2669_B5I3955-BLK1	Titanium dissolved	<0.00020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0002	mg/L		
25I2669_B5I3955-BLK1	Tungsten dissolved	<0.00020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.0002	mg/L		
25I2669_B5I3955-BLK1	Uranium dissolved	<0.0000010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.000001	mg/L		

CERTIFICATE OF ANALYSIS ▪ MEND-SFE QA/QC RESULTS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559(B3)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

Sulphate:

Certified Reference Material:	Parameter: Sulphate	% Recovery	Matrix Spike %	Units	QC Limits
STD Mineral Water (34.78 mg/L)	34.14	98.2%		%	80 - 120
Spiked Blank (19.61 mg/L)	18.69		95.3%	%	80 - 120

Dissolved Metals by ICP-MS:

Sample Code	Parameter	Result	Result Units	Total or Filtered	Method Type	Method Name	Date Analyzed	EQL	EQL Units	UCL	LCL
25I2669_B5I3955-BLK1	Vanadium dissolved	<0.00100	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.001	mg/L		
25I2669_B5I3955-BLK1	Zinc dissolved	<0.0010	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.001	mg/L		
25I2669_B5I3955-BLK1	Zirconium dissolved	<0.000020	mg/L	F	REG	EPA 6020B	'20 Sep 2025	0.00002	mg/L		
25I2669_B5I3955-BS1	Aluminum dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Antimony dissolved	100	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Arsenic dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Barium dissolved	102	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Beryllium dissolved	103	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Bismuth dissolved	97	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Boron dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Cadmium dissolved	102	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Calcium dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Chromium dissolved	102	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Cobalt dissolved	102	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Copper dissolved	102	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Iron dissolved	102	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Lead dissolved	100	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Lithium dissolved	107	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Magnesium dissolved	99	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Manganese dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Mercury dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Molybdenum dissolved	100	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Nickel dissolved	102	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Phosphorus dissolved	100	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Potassium dissolved	102	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Selenium dissolved	99	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Silicon dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Silver dissolved	100	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Sodium dissolved	103	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Strontium dissolved	102	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Sulfur dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Tellurium dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Thallium dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Thorium dissolved	100	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Tin dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Titanium dissolved	105	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Tungsten dissolved	100	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Uranium dissolved	101	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Vanadium dissolved	103	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Zinc dissolved	102	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I3955-BS1	Zirconium dissolved	100	%	F	SC	EPA 6020B	'20 Sep 2025	1	%	120	80
25I2669_B5I4017-BLK1	Chloride	<0.10	mg/L	T	REG	SM 4110 B (2020)	'19 Sep 2025	0.1	mg/L		
25I2669_B5I4017-BLK1	Fluoride	<0.10	mg/L	T	REG	SM 4110 B (2020)	'19 Sep 2025	0.1	mg/L		
25I2669_B5I4017-BLK1	Nitrate (as N)	<0.010	mg/L	T	REG	SM 4110 B (2020)	'19 Sep 2025	0.01	mg/L		
25I2669_B5I4017-BLK1	Nitrite (as N)	<0.010	mg/L	T	REG	SM 4110 B (2020)	'19 Sep 2025	0.01	mg/L		
25I2669_B5I4017-BLK2	Chloride	<0.10	mg/L	T	REG	SM 4110 B (2020)	'20 Sep 2025	0.1	mg/L		
25I2669_B5I4017-BLK2	Fluoride	<0.10	mg/L	T	REG	SM 4110 B (2020)	'20 Sep 2025	0.1	mg/L		
25I2669_B5I4017-BLK2	Nitrate (as N)	<0.010	mg/L	T	REG	SM 4110 B (2020)	'20 Sep 2025	0.01	mg/L		
25I2669_B5I4017-BLK2	Nitrite (as N)	<0.010	mg/L	T	REG	SM 4110 B (2020)	'20 Sep 2025	0.01	mg/L		
25I2669_B5I4017-BS1	Chloride	102	%	T	SC	SM 4110 B (2020)	'20 Sep 2025	1	%	115	85
25I2669_B5I4017-BS1	Fluoride	92	%	T	SC	SM 4110 B (2020)	'20 Sep 2025	1	%	115	85
25I2669_B5I4017-BS1	Nitrate (as N)	108	%	T	SC	SM 4110 B (2020)	'20 Sep 2025	1	%	115	85
25I2669_B5I4017-BS1	Nitrite (as N)	106	%	T	SC	SM 4110 B (2020)	'20 Sep 2025	1	%	115	85
25I2669_B5I4017-BS2	Chloride	99	%	T	SC	SM 4110 B (2020)	'20 Sep 2025	1	%	115	85
25I2669_B5I4017-BS2	Fluoride	108	%	T	SC	SM 4110 B (2020)	'20 Sep 2025	1	%	115	85
25I2669_B5I4017-BS2	Nitrate (as N)	107	%	T	SC	SM 4110 B (2020)	'20 Sep 2025	1	%	115	85
25I2669_B5I4017-BS2	Nitrite (as N)	104	%	T	SC	SM 4110 B (2020)	'20 Sep 2025	1	%	115	85

NOTES:
Job No: 25I2669

Abbreviations & Descriptions:
Method Blank (Blk): A blank sample that undergoes sample processing identical to that carried out for the test samples.
Method Blank results are used to assess contamination from the laboratory environment and reagents.

Duplicate (Dup): An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process.
Duplicates provide a measure of the analytical method's precision (reproducibility).

Blank Spike (BS): A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS).
Blank spikes provide a measure of the analytical method's accuracy.

Matrix Spike (MS): A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process.
Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.

CERTIFICATE OF ANALYSIS ▪ MEND-SFE QA/QC RESULTS

Global ARD Testing Services Inc.

GLOBAL PROJECT NO: 2559(B3)
CLIENT: Canagold Resources Ltd.
PROJECT NAME: New Polaris
PROJECT NO: 105451-05
REPORT VERSION: 1

Sulphate:

Certified Reference Material:	Parameter: Sulphate	% Recovery	Matrix Spike %	Units	QC Limits
STD Mineral Water (34.78 mg/L)	34.14	98.2%		%	80 - 120
Spiked Blank (19.61 mg/L)	18.69		95.3%	%	80 - 120

Dissolved Metals by ICP-MS:

Sample Code	Parameter	Result	Result Units	Total or Filtered	Method Type	Method Name	Date Analyzed	EQL	EQL Units	UCL	LCL

Standard Reference Material (SRM): A homogenous material of similar matrix to the samples, certified for the parameter(s) listed.
Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples.

For all types of QC, specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

EQL = Estimated Quantitation Limits
PQL = Practical Quantitation Limits
UCL = Upper Control Limit
LCL = Lower Control Limit
BLK = Blank
BS = Blank Spike
MS = Matrix Spike
DUP = Duplicate

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Appendix 7.4-2

Surface Water Quality Existing Conditions Report

Ausenco

New Polaris Gold Mine Project
Surface Water Existing Conditions Report

Photo Credit: Andrew MacPhail 2022

Photo Credit: Andrew MacPhail, 2021

Prepared for:

Canagold Resources Ltd.
Suite 810-625 Howe Street
Vancouver, BC V6C 2T6

Project No. 105451-05

Prepared by:

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Executive Summary

The Project is located within the watershed of the Taku and Tulsequah rivers which contain glaciers and permanent ice coverage. A typical year consists of the following seasonal hydrological regimes:

- Winter: low flows due to low temperatures, but flow conditions controlled by the range of altitudes in the watershed
- Spring: high flows due to snowmelt during freshet. Freshet stream flows are dependent on watershed altitude and proportion and depth of snowpack in the catchment.
- Summer: moderate to high flows for non-glacierized catchments. Peak flows are typically due to extreme rainfall events rather than snowmelt. For catchments at higher altitudes, high snowmelt-driven discharges sometimes occur late in summer. Glacial Lake Outburst Flood (jökulhlaups) also occur regularly and are generally responsible for peak flow between late June and August.
- Fall: Moderate to low flows (base-flow), accompanied by rainfall-driven flows. These events can generate higher flows than observed during freshet season.

Local hydrology is dominated by the Tulsequah River system. The Tulsequah River originates from several glaciers located approximately 10 km upstream of the existing mine site.

The Tulsequah River flows south to a confluence with the Taku River, approximately 10 km downstream of the existing mine site. The Taku River is a transboundary river, flowing west into Alaska, and into the Pacific Ocean, 25 km downstream of the Canada-United States border. The Tulsequah River has a catchment area of approximately 2,300 square kilometers and is fed by glaciers and snowmelt. The river flows through a steep and rugged terrain, which results in rapid changes in water levels during periods of heavy rain or snowmelt. The river's channel is highly dynamic, with frequent changes in flow direction and channel width due to erosion and deposition processes. The river is also influenced by the tides in the nearby Taku Inlet, which can cause water levels to fluctuate. The Tulsequah River is an important habitat for a variety of aquatic species, including salmon, trout, and char, and its unique morphology plays a key role in supporting this diverse ecosystem. Peak flows typically occur from June to August and low flows primarily occur from January to March.

Most of the surface water draining the existing mine site flows within Whitewater Creek. Whitewater Creek is a significant tributary to the Tulsequah River, with a catchment area of approximately 250 square kilometers. Updated discharge measurements from 2023–2025 for stations S04, S09, and S19, along with revised rating curves and hydrographs, provide an improved characterization of flow regimes within the creek; however, S04 data from February 2024 to May 2025 were excluded due to equipment damage. The creek's hydrology is heavily influenced by the surrounding terrain, which includes steep mountains and glaciers. During the spring and summer months, the creek can experience significant increases in water levels due to snowmelt, while heavy rain events can also cause rapid changes in flow. The Creek cascades down a steep canyon located at the northern end of the study area, situated right next to the current camp infrastructure. After reaching the valley floor, the creek meanders southward, running parallel to the Tulsequah River. Whitewater Creek traverses through the current mine site, passing by the airstrip, and finally converges with the Tulsequah River about 3 km downstream. Additionally, Sawmill Creek, a minor tributary of Whitewater Creek, courses through the local study area, joining

Whitewater Creek immediately south of the mine site. A small channel stemming from the Tulsequah River also feeds into Whitewater Creek, situated around 1 km south of the present mine site.

This Executive Summary is not intended to be a stand-alone document, but a summary of findings as described in the following Report. It is intended to be used in conjunction with the scope of services and limitations described, therein.

Disclaimer

This work was performed in accordance with the Professional Services Agreement between Ausenco Sustainability ULC and Canagold Resources Ltd. (Client), dated November 17, 2020 (Contract). This report has been prepared by Ausenco, based on fieldwork conducted by Ausenco, for sole benefit and use by Canagold Resources Ltd.. In performing this work, Ausenco has relied in good faith on information provided by others and has assumed that the information provided by those individuals is both complete and accurate. This work was performed to current industry standard practice for similar environmental work, within the relevant jurisdiction and same locale. The findings presented, herein, should be considered within the context of the scope of work and project terms of reference; further, the findings are time sensitive and are considered valid only at the time the report was produced. The conclusions and recommendations contained in this report are based upon the applicable guidelines, regulations, and legislation existing at the time the report was produced; any changes in the regulatory regime may alter the conclusions and/or recommendations.

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List of Acronyms and Abbreviations

Acronym / Abbreviation	Definition
Ausenco	Ausenco Sustainability Inc.
BC	British Columbia
BCEAA	*British Columbia Environment Assessment Act*
Canagold	Canagold Resources Ltd.
DD	Decimal Degrees
EC	Electrical conductivity
ET	evapotranspiration
FDC	Flow-duration curve
FFA	Flood Frequency Analysis
RMS	Root Mean Square
SWSA	Surface Water Study Area
TRTFN	Taku River Tlingit First Nation
US	United States
WSC	Water Survey of Canada

List of Symbols and Units of Measure

Symbol / Unit of Measure	Definition
%	Percent
cm	centimetre
h	hour
ha	hectare
km	kilometre
L/s	Litre/second
m	metre
min	minute
mm	millimetre
m^3/s	cubic metres per second
m/s	metre/second
tpd	tonnes per day
tpy	tonnes per year

1.0 Introduction

Canagold Resources Ltd. (Canagold) proposes to open the New Polaris gold mine in northwestern British Columbia (BC) by re-developing a former mine and town site, previously known as the Polaris Taku Mine, which operated intermittently between 1937 and 1951. The mine is located approximately 100 km south of Atlin, BC and 60 km northeast of Juneau, Alaska, United States (US) on the west bank of the Tulsequah River. The Project is within the Taku River Tlingit First Nation (TRTFN) Traditional Territory.

The proposed Project is an underground gold mine with approximately 1,000 tonnes per day (tpd) mill throughput rate that would operate year-round, producing on average approximately 365,000 tonnes per year (tpy) of ore. Exploration at the site is ongoing, and current estimates suggest the mine will have an approximately 10-year production life, but this could be extended as the limits of the orebody are not fully defined.

The New Polaris Gold Mine Project (the "Project") is subject to a provincial environmental assessment under the *British Columbia Environmental Assessment Act* (BCEAA). Therefore, the purpose of the environmental baseline studies is to characterize existing environmental conditions required to support the environmental effects assessment. Ausenco has been retained to assist Canagold with their environmental baseline studies and to support the development of an Application for an Environmental Assessment Certificate under the BCEAA.

1.1 Project Setting

The Project area is characterised by steep, mountainous terrain and broad, glacially influenced river valleys. The Project footprint will overlap the previous Polaris Taku mine and town site on the west bank of the Tulsequah River (known as 'Taaltsuxéi Héen' in Tlingit) which originates on the eastern edge of the Juneau Icefield in the Coast Mountain Range. Tulsequah River flows south along a wide floodplain to its confluence with the Taku River approximately 10 km downstream from the Project site. The Taku River flows west into Alaska and to the Pacific Ocean approximately 25 km downstream of the Canada-US border. The primary surface waterbody intersecting the Project footprint is Whitewater Creek, which has a catchment of approximately 250 square kilometers (km^2) and is a tributary of the Tulsequah River.

Within the Tulsequah watershed, low flows occur through winter and into late spring before the start of snow and glacial ice melt, with high flows occurring in June through August. River channels are braided and highly mobile, with generally high bedload and suspended sediment concentration, with exceptions in clearwater side channels, tributaries such as Whitewater Creek, and areas of groundwater upwelling (Gartner Lee 2007, Neal 2007). The Tulsequah River headwaters consist of proglacial lakes (Tulsequah Lake and Lake No Lake), and the river commonly experiences glacial lake outburst floods (jökulhlaups), creating large instantaneous peak flows up to two or three times per year. Large wetland complexes are present within the floodplain of the Tulsequah River, including Flannigan Slough at the confluence of the Tulsequah and Taku Rivers, and Kitchen Slough immediately upstream from the existing mine site. These wetlands are regularly inundated during freshet and glacial outburst events.

1.2 Study Objectives

This Surface Water existing conditions report is part of a comprehensive baseline monitoring and data collection program which documents and characterizes the current conditions of the surface water resource in the vicinity of the proposed Project as per the Application Information Requirements (AIR) issued by the BC Environmental Assessment Office (EAO).

Data incorporated in this report include results from field sampling conducted by Gartner Lee Limited (2006 to 2007) and Ausenco in 2021 and 2023 to 2025 in support of the surface water resources baseline program as well as a desktop review of previous studies conducted within the project region and other publicly available data collected in the vicinity of the Project. Overall objectives of the existing conditions assessment include:

- Review of available hydrological data from previous baseline work including discharge (flow) measurements.
- Completing flood frequency analysis (FFA) based on available regional flow data.
- Quantifying and characterizing site discharge by establishing hydrometric stations at key locations, comprising conducting discharge measurements to establish rating curves.

The results of the study will be used to assess potential environmental impacts of the mine on the existing watercourses, designing water management facilities, and flood hazard assessments during operational, closure, and post-closure phases of the mine.

The completed hydrologic baseline study complies with the BC MOE Water and Baseline Monitoring Guidance Document for Mine Proponents and Operators (2016) which will support a provincial environmental assessment under the BCEAA.

Other information requirements of the AIR with some relevance to Surface Water are reported in different sections of the application as follows:

- Groundwater
- Vegetation
- Fish and Fish Habitat
- Climate projections.

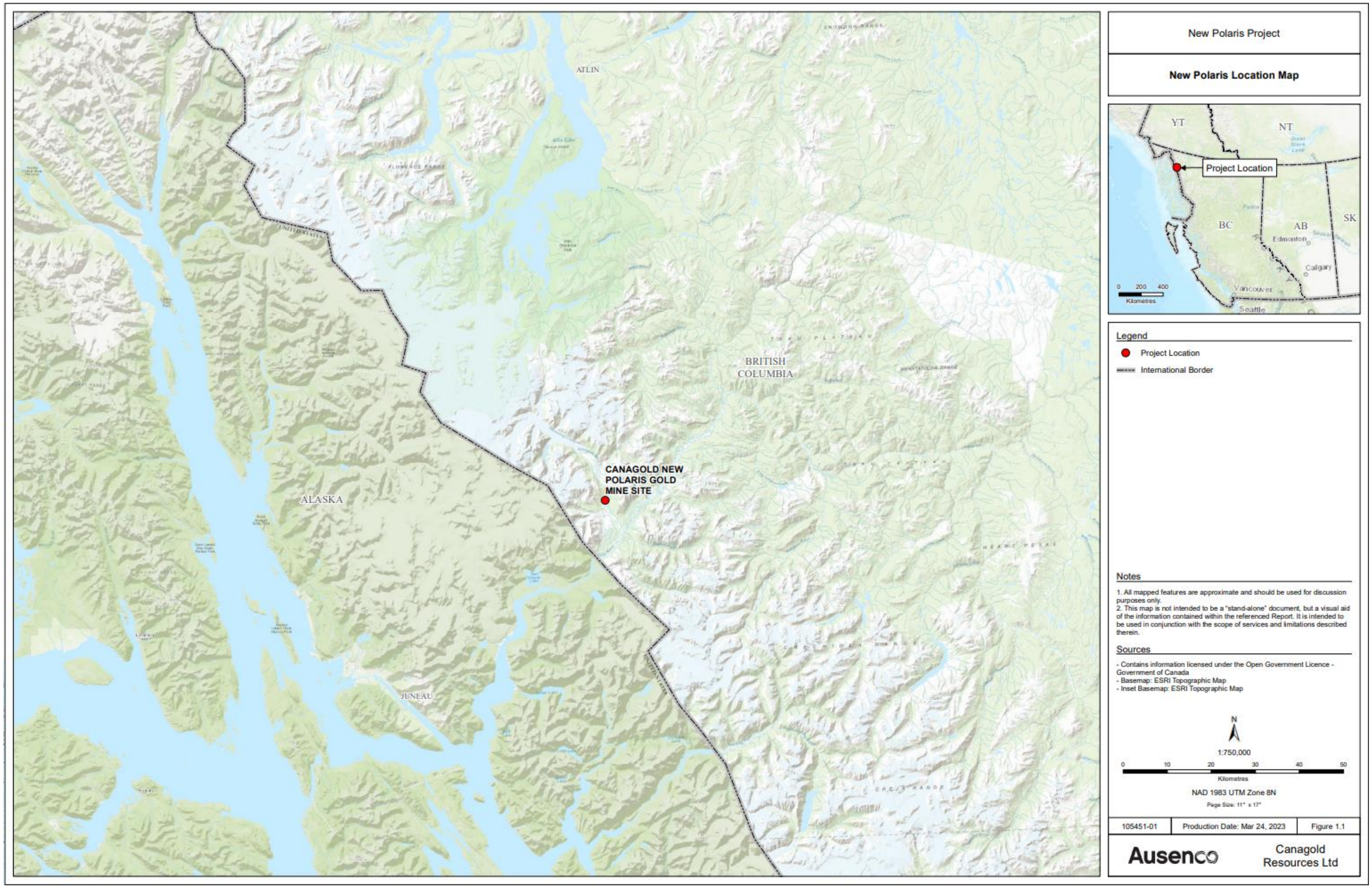


Figure 1-1 New Polaris Location

1.3 Surface Water Study Area

The Surface Water baseline assessment evaluates conditions within two overlapping areas:

- The Local Assessment Area (LAA) comprising the Project footprint, catchments within and upland of the Project footprint (including Whitewater Creek). The physical extent of existing historical infrastructure and tailings deposits is included within the LAA.
- The Regional Assessment Area (RAA); comprising the LAA and the Tulsequah River, as well as the Taku River downstream of the Canada-United States border, inclusive of the lower Taku River and Taku River Estuary.

Figure 1-2 shows the extend of the surface water study area.

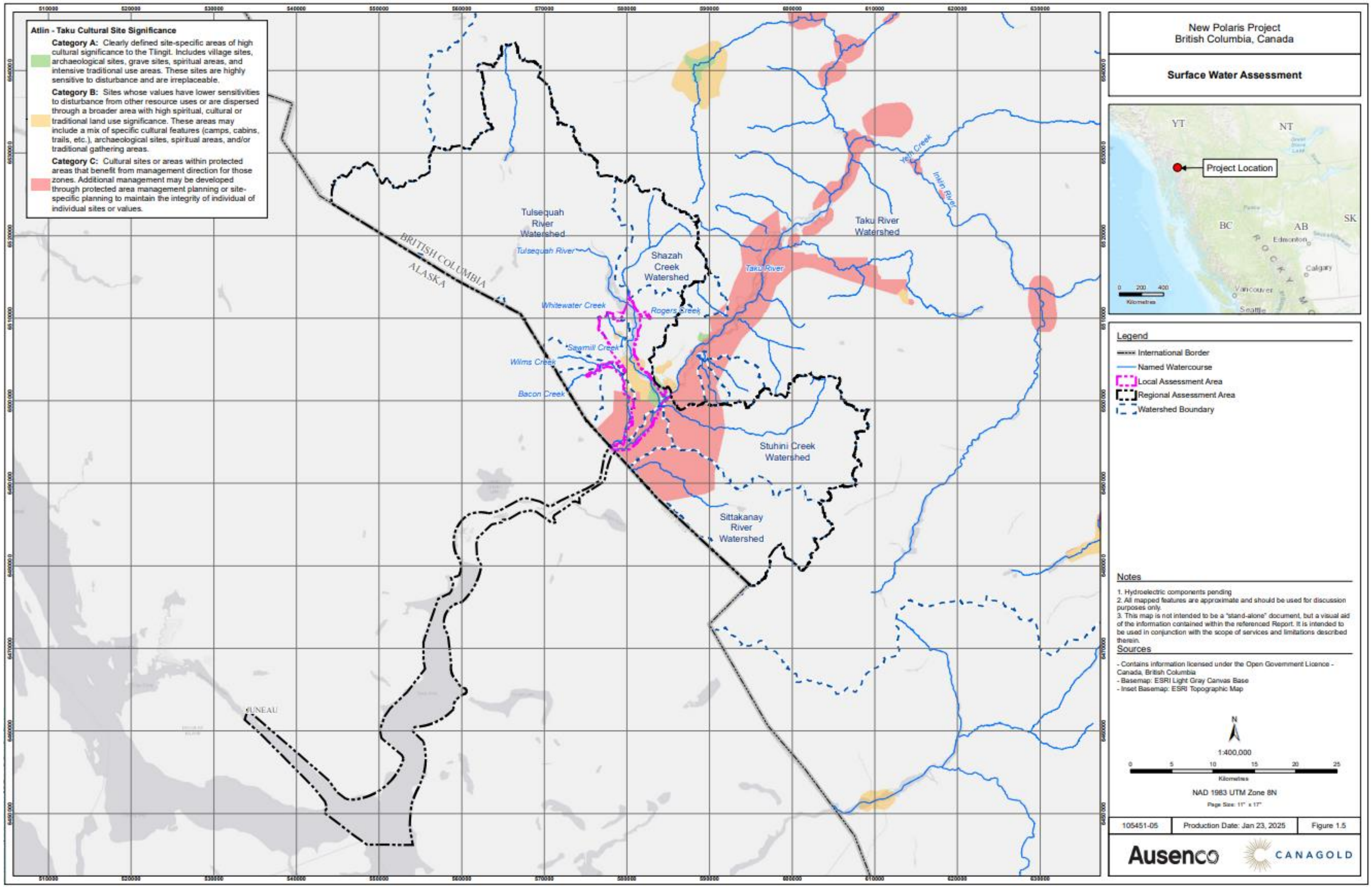


Figure 1-2 Surface Water Study Area

2.0 Climate

2.1 Historical Climate Conditions

The New Polaris project site is in the Coastal Western Hemlock (CWH) bio geoclimatic zone and the Köppen climate regime is subarctic (Dfc), characterized by warm to cool summers and cold winters. Because of the proximity to the Pacific Ocean, and the steep mountainous terrain on both sides of the Taku River and Tulsequah River valleys, the climate in the Project area is moist with heavy rainfall in the late summer/autumn months and heavy snowfall with rain throughout the winter.

An analysis of the historical climate characteristics of the project site area was completed in the Weather Station Data QA/QC Technical Memo (Ausenco, 2025), where multiple nearby meteorological station data sets with established climate normals were used and compared with the periods of onsite data collection and the collection of weather data from the nearby Tulsequah Chief Mine Site.

Figure 2-1 shows the location of climate stations that were considered in the QAQC analysis.

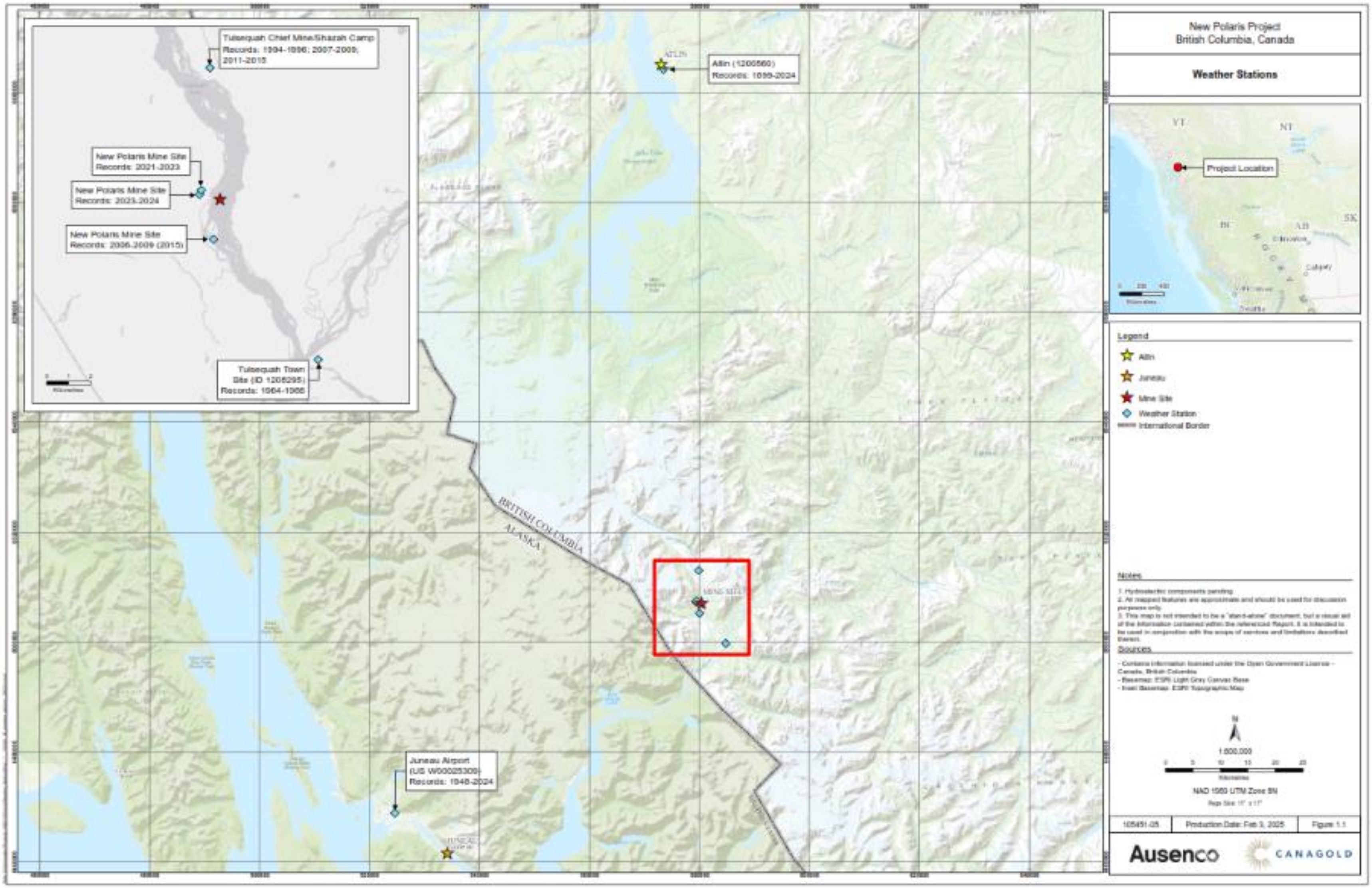


Figure 2-1 Location of Weather Stations Relative to the Project Site

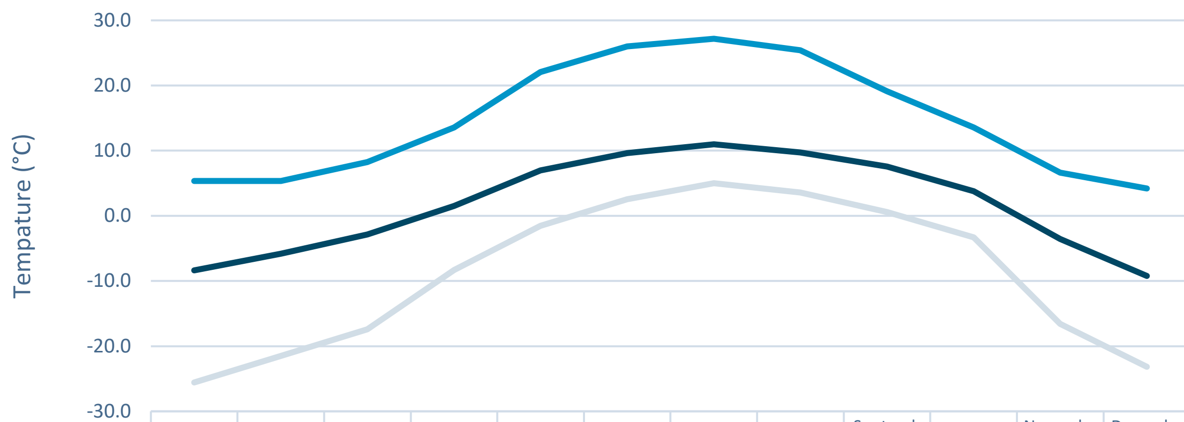
Given the limited availability of historical meteorological data for this region, re-analysis datasets offer a valuable alternative. Environment Canada and Climate Change Canada (ECCC) have provided downscaled historical datasets available on ClimateData.ca (2025). This approach allows for the estimation of long-term climate averages even in data-sparse regions. ClimateData.ca (2025) was used to download a 30-year average for monthly total precipitation, in millimetres (mm), for the site location. This data was compared with the historical Tulsequah Chief dataset to validate the model. ClimateData.ca and Tulsequah Chief precipitation data were analysed using the Pearsons correlations coefficient and showed to have a strong correlation close to a value of 1 (r = 0.95). Therefore, identifying that climateData.ca is a suitable source for modelling precipitation for the New Polaris site.

Historical climate variables, shown in **Table 2-1**, were developed from multiple Canadian climate models (climatedata.ca) and validated using statistical analysis with available nearby station data and available site measurements. Additional information including methodology and scenario selection can be found in Climate Change Technical Memo (Ausenco, 2025).

Table 2-1 Historical Monthly Average Precipitation (mm)

Month	Historical
January	198.04
February	128.05
March	115.25
April	64.01
May	53.34
June	56.71
July	72.03
August	108.51
September	122.83
October	226.74
November	188.37
December	182.94

Monthly temperature variations based on onsite measurements are illustrated in **Figure 2-2**. Onsite temperatures range from a daily maximum of 27.2 °C in the summer to a daily minimum of -25.6°C in the winter.



	January	February	March	April	May	June	July	August	September	October	November	December
Average	-8.4	-5.8	-2.9	1.5	7.0	9.6	11.0	9.7	7.6	3.8	-3.6	-9.2
Max	5.3	5.4	8.2	13.6	22.1	26.0	27.2	25.4	19.1	13.6	6.6	4.2
Min	-25.6	-21.5	-17.4	-8.3	-1.5	2.5	5.0	3.6	0.6	-3.3	-16.6	-23.2

Figure 2-2 Monthly Temperature Variations for the Project Location

2.2 Climate Change

Historical data alone cannot fully characterize existing conditions for a project site because climate change has created constantly evolving conditions. Forward-looking data for operational and closure timelines has been developed for the New Polaris site. Additional information can be found in the Project's Climate Change Technical Memo (Ausenco 2025) which describes the methodology and selection of scenarios for use under each timeline at the New Polaris Project site.

3.0 Regional Hydrology Assessment

3.1 Hydrological Assessment

A review of available regional hydrometric data was carried out. Several stations from Water Survey of Canada (WSC) and the US Geological Service (USGS) in the vicinity of the project site were examined, and three were selected for the regional analysis (**Table 3-1**). The selected stations were chosen based on similarity of topographic and hydrologic features, proximity to the project site and duration of historic available data.

Table 3-1 Gauged Flow Stations in the Vicinity of the New Polaris Mine

Station	Code	Drainage Area (km2)	Years of Data		Operator
			Start	End	
Taku River near Tulsequah	08BB001	15,180	1953	1987	Environment Canada
Taku River near Juneau	08BB005	16,658	1988	2017	Environment Canada (Operated by USGS)
Taku River near Juneau	15041200	16,835	1987	2026	USGS
Sloko River near Atlin	08BB002	258	1954	1979	Environment Canada

The drainage area of the creeks crossing the Project site (or flow in the vicinity of it) are between 0.15 to 5.23 km^2 and therefore not directly comparable to those of the selected stations. The location of selected stations and their respective drainage area is shown in **Figure 3-1**. As shown, the most downstream station is TAKU RIVER NEAR JUNEAU (on the Southwestern corner) which includes the drainage area of the other two stations as well.

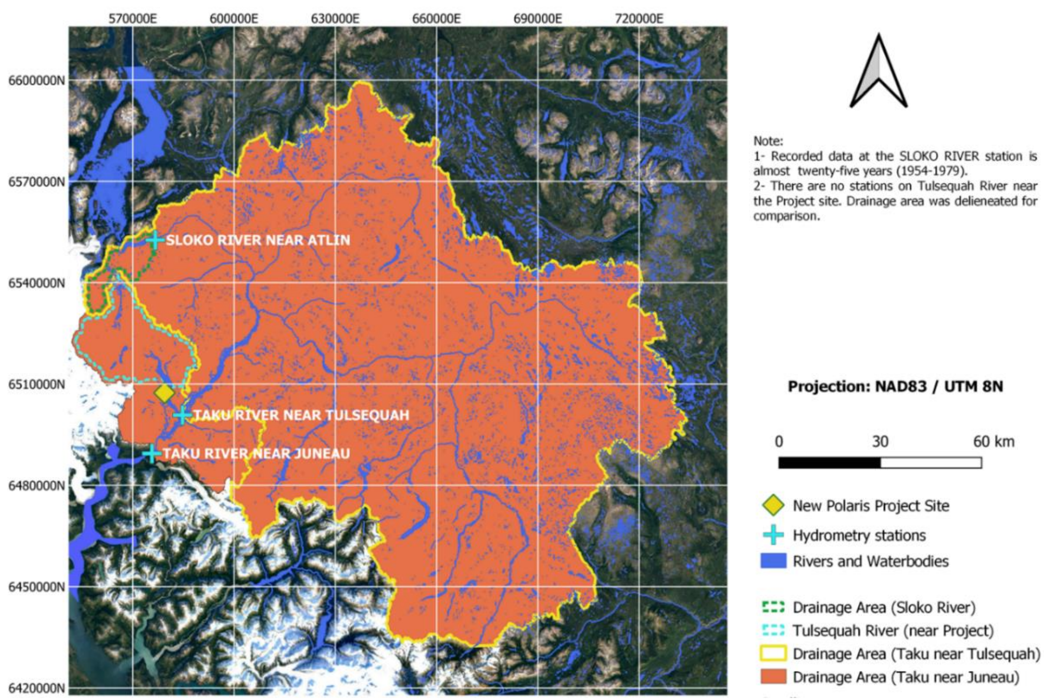


Figure 3-1 Location of Selected Hydrometry Stations and their Drainage Catchments

Hydrographs for the Taku River at Juneau were developed (**Figure 3-2**) using monthly flow data from 2021 to 2025. The data were obtained from the USGS National Water Information System; station 15041200. These hydrographs provide a visual summary of flow patterns over the specified period, supporting hydrological analysis and trend assessment.

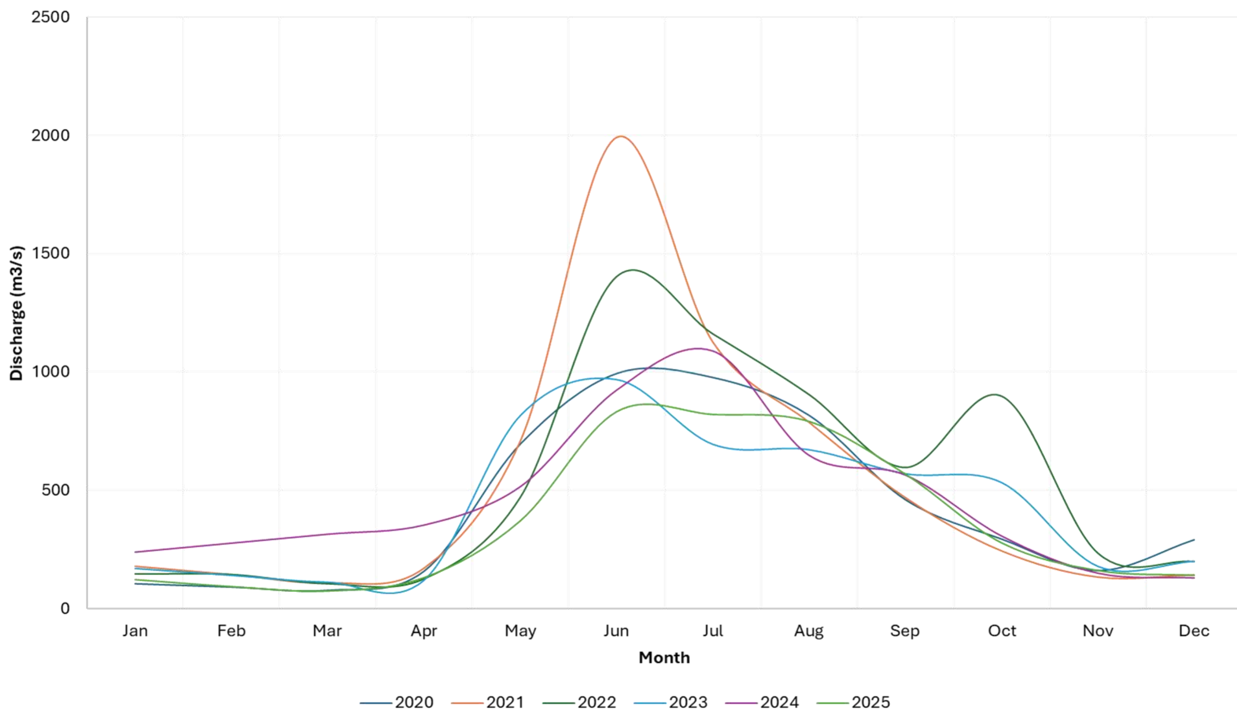


Figure 3-2 **Hydrographs for Taku at Juneau, Generated Using Monthly Average Flow Data from 2021 to 2025.**

The Mean Annual Flows (MAF) for the Taku River at Juneau are summarized in **Table 3-2**.

Table 3-2 **Mean Annual Flows for Taku at Juneau**

Year	Mean Annual Flow (m^3/s)
2020	426.92
2021	517.59
2022	533.21
2023	431.35
2024	459.26
2025	364.89

3.2 Flood Frequency Analysis

HYFRAN-PLUS version 2.2 was used to perform frequency analysis and to obtain the peak floods for 1, 10, 20, 50, 100, 200, 500 and 1000-year flood events. Two statistical fits were examined: Gumbel and Log-Pearson Type 3 (LP3). Both distributions fit reasonably good to observed discharge rates. **Figure 3-3** shows the results of regional flood frequency analysis.

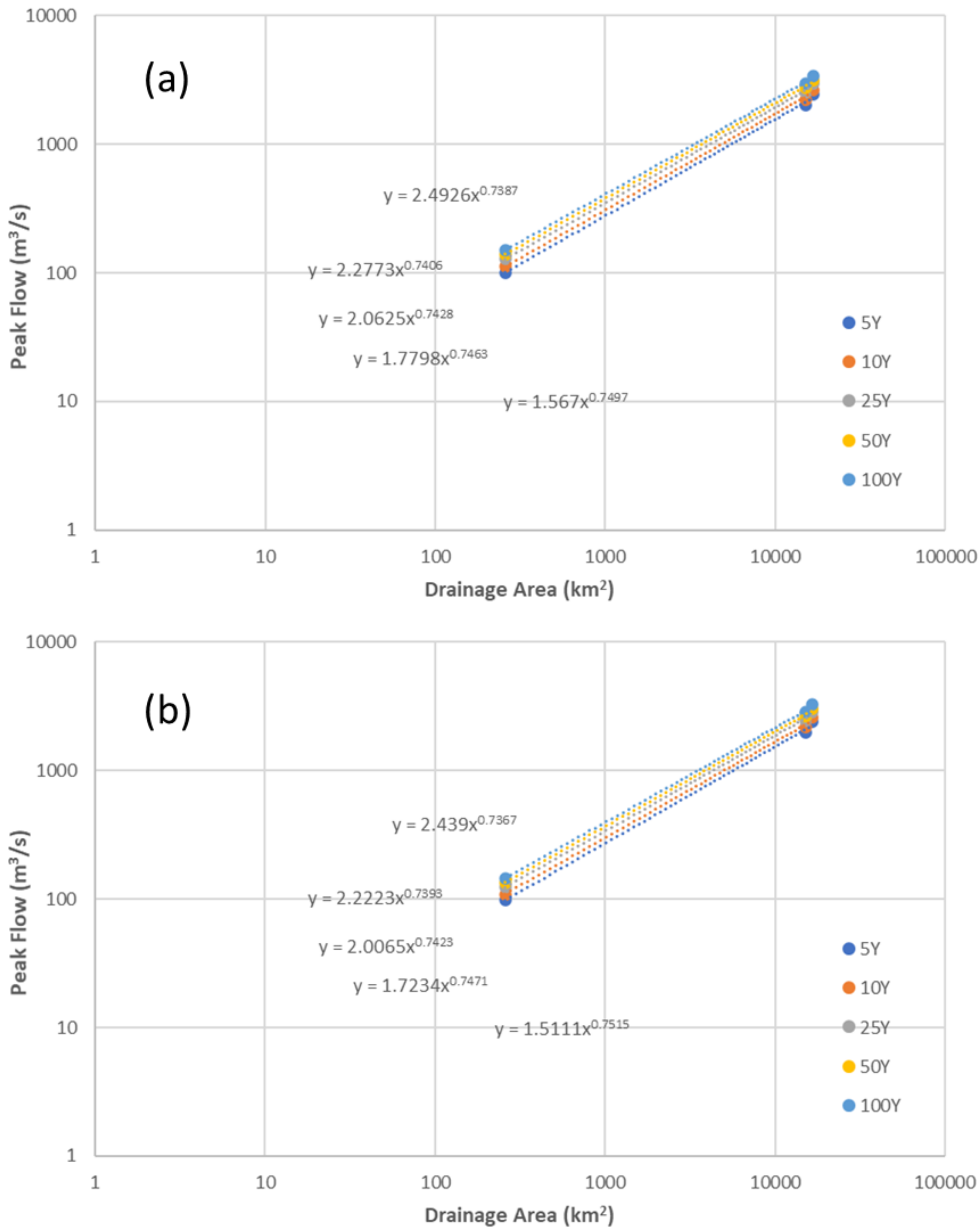


Figure 3-3 Regional Flood Frequency Analysis for Different Return Periods using (a) Log-Pearson Type3, and (b) Gumbel Distributions (Equations are for 5, 10-, 25-, 50- and 100-year storms)

Using the results of regional flood analysis for different return periods, peak flow rate of the creeks, sloughs and other watercourse were calculated at selected monitoring stations and are presented in **Table 3-3**.

The 7Q10 (7-day low flow with a 10-year return period) was estimated using a power law regression, 7Q10 = a * A^0.7, where A is the drainage area in square kilometers and b is assumed as 0.7. For Taku River near Juneau (08BB005, 16,658 km^2), the 2017 7-day low flow (34.58 m^3/s, March 10–16) was used to estimate parameter a = 0.0383, as it has the most recent data (up to 2017), while other stations' data is outdated. This regression was applied to ungauged stations S04–S20 (0.03–26.25 km^2) to predict 7Q10 (given in **Table 3-3** but it may slightly overpredict flows for small streams. These estimates are preliminary due to limited data.

Table 3-3 Estimated Peak Flows of the Streams in and near the Project Site at Select Stations.

Station	Drainage Area (km^2)	5Y Peak Flow (m^3/s)		10Y Peak Flow (m^3/s)		25Y Peak Flow (m^3/s)		50Y Peak Flow (m^3/s)		100Y Peak Flow (m^3/s)		7Q10 (m^3/s)
		LP3	Gumbel	LP3	Gumbel	LP3	Gumbel	LP3	Gumbel	LP3	Gumbel	
S04	9.67	8.59	8.31	9.68	9.39	11.13	10.81	12.22	11.89	13.32	12.98	0.188
S08	7.42	7.04	6.81	7.94	7.70	9.14	8.88	10.05	9.78	10.96	10.68	0.156
S09	5.23	5.42	5.24	6.12	5.93	7.05	6.85	7.75	7.55	8.46	8.25	0.122
S13	8.17	0.52	0.50	0.59	0.57	0.69	0.67	0.77	0.75	0.84	0.83	0.167
S15	26.25	18.15	17.61	20.39	19.80	23.36	22.69	25.61	24.89	27.86	27.08	0.378
S16	7.74	7.27	7.03	8.20	7.95	9.43	9.17	10.37	10.09	11.30	11.01	0.161
S17	12.00	10.10	9.78	11.37	11.03	13.06	12.69	14.35	13.95	15.63	15.22	0.218
S19	9.44	8.43	8.17	9.51	9.22	10.93	10.62	12.01	11.68	13.09	12.75	0.185
S20	0.03	0.11	0.11	0.13	0.13	0.15	0.15	0.17	0.17	0.19	0.18	0.003

3.3 Jökulhlaups

Glacier-lake-outburst floods (GLOFs), also referred to as jökulhlaups, are sudden releases of water from lakes impounded by glacier ice or moraines, typically initiated by subglacial tunnel enlargement, ice-dam flotation, or structural failure of the dam itself. These processes and their hydrologic consequences are well documented in glaciated river systems of Alaska and western Canada, where glacier-dammed lakes form repeatedly in response to seasonal melt and longer-term glacier dynamics (USGS, 1999; Neal, 2007). In the Tulsequah—Taku River system, jökulhlaups represent a defining and non-stationary component of basin hydrology, producing short-duration but extreme flood pulses that differ fundamentally from rainfall- or snowmelt-driven floods (Geertsema and Clague, 2003).

Within this system, jökulhlaups originate primarily from ice-dammed lakes along the margin of the Tulsequah Glacier, including the feature referred to as 'Lake No Lake' and other transient impoundments that develop as meltwater accumulates against glacier ice. These lakes lack stable surface outlets and instead drain episodically through subglacial conduits, delivering large volumes of water into the Tulsequah River and subsequently the Taku River downstream (Geertsema and Clague, 2003; Neal, 2007). Historical observations and aerial photographic analyses indicate that the filling and drainage of these lakes can occur on annual to multi-year cycles, with drainage often occurring rapidly once critical hydraulic thresholds are exceeded (Geertsema & Clague, 2003).

Hydrometric records from the lower Taku River demonstrate that jökulhlaups constitute the largest recorded flood events in the basin. USGS streamflow data show that peak discharges associated with glacier-lake-outburst floods substantially exceed those generated by precipitation or snowmelt alone, with the June 2004 jökulhlaup producing the maximum discharge (flood contribution to peak discharge was 2,265 m3/s) observed during the period of record (Neal, 2007). These events are characterized by rapid flow rise, high sediment loads, and abrupt recession once the source lake is depleted, producing hydrographs that are distinct from conventional seasonal flood responses (USGS, 2007).

The timing and magnitude of jökulhlaups in the Tulsequah–Taku system are strongly influenced by seasonal melt conditions and evolving glacier geometry. Most documented outburst floods occur during late spring or summer, coinciding with peak meltwater inputs, although variability in lake filling rates and subglacial drainage efficiency introduces considerable uncertainty in event timing (USGS, 1999; Neal, 2007). Long-term analyses further suggest that changes in glacier thickness and retreat have altered lake volumes and drainage behavior over time, leading to a reduction in flood magnitude from some lakes while maintaining or enhancing the hazard from others, particularly Lake No Lake (Geertsema and Clague, 2003).

These jökulhlaup-driven floods exert significant geomorphic and ecological influences downstream, including channel erosion, sediment redistribution, and elevated turbidity in the Taku River and its delta. USGS water-quality monitoring has documented sharp increases in suspended sediment concentrations during outburst flood events, with implications for aquatic habitat, navigation, and downstream infrastructure (Neal, 2007). Because jökulhlaups are episodic, threshold-controlled, and closely tied to glacier dynamics, they are poorly represented by traditional hydrologic design frameworks that assume stationary flood-generating processes (USGS, 1999; Neal, 2007). Consequently, a clear conceptual and process-based understanding of jökulhlaups is important for hydrologic assessment and risk evaluation in the Tulsequah–Taku River system; however, this study does not address them, and any such evaluation would need to be undertaken separately.

4.0 Field Measurement and Methodology

To study the hydrologic regime of the Project site, both in-situ discharge measurements and regional assessment of available flow monitoring datasets in the project area were used to estimate both average and peak flow conditions for the project site.

4.1 Hydrometric Stations

To establish an understanding of the local flow regime and hydraulic behaviours of the site, nine hydrometric stations were established. Regular discharge measurement at these stations helps understanding the hydrologic behaviour of the watercourses, and high/low flow conditions.

The location of the hydrometric stations is presented in **Figure 4-1** below. During the field visits and based on field investigations, water level and discharge rates at nine (9) stations were measured at a monthly scale (see photos in **Appendix A**). However, due to poor weather or operational difficulties, some stations were inaccessible during fall and winter months.

To support the proposed run-of-river hydroelectric portion of the project, preliminary discharge measurements were taken at Rogers Creek (S33; across from the New Polaris mine, just south of the historic Tulsequah Chief mine site), North Wilms Creek (S34) and Bacon Creek. Canagold ultimately selected Bacon Creek as the location of the hydropower production. A hydrometric station was established at Bacon Creek (upstream of the confluence with North Wilms Creek) during the fall of 2024; however, the logger data has not yet been retrieved, and a long-term flow record of that site is currently pending.

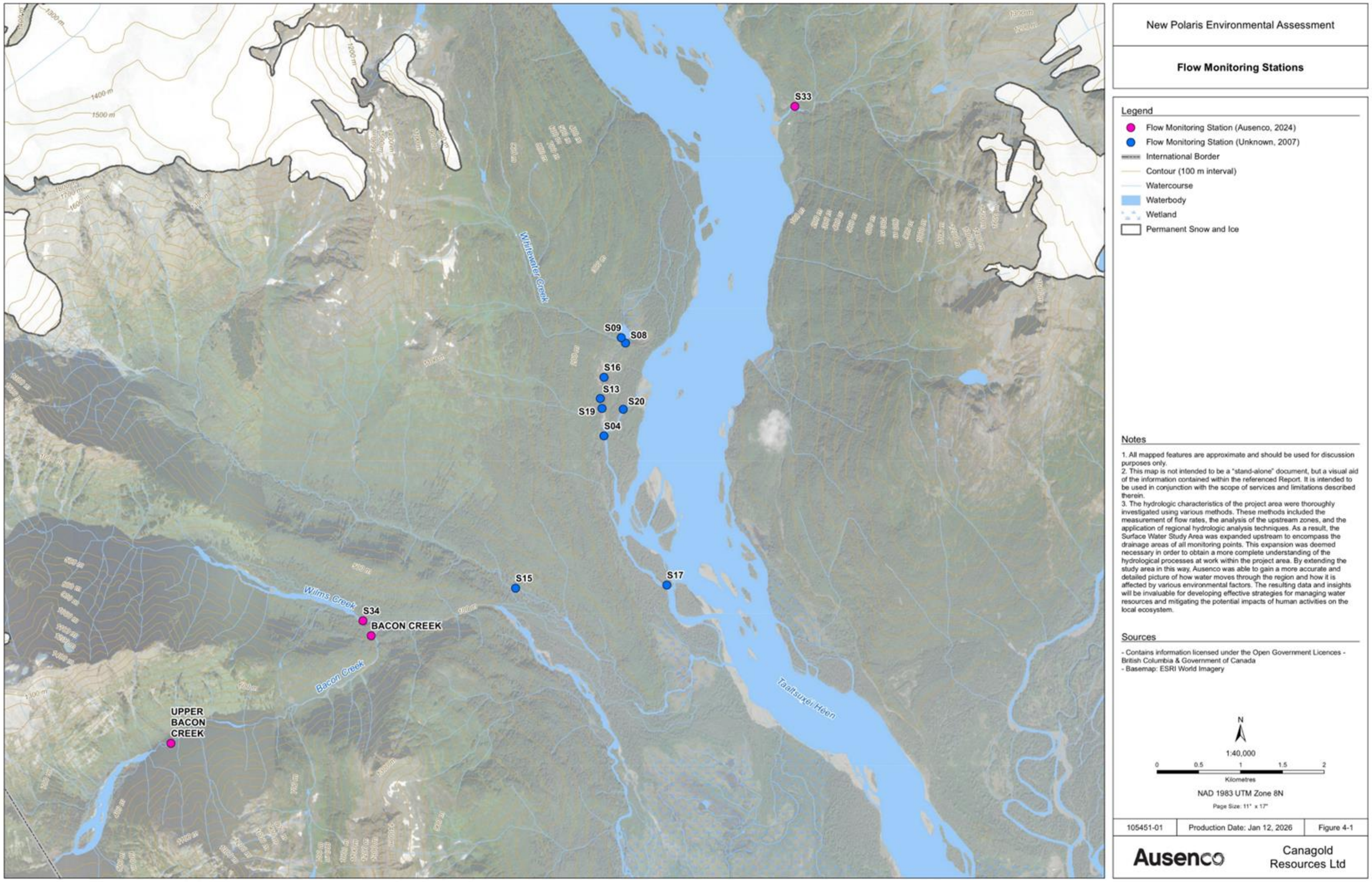


Figure 4-1 Location of Flow Measurement Stations at the New Polaris Mine Site (Projection: NAD 83/ UTM 8N)

Whitewater creek is the main drainage crossing the Site. AJ Creek and Sawmill Creek, along with an unnamed watercourse confluence with the Whitewater Creek along the way downstream. Flow monitoring stations have been installed downstream of each watercourse confluence. **Figure 4-2** shows the location of these stations relative to the Whitewater Creek and the Site.

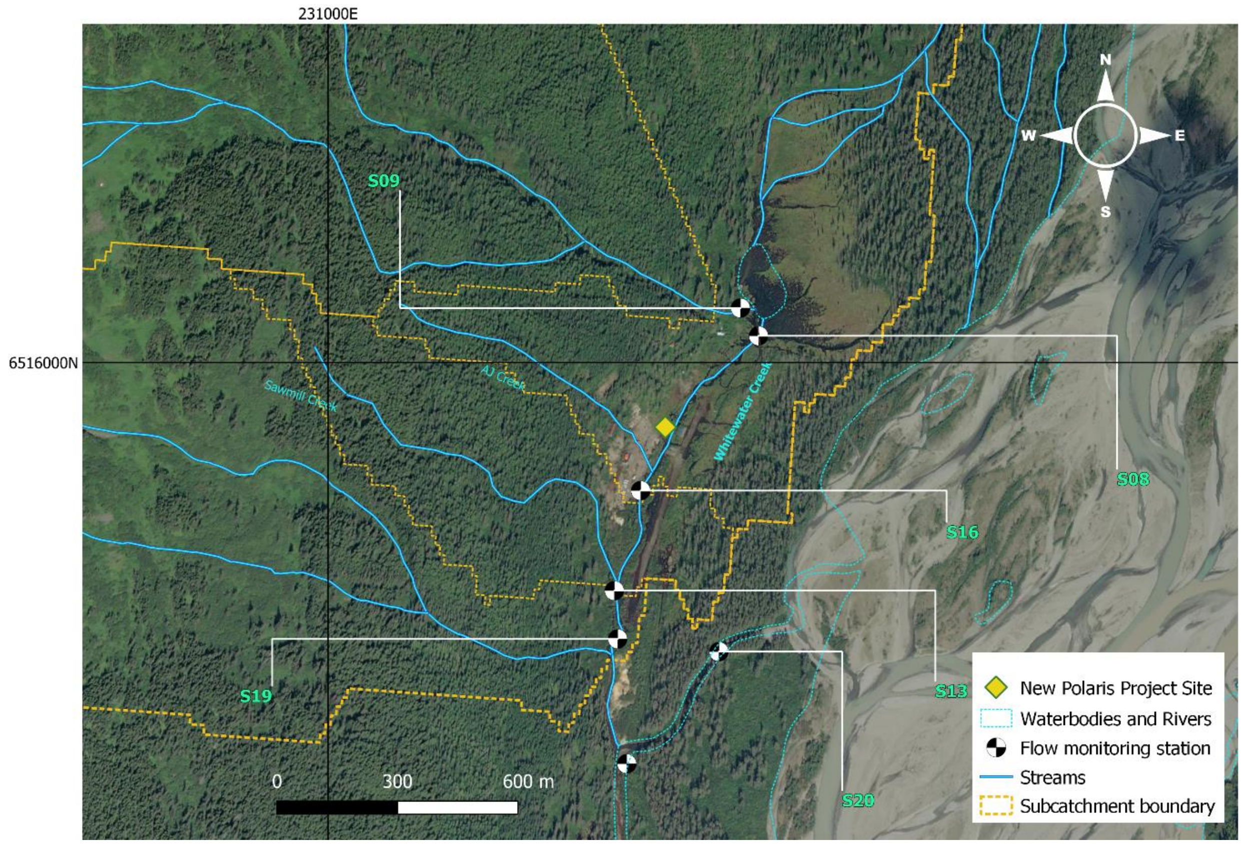


Figure 4-2 Location of Flow Monitoring Stations along the Whitewater Creek (Projection: NAD 83/ UTM 8N)

Hydrometric parameters (water level and watercourse flow) were collected as a part of the baseline studies during 2021 and 2022 at the site to characterize hydrological variation within the Creeks and watercourses crossing the site or flow in the vicinity of the Project area. Water level and discharge (flow) measurements at the New Polaris Project site from the previous aquatic baseline studies (Gartner Lee, 2006), were also integrated with recent measurements. These records are not lengthy enough to be suitable for long-term analysis, yet they were used to validate estimations based on existing weather stations data.

To analyze the hydrologic conditions of the Project site, a set of measurement stations has been set at and around the Mine footprint area. These stations have been located during previous studies on the Project site for water quality monitoring.

Location of these stations are described in **Table 4-1**.

Table 4-1 Discharge Measurement Stations at the Project Site

Station	Catchment area (ha)	UTM Zone 8N		Approximate Width (m)	Description	Water Level Logger
Easting				Northing		(Y/N)
S04	967	579372	6506522	10.3	Downstream of Whitewater Creek at the confluence with Tulsequah side channel	Y
S08	742	579628	6507633	7.8	Whitewater Creek, upstream of the Project site, downstream of the confluence with Kitchen Slough	N
S09	523	579577	6507698	3.4	Whitewater Creek, upstream of the Project site, upstream of the confluence with Kitchen Slough	Y
S13	816	579327	6506969	2	Sawmill Creek at the confluence with Whitewater Creek	N
S15	2,624	578313	6504698	9.7	Wilms Creek at the confluence of one of the tributaries	N
S16	774	579370	6507223	7.4	Whitewater Creek at the Project site, West of the airstrip	N
S17	1,200	580121	6504736	10	Tulsequah River side channel, downstream, at the confluence with Tulsequah main channel	N
S19	944	579346	6506850	8.3	Whitewater Creek, downstream of the confluence with Sawmill Creek	Y
S20	2.9	579600	6506841	9.7	Tulsequah River side channel, upstream of the confluence with Whitewater Creek	N
Bacon Ck.	38	576587	6504129	30	On Bacon Creek, upstream of the confluence with Wilms Creek	Y(1)
Upper Bacon Ck	38	574192	6502842	26	On Bacon Creek, located near the stream's headwaters	Y(1)

(1) Logger data has not yet been retrieved and a long-term flow record of that site is currently pending.

4.2 Discharge Measurements

Two main methods were used to measure discharge (flow) during the baseline study period, which are explained below:

4.2.1 Velocity-Area Method

The velocity-area method is a commonly used method for measuring discharge in low to moderate gradient channels and can be used in small watercourses and large rivers. In smaller watercourses, measurements are collected by wading and using a current (velocity) meter. Wading measurements are limited at high flows by safe instream working conditions (i.e., depths and/or velocities are suitable to allow safe stream access). At low flows, depth and velocity accuracy are limited by current meter resolution. Ausenco will use a Swoffer current meter, which is generally suited to depths greater than 0.05 m and velocities greater than 0.05 meters per second (m/s).

Total discharge is calculated using the area and velocity from a series of point measurements taken along the cross-section of the stream. At each station, a cross section is established that is perpendicular to the flow, and the wetted stream channel width is determined using a tape measure fixed to the top of the bank on each side. The stream is divided into 20 panels where individual velocity and depth measurements is recorded. At each point across the stream cross-section, water depth and mean velocity is measured (at 60% depth) using a Swoffer Current Velocity Meter and the measurements are spaced such that each panel contains approximately 5% and less than 10% of the total flow. For each sampling point (panel) at a crossing location (sample station), stream discharge (Q; m^3/s) is calculated by the mid-section method (RISC, 2018). The total discharge for a sample station is calculated by adding the discharge of all panels for each stream crossing location. For QA/QC purposes, two sets of measurements are collected at each flow measurement location. GPS coordinates are recorded at each location and information is collected for cross-section figures at each location.

4.2.2 Salt Dilution Gauging Method

Salt Dilution Gauging is another method for measuring discharge in natural channels, and is better suited to smaller, steeper-gradient channels with more turbulent flow. This method is based on adding a measured quantity of a salt to the flow and then observe its concentration at a point downstream (Moore R. D., 2004). The greater the flow, the more dilute the salt will be for a given quantity added. The two commonly used method for Salt Dilution Gauging are (a) constant-rate injection and (b) slug injection (Moore R. D., 2004). The slug injection is well suited for highly turbulent streams and bouldery mountain channel (Moore R. , 2005). Ausenco will use Salt Dilution Gauging with slug injection, which is generally suited to measure discharge up to 10 m^3/s or greater.

Discharge measurement by slug injection dilution gauging involves dissolving a known mass, of salt into a volume of water to create a salt tracer solution and then injecting the tracer into the stream. By injecting a known mass of salt and measuring the arrival of that tracer at a downstream location, many properties of the flow can be calculated from measuring electrical conductivity (EC) in the stream. The arrival of injected tracer shortly after the solution slug is added at a downstream location is referred to as the dispersion of the salt solution within the water column. The shape of the dispersion curve is controlled by the channel hydrodynamics, which are in turn a function of climate (flow state) and channel morphology. A key assumption of salt dilution gauging is that there are no interactions between the salt ions and the existing ions in the stream. It is unlikely that this occurred, but it could have the potential to alter the measured flow considerably. As part of the salt dilution gauging there are minor decisions made such as what to use as the background EC that is only expected to have a small effect on the rating curve and subsequent analysis. The distance from injection to measurement should be approximately 20 times the width of the stream to ensure proper mixing before measurement. To determine calibration constant

(K factor), the EC was measured by adding known concentration of salt container of stream water from each station. After the data was collected downstream of injection point, EC was converted to concentration, and a salt wave was found. The flow was estimated based on original mass of salt and the area under the salt wave. The salt wave was calculated by summing up concentrations after an assumed start point of the wave when there was stable concentration and after there was stable concentration again (i.e., reaching background EC). For QA/QC purposes, two sets of measurements are collected at each flow measurement location within a span of one hour.

4.3 Rating Curves

Water discharge measurements were used to develop stage-discharge relationships for hydrometric stations wherever sufficient data was available. The individual discharge and concurrent stage values were plotted to produce stage-discharge curves (i.e., rating curves) for hydrometric stations. The relationships were used to convert water level data (stage) recorded by the water loggers into a continuous discharge time-series.

The quality of a rating curve is a function of the number and accuracy of the individual data points that are used to generate the curve. Stage-discharge curve can be developed even with three points. However, additional readings increase the robustness of the curves. Discharge measurements at or near peak values are particularly important to define discharge and runoff during short flood events. Depending on the geometry of river/stream valleys, rating curves and (mathematical relationship) can vary considerably between low-flow and high-flow periods. To avoid erroneous discharge estimation for such cases, two stage- rating curves may be developed, for low-flow and high-flow conditions. This is important as peak discharge rates of long return periods (>2 years) have most likely not been recorded and extrapolation beyond the range of the observed data could result in increased error and uncertainty. However, any discharge extrapolation beyond that limit will have a high uncertainty associated with it (ISO, 2010).

Methods specified by (ISO, 2010), and (Rantz, 1982) were followed to develop the rating curves. The concurrently measured water level (stage) and water discharge data were plotted on a logarithmic scale, and the Root Mean Square (RMS) error was assessed to produce a best-fit line for the rating curve. The best-fit line was represented by a power function for the stage-discharge relationship.

$$Q = C\,(h - a)^b$$

Where Q is the discharge (m^3/s), C and b are regression coefficients; h is the stage (water level; m). Variable a represents a datum correction for stage at zero discharge (m), assuming that the gauge is positioned at a level below the point of zero flow.

Generally periodic measurements are needed to validate the underlying stage-discharge relationship and to track changes or shifts in the rating curve. The USGS recommends a minimum of ten discharge measurements per year, unless it has been demonstrated that the stage discharge relation is invariant in time. This would ensure covering the full range of flows necessary for developing rating curves. It also limits the extrapolation range up to twice the maximum measured discharge. However, having few pair points of stage-discharge measurements at the current phase, rating curves were prepared wherever at least 3 stage-discharge records were available.

The BC hydrometric guideline (RISC, 2018) specifies a minimum of 20-point pairs (20 stage and discharge measurements), covering the full range of flows necessary for developing rating curves. It also limits the extrapolation range up to twice the maximum measured discharge. However, having few pair points of stage-discharge measurements at the current phase, rating curves were prepared wherever at least 3 stage-discharge records were available. Therefore, estimated discharge rates should be analyzed considering the uncertainty.

4.4 Hydrographs

Water discharge estimates were derived by applying the stage-discharge relationships to the recorded water level data. This process enabled the creation of daily discharge hydrographs for each hydrometric station. Water discharge estimates were derived by applying the stage-discharge relationships to the recorded water level data. This process enabled the creation of daily discharge hydrographs for each hydrometric station. Discharges exceeding 1.5 times the maximum manual discharge measurement are flagged as estimated in the daily discharge summary tables. Where necessary, discharge estimations were conducted to complete data series, using linear or logarithmic interpolation between reliable data points to ensure continuity. Where necessary, discharge estimations were conducted to complete data series, using linear or logarithmic interpolation between reliable data points to ensure continuity.

4.5 Flow Duration Curve

The flow-duration curve (FDC) is a cumulative frequency curve that shows the percent of time specified discharges were equaled or exceeded during a given period by combining all discharge estimations at equal time intervals (5min, hourly, or daily). In other words, it is the discharge as a function of percentage of time that discharge is exceeded (Searcy, 1959). Hydrologists use FDC to show if a design flow (or a minimum acceptable flow rate) can be expected to exceed, and exceedance percentage of time. A FDC was constructed to assess the cumulative distribution of stream flows. Daily discharge data obtained from the hydrograph (based on continuous level logger data) was used to construct the flow duration curve. Hydrographs were aggregated and averaged to hourly temporal resolution and were ranked sequentially from largest to smallest and then an exceedance probability for each flow measurement was calculated.

5.0 Results

5.1 Field Measurement

Currently, flow measurements have been conducted between May 2021 up to May 2025 at these stations. Not all stations could be accessed throughout the study period though. A summary of measured discharge rates is presented in **Table 5-1.**

Available measurements were not sufficient to estimate peak flows and extreme levels. To fill the data gap and estimate the design peak flows to determine water availability for operation and conceptual design of water management structures regional hydrological analysis was conducted which are described in the following section.

Table 5-1 Discharge Measurements at Selected Stations

Year	Month	Discharge (m^3/s)										
		Whitewater Creek					Sawmill Creek	Wilms Creek	Tulsequah River (side channel)		Bacon Creek	
		S04	S08	S09	S16	S19	S13	S15	S17	S20	Bacon	S34
2006	May	-	1.17	1.09	1.21	-	0.12	4.53	-	-		
	June	-	0.80	0.66	0.87	-	0.05	3.09	-	-		
	July	-	0.38	0.40	0.50	-	0.03	3.40	-	-		
	October	-	0.34	0.35	0.41	-	0.04	1.82	-	-		
2021	May	1.6	1.58	1.17	1.58	1.35	0.14	3.89	2.2	0.002		
	June	1.58	1.45	1.52	2.32	1.55	0.16	-	2.75	0.007		
	July	0.62	0.61	0.63	0.58	0.74	0.04	3.3	0.76	0.007		
	August	0.41	0.41	0.38	0.37	0.43	0.04	-	0.51	0.006		
	September	0.8	-	0.48	0.67	-	-	-	-	-		
	October	0.36	-	0.17	0.26	-	-	-	-	-		
	December	-	-	-	0.10	0.12	-	-	0.14	-		
2022	April	0.68	0.37	0.13	0.44	0.54	0.06	-	0.934	-		
	February	0.81	-	0.48	-	-	-	-	-	-		
	May	0.66	0.46	0.29*	0.55	0.71	0.09	-	1.02*	-		
	May*	1.11	0.82	1.23	1.01*	1.07	0.11*	-	1.42*	-		
	June	1.48	1.37	1.42	1.34	1.62	0.12	-	1.89	-		
2023	September	0.85		0.86		0.88						9.3[ɸ]
	November											0.13[ɸ]

Year	Month	Discharge (m^3/s)										
		Whitewater Creek					Sawmill Creek	Wilms Creek	Tulsequah River (side channel)		Bacon Creek	
		S04	S08	S09	S16	S19	S13	S15	S17	S20	Bacon	S34
2024	March											0.14[ϕ]
	May											0.53[ϕ]
	June	1.39				0.98						32.68[ϕ]
	August											3.43[ϕ]
	October										1.88 2.21[†]	0.54[ϕ] 2.21[ʘ]
2025	May	0.49		0.36		0.46					2.21[†]	0.314[ϕ]

- Measurement was not possible due to poor weather conditions for other months/stations. *Site conditions are not ideal

* Measured in late May

[†] Upper Bacon

[ϕ] Lower Rogers

[ʘ] Upper Rogers

5.2 Rating Curves

Rating curves were developed for seven stations in the project area namely: S4, S8, S9, S13, S16, S17 and S19 (**Figure 5-1** to **Figure 5-7**). Previously, these curves were based on three to seven discharge measurements per station. New discharge data from 2023–2025 have been added to improve some of these curves (i.e., S04, S09, S19). These updated curves better capture the flow variability at these stations, though continued hydrometric monitoring, especially during high-flow events, is recommended to further refine their robustness. For other stations (S08, S13, S16, S17), rating curves remain based on earlier data due to inconsistent depth and discharge measurements, which prevented updates. Continued data collection is needed to improve the accuracy of all rating curves across the project area.

Discharge records at Bacon Creek are on-going and will be compiled as measurements and data logger records become available. It is understood that Canagold is continuing to collect this information.

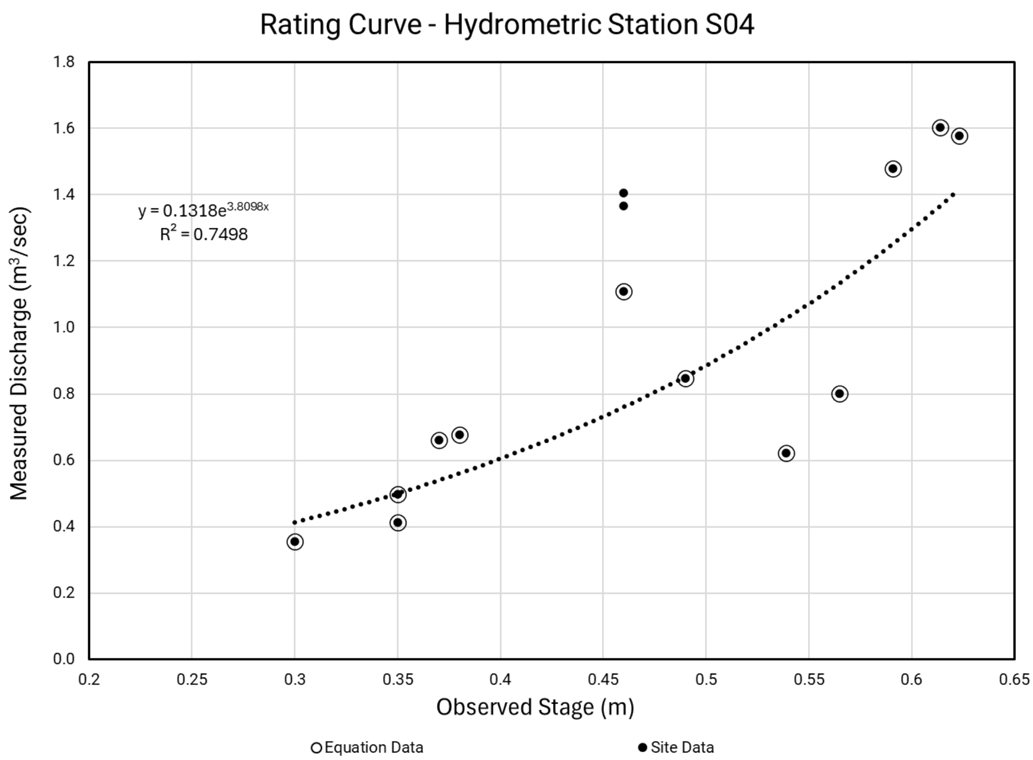


Figure 5-1 Stage-discharge Curve at the S04 Station

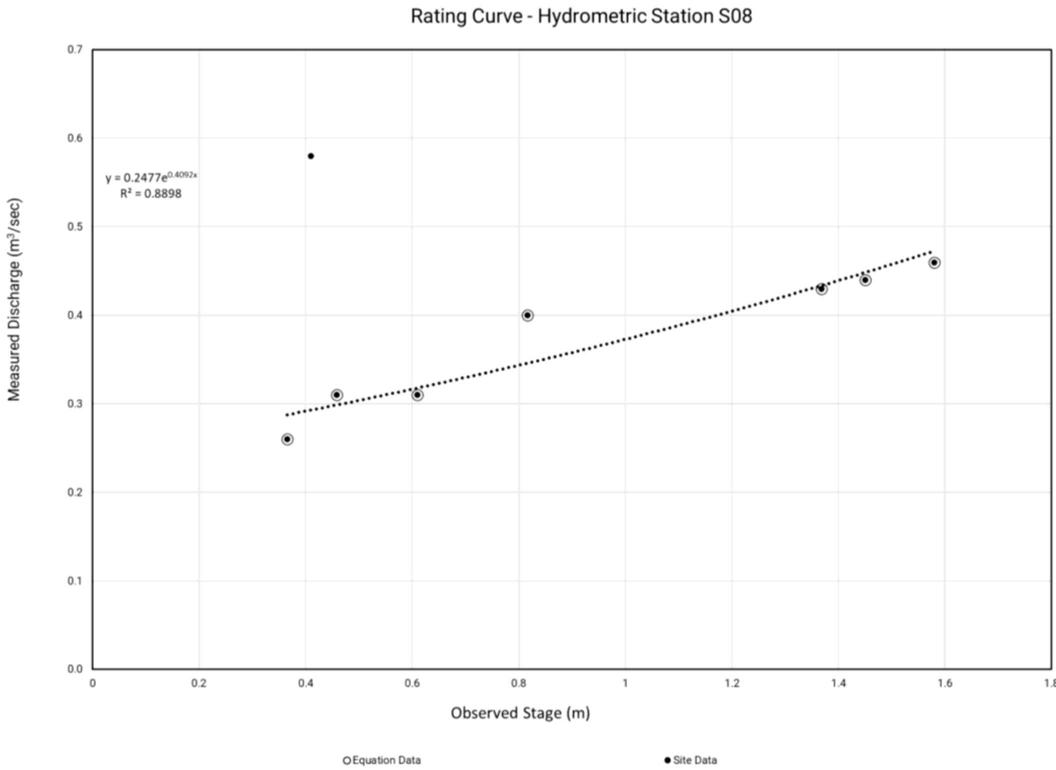


Figure 5-2 Stage-discharge Curve at the S8 Station.

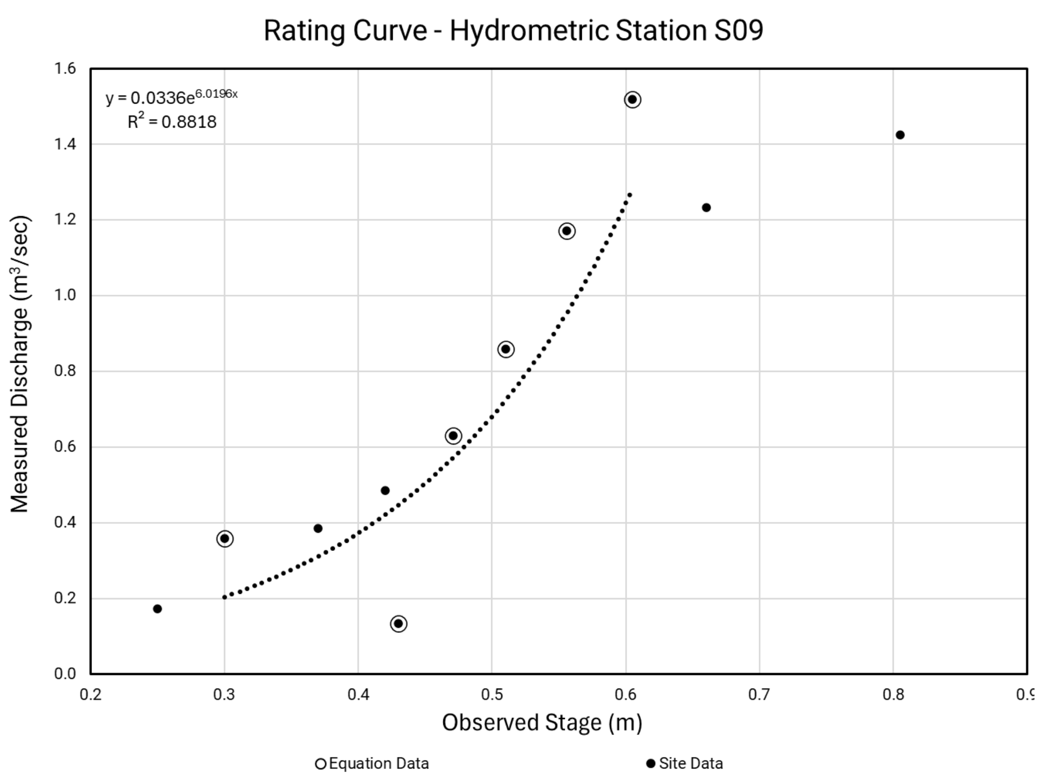


Figure 5-3 Stage-discharge Curve at the S09 Station

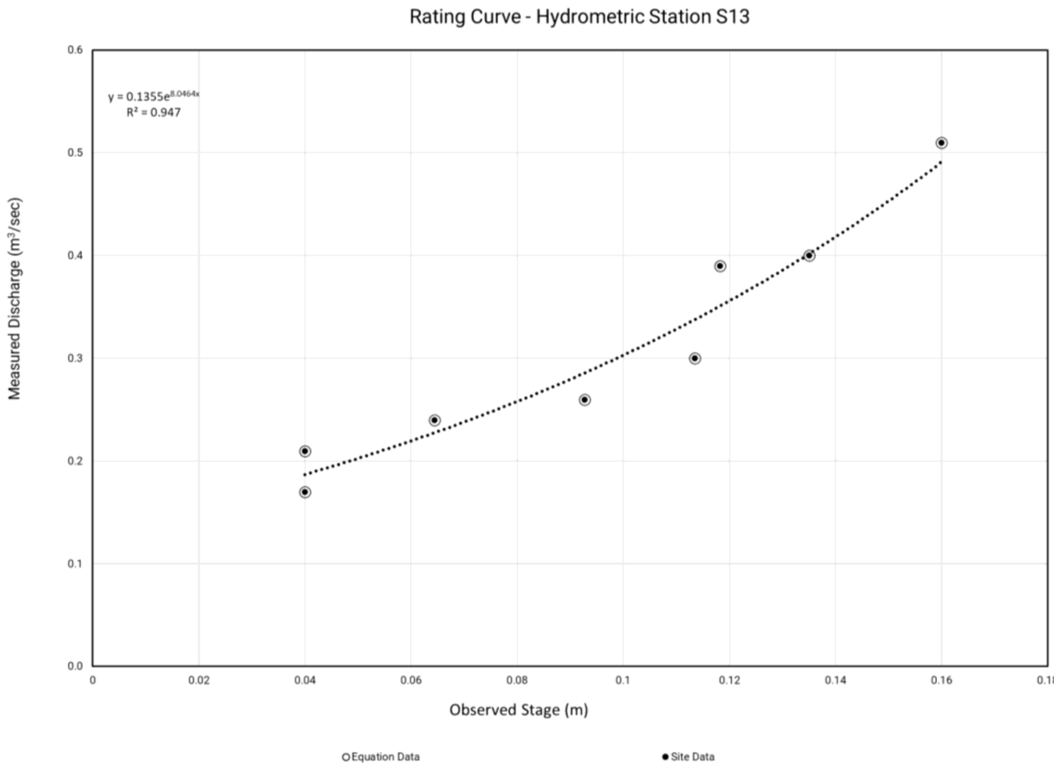


Figure 5-4 Stage-discharge Curve at the S13 Station

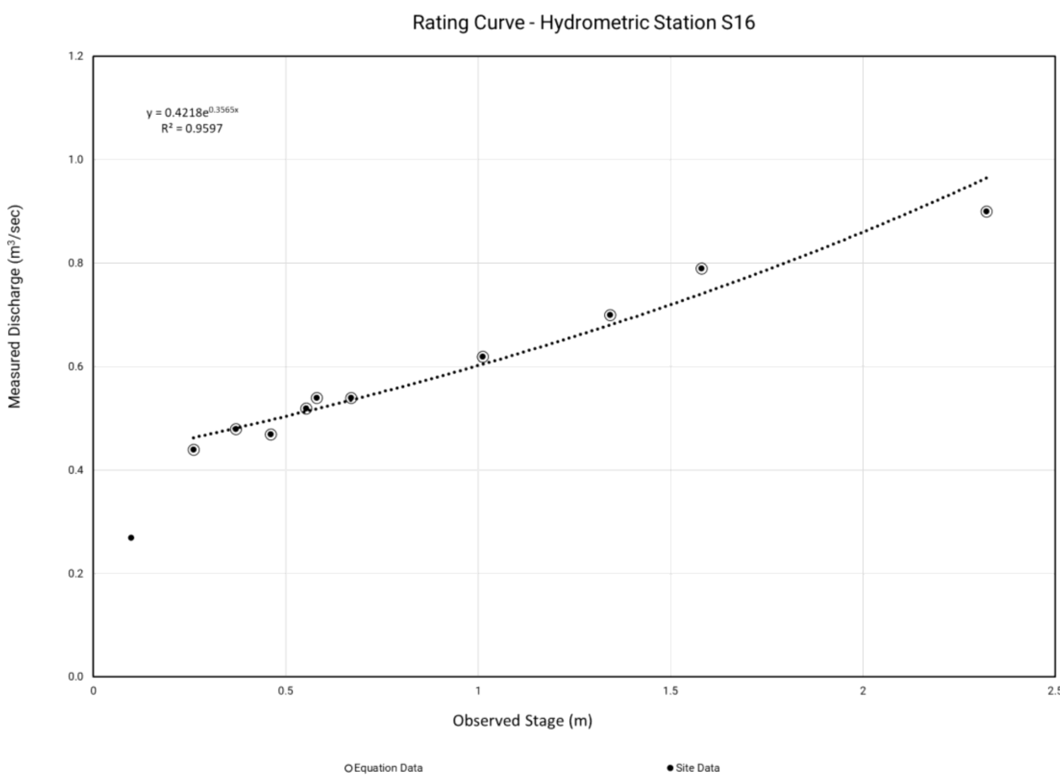


Figure 5-5 Stage-discharge Curve at the S16 Station

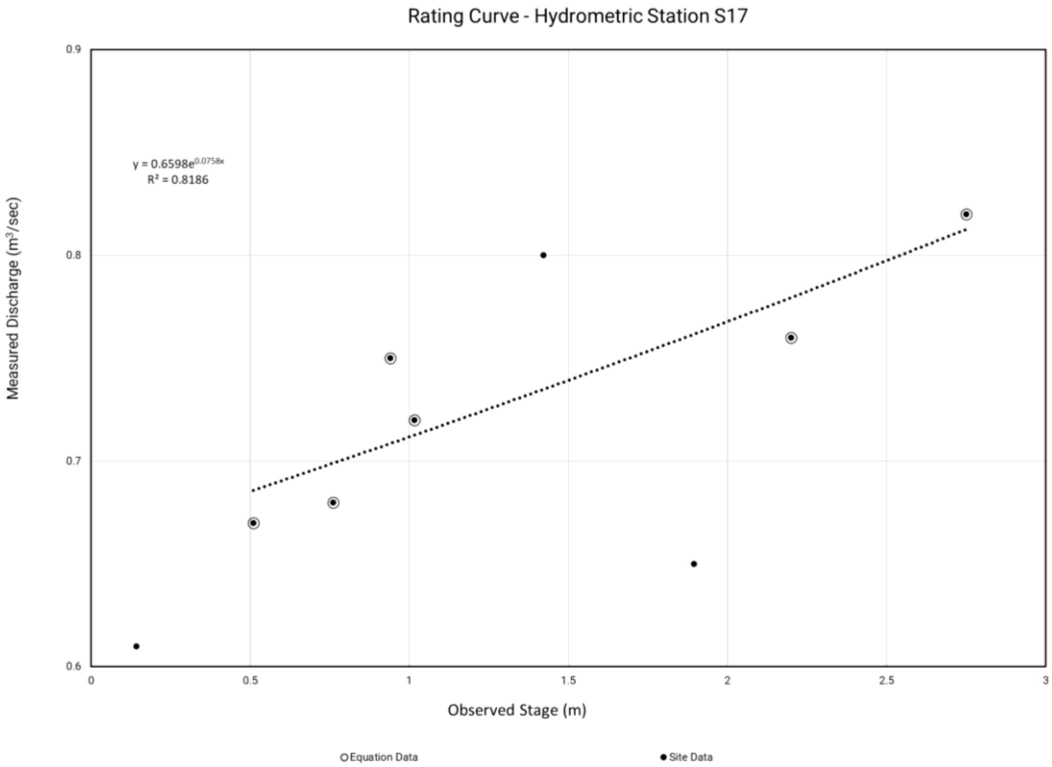


Figure 5-6 Stage-discharge Curve at the S17 Station

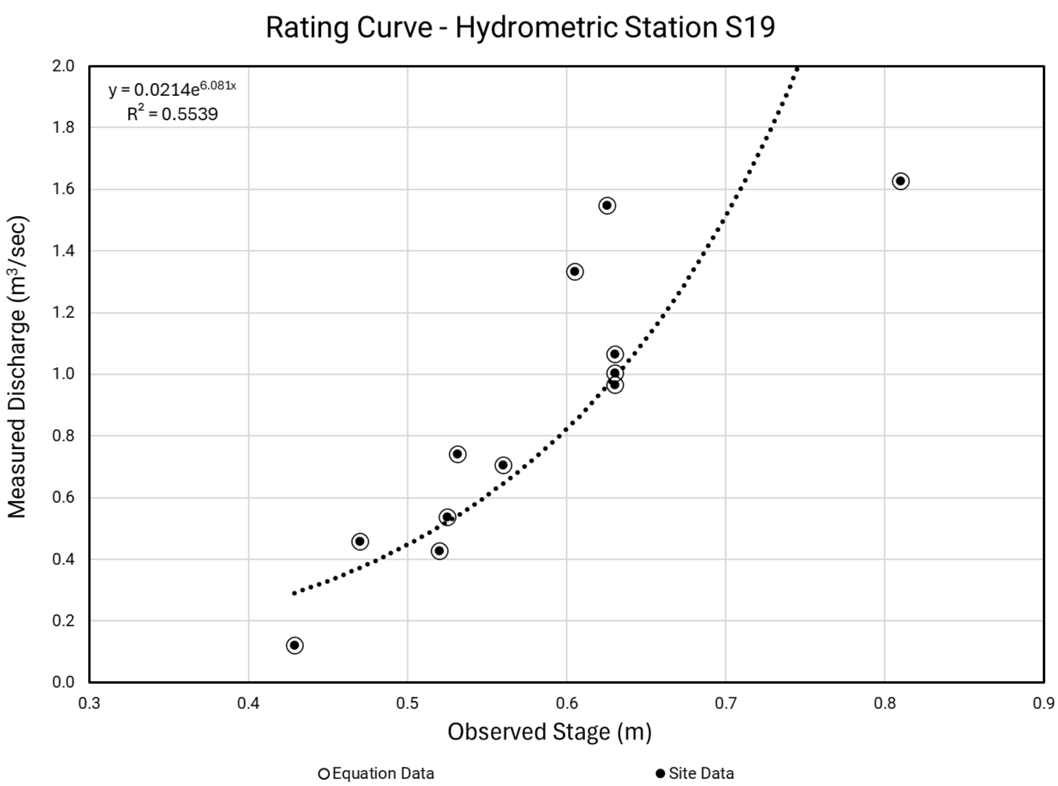


Figure 5-7 Stage-discharge Curve at the S19 Station

5.3 Hydrograph

The three water level loggers installed at S04, S09, and S19 continuously monitored stream water levels. Water discharge estimates were generated by applying the stage-discharge relationships to the recorded stage data, allowing the development of daily discharge hydrographs for these stations. Discharges surpassing 1.5 times the highest recorded manual discharge should be considered as estimated. Logged water levels have been retrieved for the period from late-May 2021 to early-May 2025 (station S04: late-May 2021 to late-January 2024; S09: late-May 2021 to late-April 2025; S19: late-May 2021 to early-May 2025). Note that data for S04 from 2024–2025 were excluded due to equipment issues, as the staff gauge was dislodged and damaged by ice, and the data logger was obstructed, rendering the results unreliable. Daily discharge hydrographs for the valid periods are presented in **Figure 5-8**, **Figure 5-9** and **Figure 5-10**.

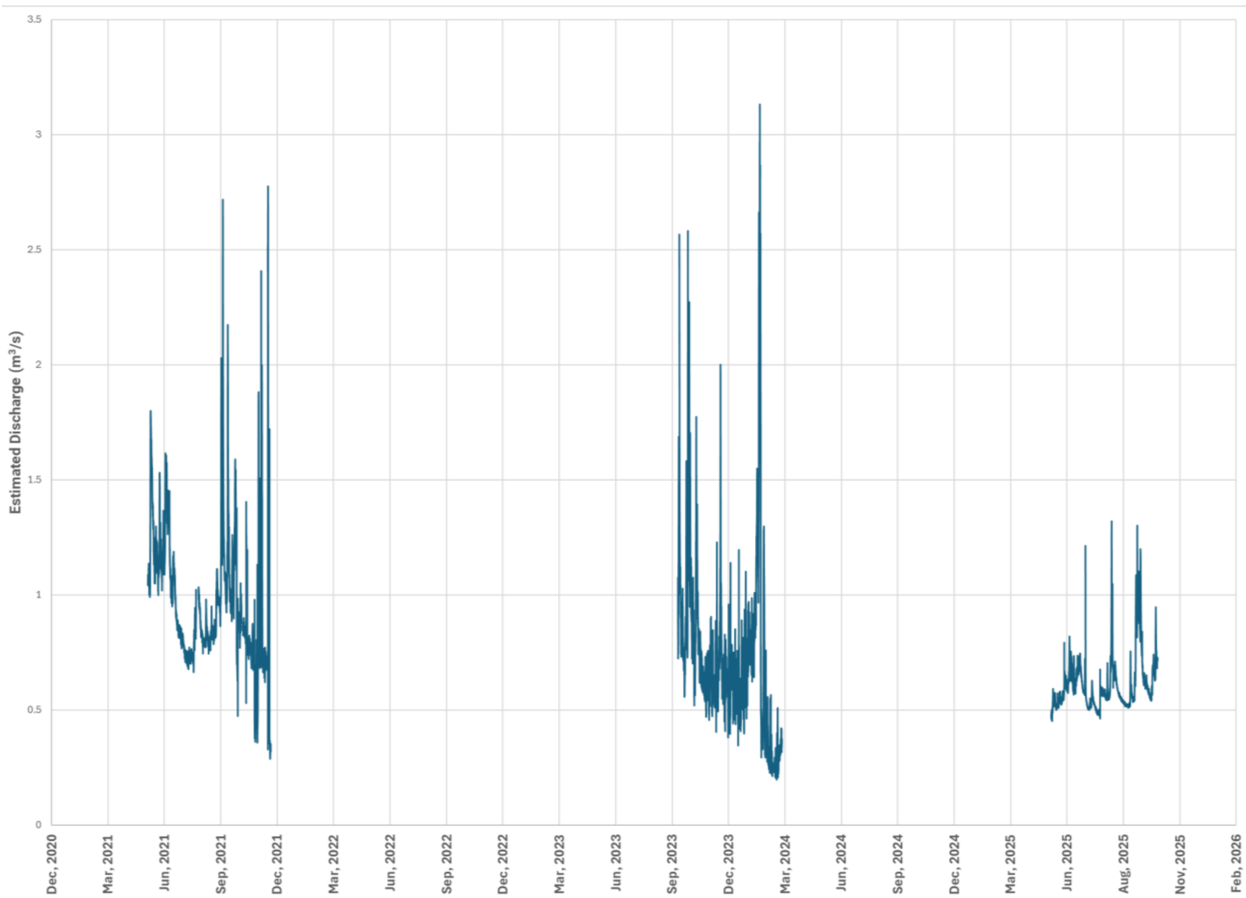


Figure 5-8 Daily Hydrograph at Hydrometric Station S04[1]

[1] The stream at station S04 was frozen, and ice and debris obstructed the sensor, making the data unreliable. Consequently, discharge estimates from January 22, 2022, to September 2023, and from February 2024 to May 2025 are considered highly uncertain and have been excluded from this figure.

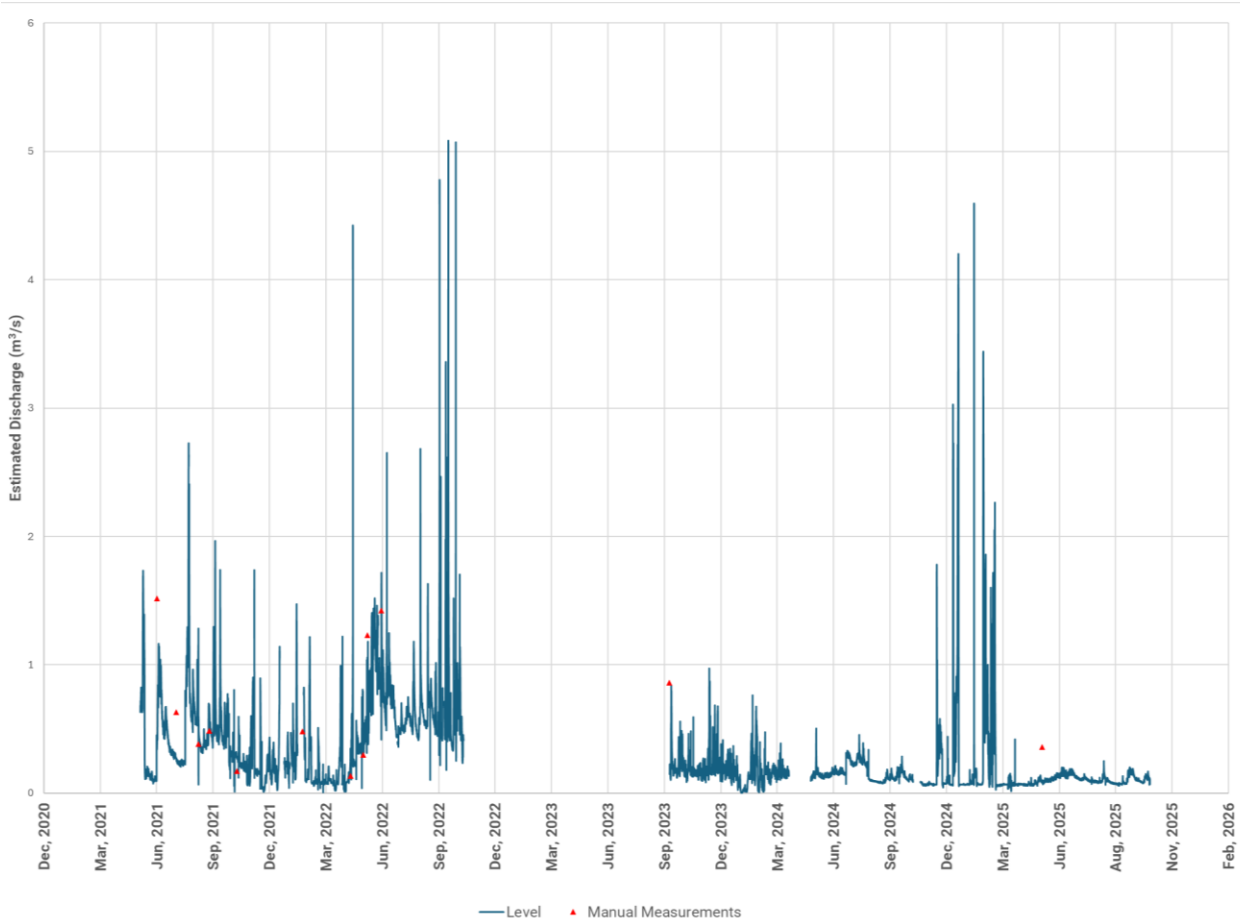


Figure 5-9 Daily Hydrograph at Hydrometric Station S09

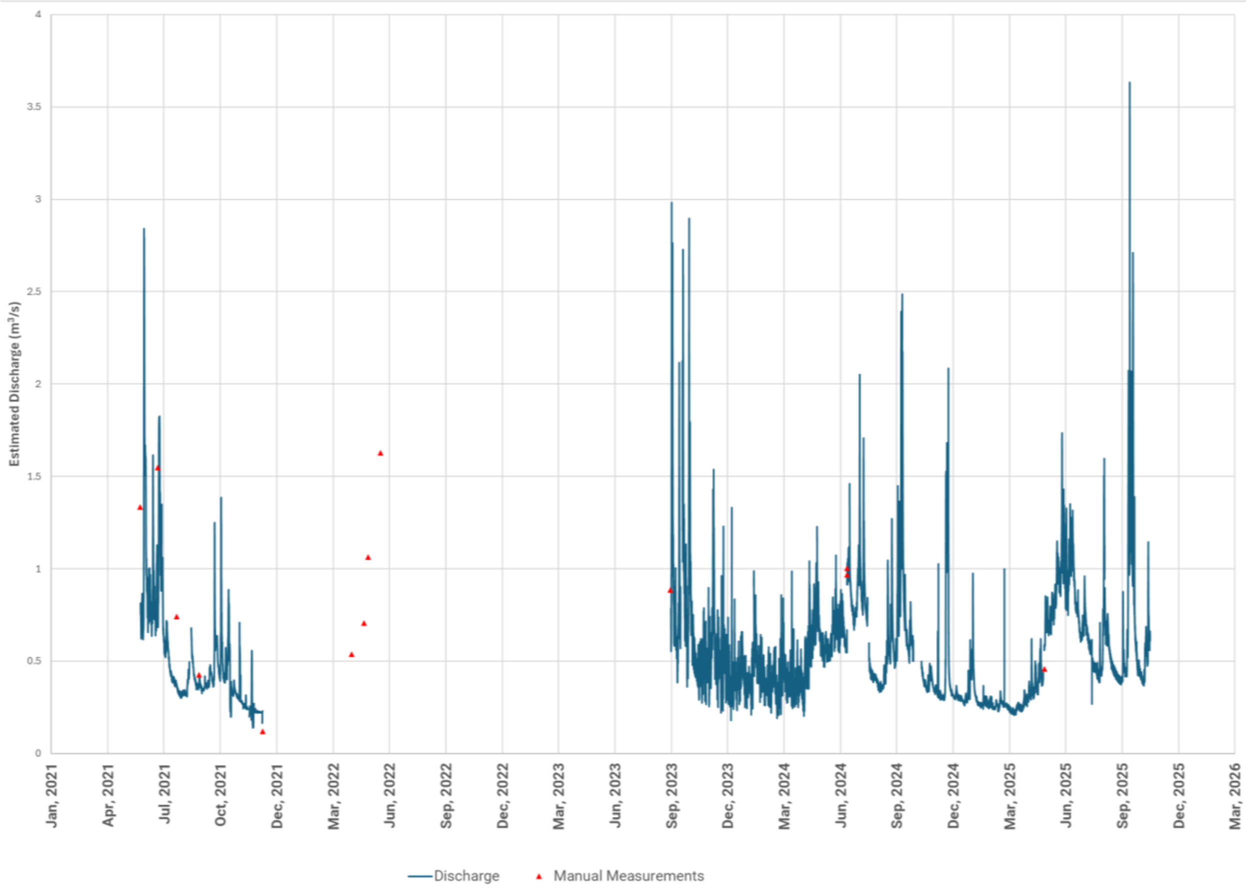


Figure 5-10 Daily Hydrograph at Hydrometric Station S19

Based on data from the S19 station—the most downstream station with reliable measurements—on Whitewater Creek, the mean annual flow is 0.81 m³/s.

5.4 Flow Duration Curve

Flow Duration Curves were developed for the stream stations where level logging was conducted (S04, S09 and S19). These curves, however, should be considered as those for summer and fall discharge rates and they could not be used to estimate hourly/daily flow rates during freshet or winter periods. **Figure 5-11**, **Figure 5-12** and **Figure 5-13** present FDC for these stations.

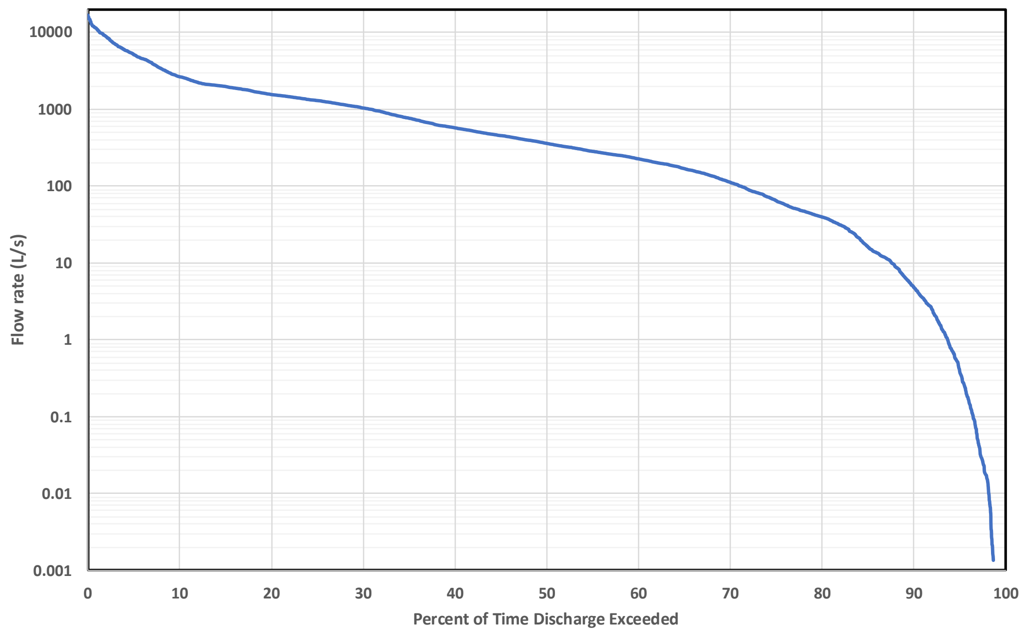


Figure 5-11 Duration Curve for Hourly Flow, S04 Station across the New Polaris Site

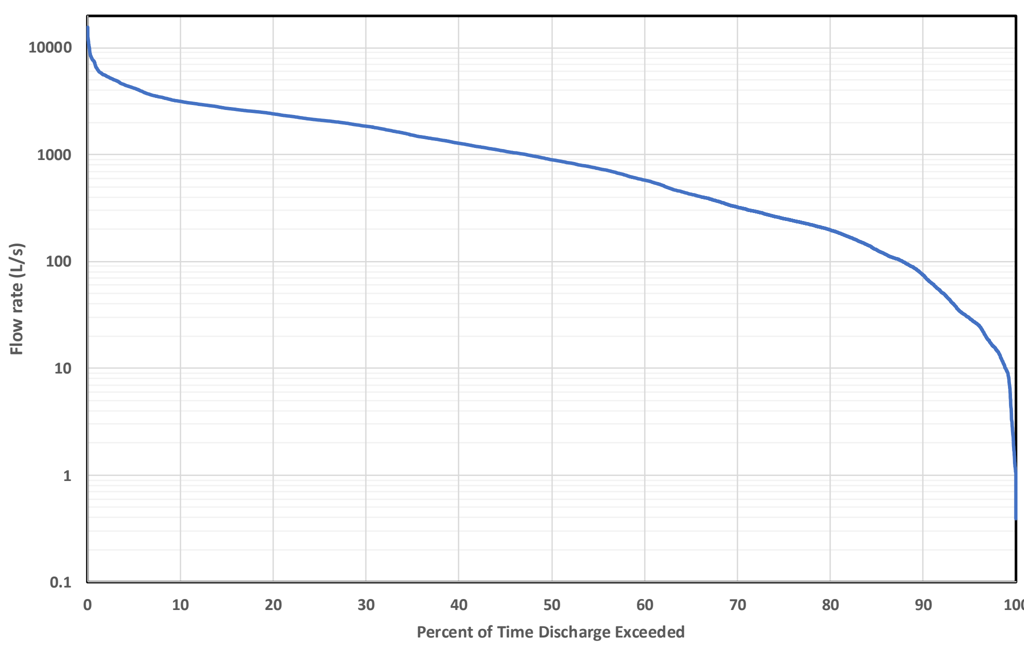


Figure 5-12 Duration Curve for Hourly Flow, S09 Station across the New Polaris Site

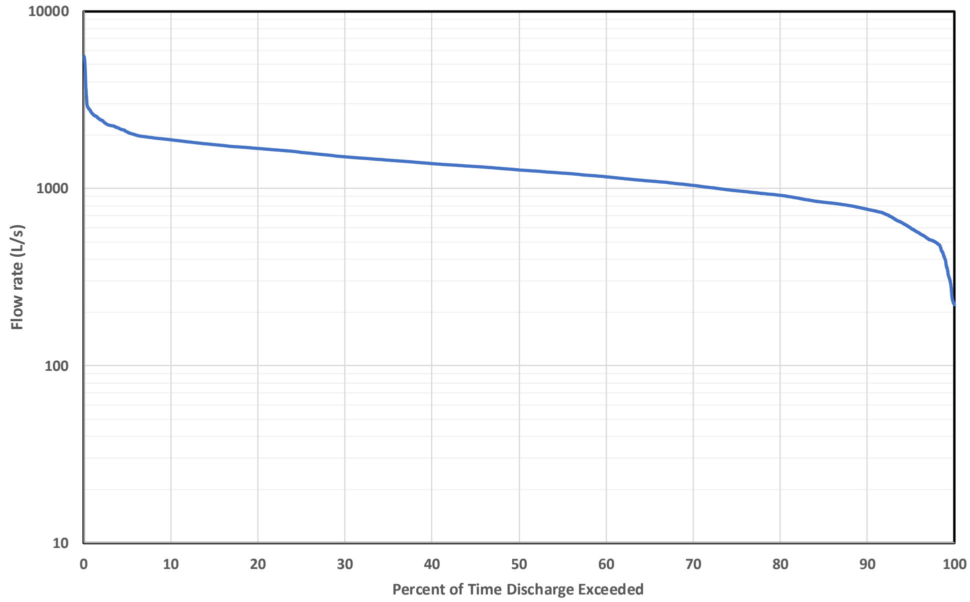


Figure 5-13 Duration Curve for Hourly Flow, S19 Station across the New Polaris Site

The FDC is plotted with exceedance frequency versus hourly discharge, illustrating flow variability. For instance, Q10/Q90 is a common measure of streamflow variability. It corresponds to the ratio of a flow rate that is exceeded 10% of the time (Q10) over the flow that is exceeded 90% of the time (Q90).

It should be emphasized that the plotted FDC shape varies depending on the length of flow records. It is very improbable to capture large flood rates during the current span of level logging (less than twelve months), and therefore the left side of the curve (high flow rates) should be considered with contingency.

6.0 Conclusions

Most of the surface water draining the existing mine site flows within Whitewater Creek. This hydrologic assessment outlines the characteristics of the surface water resource in the vicinity of the proposed mining operations in terms of catchment size, precipitation rates, measured/observed discharge, and extreme flood events.

Meteorological and flow assessments have been presented to establish an understanding of the local and regional flow regime and hydraulic behaviours of the site. Surface water exhibits strong seasonal variation, with low flows in winter, snowmelt-driven peak flows in spring, moderate to high summer flows influenced by rainfall, and baseflow-dominated conditions in fall. The data presented in this report will be used to assess potential environmental impacts of the mine on the existing watercourses, designing water management facilities, and flood hazard assessments during operational, closure, and post-closure phases of the mine.

7.0 Closure

This report has been prepared by Ausenco, based on fieldwork conducted by Ausenco, for sole benefit and use by Canagold Resources Ltd. In performing this work, Ausenco has relied in good faith on information provided by others and has assumed that the information provided by those individuals is both complete and accurate. This work was performed to current industry standard practice for similar environmental work, within the relevant jurisdiction and same locale. The findings presented herein should be considered within the context of the scope of work and project terms of reference; further, the findings are time sensitive and are considered valid only at the time the report was produced. The conclusions and recommendations contained in this report are based upon the applicable guidelines, regulations, and legislation existing at the time the report was produced; any changes in the regulatory regime may alter the conclusions and/or recommendations.

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Ausenco Sustainability ULC

per: Tariq Aziz
Experienced Water Resources Engineer

Report reviewed by:
Ausenco Sustainability ULC

ORIGINAL SIGNED AND STAMPED

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Senior Water Resources Engineer

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Appendix A
Photos

Photo 1 Flow measurement station S04

Photo 2 Flow measurement station S09

Photo 3 Flow measurement station S13

Photo 4 Flow measurement station S19

Photo 5 Whitewater Creek near the flow measurement station S16

Photo 6 Whitewater Creek downstream of the mine facilities before the confluence with Tulsequah River

Photo 7 Confluence of Whitewater Creek with Tulsequah River

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